

# Vanderbilt Yacht & Racquet Condominium Association, Inc.

May 4, 2023 • Naples, FL

STRUCTURAL INTEGRITY  
RESERVE STUDY



Long-term thinking. Everyday commitment.

Vanderbilt Yacht & Racquet Club Condominium Association, Inc.  
Naples, Florida

Dear Board of Directors of Vanderbilt Yacht & Racquet Club Condominium Association, Inc.:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Structural Integrity* Reserve Study of Vanderbilt Yacht & Racquet Club Condominium Association, Inc. in Naples, Florida and submit our findings in this report. The effective date of this study is September 8, 2023.

This *Structural Integrity* Reserve Study meets or exceeds all requirements set forth in Florida Statute 718.112 and the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a "Level III Full Reserve Study."

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. We look forward to continuing to help Vanderbilt Yacht & Racquet Club Condominium Association, Inc. plan for a successful future.

As part of our long-term thinking and everyday commitment to our clients, we are available to answer any questions you may have regarding this study.

Respectfully submitted on December 11, 2023 by

*Reserve Advisors, LLC*

Analysis and Report by: Taylor J. Bleistein, RS<sup>1</sup>  
Review by: Nancy. S. Daniel, RS  
Alan M. Eber, RS, PRA<sup>2</sup>, Director of Quality Assurance



<sup>1</sup> RS (Reserve Specialist) is the reserve provider professional designation of the Community Associations Institute (CAI) representing America's more than 300,000 condominium, cooperative and homeowners associations.

<sup>2</sup> PRA (Professional Reserve Analyst) is the professional designation of the Association of Professional Reserve Analysts. Learn more about APRA at <http://www.apra-usa.com>.



## Table of Contents

<b>1. RESERVE STUDY EXECUTIVE SUMMARY .....</b>	<b>1.1</b>
<b>2. RESERVE STUDY REPORT .....</b>	<b>2.1</b>
<b>3. RESERVE EXPENDITURES and FUNDING PLAN.....</b>	<b>3.1</b>
<b>4. RESERVE COMPONENT DETAIL.....</b>	<b>4.1</b>
STRUCTURAL.....	4.1
Exterior Building Elements.....	4.1
Balconies, Concrete .....	4.1
Balconies, Screen Enclosures (Includes Railings).....	4.3
Balconies, Interim Screen Replacements.....	4.3
Doors, Stairwells, Metal.....	4.4
Doors, Garage .....	4.5
Roofs, Modified Bitumen .....	4.6
Structural Members, Inspections .....	4.9
Walls, Stucco.....	4.10
Building Services Elements .....	4.13
Electrical System.....	4.13
Generator, Emergency .....	4.15
Life Safety System.....	4.17
Pipes .....	4.19
Pump, Fire Suppression .....	4.21
Garage and Tennis Court Elements.....	4.23
Concrete, Elevated Floors .....	4.23
Concrete, On-grade.....	4.24
GENERAL.....	4.26
Interior Building Elements .....	4.26
Ceilings, Acoustical Tiles, Grid and Lighting, Hallways .....	4.26
Elevator Cab Finishes .....	4.26
Exercise Equipment.....	4.28
Exercise Room .....	4.28
Floor Coverings, Wood, Laminate, Hallways.....	4.29
Kitchen .....	4.30
Lobby (Includes Rest Room) .....	4.30



Paint Finishes, Hallways.....	4.31
Paint Finishes, Stairwells.....	4.32
Party Room, 1st Floor.....	4.34
Building Services Elements .....	4.36
Air Handling and Condensing Units, Split Systems .....	4.36
Elevators, Traction.....	4.37
Exhaust Fans.....	4.38
Pumps, Domestic Water .....	4.40
Security System.....	4.41
Trash Chute and Doors .....	4.42
Property Site Elements .....	4.44
Asphalt Pavement, Repaving .....	4.44
Bulkhead, Concrete .....	4.46
Fence, Chain Link.....	4.47
Gates .....	4.48
Light Poles and Fixtures .....	4.49
Pavers, Masonry.....	4.50
Signage .....	4.52
Tiki Deck and Walkway, Composite .....	4.53
Tiki Hut, Roof Replacement.....	4.54
Pool Elements.....	4.56
Concrete Deck.....	4.56
Fence, Aluminum.....	4.58
Furniture .....	4.58
Mechanical Equipment .....	4.59
Pool Finishes, Plaster .....	4.60
Structure and Deck.....	4.61
Garage and Tennis Court Elements.....	4.63
Sport Courts, Tennis.....	4.63
Sport Court, Tennis, Fence .....	4.64
Reserve Study Update.....	4.64
<b>5. METHODOLOGY .....</b>	<b>5.1</b>
<b>6. CREDENTIALS .....</b>	<b>6.1</b>



**7. DEFINITIONS .....7.1**

**8. PROFESSIONAL SERVICE CONDITIONS .....8.1**



# 1. RESERVE STUDY EXECUTIVE SUMMARY

**Client:** Vanderbilt Yacht & Racquet Club Condominium Association, Inc. (Vanderbilt Yacht & Racquet Club)

**Location:** Naples, Florida

**Reference:** 210065

**Property Basics:** Vanderbilt Yacht & Racquet Club Condominium Association, Inc. is a condominium style development which consists of 44 units in one building. The building was built in 1981.

**Reserve Components Identified:**

- 16 *Structural Integrity* Reserve Components
- 37 *General* Reserve Components

**Inspection Date:** We conducted the original studies in 2021 and 2023

**Funding Goal:** The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures.

- *Structural Integrity:* Our recommended Funding Plan recognizes these threshold funding years in 2039 due to the replacement of the flat roof and in 2048 due to the replacement of the balcony waterproof coatings and stucco paint finishes.
- *General:* Our recommended Funding Plan recognizes this threshold funding year in 2050 due to the replacement of the pool structure.

**Methodology:**

We use the Cash Flow Method to compute the Reserve Funding Plan. This method offsets future variable Reserve Expenditures with existing and future stable levels of reserve funding. Our application of this method also considers:

- Current and future local costs of replacement
- 2.0% anticipated annual rate of return on invested reserves
- 2.5% future Inflation Rate for estimating Future Replacement Costs per the request of the Board

**Project Prioritization:** We note anticipated Reserve Expenditures for the next 30 years in the **Reserve Expenditures** tables and include a **Five-Year Outlook** table following the **Reserve Funding Plan** in section 3. We recommend the Association prioritize the following projects in the next five years based on the conditions identified:

- Structural Integrity - Walls, Stucco, Paint Finishes and Capital Repairs (2023 is Budgeted)
- Structural Integrity - Roof, Modified Bitumen, Replacement
- Structural Integrity - Bulkhead, Concrete, Inspections and Capital Repairs
- Structural Integrity - Life Safety System, Emergency Devices
- Structural Integrity - Life Safety System, Control Panels
- General - Walls, Stucco, Paint Finishes and Capital Repairs (2023 is Budgeted)
- General - Roof, Modified Bitumen, Replacement
- General - Bulkhead, Concrete, Inspections and Capital Repairs
- General - Life Safety System, Emergency Devices
- General - Life Safety System, Control Panels

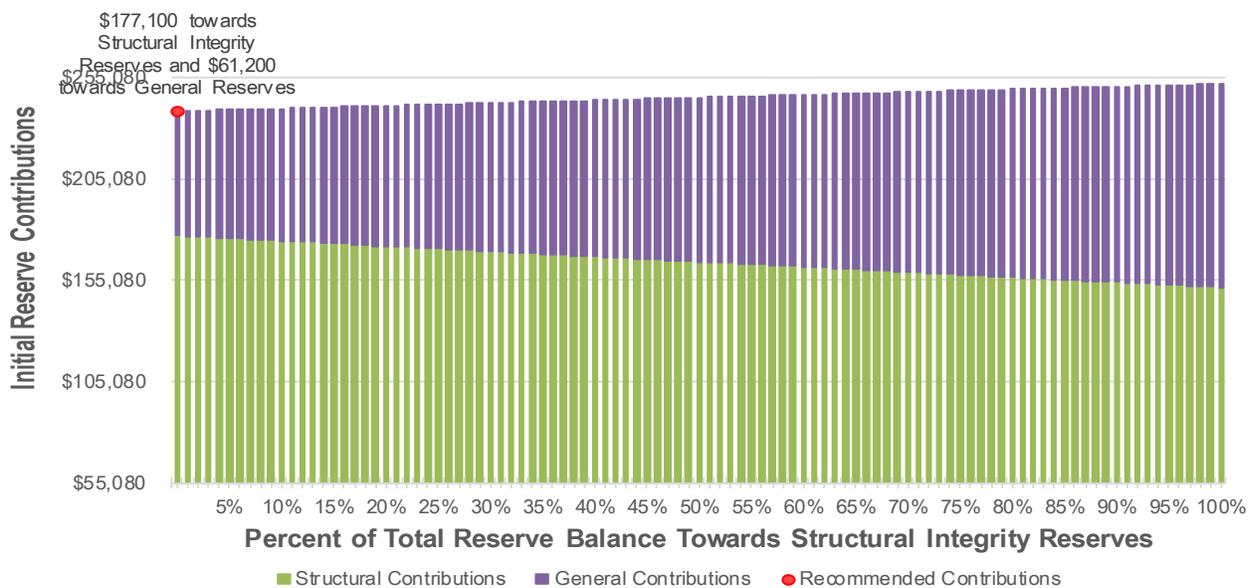


**Unaudited Cash Status of Reserve Fund:**

- \$1,037,013 as of January 31, 2023
- \$100,000 in budgeted 2023 reserve contributions (\$91,667 remaining)
- \$36,825 in estimated remaining 2023 reserve expenses

As part of our Cash Flow method we analyzed future expenditures and identified the reserve balance split to produce the lowest overall required contributions. We project a 2023 Reserve End Balance of \$1,111,555. Starting in 2024, we recommend the Association contribute \$1,111,555 or 100% of this balance to the General Reserve Plan to minimize the required reserve contributions. The following chart depicts the analysis of future expenditures and the reserve balance split to produce the lowest overall required contributions.

**Starting Cash Flow - Optimized Reserve Balance Split**



Cash Flow - Existing Reserve Balance and Contribution Split					
Vanderbilt Yacht & Racquet Club Condominium Association, Inc. Naples, Florida		FY2023	2024	Plan Types	
				Structural 2024	General 2024
Reserves at Beginning of Year	(Note 1)	1,037,013	1,111,555	0	1,111,555
Recommended Reserve Contributions		91,667	0	177,100	61,200
Percent to Structural Integrity Reserves				0%	
Percent to General Reserves				100%	
<b>Total Recommended Reserve Contributions</b>	(Note 2)	<b>91,667</b>	<b>0</b>	<b>177,100</b>	<b>61,200</b>
Anticipated Interest Rate		2.00%	1.30%		
Estimated Interest Earned, During Year	(Note 3)	19,700	14,300		
Anticipated Structural Expenditures, By Year		(19,000)	(4,254)		
Anticipated General Expenditures, By Year		(17,825)	(18,142)		
<b>Anticipated Reserves at Year End</b>		<b>\$1,111,555</b>	<b>\$0</b>		



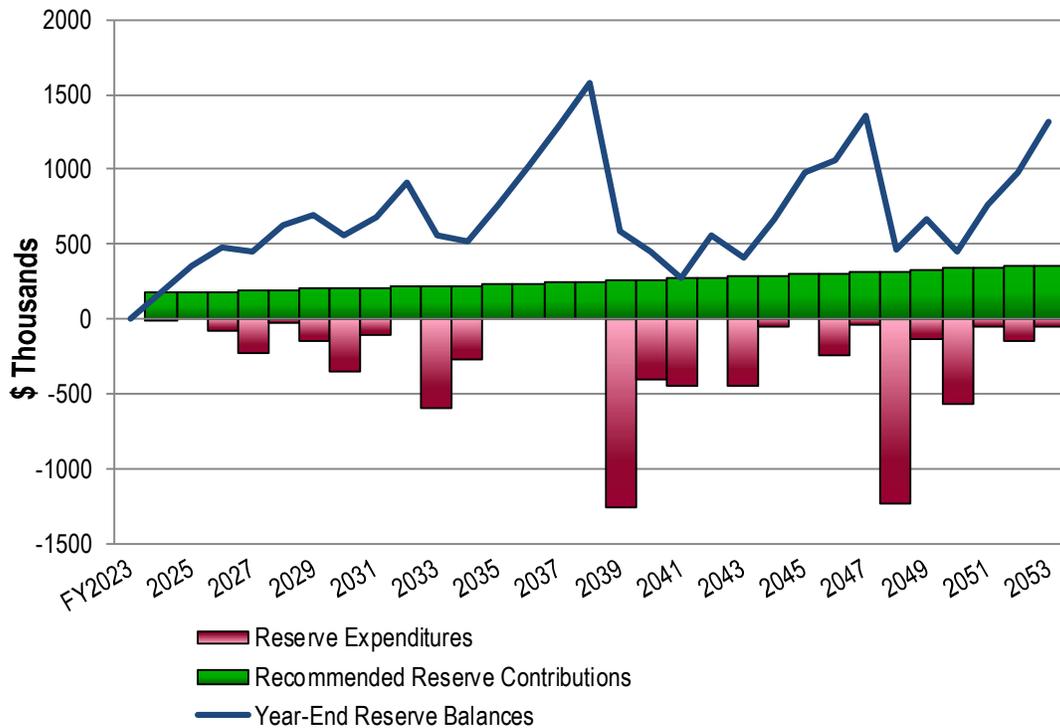
**Structural Integrity**

**Recommended Reserve Funding:** We recommend the following in order to achieve a stable and equitable Cash Flow Methodology Funding Plan:

- Increase to \$177,100 in 2024
- Inflationary increases thereafter through 2053, the limit of this study's Cash Flow Analysis
- 2024 Reserve Contribution of \$177,100 is equivalent to an average monthly contribution of \$335.42 per unit owner.
- Florida Statute 718.112 prohibits waiving or reducing reserves for Structural Integrity items

**Recommended Reserve Funding Table and Graph**

Year	Contributions (\$)	Reserve Balances (\$)	Year	Contributions (\$)	Reserve Balances (\$)	Year	Contributions (\$)	Reserve Balances (\$)
2024	177,100	174,574	2034	226,600	523,753	2044	290,200	665,456
2025	181,500	361,380	2035	232,300	768,851	2045	297,500	979,240
2026	186,000	473,044	2036	238,100	1,024,709	2046	304,900	1,065,812
2027	190,600	448,696	2037	244,100	1,291,744	2047	312,500	1,360,736
2028	195,400	624,513	2038	250,200	1,570,281	2048	320,300	467,376
2029	200,300	695,824	2039	256,500	586,198	2049	328,300	673,188
2030	205,300	563,158	2040	262,900	451,418	2050	336,500	453,833
2031	210,400	681,710	2041	269,500	280,228	2051	344,900	757,420
2032	215,700	913,201	2042	276,200	564,795	2052	353,500	984,096
2033	221,100	558,239	2043	283,100	410,206	2053	362,300	1,313,136





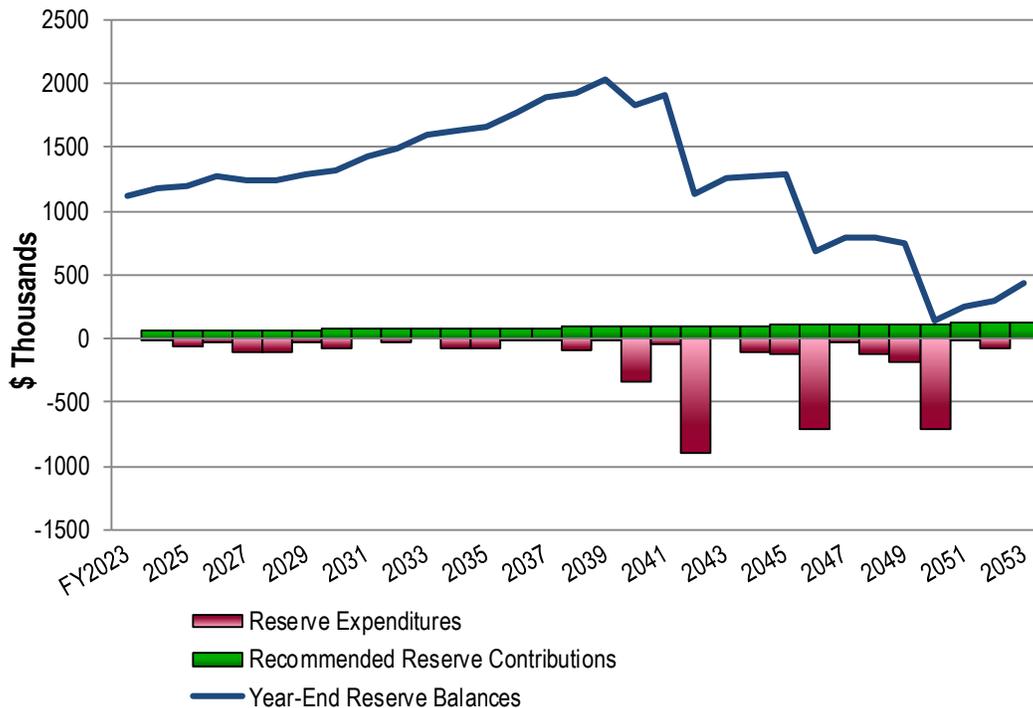
**General**

**Recommended Reserve Funding:** We recommend the following in order to achieve a stable and equitable Cash Flow Methodology Funding Plan:

- We recommend the Association adopt a General reserve budget of \$61,200 in 2024
- Inflationary increases thereafter through 2053, the limit of this study's Cash Flow Analysis
- 2024 Reserve Contribution of \$61,200 is equivalent to an average monthly contribution of \$115.91 per unit owner.

**Recommended Reserve Funding Table and Graph**

Year	Contributions (\$)	Reserve Balances (\$)	Year	Contributions (\$)	Reserve Balances (\$)	Year	Contributions (\$)	Reserve Balances (\$)
2024	61,200	1,177,275	2034	78,300	1,632,513	2044	100,300	1,277,136
2025	62,700	1,199,810	2035	80,300	1,664,102	2045	102,800	1,280,810
2026	64,300	1,264,386	2036	82,300	1,770,483	2046	105,400	688,572
2027	65,900	1,243,410	2037	84,400	1,885,143	2047	108,000	784,752
2028	67,500	1,233,609	2038	86,500	1,921,859	2048	110,700	790,543
2029	69,200	1,293,620	2039	88,700	2,034,140	2049	113,500	737,792
2030	70,900	1,318,804	2040	90,900	1,821,429	2050	116,300	145,226
2031	72,700	1,418,607	2041	93,200	1,904,417	2051	119,200	247,955
2032	74,500	1,495,232	2042	95,500	1,136,379	2052	122,200	300,482
2033	76,400	1,602,301	2043	97,900	1,257,986	2053	125,300	433,045





## 2. RESERVE STUDY REPORT

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Structural Integrity* Reserve Study of

**Vanderbilt Yacht & Racquet Club Condominium Association, Inc.**

**Naples, Florida**

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, May 4, 2023. We conducted the original inspection on April 21, 2021.

We present our findings and recommendations in the following report sections and spreadsheets:

- **Identification of Property** - Segregates all property into several areas of responsibility for repair or replacement
- **Reserve Expenditures** - Identifies reserve components and related quantities, useful lives, remaining useful lives and future reserve expenditures during the next 30 years
- **Reserve Funding Plan** - Presents the recommended Reserve Contributions and year-end Reserve Balances for the next 30 years
- **Five-Year Outlook** - Identifies reserve components and anticipated reserve expenditures during the first five years
- **Reserve Component Detail** - Describes the reserve components, includes photographic documentation of the condition of various property elements, describes our recommendations for repairs or replacement, and includes detailed solutions and procedures for replacements for the benefit of current and future board members
- **Methodology** - Lists the national standards, methods and procedures used to develop the Reserve Study
- **Definitions** - Contains definitions of terms used in the Reserve Study, consistent with national standards
- **Professional Service Conditions** - Describes Assumptions and Professional Service Conditions
- **Credentials and Resources**

## IDENTIFICATION OF PROPERTY



Our investigation includes Reserve Components or property elements as set forth in your Declaration. The Expenditure tables in Section 3 list the elements contained in this study. Our analysis begins by segregating the property elements into several areas of responsibility for repair and replacement.

Our process of identification helps assure that future boards and the management team understand whether reserves, the operating budget or Homeowners fund certain replacements and assists in preparation of the annual budget. We derive these segregated classes of property from our review of the information provided by the Association and through conversations with Management and the Board. These classes of property include:

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Unit Owners
- Property Maintained by Others

We advise the Board conduct an annual review of these classes of property to confirm its policy concerning the manner of funding, i.e., from reserves or the operating budget. The Reserve Study identifies Reserve Components as set forth in your Declaration or which were identified as part of your request for proposed services. Reserve Components are defined by CAI as property elements with:

- Vanderbilt Yacht & Racquet Club responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

**Structural Integrity Reserve Expenditures** - At the direction of the Board that recognizes their fiduciary responsibility and as required by Florida Statute 718.103 (25), we have conducted a *Structural Integrity Reserve Study* of Vanderbilt Yacht and Racquet Club. A *Structural Integrity Reserve Study* states the estimated remaining useful life, the



estimated replacement cost or deferred maintenance expense of the common areas being visually inspected and provides a recommended annual reserve amount that achieves the estimated replacement cost or deferred maintenance expense of each common area being visually inspected by the end of the estimated remaining useful life of each common area. Specifically, as per Florida Statute 718.112(2)(g), we have investigated the structural integrity and safety of common elements within the following:

- Roof
- Load Bearing Walls or Other Primary Structural Members
- Exterior Doors
- Fireproofing and Fire Protection Elements
- Plumbing
- Electrical Systems
- Structure
- 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 the items listed above

**Items Excluded from Structural Integrity Reserve Expenditures** - We exclude expenditures for the elements below for one or more of the following categories of reasons:

- Remaining useful lives or their replacement may occur beyond the 30-year scope of the study
- Current condition does not warrant predictable maintenance expenditures
- Issue applies to a unit owner-maintained element

We discuss specific exclusions for the following elements:

- Structure and Primary Structural Members - We anticipate a useful life of up to and beyond 100 years and consider full replacement unlikely and cost prohibitive. Management and the Board report no history of water infiltration or repairs to the foundations. Based on the current condition, we do not anticipate the need for replacement, repair or maintenance expenditures through reserves within the 30-year scope of this study. Future updates of this Reserve Study may incorporate costs for remediation based on historical data if they become significant enough to require reserve funding.
- Fire Protection - We anticipate a useful life of up to and beyond 80 years. Our inspection is visual, non-invasive and excludes camera inspections. Based on the current condition, we do not anticipate the need for replacement, repair or maintenance expenditures through reserves within the 30-year scope of this study. Future updates of this Reserve Study may incorporate costs for remediation based on historical data if they become significant enough to require reserve funding.

- Windows and Doors – Maintained and replaced by the unit owners

**Long-Lived Property Elements** – These elements may not have predictable Remaining Useful Lives or their replacement may occur beyond the 30-year scope of the study. The operating budget should fund infrequent repairs. Funding untimely or unexpected replacements from reserves will necessitate increases to Reserve Contributions. Periodic updates of this Reserve Study will help determine the merits of adjusting the Reserve Funding Plan. We identify the following Long-Lived Property Elements as excluded from the 30-year Reserve Expenditures at this time:

- Foundation
- Pipes, Subsurface Utilities
- Structural Frames
- Windows, Exterior, Common, Floors 2-11 (2021)

**Operating Budget** - Provides money for the repair and replacement of certain Reserve Components. The Association may develop independent criteria for use of operating and reserve funds. For purposes of calculating appropriate Reserve Contributions, we identify the following list of Operating Budget Funded Repairs and Replacements:

- General Maintenance to the Common Elements
- Expenditures less than \$5,500 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Catch Basins, Landscape
- Concrete Sidewalks, Repairs and Coatings
- Curb Stops, Concrete
- Defibrillator
- Doors, Interior
- Entrance Drive, Asphalt Pavement, Mill and Overlay, Shared (50% ownership)
- Expansion Tanks
- Fire Extinguishers
- Fire Pit
- Gate Entry Panel
- Gate Operators
- Irrigation System, Controls and Maintenance
- Landscape
- Light Fixtures, Parking Garage
- Light Fixtures, Stairwells, Interim Replacements
- Mailboxes
- Motors
- Paint Finishes, Touch Up
- Pipes, Common, Interim Repairs and Waste Rodding
- Pond, Aerator, Shared (50% ownership)
- Pond, Maintenance, Shared (50% ownership)
- Pond, Retaining Wall, Shared (50% ownership)
- Pool Furniture (Per Board)

- Pumps Less Than Five-HP (horsepower)
- Restrooms, Pool House, Renovation
- Roof, Pool House
- Signage, Entrance Monument, Interim Renovations
- Signage, Traffic
- Tiki Hut Furniture (Per Board)
- Trash Chute Doors, Interim Replacements
- Valves (We assume replacement as needed in lieu of an aggregate replacement of all valves as a single event.)
- Other Repairs normally funded through the Operating Budget

**Unit Owners' Responsibility** - Items designated as the responsibility of the unit owners to repair or replace at their cost. Property Maintained by Unit Owners, including items billed back to Unit Owners, relates to unit:

- Electrical Systems (Within Units)
- Heating, Ventilating and Air Conditioning (HVAC) Units
- Interiors
- Pipes (Within Units)
- Windows and Doors

**Others' Responsibility** - Items designated as the responsibility of others to repair or replace. Property Maintained by Others relates to:

- Chain Link Fences (Shared with Neighboring Association)
- Pavers, Brick, Beach Access Walkway (Shared with Neighboring Association)

**Boat Dock Owners' Responsibility** – We are informed the Association funds the docks and boat lifts in separate reserve account. Per the request of the Board, we exclude the following elements from the analysis of this Reserve Study:

- Boat lifts
- Docks

### **3. RESERVE EXPENDITURES and FUNDING PLAN**

The tables following this introduction present:

#### **Reserve Expenditures**

- Line item numbers
- Total quantities
- Quantities replaced per phase (in a single year)
- Reserve component inventory
- Estimated first year of event (i.e., replacement, application, etc.)
- Life analysis showing
  - useful life
  - remaining useful life
- 2023 local cost of replacement
  - Per unit
  - Per phase
  - Replacement of total quantity
- Percentage of future expenditures anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

#### **Reserve Funding Plan**

- Reserves at the beginning of each year
- Total recommended reserve contributions
- Estimated interest earned from invested reserves
- Anticipated expenditures by year
- Anticipated reserves at year end
- Predicted reserves based on current funding level

#### **Five-Year Outlook**

- Line item numbers
- Reserve component inventory of only the expenditures anticipated to occur within the first five years
- Schedule of estimated future costs for each reserve component anticipated to occur within the first five years

The purpose of a Reserve Study is to provide an opinion of reasonable annual Reserve Contributions. Prediction of exact timing and costs of minor Reserve Expenditures typically will not significantly affect the 30-year cash flow analysis. Adjustments to the times and/or costs of expenditures may not always result in an adjustment in the recommended Reserve Contributions.

Financial statements prepared by your association, by you or others might rely in part on information contained in this section. For your convenience, we have provided an electronic data file containing the tables of ***Reserve Expenditures*** and ***Reserve Funding Plan***.

**Structural Integrity**  
**RESERVE EXPENDITURES**

**Vanderbilt Yacht & Racquet Club**  
**Condominium Association, Inc.**  
Naples, Florida

**Explanatory Notes:**

- 1) **2.5%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) FY2023 is Fiscal Year beginning January 1, 2023 and ending December 31, 2023.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis		Unit Cost, \$	Percentage Ownership	Costs, \$		Percentage of Future Expenditures	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028	6 2029	7 2030	8 2031	9 2032	10 2033	11 2034	12 2035	13 2036	14 2037	15 2038	
						Useful Years	Remaining			Per Phase (2023)	Total (2023)																		
<b>Exterior Building Elements</b>																													
1.060	16,400	16,400	Square Feet	Balconies, Concrete, Repairs and Waterproof Coating Applications	2033	10 to 15	10	21.00	100%	344,400	344,400	15.7%																440,861	
1.105	19,500	19,500	Square Feet	Balconies, Screen Enclosures (Includes Railings)	2043	25 to 30	20	14.00	100%	273,000	273,000	6.5%																	
1.110	19,500	19,500	Square Feet	Balconies, Interim Screen Replacements	2033	to 15	10	6.00	100%	117,000	117,000	5.3%																149,770	
1.180	24	24	Each	Doors, Exterior, Stairwells	2046	to 30	23	2,700.00	100%	64,800	64,800	1.7%																	
1.200	8	8	Each	Doors, Garage	2041	to 25	18	1,400.00	100%	11,200	11,200	0.3%																	
1.500	10,060	10,060	Square Feet	Roof, Modified Bitumen, Replacement	2039	15 to 20	16	84.50	100%	850,070	850,070	18.3%																	
1.605	1	1	Allowance	Structural Memebers, Inspections, Milestone	2024	to 10	1	4,150.00	100%	4,150	4,150	0.2%		4,254														5,445	
1.880	35,000	35,000	Square Feet	Walls, Stucco, Paint Finishes and Capital Repairs (2023 is Budgeted)	2023	5 to 7	0	5.80	100%	203,000	203,000	17.3%	9,000				224,074											266,354	
<b>Building Services Elements</b>																													
3.300	7	1	Allowance	Electrical System, Replacements, Phased	2041	to 70+	18 to 27	23,000.00	100%	23,000	161,000	2.3%																	
3.440	1	1	Each	Generator, Emergency, 360-kW (Includes Transfer Switch) (2023 is Planned)	2023	to 35	0	122,500.00	100%	122,500	122,500	2.2%	10,000							142,062									
3.555	1	1	Allowance	Life Safety System, Control Panels	2026	to 15	3	50,000.00	100%	50,000	50,000	1.9%				53,845													
3.560	3	1	Allowance	Life Safety System, Emergency Devices, Phased	2026	to 25	3 to 7	26,700.00	100%	26,700	80,100	2.9%				28,753		30,209		31,738									
3.605	44	9	Units	Pipes, Domestic Water, Waste and Vent, Phased	2046	to 80+	23 to 30+	8,000.00	100%	70,400	352,000	5.8%																	
3.770	1	1	Each	Pump, Fire Suppression, 50-HP (Includes Controller)	2031	to 50	8	85,500.00	100%	85,500	85,500	1.5%															104,173		
<b>Garage and Tennis Court Elements</b>																													
7.300	14,500	14,500	Square Feet	Concrete, Elevated Floor, Inspections and Capital Repairs	2030	10 to 15	7	18.00	100%	261,000	261,000	17.6%																310,247	
7.360	14,500	1,015	Square Feet	Concrete, On-grade, Partial	2030	to 90	7 to 30+	7.00	100%	7,105	101,500	0.5%															8,446		
<b>Anticipated Expenditures, By Year (\$6,896,104 over 30 years)</b>													19,000	4,254	0	82,598	224,074	30,209	142,062	350,431	104,173	0	590,631	271,799	0	0	0	0	

**Structural Integrity**  
**RESERVE EXPENDITURES**

**Vanderbilt Yacht & Racquet Club**  
**Condominium Association, Inc.**  
Naples, Florida

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis		Unit Cost, \$	Percentage Ownership	Costs, \$		Percentage of Future Expenditures	16 2039	17 2040	18 2041	19 2042	20 2043	21 2044	22 2045	23 2046	24 2047	25 2048	26 2049	27 2050	28 2051	29 2052	30 2053
						Useful Years	Remaining			Per Phase (2023)	Total (2023)																
<b>Exterior Building Elements</b>																											
1.060	16,400	16,400	Square Feet	Balconies, Concrete, Repairs and Waterproof Coating Applications	2033	10 to 15	10	21.00	100%	344,400	344,400	15.7%															638,498
1.105	19,500	19,500	Square Feet	Balconies, Screen Enclosures (Includes Railings)	2043	25 to 30	20	14.00	100%	273,000	273,000	6.5%					447,342										
1.110	19,500	19,500	Square Feet	Balconies, Interim Screen Replacements	2033	to 15	10	6.00	100%	117,000	117,000	5.3%															216,911
1.180	24	24	Each	Doors, Exterior, Stairwells	2046	to 30	23	2,700.00	100%	64,800	64,800	1.7%								114,347							
1.200	8	8	Each	Doors, Garage	2041	to 25	18	1,400.00	100%	11,200	11,200	0.3%			17,468												
1.500	10,060	10,060	Square Feet	Roof, Modified Bitumen, Replacement	2039	15 to 20	16	84.50	100%	850,070	850,070	18.3%	1,261,934														
1.605	1	1	Allowance	Structural Memebers, Inspections, Milestone	2024	to 10	1	4,150.00	100%	4,150	4,150	0.2%						6,970									
1.880	35,000	35,000	Square Feet	Walls, Stucco, Paint Finishes and Capital Repairs (2023 is Budgeted)	2023	5 to 7	0	5.80	100%	203,000	203,000	17.3%			316,611												376,351
<b>Building Services Elements</b>																											
3.300	7	1	Allowance	Electrical System, Replacements, Phased	2041	to 70+	18 to 27	23,000.00	100%	23,000	161,000	2.3%			35,872			38,630			41,601				44,799		
3.440	1	1	Each	Generator, Emergency, 360-kW (Includes Transfer Switch) (2023 is Planned)	2023	to 35	0	122,500.00	100%	122,500	122,500	2.2%															
3.555	1	1	Allowance	Life Safety System, Control Panels	2026	to 15	3	50,000.00	100%	50,000	50,000	1.9%			77,983												
3.560	3	1	Allowance	Life Safety System, Emergency Devices, Phased	2026	to 25	3 to 7	26,700.00	100%	26,700	80,100	2.9%													53,306	56,005	
3.605	44	9	Units	Pipes, Domestic Water, Waste and Vent, Phased	2046	to 80+	23 to 30+	8,000.00	100%	70,400	352,000	5.8%						124,229				133,781				144,067	
3.770	1	1	Each	Pump, Fire Suppression, 50-HP (Includes Controller)	2031	to 50	8	85,500.00	100%	85,500	85,500	1.5%															
<b>Garage and Tennis Court Elements</b>																											
7.300	14,500	14,500	Square Feet	Concrete, Elevated Floor, Inspections and Capital Repairs	2030	10 to 15	7	18.00	100%	261,000	261,000	17.6%		397,142													508,376
7.360	14,500	1,015	Square Feet	Concrete, On-grade, Partial	2030	to 90	7 to 30+	7.00	100%	7,105	101,500	0.5%		10,811													13,839
<b>Anticipated Expenditures, By Year (\$6,896,104 over 30 years)</b>													1,261,934	407,953	447,934	0	447,342	45,600	0	238,576	41,601	1,231,760	133,781	567,014	53,306	144,067	56,005

# RESERVE FUNDING PLAN

## Structural Integrity

### CASH FLOW ANALYSIS

Vanderbilt Yacht & Racquet Club  
Condominium Association, Inc.

		Individual Reserve Budgets & Cash Flows for the Next 30 Years															
Naples, Florida		FY2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Reserves at Beginning of Year	(Note 1)	N/A	0	174,574	361,380	473,044	448,696	624,513	695,824	563,158	681,710	913,201	558,239	523,753	768,851	1,024,709	1,291,744
Total Recommended Reserve Contributions	(Note 2)	N/A	177,100	181,500	186,000	190,600	195,400	200,300	205,300	210,400	215,700	221,100	226,600	232,300	238,100	244,100	250,200
Estimated Interest Earned, During Year	(Note 3)	N/A	1,728	5,306	8,262	9,126	10,626	13,073	12,465	12,325	15,791	14,569	10,713	12,798	17,758	22,935	28,337
Anticipated Expenditures, By Year		N/A	(4,254)	0	(82,598)	(224,074)	(30,209)	(142,062)	(350,431)	(104,173)	0	(590,631)	(271,799)	0	0	0	0
Anticipated Reserves at Year End		\$0	\$174,574	\$361,380	\$473,044	\$448,696	\$624,513	\$695,824	\$563,158	\$681,710	\$913,201	\$558,239	\$523,753	\$768,851	\$1,024,709	\$1,291,744	\$1,570,281

(continued)

		Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued														
		2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Reserves at Beginning of Year		1,570,281	586,198	451,418	280,228	564,795	410,206	665,456	979,240	1,065,812	1,360,736	467,376	673,188	453,833	757,420	984,096
Total Recommended Reserve Contributions		256,500	262,900	269,500	276,200	283,100	290,200	297,500	304,900	312,500	320,300	328,300	336,500	344,900	353,500	362,300
Estimated Interest Earned, During Year		21,351	10,273	7,244	8,367	9,653	10,650	16,284	20,248	24,025	18,100	11,293	11,159	11,993	17,243	22,745
Anticipated Expenditures, By Year		(1,261,934)	(407,953)	(447,934)	0	(447,342)	(45,600)	0	(238,576)	(41,601)	(1,231,760)	(133,781)	(567,014)	(53,306)	(144,067)	(56,005)
Anticipated Reserves at Year End		\$586,198	\$451,418	\$280,228	\$564,795	\$410,206	\$665,456	\$979,240	\$1,065,812	\$1,360,736	\$467,376	\$673,188	\$453,833	\$757,420	\$984,096	\$1,313,136
		(NOTE 5)									(NOTE 5)					(NOTE 4)

**Explanatory Notes:**

- 1) Year 2023 ending reserves are projected as of January 31, 2023 and exclude funds in the General Reserve Funding Plan; FY2023 starts January 1, 2023 and ends December 31, 2023.
- 2) Reserve Contributions are budgeted through 2023. Anticipated Reserves at Year End include these budgeted contributions and anticipated Reserve Expenditures. 2024 is the first year of recommended contributions.
- 3) 2.0% is the estimated annual rate of return on invested reserves; 2023 is a partial year of interest earned.
- 4) Accumulated year 2053 ending reserves consider the need to fund for replacement of the balcony waterproof coatings shortly after 2053, and the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

**Structural Integrity**  
**RESERVE EXPENDITURES**

**Vanderbilt Yacht & Racquet Club**  
**Condominium Association, Inc.**  
Naples, Florida

Line Item	Reserve Component Inventory	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028
<b><u>Exterior Building Elements</u></b>							
1.605	Structural Memebers, Inspections, Milestone		4,254				
1.880	Walls, Stucco, Paint Finishes and Capital Repairs (2023 is Budgeted)	9,000				224,074	
<b><u>Building Services Elements</u></b>							
3.440	Generator, Emergency, 360-kW (Includes Transfer Switch) (2023 is Planned)	10,000					
3.555	Life Safety System, Control Panels				53,845		
3.560	Life Safety System, Emergency Devices, Phased				28,753		30,209
<b><u>Garage and Tennis Court Elements</u></b>							
<b>Anticipated Expenditures, By Year (\$6,896,104 over 30 years)</b>		19,000	4,254	0	82,598	224,074	30,209

**General**  
**RESERVE EXPENDITURES**

**Vanderbilt Yacht & Racquet Club**  
**Condominium Association, Inc.**  
Naples, Florida

**Explanatory Notes:**

- 1) **2.5%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) FY2023 is Fiscal Year beginning January 1, 2023 and ending December 31, 2023.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis		Unit Cost, \$	Percentage Ownership	Costs, \$		Percentage of Future Expenditures	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028	6 2029	7 2030	8 2031	9 2032	10 2033	11 2034	12 2035	13 2036	14 2037	15 2038	
						Useful Years	Remaining			Per Phase (2023)	Total (2023)																		
<b>Interior Building Elements</b>																													
2.060	1,800	1,800	Square Feet	Ceilings, Acoustical Tiles, Grid and Lighting, Lobby, Office and Exercise Room	2050	to 30	27	6.00	100%	10,800	10,800	0.5%																	
2.100	2	2	Each	Elevator Cab Finishes	2041	to 20	18	10,000.00	100%	20,000	20,000	0.8%																	
2.160	1	1	Allowance	Exercise Equipment	2028	5 to 15	5	20,000.00	100%	20,000	20,000	2.2%						22,628										28,966	
2.180	1	1	Allowance	Exercise Room, Renovation (Excludes Equipment)	2030	to 10	7	7,000.00	100%	7,000	7,000	0.8%								8,321									
2.400	770	770	Square Yards	Floor Coverings, Wood Laminate, Hallways	2040	18 to 25	17	160.00	100%	123,200	123,200	4.5%																	
2.520	1	1	Allowance	Kitchen, Renovation	2030	to 25	7	21,000.00	100%	21,000	21,000	0.6%									24,962								
2.600	1	1	Allowance	Lobby, Renovation, Complete (Includes Restrooms)	2042	to 20	19	32,000.00	100%	32,000	32,000	1.2%																	
2.800	19,700	19,700	Square Feet	Paint Finishes, Hallways	2030	8 to 12	7	0.90	100%	17,730	17,730	2.0%									21,075								
2.820	2	2	Each	Paint Finishes, Stairwells	2040	15 to 20	17	15,000.00	100%	30,000	30,000	1.1%																	
2.840	1	1	Allowance	Party Room, 1st Floor, Renovation, Complete	2025	to 20	2	41,000.00	100%	41,000	41,000	2.8%		43,076															
2.845	1	1	Allowance	Party Room, 1st Floor, Renovation, Partial	2035	to 10	12	14,000.00	100%	14,000	14,000	0.5%													18,828				
<b>Building Services Elements</b>																													
3.070	9	3	Each	Air Handling and Condensing Units, Split Systems, Phased	2024	12 to 18	1 to 11	3,500.00	100%	10,500	31,500	2.2%		10,762						12,177							13,777		
3.360	2	2	Each	Elevators, Traction, Controls and Equipment	2046	to 25	23	162,000.00	100%	324,000	324,000	13.9%																	
3.380	12	2	Each	Exhaust Fans, Phased	2026	to 25	3 to 24	4,000.00	100%	6,000	48,000	1.9%				6,461			6,958		7,493				8,069		8,690		
3.700	2	2	Each	Pumps, Domestic Cold Water, 5-HP (Includes Controls) (2023 is Budgeted)	2023	to 15	0	13,000.00	100%	26,000	26,000	2.3%	9,200													34,967			
3.820	2	1	Allowance	Security System, Phased	2027	to 15	4 to 11	11,000.00	100%	11,000	22,000	1.6%					12,142								14,433				
3.880	1	1	Allowance	Trash Chute and Doors	2032	to 50	9	4,000.00	100%	4,000	4,000	0.1%										4,995							
<b>Property Site Elements</b>																													
4.020	3,000	3,000	Square Yards	Asphalt Pavement, Patch, Seal Coat and Striping	2024	3 to 5	1	2.40	100%	7,200	7,200	1.6%		7,380							8,992					9,925			
4.040	3,000	3,000	Square Yards	Asphalt Pavement, Mill and Overlay	2028	15 to 20	5	15.00	100%	45,000	45,000	3.3%							50,913										
4.100	430	430	Linear Feet	Bulkhead, Concrete, Inspections and Capital Repairs	2027	10 to 15	4	200.00	100%	86,000	86,000	2.3%					94,928												
4.105	430	430	Linear Feet	Bulkhead, Concrete, Replacement	2042	to 50	19	1,200.00	100%	516,000	516,000	20.0%																	
4.220	920	920	Linear Feet	Fences, Chain Link (2023 is Budgeted)	2023	to 25	0	10.00	50%	4,600	4,600	0.3%	4,625																
4.330	2	2	Each	Gates	2029	to 20	6	6,500.00	100%	13,000	13,000	1.0%								15,076									
4.560	28	28	Each	Light Poles and Fixtures	2046	to 25	23	1,700.00	100%	47,600	47,600	2.0%																	
4.620	800	800	Square Feet	Pavers, Masonry, Fire Pit	2046	to 25	23	7.00	100%	5,600	5,600	0.2%																	
4.625	3,200	3,200	Square Feet	Pavers, Brick, Beach Access Walkway (2023 is Budgeted)	2023	to 25	0	2.50	50%	4,000	4,000	0.3%	4,000																
4.810	1	1	Allowance	Signage, Entrance Monument, Replacement	2046	to 30	23	25,000.00	100%	25,000	25,000	1.1%																	
4.850	1,150	1,150	Square Feet	Tiki Deck and Walkway, Composite	2049	to 30	26	53.00	100%	60,950	60,950	2.8%																	
4.900	450	450	Square Feet	Tiki Hut, Roof Replacement	2052	to 30	29	10.00	100%	4,500	4,500	0.2%																	
<b>Pool Elements</b>																													
6.200	3,280	3,280	Square Feet	Concrete Deck, Textured Coating, Partial Replacements and Repairs	2026	8 to 12	3	5.00	100%	16,400	16,400	1.0%				17,661											23,752		
6.400	500	500	Linear Feet	Fences, Aluminum	2038	to 25	15	36.00	100%	18,000	18,000	0.6%															26,069		
6.400	1	1	Allowance	Furniture	2028	10 to 15	5	25,000.00	100%	25,000	25,000	2.9%						28,285											
6.600	3	1	Allowance	Mechanical Equipment, Phased	2027	to 15	4 to 14	4,200.00	100%	4,200	12,600	0.9%				4,636					5,245					5,934			
6.800	1,720	1,720	Square Feet	Pool Finish, Plaster	2034	8 to 12	11	23.00	100%	39,560	39,560	2.9%												51,906					
6.900	1,720	1,720	Square Feet	Structure and Deck, Total Replacement	2050	to 60	27	170.00	100%	292,400	292,400	13.8%																	
<b>Garage and Tennis Court Elements</b>																													
7.830	1,610	1,610	Square Yards	Tennis Courts, Color Coat	2025	4 to 6	2	9.00	100%	14,490	14,490	3.1%		15,224						17,224						19,487			
7.840	480	480	Linear Feet	Tennis Courts, Fence	2045	to 25	22	35.00	100%	16,800	16,800	0.7%																	
	1	1	Allowance	Reserve Study Update with Site Visit	2025	2	2	5,400.00	100%	5,400	5,400	0.1%		5,400															

**RESERVE EXPENDITURES**

Vanderbilt Yacht & Racquet Club  
 Condominium Association, Inc.  
 Naples, Florida

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis		Unit Cost, \$	Percentage Ownership	Costs, \$		Percentage of Future Expenditures	16 2039	17 2040	18 2041	19 2042	20 2043	21 2044	22 2045	23 2046	24 2047	25 2048	26 2049	27 2050	28 2051	29 2052	30 2053	
						Useful Years	Remaining			Per Phase (2023)	Total (2023)																	
<b>Interior Building Elements</b>																												
2.060	1,800	1,800	Square Feet	Ceilings, Acoustical Tiles, Grid and Lighting, Lobby, Office and Exercise Room	2050	to 30	27	6.00	100%	10,800	10,800	0.5%															21,036	
2.100	2	2	Each	Elevator Cab Finishes	2041	to 20	18	10,000.00	100%	20,000	20,000	0.8%			31,193													
2.160	1	1	Allowance	Exercise Equipment	2028	5 to 15	5	20,000.00	100%	20,000	20,000	2.2%								37,079								
2.180	1	1	Allowance	Exercise Room, Renovation (Excludes Equipment)	2030	to 10	7	7,000.00	100%	7,000	7,000	0.8%		10,651													13,635	
2.400	770	770	Square Yards	Floor Coverings, Wood Laminate, Hallways	2040	18 to 25	17	160.00	100%	123,200	123,200	4.5%		187,463														
2.520	1	1	Allowance	Kitchen, Renovation	2030	to 25	7	21,000.00	100%	21,000	21,000	0.6%																
2.600	1	1	Allowance	Lobby, Renovation, Complete (Includes Restrooms)	2042	to 20	19	32,000.00	100%	32,000	32,000	1.2%				51,157												
2.800	19,700	19,700	Square Feet	Paint Finishes, Hallways	2030	8 to 12	7	0.90	100%	17,730	17,730	2.0%		26,978													34,534	
2.820	2	2	Each	Paint Finishes, Stairwells	2040	15 to 20	17	15,000.00	100%	30,000	30,000	1.1%		45,649														
2.840	1	1	Allowance	Party Room, 1st Floor, Renovation, Complete	2025	to 20	2	41,000.00	100%	41,000	41,000	2.8%							70,584									
2.845	1	1	Allowance	Party Room, 1st Floor, Renovation, Partial	2035	to 10	12	14,000.00	100%	14,000	14,000	0.5%																
<b>Building Services Elements</b>																												
3.070	9	3	Each	Air Handling and Condensing Units, Split Systems, Phased	2024	12 to 18	1 to 11	3,500.00	100%	10,500	31,500	2.2%	15,587						17,636								19,953	
3.360	2	2	Each	Elevators, Traction, Controls and Equipment	2046	to 25	23	162,000.00	100%	324,000	324,000	13.9%								571,734								
3.380	12	2	Each	Exhaust Fans, Phased	2026	to 25	3 to 24	4,000.00	100%	6,000	48,000	1.9%			9,358				10,077		10,852						11,979	
3.700	2	2	Each	Pumps, Domestic Cold Water, 5-HP (Includes Controls) (2023 is Budgeted)	2023	to 15	0	13,000.00	100%	26,000	26,000	2.3%															50,643	
3.820	2	1	Allowance	Security System, Phased	2027	to 15	4 to 11	11,000.00	100%	11,000	22,000	1.6%				17,585											20,903	
3.880	1	1	Allowance	Trash Chute and Doors	2032	to 50	9	4,000.00	100%	4,000	4,000	0.1%																
<b>Property Site Elements</b>																												
4.020	3,000	3,000	Square Yards	Asphalt Pavement, Patch, Seal Coat and Striping	2024	3 to 5	1	2.40	100%	7,200	7,200	1.6%		10,956						12,093								14,734
4.040	3,000	3,000	Square Yards	Asphalt Pavement, Mill and Overlay	2028	15 to 20	5	15.00	100%	45,000	45,000	3.3%															83,427	
4.100	430	430	Linear Feet	Bulkhead, Concrete, Inspections and Capital Repairs	2027	10 to 15	4	200.00	100%	86,000	86,000	2.3%																
4.105	430	430	Linear Feet	Bulkhead, Concrete, Replacement	2042	to 50	19	1,200.00	100%	516,000	516,000	20.0%				824,903												
4.220	920	920	Linear Feet	Fences, Chain Link (2023 is Budgeted)	2023	to 25	0	10.00	50%	4,600	4,600	0.3%									8,320							
4.330	2	2	Each	Gates	2029	to 20	6	6,500.00	100%	13,000	13,000	1.0%															24,704	
4.560	28	28	Each	Light Poles and Fixtures	2046	to 25	23	1,700.00	100%	47,600	47,600	2.0%									83,995							
4.620	800	800	Square Feet	Pavers, Masonry, Fire Pit	2046	to 25	23	7.00	100%	5,600	5,600	0.2%									9,882							
4.625	3,200	3,200	Square Feet	Pavers, Brick, Beach Access Walkway (2023 is Budgeted)	2023	to 25	0	2.50	50%	4,000	4,000	0.3%															7,235	
4.810	1	1	Allowance	Signage, Entrance Monument, Replacement	2046	to 30	23	25,000.00	100%	25,000	25,000	1.1%									44,115							
4.850	1,150	1,150	Square Feet	Tiki Deck and Walkway, Composite	2049	to 30	26	53.00	100%	60,950	60,950	2.8%															115,823	
4.900	450	450	Square Feet	Tiki Hut, Roof Replacement	2052	to 30	29	10.00	100%	4,500	4,500	0.2%															9,209	
<b>Pool Elements</b>																												
6.200	3,280	3,280	Square Feet	Concrete Deck, Textured Coating, Partial Replacements and Repairs	2026	8 to 12	3	5.00	100%	16,400	16,400	1.0%																
6.400	500	500	Linear Feet	Fences, Aluminum	2038	to 25	15	36.00	100%	18,000	18,000	0.6%																
6.400	1	1	Allowance	Furniture	2028	10 to 15	5	25,000.00	100%	25,000	25,000	2.9%		38,040													51,160	
6.600	3	1	Allowance	Mechanical Equipment, Phased	2027	to 15	4 to 14	4,200.00	100%	4,200	12,600	0.9%			6,551					7,411							8,385	
6.800	1,720	1,720	Square Feet	Pool Finish, Plaster	2034	8 to 12	11	23.00	100%	39,560	39,560	2.9%							66,444									
6.900	1,720	1,720	Square Feet	Structure and Deck, Total Replacement	2050	to 60	27	170.00	100%	292,400	292,400	13.8%															569,537	
<b>Garage and Tennis Court Elements</b>																												
7.830	1,610	1,610	Square Yards	Tennis Courts, Color Coat	2025	4 to 6	2	9.00	100%	14,490	14,490	3.1%		22,048													28,224	
7.840	480	480	Linear Feet	Tennis Courts, Fence	2045	to 25	22	35.00	100%	16,800	16,800	0.7%															28,922	
	1	1	Allowance	Reserve Study Update with Site Visit	2025	2	2	5,400.00	100%	5,400	5,400	0.1%																

General

**RESERVE EXPENDITURES**

Vanderbilt Yacht & Racquet Club  
 Condominium Association, Inc.  
 Naples, Florida

Explanatory Notes:

- 1) 2.5% is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) FY2023 is Fiscal Year beginning January 1, 2023 and ending December 31, 2023.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis		Unit Cost, \$	Percentage Ownership	Costs, \$		Percentage of Future Expenditures	RUL = 0 FY2023	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
						Useful Years	Remaining			Per Phase (2023)	Total (2023)			2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Anticipated Expenditures, By Year (\$4,121,972 over 30 years)													17,825	18,142	63,700	24,122	111,706	101,826	34,211	71,582	0	26,725	0	80,116	81,351	9,925	5,934	87,477

**RESERVE EXPENDITURES**

Vanderbilt Yacht & Racquet Club  
 Condominium Association, Inc.  
 Naples, Florida

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis		Unit Cost, \$	Percentage Ownership	Costs, \$		Percentage of Future Expenditures	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
						Useful Years	Remaining			Per Phase (2023)	Total (2023)		2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Anticipated Expenditures, By Year (\$4,121,972 over 30 years)													15,587	341,785	47,102	893,645	0	106,250	124,452	717,137	26,407	120,506	181,383	717,609	20,364	75,103	0

# RESERVE FUNDING PLAN

## General

### CASH FLOW ANALYSIS Vanderbilt Yacht & Racquet Club Condominium Association, Inc.

		Individual Reserve Budgets & Cash Flows for the Next 30 Years															
Naples, Florida		FY2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Reserves at Beginning of Year	(Note 1)	N/A	1,111,555	1,177,275	1,199,810	1,264,386	1,243,410	1,233,609	1,293,620	1,318,804	1,418,607	1,495,232	1,602,301	1,632,513	1,664,102	1,770,483	1,885,143
Total Recommended Reserve Contributions	(Note 2)	N/A	61,200	62,700	64,300	65,900	67,500	69,200	70,900	72,700	74,500	76,400	78,300	80,300	82,300	84,400	86,500
Estimated Interest Earned, During Year	(Note 3)	N/A	22,662	23,535	24,398	24,830	24,525	25,022	25,866	27,103	28,850	30,669	32,028	32,640	34,006	36,194	37,693
Anticipated Expenditures, By Year		N/A	(18,142)	(63,700)	(24,122)	(111,706)	(101,826)	(34,211)	(71,582)	0	(26,725)	0	(80,116)	(81,351)	(9,925)	(5,934)	(87,477)
Anticipated Reserves at Year End		\$1,111,555	\$1,177,275	\$1,199,810	\$1,264,386	\$1,243,410	\$1,233,609	\$1,293,620	\$1,318,804	\$1,418,607	\$1,495,232	\$1,602,301	\$1,632,513	\$1,664,102	\$1,770,483	\$1,885,143	\$1,921,859

(continued)

		Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued														
		2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Reserves at Beginning of Year		1,921,859	2,034,140	1,821,429	1,904,417	1,136,379	1,257,986	1,277,136	1,280,810	688,572	784,752	790,543	737,792	145,226	247,955	300,482
Total Recommended Reserve Contributions		88,700	90,900	93,200	95,500	97,900	100,300	102,800	105,400	108,000	110,700	113,500	116,300	119,200	122,200	125,300
Estimated Interest Earned, During Year		39,168	38,174	36,890	30,107	23,707	25,100	25,326	19,499	14,587	15,597	15,132	8,743	3,893	5,430	7,263
Anticipated Expenditures, By Year		(15,587)	(341,785)	(47,102)	(893,645)	0	(106,250)	(124,452)	(717,137)	(26,407)	(120,506)	(181,383)	(717,609)	(20,364)	(75,103)	0
Anticipated Reserves at Year End		\$2,034,140	\$1,821,429	\$1,904,417	\$1,136,379	\$1,257,986	\$1,277,136	\$1,280,810	\$688,572	\$784,752	\$790,543	\$737,792	\$145,226	\$247,955	\$300,482	\$433,045

(NOTE 5)

(NOTE 4)

**Explanatory Notes:**

- 1) Year 2023 ending reserves are projected as of January 31, 2023 and exclude funds in the Structural Integrity Reserve Funding Plan; FY2023 starts January 1, 2023 and ends December 31, 2023.
- 2) Reserve Contributions are budgeted through 2023. Anticipated Reserves at Year End include these budgeted contributions and anticipated Reserve Expenditures. 2024 is the first year of recommended contributions.
- 3) 2.0% is the estimated annual rate of return on invested reserves; 2023 is a partial year of interest earned.
- 4) Accumulated year 2053 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Year (reserve balance at critical point).

General  
**RESERVE EXPENDITURES**

**Vanderbilt Yacht & Racquet Club  
Condominium Association, Inc.**  
Naples, Florida

Line Item	Reserve Component Inventory	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028
<b><u>Interior Building Elements</u></b>							
2.160	Exercise Equipment						22,628
2.840	Party Room, 1 <sup>st</sup> Floor, Renovation, Complete			43,076			
<b><u>Building Services Elements</u></b>							
3.070	Air Handling and Condensing Units, Split Systems, Phased		10,762				
3.380	Exhaust Fans, Phased				6,461		
3.700	Pumps, Domestic Cold Water, 5-HP (Includes Controls) (2023 is Budgeted)	9,200					
3.820	Security System, Phased					12,142	
<b><u>Property Site Elements</u></b>							
4.020	Asphalt Pavement, Patch, Seal Coat and Striping		7,380				
4.040	Asphalt Pavement, Mill and Overlay						50,913
4.100	Bulkhead, Concrete, Inspections and Capital Repairs					94,928	
4.220	Fences, Chain Link (2023 is Budgeted)	4,625					
4.625	Pavers, Brick, Beach Access Walkway (2023 is Budgeted)	4,000					
<b><u>Pool Elements</u></b>							
6.200	Concrete Deck, Textured Coating, Partial Replacements and Repairs				17,661		
6.400	Furniture						28,285
6.600	Mechanical Equipment, Phased					4,636	
<b><u>Garage and Tennis Court Elements</u></b>							
7.830	Tennis Courts, Color Coat			15,224			
	Reserve Study Update with Site Visit			5,400			
<b>Anticipated Expenditures, By Year (\$4,121,972 over 30 years)</b>		17,825	18,142	63,700	24,122	111,706	101,826

## 4. RESERVE COMPONENT DETAIL

The Reserve Component Detail of this *Structural Integrity* Reserve Study includes enhanced solutions and procedures for select significant components. This section describes the Reserve Components, documents specific problems and condition assessments, and may include detailed solutions and procedures for necessary capital repairs and replacements for the benefit of current and future board members. We advise the Board use this information to help define the scope and procedures for repair or replacement when soliciting bids or proposals from contractors. *However, the Report in whole or part is not and should not be used as a design specification or design engineering service.*

### STRUCTURAL

#### Exterior Building Elements



Building elevation



Building elevation

#### Balconies, Concrete

---

**Line Item:** 1.060

**Quantity:** Approximately 16,400 square feet of horizontal surface area. The balconies comprise reinforced concrete with a waterproof coating.

**History:** Repaired and coated in 2018.

**Condition:** Good overall



**Balcony overview**



**Balcony overview**

**Useful Life:** Capital repairs including a close-up visual inspection, patching of delaminated concrete, routing and filling of cracked concrete, and waterproof coating applications every 10- to 15-years.

**Component Detail Notes:** A waterproof coating application minimizes storm water penetration into the concrete and therefore minimizes future concrete deterioration. *Failure to maintain a waterproof coating on the balconies will result in increased concrete repairs and replacements as the balconies age.* Capital repairs may also include replacement of the caulked joint between the balcony and the building, and repair or replacement of the metal railings and railing fastener attachments as needed.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost includes the following activities per event:

- Partial depth replacement of up to one percent (1%) of the concrete topsides, edges and undersides
- Crack repairs as necessary
- Repairs to the railings as necessary
- Replacement of perimeter sealants as needed
- Application of a waterproof coating (Urethane based elastomeric)

The Association should coordinate both balcony and facade capital repairs and maintenance to allow for the possible use of a single contractor and combine any applicable staging or mobilization costs. Also, coordinated repairs will reduce disruption to unit owners.

## **Balconies, Screen Enclosures (Includes Railings)**

---

**Line Item:** 1.105

**Quantity:** Approximately 19,500 square feet of aluminum railings and frames at the balconies which are mechanically attached

**History:** Replaced in 2018.

**Condition:** Good overall



**Aluminum railings**

**Useful Life:** Up to 30 years (The useful life of the finish is indeterminate. Future updates of this Reserve Study will again consider the need to refinish the railings based on condition.)

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## **Balconies, Interim Screen Replacements**

---

**Line Item:** 1.110

**Quantity:** Approximately 19,500 square feet

**History:** Replaced in 2018.

**Condition:** Good overall



**Balcony screens and frames**

**Useful Life:** Up to 15 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## **Doors, Stairwells, Metal**

---

**Line Item:** 1.180

**Quantity:** 24 metal doors

**History:** Replaced in 2018

**Condition:** Good overall



**Stairwell entrance doors**

**Useful Life:** Up to 30 years

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - Inspect and repair any damage, base corrosion or alignment issues
  - Replace deteriorated hardware and loose weather stripping
  - Periodic touch-up paint finish applications as needed

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## **Doors, Garage**

---

**Line Item:** 1.200

**Quantity:** Eight garage doors

**History:** Replaced in 2018

**Condition:** Good overall



**Garage doors**

**Useful Life:** Up to 25 years

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - Inspect and repair any vehicle damage, base panel corrosion or alignment issues
  - Replace loose weather stripping as needed

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Roofs, Modified Bitumen

---

**Line Item:** 1.500

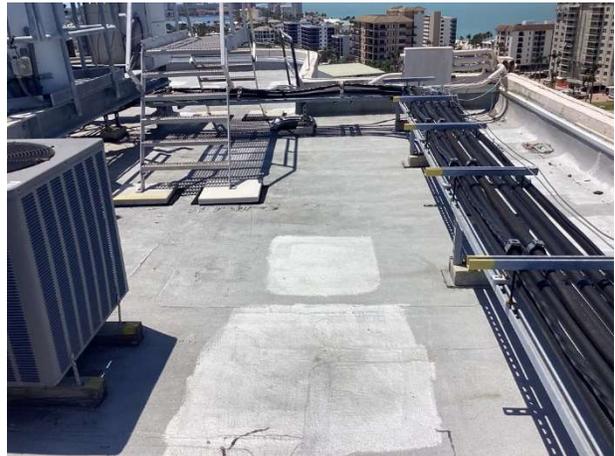
**Quantity:** Approximately 10,060 square feet

**History:** Reportedly original. We recommend the Association should conduct inspections of the roofs semiannually and fund these inspections through the operating budget.

**Condition:** Fair overall with evidence of standing water and patches evident. Management and the Board do not report history of leaks.



**Modified bitumen roof overview**



**Modified bitumen roof overview**



**Modified bitumen roof overview**



**Roof patches**



**Rust at roof drains**



**Evidence of standing water**



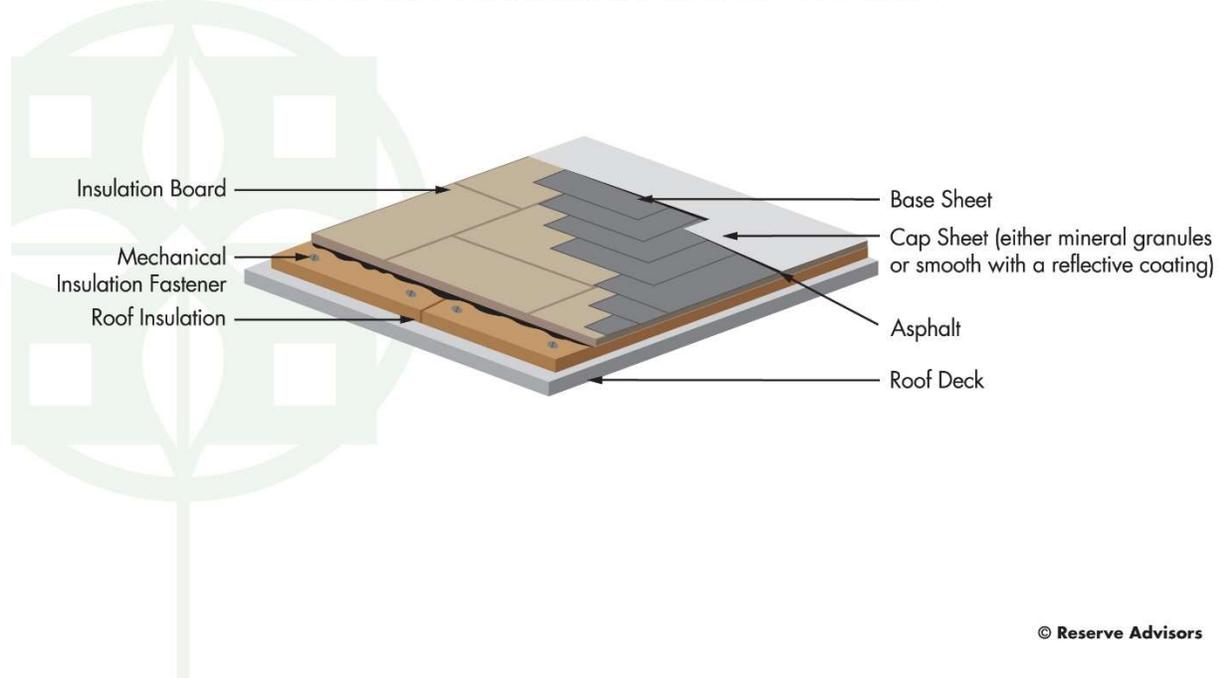
**Roof cracks at parapet wall**

**Useful Life:** 15- to 20-years

**Component Detail Notes:** Modified bitumen roofing systems are composed of factory-manufactured sheets of polymer-modified bitumen with polyester and/or fiberglass

reinforcements. The bitumen adds a waterproof characteristic to the system and the reinforcements add strength and puncture resistance. These factory assembled roofing systems offer the advantages of a built-up roofing system through a less labor-intensive installation. The following detail depicts a typical modified bitumen roof although it may not reflect the actual configuration at Vanderbilt Yacht & Racquet Club:

## MODIFIED BITUMEN ROOF DETAIL



Contractors can install a new modified bitumen roof in one of two ways: *tear-off* or an *overlay*. An overlay is the application of a new roof membrane over an existing roof. This method, although initially more economical, often covers up problems with the deck, flashing and saturated insulation. The tear-off method of replacement includes removal of the existing roofing, flashings and insulation, and installation of a new roofing system.

The contractor should follow the manufacturer's directions and specifications upon installation of the roof. The contractor should remove the original insulation if saturated or compacted and apply a new layer of insulation per the manufacturer's instructions. The insulation should fit loosely with gaps no greater than  $\frac{1}{4}$  inch. Gaps will cause failure of the membrane later. Mechanical fastening of the insulation is the best manner of installation. The contractor applies the base sheet of roofing over the insulation board. This sheet is normally 30-pound material. The contractor should start the installation of a roof membrane from the lowest points of the roof. Mechanical fastening and embedding the base sheet in a flood coat of hot asphalt is the best manner of installation. The membrane and plies are either torch applied (thermoset) or hot asphalt applied. We recommend the contractor use the torch method to install a modified bitumen membrane roof system.

**Preventative Maintenance Notes:** We recommend the Association maintain a service and inspection contract with a qualified professional and record all documentation of repairs conducted. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Note drainage issues with water ponding after 48 hours of rainfall event. Verify scuppers and drains are free of debris. Replace damaged or missing drain covers.
  - Inspect perimeter flashing for loose fasteners, deflections, and sealant damage
  - Verify membrane surface is free of ruptures or damage, and areas of extensive blistering or bubbling
  - Remove oil spills or contaminants from mechanical equipment
  - In areas of possible foot traffic, remove any sharp debris or trash and note areas of crushed insulation
  - If frequency of leaks increase or location of water infiltration is unknown, we recommend the consideration of a thermal image inspection

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost is based on information provided by the Association

## **Structural Members, Inspections**

---

**Line Item:** 1.605

**Quantity:** The primary structural members of the building comprise:

- Foundation
- Floors
- Load-bearing walls
- Structural frame

**Condition:** Vanderbilt Yacht & Racquet Club does not report a history of water infiltration, settlement or structural concerns with the primary structural members. Our visual, non-invasive inspection is limited to visually apparent components of the structural members.

**Useful Life:** Up to and likely beyond 100 years; however, we consider full replacement unlikely and cost prohibitive. Per Florida Bill SB 4-D, condominium and cooperative buildings three stories or more in height require milestone inspections 30 years after initial occupancy. Subsequent milestone inspections are required every 10 years thereafter.

**Component Details:** Per the Bill (553.899(2-7)), a milestone inspection consists of two phases. The initial milestone inspection (Phase 1), conducted by a licensed engineer or architect, includes a visual examination “including the major structural components of a building, and provide a qualitative assessment of the structural conditions of the building”. Phase 2 is only required if “substantial structural deterioration is identified”.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost is based on information provided by the Association. At this time, we do not anticipate capital repairs related to the structural members. Rather we include an expenditure for required inspections discussed above. Updates of this Reserve Study would incorporate significant repair costs deemed necessary following necessary inspections.

## Walls, Stucco

---

**Line Item:** 1.880

**Quantity:** Approximately 35,000 square feet of the building exteriors

**History:** Applied paint finishes and repaired in 2017. Management and the Board inform us the Association plans to power wash the building in 2023. We are informed this will be a one-time event and the Association does not plan to conduct subsequent power washing of the building

**Condition:** Fair overall with isolated cracks evident.



**Stucco wall finishes**



**Stucco wall finishes**



**Stucco wall finishes**



**Stucco wall finishes**



**Stucco wall finishes**



**Stucco cracks**



**Stucco cracks**

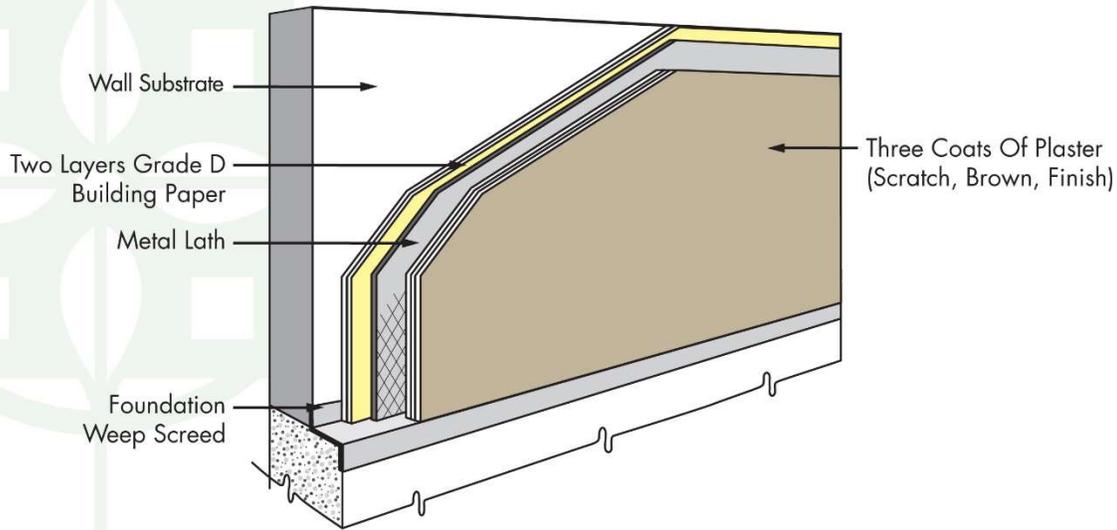


**Rust at bead joint**

***Useful Life:*** We recommend inspections, repairs and paint finish applications every five- to seven-years.

**Component Detail Notes:** The following graphic details the typical components of a stucco wall system on frame construction although it may not reflect the actual configuration at Vanderbilt Yacht & Racquet Club:

## STUCCO DETAIL



© Reserve Advisors

Correct and complete preparation of the surface before application of the paint finish maximizes the useful life of the paint finish and surface. The contractor should remove all loose, peeled or blistered paint before application of the new paint finish. The contractor should then power wash the surface to remove all dirt and biological growth. Water-soluble cleaners that will not attack Portland cement are acceptable for removing stains.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost anticipates the following in coordination with each paint finish application:

- Complete inspection of the stucco
- Crack repairs as needed (Each paint product has the limited ability to cover and seal cracks but we recommend repair of all cracks which exceed the ability of the paint product to bridge.)
- Replacement of up to one percent (1%), of the stucco walls (The exact amount of area in need of replacement will be discretionary based on the actual future conditions and the desired appearance.)
- Replacement of up to thirty-three percent (33%) of the sealants in coordination with each paint finish application.

## Building Services Elements

### Electrical System

---

**Line Item:** 3.300

**History:** Primarily original to construction

**Condition:** Reported satisfactory without operational deficiencies.



Electrical system main panels



Electrical system main panels



Electrical system switchgear

**Useful Life:** Up to and sometimes beyond 70 years

**Component Detail Notes:** The system includes:

- Breaker type circuit protection panels for low ampacity circuits
- Copper wires
- Homeowners are responsible for the electrical system within their unit

We give a brief overview of electrical system components in the following sections of this narrative:

*Primary Switchgear* - The primary switchgear is located where the electric supply comes into the building. Switchgear can include associated controls, regulating, metering and protective devices, and is used for the transmission, distribution and conversion of electric power for use within the building. Switchgear components have a useful life of up to and sometimes beyond 70 years. Replacement is often determined by a desired upgrade of the entire electrical system.

*Distribution Panel* - The distribution panel is an electric switchboard or panel used to control, energize or turn off electricity in total or for individual circuits. The panel also distributes electricity to individual and controllable circuits. One or more distribution panels may exist and further distribute electricity to individual panel boards for each unit. The distribution panel is enclosed in a box and contains circuit breakers, fuses and switches. Distribution panels have a useful life of up to and sometimes beyond 70 years.

*Circuit Protection* - Once electricity is distributed throughout the building and is at a usable voltage level, the electricity is divided into circuits. Each circuit requires circuit protection. Circuit protection is necessary to prevent injury and fires, and minimize damage to electrical components and disturbances to the electrical system. Abnormalities in the circuit can include overloads, short circuits and surges. Circuit protection devices are commonly referred to as circuit breakers and fuses. For the protection of the circuits in the units and common areas, we recommend the use of only circuit breakers as they are safer than fuses. However, the use of fuses is common for equipment like emergency systems and individual items of equipment. Fuses with a low capacity rating can easily be replaced with fuses of a higher rating resulting in an unprotected, overloaded and unsafe circuit. The circuit protection panels have a useful life of up to and sometimes beyond 70 years.

*Conductors* - Conductors are the electrical wires that convey electricity to the units, light fixtures, receptacles and appliances. Conductors in typical high and low capacity circuits are copper. Copper conductors have an indefinite useful life.

*Conductor Insulation and Conduit* - Conductor insulation provides protection against the transfer of electricity. Conductor insulation can eventually become brittle and damaged from rodents or heat from many years of service. Conductor conduit is a pipe or tube used to enclose insulated electric wires to protect them from damage. Steel conductor conduit, although galvanized, will eventually rust if used in damp conditions. The useful life of conductor insulation and conduit is indeterminate.

***Preventative Maintenance Notes:*** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age,

operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - Inspect system for signs of electrical overheating, deterioration, and/or panel corrosion
  - Clean and vacuum exterior and interior switchboards
- Five-Year Cycles:
  - Check power meters, lamps, indicators, and transformers for deficiencies
  - Inspect wiring, relays, power supply units, and timers
  - Verify surge protection is intact
- As-needed:
  - Test outlets and ground-fault circuit interrupters (GFCI's) for faulty components
  - Examine the insulation at switchgears for signs of deterioration or cracking
  - Ensure all conductors are clean and dry with no moisture build-up
  - Check and inspect for loose wire connections
  - Clean and clear dust and debris away from system components
  - Check for flickering or dimming light fixtures as these could indicate a short in the wiring, arcing, or an over-extension of the electrical system
  - Conduct thermal image scanning if system experiences numerous or consistent outages
  - Keep an accurate record of all repairs to the electrical system

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association budget to replace the main switchgear, distribution and circuit protection panels. Updates of this Reserve Study will consider possible changes in the scope and times of component replacements based on the conditions, including the need for replacement of the wires.

We recommend the Association conduct thermoscans of the distribution panels and circuit protection panels, and inspections of the transformers for any indications of arcing, burning or overheating on a regular basis, funded through the operating budget. Verification of the integrity of all connection points minimizes the potential for arcing and fires.

## **Generator, Emergency**

---

**Line Item:** 3.440

**Quantity:** One Cummins 360-kW (kilowatt) diesel generator

**History:** Original. Management and the Board inform us the Association plans to replace the fuel tank in 2023

**Condition:** Reported satisfactory without operational deficiencies



**Generator**



**Generator fuel tank**

**Useful Life:** Up to 35 years

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. The Association conducts weekly load tests. We also recommend the Association maintain a maintenance contract with a qualified professional. As a reference, the Association may consult the following document: *NFPA 110, Standard for Emergency and Standby Power Systems*. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Weekly:
  - Check fuel and oil levels
  - Inspect cooling and exhaust systems
  - Check battery, electrical components and transfer switches
  - Run generator without load and look for unusual conditions such as leaks
- Monthly:
  - Exercise generator under load test for minimum of 30 minutes
  - Check oil levels before running and after 10 minutes of run time
- Annually:
  - Complete full inspection and necessary repairs
  - Change fuel and air filters
  - Change oil and replace oil filter
  - Change spark plugs
  - Flush cooling system

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost includes replacement of the transfer switch. We recognize that the transfer switch may require replacement prior to the replacement of the generator. For purposes of this Reserve Study, we assume coordination of replacement with the generator.

## Life Safety System

---

**Line Items:** 3.555 and 3.560

**Quantity:** The life safety system at Vanderbilt Yacht & Racquet Club includes the following components:

- Audio/visual fixtures
- Notifier control panels
- Detectors
- Emergency light fixtures
- Exit light fixtures
- Pull stations
- Wiring

**History:** The control panel was replaced in 1997. The devices are of unknown varying ages

**Conditions:** Reported satisfactory without operational deficiencies.



Emergency devices



Control panel



### Emergency devices

**Useful Life:** Up to 25 years for the devices and up to 15 years for the control panels

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. In accordance with *NFPA 72* (National Fire Alarm and Signaling Code) we also recommend the Association maintain a maintenance contract with a qualified professional. The display panel read 'All Systems Normal' at the time of our inspection. The required preventative maintenance may vary in frequency and scope based on the age of the components, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Inspect and test all components and devices, including, but not limited to, control panels, annunciators, detectors, audio/visual fixtures, signal transmitters and magnetic door holders
  - Test backup batteries
- As-needed:
  - Ensure clear line of access to components such as pull stations
  - Ensure detectors are properly positioned and clean of debris

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Changes in technology or building codes may make a replacement desirable prior to the end of the functional life. Our estimate of future cost considers only that amount necessary to duplicate the same functionality. Local codes or ordinances at the actual time of replacement may require a betterment as compared to the existing system. A betterment could result in a higher, but at this time unknown, cost of replacement.

## Pipes

---

**Line Item:** 3.605

**Quantity:** Based on the layout and configuration of the units, we have estimated the quantity of the interior building plumbing. Future updates of this Reserve Study will incorporate additional information if it becomes available.

**History:**

- Domestic Water –Original
- Sanitary Waste Disposal and Vent –Original

**Condition:**

- Domestic Water – Reported satisfactory with operational deficiencies
- Sanitary Waste Disposal and Vent – Reported satisfactory



**Domestic water pipes**



**Evidence of isolated partial replacements at domestic water pipes**

**Component Detail Notes:**

**Domestic Water** - Copper piping is the predominant type of pipe used in new construction for domestic water piping. With low mineral content in the water, the useful life of copper domestic water pipes is up to and sometimes beyond 80 years. However, there is recent evidence that copper piping prematurely develops pinhole leaks. In the event that numerous pinhole leaks develop or occur throughout the system of pipes, the Association should also consider “in-place” pipe restoration technology. This process includes drying, sandblasting away interior pipe occlusions and applying an epoxy lining to the interior surfaces of the pipes. Future updates of this study will consider the possibility of the pipe restoration process in lieu of pipe replacement at the Association. Restoration technology can extend the useful life of a pipe system thus avoiding a system pipe replacement.

**Sanitary Waste Disposal and Vent** - The pvc pipes typically deteriorate from the inside out as a result of sewer gases, condensation and rust.

**Valves** - The piping systems include various valves. Identification of a typical useful life and remaining useful life for individual valves is difficult. Associations typically replace valves on an as needed basis in our experience.

**Pipes, Remaining** - We anticipate a useful life of up to and sometimes beyond 100 years for the remaining pipes, which may include fire standpipes, gas supply lines, interior sprinkler pipes, among others. Therefore, we do not foresee the need to budget for replacement of these pipes within the 30-year scope of this study. Future updates of this study will revisit the need to include partial replacement of these pipes.

**Preventative Maintenance Notes:** The required preventative maintenance may vary in frequency and scope based on the building's age and demands of the piping systems. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Quarterly:
  - Inspect all visible piping for corrosion and leaks, including common areas or areas immediately surrounding pipes such as insulation, ceiling tiles or the floor for moisture, water accumulation, mold or mildew
- Annually:
  - Verify system pressure is sufficient (pressurized piping systems)
  - Check accessible valves for proper operation
  - Test backflow prevention devices
  - Inspect and obtain certification for pressure relief valves
  - Test drain line flow rates
  - Mechanically or chemically clean waste lines as needed

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for a single riser section assumes replacement of all pipes located within each wall opening, associated branch piping, fittings and minimal interior finishes. However, the cost does not include temporary housing for affected residents, pipes within the units or significant interior finishes. Our estimate provides funds to replace approximately sixty percent (60%) of the riser sections during the next 30 years.

An invasive analysis of the piping systems will provide various replacement options. Replacement of the systems as an aggregate event will likely require the use of special assessments or loans to fund the replacements.

Although it is likely that the times of replacement and extent of repair costs may vary from the budgetary allowance, Vanderbilt Yacht & Racquet Club could budget sufficient reserves for the beginning of these pipe replacements and have the opportunity to adjust its future reserves up or down to meet any changes to these budgetary estimates. Updates of this Reserve Study would incorporate changes to budgetary costs through a

continued historical analysis of the rate of deterioration and actual pipe replacements to budget sufficient reserves.

We recommend the Association budget for replacement of the following items through the operating budget:

- Replacement of valves on an as-needed basis
- Minor pipe repairs and replacements
- Invasive investigation of the condition of the piping system prior to beginning more aggregate replacements
- Rodding of waste pipe systems

## **Pump, Fire Suppression**

---

**Line Item:** 3.770

**Quantity:** One 50-HP electric fire suppression pump

**History:** Original

**Condition:** Reported satisfactory without operational deficiencies.



**Fire suppression pump**



**Fire suppression pump controls**

**Useful Life:** Up to 50 years

**Component Detail Notes:** Prior to replacement, the Association should schedule periodic inspections to maintain its correct operation in the event of an emergency. Vanderbilt Yacht & Racquet Club should also anticipate, as normal maintenance, interim repairs and component replacements to maximize its remaining useful life.

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. The Association conducts monthly churn tests. In accordance with *NFPA 25* (National Fire Protection Systems Code), we also recommend the Association maintain a maintenance contract with a

qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. Valuable motor information to note in a preventative maintenance plan or schedule includes age of unit and last time of repair, horsepower and rpm (revolutions per minute), bearing type and conditions surrounding motor/pump. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Weekly:
  - Check/adjust controls
  - Check/adjust pressure levels
  - Check for leaks
  - Conduct churn tests
- Quarterly:
  - Inspect/clean motors
  - Inspect mountings and connections for proper alignment, torque and condition
  - Inspect/replace pump packing as needed, consider replacement with mechanical seals
  - Check for appropriate oil levels
- Semi-annually:
  - Lubricate pumps, motors and motor bearings
- Annually:
  - Inspect belts for wear and/or replace belts
  - Clean filters if present
  - Assess proper internal component performance and replace damaged or malfunction components as necessary, and tighten fittings
  - Access temperature and vibration performance of motors in accordance with the intended design

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost includes replacement of the pump, jockey pump, motor, and motor controller.

## Garage and Tennis Court Elements

### Concrete, Elevated Floors

---

**Line Item:** 7.300

**Quantity:** Approximately 14,500 square feet of elevated cast in place concrete floor structures.

**Condition:** Fair overall with isolated cracks evident. The elevated structural concrete does not utilize a protective traffic coating



**Elevated garage floor overview**



**Previous crack repairs**



**Concrete cracks**



**Concrete honeycombing**

**Useful Life:** Repairs to the various concrete surfaces every 10- to 15-years

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Clean floors and remove vehicular oil stains

- Annually:
  - Inspect for large cracks, concrete spalls and vehicular damage at walls and columns
  - Verify drains are working properly and check for areas of extensive water ponding
  - Check for any signs of exposed rebar

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost is based on information provided by the Association and includes:

- Complete inspection of the garage concrete
- Partial depth concrete replacement of a limited amount of the surface area of the concrete floors
- Partial depth concrete replacement of a limited amount of the surface area of the elevated structural concrete ceilings
- Remediation of structural concrete columns and beams as needed
- Crack repairs on all surfaces as needed

## Concrete, On-grade

---

**Line Item:** 7.360

**Quantity:** Approximately 14,500 square feet of on-grade concrete

**Condition:** Good to fair overall with isolated concrete cracks evident



**On-grade garage floor overview**



**Concrete cracks**

**Useful Life:** Up to 90 years

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Clean floors and remove vehicular oil stains
- Annually:
  - Inspect for large cracks, concrete spalls and vehicular damage at walls and columns
  - Verify drains are working properly and check for areas of extensive water ponding

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Expenditures assume:

- Complete inspection of the floor
- Selective cut out and replacement of up to seven percent (7%), or 1,015 square feet, of the on-grade concrete per event
- Crack repairs as needed

## GENERAL

### Interior Building Elements

#### Ceilings, Acoustical Tiles, Grid and Lighting, Hallways

---

**Line Item:** 2.060

**Quantity:** Approximately 1,800 square feet at the lobby, office and exercise room

**History:** Original

**Condition:** Good overall



Overview of acoustic ceiling tiles

**Useful Life:** Up to 30 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

#### Elevator Cab Finishes

---

**Line Item:** 2.100

**Quantity:** Two elevators; the cab finishes consist of:

- Tile floor coverings
- Laminate wall coverings
- Metal ceiling finishes

**History:** Replaced in 2021.

**Condition:** Good overall



**Elevator cab finishes**

**Useful Life:** Up to 20 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based on information provided by the Association.

## Exercise Equipment

---

**Line Item:** 2.160

**Quantity:** The exercise room contains the following types of cardiovascular aerobic training equipment:

- Ellipticals
- Stationary cycles
- Televisions
- Treadmills

The exercise room contains the following types of strength training equipment:

- Benches
- Dumbbells
- Weight training

**History:** Varying ages

**Conditions:** Good overall

**Useful Life:** The useful life of cardiovascular equipment is up to five years. The useful life of strength training equipment is up to 15 years.

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost is based on information provided by the Association

## Exercise Room

---

**Line Item:** 2.180

**Quantity:** The exercise room components include:

- Paint finishes at the walls
- Rubber floor coverings
- Light fixtures
- Furnishings

**History:** Renovated in 2020.

**Condition:** Good overall



**Exercise room overview**

**Useful Life:** Renovation up to every 10 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## **Floor Coverings, Wood, Laminate, Hallways**

---

**Line Item:** 2.400

**Quantity:** Approximately 770 square yards at the hallways

**History:** Replaced in 2020.

**Condition:** Good overall



**Wood floor coverings**



**Wood floor coverings**

**Useful Life:** 18- to 25-years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Kitchen

---

**Line Item:** 2.520

**Quantity:** Components of the kitchen include:

- Appliances
- Cabinets and countertops
- Light fixtures

**History:** Original

**Condition:** Good overall



**Kitchen overview**

**Useful Life:** Renovation up to every 25 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Lobby (Includes Rest Room)

---

**Line Item:** 2.600

**Quantity:** The lobby components include:

- Paint finishes
- Tile floor coverings
- Furnishings

- Light fixtures
- Plumbing fixtures

**History:** Renovated in 2022

**Condition:** Good overall



**Lobby overview**



**Lobby overview**



**Rest room overview**



**Management office overview**

**Useful Life:** Renovation every 20 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost includes renovation of the lobby, rest rooms and management office and is based on information provided by the Association.

## **Paint Finishes, Hallways**

---

**Line Item:** 2.800

**Quantity:** Approximately 19,700 square feet on the walls and ceilings at the hallways

**History:** Applied paint finishes in 2020.

**Condition:** Good overall



**Paint finishes overview**



**Paint finishes overview**

**Useful Life:** 8- to 12-years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## **Paint Finishes, Stairwells**

---

**Line Item:** 2.820

**Quantity:** Two each

**History:** Original

**Conditions:** Good overall with scuffs evident.



**Stairwell paint finishes**



**Wall scuffs**

**Useful Life:** Up to every 10 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Party Room, 1st Floor

---

**Line Items:** 2.840 and 2.845

**Quantity:** The party room components include:

- Tile floor coverings
- Paint finishes at the walls
- Paint finishes at the ceilings
- Furnishings
- Light fixtures
- Cabinets and countertops
- Plumbing fixtures

**History:** Original

**Condition:** Good overall



**Party room overview**



**Party room furnishings**



**Party room rest room**



**Useful Life:** Complete renovation every 20 years and partial renovation every 10 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The complete renovation should include replacement of all components listed above and the partial renovations should include the following:

- Application of paint finishes
- Replacement of up to fifty percent (50%) of the furnishings

## Building Services Elements

### Air Handling and Condensing Units, Split Systems

---

**Line Item:** 3.070

**Quantity:** Nine *Ruud* split systems

**History:** Installed in 2022.

**Condition:** Reported satisfactory without operational deficiencies



**Split system condensing units**

**Useful Life:** 12- to 18-years

**Component Detail Notes:** A split system air conditioner consists of an outside condensing unit, an interior evaporator coil, refrigerant lines and an interior electric air handling unit. The condensing units have cooling capacities of one-tons. The split systems use R-410A refrigerant.

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Lubricate motors and bearings
  - Change or clean air filters as needed
  - Inspect condenser base and piping insulation
  - Inspect base pan, coil, cabinet and clear obstructions as necessary
- Annually:

- Clean coils and drain pans, clean fan assembly, check refrigerant charge, inspect fan drive system and controls
- Inspect and clean accessible ductwork as needed
- Clean debris from inside cabinet, inspect condenser compressor and associated tubing for damage

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The condensing unit may require replacement prior to replacement of the related interior forced air unit. For purposes of this Reserve Study, we assume coordination of replacement of the interior forced air unit, evaporator coil, refrigerant lines and exterior condensing unit.

## Elevators, Traction

---

**Line Item:** 3.360

**Quantity:** 12 ThyssenKrupp traction elevators

**History:** Varied ages.

**Condition:** Reported satisfactory and service interruptions are reportedly infrequent.



**Traction elevator hoists and motors**



**Traction elevator controls**

**Useful Life:** Up to 25 years however, the scarcity of parts, and the potential frequency and duration of service interruption makes controls replacement more desirable as the components age.

**Component Detail Notes:** The elevators utilize programmable logic computer controls

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. The Association has a current preventative maintenance contract in place. We also recommend the Association

maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Ongoing:
  - Maintain a maintenance contract with a qualified professional for the elevator(s) and follow the manufacturer's specific recommended maintenance plan adhering to local, state, and/or federal inspection guidelines
- As-needed:
  - Keep an accurate log of all repairs and inspection dates
  - Inspect and adjust misaligned door operators
  - Clear and remove any items located in the elevator machine room(s) not associated with the elevator components (These rooms should never be used for storage)
  - Inspect electrical components for signs of overheating or failure
  - Inspect controls
  - Lubricate the hoist cables
  - Inspect hoist cables and motors for signs of wear or deterioration
  - Ensure air temperature and humidity of machine/pump housing room meets the designated specified range for proper operation
  - Ensure all call buttons are in working condition

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based on information provided by the Association. We anticipate replacement of the following traction elevator system components:

- Cab control panels
- Door operators
- Hallway panels/buttons
- Hoists and motors
- Microprocessor based controllers

## **Exhaust Fans**

---

**Line Item:** 3.380

**Quantity:** 12 roof mounted exhaust fans

**History:** Varying ages

**Condition:** Reported satisfactory without operational deficiencies



**Exhaust fan**

**Useful Life:** Up to 25 years

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Monthly:
  - Check unit for unusual noises and vibrations
- Quarterly:
  - Inspect belts for wear, adjust tension and replace as needed
  - Inspect/clean fan blades
  - Inspect/replace anti-vibration mounts as needed
  - Check motors for proper operation
  - Replace filters as applicable
- Semi-annually:
  - Lubricate fan and motor bearings if bearings are not sealed according to manufacturer's recommendation
  - Inspect/clean inlets, shafts and outlets
  - Ensure louvers and dampers are unclogged and operable

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based on information provided by the Association. The Association should fund interim replacements of belts, motors and other components through the operating budget as needed.

## **Pumps, Domestic Water**

---

**Line Item:** 3.700

**Quantity:** Two each

**History:** Installed in 2020. Management and the Board inform us one pump is being replaced in 2023 due to damages from a power surge

**Condition:** Reported satisfactory without operational deficiencies.



**Domestic water pumps**

**Useful Life:** Up to 15 years

**Component Detail Notes:** Major pumps included in this Reserve Study are those with a motor drive of at least five-HP. The Association should replace or repair all pumps with motor drives less than five-HP as needed and fund this ongoing maintenance activity through the operating budget. The Association may choose to rebuild pumps prior to complete replacement. However, this activity becomes less desirable as pumps age due to the scarcity of parts. We regard interim replacements of motors and component parts as normal maintenance and base our estimates on complete replacements. An exact replacement time for each individual pump is difficult, if not impossible, to estimate.

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. Valuable motor information to note in a preventative maintenance plan or schedule includes age of unit and last time of repair, horsepower and rpm (revolutions per minute), bearing type and conditions surrounding

motor/pump. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Weekly:
  - Check/adjust controls
  - Check/adjust pressure levels
  - Check for leaks
  - Conduct churn tests
- Quarterly:
  - Inspect/clean motors
  - Inspect mountings and connections for proper alignment, torque and condition
  - Inspect/replace pump packing as needed, consider replacement with mechanical seals
  - Check for appropriate oil levels
- Semi-annually:
  - Lubricate pumps, motors and motor bearings
- Annually:
  - Inspect belts for wear and/or replace belts
  - Clean filters if present
  - Assess proper internal component performance and replace damaged or malfunction components as necessary, and tighten fittings
  - Access temperature and vibration performance of motors in accordance with the intended design

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our costs include an allowance for replacement of the controls.

## Security System

---

**Line Item:** 3.820

**Quantity:** Vanderbilt Yacht & Racquet Club utilizes the following security system components:

- Automated proximity reader system (5 access points)
- Cameras (five)
- Multiplexer (1)
- Recorder (1)
- Intercom panel (1)

**History:** Original

**Condition:** Reported satisfactory without operational deficiencies



**Security system camera**

**Useful Life:** Up to 15 years

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Monthly:
  - Check cameras for proper focus, fields of view are unobstructed and camera and lenses are clean and dust-free
  - Check recording equipment for proper operation
  - Verify monitors are free from distortion with correct brightness and contrast
- Annually:
  - Check exposed wiring and cables for wear, proper connections and signal transmission
  - Check power connections, and if applicable, functionality of battery power supply systems

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The Association should anticipate replacement of up to fifty percent (50%) of the security system components per event.

## **Trash Chute and Doors**

---

**Line Item:** 3.880

**Quantity:** One trash chute

**History:** Original

**Condition:** Reported satisfactory without operational deficiencies



**Trash chute**

**Useful Life:** Up to 65 years.

**Component Detail Notes:** Damaged doors or poor door operation will result in a decreased useful life. The Association should fund interim repairs and partial replacements of the doors through the operating budget.

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Weekly:
  - Clean doors and latches
  - In accordance with *NFPA 82* and fire code, ensure all trash chute doors self-latch and self-close
- Monthly:
  - Check operation of discharge door
  - Inspect fusible link and replace if necessary
  - If applicable, inspect, reinforce and/or replace discharge elbow
- Quarterly:
  - If applicable, check vent cap for damage and tighten fasteners
- Semi-annually:
  - Lubricate and/or replace doors, hinges and latches
  - Clear obstructions, clean and scrape trash chute and doors. The frequency of this activity may vary based upon occupancy and usage rates. This activity may also be based upon limitation of unwanted odors, prevention of harmful bacteria, pest infiltration and debris removal to further prevent fire hazards.

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Property Site Elements

### Asphalt Pavement, Repaving

---

**Line Items:** 4.020 and 4.040

**Quantity:** Approximately 3,000 square yards at the streets

**History:**

- Repaving: Repaved in 2007. The pavement was previously overlaid atop the original pavement.
- Repairs: Original

**Condition:** Fair overall with isolated cracks evident.



**Asphalt pavement street overview**



**Pavement cracks**



**Asphalt pavement street overview**



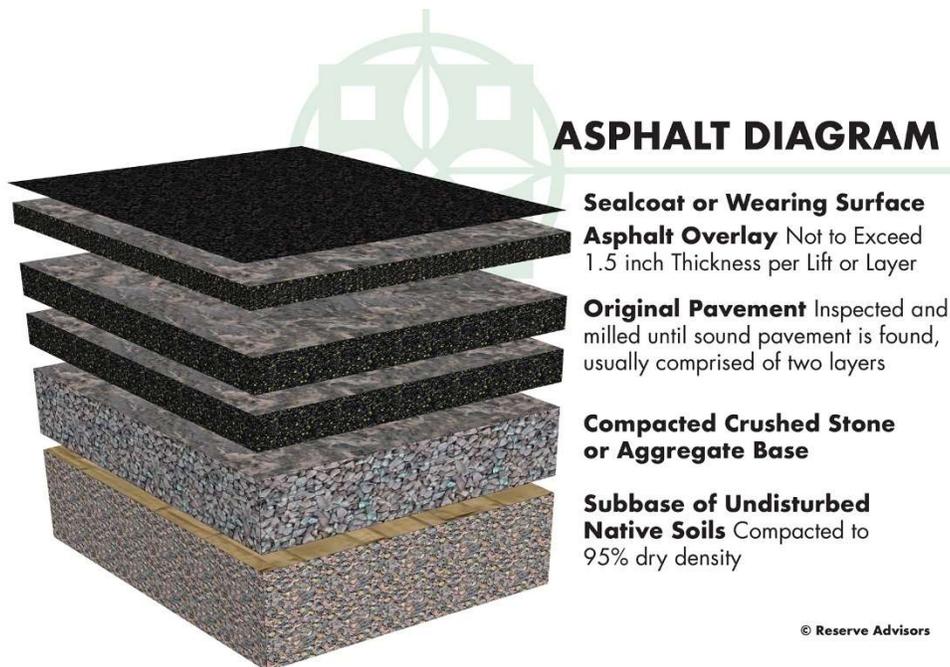
**Pavement cracks**

**Useful Life:** 15- to 20-years with the benefit of patch, seal coat, and striping events every three- to five-years

**Component Detail Notes:** Patch repairs are conducted at areas exhibiting settlement, potholes, or excessive cracking. These conditions typically occur near high traffic areas, catch basins, and pavement edges. The contractor should only apply seal coat applications after repairs are completed. These activities minimize the damaging effects of vehicle fluids, maintain a uniform and positive appearance, and maximize the useful life of the pavement.

The initial installation of asphalt uses at least two lifts, or two separate applications of asphalt, over the base course. The first lift is the binder course. The second lift is the wearing course. The wearing course comprises a finer aggregate for a smoother more watertight finish.

The following diagram depicts the typical components although it may not reflect the actual configuration at Vanderbilt Yacht & Racquet Club:



The manner of repaving is either a mill and overlay or total replacement. A mill and overlay is a method of repaving where cracked, worn and failed pavement is mechanically removed or milled until sound pavement is found. A new layer of asphalt is overlaid atop the remaining base course of pavement. Total replacement includes the removal of all existing asphalt down to the base course of aggregate and native soil followed by the application of two or more new lifts of asphalt. We recommend mill and overlayment on asphalt pavement that exhibits normal deterioration and wear. We recommend total replacement of asphalt pavement that exhibits severe deterioration, inadequate drainage, pavement that has been overlaid multiple times in the past or where the configuration makes overlayment not possible. Based on the apparent visual condition and configuration of the asphalt pavement, we recommend the mill and overlay method of repaving at Vanderbilt Yacht & Racquet Club.

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - Inspect for settlement, large cracks and trip hazards, and ensure proper drainage
  - Repair areas which could cause vehicular damage such as potholes
- As needed:
  - Perform crack repairs and patching

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost includes an allowance for patching of up to two percent (2%) of the pavement. Our cost for milling and overlayment includes area patching of up to ten percent (10%).

## **Bulkhead, Concrete**

---

**Line Items:** 4.100 and 4.105

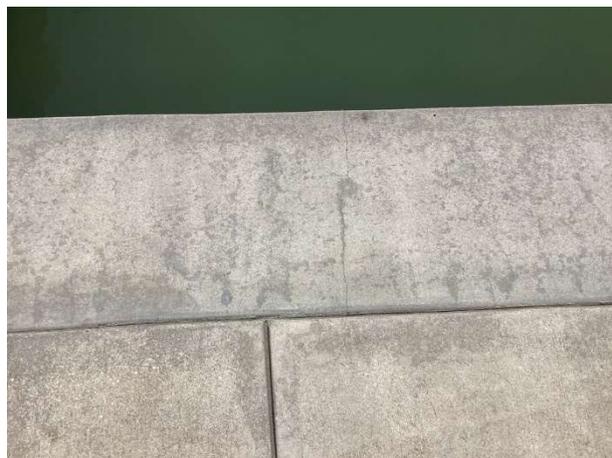
**Quantity:** Approximately 430 linear feet

**History:** The Association replaced the concrete cap of the bulkhead and the adjacent sidewalk in 2012. Extensive repairs to the wall slabs were also completed during this project.

**Conditions:** Good to fair overall isolated wall cracks evident



**Concrete bulkhead overview**



**Wall cracks**



**Concrete bulkhead overview**

**Useful Life:** Inspections and capital repairs up to every 15 years and complete replacement at up to 50 years

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost includes allowances for a complete inspection and partial replacement of up to ten percent (10%) linear feet of the bulkheads.

## **Fence, Chain Link**

---

**Line Item:** 4.220

**Quantity:** Approximately 920 linear feet

**History:** At the time of our inspection the chain link fence had not yet been replaced. We are informed the Association has budgeted to replace the chain link fence in 2023

**Condition:** Fair overall with isolated leaning sections and warped webbing evident



**Chain link fence**

**Fence leaning section**



**Fence warped webbing**

**Useful Life:** Up to 25 years

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - Inspect and repair loose sections, and damage
  - Repair leaning sections and clear vegetation from fence areas which could cause damage

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based on information provided by the Association. The Association is responsible for fifty percent (50%) of the beach access walkway components

## **Gates**

---

**Line Item:** 4.330

**Quantity:** Two aluminum gates

**History:** Original

**Condition:** Good overall condition



**Aluminum gates**

**Useful Life:** up to 20 years

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Ensure gates operate freely
  - Inspect for any wear, rust and loose fasteners

**Priority/Criticality:** Not recommended to defer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## **Light Poles and Fixtures**

---

**Line Item:** 4.560

**Quantity:** 28 aluminum poles with light fixtures

**History:** Replaced in 2021.

**Condition:** Good overall



**Light pole and fixture**

**Useful Life:** Up to 25 years

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- As-needed:
  - Inspect and repair broken or dislodged fixtures, and leaning or damaged poles
  - Replaced burned out bulbs as needed

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based on information provided by the Association.

## **Pavers, Masonry**

---

**Line Items:** 4.620 and 4.625

**Quantity:** Approximately 800 square feet at the fire pit and approximately 3,220 square feet at the beach access walkway

**History:** The pavers at the fire pit were replaced in 2021. The pavers at the beach access walkway were replaced in 2013 and the Association has budgeted to replace them again in 2023. At the time of our inspection the beach access walkway pavers had not yet been replaced

**Condition:** The pavers at the fire pit are in good overall condition. The pavers at the beach access walkway are fair to poor overall with dislodged pavers and settlement evident



**Masonry pavers overview at beach access walkway**



**Dislodged pavers at beach access walkway**



**Paver settlement at beach access walkway**

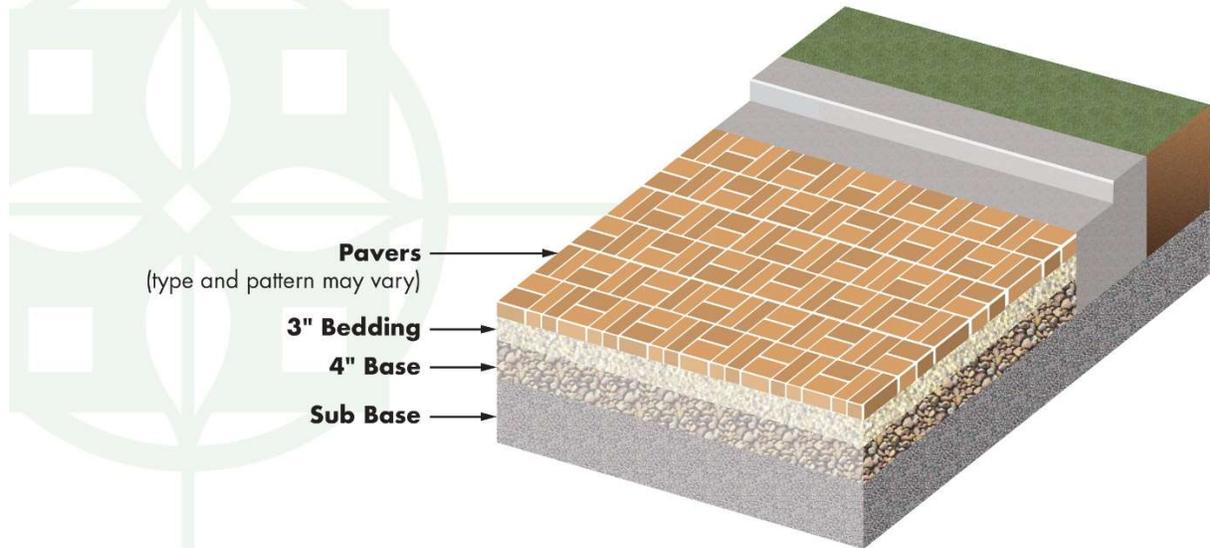


**Masonry pavers overview at fire pit**

**Useful Life:** Up to 25 years for pavers with pedestrian traffic

**Component Detail Notes:** The following diagram depicts the typical components of a masonry paver system although it may not reflect the actual configuration at Vanderbilt Yacht & Racquet Club:

## MASONRY PAVER DIAGRAM



© Reserve Advisors

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - Inspect and repair settlement, trip hazards and paver spalls at heavy traffic areas
  - Re-set and/or reseal damaged pavers as necessary
  - Periodically clean and remove overgrown vegetation as needed

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based on information provided by the Association. We suggest the Association conduct interim resetting and replacement of minor areas of pavers as normal maintenance, funded from the operating budget.

### Signage

---

**Line Item:** 4.800

**Quantity:** The property identification signage includes the following elements:

- Light Fixtures
- Landscape
- Letters
- Stucco

**History:** Installed in 2012

**Condition:** Good to fair overall with isolated peeled paint finishes evident



**Entrance monument**



**Peeling paint finishes**

**Useful Life:** Up to 30 years

**Component Detail Notes:** Community signage contributes to the overall aesthetic appearance of the property to owners and potential buyers. Renovation or replacement of community signs is often predicated upon the desire to "update" the perceived identity of the community rather than for utilitarian concerns. Therefore, the specific times for replacement or renovation are discretionary.

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - Inspect and repair damage, vandalism and loose components
  - Verify lighting is working properly
  - Touch-up paint finish applications if applicable

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for renovation includes repairs to the stucco and replacement of the remaining components listed above.

## **Tiki Deck and Walkway, Composite**

---

**Line Item:** 4.850

**Quantity:** Approximately 1,150 square feet of deck and walkways

**History:** Replaced in 2021

**Condition:** Good condition



**Walkway overview**



**Tiki deck**



**Walkway overview**

**Useful Life:** Up to 30 years

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost is based on actual costs provided by Management and the Board.

## **Tiki Hut, Roof Replacement**

---

**Line Item:** 4.900

**Quantity:** Approximately 450 square feet

**History:** Replaced in 2022

**Condition:** Good overall



**Tiki hut roof**

**Useful Life:** Up to 30 years

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost is based on information provided by the Association.

## Pool Elements



Overview of pool area

### Concrete Deck

---

**Line Item:** 6.200

**Quantity:** Approximately 3,280 square feet

**History:** The age was unavailable at the time of our inspection.

**Condition:** Good to fair overall



Concrete pool deck overview



Concrete pool deck overview



#### **Concrete cracks**

**Useful Life:** The useful life of a concrete pool deck is up to 60 years or more with timely repairs. We recommend the Association conduct inspections, partial replacements and repairs to the deck every 8- to 12-years in conjunction with coating replacements.

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Inspect and repair large cracks, trip hazards, and possible safety hazards
  - Inspect and repair pool coping for cracks, settlement, heaves or sealant deterioration
  - Repair concrete spalling and conduct coating repairs in areas with delamination
  - Schedule periodic pressure cleanings as needed

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association budget for the following per event:

- Selective cut out and replacements of up to ten percent (10%) of concrete
- Crack repairs as needed
- Mortar joint repairs
- Caulk replacement
- Coating replacement

## Fence, Aluminum

---

**Line Item:** 6.400

**Quantity:** Approximately 500 linear feet

**History:** The age was unavailable at the time of our inspection.

**Condition:** Good overall



**Aluminum pool fence**

**Useful Life:** Up to 25 years

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - Inspect and repair loose fasteners or sections, and damage
  - Repair leaning sections and clear vegetation from fence areas which could cause damage

**Priority/Criticality:** Not recommended to defer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Furniture

---

**Line Item:** 6.500

**Quantity:** The pool furniture includes the following:

- Chairs
- Lounges
- Tables

- Ladders and life safety equipment

**History:** The age was unavailable at time of our inspection

**Condition:** Good overall

**Useful Life:** Up to 12 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend interim re-strapping, refinishing, cushion replacements, reupholstering and other repairs to the furniture as normal maintenance to maximize its useful life. Our estimate of cost is based on information provided by the Association

## Mechanical Equipment

---

**Line Item:** 6.600

**Quantity:** The mechanical equipment includes the following:

- Automatic chlorinator and controls
- Electrical panel
- Interconnected pipe, fittings and valves
- Pumps, filters, and heater

**History:** Replaced in 2022.

**Condition:** Reported satisfactory without operational deficiencies



**Pool mechanical equipment**



**Pool heater**

**Useful Life:** Up to 15 years

**Preventative Maintenance Notes:** We recommend the Association maintain a maintenance contract with a qualified professional and follow the manufacturer's specific recommended maintenance and local, state and/or federal inspection guidelines.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based on information provided by the Association. Failure of the pool mechanical equipment as a single event is unlikely. Therefore, we include replacement of up to fifty percent (50%) of the equipment per event. We consider interim replacement of motors and minor repairs as normal maintenance.

## Pool Finishes, Plaster

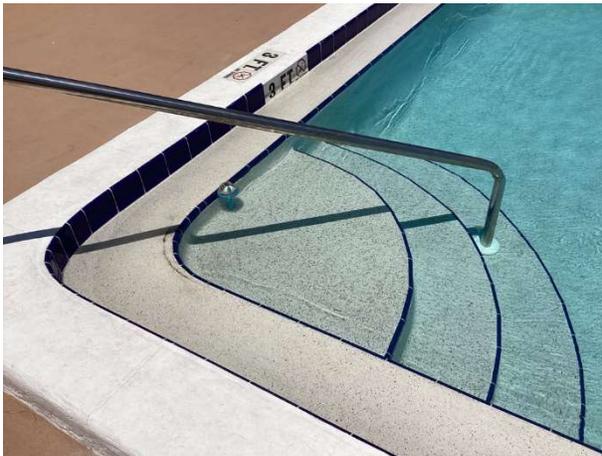
---

**Line Item:** 6.800

**Quantity:** Approximately 1,720 square feet of plaster based on the horizontal surface area

**History:** Replaced in 2022.

**Condition:** Good overall



Pool plaster overview



Pool plaster finish with tile perimeter

**Useful Life:** 8- to 12-years

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Inspect and patch areas of significant plaster delamination, coping damage and structure cracks
  - Inspect main drain connection and anti-entrapment covers, pressure test circulation piping and valves
  - Test handrails and safety features for proper operation



**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based on information provided by the Association. We recommend the Association budget for full tile replacement every other plaster replacement event. Removal and replacement of the finish provides the opportunity to inspect the pool structure and to allow for partial repairs of the underlying concrete surfaces as needed. To maintain the integrity of the pool structure, we recommend the Association budget for the following:

- Removal and replacement of the plaster finish
- Partial replacements of the scuppers and coping as needed
- Replacement of tiles as needed
- Replacement of joint sealants as needed
- Concrete structure repairs as needed

## Structure and Deck

---

**Line Item:** 6.900

**Quantity:** Approximately 1,720 square feet of horizontal surface area

**History:** Original

**Conditions:** Visually appears in good condition. The concrete floors and walls have a plaster finish. This finish makes it difficult to thoroughly inspect the concrete structure during a noninvasive visual inspection.

**Useful Life:** Up to 60 years

**Component Detail Notes:** The need to replace a pool structure depends on the condition of the concrete structure, the condition of the embedded or concealed water circulation piping, possible long-term uneven settlement of the structure, and the increasing cost of repair and maintenance. Deterioration of any one of these component systems could result in complete replacement of the pool. For example, deferral of a deteriorated piping system could result in settlement and cracks in the pool structure. This mode of failure is more common as the system ages and deterioration of the piping system goes undetected. For reserve budgeting purposes, we recommend Vanderbilt Yacht & Racquet Club plan to replace the following components:

- Concrete deck
- Pool structure
- Subsurface piping

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.



## Garage and Tennis Court Elements

### Sport Courts, Tennis

---

**Line Item:** 7.830

**Quantity:** Approximately 1,610 square yards comprising two tennis courts located on top of the parking garage

**History:** Color Coat: Original to 2020

**Condition:** Good to fair overall isolated previous repairs evident



**Tennis courts overview**



**Tennis court patch repair**

**Useful Life:** We recommend the Association budget for color coat applications and repairs every four- to six-years

**Preventative Maintenance Notes:** Prior to the application of the color coat, the Association should require the contractor to rout and fill all cracks with hot emulsion. This deters water infiltration and further deterioration of the asphalt playing surface. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - Inspect and repair large cracks, trip hazards and possibly safety hazards
  - Verify gate and fencing is secure
  - Verify lighting is working properly if applicable
  - Inspect and repair standards and windscreens as needed

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Sport Court, Tennis, Fence

---

**Line Item:** 7.840

**Quantity:** Approximately 480 linear feet

**History:** Replaced in 2020

**Condition:** Good overall



**Chain link fence**

**Useful Life:** Up to 25 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Reserve Study Update

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. Many variables change after the study is conducted that may result in significant overfunding or underfunding the reserve account. Variables that may affect the Reserve Funding Plan include, but are not limited to:

- Deferred or accelerated capital projects based on Board discretion
- Changes in the interest rates on reserve investments
- Changes in the *local* construction inflation rate
- Additions and deletions to the Reserve Component Inventory
- The presence or absence of maintenance programs
- Unusually mild or extreme weather conditions
- Technological advancements



Periodic updates incorporate these variable changes since the last Reserve Study or Update. The Association can expense the fee for an Update with site visit from the reserve account. This fee is included in the Reserve Funding Plan. We base this budgetary amount on updating the same property components and quantities of this Reserve Study report. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. Budgeting for an Update demonstrates the Board's objective to continue fulfilling its fiduciary responsibility to maintain the commonly owned property and to fund reserves appropriately.

## 5.METHODOLOGY

Reserves for replacement are the amounts of money required for future expenditures to repair or replace Reserve Components that wear out before the entire facility or project wears out. Reserving funds for future repair or replacement of the Reserve Components is also one of the most reliable ways of protecting the value of the property's infrastructure and marketability.

Vanderbilt Yacht & Racquet Club can fund capital repairs and replacements in any combination of the following:

1. Increases in the operating budget during years when the shortages occur
2. Loans using borrowed capital for major replacement projects
3. Level monthly reserve assessments annually adjusted upward for inflation to increase reserves to fund the expected major future expenditures
4. Special assessments

We do not advocate special assessments or loans unless near term circumstances dictate otherwise. Although loans provide a gradual method of funding a replacement, the costs are higher than if the Association were to accumulate reserves ahead of the actual replacement. Interest earnings on reserves also accumulate in this process of saving or reserving for future replacements, thereby defraying the amount of gradual reserve collections. We advocate the third method of *Level Monthly Reserve Assessments* with relatively minor annual adjustments. The method ensures that Unit Owners pay their "fair share" of the weathering and aging of the commonly owned property each year. Level reserve assessments preserve the property and enhance the resale value of the homes.

This Reserve Study is in compliance with Florida Statute 718.112 and exceeds the National standards<sup>1</sup> set forth by the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Level I Full Reserve Study." These standards require a Reserve Component to have a "predictable remaining Useful Life." Estimating Remaining Useful Lives and Reserve Expenditures beyond 30 years is often indeterminate. Long-Lived Property Elements are necessarily excluded from this analysis. We considered the following factors in our analysis:

- The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan
- Local<sup>2</sup> costs of material, equipment and labor
- Current and future costs of replacement for the Reserve Components
- Costs of demolition as part of the cost of replacement
- Local economic conditions and a historical perspective to arrive at our estimate of long-term future inflation for construction costs in Naples, Florida at an annual inflation rate<sup>3</sup>. Isolated or regional markets of greater

<sup>1</sup> Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".

<sup>2</sup> See Credentials for additional information on our use of published sources of cost data.

<sup>3</sup> Derived from Marshall & Swift, historical costs and the Bureau of Labor Statistics.

construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

- The past and current maintenance practices of Vanderbilt Yacht & Racquet Club and their effects on remaining useful lives
- Financial information provided by the Association pertaining to the cash status of the reserve fund and budgeted reserve contribution
- The anticipated effects of appreciation of the reserves over time in accord with a return or yield on investment of your cash equivalent assets. (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).
- The Funding Plan excludes necessary operating budget expenditures. It is our understanding that future operating budgets will provide for the ongoing normal maintenance of Reserve Components.

Updates to this Reserve Study will continue to monitor historical facts and trends concerning the external market conditions.



## 6. CREDENTIALS

### HISTORY AND DEPTH OF SERVICE

**Founded in 1991**, Reserve Advisors is the leading provider of reserve studies, insurance appraisals, developer turnover transition studies, expert witness services, and other engineering consulting services. Clients include community associations, resort properties, hotels, clubs, non-profit organizations, apartment building owners, religious and educational institutions, and office/commercial building owners in 48 states, Canada and throughout the world.

The **architectural engineering consulting firm** was formed to take a leadership role in helping fiduciaries, boards, and property managers manage their property like a business with a long-range master plan known as a Reserve Study.

Reserve Advisors employs the **largest staff of Reserve Specialists** with bachelor's degrees in engineering dedicated to Reserve Study services. Our founders are also founders of Community Associations Institute's (CAI) Reserve Committee that developed national standards for reserve study providers. One of our founders is a Past President of the Association of Professional Reserve Analysts (APRA). Our vast experience with a variety of building types and ages, on-site examination and historical analyses are keys to determining accurate remaining useful life estimates of building components.

**No Conflict of Interest** - As consulting specialists, our **independent opinion** eliminates any real or perceived conflict of interest because we do not conduct or manage capital projects.

### TOTAL STAFF INVOLVEMENT

Several staff members participate in each assignment. The responsible advisor involves the staff through a Team Review, exclusive to Reserve Advisors, and by utilizing the experience of other staff members, each of whom has served hundreds of clients. We conduct Team Reviews, an internal quality assurance review of each assignment, including: the inspection; building component costing; lifing; and technical report phases of the assignment. Due to our extensive experience with building components, we do not have a need to utilize subcontractors.

### OUR GOAL

To help our clients fulfill their fiduciary responsibilities to maintain property in good condition.

### VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

Reserve Advisors has conducted reserve studies for a multitude of different communities and building types. We've analyzed thousands of buildings, from as small as a 3,500-square foot day care center to a 2,600,000-square foot 98-story highrise. We also routinely inspect buildings with various types of mechanical systems such as simple electric heat, to complex systems with air handlers, chillers, boilers, elevators, and life safety and security systems.

We're familiar with all types of building exteriors as well. Our well-versed staff regularly identifies optimal repair and replacement solutions for such building exterior surfaces such as adobe, brick, stone, concrete, stucco, EIFS, wood products, stained glass and aluminum siding, and window wall systems.

### OLD TO NEW

Reserve Advisors' experience includes ornate and vintage buildings as well as modern structures. Our specialists are no strangers to older buildings. We're accustomed to addressing the unique challenges posed by buildings that date to the 1800's. We recognize and consider the methods of construction employed into our analysis. We recommend appropriate replacement programs that apply cost effective technologies while maintaining a building's character and appeal.

**TAYLOR J. BLEISTEIN, RS**

**Responsible Advisor**

**CURRENT CLIENT SERVICES**

Taylor Bleistein, a Mechanical Engineer, is an Advisor for **Reserve Advisors**. Mr. Bleistein is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analyses and Capital Replacement Forecast services and the preparation of Reserve Study Reports for condominiums, townhomes and homeowner associations.



The following is a partial list of clients served by Taylor Bleistein demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

**Bayway Isles Point Brittany Four Condominium Corporation** A 19 story coastal high-rise located in St. Petersburg, Florida. This 178 unit condominium was constructed in 1970 and consists of traction controlled elevators, domestic water and fire pumps, concrete aggregate panels and retaining brackets, and gemstone water proof coatings on the concrete breezeways

**Lido Surf and Sand Owners' Association** This costal midrise built in 1976 is located in Sarasota, Florida and contains three eight story buildings containing 108 units which are connected by an outdoor atrium which contains plaza decks and tile floor coverings. The condominium also maintains three hydraulic elevators, a generator, domestic water and fire pumps, and a fire suppression system, as well as a pool and a 2 story garage which utilizes a traffic coating

**Orange Acres Ranch Homeowners Association** Located in Lake Wales, Florida; this 114 unit co-operative was built in 1985 and converted to a co-operative in 2007. The co-operative maintains a domestic water treatment system which includes water softeners, hydroneumatic storage tanks, valves, and well pumps. The co-operative also maintains a wastewater treatment plant with drainage fields, as well as a clubhouse and pool area.

**Village at Deaton Creek Homeowners Association** Located in Hoschton, Georgia. This homeowners association is comprised of 1,144 single family homes built from 2006 to 2015. The Association maintains asphalt street systems, an indoor and outdoor pool, with a dehumidification system, seven tennis courts, eight pickleball courts and vehicular and pedestrian bridges. The Association also maintains a 2 story clubhouse which includes elevators, a commercial sized gymnasium, a kitchen and 2<sup>nd</sup> story terrace.

**Golf Lakes Residents' Association** Located in Bradenton, Florida; this 780 unit co-operative built in 1965 maintains the asphalt pavement street systems, a three hole golf course, subsurface utility pipes, and a pedestrian bridge. The co-operative also maintains a fitness center, pool area, and a clubhouse that contains a commercial grade kitchen and kitchen equipment

**Bridgewater Owners Association** This homeowners Association is located in Ridgeland, Mississippi and consists of 281 single family homes, which were constructed in seven phases from 1995 to 2006. The Association maintains the asphalt pavement streets, ponds, pond spillways, seawalls, subsurface utility pipes, and a clubhouse and pool area

**PRIOR RELEVANT EXPERIENCE**

Before joining **Reserve Advisors**, Mr. Bleistein successfully completed the bachelors program in Mechanical Engineering from Hanover College

**EDUCATION**

Hanover College - B.S. Mechanical Engineering

**PROFESSIONAL AFFILIATIONS/DESIGNATIONS**

*Reserve Specialist (RS)* - Community Associations Institute

**NANCY S. DANIEL, P.E., RS**  
**Regional Engineering Manager and Responsible Reviewer**

**CURRENT CLIENT SERVICES**

Nancy S. Daniel, a Mechanical Engineer, is an Advisor for *Reserve Advisors*. Ms. Daniel is responsible for the inspection and analysis of the condition of clients' properties, and for recommending engineering solutions to prolong the lives of the components. She forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. She is also responsible for conducting Life Cycle Cost Analyses and Capital Replacement Forecast services and the preparation of Reserve Study Reports for apartments, condominiums, townhomes and homeowner associations.



The following is a partial list of clients served by Nancy Daniel demonstrating her breadth of experiential knowledge of community associations in construction and related buildings systems.

**Queen's Harbour Yacht and Country Club Owners Association, Inc.** – An exclusive Master planned community for the common elements shared by 1,000 single-family homes. Located in Jacksonville, Florida, the Queen's Harbour Yacht and Country Club Owners Association contains a marina, a lock and dam, sea walls, as well as community center, fitness center and maintenance facility.

**Riviera Dunes Marina** – A premier marina with 219 wet slips with slip sizes up to 100 feet located near Bradenton, Florida. The community contains floating docks, utility and pump out services, marina fuel station, floating pools, a dock master office, and restaurant.

**PGA Village Property Owners' Association** – A 3,000-acre Master planned community located in Port St. Lucie, Florida. The exclusive community consists of 2,500 single-family homes, townhomes and condominiums. The PGA Village contains a clubhouse and pool area, approximately 33 miles of paved streets, irrigation distribution systems, and 46 lakes.

**YC Coconut Grove Hotel and Condominium** - A 24-story high-rise condominium community with 211 units, located in Miami, Florida. This all-inclusive condominium includes a commercial hotel, restaurants, fitness center, pool, parking garage, and building services equipment.

**Jade Signature Condominium** – A 57-story high-rise condominium community with 193 units, located in Sunny Isles Beach, Florida. This exclusive condominium contains a spa and wellness center, restaurants, pools and spas, parking garage, and building services equipment.

**Vero Beach Museum of Art** – A nonprofit art museum for the appreciation and teaching of the arts and humanities, located in Vero Beach, Florida. The museum contains art galleries, sculpture gardens, performance halls, art studios, children's art zone, and building services equipment.

**PRIOR RELEVANT EXPERIENCE**

Before joining *Reserve Advisors*, Ms. Daniel was a licensed Community Association Manager for Condominium Associates in Tampa, Florida. Ms. Daniel also was employed as a Process Engineer for Anheuser Busch and Lockwood Greene Engineering. She was responsible for process engineering design, construction and process start-up for beverage manufacturing facilities across the United States. She has also served as a Board Member and Treasurer for her condominium association.

**EDUCATION**

University of Illinois – B.S. Mechanical Engineering  
North Carolina State University – M.A. Humanities and Social Sciences

**PROFESSIONAL AFFILIATIONS**

*Professional Engineer (P.E.)* – State of Texas  
*Reserve Specialist (RS)* - Community Associations Institute  
*Licensed Community Association Manager (LCAM)* – State of Florida

**NICOLE L. LOWERY, PRA, RS**  
**Associate Director of Quality Assurance**

**CURRENT CLIENT SERVICES**

Nicole L. Lowery, a Civil Engineer, is an Associate Director of Quality Assurance for Reserve Advisors. Ms. Lowery is responsible for the management, review and quality assurance of reserve studies. In this role, she assumes the responsibility of stringent report review analysis to assure report accuracy and the best solution for Reserve Advisors' clients.

Ms. Lowery has been involved with hundreds of Reserve Study assignments. The following is a partial list of clients served by Nicole Lowery demonstrating her breadth of experiential knowledge of community associations in construction and related buildings systems.



**Amelia Surf & Racquet Club** This oceanfront condominium community comprises 156 units in three mid rise buildings. This Fernandina Beach, Florida development contains amenities such as clay tennis courts, two pools and boardwalks.

**Ten Museum Park** This boutique, luxury 50-story high rise building in downtown Miami, Florida consists of 200 condominium units. The amenities comprise six pools including resistance and plunge pools, a full-service spa and a state-of-the-art fitness center. The property also contains a multi-level parking garage.

**3 Chisolm Street Homeowners Association** This historic Charleston, South Carolina community was constructed in 1929 and 1960 and comprises brick and stucco construction with asphalt shingle and modified bitumen roofs. The unique buildings were originally the Murray Vocational School. The buildings were transformed in 2002 to 27 high-end condominiums. The property includes a courtyard and covered parking garage.

**Lakes of Pine Run Condominium Association** This condominium community comprises 112 units in 41 buildings of stucco construction with asphalt shingle roofs. Located in Ormond Beach, Florida, it has a domestic water treatment plant and wastewater treatment plant for the residents of the property.

**Rivertowne on the Wando Homeowners Association** This exclusive river front community is located on the Wando River in Mount Pleasant, South Carolina. This unique Association includes several private docks along the Wando River, a pool and tennis courts for use by its residents.

**Biltmore Estates Homeowners Association** This private gated community is located in Miramar, Florida, just northwest of Miami, Florida and consists of 128 single family homes. The lake front property maintains a pool, a pool house and private streets.

**Bellavista at Miromar Lakes Condominium Association** Located in the residential waterfront resort community of Miromar Lakes Beach & Golf Club in Fort Myers, Florida, this property comprises 60 units in 15 buildings. Amenities include a clubhouse and a pool.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Ms. Lowery was a project manager with Kipcon in New Brunswick, New Jersey and the Washington, D.C. Metro area for eight years, where she was responsible for preparing reserve studies and transition studies for community associations. Ms. Lowery successfully completed the bachelors program in Civil Engineering from West Virginia University in Morgantown, West Virginia.

**EDUCATION**

West Virginia University - B.S. Civil Engineering

**PROFESSIONAL AFFILIATIONS / DESIGNATIONS**

*Reserve Specialist (RS)* - Community Associations Institute

*Professional Reserves Analyst (PRA)* - Association of Professional Reserve Analysts



## RESOURCES

Reserve Advisors utilizes numerous resources of national and local data to conduct its Professional Services. A concise list of several of these resources follows:

**Association of Construction Inspectors**, (ACI) the largest professional organization for those involved in construction inspection and construction project management. ACI is also the leading association providing standards, guidelines, regulations, education, training, and professional recognition in a field that has quickly become important procedure for both residential and commercial construction, found on the web at [www.iami.org](http://www.iami.org).

**American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.**, (ASHRAE) the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., devoted to the arts and sciences of heating, ventilation, air conditioning and refrigeration; recognized as the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines, found on the web at [www.ashrae.org](http://www.ashrae.org). Reserve Advisors actively participates in its local chapter and holds individual memberships.

**Community Associations Institute**, (CAI) America's leading advocate for responsible communities noted as the only national organization dedicated to fostering vibrant, responsive, competent community associations. Their mission is to assist community associations in promoting harmony, community, and responsible leadership.

**Marshall & Swift / Boeckh**, (MS/B) the worldwide provider of building cost data, co-sourcing solutions, and estimating technology for the property and casualty insurance industry found on the web at [www.marshallswift.com](http://www.marshallswift.com).

**R.S. Means CostWorks**, North America's leading supplier of construction cost information. As a member of the Construction Market Data Group, Means provides accurate and up-to-date cost information that helps owners, developers, architects, engineers, contractors and others to carefully and precisely project and control the cost of both new building construction and renovation projects found on the web at [www.rsmeans.com](http://www.rsmeans.com).

Reserve Advisors' library of numerous periodicals relating to reserve studies, condition analyses, chapter community associations, and historical costs from thousands of capital repair and replacement projects, and product literature from manufacturers of building products and building systems.

## 7. DEFINITIONS

Definitions are derived from the standards set forth by the Community Associations Institute (CAI) representing America's 305,000 condominium and homeowners associations and cooperatives, and the Association of Professional Reserve Analysts, setting the standards of care for reserve study practitioners.

**Cash Flow Method** - A method of calculating Reserve Contributions where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.

**Component Method** - A method of developing a Reserve Funding Plan with the total contribution is based on the sum of the contributions for individual components.

**Current Cost of Replacement** - That amount required today derived from the quantity of a *Reserve Component* and its unit cost to replace or repair a Reserve Component using the most current technology and construction materials, duplicating the productive utility of the existing property at current *local* market prices for *materials*, *labor* and manufactured equipment, contractors' overhead, profit and fees, but without provisions for building permits, overtime, bonuses for labor or premiums for material and equipment. We include removal and disposal costs where applicable.

**Fully Funded Balance** - The Reserve balance that is in direct proportion to the fraction of life "used up" of the current Repair or Replacement cost similar to Total Accrued Depreciation.

**Funding Goal (Threshold)** - The stated purpose of this Reserve Study is to determine the adequate, not excessive, minimal threshold reserve balances.

**Future Cost of Replacement** - *Reserve Expenditure* derived from the inflated current cost of replacement or current cost of replacement as defined above, with consideration given to the effects of inflation on local market rates for materials, labor and equipment.

**Long-Lived Property Component** - Property component of Vanderbilt Yacht & Racquet Club responsibility not likely to require capital repair or replacement during the next 30 years with an unpredictable remaining Useful Life beyond the next 30 years.

**Percent Funded** - The ratio, at a particular point of time (typically the beginning of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.

**Remaining Useful Life** - The estimated remaining functional or useful time in years of a *Reserve Component* based on its age, condition and maintenance.

**Reserve Component** - Property elements with: 1) Vanderbilt Yacht & Racquet Club responsibility; 2) limited Useful Life expectancies; 3) predictable Remaining Useful Life expectancies; and 4) a replacement cost above a minimum threshold.

**Reserve Component Inventory** - Line Items in *Reserve Expenditures* that identify a *Reserve Component*.

**Reserve Contribution** - An amount of money set aside or *Reserve Assessment* contributed to a *Reserve Fund* for future *Reserve Expenditures* to repair or replace *Reserve Components*.

**Reserve Expenditure** - Future Cost of Replacement of a Reserve Component.

**Reserve Fund Status** - The accumulated amount of reserves in dollars at a given point in time, i.e., at year end.

**Reserve Funding Plan** - The portion of the Reserve Study identifying the *Cash Flow Analysis* and containing the recommended Reserve Contributions and projected annual expenditures, interest earned and reserve balances.

**Reserve Study** - A budget planning tool that identifies the current status of the reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures.

**Useful Life** - The anticipated total time in years that a *Reserve Component* is expected to serve its intended function in its present application or installation.

Structural Integrity Reserve Study - A budget planning tool that separates items depicted in Florida Statute 718.112(2)(g), identifies the current status of the reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures



## 8. PROFESSIONAL SERVICE CONDITIONS

**Our Services** - Reserve Advisors, LLC ("RA") performs its services as an independent contractor in accordance with our professional practice standards and its compensation is not contingent upon our conclusions. The purpose of our structural integrity reserve study ("SIRS") is to provide a budget planning tool that identifies the current status of the reserve fund, and an opinion recommending an annual funding plan to create reserves for anticipated future replacement expenditures of the property.

Our inspection and analysis of the subject property is limited to visual observations, is noninvasive and is not meant to nor does it include investigation into statutory, regulatory or code compliance. RA inspects sloped roofs from the ground and inspects flat roofs where safe access (stairs or ladder permanently attached to the structure) is available. SIRS (including any subsequent revisions thereto pursuant to the terms hereof, the "Report") is based upon a "snapshot in time" at the moment of inspection. RA may note visible physical defects in the Report. Other than the visual inspection conducted in connection with the SIRS (which visual inspection shall be conducted by a licensed architect or engineer (in RA's sole discretion)) (the "SIRS Visual Inspection"), the study will be performed by employees generally familiar with real estate and building construction. Except to the extent readily apparent to RA during the SIRS Visual Inspection, RA cannot and shall not opine on the structural integrity of or other physical defects in the property under any circumstances. Without limitation to the foregoing, RA cannot and shall not opine on, nor is RA responsible for, the property's conformity to specific governmental code requirements for fire, building, earthquake, and/or occupancy.

RA is not responsible for conditions that have changed between the time of inspection and the issuance of the Report. RA does not investigate, nor assume any responsibility for any existence or impact of any hazardous materials, such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials or structural defects that are latent or hidden defects which may or may not be present on or within the property. RA does not make any soil analysis or geological study as part of its services, nor does RA investigate vapor, water, oil, gas, coal, or other subsurface mineral and use rights or such hidden conditions, and RA assumes no responsibility for any such conditions. The Report contains opinions of estimated replacement costs or deferred maintenance expenses and remaining useful lives, which are neither a guarantee of the actual costs or expenses of replacement or deferred maintenance nor a guarantee of remaining useful lives of any property element.

RA assumes, without independent verification, the accuracy of all data provided to it. You agree to indemnify and hold RA harmless against and from any and all losses, claims, actions, damages, expenses or liabilities, including reasonable attorneys' fees, to which we may become subject in connection with this engagement, because of any false, misleading or incomplete information which we have relied upon supplied by you or others under your direction, or which may result from any improper use or reliance on the Report by you or third parties under your control or direction. Your obligation for indemnification and reimbursement shall extend to any director, officer, employee, affiliate, or agent of RA. Liability of RA and its employees, affiliates, and agents for errors and omissions, if any, in this work is limited to the amount of its compensation for the work performed in this engagement.

RA assumes, without independent verification, the accuracy of all data provided to it. Except to the extent resulting from RA's willful misconduct in connection with the performance of its obligations under this agreement, you agree to indemnify, defend, and hold RA and its affiliates, officers, managers, employees, agents, successors and assigns (each, an "RA Party") harmless from and against (and promptly reimburse each RA Party for) any and all losses, claims, actions, demands, judgments, orders, damages, expenses or liabilities, including, without limitation, reasonable attorneys' fees, asserted against or to which any RA Party may become subject in connection with this engagement, including, without limitation, as a result of any false, misleading or incomplete information which RA relied upon that was supplied by you or others under your direction, or which may result from any improper use or reliance on the Report by you or third parties under your control or direction. NOTWITHSTANDING ANY OTHER PROVISION HEREIN TO THE CONTRARY, THE AGGREGATE LIABILITY (IF ANY) OF RA WITH RESPECT TO THIS AGREEMENT AND RA'S OBLIGATIONS HEREUNDER IS LIMITED TO THE AMOUNT OF THE FEES ACTUALLY RECEIVED BY RA FROM YOU FOR THE SERVICES AND REPORT PERFORMED BY RA UNDER THIS AGREEMENT, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE. YOUR REMEDIES SET FORTH HEREIN ARE EXCLUSIVE AND ARE YOUR SOLE REMEDIES FOR ANY FAILURE OF RA TO COMPLY WITH ITS OBLIGATIONS HEREUNDER OR OTHERWISE. RA SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, ANY LOST PROFITS AND LOST SAVINGS, LOSS OF USE OR INTERRUPTION OF BUSINESS, HOWEVER CAUSED, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE), BREACH OF WARRANTY, STRICT LIABILITY OR OTHERWISE, EVEN IF RA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL RA BE LIABLE FOR THE COST OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES. RA DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES WHATSOEVER, EXPRESS OR IMPLIED OR OF ANY NATURE, WITH REGARD TO THE



SERVICES AND THE REPORT, INCLUDING, WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

**Report** - RA completes the services in accordance with the Proposal. The Report represents a valid opinion of RA's findings and recommendations and is deemed complete. RA will consider any additional information made available to RA within 6 months of issuing the Report and issue a revised Report based on such additional information if a timely request for a revised Report is made by you. RA retains the right to withhold a revised Report if payment for services was not tendered in a timely manner. All information received by RA and all files, work papers or documents developed by RA during the course of the engagement shall remain the property of RA and may be used for whatever purpose it sees fit.

**Your Obligations** - You agree to provide us access to the subject property for an on-site visual inspection. You agree to provide RA all available, historical and budgetary information, the governing documents, and other information that we request and deem necessary to complete the Report. You agree to pay actual attorneys' fees and any other costs incurred to collect on any unpaid balance for RA's services.

**Use of Our Report and Your Name** - Use of the Report is limited to only the purpose stated herein. You acknowledge that RA is the exclusive owner of all intellectual property rights in and relating to the Report. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and that you will be liable for the consequences of any unauthorized use or distribution of the Report. Use or possession of the Report by any unauthorized third party is prohibited. The Report in whole or in part **is not and cannot be used as a design specification for design engineering purposes or as an appraisal**. You may show the Report in its entirety to the following third parties: members of your organization (including your directors, officers, tenants and prospective purchasers), your accountants, attorneys, financial institutions and property managers who need to review the information contained herein, and any other third party who has a right to inspect the Report under applicable law. Without the written consent of RA, you shall not disclose the Report to any other third party. By engaging our services, you agree that the Report contains intellectual property developed (and owned solely) by RA and agree that you will not reproduce or distribute the Report **to any party that conducts reserve studies without the written consent of RA**.

RA will include (and you hereby agree that RA may include) your name in our client lists. RA reserves the right to use (and you hereby agree that RA may use) property information to obtain estimates of replacement costs, useful life of property elements or otherwise as RA, in its sole discretion, deems appropriate.

**Payment Terms, Due Dates and Interest Charges** - The retainer payment is due upon authorization and prior to inspection. The balance is due net 30 days from the report shipment date. Any balance remaining 30 days after delivery of the Report shall accrue an interest charge of 1.5% per month. Unless this agreement is earlier terminated by RA in the event you breach or otherwise fail to comply with your obligations under this agreement, RA's obligations under this agreement shall commence on the date you execute and deliver this agreement and terminate on the date that is 6 months from the date of delivery of the Report by RA. Notwithstanding anything herein to the contrary, each provision that by its context and nature should survive the expiration or early termination of this agreement shall so survive, including, without limitation, any provisions with respect to payment, intellectual property rights, limitations of liability and governing law.

**Miscellaneous** - Neither party shall be liable for any failures or delays in performance due to fire, flood, strike or other labor difficulty, act of God, act of any governmental authority, riot, embargo, fuel or energy shortage, pandemic, wrecks or delays in transportation, or due to any other cause beyond such party's reasonable control; provided, however, that you shall not be relieved from your obligations to make any payment(s) to RA as and when due hereunder. In the event of a delay in performance due to any such cause, the time for completion or date of delivery will be extended by a period of time reasonably necessary to overcome the effect of such delay. You may not assign or otherwise transfer this agreement, in whole or in part, without the prior written consent of RA. RA may freely assign or otherwise transfer this agreement, in whole or in part, without your prior consent. This agreement shall be governed by the laws of the State of Wisconsin without regard to any principles of conflicts of law that would apply the laws of another jurisdiction. Any dispute with respect to this agreement shall be exclusively venued in Milwaukee County Circuit Court or in the United States District Court for the Eastern District of Wisconsin. Each party hereto agrees and hereby waives the right to a trial by jury in any action, proceeding or claim brought by or on behalf of the parties hereto with respect to any matter related to this agreement.