

**Revised**  
**FULL RESERVE STUDY**  
**Rio Del Sol**  
**Homeowners Association, Inc.**



**Lake Havasu City, Arizona**  
**Inspected - March 18, 2021**  
**Revised - July 7, 2021**



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Rio Del Sol Homeowners Association, Inc.  
Lake Havasu City, Arizona

Dear Board of Directors of Rio Del Sol Homeowners Association, Inc.:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Rio Del Sol Homeowners Association, Inc. in Lake Havasu City, Arizona and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, March 18, 2021.

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 Rio Del Sol Homeowners Association, Inc. plan for a successful future.

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

Respectfully submitted on July 7, 2021 by

*Reserve Advisors, LLC*

Visual Inspection and Report by: Stephanie A. Mueller, RS<sup>1</sup>

Review by: Nicole L. Lowery, RS, PRA<sup>2</sup>, Associate Director of Quality Assurance



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

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



Long-term thinking. Everyday commitment.



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# 1. RESERVE STUDY EXECUTIVE SUMMARY

**Client:** Rio Del Sol Homeowners Association, Inc. (Rio Del Sol)

**Location:** Lake Havasu City, Arizona

**Reference:** 210242

**Property Basics:** Rio Del Sol Homeowners Association, Inc. is a condominium style development which consists of 96 units in nine buildings. The buildings were built in 1991. The buildings comprise stucco walls, and foam and tile roofs. The community contains a clubhouse, pool and two spas.

**Reserve Components Identified:** 38 Reserve Components.

**Inspection Date:** March 18, 2021.

**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 2022, 2023 and 2041 due to façade renovations.

**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
- 0.0% average current annual rate of return on invested reserves (at request of the Board)
- 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.

**Unaudited Cash Status of Reserve Fund:**

- \$169,908 as of January 1, 2021
- The Association did not budget a regular Reserve Contribution in 2021. However, the Association will contribute approximately \$80,092 to fund the paint project in 2021.

**Percent Funded:** The corresponding Fully Funded Balance amount of reserves is \$1,361,695, which indicates the Association is seventeen percent (17%) Funded (See Page 7.1 - Definitions).

**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:

- Coating applications at the foam roofs as deferral may result in increased water infiltration and cost
- Asphalt pavement seal coat application and repairs to help maximize its remaining useful life
- Replacement of deteriorated concrete sidewalk in phased approaches
- Replacement of the irrigation system based on age and reported conditions
- Continued pool renovations, including plaster replacement and deck coating application

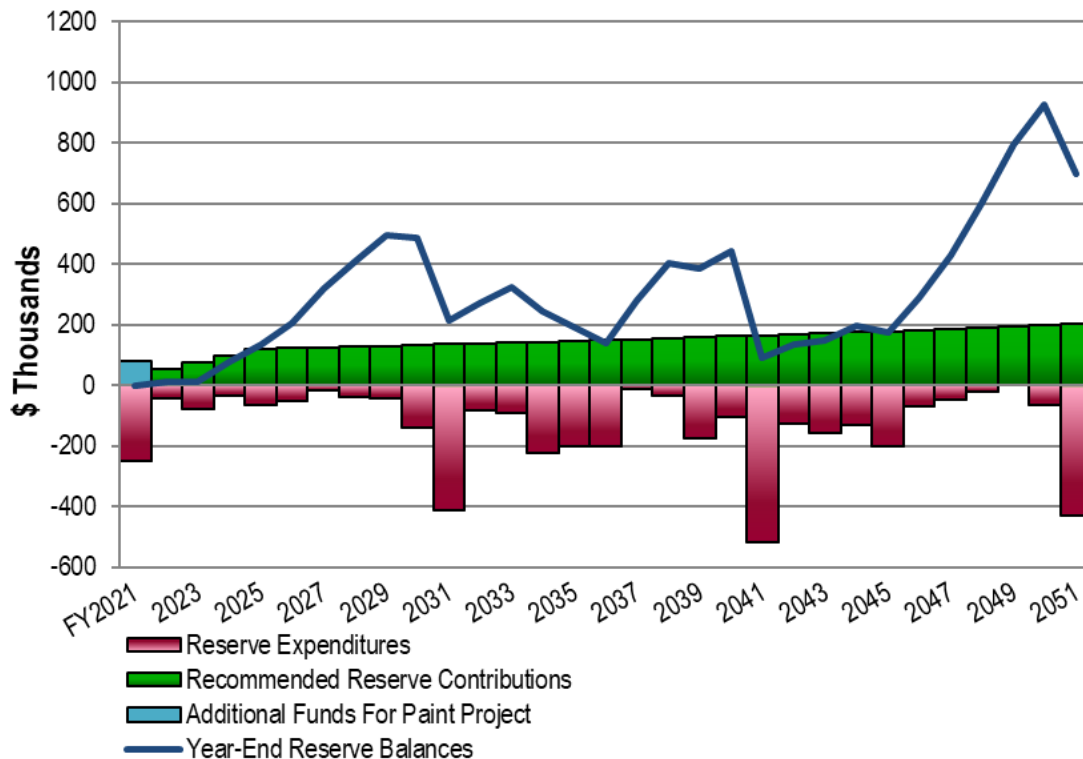


**Recommended Reserve Funding:** We recommend the following in order to achieve a stable and equitable Funding Plan:

- Increase to \$56,000 in 2022
- Phased increases of approximately \$21,500 from 2023 through 2025
- Inflationary increases through 2051, the limit of this study's Cash Flow Analysis
- 2022 Reserve Contribution of \$56,000 is equivalent to an average monthly contribution of \$48.61 per homeowner.
- The Association may ascribe the actual contributions and assessments per owner based upon percent ownership, as defined by the Association's governing documents.

**Rio Del Sol**  
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2022	56,000	12,217	2032	138,500	272,639	2042	168,800	136,033
2023	77,500	12,705	2033	141,300	323,730	2043	172,200	150,509
2024	99,000	79,294	2034	144,100	244,697	2044	175,600	195,949
2025	120,500	134,214	2035	147,000	193,098	2045	179,100	173,847
2026	122,900	207,530	2036	149,900	142,262	2046	182,700	289,430
2027	125,400	318,312	2037	152,900	281,434	2047	186,400	430,681
2028	127,900	406,411	2038	156,000	402,484	2048	190,100	601,322
2029	130,500	495,785	2039	159,100	385,938	2049	193,900	795,222
2030	133,100	489,107	2040	162,300	444,076	2050	197,800	927,920
2031	135,800	214,964	2041	165,500	91,351	2051	201,800	699,105





## 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

**Rio Del Sol Homeowners Association, Inc.**

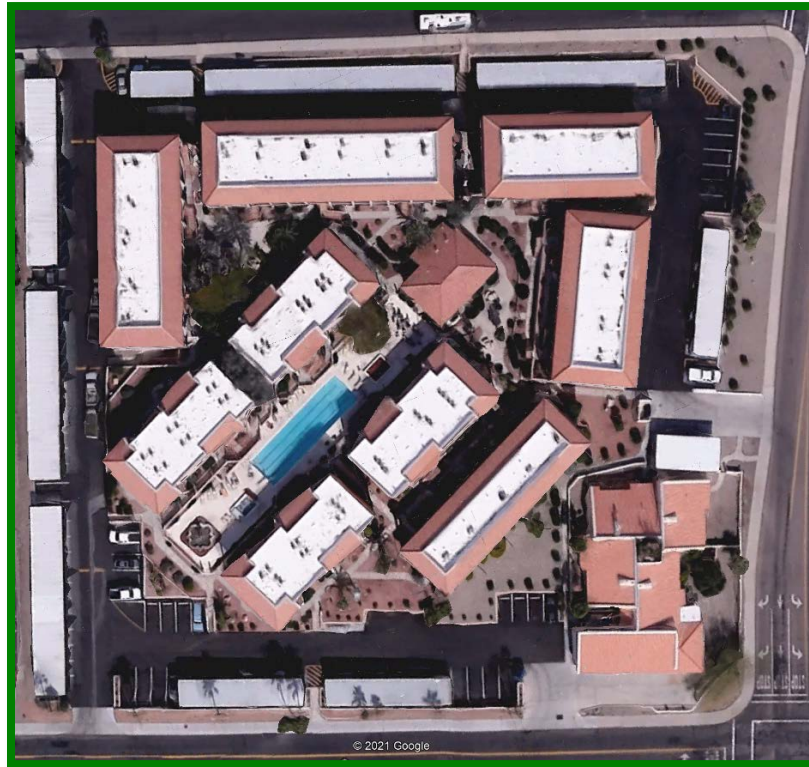
**Lake Havasu City, Arizona**

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, March 18, 2021.

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

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

## IDENTIFICATION OF PROPERTY



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

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

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Homeowners

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:

- Rio Del Sol 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:

- Electrical Systems, Common
- Foundations
- Pipes, Interior Building, Water and Sewer
- Pipes, Subsurface Utilities
- Pool Structure (Excluded at the request of the Board. Pool structures have a useful life of up to and sometimes beyond 60 years and is dependent 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.)
- 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 \$3,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Concrete Curbs and Wheel Stops
- Doors, Storage Rooms
- Fire Extinguishers
- Irrigation System, Controls and Maintenance
- Landscape
- Loan Payments
- Paint Finishes, Carports, Interim
- Paint Finishes, Fascia, Interim
- Paint Finishes, Touch Up
- Pipes, Common, Interim Repairs and Waste Rodding



- Retaining Walls, Stone (Dry-set)
- Shade Structure, Interim Canvas
- Signage
- Storage Rooms
- Valves, Small Diameter (We assume replacement as needed in lieu of an aggregate replacement of all small diameter valves as a single event.)
- Other Repairs normally funded through the Operating Budget



**Stone retaining walls**

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:

- Balcony, Carpet Floor Coverings
- Electrical Systems (Including Circuit Protection Panels)
- Heating, Ventilating and Air Conditioning (HVAC) Units
- Interiors
- Patios
- Pipes (Within Units)
- Windows

### **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
- 2021 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

#### **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

Rio Del Sol  
Homeowners Association, Inc.  
Lake Havasu City, Arizona

**Explanatory Notes:**

- 1) **2.0%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) **FY2021 is Fiscal Year beginning January 1, 2021 and ending December 31, 2021.**

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	RUL = 0 FY2021	1 2022	2 2023	3 2024	4 2025	5 2026	6 2027	7 2028	8 2029	9 2030	10 2031	11 2032	12 2033	13 2034	14 2035	15 2036
						Useful	Remaining	Unit (2021)	Per Phase (2021)	Total (2021)																	
<b>Exterior Building Elements</b>																											
1.105	820	820	Linear Feet	Balconies, Railings, Steel, Replacement	2036	to 45	15	75.00	61,500	61,500	2.0%																82,771
1.120	3,600	3,600	Square Feet	Balconies, Inspections and Capital Repairs	2026	8 to 12	5	7.00	25,200	25,200	2.5%					27,823											33,916
1.180	96	96	Each	Doors, Entrances, Repairs and Partial Replacements	2032	15 to 20	11	200.00	19,200	19,200	1.4%												23,873				
1.200	38	38	Each	Doors, Garage, Repairs and Partial Replacements	2031	15 to 20	10	300.00	11,400	11,400	0.8%												13,897				
1.260	195	195	Each	Light Fixtures	2028	to 25	7	90.00	17,550	17,550	0.5%							20,159									
1.360	200	200	Squares	Roofs, Concrete Tiles, Replace Underlayment and Tile Repairs	2030	to 35	9	500.00	100,000	100,000	3.0%										119,509						
1.419	19,850	6,617	Square Feet	Roofs, Foam, Coating Application, Phased	2023	to 10	2 to 4	2.50	16,542	49,625	3.2%		17,210	17,554	17,905												
1.420	19,850	6,617	Square Feet	Roofs, Foam, Replacement, Phased	2033	to 30+	12 to 14	10.75	71,129	213,388	6.8%												90,209	92,013	93,853		
1.605	33	6	Each	Staircases, Steel, Phased	2039	to 50+	18 to 23	12,000.00	66,000	396,000	14.7%																
1.880	72,000	72,000	Square Feet	Walls, Stucco, Paint Finishes & Capital Repairs (2021 Incl. Doors, Railings, Etc.)	2021	8 to 10	0	2.75	198,000	198,000	28.3%	250,000											241,361				
<b>Building Services Elements</b>																											
3.560	1	1	Allowance	Life Safety System, Control Panels and Emergency Devices	2039	to 25	18	44,000.00	44,000	44,000	1.6%																
3.820	2	1	Allowance	Security System, Phased	2022	10 to 15	1 to 8	6,500.00	6,500	13,000	1.1%		6,630						7,616								8,748
<b>Property Site Elements</b>																											
4.020	5,900	5,900	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat	2023	3 to 5	2	2.20	12,980	12,980	3.2%			13,504				14,618					15,823				
4.040	5,900	5,900	Square Yards	Asphalt Pavement, Mill and Overlay	2034	15 to 25	13	16.00	94,400	94,400	3.0%														122,116		
4.095	9	9	Each	Carports, Paint Finishes	2031	to 10	10	2,000.00	18,000	18,000	2.0%												21,942				
4.096	9	3	Each	Carports, Renovations, Phased	2031	to 30	10 to 20	14,000.00	42,000	126,000	4.2%												51,198				56,526
4.140	11,600	870	Square Feet	Concrete Sidewalks, Partial	2022	to 65	1 to 30+	8.00	6,960	92,800	1.9%		7,099				7,684				8,318			9,004			
4.240	1,250	1,250	Linear Feet	Fences, Steel, Paint Finishes	2026	4 to 6	5	7.00	8,750	8,750	1.6%						9,661										11,776
4.245	1,250	625	Linear Feet	Fences, Steel, Replacement (Incl. Pool), Phased	2031	to 35	10 to 11	59.00	36,875	73,750	2.2%											44,950	45,849				
4.420	2	1	Allowance	Irrigation System, Phased	2022	to 30	1 to 2	15,000.00	15,000	30,000	0.8%		15,300	15,606													
4.500	1	1	Allowance	Landscape, Partial Replacements	2022	to 15	1	10,000.00	10,000	10,000	0.8%		10,200	10,404													
4.560	45	45	Each	Light Fixtures (Incl. Posts)	2028	to 25	7	300.00	13,500	13,500	0.4%								15,507								
4.600	6	6	Each	Mailbox Stations	2029	to 25	8	2,100.00	12,600	12,600	0.4%									14,763							
4.870	1	1	Each	Shade Structure	2036	15 to 20	15	5,200.00	5,200	5,200	0.2%																6,999
<b>Clubhouse Elements</b>																											
5.450	1	1	Each	HVAC Equipment, Split System	2023	15 to 20	2	5,500.00	5,500	5,500	0.3%			5,722													
5.500	1	1	Allowance	Interior, Renovation, Complete	2035	to 25	14	28,500.00	28,500	28,500	0.9%																37,605
5.510	1	1	Allowance	Interior, Renovation, Partial	2023	8 to 12	2	14,000.00	14,000	14,000	0.9%			14,566													
5.600	20	20	Squares	Roofs, Concrete Tiles, Replace Underlayment and Tile Repairs	2030	to 35	9	500.00	10,000	10,000	0.3%											11,951					
5.800	90	90	Square Feet	Windows and Doors	2028	to 40	7	40.00	3,600	3,600	0.1%								4,135								

## RESERVE EXPENDITURES

Rio Del Sol  
Homeowners Association, Inc.  
Lake Havasu City, Arizona

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	16 2037	17 2038	18 2039	19 2040	20 2041	21 2042	22 2043	23 2044	24 2045	25 2046	26 2047	27 2048	28 2049	29 2050	30 2051	
						Useful	Remaining	Unit (2021)	Per Phase (2021)	Total (2021)																	
<u>Exterior Building Elements</u>																											
1.105	820	820	Linear Feet	Balconies, Railings, Steel, Replacement	2036	to 45	15	75.00	61,500	61,500	2.0%																
1.120	3,600	3,600	Square Feet	Balconies, Inspections and Capital Repairs	2026	8 to 12	5	7.00	25,200	25,200	2.5%										41,343						
1.180	96	96	Each	Doors, Entrances, Repairs and Partial Replacements	2032	15 to 20	11	200.00	19,200	19,200	1.4%														34,096		
1.200	38	38	Each	Doors, Garage, Repairs and Partial Replacements	2031	15 to 20	10	300.00	11,400	11,400	0.8%												19,459				
1.260	195	195	Each	Light Fixtures	2028	to 25	7	90.00	17,550	17,550	0.5%																
1.360	200	200	Squares	Roofs, Concrete Tiles, Replace Underlayment and Tile Repairs	2030	to 35	9	500.00	100,000	100,000	3.0%																
1.419	19,850	6,617	Square Feet	Roofs, Foam, Coating Application, Phased	2023	to 10	2 to 4	2.50	16,542	49,625	3.2%							25,573	26,085	26,606							
1.420	19,850	6,617	Square Feet	Roofs, Foam, Replacement, Phased	2033	to 30+	12 to 14	10.75	71,129	213,388	6.8%																
1.605	33	6	Each	Staircases, Steel, Phased	2039	to 50+	18 to 23	12,000.00	66,000	396,000	14.7%			94,264	96,150	98,073	100,034	102,035	104,075								
1.880	72,000	72,000	Square Feet	Walls, Stucco, Paint Finishes & Capital Repairs (2021 Incl. Doors, Railings, Etc.)	2021	8 to 10	0	2.75	198,000	198,000	28.3%					294,218										358,650	
<u>Building Services Elements</u>																											
3.560	1	1	Allowance	Life Safety System, Control Panels and Emergency Devices	2039	to 25	18	44,000.00	44,000	44,000	1.6%			62,843													
3.820	2	1	Allowance	Security System, Phased	2022	10 to 15	1 to 8	6,500.00	6,500	13,000	1.1%							10,049							11,543		
<u>Property Site Elements</u>																											
4.020	5,900	5,900	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat	2023	3 to 5	2	2.20	12,980	12,980	3.2%			18,539				20,067			21,721					23,511	
4.040	5,900	5,900	Square Yards	Asphalt Pavement, Mill and Overlay	2034	15 to 25	13	16.00	94,400	94,400	3.0%																
4.095	9	9	Each	Carports, Paint Finishes	2031	to 10	10	2,000.00	18,000	18,000	2.0%					26,747										32,605	
4.096	9	3	Each	Carports, Renovations, Phased	2031	to 30	10 to 20	14,000.00	42,000	126,000	4.2%					62,410											
4.140	11,600	870	Square Feet	Concrete Sidewalks, Partial	2022	to 65	1 to 30+	8.00	6,960	92,800	1.9%		9,746				10,549			11,419					12,360		
4.240	1,250	1,250	Linear Feet	Fences, Steel, Paint Finishes	2026	4 to 6	5	7.00	8,750	8,750	1.6%					13,002			14,355							15,849	
4.245	1,250	625	Linear Feet	Fences, Steel, Replacement (Incl. Pool), Phased	2031	to 35	10 to 11	59.00	36,875	73,750	2.2%																
4.420	2	1	Allowance	Irrigation System, Phased	2022	to 30	1 to 2	15,000.00	15,000	30,000	0.8%																
4.500	1	1	Allowance	Landscape, Partial Replacements	2022	to 15	1	10,000.00	10,000	10,000	0.8%	13,728															
4.560	45	45	Each	Light Fixtures (Incl. Posts)	2028	to 25	7	300.00	13,500	13,500	0.4%																
4.600	6	6	Each	Mailbox Stations	2029	to 25	8	2,100.00	12,600	12,600	0.4%																
4.870	1	1	Each	Shade Structure	2036	15 to 20	15	5,200.00	5,200	5,200	0.2%																
<u>Clubhouse Elements</u>																											
5.450	1	1	Each	HVAC Equipment, Split System	2023	15 to 20	2	5,500.00	5,500	5,500	0.3%				8,012												
5.500	1	1	Allowance	Interior, Renovation, Complete	2035	to 25	14	28,500.00	28,500	28,500	0.9%																
5.510	1	1	Allowance	Interior, Renovation, Partial	2023	8 to 12	2	14,000.00	14,000	14,000	0.9%											23,428					
5.600	20	20	Squares	Roofs, Concrete Tiles, Replace Underlayment and Tile Repairs	2030	to 35	9	500.00	10,000	10,000	0.3%																
5.800	90	90	Square Feet	Windows and Doors	2028	to 40	7	40.00	3,600	3,600	0.1%																

## RESERVE EXPENDITURES

Rio Del Sol  
Homeowners Association, Inc.  
Lake Havasu City, Arizona

**Explanatory Notes:**

- 1) **2.0%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) **FY2021 is Fiscal Year beginning January 1, 2021 and ending December 31, 2021.**

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	RUL = 0 FY2021	1 2022	2 2023	3 2024	4 2025	5 2026	6 2027	7 2028	8 2029	9 2030	10 2031	11 2032	12 2033	13 2034	14 2035	15 2036
						Useful	Remaining	Unit (2021)	Per Phase (2021)	Total (2021)																	
<b>Pool Elements</b>																											
6.200	4,810	4,810	Square Feet	Concrete Deck, Textured Coating, Partial Replacements and Repairs	2025	8 to 12	4	4.50	21,645	21,645	1.3%				23,429											28,560	
6.201	4,810	4,810	Square Feet	Concrete Deck, Complete Replacement	2045	to 40	24	15.00	72,150	72,150	2.9%																
6.415	1	1	Allowance	Fountain, Renovation	2026	8 to 12	5	4,000.00	4,000	4,000	0.4%						4,416										
6.500	1	1	Allowance	Furniture (Incl. Common Patios)	2029	to 12	8	16,000.00	16,000	16,000	1.1%								18,747								
6.600	2	1	Allowance	Mechanical Equipment, Phased	2024	to 15	3 to 10	14,000.00	14,000	28,000	1.8%			14,857							17,066						
6.800	1,400	1,400	Square Feet	Pool Finish, Plaster, Main	2025	8 to 12	4	16.00	22,400	22,400	2.2%				24,246											29,556	
6.801	190	190	Square Feet	Pool Finishes, Plaster, Spas (2022 is Remaining)	2022	8 to 12	1	47.00	8,930	8,930	0.7%	4,555											11,103				
6.802	180	180	Linear Feet	Pool Finish, Tile, Main	2035	15 to 25	14	38.00	6,840	6,840	0.2%															9,025	
6.803	80	80	Linear Feet	Pool Finishes, Tile, Spas	2031	8 to 12	10	38.00	3,040	3,040	0.1%											3,706					
<b>Anticipated Expenditures, By Year (\$4,044,496 over 30 years)</b>												250,000	43,784	77,012	32,411	65,580	49,584	14,618	39,801	41,126	139,778	409,943	80,825	90,209	223,133	198,599	200,736

## RESERVE EXPENDITURES

Rio Del Sol  
Homeowners Association, Inc.  
Lake Havasu City, Arizona

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	16 2037	17 2038	18 2039	19 2040	20 2041	21 2042	22 2043	23 2044	24 2045	25 2046	26 2047	27 2048	28 2049	29 2050	30 2051	
						Useful	Remaining	Unit (2021)	Per Phase (2021)	Total (2021)																	
<b>Pool Elements</b>																											
6.200	4,810	4,810	Square Feet	Concrete Deck, Textured Coating, Partial Replacements and Repairs	2025	8 to 12	4	4.50	21,645	21,645	1.3%																
6.201	4,810	4,810	Square Feet	Concrete Deck, Complete Replacement	2045	to 40	24	15.00	72,150	72,150	2.9%									116,049							
6.415	1	1	Allowance	Fountain, Renovation	2026	8 to 12	5	4,000.00	4,000	4,000	0.4%		5,601												7,103		
6.500	1	1	Allowance	Furniture (Incl. Common Patios)	2029	to 12	8	16,000.00	16,000	16,000	1.1%					23,775											
6.600	2	1	Allowance	Mechanical Equipment, Phased	2024	to 15	3 to 10	14,000.00	14,000	28,000	1.8%		19,603								22,518						
6.800	1,400	1,400	Square Feet	Pool Finish, Plaster, Main	2025	8 to 12	4	16.00	22,400	22,400	2.2%										36,029						
6.801	190	190	Square Feet	Pool Finishes, Plaster, Spas (2022 is Remaining)	2022	8 to 12	1	47.00	8,930	8,930	0.7%					13,535											
6.802	180	180	Linear Feet	Pool Finish, Tile, Main	2035	15 to 25	14	38.00	6,840	6,840	0.2%																
6.803	80	80	Linear Feet	Pool Finishes, Tile, Spas	2031	8 to 12	10	38.00	3,040	3,040	0.1%																
<b>Anticipated Expenditures, By Year (\$4,044,496 over 30 years)</b>												13,728	34,950	175,646	104,162	518,225	124,118	157,724	130,160	201,202	67,117	45,149	19,459	0	65,102	430,615	



# RESERVE FUNDING PLAN

## CASH FLOW ANALYSIS

Rio Del Sol

Homeowners Association, Inc.

Lake Havasu City, Arizona

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Reserves at Beginning of Year	(Note 1)	169,908	0	12,217	12,705	79,294	134,214	207,530	318,312	406,411	495,785	489,107	214,964	272,639	323,730	244,697	193,098
Recommended Reserve Contributions		0	56,000	77,500	99,000	120,500	122,900	125,400	127,900	130,500	133,100	135,800	138,500	141,300	144,100	147,000	149,900
Additional Funds For Paint Project		80,092															
<b>Total Recommended Reserve Contributions</b>	(Note 2)	<b>80,092</b>	<b>56,000</b>	<b>77,500</b>	<b>99,000</b>	<b>120,500</b>	<b>122,900</b>	<b>125,400</b>	<b>127,900</b>	<b>130,500</b>	<b>133,100</b>	<b>135,800</b>	<b>138,500</b>	<b>141,300</b>	<b>144,100</b>	<b>147,000</b>	<b>149,900</b>
Estimated Interest Earned, During Year	(Note 3)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anticipated Expenditures, By Year		(250,000)	(43,784)	(77,012)	(32,411)	(65,580)	(49,584)	(14,618)	(39,801)	(41,126)	(139,778)	(409,943)	(80,825)	(90,209)	(223,133)	(198,599)	(200,736)
Anticipated Reserves at Year End		<u>\$0</u>	<u>\$12,217</u>	<u>\$12,705</u>	<u>\$79,294</u>	<u>\$134,214</u>	<u>\$207,530</u>	<u>\$318,312</u>	<u>\$406,411</u>	<u>\$495,785</u>	<u>\$489,107</u>	<u>\$214,964</u>	<u>\$272,639</u>	<u>\$323,730</u>	<u>\$244,697</u>	<u>\$193,098</u>	<u>\$142,262</u>
			(NOTE 5)	(NOTE 5)													

(continued)

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

		2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051
Reserves at Beginning of Year		142,262	281,434	402,484	385,938	444,076	91,351	136,033	150,509	195,949	173,847	289,430	430,681	601,322	795,222	927,920
<b>Total Recommended Reserve Contributions</b>		<b>152,900</b>	<b>156,000</b>	<b>159,100</b>	<b>162,300</b>	<b>165,500</b>	<b>168,800</b>	<b>172,200</b>	<b>175,600</b>	<b>179,100</b>	<b>182,700</b>	<b>186,400</b>	<b>190,100</b>	<b>193,900</b>	<b>197,800</b>	<b>201,800</b>
Estimated Interest Earned, During Year		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Anticipated Expenditures, By Year		(13,728)	(34,950)	(175,646)	(104,162)	(518,225)	(124,118)	(157,724)	(130,160)	(201,202)	(67,117)	(45,149)	(19,459)	0	(65,102)	(430,615)
Anticipated Reserves at Year End		<u>\$281,434</u>	<u>\$402,484</u>	<u>\$385,938</u>	<u>\$444,076</u>	<u>\$91,351</u>	<u>\$136,033</u>	<u>\$150,509</u>	<u>\$195,949</u>	<u>\$173,847</u>	<u>\$289,430</u>	<u>\$430,681</u>	<u>\$601,322</u>	<u>\$795,222</u>	<u>\$927,920</u>	<u>\$699,105</u>
						(NOTE 5)										(NOTE 4)

**Explanatory Notes:**

- 1) Year 2021 starting reserves are as of January 1, 2021; FY2021 starts January 1, 2021 and ends December 31, 2021.
- 2) Regular Reserve Contributions for 2021 are budgeted; 2022 is the first year of recommended regular contributions.
- 3) 0.0% is the estimated annual rate of return on invested reserves.
- 4) Accumulated year 2051 ending reserves consider the need to fund for replacement of the pool structure and subsequent asphalt pavement shortly after 2051, and the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

**FIVE-YEAR OUTLOOK**

**Rio Del Sol**  
**Homeowners Association, Inc.**  
 Lake Havasu City, Arizona

Line Item	Reserve Component Inventory	RUL = 0 FY2021	1 2022	2 2023	3 2024	4 2025	5 2026
<b><u>Exterior Building Elements</u></b>							
1.120	Balconies, Inspections and Capital Repairs						27,823
1.419	Roofs, Foam, Coating Application, Phased			17,210	17,554	17,905	
1.880	Walls, Stucco, Paint Finishes & Capital Repairs (2021 Incl. Doors, Railings, Etc.)	250,000					
<b><u>Building Services Elements</u></b>							
3.820	Security System, Phased		6,630				
<b><u>Property Site Elements</u></b>							
4.020	Asphalt Pavement, Crack Repair, Patch and Seal Coat			13,504			
4.140	Concrete Sidewalks, Partial		7,099				7,684
4.240	Fences, Steel, Paint Finishes						9,661
4.420	Irrigation System, Phased		15,300	15,606			
4.500	Landscape, Partial Replacements		10,200	10,404			
<b><u>Clubhouse Elements</u></b>							
5.450	HVAC Equipment, Split System			5,722			
5.510	Interior, Renovation, Partial			14,566			
<b><u>Pool Elements</u></b>							
6.200	Concrete Deck, Textured Coating, Partial Replacements and Repairs					23,429	
6.415	Fountain, Renovation						4,416
6.600	Mechanical Equipment, Phased				14,857		
6.800	Pool Finish, Plaster, Main					24,246	
6.801	Pool Finishes, Plaster, Spas (2022 is Remaining)		4,555				
<b>Anticipated Expenditures, By Year (\$4,044,496 over 30 years)</b>		<b>250,000</b>	<b>43,784</b>	<b>77,012</b>	<b>32,411</b>	<b>65,580</b>	<b>49,584</b>

## 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



Building overview



Building overview



Building rear elevation

## Balconies, Railings, Steel

---

**Line Item:** 1.105

**Quantity:** Approximately 820 linear feet of steel railings at the balconies. This quantity excludes the integrated staircase railings.

**History:** The railings are original. The Association plans to complete paint finish applications in coordination with stucco activities in the near term and these expenses are included under “**Walls, Stucco**”.

**Conditions:** The railings are in good to fair overall condition.



**Balcony railing**

**Useful Life:** Railings of this type have a useful life of up to 45 years with the benefit of periodic maintenance.

**Component Detail Notes:** Preparation of the steel before application of the paint finish is critical to maximize the useful life of the finish. The painting contractor should remove all soil, dirt, oil, grease and other foreign materials before application of the paint finish to maximize its useful life. The contractor should also remove paint blisters and rust prior to the paint finish application. We recommend the use of a power wire brush, scraper and/or sander as effective means of removal. The Association should require the application of a primer on bare material. The primer for material surfaces should include a rust inhibitor for added protection.

**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 the near term expenditure for the paint project under “**Walls, Stucco**.” We anticipate the need for subsequent applications every five years thereafter and include the steel staircases in our estimate of cost. Capital repairs at the staircases should include partial replacement of up to ten percent (10%) of the concrete treads.



## Balconies, Inspections and Capital Repairs

---

**Line Item:** 1.120

**Quantity:** Wood structure balconies comprise a total of approximately 3,600 square feet

**History:** Original with no recent history reported

**Condition:** Good to fair overall condition though due to our non-invasive inspection, we are unable to confirm the underlying deck condition. Carpet may trap moisture and accelerate deterioration of the underlying deck.



**Balcony overview**



**Carpet floor covering**



**Balcony underside**

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

**Component Detail Notes:** We surmise the balconies comprise wood deck boards underneath the carpet and over a waterproof membrane atop the wood structure below. A waterproof membrane minimizes storm water penetration into the wood structure and stucco underside, and therefore minimizes future balcony deterioration.



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

- Annually:
  - Inspect to identify and correct any unsafe conditions
  - Secure loose fasteners and replace deteriorated fasteners
  - Replace deteriorated wood components
  - Check railing stability and fasteners

**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 of floor coverings
- Removal and replacement of up to fifteen percent (15%) of the deck boards and underlying waterproof membrane
- Repairs of adjacent wall surfaces
- Repairs to the railings as necessary
- Replacement of perimeter sealants as needed
- Repairs at balcony support posts as needed

## **Doors, Entrances**

---

**Line Item:** 1.180

**Quantity:** 96 doors

**History:** Original. The Association plans to complete paint finish applications in coordination with stucco activities in the near term.

**Condition:** Good to fair overall with finish deterioration evident





**Entrance door**

**Useful Life:** In lieu of aggregate replacements and at the request of the Board, we include repairs and partial replacements of doors every 15- to 20-years.

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

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

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based on information provided by the Association. We include the near term expenditure for the paint project under “**Walls, Stucco.**”

## **Doors, Garage**

---

**Line Item:** 1.200

**Quantity:** 38 metal single garage doors

**History:** Original

**Condition:** Good to fair overall with minor dents and damage evident



**Garage doors**



**Minor dent**

**Useful Life:** In lieu of aggregate replacements and at the request of the Board, we include repairs and partial replacements of doors every 15- to 20-years.

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

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

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

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

## **Light Fixtures**

---

**Line Item:** 1.260

**Quantity:** Approximately 195 exterior wall mounted light fixtures accent the balconies, garages and clubhouse exterior.

**History:** Original

**Condition:** Good to fair overall



**Light fixture**

**Useful Life:** Up to 25 years

**Priority/Criticality:** Per Board discretion

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

- As-needed:
  - Replace burned out bulbs at common fixtures as needed
  - Inspect and repair broken or dislodged fixtures
  - Ensure a waterproof seal between the fixture and building exists

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

## **Roofs, Concrete Tiles**

---

**Line Item:** 1.360

**Quantity:** Approximately 200 squares<sup>1</sup>

**History:** Likely original

**Condition:** Good to fair overall with isolated areas of chipped and broken tiles evident. The Board does not report a significant history of leaks.

<sup>1</sup> We quantify the roof area in squares where one square is equal to 100 square feet of surface area.





**Tile roof section**



**Minor chipped tiles**



**Broken tile**



**Minor chipped tile**

**Useful Life:** Up to 35 years for replacement of the underlayment and partial replacement of damaged or cracked tiles

**Component Detail Notes:** A tile roof rarely fails at all points of application simultaneously. Rather, occurrences of roof leaks will increase as more concrete tiles crack, break and dislodge. This deterioration will result in increased maintenance costs such that replacement becomes the least costly long-term alternative as compared to ongoing repairs.

A concrete tile roof system comprises sheathing, underlayments, battens and the tiles themselves. Replacement standards should conform to the local building code and manufacturer's specifications at the time of actual replacement. The manner of construction is such that the underlayment is the primary line of defense from water infiltration. The tiles act to shade the underlayment from harmful sunlight and to protect the roof from heavy winds. Most storm water is shed from the roof tiles into the gutters or over the edge of the roof. However, this tile style is meant to allow water to pass between the tiles onto the underlayment. The underlayment thus sheds any remaining

water into the gutters. In fact, horizontal driving rains will force their way up and under the tile only to be shed at some other point.

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

- Annually:
  - Record any areas of water infiltration, flashing deterioration, damage or loose tiles
  - Implement repairs as needed if issues are reoccurring
  - Ensure proper ventilation and verify vents are clear of debris and not blocked from attic insulation
  - Trim tree branches that are near or in contact with roof
  - Periodic cleaning at areas with organic growth (We do not recommend pressure washing as it may cause further damage to tiles.)

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

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

## Roofs, Foam

---

**Line Items:** 1.419 and 1.420

**Quantity:** 19,850 square feet of spray polyurethane foam (SPF) roofing

**History:** Likely original with no recent history reported; the Association should conduct inspections of the roofs semiannually and fund these inspections through the operating budget.

**Condition:** Reported satisfactory overall. We were unable to access the roofs at the time of our inspection. The Board does not report a significant history of leaks.



**Foam roof**

**Useful Life:** Up to and sometimes beyond 30 years with the benefit of regular maintenance and coating applications up to every 10 years

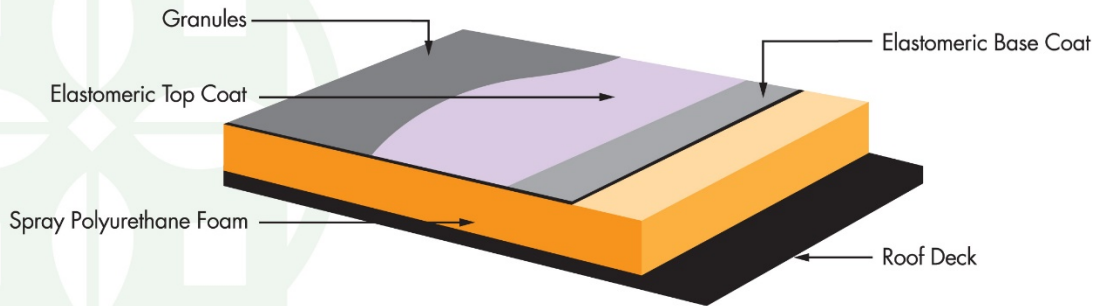
**Component Detail Notes:** SPF roofs are seamless spray-applied insulating foam plastics that are installed as a liquid and then expand into a solid many times the original volume. An SPF roof is a two-part system that includes sprayed foam and a protective coating. The spray polyurethane foam is water resistant by itself. However, ultraviolet rays from the sun can deteriorate the surface of SPF roofs. A protective coating, such as an elastomeric coating, provides a water resistant and protective membrane.

SPF roofs are lightweight and can be installed in varying thickness to provide slope for drainage. However, the foam should be installed in uniform passes from  $\frac{1}{2}$  to one inch thick. Loss of adhesion will result if installed at less than  $\frac{1}{2}$  inch. Excessive temperature build-up will result if installed in passes greater than one inch. The contractor should follow the manufacturer's directions and specifications upon installation of the roofs

The following image details the components of a typical SPF roof:



## SPRAY FOAM ROOF DETAIL



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Successful recovering of the existing SPF roofs requires the lack of active or previous water infiltration, semiannual inspections and repairs as normal maintenance, and a lack of significant deterioration to the decks, flashings or foam that might otherwise impair the useful life of the roofs. For purposes of this Reserve Study, we presume that these conditions and the necessary maintenance will occur to allow for a recovering of the existing SPF roofs.

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

- Semi-annually:
  - Note drainage issues with water ponding after 48 hours of rainfall event. Verify scuppers and drains are free of debris. Replace damaged or missing drain covers.
  - Inspect perimeter flashing for loose fasteners, deflections, and sealant damage
  - Verify foam surface is free of ruptures or damage, and areas of extensive blistering. Damaged or saturated foam should be cut out and replaced.
  - Remove oil spills or contaminants from mechanical equipment
  - Touch-up coating applications as needed

- If frequency of leaks increase or location of water infiltration is unknown, we recommend the consideration of a thermal image inspection

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

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

## Staircases, Steel

---

**Line Item:** 1.605

**Quantity:** 33 sets of steel staircases throughout the community

**History:** Original. The Association plans to complete paint finish applications in coordination with stucco activities in the near term.

**Condition:** We note previous partial replacements of concrete treads, and limited rust evident.



**Steel staircase**



**Tread cracks**



**Cracks at concrete landing**



**Cracks at concrete landing**

**Useful Life:** Steel staircases have useful lives of up to and sometimes beyond 50 years with the benefit of periodic inspections, paint finishes and capital repairs.

**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 the near term expenditure for the paint project under “**Walls, Stucco.**” Subsequently, we include expenditures for paint finish applications and capital repairs under “**Balconies, Railings**”.

## **Walls, Stucco**

---

**Line Item:** 1.880

**Quantity:** Approximately 72,000 square feet of the building exteriors. This quantity includes the clubhouse, retaining walls and perimeter walls. The buildings also comprise approximately 2,100 linear feet of wood fascia.

**History:** Prior history of paint applications was not available. The Association began paint finish applications at Buildings 7, 8 and 9 more than one year ago though had to postpone completion of the project due to immediate failures of the coating application. As discussed in the report prepared by *Red Tree Consulting*, the stucco was inadequately prepared prior to the topcoat application.

**Condition:** Fair to poor overall with cracks, water stains, finish deterioration, peeling paint and general deterioration evident throughout the community.





**Stucco façade, note – building previously being painted**



**Repairs in progress**



**Stucco varied finish**



**Stucco cracks**



**Stucco cracks**



**Stucco deterioration at retaining wall**





**Coating deterioration**



**Stucco cracks**



**Deterioration at perimeter retaining wall**



**Significant coating deterioration east of the mailboxes**



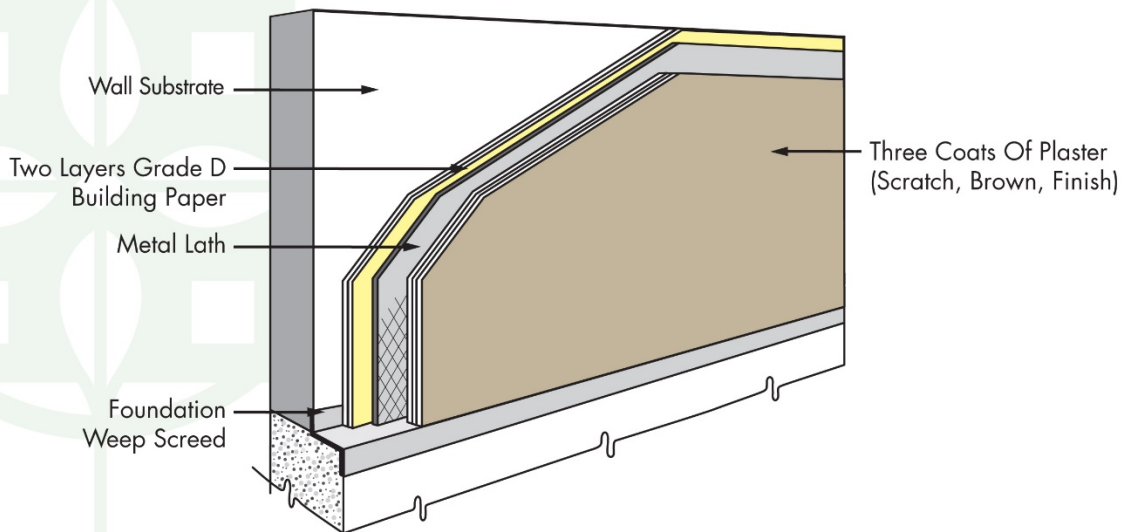
**Weathered wood**



**Useful Life:** We recommend inspections, repairs and paint finish applications every 8- to 10-years. This useful life is dependent on the conditions of the 10-year warranty which the Board indicated at the time of our inspection. However, we anticipate more frequent paint finish applications at the steel elements and which we discuss on a previous line item.

**Component Detail Notes:** The following graphic details the typical components of a stucco wall system on frame construction although it may not reflect the actual configuration at Rio Del Sol:

### STUCCO DETAIL



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

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our initial cost is based on information provided by the Association and includes paint finish applications to the doors, and steel railings and staircases. Subsequent, we anticipate the following in coordination with each paint finish application:

- Complete inspection of the stucco

- Crack repairs as needed (Each paint product has the limited ability to cover and seal cracks but we recommend repair of all cracks which exceed the ability of the paint product to bridge.)
- Replacement of up to five percent (5%), of the stucco walls (The exact amount of area in need of replacement will be discretionary based on the actual future conditions and the desired appearance.)
- Replacement of up to ten percent (10%) of the wood fascia
- Replacement of up to fifty percent (50%) of the sealants in coordination with each paint finish application.

## Building Services Elements

### Life Safety System

---

**Line Item:** 3.560

**Quantity:** The life safety system at Rio Del Sol includes the following components:

- Audio/visual fixtures
- Control panels
- Pull stations
- Wiring

**History:** Recent replacements were reported

**Conditions:** Reported satisfactory



Emergency device

**Useful Life:** Up to 25 years

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. In accordance with *NFPA 72* (National Fire Alarm and Signaling Code) we also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative

maintenance may vary in frequency and scope based on the age of the components, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

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

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

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

## **Security System**

---

**Line Item:** 3.820

**Quantity:** Rio Del Sol utilizes the following security system components near the clubhouse:

- Cameras (7 currently)
- Recorder

**History:** Exact age is unknown

**Condition:** Reported satisfactory though the Board reports the possible need to install additional security measures at the property entrances and exits.



**Security camera**

**Useful Life:** 10- to 15-years

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

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

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The Association should anticipate replacement of up to fifty percent (50%) of the security system components per event. We also base our estimate of cost on the addition of four cameras though this may vary.



## Property Site Elements

### **Asphalt Pavement, Crack Repair, Patch and Seal Coat**

---

**Line Item:** 4.020

**Quantity:** Approximately 5,900 square yards

**History:** Repaved in 2013, seal coat applied in 2014 and crack repairs conducted in 2018

**Condition:** Good to fair overall

**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 is based on information provided by the Association and 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 5,900 square yards

**History:** Repaved in 2013

**Condition:** Good to fair overall with limited cracks evident





**Asphalt pavement overview**



**Asphalt pavement overview**



**Pavement cracks**



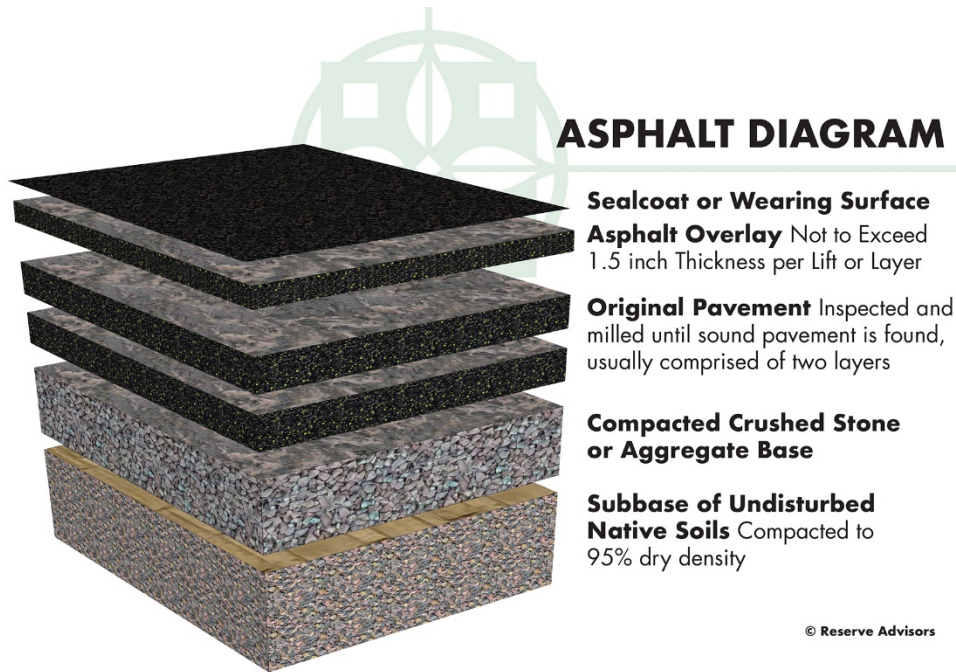
**Pavement cracks**



**Various cracks near southwest entrance**

***Useful Life:*** 15- to 25-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 Rio Del Sol:



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 overlay on asphalt pavement that exhibits normal deterioration and wear. We recommend total replacement of asphalt pavement that exhibits severe deterioration, inadequate drainage, pavement that has been overlaid multiple times in the past or where the configuration makes overlayment not possible. Based on the apparent visual condition and configuration of the asphalt pavement, we recommend the mill and overlay method of repaving at Rio Del Sol.

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

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



- Perform crack repairs and patching as needed

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for milling and overlayment includes area patching of up to fifteen percent (15%).

## **Carpports**

---

**Line Items:** 4.095 and 4.096

**Quantity:** Nine steel frame carports of varying sizes comprise:

- Paint finishes
- Light fixtures
- Roofs, metal – approximately 13,970 square feet

**History:** Painted in 2020

**Condition:** We note partial roof replacements, limited dented sections and isolated structure damage.



**Steel carport**



**Carport roof**



**Dented roofing**



**Isolated damage**



**Isolated damage**

***Useful Lives:***

- Paint finishes: up to 10 years in coordination with building exterior paint finishes. *Paint finishes on steel typically are typically shorter than stucco and therefore, we recommend the Association anticipate the need for touch up paint finishes as needed funded through the operating budget.*
- Renovations: up to 30 years

***Component Detail Notes:*** Capital repairs should include partial replacement of columns and structural components as needed. With proper maintenance and replacement of the above elements, these types of carports have an indeterminate useful life.

***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. For budgetary purposes, our renovation cost

anticipates the need to replace up to fifteen percent (15%) of the structural components per event.

## Concrete Sidewalks

---

**Line Item:** 4.140

**Quantity:** Approximately 11,600 square feet. This quantity includes concrete stairs.

**Condition:** Fair overall with typical spalled concrete throughout the community evident. These spalls are likely the result of irrigation over watering.



**Spalled concrete**



**Spalled concrete**



**Sidewalk cracks**

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

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

- Annually:



- Inspect and repair major cracks, spalls and trip hazards
- Mark with orange safety paint prior to replacement or repair
- Repair or perform concrete leveling in areas in immediate need of repair or possible safety hazard

**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 6,960 square feet of concrete sidewalks, or sixty percent (60%) of the total, will require replacement during the next 30 years.

## Fences, Steel

---

**Line Items:** 4.240 and 4.245

**Quantity:** 1,250 linear feet throughout the property including at the pool

**History:** The fences are original. As mentioned previously, we are informed the steel fences and railings will be painted in coordination with the buildings in the near term, and this expenditure is noted on a previous line item.

**Condition:** Fair overall condition with rust and corrosion evident



**Pool fence**



**Retaining wall coping and fence post deterioration**



**Area of corrosion at pool fence**



**Corroded post at sidewalk across from Buildings 4 and 5**

**Useful Life:** Four- to six-years for paint finishes and up to 35 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.

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

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

**Priority/Criticality:** Per Board discretion

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

## **Irrigation System**

---

**Line Item:** 4.420

**History:** Primarily original

**Condition:** Unsatisfactory overall and the Board reports various deficiencies including broken lines and emitters without plants

**Useful Life:** Up to 30 years

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

- Electronic controls (timer)
- Impact rotors
- Network of supply pipes
- Drip tubing with emitters
- Valves

Rio Del Sol 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.

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

- Semi-annually:
  - Conduct seasonal repairs which includes valve repairs, controller repairs, partial head replacements and pipe repairs

**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.

## Landscape

---

**Line Item:** 4.500

**Component Detail Notes:** The Association contains a large quantity of trees, shrubbery and other landscape elements. Replacement of these elements is an ongoing need. Many associations budget for these replacements as normal maintenance. Other associations fund ongoing replacements from reserves. Large amounts of landscape may need replacement due to disease, drought or other forces of nature. If the cost of removal and replacement is substantial, funding from reserves is logical. The Association may also desire to periodically update the appearance of the community through major improvements to the landscape.

**Useful Life:** At the request of the Board, we include a landscape allowance for partial replacements every 15 years.

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Based on our conversations with the Board, we recommend the Association coordinate landscape replacements with replacement of the irrigation system.

## Light Fixtures

---

**Line Item:** 4.560

**Quantity:** 43 light fixtures located at the pool perimeter, front retaining walls and perimeter walls. In addition, two light posts with fixtures are located at the common patio.

**History:** Possibly original

**Condition:** Fair overall



**Light fixture, note perimeter wall crack**

**Useful Life:** Up to 25 years

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

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

**Priority/Criticality:** Per Board discretion

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

## Mailbox Stations

---

**Line Item:** 4.600

**Quantity:** Six stations

**History:** Likely original



**Condition:** Fair overall



**Mailbox stations**

**Useful Life:** Up to 25 years

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

- As-needed:
  - Inspect and repair damage, vandalism, and finish deterioration
  - Verify posts are anchored properly

**Priority/Criticality:** Per Board discretion

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

## **Shade Structure**

---

**Line Item:** 4.870

**Quantity:** One each

**History:** Installed in approximately 2016

**Condition:** Good overall





**Shade structure**

**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 budget for interim replacement of the canvas as needed funded through the operating budget.

## **Clubhouse Elements**



**Clubhouse**

## **HVAC Equipment**

---

**Line Item:** 5.450

**Quantity:** One split system with cooling capacity of three-tons

**History:** Exact age is unknown though appears approximately 15 years of age

**Condition:** Reported fair



**Condensing unit**

**Useful Life:** 15- 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.

## **Interior Renovations**

---

**Line Items:** 5.500 and 5.510

**Quantity:** The components of the clubhouse interior include:

- Carpet and tile floor coverings
- Paint finishes on the walls and ceilings
- Plumbing fixtures
- Light fixtures
- Furnishings including tables, chairs and billiard/game tables

**History:** Last major renovation in approximately 2011

**Condition:** Good overall



**Interior**



**Interior**



**Rest room**

**Useful Life:** Complete interior renovation every 25 years and partial renovations 8- to 12-years

**Priority/Criticality:** Per Board discretion

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

- Application of paint finish to all surfaces
- Replacement of the carpet
- Replacement of up to fifty percent of the furnishings

## Roof, Concrete Tile

---

**Line Item:** 5.600

**Quantity:** Approximately 20 squares

**History:** Likely original

**Condition:** Good condition overall



Clubhouse roof

**Useful Life:** Up to 35 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.

## Windows and Doors

---

**Line Item:** 5.800

**Quantity:** 90 square feet

**History:** Original

**Condition:** Fair condition





**Door and window**

**Useful Life:** Up to 40 years

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

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

## **Pool Elements**



**Pool overview**

### **Concrete Deck**

---

**Line Items:** 6.200 and 6.201

**Quantity:** 4,810 square feet

**History:** Reportedly replaced in 2016

**Condition:** Good to fair condition with limited coating deterioration and isolated cracks evident



**Pool deck**



**Minor cracks and coating deterioration**



**Cracks near edge**

**Useful Life:** The useful life of a concrete pool deck is up to 40 years or more with timely repairs. We recommend the Association conduct inspections, partial replacements and repairs to the deck every 8- to 12-years in conjunction with coating replacements.

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

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

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

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

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

## Fountain

---

**Line Item:** 6.415

**Quantity:** One each

**History:** Unknown

**Condition:** Good to fair with coating deterioration evident



**Fountain**

**Useful Life:** Renovation every 8- to 12-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. Renovation should include refinishing and structure repairs.



## Furniture

---

**Line Item:** 6.500

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

- Chairs (28)
- Lounges (24)
- Tables (9)
- Ladders and life safety equipment

**History:** Age varies with recent partial replacements and/or re-strapping completed

**Condition:** Good overall



Furniture



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 re-strapping, refinishing, cushion replacements, reupholstering and other repairs to the furniture as normal maintenance to maximize its useful life.

## Mechanical Equipment

---

**Line Item:** 6.600

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

- Automatic chlorinators
- Controls
- Filters
- Heaters



- Interconnected pipe, fittings and valves
- Pumps

**History:** Age varies with recent partial replacements reported

**Condition:** Reported satisfactory



**Pool equipment**



**Pool equipment**

**Useful Life:** Up to 15 years

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

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

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

## **Pool Finishes, Plaster and Tile**

---

**Line Items:** 6.800 through 6.803

**Quantity:**

- Main – 1,400 square feet of plaster based on the horizontal surface area and approximately 180 linear feet of tile
- Spas – 190 square feet of plaster based on the horizontal surface area and approximately 80 linear feet of tile

**History:** The exact age of the finishes is unknown.

**Condition:** The main pool finish is in good to fair condition while the spa finishes are in poor condition.



**Chipped plaster at pool**



**Chipped finish at pool step**



**Chipped plaster at spa #1**



**Chipped plaster at spa #2**

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

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

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

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

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The Board informs us the plaster at spa #2 was

replaced since our inspection for approximately \$4,500 using operating funds. We include an expenditure for the remaining spa in 2022. We recommend the Association budget for full tile replacement every other plaster replacement event. Removal and replacement of the finish provides the opportunity to inspect the pool 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

## **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.

Rio Del Sol can fund capital repairs and replacements in any combination of the following:

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

We do not advocate special assessments or loans unless near term circumstances dictate otherwise. Although loans provide a gradual method of funding a replacement, the costs are higher than if the Association were to accumulate reserves ahead of the actual replacement. Interest earnings on reserves also accumulate in this process of saving or reserving for future replacements, thereby defraying the amount of gradual reserve collections. We advocate the third method of *Level Monthly Reserve Assessments* with relatively minor annual adjustments. The method ensures that 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<sup>1</sup> set forth by the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Level I Full Reserve Study." These standards require a Reserve Component to have a "predictable remaining Useful Life." Estimating Remaining Useful Lives and Reserve Expenditures beyond 30 years is often indeterminate. Long-Lived Property Elements are necessarily excluded from this analysis. We considered the following factors in our analysis:

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

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

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

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



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

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

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



## 6. CREDENTIALS

### HISTORY AND DEPTH OF SERVICE

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

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

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

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

### TOTAL STAFF INVOLVEMENT

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

### OUR GOAL

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

### VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

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

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

### OLD TO NEW

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

**STEPHANIE A. MUELLER, P.E., RS**  
**Responsible Advisor**

**CURRENT CLIENT SERVICES**

Stephanie A. Mueller, a Civil Engineer, is an Advisor for Reserve Advisors. Ms. Mueller is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. She also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. She is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services on townhomes and planned unit developments.



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

**Pinnacle Pointe** Located in Scottsdale, this gated community comprises 84 condominium units with stucco façade and foam roofs built from 2008 to 2015. The community includes a pool and spa, and exercise facility.

**Vistancia Village** This Peoria community of more than 3,000 homes features two amenity centers with recreational and lap pools, water slides, playgrounds, sport courts, and indoor gymnasium. The community includes nine gated parcels.

**Mountain Park Ranch** A large-scale community with more than 7,000 units in southern Phoenix with views of South Mountain Park features three amenity centers with multiple pools, tennis courts and playgrounds.

**Privada Community** Construction of this exclusive neighborhood in Scottsdale began in 2002. The community includes gated entry, streets, an irrigation system and detailed landscaping.

**Sunset Point II** Located in Tucson, this community comprises 273 single family homes built in 1987. The primary amenities are a pool, spa and wading pool.

**Holiday at Pueblo del Sol** Located in Sierra Vista, this homeowners association still under development includes a community center with fitness and meeting rooms, two pools, walking paths, and parks with playgrounds and gazebos.

**Saguaro Co-op** 354 members at this Benson cooperative development constructed since 1990. The co-up includes a central clubhouse with meeting spaces, information technology for members and asphalt pavement access streets.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Ms. Mueller attended the University of Wisconsin in Madison, Wisconsin where she attained her Bachelor of Science degree in Civil Engineering. Her studies focused on structural engineering. At the University of Wisconsin, she managed a team responsible for the design of a new drinking water facility for a rural Wisconsin town.

**EDUCATION**

University of Wisconsin-Madison - B.S. Civil Engineering  
University of Wisconsin-Milwaukee - M.S. Civil Engineering

**PROFESSIONAL AFFILIATIONS**

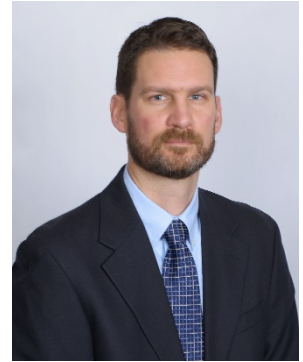
*Reserve Specialist (RS)* – Community Associations Institute  
*Professional Engineer (P.E.)* – Arizona

**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



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

**CURRENT CLIENT SERVICES**

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

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



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

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

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

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

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

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

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

**PRIOR RELEVANT EXPERIENCE**

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

**EDUCATION**

West Virginia University - B.S. Civil Engineering

**PROFESSIONAL AFFILIATIONS / DESIGNATIONS**

*Reserve Specialist (RS)* - Community Associations Institute

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



## RESOURCES

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

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

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

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

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

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

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

## 7. DEFINITIONS

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

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

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

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

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

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

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

**Long-Lived Property Component** - Property component of Rio Del Sol 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) Rio Del Sol 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.