FULL RESERVE STUDY

Harbour Village

Montgomery, Texas

July 31, 2020

RESERVE™ ADVISORS

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Corporate Office
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Harbour Village
Montgomery, Texas

Dear Board of Directors of Harbour Village:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Harbour Village in Montgomery, Texas and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, July 31, 2020.

This *Full Reserve Study* exceeds the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a "Level I 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 Harbour Village 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 August 27, 2020 by

Reserve Advisors, LLC

Visual Inspection and Report by: Jaison T. Thomas, RS[1]
Review by: Alan M. Ebert, RS, PRA[2], Director of Quality Assurance

[1] 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.
[2] 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.

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1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Harbour Village (Harbour Village)
Location: Montgomery, Texas
Reference: 200420

Property Basics: Harbour Village is a condominium style development consisting of 133 units in four buildings. The community was built in the late 1970's.

Reserve Components Identified: 44 Reserve Components.

Inspection Date: July 31, 2020.

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. Our recommended Funding Plan recognizes these threshold funding years in 2025 due to replacement of the wood siding, in 2028 due to replacement of the roofs, in 2030 due to replacement of the staircases, and in 2034 due to inspections and partial replacements of the balconies and paint finishes to the exterior siding.

Cash Flow Method: 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
- 0.9% anticipated annual rate of return on invested reserves
- 2.0% future Inflation Rate for estimating Future Replacement Costs

Sources for *Local* Costs of Replacement: Our proprietary database, historical costs and published sources, i.e., R.S. Means, Incorporated.

Cash Status of Reserve Fund:

- $99,670 as of May 31, 2020
- The Association conducted a special assessment of $222,650 primarily for the bulkhead replacement in 2020
- 2020 budgeted Reserve Contributions of $20,000
- A potential deficit in reserves might occur by 2023 based upon continuation of the most recent annual reserve contribution of $20,000 and the identified Reserve Expenditures.

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:

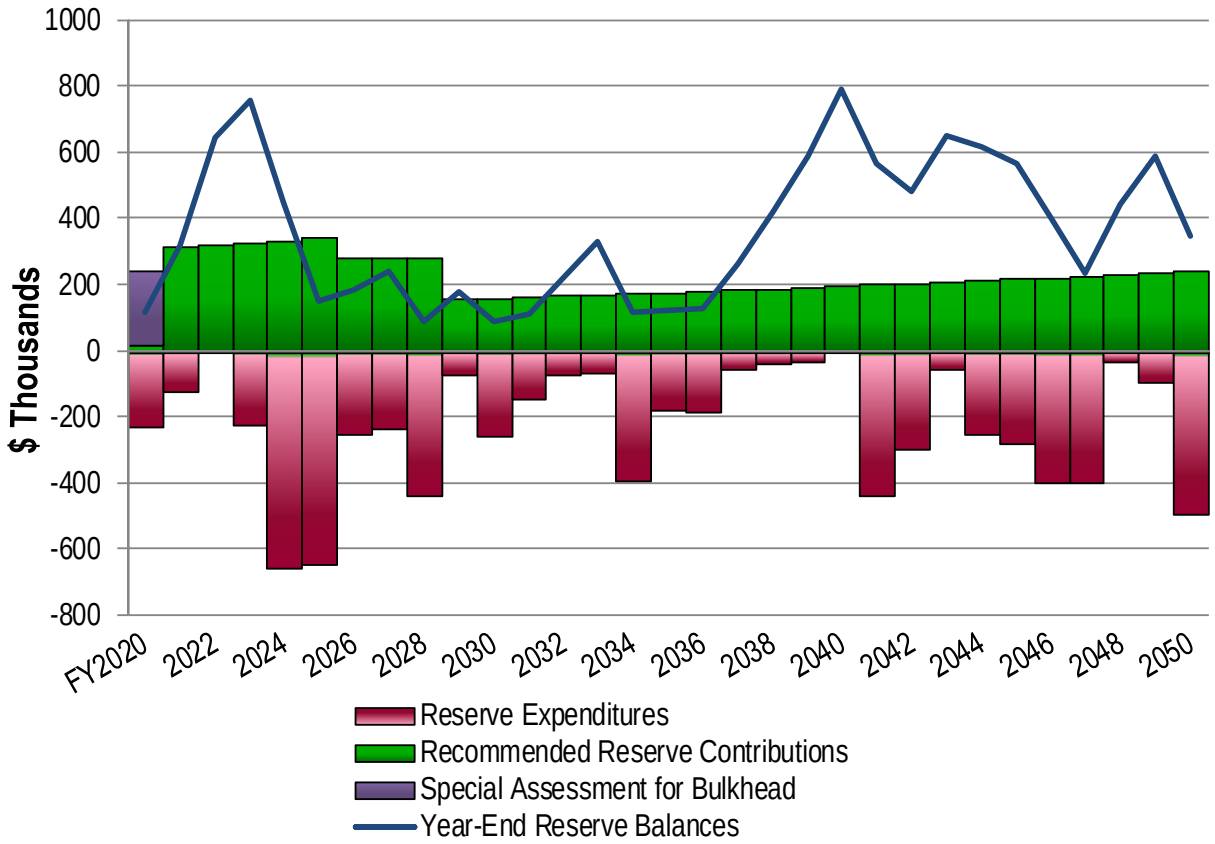
- Replacement of the wood siding due to age and evidence of deterioration
- Partial replacement of the common domestic and waste piping due to leaks and to avoid costly interior water damage
- Total replacement of the asphalt pavement due to extensive pavement cracks, alligator cracks and deterioration
- Inspection and capital repairs to the concrete retaining wall due to concrete cracks and deflection
- Resurfacing of the pool plaster finish due to reports of deterioration

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

- Increase to $318,000 in 2021
- Inflationary increases from 2021 through 2025
- Decrease to $282,000 by 2026 due to fully funding for replacement of wood siding
- Stable contributions of $282,000 from 2027 through 2028
- Decrease to $160,000 by 2026 due to fully funding for replacement of the roofs
- Inflationary increases through 2050, the limit of this study's Cash Flow Analysis
- Initial adjustment of $298,000 is equivalent to an increase of $2,240.60 in the annual contributions per homeowner.

Harbour Village
Recommended Reserve Funding Table and Graph

Year	Contributions ($)	Reserve Balances ($)	Year	Contributions ($)	Reserve Balances ($)	Year	Contributions ($)	Reserve Balances ($)
2021	318,000	315,608	2031	166,500	112,932	2041	203,000	567,723
2022	324,400	644,308	2032	169,800	214,955	2042	207,100	483,050
2023	330,900	758,090	2033	173,200	327,944	2043	211,200	648,139
2024	337,500	447,961	2034	176,700	116,736	2044	215,400	618,103
2025	344,300	149,935	2035	180,200	119,330	2045	219,700	566,849
2026	282,000	185,229	2036	183,800	124,489	2046	224,100	399,010
2027	282,000	237,369	2037	187,500	260,118	2047	228,600	235,367
2028	282,000	87,514	2038	191,300	417,068	2048	233,200	439,949
2029	160,000	179,946	2039	195,100	586,245	2049	237,900	589,693
2030	163,200	87,380	2040	199,000	791,417	2050	242,700	344,340



2. RESERVE STUDY REPORT

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

Harbour Village

Montgomery, Texas

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, July 31, 2020.

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 Homeowners
- 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:

- Harbour Village responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

Long-Lived Property 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.

- Foundations
- Structural Frames

The 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 $4,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Boilers, Domestic Hot Water, Maintenance
- Boardwalk, Pool Area, Interim Deck Board Replacement and Repairs
- Doors, Common (Replace as needed)
- Expansion Tank
- Fence, Wood, Trash Enclosure, Paint Finishes and Repairs
- Landscape
- Laundry Room, Renovation
- Masonry, Waterfall, Inspections and Repairs
- Paint Finishes, Touch Up
- Pet Waste Stations
- Pool Mechanical Equipment

Pool mechanical equipment

- Pump, Domestic Hot Water
- Pumps, Waterfall
- Signage
- Other Repairs normally funded through the Operating Budget

Certain items have been designated as the responsibility of the homeowners to repair or replace at their cost. Property Maintained by Homeowners, including items billed back to Homeowners, relates to unit:

- Electrical Systems (Including Circuit Protection Panels)
- Heating, Ventilating and Air Conditioning (HVAC) Units
- Interiors
- Pipes (Within Units)
- Storage Doors
- Windows and Doors

Certain items have been designated as the responsibility of others to repair or replace. Property Maintained by Others relates to:

- Laundry Equipment (Leased)

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
- 2020 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***.

RESERVE EXPENDITURES

Harbour Village
Montgomery, Texas

Explanatory Notes:

1) **2.0%** **is the estimated Inflation Rate for estimating Future Replacement Costs.**
2) **FY2020 is Fiscal Year beginning January 1, 2020 and ending December 31, 2020.**

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis Years Useful	Life Analysis Years Remaining	Costs, $ Unit (2020)	Costs, $ Per Phase (2020)	Costs, $ Total (2020)	Percentage of Future Expenditures	RUL = 0 FY2020	1 2021	2 2022	3 2023	4 2024	5 2025	6 2026	7 2027	8 2028	9 2029	10 2030	11 2031	12 2032	13 2033	14 2034	15 2035
				Exterior Building Elements																							
1.100	2,300	**2,300**	Linear Feet	Balconies, Railings, Steel, Paint Finishes and Capital Repairs (Incl. Staircases)	2026	6 to 8	6	10.00	23,000	23,000	**1.5%**							25,902								
1.101	1,500	**1,500**	Linear Feet	Balconies, Railings, Steel, Replacement	2035	to 50	15	55.00	82,500	82,500	**1.6%**																111,034
1.128	5,450	**5,450**	Square Feet	Balconies, Wood Frame with Concrete Topping, Inspections and Partial Replacements (Incl. Railings)	2026	8 to 12	6	13.50	73,575	73,575	**6.1%**							82,857							97,081	
1.230	4,650	**4,650**	Square Feet	Breezeways and Landings, Wood Frame with Concrete Topping, Inspections and Partial Replacements	2027	8 to 12	7	7.50	34,875	34,875	**2.1%**								40,060								
1.240	4,000	**2,000**	Linear Feet	Gutters and Downspouts, Aluminum, Phased	2027	15 to 20	7 to 8	8.00	16,000	32,000	**1.3%**								18,379	18,747							
1.260	132	**132**	Each	Light Fixtures	2029	to 25	9	120.00	15,840	15,840	**0.7%**										18,930						
1.280	560	**280**	Squares	Roofs, Asphalt Shingles, Overlaid, Near-Term, Phased	2027	10 to 15	7 to 8	500.00	140,000	280,000	**4.7%**								160,816	164,032							
1.281	560	**280**	Squares	Roofs, Asphalt Shingles, Subsequent, Phased	2045	15 to 20	25 to 26	450.00	126,000	252,000	**6.0%**																
1.600	63	**32**	Each	Staircases, Phased	2028	to 50+	8 to 10	6,000.00	189,000	378,000	**6.5%**									221,444		230,390					
1.835	112,400	**112,400**	Square Feet	Walls, Siding, Fiber Cement, Paint Finishes (Incl. Doors)	2034	8 to 10	14	1.30	146,120	146,120	**6.1%**														192,802		
1.840	96,800	**48,400**	Square Feet	Walls, Siding, Wood, Remaining, Phased (Replace with Fiber Cement)	2024	to 30	4 to 5	12.00	580,800	1,161,600	**18.2%**					628,677	641,250										
				Building Services Elements																							
3.160	2	**2**	Each	Boilers, Domestic Hot Water, 990-MBH	2034	15 to 20	14	18,000.00	36,000	36,000	**0.7%**															47,501	
3.300	4	**1**	Allowance	Electrical Systems, Phased	2030	to 70+	10 to 16	21,800.00	21,800	87,200	**1.6%**											26,574		27,648		28,765	
3.605	133	**12**	Units	Pipes, Interior, Domestic Water and Waste, Common, Partial	2021	to 80+	1	7,500.00	90,000	997,500	**10.3%**		91,800					101,355				111,904					
3.860	1	**1**	Each	Storage Tank, Domestic Hot Water	2034	to 20	14	8,000.00	8,000	8,000	**0.2%**															10,556	
				Property Site Elements																							
4.020	6,800	**6,800**	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat	2027	3 to 5	7	1.60	10,880	10,880	**1.3%**								12,498				13,528				14,643
4.040	6,800	**6,800**	Square Yards	Asphalt Pavement, Mill and Overlay	2042	15 to 20	22	14.00	95,200	95,200	**2.1%**																
4.045	6,800	**6,800**	Square Yards	Asphalt Pavement, Total Replacement	2023	15 to 20	3	26.00	176,800	176,800	**2.7%**				187,622												
4.050	380	**380**	Square Feet	Boardwalk and Railings, Wood	2032	to 25	12	35.00	13,300	13,300	**0.2%**													16,868			
4.060	2	**2**	Each	Bridges, Composite, Pedestrian	2038	to 25	18	4,000.00	8,000	8,000	**0.2%**																
4.110	2,200	**440**	Linear Feet	Concrete Curbs and Gutters, Partial	2023	to 65	3 to 30+	28.50	12,540	62,700	**0.5%**				13,308												
4.130	50	**4**	Each	Concrete Patios, Partial	2028	to 65	8 to 30+	1,000.00	4,000	50,000	**0.4%**									4,687					5,174		
4.140	16,200	**1,350**	Square Feet	Concrete Sidewalks, Partial	2023	to 65	3 to 30+	10.50	14,175	170,100	**1.7%**				15,043					16,608					18,337		
4.240	400	**400**	Linear Feet	Fences, Steel, Paint Finishes (Incl. Pool Fence)	2025	6 to 8	5	8.50	3,400	3,400	**0.3%**						3,754										
4.245	100	**100**	Linear Feet	Fences, Steel	2032	to 30	12	60.00	6,000	6,000	**0.1%**													7,609			
4.285	150	**150**	Linear Feet	Fences, Wood, Trash Corral	2026	15 to 20	6	32.00	4,800	4,800	**0.2%**							5,406									
4.420	1	**1**	Allowance	Irrigation System	2024	to 40+	4	22,500.00	22,500	22,500	**0.3%**					24,355											
4.560	13	**13**	Each	Light Poles and Fixtures	2029	to 25	9	1,900.00	24,700	24,700	**0.4%**										29,519						
4.600	133	**133**	Each	Mailboxes	2028	to 25	8	50.00	6,650	6,650	**0.1%**									7,792							
4.650	1	**1**	Allowance	Pipes, Subsurface Utilities, Partial	2029	to 85+	9	10,000.00	10,000	10,000	**1.1%**										11,951					13,195	
4.735	1,500	**1,500**	Square Feet	Retaining Walls, Concrete, Inspection and Capital Repairs	2021	10 to 15	1	7.50	11,250	11,250	**0.4%**		11,475														
4.760	470	**470**	Square Feet	Retaining Walls, Timber (Replace with Masonry)	2026	15 to 20	6	45.00	21,150	21,150	**0.3%**							23,818									
				Pool Elements																							
6.200	2,250	**2,250**	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2026	8 to 12	6	3.50	7,875	7,875	**0.3%**							8,869									
6.400	300	**300**	Linear Feet	Fence, Steel	2032	to 30	12	45.00	13,500	13,500	**0.2%**													17,121			
6.500	2	**1**	Allowance	Furniture, Phased (Incl. Site Furniture)	2023	to 12	3 to 9	7,000.00	7,000	14,000	**0.7%**				7,428						8,366						9,421
6.800	1,100	**1,100**	Square Feet	Pool Finish, Plaster	2021	8 to 12	1	12.00	13,200	13,200	**0.4%**		13,464										16,413				
6.801	150	**150**	Linear Feet	Pool Finish, Tile	2021	15 to 25	1	35.50	5,325	5,325	**0.1%**		5,432														
6.900	1,100	**1,100**	Square Feet	Structure and Deck, Total Replacement	2041	to 60	21	160.00	176,000	176,000	**3.8%**																
				Marina Elements																							
8.100	910	**910**	Square Feet	Boardwalk, Wood, Proposed (2020 is Budgeted)	2020	to 25	0	29.00	26,390	26,390	**1.0%**	26,390															

RESERVE EXPENDITURES

Harbour Village
Montgomery, Texas

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis Years Useful	Life Analysis Years Remaining	Costs, $ Unit (2020)	Costs, $ Per Phase (2020)	Costs, $ Total (2020)	Percentage of Future Expenditures	16 2036	17 2037	18 2038	19 2039	20 2040	21 2041	22 2042	23 2043	24 2044	25 2045	26 2046	27 2047	28 2048	29 2049	30 2050
				Exterior Building Elements																						
1.100	2,300	**2,300**	Linear Feet	Balconies, Railings, Steel, Paint Finishes and Capital Repairs (Incl. Staircases)	2026	6 to 8	6	10.00	23,000	23,000	**1.5%**							35,558						40,844	
1.101	1,500	**1,500**	Linear Feet	Balconies, Railings, Steel, Replacement	2035	to 50	15	55.00	82,500	82,500	**1.6%**															
1.128	5,450	**5,450**	Square Feet	Balconies, Wood Frame with Concrete Topping, Inspections and Partial Replacements (Incl. Railings)	2026	8 to 12	6	13.50	73,575	73,575	**6.1%**							113,745							133,271
1.230	4,650	**4,650**	Square Feet	Breezeways and Landings, Wood Frame with Concrete Topping, Inspections and Partial Replacements	2027	8 to 12	7	7.50	34,875	34,875	**2.1%**		48,833										59,528			
1.240	4,000	**2,000**	Linear Feet	Gutters and Downspouts, Aluminum, Phased	2027	15 to 20	7 to 8	8.00	16,000	32,000	**1.3%**										26,250	26,775				
1.260	132	**132**	Each	Light Fixtures	2029	to 25	9	120.00	15,840	15,840	**0.7%**														28,129	
1.280	560	**280**	Squares	Roofs, Asphalt Shingles, Overlaid, Near-Term, Phased	2027	10 to 15	7 to 8	500.00	140,000	280,000	**4.7%**															
1.281	560	**280**	Squares	Roofs, Asphalt Shingles, Subsequent, Phased	2045	15 to 20	25 to 26	450.00	126,000	252,000	**6.0%**										206,716	210,851				
1.600	63	**32**	Each	Staircases, Phased	2028	to 50+	8 to 10	6,000.00	189,000	378,000	**6.5%**															
1.835	112,400	**112,400**	Square Feet	Walls, Siding, Fiber Cement, Paint Finishes (Incl. Doors)	2034	8 to 10	14	1.30	146,120	146,120	**6.1%**									235,025						
1.840	96,800	**48,400**	Square Feet	Walls, Siding, Wood, Remaining, Phased (Replace with Fiber Cement)	2024	to 30	4 to 5	12.00	580,800	1,161,600	**18.2%**															
				Building Services Elements																						
3.160	2	**2**	Each	Boilers, Domestic Hot Water, 990-MBH	2034	15 to 20	14	18,000.00	36,000	36,000	**0.7%**															
3.300	4	**1**	Allowance	Electrical Systems, Phased	2030	to 70+	10 to 16	21,800.00	21,800	87,200	**1.6%**	29,927														
3.605	133	**12**	Units	Pipes, Interior, Domestic Water and Waste, Common, Partial	2021	to 80+	1	7,500.00	90,000	997,500	**10.3%**	123,551					136,410					150,608				
3.860	1	**1**	Each	Storage Tank, Domestic Hot Water	2034	to 20	14	8,000.00	8,000	8,000	**0.2%**															
				Property Site Elements																						
4.020	6,800	**6,800**	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat	2027	3 to 5	7	1.60	10,880	10,880	**1.3%**				15,850				17,157				18,571			
4.040	6,800	**6,800**	Square Yards	Asphalt Pavement, Mill and Overlay	2042	15 to 20	22	14.00	95,200	95,200	**2.1%**							147,177								
4.045	6,800	**6,800**	Square Yards	Asphalt Pavement, Total Replacement	2023	15 to 20	3	26.00	176,800	176,800	**2.7%**															
4.050	380	**380**	Square Feet	Boardwalk and Railings, Wood	2032	to 25	12	35.00	13,300	13,300	**0.2%**															
4.060	2	**2**	Each	Bridges, Composite, Pedestrian	2038	to 25	18	4,000.00	8,000	8,000	**0.2%**			11,426												
4.110	2,200	**440**	Linear Feet	Concrete Curbs and Gutters, Partial	2023	to 65	3 to 30+	28.50	12,540	62,700	**0.5%**						19,006									
4.130	50	**4**	Each	Concrete Patios, Partial	2028	to 65	8 to 30+	1,000.00	4,000	50,000	**0.4%**			5,713					6,308					6,964		
4.140	16,200	**1,350**	Square Feet	Concrete Sidewalks, Partial	2023	to 65	3 to 30+	10.50	14,175	170,100	**1.7%**			20,245					22,353					24,679		
4.240	400	**400**	Linear Feet	Fences, Steel, Paint Finishes (Incl. Pool Fence)	2025	6 to 8	5	8.50	3,400	3,400	**0.3%**		4,761						5,361						6,038	
4.245	100	**100**	Linear Feet	Fences, Steel	2032	to 30	12	60.00	6,000	6,000	**0.1%**															
4.285	150	**150**	Linear Feet	Fences, Wood, Trash Corral	2026	15 to 20	6	32.00	4,800	4,800	**0.2%**											8,032				
4.420	1	**1**	Allowance	Irrigation System	2024	to 40+	4	22,500.00	22,500	22,500	**0.3%**															
4.560	13	**13**	Each	Light Poles and Fixtures	2029	to 25	9	1,900.00	24,700	24,700	**0.4%**															
4.600	133	**133**	Each	Mailboxes	2028	to 25	8	50.00	6,650	6,650	**0.1%**															
4.650	1	**1**	Allowance	Pipes, Subsurface Utilities, Partial	2029	to 85+	9	10,000.00	10,000	10,000	**1.1%**				14,568					16,084					17,758	
4.735	1,500	**1,500**	Square Feet	Retaining Walls, Concrete, Inspection and Capital Repairs	2021	10 to 15	1	7.50	11,250	11,250	**0.4%**	15,444														
4.760	470	**470**	Square Feet	Retaining Walls, Timber (Replace with Masonry)	2026	15 to 20	6	45.00	21,150	21,150	**0.3%**															
				Pool Elements																						
6.200	2,250	**2,250**	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2026	8 to 12	6	3.50	7,875	7,875	**0.3%**	10,811														
6.400	300	**300**	Linear Feet	Fence, Steel	2032	to 30	12	45.00	13,500	13,500	**0.2%**															
6.500	2	**1**	Allowance	Furniture, Phased (Incl. Site Furniture)	2023	to 12	3 to 9	7,000.00	7,000	14,000	**0.7%**						10,610						11,948			
6.800	1,100	**1,100**	Square Feet	Pool Finish, Plaster	2021	8 to 12	1	12.00	13,200	13,200	**0.4%**															
6.801	150	**150**	Linear Feet	Pool Finish, Tile	2021	15 to 25	1	35.50	5,325	5,325	**0.1%**															
6.900	1,100	**1,100**	Square Feet	Structure and Deck, Total Replacement	2041	to 60	21	160.00	176,000	176,000	**3.8%**						266,757									
				Marina Elements																						
8.100	910	**910**	Square Feet	Boardwalk, Wood, Proposed (2020 is Budgeted)	2020	to 25	0	29.00	26,390	26,390	**1.0%**										43,296					

Years 2020 to 2035

RESERVE EXPENDITURES

Explanatory Notes:

1) **2.0%** **is the estimated Inflation Rate for estimating Future Replacement Costs.**
2) **FY2020 is Fiscal Year beginning January 1, 2020 and ending December 31, 2020.**

Harbour Village

Montgomery, Texas

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis Years Useful	Life Analysis Years Remaining	Costs, $ Unit (2020)	Costs, $ Per Phase (2020)	Costs, $ Total (2020)	Percentage of Future Expenditures	RUL = 0 FY2020	1 2021	2 2022	3 2023	4 2024	5 2025	6 2026	7 2027	8 2028	9 2029	10 2030	11 2031	12 2032	13 2033	14 2034	15 2035
8.101	1,210	**1,210**	Linear Feet	Bulkhead, Inspections and Capital Repairs	2033	to 15	13	25.00	30,250	30,250	**0.6%**													39,132		
8.105	690	**690**	Linear Feet	Bulkhead, Replacement, Recently Replaced	2047	20 to 30	27	259.00	178,710	178,710	**4.4%**															
8.106	520	**520**	Linear Feet	Bulkhead, Replacement, Remaining (2020 is Budgeted)	2020	20 to 30	0	259.00	134,680	134,680	**5.4%**	134,680														
8.107	4,980	**4,980**	Square Feet	Deck, Wood, Bulkhead (2020 is Budgeted)	2020	20 to 30	0	12.75	63,495	63,495	**2.6%**	63,495														
8.108	4,980	**4,980**	Square Feet	Deck, Wood, Bulkhead, Deck Boards and Interim Repairs	2035	10 to 15	15	6.50	32,370	32,370	**0.6%**															43,566
				Anticipated Expenditures, By Year ($6,966,413 over 30 years)								224,565	122,171	0	223,401	653,032	645,004	248,207	231,753	433,310	68,766	256,964	141,845	69,246	62,643	389,900	178,664

RESERVE EXPENDITURES

Harbour Village
Montgomery, Texas

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis Years Useful	Life Analysis Years Remaining	Costs, $ Unit (2020)	Costs, $ Per Phase (2020)	Costs, $ Total (2020)	Percentage of Future Expenditures	16 2036	17 2037	18 2038	19 2039	20 2040	21 2041	22 2042	23 2043	24 2044	25 2045	26 2046	27 2047	28 2048	29 2049	30 2050
8.101	1,210	**1,210**	Linear Feet	Bulkhead, Inspections and Capital Repairs	2033	to 15	13	25.00	30,250	30,250	**0.6%**															
8.105	690	**690**	Linear Feet	Bulkhead, Replacement, Recently Replaced	2047	20 to 30	27	259.00	178,710	178,710	**4.4%**												305,038			
8.106	520	**520**	Linear Feet	Bulkhead, Replacement, Remaining (2020 is Budgeted)	2020	20 to 30	0	259.00	134,680	134,680	**5.4%**															243,954
8.107	4,980	**4,980**	Square Feet	Deck, Wood, Bulkhead (2020 is Budgeted)	2020	20 to 30	0	12.75	63,495	63,495	**2.6%**															115,012
8.108	4,980	**4,980**	Square Feet	Deck, Wood, Bulkhead, Deck Boards and Interim Repairs	2035	10 to 15	15	6.50	32,370	32,370	**0.6%**															
				Anticipated Expenditures, By Year ($6,966,413 over 30 years)								179,733	53,594	37,384	30,418	0	432,783	296,480	51,179	251,109	276,262	396,266	395,085	31,643	92,769	492,237

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS

Harbour Village
Montgomery, Texas

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Reserves at Beginning of Year	*(Note 1)*	99,670	117,837	315,608	644,308	758,090	447,961	149,935	185,229	237,369	87,514	179,946	87,380	112,932	214,955	327,944	116,736
Recommended Reserve Contributions		20,000	318,000	324,400	330,900	337,500	344,300	282,000	282,000	282,000	160,000	163,200	166,500	169,800	173,200	176,700	180,200
Special Assessment for Bulkhead		222,650															
Total Recommended Reserve Contributions	*(Note 2)*	**242,650**	**318,000**	**324,400**	**330,900**	**337,500**	**344,300**	**282,000**	**282,000**	**282,000**	**160,000**	**163,200**	**166,500**	**169,800**	**173,200**	**176,700**	**180,200**
Estimated Interest Earned, During Year	*(Note 3)*	82	1,942	4,300	6,283	5,403	2,678	1,501	1,893	1,455	1,198	1,198	897	1,469	2,432	1,992	1,058
Anticipated Expenditures, By Year		(224,565)	(122,171)	0	(223,401)	(653,032)	(645,004)	(248,207)	(231,753)	(433,310)	(68,766)	(256,964)	(141,845)	(69,246)	(62,643)	(389,900)	(178,664)
Anticipated Reserves at Year End		$117,837	$315,608	$644,308	$758,090	$447,961	$149,935 *(NOTE 5)*	$185,229	$237,369	$87,514 *(NOTE 5)*	$179,946	$87,380 *(NOTE 5)*	$112,932	$214,955	$327,944	$116,736 *(NOTE 5)*	$119,330
Predicted Reserves based on 2020 funding level of:	$20,000	117,837	16,267	36,503	(167,485)	(804,873)											

(continued)

Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued

	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Reserves at Beginning of Year	119,330	124,489	260,118	417,068	586,245	791,417	567,723	483,050	648,139	618,103	566,849	399,010	235,367	439,949	589,693
Total Recommended Reserve Contributions	**183,800**	**187,500**	**191,300**	**195,100**	**199,000**	**203,000**	**207,100**	**211,200**	**215,400**	**219,700**	**224,100**	**228,600**	**233,200**	**237,900**	**242,700**
Estimated Interest Earned, During Year	1,092	1,723	3,034	4,495	6,172	6,089	4,707	5,068	5,673	5,308	4,327	2,842	3,025	4,613	4,184
Anticipated Expenditures, By Year	(179,733)	(53,594)	(37,384)	(30,418)	0	(432,783)	(296,480)	(51,179)	(251,109)	(276,262)	(396,266)	(395,085)	(31,643)	(92,769)	(492,237)
Anticipated Reserves at Year End	$124,489	$260,118	$417,068	$586,245	$791,417	$567,723	$483,050	$648,139	$618,103	$566,849	$399,010	$235,367	$439,949	$589,693	$344,340 *(NOTE 4)*

Explanatory Notes:

1) Year 2020 starting reserves are as of May 31, 2020; FY2020 starts January 1, 2020 and ends December 31, 2020.
2) Reserve Contributions for 2020 are budgeted; 2021 is the first year of recommended contributions.
3) 0.9% is the estimated annual rate of return on invested reserves; 2020 is a partial year of interest earned.
4) Accumulated year 2050 ending reserves consider the age, size, overall condition and complexity of the property.
5) Threshold Funding Years (reserve balance at critical point).

*Refer to the Reserve Expenditures pages for the full list of reserve elements

FIVE-YEAR OUTLOOK

Harbour Village
Montgomery, Texas

Line Item	Reserve Component Inventory	RUL = 0 FY2020	1 2021	2 2022	3 2023	4 2024	5 2025
	Exterior Building Elements						
1.840	Walls, Siding, Wood, Remaining, Phased (Replace with Fiber Cement)					628,677	641,250
	Building Services Elements						
3.605	Pipes, Interior, Domestic Water and Waste, Common, Partial		91,800				
	Property Site Elements						
4.045	Asphalt Pavement, Total Replacement				187,622		
4.110	Concrete Curbs and Gutters, Partial				13,308		
4.140	Concrete Sidewalks, Partial				15,043		
4.240	Fences, Steel, Paint Finishes (Incl. Pool Fence)						3,754
4.420	Irrigation System					24,355	
4.735	Retaining Walls, Concrete, Inspection and Capital Repairs		11,475				
	Pool Elements						
6.500	Furniture, Phased (Incl. Site Furniture)				7,428		
6.800	Pool Finish, Plaster		13,464				
6.801	Pool Finish, Tile		5,432				
	Marina Elements						
8.100	Boardwalk, Wood, Proposed (2020 is Budgeted)	26,390					
8.106	Bulkhead, Replacement, Remaining (2020 is Budgeted)	134,680					
8.107	Deck, Wood, Bulkhead (2020 is Budgeted)	63,495					
	Anticipated Expenditures, By Year ($6,966,413 over 30 years)	224,565	122,171	0	223,401	653,032	645,004

4. RESERVE COMPONENT DETAIL

The Reserve Component Detail of this *Full 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*.

Exterior Building Elements

Front elevation

Side elevation

Rear elevation

Balconies, Railings, Paint Finishes

Line Items: 1.100 and 1.101

Quantity: Approximately 1,500 linear feet of steel railings at the balconies. This quantity also includes the steel railings along a minor portion of the breezeways.

History: Exact age unknown. The railings were painted in 2018

Conditions: Good to fair overall

Railing at balcony

Railing at breezeway

Useful Life: Railings of this type have a useful life of up to 50 years with the benefit of periodic maintenance. Periodic maintenance should include applications of a protective paint finish and partial replacement of deteriorated steel every six- to eight-years.

Component Detail Notes: Preparation of the steel before application of the paint finish is critical to maximize the useful life of the finish.

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 also include paint finishes and repairs to the staircases on Line Item 1.100.

Balconies, Wood Frame with Concrete Topping

Line Item: 1.128

Quantity: Approximately 83 wood frame balconies with concrete topping which comprise approximately 5,450 square feet of horizontal surface area.

History: The Board informs us the Association replaced a portion of the balconies within the last six years

Condition: Condition of the balconies vary from good to fair overall with wood rot, sagging balcony and damaged soffit evident

Balconies

Balcony underside

Wood rot at balcony fascia

Sagging balcony

Wood rot at balcony fascia

Damaged soffit

Sagging balcony

Useful Life: Inspections and capital repairs every 8- to 12-years

Component Detail Notes: We surmise the balconies comprise thinset lightweight concrete over a waterproof membrane atop the wood structure below. A waterproof membrane minimizes storm water penetration into the wood structure and therefore minimizes future balcony deterioration.

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:

- Removal and replacement of up to twenty percent (20%) of the thinset concrete topping and underlying waterproof membrane
- Partial replacement of up to twenty percent (20%) of wood components
- Repairs of adjacent wall surfaces
- Repairs to the railings as necessary
- Replacement of perimeter sealants as needed
- Replacement of wood balcony support posts as needed

Breezeways and Landings, Concrete

Line Item: 1.230

Quantity: Approximately 4,650 square feet of wood frame with concrete topping comprising the breezeways and landings at the second and third levels of the buildings. This quantity also includes the HVAC equipment storage areas.

History: Primarily original

Condition: Good to fair overall with concrete cracks evident

Breezeway overview

Breezeway overview – Note carpet covering

Previous crack repairs

Concrete cracks

HVAC equipment storage area

Breezeway

Useful Life: Inspections and capital repairs every 8- to 12-years

Component Detail Notes: We surmise the breezeways comprise thinset lightweight concrete over a waterproof membrane atop the wood structure below.

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:

- Removal and replacement of up to 10 percent (10%) of the thinset concrete topping and underlying waterproof membrane
- Partial replacement of up to ten percent (10%) of wood components
- Repairs of adjacent wall surfaces
- Replacement of perimeter sealants as needed

Gutters and Downspouts, Aluminum

Line Item: 1.240

Quantity: Approximately 4,000 linear feet of aluminum six-inch seamless gutters and three-inch by four-inch downspouts

History: The gutters and downspouts have been replaced as needed over the years. We recommend the Association budget for total replacement in conjunction with the roofs by 2027 and 2028

Condition: Good overall with minor gutter dents evident

Gutter and downspouts assembly

Dented gutter

Dented gutter

Useful Life: 15- to 20-years

Component Detail Notes: The useful life of gutters and downspouts coincides with that of the asphalt shingle roofs. Coordinated replacement will result in the most economical unit price and minimize the possibility of damage to other roof components as compared to separate replacements.

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.

Light Fixtures

Line Item: 1.260

Quantity: Approximately 132 exterior light fixtures

History: Exact age unknown

Condition: Varies in condition. We note damaged light fixtures.

Light fixture

Damaged fixture

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.

Roofs, Asphalt Shingles

Line Items: 1.280 and 1.281

Quantity: Approximately 560 *squares*[1]

History: The Board informs us the Association conducted repairs and an overlayment over the existing roof assembly within the last five years. We recommend the Association fund for total replacement of the roofing assembly at all buildings by 2027 and 2028.

Condition: The Board informs us the roofs were inspected recently and are reported in good overall condition. We note lifted shingles and isolated sheathing deflection.

[1] We quantify the roof area in squares where one square is equal to 100 square feet of surface area.

Asphalt shingle roof overview

Asphalt shingle roof overview

Lifted shingles

Lifted shingles

Sheathing deflection

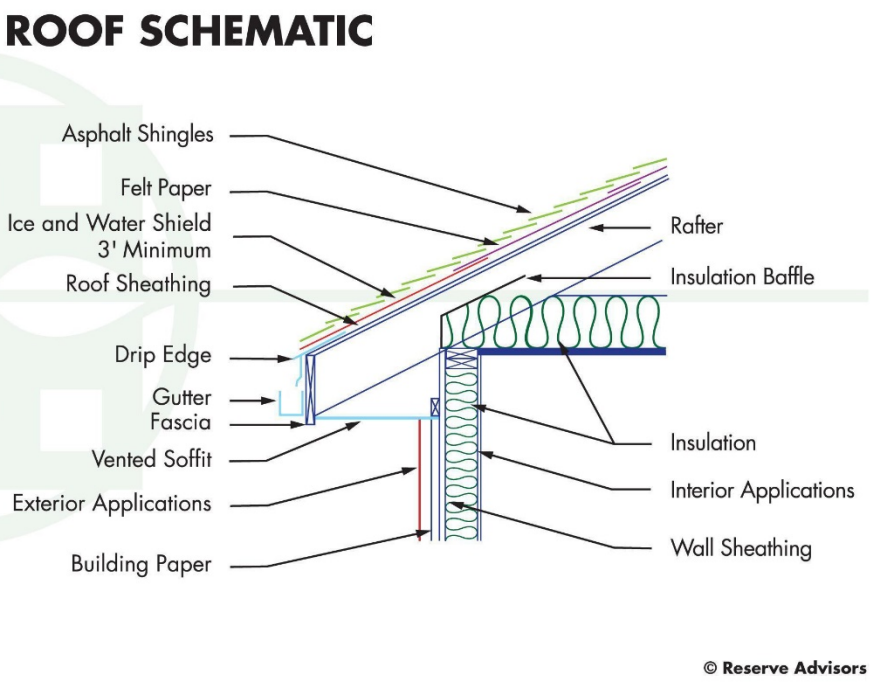
Lifted shingles

Useful Life: Due to the potential for failure of underlayments and other roof components, we anticipate a decreased useful life of 10- to 15-years for the overlaid roofs. We depict subsequent replacement up to every 15- to 20-years.

Component Detail Notes: The existing roof assembly comprises the following:

- Laminate shingles
- Boston style ridge caps
- Soffit vents
- Metal drip edge

The following cross-sectional schematic illustrates a typical asphalt shingle roof system although it may not reflect the actual configuration at Harbour Village:



Contractors use one of two methods for replacement of sloped roofs, either an overlayment or a tear-off. Overlayment is the application of new shingles over an existing roof. However, there are many disadvantages to overlayment including hidden defects of the underlying roof system, absorption of more heat resulting in accelerated deterioration of the new and old shingles, and an uneven visual appearance. Therefore, we recommend only the tear-off method of replacement. The tear-off method of replacement includes removal of the existing shingles, flashings if required and underlayments.

The Association should plan to coordinate the replacement of gutters and downspouts with the adjacent roofs. This will result in the most economical unit price and minimize the possibility of damage to other roof components as compared to separate replacements.

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 replacing the overlaid roofs reflects the additional cost for removal of two layers of shingles.

Staircases

Line Item: 1.600

Quantity: 63 sets of staircases located at the breezeways

History: Primarily original. The Association has conducted repairs as needed over the years.

Condition: The condition of the staircase structure varies from good to fair overall throughout the property. We note cracks at concrete treads throughout the property. We recommend the Association fund repairs and replacement of the concrete treads as needed through the operating budget.

Staircase overview

Previous crack repairs at concrete treads

Concrete cracks and damaged frame

Damage at frame

Concrete cracks

Rust and damage at frame

Useful Life: 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. We include paint finishes and repairs to the staircases on Line Item 1.100.

Walls, Siding, Fiber Cement, Paint Finishes

Line Item: 1.835

Quantity: We include paint finishes to the fiber cement siding post replacement of the composite hardboard siding by 2025

History: A portion of the composite hardboard siding were replaced with fiber cement siding in 2018

Condition: Good overall

Recently installed fiber cement siding

Recently installed fiber cement railing at breezeway

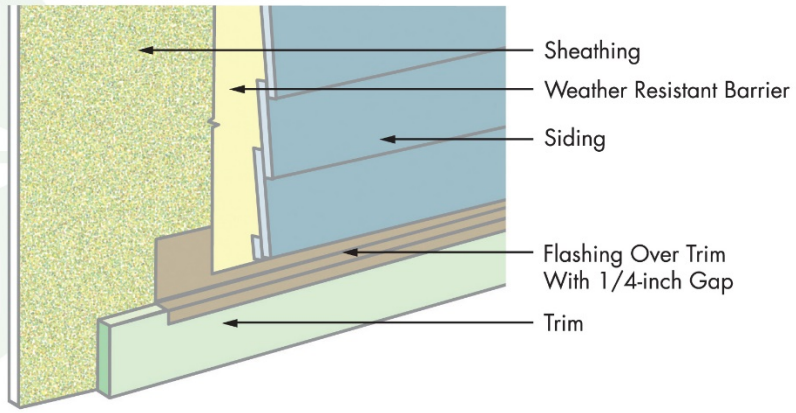
Useful Life: With the benefit of periodic maintenance, applications of this type of material can have a useful life of up to 50 years. This useful life is based on a high grade pre-finish applied in the factory. This useful life is also dependent upon paint applications and partial replacements up to every 8- to 10-years.

Component Detail Notes: Fiber cement siding is made from a combination of cement, sand and cellulose fiber. Manufacturing of the siding utilizes a steam curing process to increase strength and dimensional stability. The siding is also manufactured in layers forming a sheet of desired thickness. A wood grain imprint is typically applied to the exposed surface. Fiber cement siding offers many advantages over other types of siding. These advantages include:

- Capable of withstanding salt spray and ultraviolet rays
- Dimensional stability (will not buckle or warp as easily as other materials)
- Paint applications last longer compared to wood siding
- Resistant to insects, birds and fire

The following diagram details a typical fiber cement siding system at the interface with other building components although it may not reflect the actual configuration at Harbour Village:

FIBER CEMENT SIDING DETAIL



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 anticipate the following during each paint application cycle:

- Paint finish application
- Replacement of a limited amount siding and trim (The exact amount of material in need of replacement will depend on the actual future conditions and desired appearance. We recommend replacement wherever cracks, delamination and deterioration impair the ability of the material to prevent water infiltration.)
- Replacement of up to or thirty-three percent (33%) of the total
- Paint finishes to the front entry doors

Walls, Siding, Wood

Line Item: 1.840

Quantity: We estimate that Association currently maintains approximately 96,800 square feet of wood siding at the exterior walls. This quantity also includes the soffit and fascia.

History: The siding was painted in 2018 and a portion of the wood siding was replaced with fiber cement siding in 2018

Condition: Fair overall with weathered, damaged and deflected siding evident

Exterior wood siding

Weathered and damaged siding

Deflected siding

Weathered and deflected siding

Wood railings along breezeway

Wood rot

Loose and weathered wood siding – Note sections replaced with fiber cement siding

Wood soffit and fascia at the breezeway

Useful Life: Up to 30 years. However, failure to conduct paint applications and repairs in a timely manner will reduce the remaining useful life of the siding.

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 Harbour Village consider fiber cement siding as a replacement material. This type of siding requires less frequent paint applications than composite siding and has a longer useful life.

Building Services Elements

Boilers, Domestic Hot Water

Line Item: 3.160

Quantity: Two gas-fired boiler with an input capacity of 990-MBH (thousand British Thermal Units per hour) to generate domestic hot water

History: Replaced in 2016

Condition: Reported satisfactory without operational deficiencies

Boiler

Useful Life: 15- to 20-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:

- Weekly:
  - Inspect for leaking water around boilers
  - Check temperature readings
  - Verify vent is unobstructed
  - Conduct boiler blowdown to minimize corrosion and remove suspended solids in system
  - Clean pilot and burner assemblies
- Monthly:
  - Check water and pressure levels
  - Check controls and switches for proper operating
  - Check and inspect condensate drain
  - Check all gaskets for tight sealing
- Annually:
  - Conduct full inspection of burners and flues
  - Clean and inspect tubes to reduce scaling
  - Inspect any pressure relief valves
  - Inspect electrical terminals and controls

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 an allowance for replacement of controls.

Electrical system

Line Item: 3.300

Quantity: The Association maintains electric panels and meter banks at each building

History: Original

Condition: Reported satisfactory

Electrical system

Useful Life: 70+ 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 replacement of the electric panels and the meter banks.

Pipes, Domestic Water and Waste

Line Item: 3.605

Quantity: We estimate that each unit shares domestic water plumbing pipes for both the kitchen and bathroom with the adjacent unit.

History and Condition:

- Domestic Water, Supply and Return – Original. The Board reports of leaks and damaged pipes by the building foundation
- Sanitary Waste Disposal and Vent – Original. The Board informs us of backing up of sewage pipes primarily at Building A. The Board also informs us of collapsed and rotten sections of piping.

The Board informs us the Association is in the process of having the pipes inspected in order to identify the cause of leaks and damage to the pipes. Future Reserve Study updates will consider the need to adjust expenditure and timing based on information obtained then.

Component Detail Notes: The Association is responsible for maintenance and replacement of the piping systems arranged in vertical and horizontal segments. These pipes comprise the following:

- Domestic cold water
- Domestic hot water supply and return
- Vent plumbing fixtures
- Sanitary waste disposal

The exact locations and conditions of the pipes were not ascertained due to the nature of their location and the non-invasive nature of our inspection. We comment on the respective quantities and conditions of the piping systems in the following sections of this narrative.

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. Studies have shown that changes in water treatment practices, recently required in response to U.S. Environmental Protection Agency regulations, are dramatically increasing the risk of pitting corrosion in many geographic locations. Utility companies are implementing higher chloride levels to prevent outbreaks of waterborne disease. These higher chloride levels can accelerate corrosion of copper pipes and indeterminately reduce their useful life.

In the event that numerous pinhole leaks develop or occur throughout the system of pipes, Harbour Village 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 Harbour Village. Restoration technology can extend the useful life of a pipe system thus avoiding a system pipe replacement.

Sanitary Waste Disposal and Vent - The cast-iron 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.

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
  - 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 sewer 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 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.

The Association budgets an amount in the annual operating budget for minor pipe repairs and replacements. We recommend the Association continue to fund interim pipe replacements, prior to more aggregate replacements identified in the following paragraphs, from the operating budget. We also recommend the Association contract for an invasive investigation of the condition of the piping system prior to beginning more aggregate replacements, funded through the operating budget.

We recommend the Association budget the following expenditures:

- Domestic Water and Waste - We include expenditures to replace pipes at 12 units beginning by 2021 and every four years thereafter. Our estimate provides funds to replace approximately seventy percent (70%) of the pipes 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, Harbour Village 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 pipes

Storage Tank

Line Item: 3.860

Quantity: One domestic hot water storage tank with a capacity of 400-Gallons

History: Replaced in 2016

Condition: Reported satisfactory

Storage tank

Useful Life: Up to 20 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.

Property Site Elements

Asphalt Pavement, Crack Repair, Patch and Seal Coat

Line Item: 4.020

Quantity: Approximately 6,800 square yards

History: Original

Condition: Fair to poor

Useful Life: Three- to five-years

Component Detail Notes: Proposals for seal coat applications should include crack repairs and patching. The contractor should only apply seal coat applications after repairs are completed. A seal coat does not bridge or close cracks, therefore, unrepaired cracks render the seal coat applications useless.

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 an allowance for crack repairs and patching of up to two percent (2%) of the pavement.

Asphalt Pavement, Repaving

Line Items: 4.040 and 4.045

Quantity: Approximately 6,800 square yards

History: The pavement was overlaid in approximately 2012

Condition: Fair to poor overall with extensive pavement cracks, deterioration, alligator cracks and damaged sections evident

Asphalt pavement overview

Section patched with concrete

Alligator cracks

Alligator cracks

Pavement deterioration and alligator cracks

Pavement deterioration and alligator cracks

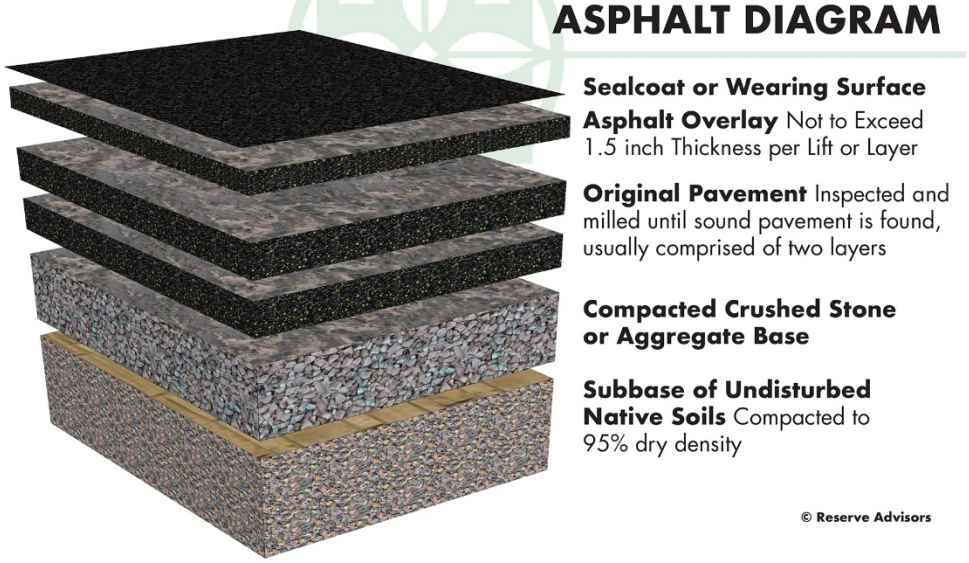
Deterioration of the overlaid top course

Damaged pavement

Alligator cracks around previously patched section

Useful Life: 15- to 20-years with the benefit of timely crack repairs and patching

Component Detail Notes: 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 Harbour Village:



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 total replacement method of repaving followed by a mill and overlay method of repaving at Harbour Village.

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 milling and overlayment includes area patching of up to ten percent (10%).

Boardwalk and Railings

Line Item: 4.050

Quantity: Approximately 380 square feet of wood comprising the boardwalk adjacent to the pool area

History: Exact age unknown. Likely replaced in recent years.

Condition: Good overall

Boardwalk overview

Wood railing at boardwalk

Weathering of wood at railing

Useful Life: Up to 25 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. We recommend the Association fund interim deck board replacements and repairs funded through the operating budget.

Bridges, Composite

Line Item: 4.060

Quantity: The Association maintains two composite pedestrian bridges at the property

History: Original to construction in approximately 2015

Condition: Good overall

Pedestrian bridge overview

Useful Life: Up to 25 years

The wood components in the composite material will absorb moisture. When dispelled, black mold spots can appear that will require chemical cleaning. However, these spots will reappear resulting in the need for cleaning every other month as needed during humid months. The Association should fund these expenses through the operating budget.

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.

Concrete Curbs and Gutters

Line Item: 4.110

Quantity: Approximately 2,200 linear feet

Condition: Good to fair overall with concrete cracks and damaged concrete evident

Concrete curb and gutter

Concrete cracks

Damaged concrete

Useful Life: Up to 65 years although interim deterioration of areas is common

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We estimate that up to 880 linear feet of curbs and gutters, or forty percent (40%) of the total, will require replacement during the next 30 years.

Concrete Patios

Line Item: 4.130

Quantity: 50 total, average of 61 square feet each

Condition: Good to fair overall with spalled and damaged concrete evident

Concrete patio

Spalled concrete

Damaged concrete

Useful Life: Up to 65 years although interim deterioration of areas is common

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We recommend the Association plan for replacement of up to 20 patios, or approximately forty percent (40%) of the total, during the next 30 years.

Concrete Sidewalks

Line Item: 4.140

Quantity: Approximately 16,200 square feet of concrete comprising the sidewalks and concrete pads at the trash corrals

Condition: Fair overall with concrete cracks, trip hazards and concrete damage evident

Previously patched sections

Previously patched section

Concrete cracks

Concrete cracks and damaged by the trash corral

Trip hazard

Concrete cracks

Lifted concrete

Useful Life: Up to 65 years although interim deterioration of areas is common

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We estimate that up to 8,040 square feet of concrete sidewalks, or fifty percent (49.9%) of the total, will require replacement during the next 30 years.

Fences, Steel

Line Items: 4.240 and 4.245

Quantity: Approximately 100 linear feet of steel fences by the boat ramp and at the north section of the property

History: Exact age unknown

Condition: Good to fair overall

Fence by boat ramp

Fence at north section of the property

Finish deterioration and rust

Rust

Useful Life: Six- to eight-years for paint finishes and up to 30 years for replacement

Component Detail Notes: Steel components at grade and key structural connections are especially prone to failure if not thoroughly maintained. Secure and rust free fasteners and connections will prevent premature deterioration. Preparation of the steel before application of the paint finish is critical to maximize the useful life of the finish.

Priority/Criticality: Per Board discretion

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

Fences, Wood

Line Item: 4.285

Quantity: Approximately 150 linear feet around the trash corrals

History: Exact age unknown

Condition: Good to fair overall

Wood fence around trash enclosure

Useful Life: 15- 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. The Association should anticipate periodic partial replacements due to the non-uniform nature of wood deterioration. Along with these partial replacements, the Association should apply periodic paint applications as needed and fund these activities through the operating budget.

Irrigation System

Line Item: 4.420

Quantity: The Association maintains an irrigation system to water the landscape throughout the property

History: Original

Condition: The Board informs us the irrigation system has been non-operational and plans to update the system in the near-term

Useful Life: 40+ years

Component Detail Notes: Irrigation systems typically include the following components:

- Electronic controls (timer)
- Impact rotors

- Network of supply pipes
- Pop-up heads
- Valves

Harbour Village should anticipate interim and partial replacements of the system network supply pipes and other components as normal maintenance to maximize the useful life of the irrigation system. The Association should fund these ongoing seasonal repairs through the operating budget.

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.

Light Poles and Fixtures

Line Item: 4.560

Quantity: 13 light poles and fixtures

History: Exact age unknown

Condition: Good overall

Light pole and fixture

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.

Mailboxes

Line Item: 4.600

Quantity: 133 mailboxes

History: Likely original

Condition: Good overall

Mailboxes

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.

Pipes, Subsurface Utilities

Line Item: 4.650

Condition: Reported satisfactory

Useful Life: Up to and likely beyond 85 years

Component Detail Notes: The Association maintains the subsurface utility pipes throughout the property. The exact amounts and locations of the subsurface utility pipes were not ascertained due to the nature of the underground construction and the non-invasive nature of the 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. At this time we do not anticipate replacement of continuous lengths of subsurface utility pipes. Rather we recommend the Association

budget for repairs to isolated occurrences of breached utilities. Although it is likely that the times of replacement and extent of repair costs may vary from the budgetary allowance, Harbour Village could budget sufficient reserves for these utility repairs 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 repairs to budget sufficient reserves.

Retaining Walls, Concrete

Line Item: 4.735

Quantity: Approximately 1,500 square feet

History: Original

Condition: Varies in condition from good to fair overall. We note cracks, damage and leaning section primarily along the west section of the property. Due to the non-invasive nature of our study, we are unable to definitively identify the cause of cracks and deflection at the walls. We recommend the Association consult with a local engineering firm to inspect and monitor the condition of the walls.

Concrete retaining wall

Concrete retaining wall

Damaged section

Concrete cracks

Concrete cracks

Leaning section

Spalled concrete

Useful Life: We recommend the Association budget for inspections and capital repairs every 10- to 15-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:

- Inspections to the retaining walls
- Crack repairs as needed
- Replacement of up to fifteen percent (15%) of the walls

Retaining Walls Timber

Line Item: 4.760

Quantity: Approximately 470 square feet

History: Exact age unknown

Condition: Good to fair overall with wood rot evident

Timber retaining wall

Wood rot

Timber retaining wall

Useful Life: 15- to 20-years

Component Detail Notes: We advise Harbour Village replace with a modular, interlocking dry-set masonry retaining wall system. The cost of dry-set masonry retaining walls is similar to the cost of timber walls. However, dry-set masonry retaining walls offer a longer useful life of up to 35 years and lower total maintenance costs.

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.

Pool Elements

Concrete Deck

Line Item: 6.200

Quantity: Approximately 2,250 square feet of concrete comprising the pool deck

History: The Association conducted crack repairs in recent years

Condition: Good to fair overall with previous crack repairs evident

Concrete deck overview

Previous crack repairs

Previous crack repairs

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.

Component Detail Notes: We recommend the Association budget for the following:

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

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.

Fence, Steel

Line Item: 6.400

Quantity: Approximately 300 linear feet

History: Exact age unknown

Condition: Good overall

Steel fence

Rust at steel fence

Useful Life: Up to 30 years with the benefit of paint finishes and repairs every six- to eight-years

Priority/Criticality: Not recommended to defer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We include paint finishes and repairs on Line Item 4.240.

Furniture

Line Item: 6.500

Quantity: The pool and site furniture includes the following:

- Chairs
- Lounges
- Tables
- Umbrellas
- Ladders and life safety equipment

History: Replaced as needed

Condition: Good overall

Pool furniture

Site furniture

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 refinishing, and other repairs to the furniture as normal maintenance to maximize its useful life. We depict replacement in a phased manner.

Pool Finishes, Plaster and Tile

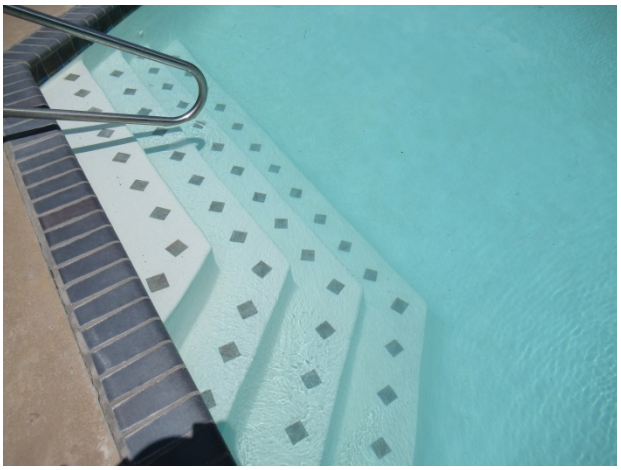
Line Items: 6.800 and 6.801

Quantity: 1,100 square feet of plaster based on the horizontal surface area and approximately 150 linear feet of tile

History: Exact age unknown

Condition: Reported in fair overall condition

Pool overview



Pool plaster and tile finishes

Useful Life: 8- to 12-years for the plaster and 15- to 25-years for the tile

Component Detail Notes: Removal and replacement provides the opportunity to inspect the pool structures and to allow for partial repairs of the underlying concrete surfaces as needed. To maintain the integrity of the pool structures, we recommend the Association budget for the following:

- Removal and replacement of the plaster finishes
- 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

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 full tile replacement every other plaster replacement event.

Structure and Deck

Line Item: 6.900

Quantity: Approximately 1,100 square feet of horizontal surface area

History: Original

Conditions: Visually appear in good condition. The concrete floor 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 Harbour Village plan to replace the following components:

- Concrete decks
- 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.

Marina Elements

Boardwalk, Wood

Line Item: 8.100

Quantity: The Association plans to install a boardwalk comprising approximately 910 square feet in 2020

Useful Life: Up to 25 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. The quantity and cost are based on a bid provided by Management. Future Reserve Study updates will consider the need to adjust expenditures and timing based on actual construction.

Bulkheads

Line Items: 8.101, 8.105 and 8.106

Quantity: Approximately 1,210 linear feet of timber bulkhead at the property

History: Approximately 690 linear feet was replaced in 2017. The Association was in the process of replacing the remaining bulkhead at the time of our inspection.

Conditions: The recently replaced bulkhead is in good overall condition

Recently replaced bulkhead

Recently replaced bulkhead

Section of bulkhead being replaced in 2020

Useful Life: 20- to 30-years for total replacement with the benefit of inspections and capital repairs up to every 15 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 an allowance for an inspection and replacement of up to ten percent (10%) of the total. The estimate of cost for replacement is based on information provided by Management.

Deck, Wood, Bulkhead

Line Items: 8.107 and 8.108

Quantity: Approximately 4,980 square feet of wood decking along the northwest portion of the bulkhead

History: The deck is being replaced along with the bulkhead in 2020

Wood deck along bulkhead

Loose and deflected deck boards

Useful Life: 20 to 30 years with the benefit of repairs and deck board replacements up to every 10- to 15-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. The estimate of cost is based on information provided by Management.

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. 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.

Harbour Village 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 annual 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 Homeowners 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 and exceeds the National standards[1] 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[2] 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 Montgomery,

[1] Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".
[2] See Credentials for additional information on our use of published sources of cost data.

Texas at an annual inflation rate[3]. Isolated or regional markets of greater construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

- The past and current maintenance practices of Harbour Village 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.

[3] Derived from Marshall & Swift, historical costs and the Bureau of Labor Statistics.

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 principals are founders of Community Associations Institute's (CAI) Reserve Committee that developed national standards for reserve study providers. One of our principals 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 the 2,600,000-square foot 98-story Trump International Hotel and Tower in Chicago. 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.

JAISON T. THOMAS
Responsible Advisor

CURRENT CLIENT SERVICES

Jaison T. Thomas, a Mechanical Engineer, is an advisor for Reserve Advisors. Mr. Thomas 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 apartments, condominiums, townhomes and homeowner associations.

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

Foresters Pond Condominiums - This condominium association in Houston, Texas containing 118 units in 14 buildings was constructed in the early 1960's. The exteriors of the condominiums comprise of a combination of masonry walls and wood siding construction, asphalt shingle roofs, wood framed balconies with concrete thinset toppings and staircases. The community includes a clubhouse, pool, asphalt parking areas, carports, and perimeter walls.

Seven Meadow's Community Association, Inc. - This single family home community contains over 2,000 residential homes and is located in Katy, Texas. Features of this community include two pools, two pool houses, a combination of panelized concrete and masonry perimeter walls, two tennis courts, ponds, playgrounds and a clubhouse including conference rooms, a fitness room and a theater room.

Easton Park Townhomes Owners Association, Inc. - A townhome community in Charlotte, North Carolina containing 33 units in 11 buildings. The townhomes comprise of a combination of brick walls and fiber cement siding. Features of this property include retention ponds, lift station, asphalt streets, street pavers, masonry perimeter walls and masonry retaining walls.

Villages of Northpointe Community Association, Inc. - Located in Tomball, Texas, Villages of Northpointe comprises 919 single family homes. The community includes a main amenity center with a clubhouse, pool, playground equipment and outdoor exercise stations. Throughout the site, the Association maintains numerous fences, perimeter walls, and landscaped and irrigated areas. The community also includes a gated section which utilizes a separate expenditures and funding plan.

Skyecroft Homeowners Association, Inc. - This single family home community contains 208 residential homes and is located in Waxhaw, North Carolina. The community includes a pool, tennis courts, playground equipment, large quantities of asphalt streets and a clubhouse including a meeting room, library and a bar room. The community also includes an extensive drainage system which utilizes 22 ponds throughout the community.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Thomas completed the bachelors program in Mechanical Engineering from the University of Houston. Following his studies, he worked as a field engineer in refineries and also as a design engineer where he designed heat tracing circuits for piping in refineries and power plants.

EDUCATION

University of Houston - B.S. Mechanical Engineering

PROFESSIONAL AFFILIATIONS

Engineer in Training (E.I.T.) - State of Texas
Reserve Specialist (RS) – Community Associations Institute

ALAN M. EBERT, P.E., PRA, RS
Director of Quality Assurance

CURRENT CLIENT SERVICES

Alan M. Ebert, a Professional Engineer, is the Director of Quality Assurance for Reserve Advisors. Mr. Ebert is responsible for the management, review and quality assurance of reserve studies. In this role, he assumes the responsibility of stringent report review analysis to assure report accuracy and the best solution for Reserve Advisors' clients.

Mr. Ebert has been involved with thousands of Reserve Study assignments. The following is a partial list of clients served by Alan Ebert demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

Brownsville Winter Haven Located in Brownsville, Texas, this unique homeowners association contains 525 units. The Association maintains three pools and pool houses, a community and management office, landscape and maintenance equipment, and nine irrigation canals with associated infrastructure.

Rosemont Condominiums This unique condominium is located in Alexandria, Virginia and dates to the 1940's. The two mid-rise buildings utilize decorative stone and brick masonry. The development features common interior spaces, multi-level wood balconies and common asphalt parking areas.

Stillwater Homeowners Association Located in Naperville, Illinois, Stillwater Homeowners Association maintains four tennis courts, an Olympic sized pool and an upscale ballroom with commercial-grade kitchen. The community also maintains three storm water retention ponds and a detention basin.

Birchfield Community Services Association This extensive Association comprises seven separate parcels which include 505 townhome and single family homes. This Community Services Association is located in Mt. Laurel, New Jersey. Three lakes, a pool, a clubhouse and management office, wood carports, aluminum siding, and asphalt shingle roofs are a few of the elements maintained by the Association.

Oakridge Manor Condominium Association Located in Londonderry, New Hampshire, this Association includes 104 units at 13 buildings. In addition to extensive roads and parking areas, the Association maintains a large septic system and significant concrete retaining walls.

Memorial Lofts Homeowners Association This upscale high rise is located in Houston, Texas. The 20 luxury units include large balconies and decorative interior hallways. The 10-story building utilizes a painted stucco facade and TPO roof, while an on-grade garage serves residents and guests.

PRIOR RELEVANT EXPERIENCE

Mr. Ebert earned his Bachelor of Science degree in Geological Engineering from the University of Wisconsin-Madison. His relevant course work includes foundations, retaining walls, and slope stability. Before joining Reserve Advisors, Mr. Ebert was an oilfield engineer and tested and evaluated hundreds of oil and gas wells throughout North America.

EDUCATION

University of Wisconsin-Madison - B.S. Geological Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

Professional Engineering License – Wisconsin, North Carolina, Illinois, Colorado
Reserve Specialist (RS) **-** Community Associations Institute
Professional Reserve 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.

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. 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.

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.

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 Harbour Village 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) Harbour Village 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.

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 reserve study 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. The report is based upon a "snapshot in time" at the moment of inspection. RA may note visible physical defects in our report. The inspection is made by employees generally familiar with real estate and building construction but in the absence of invasive testing RA cannot opine on, nor is RA responsible for, the structural integrity of the property including its conformity to specific governmental code requirements for fire, building, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

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 water, oil, gas, coal, or other subsurface mineral and use rights or such hidden conditions. RA assumes no responsibility for any such conditions. The Report contains opinions of estimated costs and remaining useful lives which are neither a guarantee of the actual costs of replacement 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.

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, however, considers any additional information made available to us within 6 months of issuing the Report if a timely request for a revised Report is made. 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 this Report is limited to only the purpose stated herein. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and you shall hold RA harmless from any consequences of such use. Use by any unauthorized third party is unlawful. 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 our Report in its entirety to the following third parties: members of your organization, your accountant, attorney, financial institution and property manager who need to review the information contained herein. Without the written consent of RA, you shall not disclose the Report to any other third party. The Report contains intellectual property developed by RA and ***shall not be reproduced or distributed to any party that conducts reserve studies without the written consent of RA.***

RA will include your name in our client lists. RA reserves the right to 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 - 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. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court for the State of Wisconsin.