

FULL RESERVE STUDY

Lantana Ridge Property Owners Association



Spring Branch, Texas

April 27, 2022



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Lantana Ridge Property Owners Association
Spring Branch, Texas

Dear Board of Directors of Lantana Ridge Property Owners Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Lantana Ridge Property Owners Association in Spring Branch, Texas and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, April 27, 2022.

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 Lantana Ridge Property Owners Association 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 May 4, 2022 by

Reserve Advisors, LLC

Visual Inspection and Report by: Casey M. Lewis, RS¹

Review by: Alan M. Ebert, RS, PRA², Director of Quality Assurance



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

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



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1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Lantana Ridge Property Owners Association (Lantana Ridge)

Location: Spring Branch, Texas

Reference: 220101

Property Basics: Lantana Ridge Property Owners Association is a homeowners association which is responsible for the common elements shared by 355 single family homes. The community was built from 2003 to 2019.

Reserve Components Identified: 30 Reserve Components.

Inspection Date: April 27, 2022.

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 2027 and 2047 due to mill and overlay of the asphalt streets.

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
- 0.7% anticipated annual rate of return on invested reserves
- 3.5% 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:

- \$194,484 as of March 31, 2022
- 2022 budgeted Reserve Contributions of \$72,000
- A potential deficit in reserves might occur by 2026 based upon continuation of the most recent annual reserve contribution of \$72,000 and the identified Reserve Expenditures.

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

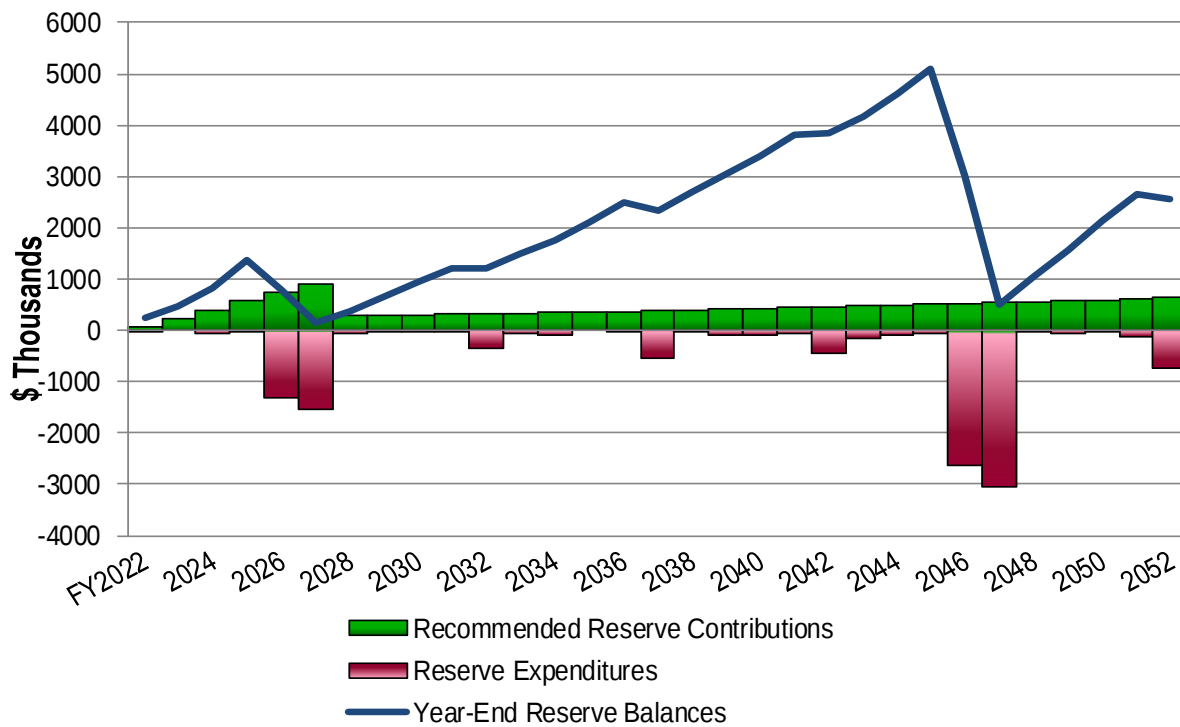
- Repaving of the original asphalt streets and walking trails due to noted deterioration

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

- Phased increases of \$165,000 from 2023 through 2027
- Decrease to \$280,000 by 2028 due to fully funding for replacement of the asphalt streets
- Inflationary increases through 2052, the limit of this study's Cash Flow Analysis
- Initial adjustment in Reserve Contributions of \$165,000 represents an average monthly increase of \$38.73 per homeowner and about an eighty-four percent (84.4%) adjustment in the 2022 total Operating Budget of \$195,470.

Lantana Ridge
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2023	237,000	473,271	2033	332,500	1,502,931	2043	469,000	4,164,862
2024	402,000	819,900	2034	344,100	1,749,730	2044	485,400	4,599,341
2025	567,000	1,376,823	2035	356,100	2,119,324	2045	502,400	5,086,990
2026	732,000	789,009	2036	368,600	2,486,750	2046	520,000	3,000,912
2027	897,000	154,749	2037	381,500	2,326,375	2047	538,200	497,883
2028	280,000	383,339	2038	394,900	2,701,217	2048	557,000	1,031,845
2029	289,800	646,833	2039	408,700	3,034,986	2049	576,500	1,557,886
2030	299,900	940,418	2040	423,000	3,395,004	2050	596,700	2,143,915
2031	310,400	1,212,944	2041	437,800	3,805,434	2051	617,600	2,649,963
2032	321,300	1,207,696	2042	453,100	3,831,738	2052	639,200	2,560,639





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

Lantana Ridge Property Owners Association

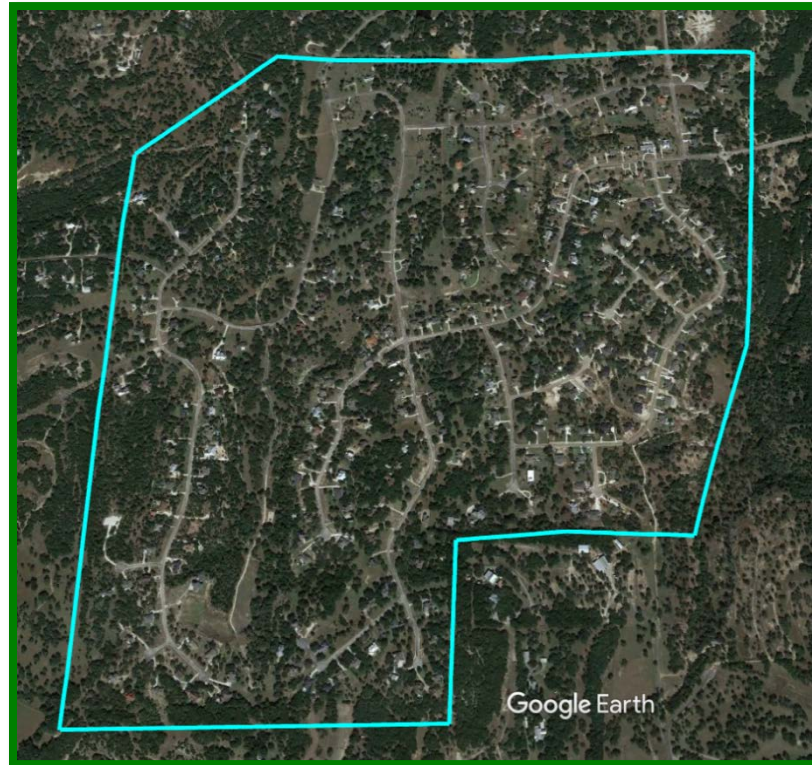
Spring Branch, Texas

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, April 27, 2022.

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

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

IDENTIFICATION OF PROPERTY



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

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

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

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

- Lantana Ridge 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
- Weir, Concrete, Replacement
- Well Casing



Concrete weir

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 \$5,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.) (Excludes Curbs and Sidewalks)
- Concrete Flatwork, Low Water Crossings, Partial Replacements
- Gates, Paint Finishes and Repairs
- Irrigation System, Controls and Maintenance
- Landscape
- Mile Markers, Walking Trail
- Paint Finishes, Touch Up

- Pond, Maintenance
- Signage, Informational
- Signage, Monuments, Interim Repairs
- Speed Bumps, Interim to Repaving
- Storage Shed
- Weir, Concrete, Inspections and Repairs
- Other Repairs normally funded through the Operating Budget

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

- Homes and Lots
- Mailboxes

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

- Pipes, Subsurface Utilities (Utility Provider)

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
- 2022 local cost of replacement
 - Per unit
 - Per phase
 - Replacement of total quantity
- Percentage of future expenditures anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

Reserve Funding Plan

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

Five-Year Outlook

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

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

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

RESERVE EXPENDITURES

Lantana Ridge
Property Owners Association
Spring Branch, Texas

Explanatory Notes:

- 1) 3.5% is the estimated Inflation Rate for estimating Future Replacement Costs.
2) FY2022 is Fiscal Year beginning December 1, 2021 and ending December 31, 2022.

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 FY2022	1 2023	2 2024	3 2025	4 2026	5 2027	6 2028	7 2029	8 2030	9 2031	10 2032	11 2033	12 2034	13 2035	14 2036	15 2037
						Useful	Remaining	Unit (2022)	Per Phase (2022)	Total (2022)																	
Property Site Elements																											
4.020	136,200	136,200	Square Yards	Asphalt Pavement, Crack Repair, Patch, and Seal Coat (Quantities Vary by Event) (2022 Budgeted Repair)	2022	3 to 5	0	1.50	204,300	204,300	13.8%	5,000					16,985				285,303					325,160	
4.040	116,700	58,350	Square Yards	Asphalt Pavement, Mill and Overlay, Streets, 2003	2026	15 to 20	4 to 5	18.50	1,079,475	2,158,950	63.6%					1,238,722	1,282,078										
4.041	10,150	10,150	Square Yards	Asphalt Pavement, Mill and Overlay, Streets, 2007-2008	2027	15 to 20	5	18.50	187,775	187,775	5.6%						223,018										
4.042	850	850	Square Yards	Asphalt Pavement, Mill and Overlay, Streets, 2013	2032	15 to 20	10	18.50	15,725	15,725	0.6%										22,182						
4.043	6,750	6,750	Square Yards	Asphalt Pavement, Mill and Overlay, Streets, 2018	2037	15 to 20	15	18.50	124,875	124,875	1.8%															209,209	
4.080	1,740	1,740	Square Yards	Asphalt Pavement, Walking Paths, Total Replacement	2026	15 to 20	4	25.00	43,500	43,500	1.3%					49,917											
4.090	1,500	1,500	Square Feet	Boardwalk, Wood, Paint Finishes and Interim Repairs	2024	4 to 6	2	7.00	10,500	10,500	0.8%			11,248					13,359								
4.095	1,500	1,500	Square Feet	Boardwalk, Wood, Replacement	2034	25 to 35	12	30.00	45,000	45,000	0.6%												67,998				
4.109	130	130	Linear Feet	Concrete Curbs, New Installation (Budgeted)	2022	to 65	0	60.00	7,800	7,800	0.1%	7,800															
4.110	480	65	Linear Feet	Concrete Curbs, Partial	2028	to 65	6 to 30+	40.00	2,600	19,200	0.1%						3,196										
4.140	2,000	150	Square Feet	Concrete Sidewalks, Partial	2028	to 65	6 to 30+	11.00	1,650	22,000	0.1%							2,028							2,671		
4.286	840	840	Linear Feet	Fences, Wood, Split Rail	2028	to 25	6	30.00	25,200	25,200	0.3%							30,977									
4.310	3	3	Panels	Gate Entry System	2024	10 to 15	2	5,800.00	17,400	17,400	0.4%			18,639													
4.320	9	2	Each	Gate Operators, Phased	2024	to 10	2 to 10	5,000.00	9,000	45,000	2.1%			9,641		10,328		11,063		11,851		12,695		13,600		14,568	
3.328	2	2	Each	Gates, Lantana Mesa	2033	to 30	11	6,500.00	13,000	13,000	0.2%											18,980					
4.329	4	4	Each	Gates, Lantana Valley	2051	to 30	29	5,000.00	20,000	20,000	0.5%																
4.330	4	4	Each	Gates, Remaining	2025	to 20	3	4,000.00	16,000	16,000	0.4%				17,739												
4.355	1,020	204	Linear Feet	Guard Rails, Bridges, Phased	2038	to 40	16 to 24	20.00	4,080	20,400	0.3%																
4.365	1	1	Allowance	Gravel Road, Partial Replenishments and Regrading	2024	to 5	2	13,000.00	13,000	13,000	1.1%			13,926					16,540					19,644			
4.420	28	28	Zones	Irrigation System	2043	to 40+	21	1,800.00	50,400	50,400	0.9%																
4.620	2,080	2,080	Square Feet	Pavers, Stamped Concrete, Lantana Valley Entrance	2043	to 40	21	14.00	29,120	29,120	0.5%																
4.660	1	1	Allowance	Playground Equipment	2040	15 to 20	18	28,000.00	28,000	28,000	0.4%																
4.700	1	1	Each	Pond, Aerator	2037	10 to 15	15	4,000.00	4,000	4,000	0.2%															6,701	
4.740	3,900	3,900	Square Feet	Retaining Walls, Masonry, Inspection and Capital Repairs	2031	10 to 15	9	7.00	27,300	27,300	1.4%									37,207							
4.785	70,000	7,000	Linear Feet	Shoulders, Gravel, Partial	2027	to 5	5 to 30+	1.50	10,500	105,000	1.0%						12,471				14,811					17,591	
4.800	1	1	Allowance	Signage, Monuments, Renovation	2033	to 30	11	19,000.00	19,000	19,000	0.2%											27,739					
4.810	3	1	Allowance	Signage, Street and Traffic, Replacement (2022 Budgeted), Phased	2022	15 to 20	0 to 12	4,900.00	4,900	14,700	0.4%	3,000					6,023						7,404				
4.820	3	1	Allowance	Site Furniture, Phased	2024	15 to 25	2 to 16	6,000.00	6,000	18,000	0.5%			6,427						8,177							
4.860	510	510	Square Yards	Sport Court, Basketball, Surface Replacement	2026	15 to 20	4	25.00	12,750	12,750	0.4%					14,631											
4.915	1	1	Each	Well Pump (incl. Controls)	2026	10 to 15	4	12,000.00	12,000	12,000	0.6%					13,770											
Anticipated Expenditures, By Year (\$11,853,798 over 30 years)												15,800	0	59,881	17,739	1,327,368	1,534,552	53,287	29,899	11,851	45,384	334,991	46,719	108,646	0	17,239	558,661

RESERVE EXPENDITURES

Lantana Ridge
Property Owners Association
Spring Branch, Texas

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 2038	17 2039	18 2040	19 2041	20 2042	21 2043	22 2044	23 2045	24 2046	25 2047	26 2048	27 2049	28 2050	29 2051	30 2052	
						Useful	Remaining	Unit (2022)	Per Phase (2022)	Total (2022)																	
Property Site Elements																											
4.020	136,200	136,200	Square Yards	Asphalt Pavement, Crack Repair, Patch, and Seal Coat (Quantities Vary by Event) (2022 Budgeted Repair)	2022	3 to 5	0	1.50	204,300	204,300	13.8%					406,514					33,797						567,694
4.040	116,700	58,350	Square Yards	Asphalt Pavement, Mill and Overlay, Streets, 2003	2026	15 to 20	4 to 5	18.50	1,079,475	2,158,950	63.6%									2,464,796	2,551,064						
4.041	10,150	10,150	Square Yards	Asphalt Pavement, Mill and Overlay, Streets, 2007-2008	2027	15 to 20	5	18.50	187,775	187,775	5.6%										443,758						
4.042	850	850	Square Yards	Asphalt Pavement, Mill and Overlay, Streets, 2013	2032	15 to 20	10	18.50	15,725	15,725	0.6%																44,137
4.043	6,750	6,750	Square Yards	Asphalt Pavement, Mill and Overlay, Streets, 2018	2037	15 to 20	15	18.50	124,875	124,875	1.8%																
4.080	1,740	1,740	Square Yards	Asphalt Pavement, Walking Paths, Total Replacement	2026	15 to 20	4	25.00	43,500	43,500	1.3%									99,325							
4.090	1,500	1,500	Square Feet	Boardwalk, Wood, Paint Finishes and Interim Repairs	2024	4 to 6	2	7.00	10,500	10,500	0.8%		18,844					22,381						26,581			
4.095	1,500	1,500	Square Feet	Boardwalk, Wood, Replacement	2034	25 to 35	12	30.00	45,000	45,000	0.6%																
4.109	130	130	Linear Feet	Concrete Curbs, New Installation (Budgeted)	2022	to 65	0	60.00	7,800	7,800	0.1%																
4.110	480	65	Linear Feet	Concrete Curbs, Partial	2028	to 65	6 to 30+	40.00	2,600	19,200	0.1%	4,508										6,359					
4.140	2,000	150	Square Feet	Concrete Sidewalks, Partial	2028	to 65	6 to 30+	11.00	1,650	22,000	0.1%							3,517								4,631	
4.286	840	840	Linear Feet	Fences, Wood, Split Rail	2028	to 25	6	30.00	25,200	25,200	0.3%																
4.310	3	3	Panels	Gate Entry System	2024	10 to 15	2	5,800.00	17,400	17,400	0.4%		31,227														
4.320	9	2	Each	Gate Operators, Phased	2024	to 10	2 to 10	5,000.00	9,000	45,000	2.1%	15,606		16,717		17,908		19,184		20,550		22,014		23,582		25,261	
3.328	2	2	Each	Gates, Lantana Mesa	2033	to 30	11	6,500.00	13,000	13,000	0.2%																
4.329	4	4	Each	Gates, Lantana Valley	2051	to 30	29	5,000.00	20,000	20,000	0.5%															54,238	
4.330	4	4	Each	Gates, Remaining	2025	to 20	3	4,000.00	16,000	16,000	0.4%								35,298								
4.355	1,020	204	Linear Feet	Guard Rails, Bridges, Phased	2038	to 40	16 to 24	20.00	4,080	20,400	0.3%	7,075		7,579		8,118		8,697		9,316							
4.365	1	1	Allowance	Gravel Road, Partial Replenishments and Regrading	2024	to 5	2	13,000.00	13,000	13,000	1.1%		23,331					27,710					32,910				
4.420	28	28	Zones	Irrigation System	2043	to 40+	21	1,800.00	50,400	50,400	0.9%						103,795										
4.620	2,080	2,080	Square Feet	Pavers, Stamped Concrete, Lantana Valley Entrance	2043	to 40	21	14.00	29,120	29,120	0.5%						59,971										
4.660	1	1	Allowance	Playground Equipment	2040	15 to 20	18	28,000.00	28,000	28,000	0.4%			52,010													
4.700	1	1	Each	Pond, Aerator	2037	10 to 15	15	4,000.00	4,000	4,000	0.2%															11,227	
4.740	3,900	3,900	Square Feet	Retaining Walls, Masonry, Inspection and Capital Repairs	2031	10 to 15	9	7.00	27,300	27,300	1.4%				52,484										74,034		
4.785	70,000	7,000	Linear Feet	Shoulders, Gravel, Partial	2027	to 5	5 to 30+	1.50	10,500	105,000	1.0%					20,893				24,814							29,471
4.800	1	1	Allowance	Signage, Monuments, Renovation	2033	to 30	11	19,000.00	19,000	19,000	0.2%																
4.810	3	1	Allowance	Signage, Street and Traffic, Replacement (2022 Budgeted), Phased	2022	15 to 20	0 to 12	4,900.00	4,900	14,700	0.4%			9,102						11,188							13,753
4.820	3	1	Allowance	Site Furniture, Phased	2024	15 to 25	2 to 16	6,000.00	6,000	18,000	0.5%	10,404						13,237									16,841
4.860	510	510	Square Yards	Sport Court, Basketball, Surface Replacement	2026	15 to 20	4	25.00	12,750	12,750	0.4%									29,112							
4.915	1	1	Each	Well Pump (incl. Controls)	2026	10 to 15	4	12,000.00	12,000	12,000	0.6%		21,536														33,682
Anticipated Expenditures, By Year (\$11,853,798 over 30 years)												37,593	94,938	85,408	52,484	453,433	163,766	81,489	48,535	2,634,287	3,053,433	28,373	59,491	23,582	128,272	746,697	

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS		Individual Reserve Budgets & Cash Flows for the Next 30 Years																
Lantana Ridge		FY2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	
Property Owners Association																		
Spring Branch, Texas																		
Reserves at Beginning of Year	(Note 1)	194,484	233,805	473,271	819,900	1,376,823	789,009	154,749	383,339	646,833	940,418	1,212,944	1,207,696	1,502,931	1,749,730	2,119,324	2,486,750	
Total Recommended Reserve Contributions	(Note 2)	54,000	237,000	402,000	567,000	732,000	897,000	280,000	289,800	299,900	310,400	321,300	332,500	344,100	356,100	368,600	381,500	
Estimated Interest Earned, During Year	(Note 3)	1,121	2,466	4,510	7,662	7,554	3,292	1,877	3,593	5,536	7,510	8,443	9,454	11,345	13,494	16,065	16,787	
Anticipated Expenditures, By Year		(15,800)	0	(59,881)	(17,739)	(1,327,368)	(1,534,552)	(53,287)	(29,899)	(11,851)	(45,384)	(334,991)	(46,719)	(108,646)	0	(17,239)	(558,661)	
Anticipated Reserves at Year End		<u>\$233,805</u>	<u>\$473,271</u>	<u>\$819,900</u>	<u>\$1,376,823</u>	<u>\$789,009</u>	<u>\$154,749</u>	<u>\$383,339</u>	<u>\$646,833</u>	<u>\$940,418</u>	<u>\$1,212,944</u>	<u>\$1,207,696</u>	<u>\$1,502,931</u>	<u>\$1,749,730</u>	<u>\$2,119,324</u>	<u>\$2,486,750</u>	<u>\$2,326,375</u>	
Predicted Reserves based on 2022 funding level of:	\$72,000	233,805	307,694	322,009	378,714	(878,397)	(2,352,217)											

(continued)	Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued															
	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	
Reserves at Beginning of Year	2,326,375	2,701,217	3,034,986	3,395,004	3,805,434	3,831,738	4,164,862	4,599,341	5,086,990	3,000,912	497,883	1,031,845	1,557,886	2,143,915	2,649,963	
Total Recommended Reserve Contributions	394,900	408,700	423,000	437,800	453,100	469,000	485,400	502,400	520,000	538,200	557,000	576,500	596,700	617,600	639,200	
Estimated Interest Earned, During Year	17,535	20,007	22,426	25,114	26,637	27,890	30,568	33,784	28,209	12,203	5,335	9,032	12,911	16,720	18,173	
Anticipated Expenditures, By Year	(37,593)	(94,938)	(85,408)	(52,484)	(453,433)	(163,766)	(81,489)	(48,535)	(2,634,287)	(3,053,433)	(28,373)	(59,491)	(23,582)	(128,272)	(746,697)	
Anticipated Reserves at Year End	<u>\$2,701,217</u>	<u>\$3,034,986</u>	<u>\$3,395,004</u>	<u>\$3,805,434</u>	<u>\$3,831,738</u>	<u>\$4,164,862</u>	<u>\$4,599,341</u>	<u>\$5,086,990</u>	<u>\$3,000,912</u>	<u>\$497,883</u>	<u>\$1,031,845</u>	<u>\$1,557,886</u>	<u>\$2,143,915</u>	<u>\$2,649,963</u>	<u>\$2,560,639</u>	
										(NOTE 5)					(NOTE 4)	

Explanatory Notes:

- 1) Year 2022 starting reserves are as of March 31, 2022; FY2022 starts December 1, 2021 and ends December 31, 2022.
- 2) Reserve Contributions for 2022 are the remaining budgeted 9 months; 2023 is the first year of recommended contributions.
- 3) 0.7% is the estimated annual rate of return on invested reserves; 2022 is a partial year of interest earned.
- 4) Accumulated year 2052 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

FIVE-YEAR OUTLOOK**Lantana Ridge
Property Owners Association
Spring Branch, Texas**

Line Item	Reserve Component Inventory	RUL = 0 FY2022	1 2023	2 2024	3 2025	4 2026	5 2027
<u>Property Site Elements</u>							
4.020	Asphalt Pavement, Crack Repair, Patch, and Seal Coat (Quantities Vary by Event) (2022 Budgeted R	5,000					16,985
4.040	Asphalt Pavement, Mill and Overlay, Streets, 2003					1,238,722	1,282,078
4.041	Asphalt Pavement, Mill and Overlay, Streets, 2007-2008						223,018
4.080	Asphalt Pavement, Walking Paths, Total Replacement					49,917	
4.090	Boardwalk, Wood, Paint Finishes and Interim Repairs			11,248			
4.109	Concrete Curbs, New Installation (Budgeted)	7,800					
4.310	Gate Entry System			18,639			
4.320	Gate Operators, Phased			9,641		10,328	
4.330	Gates, Remaining				17,739		
4.365	Gravel Road, Partial Replenishments and Regrading			13,926			
4.785	Shoulders, Gravel, Partial						12,471
4.810	Signage, Street and Traffic, Replacement (2022 Budgeted), Phased	3,000					
4.820	Site Furniture, Phased			6,427			
4.860	Sport Court, Basketball, Surface Replacement					14,631	
4.915	Well Pump (incl. Controls)					13,770	
Anticipated Expenditures, By Year (\$11,853,798 over 30 years)		15,800	0	59,881	17,739	1,327,368	1,534,552

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.*

Property Site Elements

Asphalt Pavement, Repaving

Line Items: 4.020 through 4.043

Quantity, History:

- 116,700 square yards original to 2003
- 10,150 square yards original to 2007-2008
- 850 square yards original to 2013
- 6,750 square yards original to 2018

A seal coat was last applied and with crack repairs in 2019. Our seal coat quantity includes the walking paths and basketball court. We include these quantities in “**Asphalt Pavement, Walking Paths**” and “**Sport Court, Basketball.**”

Condition: .The pavement varies from good to fair overall condition with cracks evident. The pavement at Lantana Valley is in fair to poor condition with frequent cracks and settlement evident.



Lantana Ridge overview



Asphalt pavement street overview



Alligator cracks



Pavement cracks at Lantana Valley



Pavement cracks at Lantana Valley



Lantana View overview



Lantana Crossing overview



Patch with alligator cracks at Lantana Crossing



Loma Doble overview



Lantana Valley overview



Slippage cracks near park entrance



Lantana Mesa overview



Asphalt pavement street overview



Asphalt pavement park driveway



Edge cracks



Asphalt pavement street overview



Lantana Cerro overview



Pavement cracks

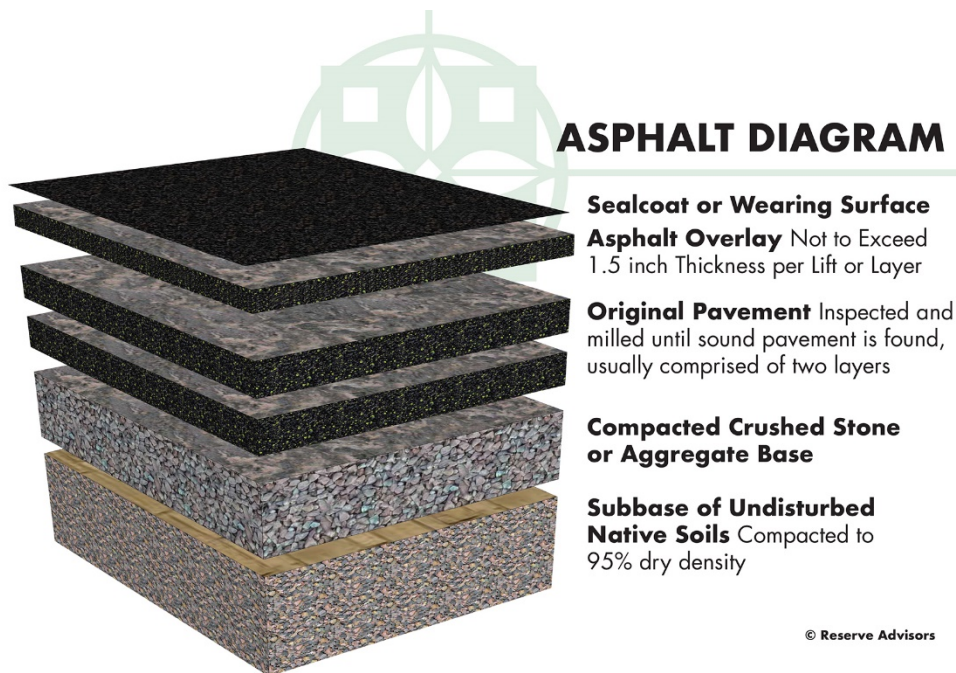


Edge cracks

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

Component Detail Notes: Proposals should include mechanically routing and filling all cracks with hot emulsion. Repairs should also include patching at areas exhibiting settlement, potholes, or excessive cracking. 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. These activities minimize the damaging effects of vehicle fluids, maintain a uniform and positive appearance, and maximize the useful life of the pavement.

The initial installation of asphalt uses at least two lifts, or two separate applications of asphalt, over the base course. The first lift is the binder course. The second lift is the wearing course. The wearing course comprises a finer aggregate for a smoother more watertight finish. The following diagram depicts the typical components although it may not reflect the actual configuration at Lantana Ridge:



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

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

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

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

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

Asphalt Pavement, Repaving, Walking Paths

Line Item: 4.080

Quantity: 1,740 square yards at the park

History: Original

Condition: Fair overall with periodic cracks and settlement evident.



Walking path cracks



Asphalt pavement walking path



Asphalt pavement walking path



Asphalt pavement walking path

Useful Life: 15- to 20-years with the benefit of timely crack repairs and patching, and the need to maintain a safe pedestrian surface

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.

Boardwalk, Wood

Line Items: 4.090 and 4.095

Quantity: The boardwalk at the park comprises approximately 1,500 square feet of surface area and 440 linear feet of wood and metal railings.

History: Original to construction with repairs conducted as needed. The paint finishes are unknown in age.

Condition: Good overall condition with no significant deterioration evident



Boardwalk overview



Boardwalk overview



Boardwalk overview



Boardwalk overview



Metal railing

Useful Life: 25- to 35-years with proper maintenance and interim repairs and paint finishes every four- to six-years. The rates and types of deterioration are not uniform due to the nature of wood. Replacement is normally an ongoing process which eventually leads to a complete replacement for economic or aesthetic reasons.

Component Detail Notes: Boardwalk construction includes the following:

- Deck boards fastened with screws
- Wood and metal railings
- Wood column supported frames
- Metal joist hanger fasteners

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

- Annually:
 - o Inspect to identify and correct any unsafe conditions
 - o Secure loose fasteners and replace deteriorated fasteners
 - o Replace deteriorated wood components
 - o 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 for interim repairs includes paint finishes and partial replacement of deteriorated wood components.

Concrete Curbs

Line Items: 4.109 and 4.110

Quantity, History: Approximately 350 linear feet at the entrances and walking paths. Additionally, the Association plans to install an additional 130 linear feet of curbs in 2022.

History: Good overall condition



Concrete curb



Concrete curb

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:
 - o Inspect and repair major cracks, spalls and trip hazards
 - o Mark with orange safety paint prior to replacement or repair
 - o 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 195 linear feet of curbs, or forty-one percent (40.6%) of the total, will require replacement during the next 30 years.

Concrete Sidewalks

Line Item: 4.140

Quantity: Approximately 2,000 square feet located primarily near the pond and boardwalk

Condition: Good overall



Concrete sidewalk



Concrete sidewalk

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:
 - o Inspect and repair major cracks, spalls and trip hazards
 - o Mark with orange safety paint prior to replacement or repair
 - o 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 600 square feet of concrete sidewalks, or thirty percent (30%) of the total, will require replacement during the next 30 years.

Fences, Wood, Split Rail

Line Item: 4.286

Quantity: 840 linear feet of wood split rail fences with a vinyl coating at the park

History: Original

Condition: Fair overall condition



Vinyl wrap deterioration



Fence overview



Fastener rust



Wood split rail fence

Useful Life: Up to 25 years

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

- Annually:
 - o Inspect and repair loose sections, and damage
 - o 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. The Association should anticipate periodic partial replacements funded through the operating budget due to the non-uniform nature of wood deterioration.

Gate Entry System

Line Item: 4.310

Quantity: Three panels

History: Original

Condition: Reported in good to fair overall condition



Gate entry callbox



Gate entry callbox

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:

- o Inspect panel for damage and ensure the panel is mounted securely, tighten or replace any loose or damaged fasteners.
 - o Inspect panel for proper operation of buttons, displays, microphone and speaker.
- Annually:
 - o 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.

Gates and Operators

Line Items: 4.320 through 4.330

Quantity:

- Gates: Two steel and wood gates at the Lantana Mesa entrance, four steel gates at the Lantana Valley entrance, and four remaining gates at the Lantana Canyon entrance and park area
- Operators: Nine operators

History:

- Gates: The Lantana Valley gates were replaced in 2021 and the remaining gates are original
- Operators: Various ages

Condition:

- Gates: Good overall condition
- Operators: Reported in satisfactory overall condition



Steel gates at Lantana Valley



Gate operator



Gate operator



Steel gates at Lantana Canyon



Wood gate with steel frame at Lantana Mesa



Steel gate at park

Useful Life: Up to 10 years for the operators and up to 30 years for the heavy-duty gates at Lantana Mesa and Valley and up to 20 years for the remaining gates

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

- Semi-annually:
 - o Ensure gates operate freely
 - o Inspect for any wear, rust and loose fasteners
 - o Inspect and correct tension in belts and chains, and lubricate hinges and chains as necessary
 - o Check alignment of pulleys
 - o Check for no oil leakage at the gear box
 - o Check the control board for water damage. Clean and remove insects and other pests as needed.

- o Check all wiring for insulation damage and loose connections. If applicable, check functionality of battery power supply systems

Priority/Criticality: Not recommended to defer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We depict replacement of the operators in a phased manner. We recommend the Association budget for interim paint finishes and repairs through the operating budget.

Guard Rails, Bridges

Line Item: 4.355

Quantity: 1,020 linear feet

History: Original

Condition: Good



Guard rails

Useful Life: Up to 40 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We depict replacement in a phased manner.

Gravel Road

Line Item: 4.365

Quantity: The gravel road at the park comprises approximately 2,300 square yards of surface area

History: The road has been repaired as needed

Condition: Good to fair overall



Gravel road overview



Gravel road overview

Useful Life: Replenishments up to every five years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost includes regrading and gravel replenishments of up to twenty percent (20%) of the area per event.

Irrigation System

Line Item: 4.420

Quantity: Approximately 280 heads with 28 zones located at the entrance.

History: Original

Condition: Satisfactory operational condition and Management does not report any deficiencies

Useful Life: Up to and sometimes beyond 40 years

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

- Electronic controls (timer)
- Impact rotors
- Network of supply pipes
- Pop-up heads

- Valves

Lantana Ridge 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:
 - o Conduct seasonal repairs which includes valve repairs, controller repairs, partial head replacements and pipe repairs
 - o Blow out irrigation water lines and drain building exterior faucets each fall if applicable

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.

Pavers, Stamped Concrete

Line Item: 4.620

Quantity: Approximately 2,080 square feet at the Lantana Valley entrance

History: Original

Condition: Good overall with no significant deterioration evident



Stamped concrete pavers

Useful Life: Up to 40 years

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association apply stain finishes as needed to and fund these activities through the operating budget.

Playground Equipment

Line Item: 4.660

Quantity: Playground equipment includes the following elements:

- Playsets and swings
- Safety surface

History: The playset was replaced in 2020 and the swings were replaced in 2022.

Condition: Good overall



Playground equipment



Playground equipment

Useful Life: 15- to 20-years

Component Detail Notes: Safety is the major purpose for maintaining playground equipment. We recommend an annual inspection of the playground equipment to identify and repair as normal maintenance loose connections and fasteners or damaged elements. We suggest the Association learn more about the specific requirements of playground equipment at [PlaygroundSafety.org](https://www.playgroundsafety.org). We recommend the use of a specialist for the design or replacement of the playground equipment environment.

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

- Annually:
 - o Inspect and repair loose connections and fasteners or damaged elements
 - o Inspect for safety hazards and adequate coverage of ground surface cover

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 an allowance in the unit cost for replacement of the safety surface.

Pond, Aerator

Line Item: 4.700

Quantity: One aerator

History: Installed in 2022.

Condition: Reported satisfactory without operational deficiencies



Pond aerator

Useful Life: 10- to 15-years

Component Detail Notes: The use of small pumps, motors and aerators circulates pond water and increases the amount of entrained oxygen in the water, increasing water quality and reducing algae growths.

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.

Retaining Walls, Masonry

Line Item: 4.740

Quantity: Ten retaining walls at the five bridges comprise approximately 3,900 square feet

History: The retaining walls vary in age. Four of the walls were totally replaced from 2018 through 2021

Condition: Good overall with no significant deterioration evident



Retaining wall at bridge 3



Retaining wall at bridge 5



Masonry retaining wall at bridge 2

Useful Life: Masonry retaining walls have indeterminate useful lives. However, we recommend the Association plan for inspections and capital repairs every 10- to 15-years to forestall deterioration.

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost includes an allowance for an inspection, partial resetting and replacement of up to ten percent (10%). Updates of this Reserve Study will continue to monitor the rate of deterioration and incorporate any available inspection reports.

Shoulders, Gravel

Line Item: 4.785

Quantity: Approximately 70,000 linear feet

History: Replaced in 2019

Condition: Good overall condition



Gravel shoulder



Gravel shoulder

Useful Life: We include partial replacements of the gravel shoulders every five years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate includes replenishments of up to ten percent (10%) of the shoulders per event. We recommend the Association coordinate replacements with street repaving and repairs.

Signage, Monuments

Line Item: 4.800

Quantity: The property identification signage includes the following elements:

- Light fixtures
- Steel signage
- Walls, Concrete
- Walls, Masonry

History: Original

Condition: Good overall



Masonry cracks



Entrance monument



Concrete cracks



Entry monument wall



Entrance monument

Useful Life: Up to 30 years

Component Detail Notes: Community signage contributes to the overall aesthetic appearance of the property to owners and potential buyers. Renovation or replacement

of community signs is often predicated upon the desire to "update" the perceived identity of the community rather than for utilitarian concerns. Therefore, the specific times for replacement or renovation are discretionary.

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

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

Priority/Criticality: Per Board discretion

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

Signage, Street and Traffic

Line Item: 4.810

Quantity: The Association maintains the street and traffic signs throughout the community

History: Varied ages. 29 road signs being replaced in 2022.

Condition: Good to fair overall



Traffic management signage



Traffic management signage

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. Our near term cost is based on information provided by the Association. We depict replacement in a phased manner.

Site Furniture

Line Item: 4.820

Quantity:

- Benches (5)
- Picnic tables (4)
- Trash receptacles (3)
- Basketball goal
- Grills (4)
- Exercise equipment

History: Original

Condition: Good overall



Exercise equipment



Finish deterioration and rust



Furniture rust



Basketball goal



Site furniture



Site furniture

Useful Life: 15- to 25-years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We depict replacement in a phased manner.

Sport Courts, Basketball Court

Line Item: 4.860

Quantity: 510 square yards comprising one Basketball court

History: Original

Condition: Good to fair overall condition



Basketball court overview



Basketball court overview

Useful Life: 15- to 20-years

Priority/Criticality: Not recommended to defer

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

Well Pump (incl. Controls)

Line Item: 4.915

Quantity: One each

History: 2013

Condition: Good



Well controls

Useful Life: 10- to 15-years



Priority/Criticality: Per Board discretion

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

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.

Lantana Ridge 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 standards¹ 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
- Local² 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 Spring Branch, Texas at an annual inflation rate³. Isolated or regional markets of

¹ Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".

² See Credentials for additional information on our use of published sources of cost data.

³ 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 Lantana Ridge 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.

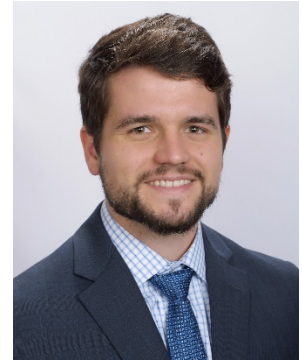
OLD TO NEW

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.

CASEY M. LEWIS, RS
Responsible Advisor

CURRENT CLIENT SERVICES

Casey M. Lewis, an engineer, is an advisor for Reserve Advisors. Mr. Lewis is responsible for the inspection and analysis of the condition of clients' property, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services and the preparation of Reserve Study Reports for condominiums, townhomes and homeowners associations.



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

Lakeside Cove Community Association, Inc. A gated, Mediterranean style townhome development in Spring, Texas that features views of the surrounding lake and golf course. The three story townhomes consist of wood and stucco exteriors with clay tile roofs. The community includes private concrete streets, sidewalks, stucco perimeter walls and metal fencing.

Waterside Estates Homeowners Association, Inc. This single family home community contains over 1,400 residential homes and is located in Richmond, Texas. Features of this community include swimming pools, water slides, multiple playgrounds, walking trails, panelized masonry perimeter walls, wood fences, and two tennis courts.

Silver Oaks Condominium Association, Inc. A townhome community in Cedar Park, Texas containing 82 units in 22 buildings. The townhomes consist of stone masonry, stucco siding and asphalt shingle roofs. The features of this community include private asphalt streets, masonry retaining walls, concrete flatwork, wood balconies and metal fences.

Barton Creek South Property Owners Association, Inc. A gated community of 99 single family homes in Austin, Texas. Features of this community include several miles of private asphalt streets and masonry pavers.

Wintergreen Trail Townhomes A townhome style community of 51 units in 12 buildings located in The Woodlands, Texas. The townhomes comprise of fiber cement siding, wood trim and asphalt roofs. Features of the property include concrete flatwork and wood fences surrounding the property.

Camp John Marc A special needs summer camp in Meridian, Texas that comprises over 100 acres that includes 22 cabins, numerous multipurpose use structures, extensive site infrastructure, maintenance buildings and equipment, animal storage structures and a packaged sewer treatment facility.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Lewis completed his bachelor's degree in industrial engineering at Texas Tech University. During his summers, he worked in the homebuilding industry where he oversaw and managed the construction of single family homes in the Houston, Texas area. Following the completion of his studies, he worked as an industrial engineer in the space launch industry.

EDUCATION

Texas Tech University - B.S. Industrial Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

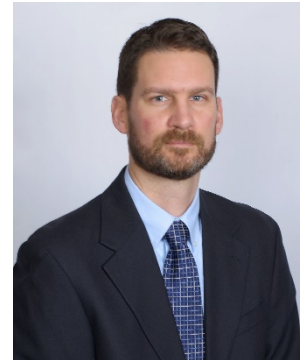
Reserve Specialist (RS) - Community Associations Institute

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

CURRENT CLIENT SERVICES

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

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



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

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

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

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

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

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

PRIOR RELEVANT EXPERIENCE

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

EDUCATION

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

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

Professional Engineering License – Wisconsin, North Carolina, Illinois, Colorado

Reserve Specialist (RS) - Community Associations Institute

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

RESOURCES

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

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

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

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

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

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

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

7. DEFINITIONS

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

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

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

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

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

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

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

Long-Lived Property Component - Property component of Lantana Ridge 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) Lantana Ridge 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.