Phase I Structural Assessments

Phase II Structural Forensic Evaluations

Structural Intergrity Reserve Studies

February 14th, 2024

Mr. Gerard Ballan 15461 Pembridge Drive Delray Beach, Florida 33484

Re: Watersedge H Condominium

Structural Integrity Reserve Study (SIRS)

15461 Pembridge Drive Delray Beach, Florida 33484

UES Project No: 6011.2300191.0000

Dear Mr. Ballan:

UES Milestone Inspections, LLC (UES) has completed the mandatory Structural Integrity Reserve Study ("SIRS") as required for condominiums and cooperative buildings for the above referenced property. UES's assessment was performed in general accordance with Florida Statute (FS)718.112(2)(g) (or 719.106(3)(k) for Cooperatives) (effective May 26, 2022) and local requirements of the Authority Having Jurisdiction (AHJ).

Please contact the undersigned if you have any questions concerning UES's Structural Integrity Reserve Study. UES appreciates this opportunity to provide professional services to Watersedge H Condominium. Pursuant to FS 553.899, UES provides herein a Summary of Material Findings and Recommendations.

Respectfully Submitted, UES Milestone Inspections, LLC Registry #36640



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This item has been digitally signed and sealed by Jorge Blanco, P.E., and Miguel A. Santiago, P.E., S.I. on the date indicated here. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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1.0 INTRODUCTION

Per authorization of UES proposal 6011.0723.00076 dated August 4, 2023, by Gerard Ballan, UES has conducted Structural Integrity Reserve Study of the 42-unit residential condominium community located at 15461 Pembridge Drive in Delray Beach, Florida 33484.

This report must be reviewed in its entirety to understand UES findings and their limitations. The Appendices are an integral part of this report and must be included during review. Please refer to the Appendices for definitions of common terms of reference used within.

UES has conducted the study in general accordance with the National Reserve Study Standards published by the Association of Professional Reserve Analysts (APRA) and in general accordance with Florida Statute 718.112(2)(g) (or 719.106(3)(k) for Cooperatives) (effective May 26, 2022) and local requirements of the Authority Having Jurisdiction (AHJ).

This study was conducted by a Florida licensed Professional Engineer(s) and other qualified supporting staff. Please refer to **Appendix D** for the qualifications of the project team.

UES's professionals Jorge Blanco, P.E. performed this study and visited the site on 10/3/2023. This report is principally based on UES visual inspection of Watersedge H Condominium and a review of relevant association documents.

In reviewing the engineering assumptions, cost estimates and projected fund values herein, UES understands their accuracy will likely vary beyond Year 5. Long term physical plant maintenance projections are intended only to indicate the pattern of reserve expenditures and to guide financial planning. UES agrees with the Association of Professional Reserve Analyst recommendations that reserve studies should be updated regularly to allow periodic adjustment of facility plans and funding strategies.

PLEASE NOTE THAT PURSUANT TO FS 718.112(2)(G) (OR 719.106(3)(K) FOR COOPERATIVES) AN ASSOCIATION MUST HAVE A STRUCTURAL INTEGRITY RESERVE STUDY COMPLETED AT LEAST EVERY 10 YEARS AFTER THE CONDOMINIUM'S CREATION FOR EACH BUILDING ON THE CONDOMINIUM PROPERTY THAT IS THREE STORIES OR HIGHER IN HEIGHT. AS A RESULT, THE NEXT SIRS WILL NEED TO BE COMPLETED BY:

10 YRS AFTER REPORT DATE

2.0 EXECUTIVE SUMMARY

In summary, as a result of UES's site inspection and review of available documentation, we find the common area components to be in good to fair general condition and well-maintained. UES observed some deficiencies and deferred repairs which are noted in subsequent sections herein. UES has included an inventory of "common area" components the Association has responsibility over which will require periodic repair or replacement over the term of this evaluation. UES has developed the opinions of the remaining useful life of each component and has estimated their current cost of required reserve

expenditures for their repair or replacement. UES's projections have been included as annual reserves over its estimated remaining useful life.

3.0 PURPOSE AND SCOPE OF SERVICES

An association must have a **Structural Integrity Reserve Study (SIRS)** completed at least every 10 years after the condominium's creation for each building on the condominium property that is three stories or higher in height which includes, at a minimum, a study of the following items as related to the structural integrity and safety of the building:

- Roof.
- Structure, including load-bearing walls and primary structural members and primary structural systems as those terms are defined in s. <u>627.706</u>.
- Fireproofing and fire protection systems.
- Plumbing.
- Electrical systems.
- Waterproofing and exterior painting.
- Windows.
- Any other item that has a deferred maintenance expense or replacement cost that exceeds \$10,000 and the failure to replace or maintain such item negatively affects portion of the structural integrity reserve study.

Integration into any existing association reserve fund summaries is NOT included in this scope.

The assessment was based on non-intrusive, non-destructive observations of the readily accessible areas of the property and the information available at the time of UES's site visit. Therefore, UES's descriptions, conclusions and recommendations were based solely on the observations of the various components and experience with similar projects. UES makes no representations that this report is a building code, safety, regulatory, environmental, or all-encompassing compliance inspection report.

The intent of this reserve study is to determine a structural integrity reserve needs plan for the Association, evaluate the current rate of contribution to the reserve fund, and, if required, to suggest alternate funding strategies. This study is in addition to the full reserve study required by FS718.301(4)(p).

This report is intended to be used as a tool by the Association 's Board for considering and managing its future financial obligations, for determining appropriate reserve fund allocations, and for informing the individual Owners of the Association's required reserve expenditures and the resulting financial opinion.

For purposes of financial planning, Association-responsible expenses are typically divided into two categories:

Operation and maintenance (O&M) of commonly held elements of real property and other assets.
 These O&M expenses usually include taxes, insurance, property management costs and other service fees.

Reserve expenditures for major periodic repairs or replacement of commonly- held elements.

Normal, recurring O&M costs are typically paid by the individual Owners through periodic assessments or service fees equal to their share of the annual budget, which is estimated based on cost projections of either actual or average levels of expense. Some additional contingency amounts may be included in annual O&M budgets to result in a year-end surplus which is carried forward year-to-year to cover variations in annual costs or any uninsured losses. This carry-over is often referred to as an operating reserve.

These O&M costs, the funding and operating reserves are not typically considered by a Reserve Study. Long-term reserve expenditures, the funding plan and ensuring adequate Reserve Fund balances are the focus of this Reserve Study. Studies of this nature are important to ensure that a community will have sufficient funds for long-term, periodic reserve expenditure requirements to help preserve the value of the community and the units within it.

4.0 LEVEL OF SERVICE

Per the Association of Professional Reserve Analysts (APRA) there are three levels of Service

- I. Full Study
- II. Update with Site Visit Study
- III. Update without Site Visit Study

For the purpose of this evaluation, UES has conducted a full study which has included the evaluation of common area elements as dictated by Florida Statute (FS) 718.112(2)(g) (or 719.106(3)(k) for Cooperatives) (effective May 26, 2022) and local requirements of the Authority Having Jurisdiction (AHJ).

5.0 SOURCES OF INFORMATION

The following people were interviewed during UES's study; Mr. Ballan.

The following unit interiors were inspected and/or their Owners were interviewed:

• Units 101, 102, 103, 104, 106, 108, 110, 201, 203, 205, 207, 214, and 314.

The following documents were provided:

- Roof Maintenance Proposal by Latite Roofing dated 6/18/2020.
- Addendum to Contract by Mid South Painting, Inc. dated 4/10/2019.
- Painting Contract Invoiced by Mid South Painting, Inc. dated 4/26/2019.
- Reroofing Contract by Latite Roofing dated 4/29/2008.
- Structural and Architectural Construction Drawings by Eclectic, Inc. Date is unreadable on drawings.

UES engineers determined expected and replacement useful lives (EUL & RUL) of the common area components required as part of the SIRS and cost estimates for reserve expenditure budgets based on

UES's evaluation of actual conditions and experience with similar building systems. In addition, we also utilize the following industry publications for data:

- On-Line RS Means Construction Cost Data
- Fannie Mae Expected Useful Life Tables
- National Association of Home Builders Life Expectancy of Components

6.0 PROPERTY DESCRIPTION

Watersedge H Condominium is a condominium property with one (1) three-story building located in Delray Beach, Palm Beach County, Florida. The property was developed in 1989. There are a total of 42 residential condominium units within the building. There is a parking lot located on the East side of the property and a lake on the West side.

The primary vehicle entrance is off Pembridge Drive at the South side of the property with guest and residential access from this area.

The condominium building is a concrete framed structure including a combination of shear walls, reinforced cast-in-place concrete walls, concrete masonry unit (CMU) walls, and post tensioned concrete slabs. Exterior walls are stucco finished with CMU and cast-in-place reinforced concrete walls. The residential units originally had a screened porch or balcony within the building's footprint, however, many of these have since been enclosed with sliding glass doors or screenings.

Underground utility services include public water and sewer, including fire hydrants, electrical power, telephone, and broadband cable.

Landscaping consists of trees, shrubs, and grass areas along the perimeter of the building.

7.0 COMMON COMPONENTS

Please refer to **Appendix A** for UES's Common Area Component Inventory. Condominium Association common components include all paved surfaces, parking, sidewalks and the pavers and tile at the main entrance/ exit ramps and deck and pool deck including:

- Building structure
- The parking garage at the ground level.
- Electrical room(s).
- Fire equipment room(s).
- Roof.
- Common hallways/balconies.
- Common stairwells.
- Building perimeter.
- Windows/Doors.
- Elevator.
- Site landscaping including trees, shrubs, landscaping planters, fountains, hardscape and lawns.

Individual Unit Owners are responsible for maintenance & repairs of their units including the mechanical, plumbing, and electrical components within their respective units.

8.0 STRUCTURAL INTEGRITY RESERVE STUDY ITEMS

8.1 **ROOF**

Description and Observations

The building's roof is a flat roof consisting of post-tensioned concrete slabs covered with a modified bitumen roofing system. At the time of inspection, the roof is in fair condition with minor ponding and damaged areas observed on the roof. Evidence of previous ponding was observed along with cracking/blistering of the roofing system.

Common Components and Required Reserve Expenditures

A modified bitumen roof with proper installation, care, and maintenance has an average expected useful life (EUL) of 20 years. Proper maintenance includes but not limited to visually inspecting the roof at least once a year to ensure water is properly draining and not ponding and visually inspecting roof drains and parapet overflow drains to ensure no debris is clogging the flow of water. See **Appendix A** for estimated cost and estimated contributions required.

8.2 LOAD-BEARING WALLS OR OTHER PRIMARY STRUCTURAL MEMBERS

Description and Observations

Pursuant to FS 627.706, "Primary structural member" means a structural element designed to provide support and stability for the vertical or lateral loads of the overall structure and "Primary structural system" means an assemblage of primary structural members.

The buildings are comprised of concrete load bearing walls, concrete shear walls, concrete beams and columns, and post-tensioned concrete slabs resting on assumed reinforced concrete shallow foundation with spread and strip footings; no structural drawings were provided to confirm the foundation systems. The exterior finishes are composed of painted stucco which at the time of inspection was in good condition with overhead/deck/wall cracking observed within the 1st, 2nd, and 3rd, floor of the catwalks and several units.

Common Components and Required Reserve Expenditures

A reinforced concrete structure with proper maintenance has a life span expectancy of 50 to 100 years. Proper maintenance includes but not limited to pressure washing exterior concrete surfaces, repainting the building, providing proper sealant at concrete cracks, stucco repairs, and annual visual inspection of all concrete surfaces for signs of spalled concrete, cracks, exposed steel reinforcement. See **Appendix A** for estimated cost and estimated contributions required.

8.3 FIREPROOFING/FIRE PROTECTION SYSTEMS

Description and Observations

The fire protection system of the buildings consists of a fire alarm and fire extinguishers. The buildings also have emergency/exit lighting. The fire extinguishers, fire alarm system, and backflow system undergo annual inspection and servicing.

Common Components and Required Reserve Expenditures

Fire protection systems have a life expectancy of 40 to 50 years with the proper maintenance. However, corrosion issues can cause wet water systems (sprinkler systems) to start failing in 15 to 25 years. Proper maintenance includes but not limited to routine inspections by a certified technician that looks for signs of wear and tear, corrosion, and damaged parts. See **Appendix A** for estimated cost and estimated contributions required.

8.4 PLUMBING SYSTEMS

Description and Observations

The visible building plumbing inspected at the time of inspection included: cast-iron pipes connecting to backflow preventer and water meters. Condition is good with minor soil and mulch buildup within the water valve box.

Common Components and Required Reserve Expenditures

Plumbing systems have a life expectancy of 50 years with proper maintenance. Proper maintenance includes but not limited to routine inspections by certified personnel that looks for signs of damage or corrosion, corrosion, and assuring all plumbing fixtures work properly. See **Appendix A** for estimated cost and estimated contributions required.

8.5 ELECTRICAL SYSTEMS

Description and Observations

The visible electrical systems observed at the time of inspection included elevator panels, 1,000 and 1,600 Amp electrical disconnects, electrical conduits, groundline, and main electrical meters. The meters and panels are in good condition, no damage was observed to the electrical systems at the time of inspection.

Common Components and Required Reserve Expenditures

Electrical systems have a life expectancy of 20 to 30 years with proper maintenance. Proper maintenance includes not limited to routine inspections by certified personnel who examines the condition of circuit breakers, ensures all connections are proper, and spot checks electrical components to ensure they are properly working. See **Appendix A** for estimated cost and estimated contributions required.

8.6 WATERPROOFING AND EXTERIOR PAINTING

Description and Observations

The catwalk decks have a deck topping covering installed with tiles near the elevator areas at all floors; no visual inspection of the slabs was possible at the time of inspection. It appears that no waterproofing membrane exists beneath the flooring system at the time of inspection and as advised by the association. Based on the site interview no water intrusion issues were reported, nor any issues were observed. The exterior finish of the buildings consists of painted stucco finishes. Overall, the general condition of the exterior finishes is in good condition with minor cracking/spalling/rusting observed at several areas within the building's catwalks, façade, and unit balconies.

Common Components and Required Reserve Expenditures

Waterproofing and exterior paint have a life expectancy of approximately 7 to 10 years with proper maintenance. Proper maintenance includes but not limited to pressure washing exterior surfaces, routine inspections of exterior finishes to ensure paint peeling, bubbling and other imperfections are not present, and to seal all cracks and gaps with proper sealant. See **Appendix A** for estimated cost and estimated contributions required.

8.7 WINDOWS

Description and Observations

Windows and doors are the unit owners' responsibility as advised by the association.

Common Components and Required Reserve Expenditures

Windows have a life expectancy of 25 years with proper maintenance. Proper maintenance includes but not limited to routine cleaning of windows and routine inspection to ensure cracks and gaps are not present. See **Appendix A** for estimated cost and estimated contributions required.

8.8 DEFERRED MAINTENANCE ITEMS AS DICTATED BY FLORIDA STATUTE (FS)553.899.

Description and Observations

There are no additional deferred maintenance items in which failure to replace or maintain would negatively affect the items listed above.

9.0 CURRENT DEFICIENCIES

Based on the current condition of the property, the Board's list of concerns, individual Owner's reports and UES's observations, UES identified design & construction deficiencies and deferred repairs which may require near-term repairs and/or corrective action/improvements:

• Spalling/cracking observed at several areas within the building's catwalks/corridors and unit balconies. While these areas are not substantial at the time of inspection, continued exposure to the elements will further deteriorate these areas and expand the spalling/cracking observed. See Appendix B photographs 9 and 19-26.

- Deteriorated expansion joint observed near the elevator on several floors. Deteriorated expansion joint allows water intrusion into the reinforcement along the concrete edge which with time compromises the strength of the section. See Appendix B photographs 10 and 11.
- Deteriorated/rusted fasteners observed at unit 205's aluminum enclosure bottom rail. Several other fastener heads were rusting within the unit balconies. See Appendix B photograph 27.
- Damaged railing post pockets were observed at several locations along the building's catwalks/corridors. A significant portion of the building's railing system exhibited signs of water intrusion within the pocket. This creates a condition where mold can accumulate and then the water percolates into the concrete slab causing corrosion, spalling, cracking, and other damages.
 See Appendix B photographs 12-17.
- The roof is in fair condition with ponding and damaged areas observed on the roof. Evidence of previous ponding was observed at the time of inspection. Several areas of the roof were cracked and blistering. See Appendix B photographs 28-31.

10.0 EXPECTED LIFE AND VALUATION

10.1 OPINIONS OF USEFUL LIFE

For components which require periodic reserve expenditures for their repairs or replacement, the frequency of work equals the typical, industry accepted expected useful life (EUL) for the type of feature:

Component's Frequency of Reserve Expenditure = Component's EUL

The remaining useful life (RUL) of a component before the next reserve expenditure for its repair or replacement is equal to the difference between its EUL and its age:

RUL = EUL - AGE

The condition and rate of deterioration of actual site improvements and building elements rarely conform to such simple analysis. And, often, a property's history and available documentation does not provide any record of a particular component's actual age.

In UES's experience, the effective age and actual RUL of an installed item vary greatly from its actual age and calculated RUL. These variances depend on the quality of its original materials and workmanship, level of service, climatic exposure, and ongoing maintenance. UES's opinion of the effective age, EUL and RUL of each common component included in the SIRS is based on UES's evaluation of its existing condition and consideration of the aforementioned factors.

As a result, in preparing the Reserve Expenditure schedule for the SIRS, UES factored in the following considerations:

- Accelerate the schedule of work for components found to be in poorer condition than expected for their age.
- Defer work for components observed to be in unusually good condition.

In reality, reserve repair and replacement work for some components is often spread over a number of years. This may be done because not all on-site installations of a particular type of component age or deteriorate at the same rate; Or, work may be scheduled in phases to limit disruption or ease cash flow.

For these reasons, when it seems appropriate, UES will spread some budgets over multiple years. However, it is beyond the scope of this reserve study to prioritize the need for work between a number of buildings or installed locations or to closely specify or breakdown phased work packages.

In summary, UES has based these opinions of the remaining service life and expected frequency and schedule of repair for each common component on some or all of the following:

- Actual or assumed age and observed existing condition
- Association's or Property Manager's maintenance history and plan
- UES experience with actual performance of such components under similar service and exposure
- UES experience managing the repairs and replacements of such components. The following documentation was used as a guide for UES's considerations:
 - o Fannie Mae Expected Useful Life Tables
 - o National Association of Home Builders Life Expectancy of Components

10.2 ESTIMATES OF COST

In developing UES's estimate of reserve expenditure for most common components included in the SIRS, UES has estimated a quantity of each item and a unit cost for its repair or replacement. In some cases, it is more appropriate to estimate a lump sum cost for a required work package or 'lot'. Unless directed to take a different approach, UES assumes that contract labor will perform the work and apply appropriate installers mark-ups on supplied material and equipment. When required, UES's estimated costs include demolition and disposal of existing materials, and protection of other portions of the property. When appropriate for large reserve projects, UES has included soft costs for design and project management, and typical general contractor's cost for general conditions, supervision, overhead and profit. UES's opinions of unit and lump sum costs are based on some or all of the following:

- Records of previous maintenance expenses
- Previously solicited Vendor quotations or Contractor proposals
- Provided reserve budgets developed by others
- UES project files on repairs and replacements at other properties

In addition, UES uses the following publications to guide the considerations:

- On-Line R S Means Construction Cost Data
- Marshall & Swift Valuation Service Facility Cost Index

Annual aggregated reserve expenditure budgets have been calculated for all years during the study period by inflating the annual amounts of current dollar cost estimates and compounding for inflation at 3.0% per year.

11.0 FINANCIAL ANALYSIS

Please refer to **Appendix A** which contains UES's outline illustrating the findings.

11.1 RESERVE EXPENDITURE PROJECTIONS

Based on UES's explorations and estimates described in Section 8 of this report, we have identified likely reserve expenditures throughout the term.

In summary, the 30-year total of projected reserve expenditure budgets, at an inflation rate of 3% is \$1,496,729.00.

11.2 CURRENT FUNDING

UES's analysis is based on initial information provided by the Association's Board. The parameters of the analysis are listed below:

Fiscal year Starting Date: January 1st 2024

• For Designated Year: 2024

• Starting Balance: \$50,000.00

• Proposed Contribution Rate: \$85,626.2 for 1st year.

• Planned Increases: 3% per year

Planned Special Assessments: N/A

• Projected Rate of Inflation: 3% per year

12.0 STANDARD OF CARE AND WARRANTIES

UES performed the **Structural Integrity Reserve Study (SIRS)** inspection using methods and procedures and practices conforming to Florida Statute (FS) 718.112(2)(g) (or 719.106(3)(k) for Cooperatives) (effective May 26, 2022) and local requirements of the AHJ.

UES warrants that the findings contained in this report have been formulated within a reasonable degree of engineering certainty. These opinions were based on a review of the available information, associated research, onsite observations, as well as UES's education, knowledge, training and experience. UES reserves the right to revise or update any of the assessments and/or opinions within this report as conditions change or additional information becomes available. UES's design professionals performed these professional services in accordance with the standard of care used by similar professionals in the community under similar circumstances.

The methodologies include reviewing information provided by other sources. UES treats information obtained from the document reviews and interviews concerning the property as reliable, note UES is not required to independently verify the information as provided. Therefore, UES cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete.

No other warranties are expressed or implied.

APPENDIX A COMMON AREA BUILDING COMPONENT INVENTORY FINANCIAL EXHIBITS RESERVE REPORT

Watersedge H Condominium

Delray Beach, Florida

RA SIRS Threshold Funding Model Summary

Report Date Account Number	January 30, 2024 6011.2300191
Budget Year Beginning Budget Year Ending	January 1, 2024 December 31, 2024
Total Units	42

Report Parameters	
Inflation	3.00%
Annual Assessment Increase	3.00%
Interest Rate on Reserve Deposit	0.00%
2024 Beginning Balance	\$50,000

Threshold Funding Model Summary

- For budgeting purposes, unless otherwise indicated, we have used January 2024 to begin aging the original components in this reserve study.
- We have assumed a \$50,000.00 dollar starting balance for the purpose of the calculations.
- This 42-unit condominium is located at 15461 Pembridge Drive, Delray Beach, FL 33484.
- The last Reserve Analyst field inspection was completed on October 3, 2023.

Threshold Funding Model Summary of Calculations Required Annual Contribution \$85,626.20 \$2,038.72 per unit annually Average Net Annual Interest Earned \$0.00 Total Annual Allocation to Reserves \$85,626.20 \$2,038.72 per unit annually



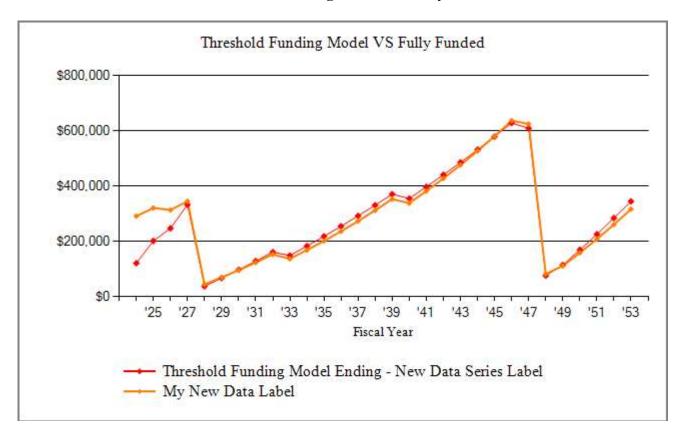
Watersedge H Condominium RA SIRS Threshold Funding Model Projection

Beginning Balance: \$50,000

υ	,				Projected	Fully	
	Current	Annual	Annual	Annual	Ending	Funded	Percent
Year	Cost	Contribution	Interest	Expenditures	Reserves	Reserves	Funded
2024	337,643	85,626		14,700	120,926	291,016	42%
2025	347,772	88,195		7,725	201,396	320,637	63%
2026	358,205	90,841		45,160	247,077	313,454	79%
2027	368,952	93,566		8,195	332,447	345,021	96%
2028	380,020	37,169		332,447	37,169	44,473	84%
2029	391,421	38,284		8,695	66,758	69,320	96%
2030	403,163	39,432		8,955	97,235	95,618	102%
2031	415,258	40,615		9,224	128,626	123,431	104%
2032	427,716	41,834		9,501	160,959	152,826	105%
2033	440,548	43,089		55,542	148,506	136,746	109%
2034	453,764	44,381		10,079	182,808	168,106	109%
2035	467,377	45,713		10,382	218,139	201,225	108%
2036	481,398	47,084		10,693	254,530	236,179	108%
2037	495,840	48,497		11,014	292,012	273,050	107%
2038	510,715	49,952		11,344	330,619	311,920	106%
2039	526,037	51,450		11,685	370,385	352,877	105%
2040	541,818	52,994		68,309	355,069	338,048	105%
2041	558,072	54,583		12,396	397,256	381,713	104%
2042	574,815	56,221		12,768	440,709	427,693	103%
2043	592,059	57,908		13,151	485,465	476,089	102%
2044	609,821	59,645		13,546	531,564	527,003	101%
2045	628,115	61,434		13,952	579,046	580,544	100%
2046	646,959	63,277		14,371	627,952	636,824	99%
2047	666,368	65,175		84,012	609,116	624,671	98%
2048	686,359	67,131		600,437	75,810	81,894	93%
2049	706,949	69,145		30,779	114,176	111,290	103%
2050	728,158	71,219		16,174	169,221	158,369	107%
2051	750,003	73,356		16,660	225,917	208,173	109%
2052	772,503	75,556		17,159	284,314	260,822	109%
2053	795,678	77,823		17,674	344,462	316,443	109%



Watersedge H Condominium RA SIRS Threshold Funding Model VS Fully Funded Chart



The **Threshold Funding Model** calculates the minimum reserve assessments, with the restriction that the reserve balance is not allowed to go below \$0 or other predetermined threshold, during the period of time examined. All funds for planned reserve expenditures will be available on the first day of each fiscal year. The **Threshold Funding Model** allows the client to choose the level of conservative funding they desire by choosing the threshold dollar amount.

Watersedge H Condominium RA Component Funding Model Assessment & Category Summary

Description	A Secretary		Aging	Source in		4 8 89 CA	S CHILDRE
-	Y .	<u> </u>	· ·	7 7		, ,	, ,
Plumbing							
Plumbing System Routine Maint. and Insp. Plumbing - Total	2024	1	0	0	$\frac{2,500}{$2,500}$	$\frac{2,500}{$2,500}$	$\frac{2,500}{$2,500}$
Fire Protective Systems							
Fire Protective Systems Maint. Allowance	2024	1	0	0	2,500	2,500	_2,500
Fire Protective Systems - Total					\$2,500	\$2,500	\$2,500
Electrical Systems							
Elect. Syst. Routine Maint & Insp.	2024	1	0	0	2,500	2,500	2,500
Electrical Systems - Total					\$2,500	\$2,500	\$2,500
Structural Component							
Routine Concrete Patching	2026	7	0	2	17,725	12,661	12,661
Stucco Repairs	2026	7	0	2	3,570	2,550	2,550
Structural Component - Total					\$21,295	\$15,211	\$15,211
Roofing							
Roof Replacement - TPO Roof	2028	20	0	4	287,875	10,251	230,300
Roofing - Total					\$287,875	\$10,251	\$230,300
Painting							
Waterproofing and Exterior Painting	2026	7	0	2	13,773	9,838	9,838
Painting - Total					\$13,773	\$9,838	\$9,838
Building Components							
Common Door Replacement	2024	25	0	0	_7,200	_7,200	_7,200
Building Components - Total					\$7,200	\$7,200	\$7,200
	Total	Asset Su	mmary	/	\$337,643	\$50,000	\$270,049

Percent Fully Funded 19%
Current Average Liability per Unit (Total Units: 42) -\$5,239



Watersedge H Condominium RA SIRS Distribution of Accumulated Reserves

Description	Remaining Life	Replacement Year	Assigned Reserves	Fully Funded Reserves
Elect. Syst. Routine Maint & Insp.	0	2024	2,500	2,500
Fire Protective Systems Maint. Allowance	0	2024	2,500	2,500
Plumbing System Routine Maint. and Insp.	0	2024	2,500	2,500
Common Door Replacement	0	2024	7,200	7,200
Stucco Repairs	2	2026	2,550	2,550
Waterproofing and Exterior Painting	2	2026	9,838	9,838
Routine Concrete Patching	2	2026	12,661	12,661
Roof Replacement - TPO Roof	4	2028	* 10,251	230,300
Total Asset Su	mmary		\$50,000	\$270,049

Percent Fully Funded	19%
Current Average Liability per Unit (Total Units: 42)	-\$5,239

^{&#}x27;*' Indicates Partially Funded



Description	Expenditures
Replacement Year 2024 Common Door Replacement Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance	7,200 2,500 2,500
Plumbing System Routine Maint. and Insp. Total for 2024	2,500 \$14,700
Replacement Year 2025	
Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2025	2,575 2,575 2,575 \$7,725
	4.,
Replacement Year 2026 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Routine Concrete Patching Stucco Repairs Waterproofing and Exterior Painting Total for 2026 Replacement Year 2027 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2027	2,652 2,652 2,652 18,804 3,787 14,612 \$45,160 2,732 2,732 2,732 2,732 \$8,195
Replacement Year 2028 Elect. Syst. Routine Maint & Insp.	2,814
Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Roof Replacement - TPO Roof	2,814 2,814 324,006
Total for 2028	\$332,447
Replacement Year 2029 Elect. Syst. Routine Maint & Insp.	2,898



Description	Expenditures
Replacement Year 2029 continued Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp.	2,898 2,898
Total for 2029	\$8,695
Replacement Year 2030 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance	2,985 2,985
Plumbing System Routine Maint. and Insp.	$\frac{2,985}{23,255}$
Total for 2030	\$8,955
Replacement Year 2031 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2031	3,075 3,075 3,075 \$9,224
Replacement Year 2032 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2032	3,167 3,167 3,167 \$9,501
Replacement Year 2033 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Routine Concrete Patching Stucco Repairs Waterproofing and Exterior Painting Total for 2033	3,262 3,262 3,262 23,127 4,658 17,971 \$55,542
Replacement Year 2034 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2034	3,360 3,360 3,360 \$10,079



Description	Expenditures
Replacement Year 2035 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2035	3,461 3,461 3,461 \$10,382
	\$10, 0 02
Replacement Year 2036 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2036	3,564 3,564 3,564 \$10,693
Replacement Year 2037	
Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2037	$ \begin{array}{r} 3,671 \\ 3,671 \\ \hline 3,671 \\ \hline $11,014 \end{array} $
Replacement Year 2038	
Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2038	3,781 3,781 3,781
	4,-
Replacement Year 2039 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2039	3,895 3,895 3,895 \$11,685
Replacement Year 2040	
Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Routine Concrete Patching Stucco Repairs	4,012 4,012 4,012 28,443 5,729



Description	Expenditures
Replacement Year 2040 continued	
Waterproofing and Exterior Painting	22,102
Total for 2040	\$68,309
Replacement Year 2041	
Elect. Syst. Routine Maint & Insp.	4,132
Fire Protective Systems Maint. Allowance	4,132
Plumbing System Routine Maint. and Insp.	4,132
Total for 2041	\$12,396
Replacement Year 2042	
Elect. Syst. Routine Maint & Insp.	4,256
Fire Protective Systems Maint. Allowance	4,256
Plumbing System Routine Maint. and Insp.	4,256
Total for 2042	\$12,768
Replacement Year 2043	
Elect. Syst. Routine Maint & Insp.	4,384
Fire Protective Systems Maint. Allowance	4,384
Plumbing System Routine Maint. and Insp.	4,384
Total for 2043	\$13,151
Replacement Year 2044	
Elect. Syst. Routine Maint & Insp.	4,515
Fire Protective Systems Maint. Allowance	4,515
Plumbing System Routine Maint. and Insp.	4,515
Total for 2044	\$13,546
Replacement Year 2045	
Elect. Syst. Routine Maint & Insp.	4,651
Fire Protective Systems Maint. Allowance	4,651
Plumbing System Routine Maint. and Insp.	4,651
Total for 2045	\$13,952
Replacement Year 2046	
Elect. Syst. Routine Maint & Insp.	4,790



Description	Expenditures
Replacement Year 2046 continued Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2046	4,790 4,790 \$14,371
Replacement Year 2047 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Routine Concrete Patching Stucco Repairs Waterproofing and Exterior Painting Total for 2047	4,934 4,934 4,934 34,982 7,046 27,182
Total for 2047	\$84,012
Replacement Year 2048 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Roof Replacement - TPO Roof Total for 2048	5,082 5,082 5,082 <u>585,191</u> \$600,437
Replacement Year 2049 Common Door Replacement Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2049	15,075 5,234 5,234 5,234 \$30,779
Replacement Year 2050 Elect. Syst. Routine Maint & Insp. Fire Protective Systems Maint. Allowance Plumbing System Routine Maint. and Insp. Total for 2050	5,391 5,391 5,391 \$16,174
Replacement Year 2051 Elect. Syst. Routine Maint & Insp.	5,553



Description	Expenditures
Replacement Year 2051 continued	
Fire Protective Systems Maint. Allowance	5,553
Plumbing System Routine Maint. and Insp.	5,553
Total for 2051	\$16,660
Replacement Year 2052	
Elect. Syst. Routine Maint & Insp.	5,720
Fire Protective Systems Maint. Allowance	5,720
Plumbing System Routine Maint. and Insp.	5,720
Total for 2052	\$17,159
Replacement Year 2053	
Elect. Syst. Routine Maint & Insp.	5,891
Fire Protective Systems Maint. Allowance	5,891
Plumbing System Routine Maint. and Insp.	5,891
Total for 2053	\$17,674

Plumbing System Routine Maint. and Insp. - 2024

		1 EA.	@ \$2,500.00
Asset ID	1008	Asset Actual Cost	\$2,500.00
		Percent Replacement	100%
Category	Plumbing	Future Cost	\$2,500.00
Placed in Service	January 2023	Assigned Reserves	\$2,500.00
Useful Life	1		
Replacement Year	2024	Annual Assessment	\$2,374.81
Remaining Life	0	Reserve Allocation	\$2,374.81

Plumbing - Total Current Cost
Assigned Reserves
\$2,500
Fully Funded Reserves
\$2,500

Fire Protective Systems Maint. Allowance - 2024

Asset ID	1006	1 EA. Asset Actual Cost Percent Replacement	@ \$2,500.00 \$2,500.00 100%
CategoryFire Protective Systems		Future Cost	\$2,500.00
Placed in Service	January 2023	Assigned Reserves	\$2,500.00
Useful Life	1		
Replacement Year	2024	Annual Assessment	\$2,374.81
Remaining Life	0	Reserve Allocation	\$2,374.81

Fire Protective Systems - Total Current Cost	\$2,500
Assigned Reserves	\$2,500
Fully Funded Reserves	\$2,500

Elect. Syst. Routine N	Maint & Insp 2024	1 EA.	@ \$2,500.00
Asset ID	1005	Asset Actual Cost	\$2,500.00
		Percent Replacement	100%
Category	Electrical Systems	Future Cost	\$2,500.00
Placed in Service	January 2023	Assigned Reserves	\$2,500.00
Useful Life	1		
Replacement Year	2024	Annual Assessment	<u>\$2,374.81</u>
Remaining Life	0	Reserve Allocation	\$2,374.81

Electrical Systems - Total Current Cost	\$2,500
Assigned Reserves	\$2,500
Fully Funded Reserves	\$2,500

Routine Concrete Pa	atching - 2026	1 Lump Sum	@ \$17,725.00
Asset ID	1010	Asset Actual Cost	\$17,725.00
Asset ID	1010	Percent Replacement	100%
Catalana	Start to a 1 Community	-	
	Structural Component	Future Cost	\$18,804.45
Placed in Service	April 2019	Assigned Reserves	\$12,660.71
Useful Life	7		
Replacement Year	2026	Annual Assessment	<u>\$2,833.05</u>
Remaining Life	2	Reserve Allocation	\$2,833.05
Stucco Repairs - 202		1 Lump Sum	@ \$3,570.00
Asset ID	1011	Asset Actual Cost	\$3,570.00
		Percent Replacement	100%
	Structural Component	Future Cost	\$3,787.41
Placed in Service	April 2019	Assigned Reserves	\$2,550.00
Useful Life	7		
Replacement Year	2026	Annual Assessment	<u>\$570.61</u>
Remaining Life	2	Reserve Allocation	\$570.61
Structural Comp	oonent - Total Current Cost Assigned Reserves	\$21,295 \$15,211	
	Fully Funded Reserves	\$15,211	

Roof Replacement - TPC	P Roof - 2028	23,500 SF	@ \$12.25
Asset ID	1013	Asset Actual Cost	\$287,875.00
		Percent Replacement	100%
Category	Roofing	Future Cost	\$324,005.85
Placed in Service	April 2008	Assigned Reserves	\$10,251.43
Useful Life	20		
Replacement Year	2028	Annual Assessment	<u>\$72,340.58</u>
Remaining Life	4	Reserve Allocation	\$72,340.58

Roofing - Total Current Cost
Assigned Reserves
\$10,251
Fully Funded Reserves
\$230,300

Waterproofing and Exterior Painting - 2026

	1 Lump Sum	@ \$13,773.00
1012	Asset Actual Cost	\$13,773.00
	Percent Replacement	100%
Painting	Future Cost	\$14,611.78
April 2019	Assigned Reserves	\$9,837.86
7		
2026	Annual Assessment	\$2,201.39
2	Reserve Allocation	\$2,201.39
	Painting April 2019 7 2026	1012 Asset Actual Cost Percent Replacement Painting Future Cost April 2019 Assigned Reserves 7 2026 Annual Assessment

Painting - Total Current Cost
Assigned Reserves
S9,838
Fully Funded Reserves
\$9,838

Common Door Repl	lacement - 2024	6 EA.	@ \$1,200.00
Asset ID	1004	Asset Actual Cost	\$7,200.00
		Percent Replacement	100%
Category	Building Components	Future Cost	\$7,200.00
Placed in Service	March 1989	Assigned Reserves	\$7,200.00
Useful Life	25		
Replacement Year	2024	Annual Assessment	<u>\$556.13</u>
Remaining Life	0	Reserve Allocation	\$556.13

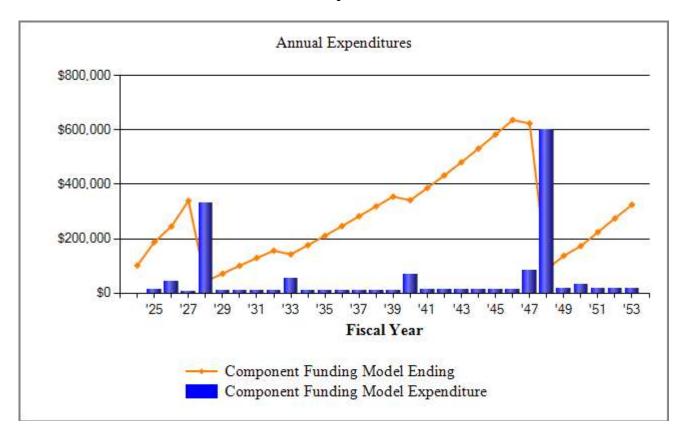
Building Components - Total Current Cost	\$7,200
Assigned Reserves	\$7,200
Fully Funded Reserves	\$7,200



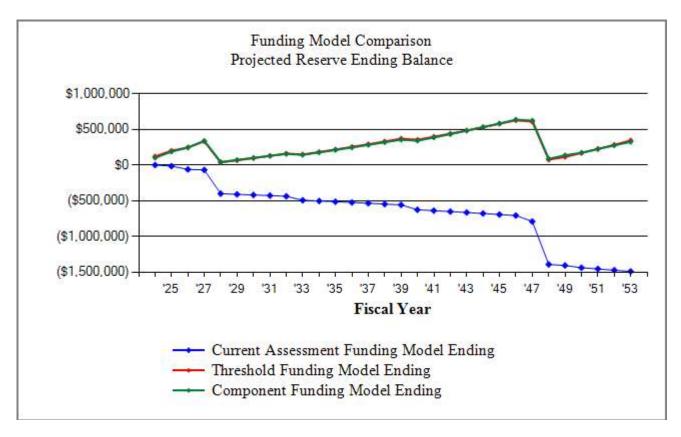
Watersedge H Condominium RA SIRS Category Detail Index

Asset I	DDescription	Replacement	Page
1004	Common Door Replacement	2024	18
1005	Elect. Syst. Routine Maint & Insp.	2024	14
1006	Fire Protective Systems Maint. Allowance	2024	13
1008	Plumbing System Routine Maint. and Insp.	2024	12
1013	Roof Replacement - TPO Roof	2028	16
1010	Routine Concrete Patching	2026	15
1011	Stucco Repairs	2026	15
1012	Waterproofing and Exterior Painting	2026	17
	Total Funded Assets	8	
	Total Unfunded Assets	<u>0</u>	
	Total Assets	8	

Watersedge H Condominium RA Annual Expenditure Chart

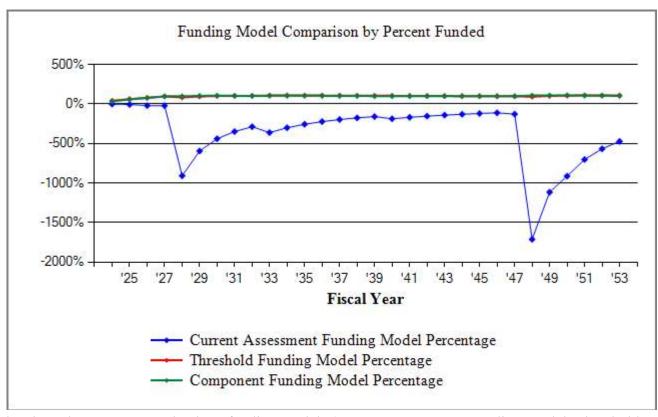


Watersedge H Condominium RA Funding Model Reserve Ending Balance Comparison Chart



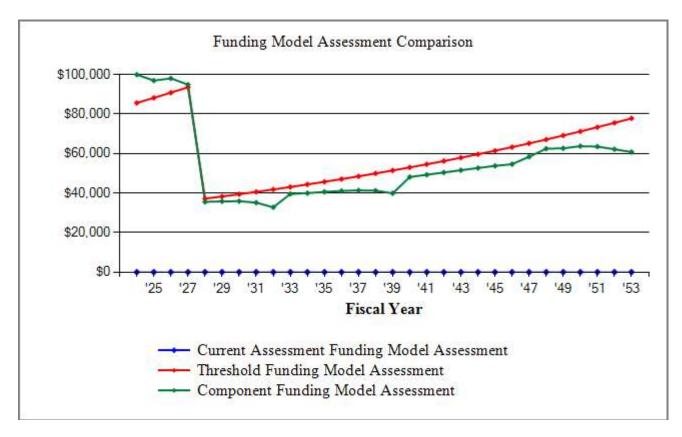
The chart above compares the projected reserve ending balances of the three funding models (Current Assessment Funding Model, Threshold Funding Model and Component Funding Model) over 30 years.

Watersedge H Condominium RA Funding Model Comparison by Percent Funded



The chart above compares the three funding models (Current Assessment Funding Model, Threshold Funding Model and Component Funding Model) by the percentage fully funded over 30 years. This allows your association to view and then choose the funding model that might best fit your community's needs.

Watersedge H Condominium RA Funding Model Assessment Comparison Chart



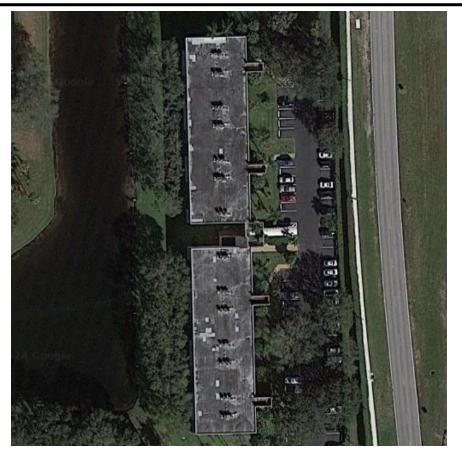
The chart above compares the annual assessment of the three funding models (Current Assessment Funding Model, Threshold Funding Model and Component Funding Model) over 30 years.

APPENDIX B SITE LOCATION DIAGRAM

APPENDIX B

Watersedge H Condominium 15461 Pembridge Drive, Delray Beach, FL 33484

Palm Beach County, Florida





Project Mgr:	MS	Project No:: 6011.2300191
Drawn By:	JB	Scale: NONE
Checked By:	JB	File No:
Approved By:	MS	Date: 1/30/24



LOCATION DIAGRAM

Watersedge H Condominium 15461 Pembridge Drive, Delray Beach, FL 33484 Palm Beach County, Florida **EXHIBIT**

B-1

APPENDIX C PHOTOGRAPHS





Photograph No. 1: Building North Elevation



Photograph No. 2: Building Typical West Elevation





Photograph No. 3: Building Typical East Elevation



Photograph No. 4: Building South Elevation





Photograph No. 5: Building Roof



Photograph No. 6: Building Roof

SITE PHOTOGRAPHS





Photograph No. 7: Typical Building Catwalk



Photograph No. 8: Typical Building Catwalk





Photograph No. 9: Blistering paint observed at building edge.



Photograph No. 10: Deteriorated expansion joint observed at 3rd floor near elevator.





Photograph No. 11: Deteriorated expansion joint observed at 3rd floor near elevator.



Photograph No. 12: Deteriorated railing post pocket observed near unit 208.





Photograph No. 13: Deteriorated railing post pocket observed near unit 208.



Photograph No. 14: Deteriorated railing post pocket observed near unit 208.



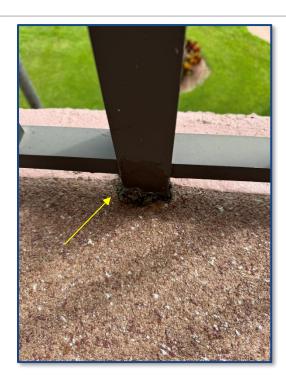


Photograph No. 15: Deteriorated railing post pocket observed near unit 213.



Photograph No. 16: Deteriorated railing post pocket observed near unit 310.





Photograph No. 17: Deteriorated railing post pocket observed near unit 310.



Photograph No. 18: Rust spot observed overhead near unit 310.





Photograph No. 19: Unit 108: Wall cracking observed near unit sliding glass door.



Photograph No. 20: Unit 106: Wall cracking observed near unit sliding glass door.





Photograph No. 21: Unit 104: Wall cracking observed near unit sliding glass door.



Photograph No. 22: Unit 103: Wall cracking observed near unit sliding glass door..





Photograph No. 23: Unit 101: Wall cracking observed near unit sliding glass door.



Photograph No. 24: Unit 101: Wall cracking observed near unit sliding glass door.





Photograph No. 25: Unit 205: Wall cracking observed near balcony enclosure.



Photograph No. 26: Unit 205: Wall cracking observed near balcony enclosure.





Photograph No. 27: Unit 205: Deteriorated fasteners observed at aluminum enclosure bottom rail.



Photograph No. 28: Cracked and blistered roofing system observed.





Photograph No. 29: Previous roofing repairs observed at the roof.



Photograph No. 30: Debris buildup near roof drain.





Photograph No. 31: Debris buildup from previous ponding water observed.



Photograph No. 32: Building typical emergency exit sign.





Photograph No. 33: Building typical fire extinguisher.



Photograph No. 34: Building typical emergency lighting.





Photograph No. 35: Building typical fire alarm siren.



Photograph No. 36: Building electrical room.

APPENDIX D QUALIFICATIONS OF KEY PERSONNEL

MIGUEL SANTIAGO, P.E., S.I.

Professional Engineer / Special Inspector / Director Milestone Prog.



Phase II Structural Forensic Evaluations Structural Intercrity Reserve Studies

SUMMARY OF QUALIFICATIONS

Mr. Santiago is the Director of UES Milestone Inspection Program and Vice President of UES Construction Services Division. He has experience in building inspections, structural evaluations, geotechnical investigations, and construction process evaluations. He has over 25 years of construction, design and inspection experience dealing with all phases of project development including permitting, geotechnical, environmental, civil, and architectural design. He also has experience in pavement, foundation design, forensic analysis of construction defects, roofing consultation, construction project management and quality control/quality assurance. Mr. Santiago is a licensed Threshold Inspector in the State of Florida where he performs structural inspections for various types of projects including shoring/ reshoring and design/plan compliance.

REPRESENTATIVE PROJECT EXPERIENCE

Commercial

Citadel I and Citadel II, Tampa, FL: Facility Evaluator. Performed a property • ACI AGGREGATE & FIELD-TESTING condition and roofing assessment for two eight-story office buildings with a shared six-story parking garage. Cost projections were completed over a year term. Project • ACI CONCRETE was completed within 10 days of authorization.

San Juan Integra Building, PR: Commercial 7 story retrofit, interior rebuild and • FDOT SOILS TECHNICIAN structural modifications to the structure and parking / garage area. Provided geotechnical assistance during design and construction as well as quality control during construction operations.

Trinity Corporate Park, Tampa, FL: 3 story settling structure, prepared evaluation report and recommended adequate foundation system.

Government

Fort Bragg Landfill Density Testing, Fort Bragg, NC, 2009: Mr. Santiago was project principal for subsurface exploration of the SCS Energy Facility Expansion.

Fort Bragg TEMF, Fort Bragg, NC: Prepared proposal, assisted in planning and coordinating field exploration, and analyzed subsurface conditions. Provided a geotechnical report of findings, evaluations and recommendations for foundation, parking area design and construction considerations. This project was design and build of tactical vehicle maintenance facilities and retaining wall design.

NCDOT, DMV Facility Fayetteville, NC: Assisted in planning and coordinating field exploration, and analyzed subsurface conditions. Provided a geotechnical report of findings, evaluations and recommendations for foundation, parking design and construction considerations.

Sypris Electronics, Tampa, FL, 2015: Facility Evaluator. Performed a property condition and roofing assessment for a 300,000 sq. ft. facility. Cost projections were completed over a 10 year term. This project was an existing electronics manufacturing facility for the Department of Defense, due to homeland security; this report was

YEARS WITH THE FIRM 3.5

YEARS WITH OTHER FIRMS 25

EDUCATION

B.S., CIVIL ENGINEERING, UNIVERSITY OF CENTRAL FLORIDA, 1998

LICENSES & **CERTIFICATIONS**

- FLORIDA PROFESSIONAL ENGINEER, SPECIAL INSPECTOR #74520
- **TECHNICIAN**
- ACI CONCRETE FIELD INSPECTOR
- FDOT LBR TECHNICIAN
- MASONRY SPECIAL INSPECTOR
- POST TENSION LEVEL I & II INSPECTOR
- RADIATION SAFETY OFFICER
- STRUCTURAL STEEL LEVEL I INSPECTOR

completed with no photo documentation under strict guidelines of disclosure. Project was completed within 10 days of authorization.

Healthcare

Hima San Pablo Hospitals, Caguas and Bayamon, PR, 2015: Facility Evaluator. Performed a property condition and roofing assessment for 2 1.3M sq. ft. facilities. Completed both assessments and submitted final reports within 30 days of authorization.

Sinai Assisted Living Facility, Boca Raton, FL: Mr. Santiago was the project principal for Private Provider Inspections for the construction of the four-story independent living building and the three-story skilled nursing and assisted living facility building.

Baptist South Tower, Jacksonville, FL: Mr. Santiago was the project principal and Threshold Inspector during the construction of an 8-story medical tower. He provided construction quality control and quality assurance.

Institutional

Nocatee K-8 School KK, St. Johns County, FL: Threshold Engineer. Provided Geotechnical Engineering, Construction Materials Testing, Threshold Inspection, and Settlement Monitoring services. The construction included a new 1 to 3-story school building of concrete and steel construction as well as associated paved parking and drive areas, a new stormwater management pond, and athletic fields. Site-elevating fills on the order of four to five feet were required to achieve final grade. Also included unsuitable soil removal and roofing testing and inspection.

Aberdeen K-8 School LL, St. Johns County, FL: Threshold Engineer Provided Geotechnical Engineering, Construction Materials Testing, Threshold Inspection, and Settlement Monitoring services. The construction included a new 1 to 3-story school building of concrete and steel construction as well as associated paved parking and drive areas, a new stormwater management pond, and athletic fields. Site-elevating fills on the order of four to five feet were required to achieve final grade. Also included roofing testing and inspection.

North Star Villages Student Complex, Tampa, FL: Performed subsurface exploration and conducted geotechnical engineering analyses for the proposed student housing project – North Star Villages at 1400 North 46th Street in Tampa, FL. ECS will perform construction materials testing and threshold observation services during construction, 2nd quarter of 2015.

Multifamily Residential

Bayshore Multifamily Complex, Tampa, FL, 2013: The Bayshore multifamily complex consisted of a 3 building, 8-story, 220-unit apartment complex with associated parking, amenity and drive areas. Provided geotechnical consultation and exploration services as well as construction materials testing and threshold observation services during construction.

Encore, REED Multifamily Complex, Tampa, FL, 2014: Prepared the proposal and performed construction quality control services for the REED at Encore which consisted of a senior living multifamily complex for the Tampa Housing Authority. Provided construction materials testing and threshold observation services during construction.

Yabucoa Real, Yabucoa, PR: Residential development, Owner's representative/Inspector during design, permitting and construction of an 86-unit residential development. Provided geotechnical design and value engineering during construction.

Industrial

Renewable Resources Plant, West Palm Beach, Florida: Mr. Santiago was one of the project principals involved during the construction of the deep foundation system implemented during the construction process of this 80-acre renewable resources power facility.

Niagara Bottling Plant: Mr. Santiago was the project principal and Threshold Inspector during the construction of a 350,000 square foot, bottling plant. He provided construction quality control and quality assurance.

Pipeline Supply Company Facility, Fayetteville, NC: Prepared proposal, assisted in planning and coordinating field exploration, and analyzed subsurface conditions. Provided a geotechnical report of findings, evaluations and recommendations for foundation, parking design and construction considerations.

Transportation

Orlando International Airport (OIA), FL: Provided geotechnical engineering and construction materials testing for several runway and apron rehabilitation projects within the airport. Projects consisted of new runway construction and existing apron and runway rehabilitations.



Education

MS, Civil Engineering, Florida International University, 2019

BS, Civil Engineering, Florida International University, 2018

Years of Experience

7

Licenses

- Professional Engineer, License #93722
- Certified General Contractor, License #CGC1526003

Jorge Blanco, PE

Structural Engineer

Jorge is a dedicated and results-driven Structural Engineer primarily focusing on threshold inspections, bringing seven years of invaluable experience to the firm. He consistently demonstrates an unwavering commitment to ensuring the safety and stability of construction projects, making significant contributions to all projects.

PROJECT EXPERIENCE

The Mark Yacht Club

Miami, FL

This project is a sizeable 40-story posttension cable building in downtown Miami. Jorge completed the initial evaluation for the engineering report. The report identified that the building needed new railings, concrete restoration, new waterproofing at the pool deck, and a new expansion joint between the building and the parking garage. Prepared the repair details, scope of work, and specifications package and selected the railing design based on current code requirements. Administered the bidding phase of the project, assisted the condominium with the contractor selection, prepared all permitting documentation, acted as the EOR's representative for special inspector on behalf of the City of Miami, acted as owner's representative coordinating all activities and approving invoices, inspected all structural issues and designed proper repair methods including post tension cable repairs, reviewed the installation of all the glass railings making sure all tolerances were met, and provided quality control of all the construction for the project.

Metropolis Condominium

Miami, FL

This project consisted of the analysis and repair/design of a wood joist subfloor for a 40-year-old building in South Miami Beach. Jorge completed the initial engineering report informing of the failing wood joists and prepared all the calculations and drawings for removing

and re-installing the wood subfloor. This included the size of the wood to meet the code, the fastening pattern, support conditions, and drafting of these repair details. He followed through with the structural inspections and project closeout.

The Hemisphere condominium

Miami, FL

This project is located in Hallandale Beach, where Jorge provided services from start to finish. This was a concrete restoration and waterproofing project for an ample parking and pool deck. Jorge designed the repair details for the structural elements and specified the waterproofing for all the different areas. He supervised the concrete restoration and reinforcement installation to ensure proper installation per the repair details provided. He followed through with all structural inspections, progress meetings, invoice approval, and project close-out.

Carriage Club South Condominium Miami, FL

This project was a multi-story residential high-rise condominium with under-tower parking and a recreational pool deck constructed in 1968 in Miami Beach, FL. Jorge completed the initial evaluation for the engineering report. The report identified that the building needed to restore the existing pool deck with new waterproofing and concrete restoration, building façade concrete restoration, parking garage structural concrete repairs, restoration of expansion joint between building parking lot deck and pool deck,

and removal/replacement of the existing roofing system. Jorge designed and supervised the structural repairs necessary for the building's 40-year recertification for the overall condition of the building and pool. He designed a reroofing package that included two options for roofing materials along with all applicable details required for installation and calculated and designed a steel-reinforced concrete pedestal to lift the pool's collector tank to water level. Jorge also calculated and designed the large diameter bolts for anchoring the proposed light posts to the existing one-way concrete joist slab floor at the pool deck and verified the light posts' capability with the proposed EPA

Seacoast Condominium

Miami, FL

This project is a multi-story residential high-rise condominium with under-tower parking and a recreational pool deck in Miami Beach, FL. Jorge completed the full building inspection to evaluate any structural repairs necessary. The report Jorge prepared identified that the building needed to perform concrete restoration on several risers within the condominium, concrete repairs to structural members such as beams, columns, joists, and slabs in the parking garage below, and removal/installation of new waterproofing at building pool deck and planters. He calculated and designed repair details for these concrete repairs with several locations requiring calculation of rebar layout to hold necessary live/dead loads.

Wynwood Green Condominium

Miami, FL

A multi-story residential high-rise condominium with under-tower parking located in Miami, FL. Jorge calculated and designed the buildings balcony aluminum railings, stair aluminum/steel railings, roof/elevator steel ladders, aluminum pool deck trellis, walkway louvers, aluminum pool deck cabanas, glass railings, safety gates, privacy screens/partitions, and ceiling/wall panel system. The items above were calculated using an iterative process to find the most affordable dimensions while meeting the design requirements and Florida building codes.

Fairway Riviera Condominium

Miami, FL

This project was a multi-story residential high-rise condominium in Hallandale Beach, FL, with exterior parking spots. Jorge completed the initial evaluation for the building's 40-year recertification. For the building to pass the 40-year recertification, several structural deficiencies were identified that needed to be addressed prior to approval by the professional engineer of record/special inspector. These deficiencies included concrete restoration of several risers' balcony slabs, concrete column/beam repairs at building 1st floor, repair of existing vertical expansion joint between the three buildings in this area, removal/installation of the new waterproofing system at the building's sundeck to address any slab repairs below.