Revised
FULL RESERVE STUDY
Heron Lakes
Townhome Association, Inc.

Houston, Texas

Inspected - November 15, 2016
Revised - March 24, 2017

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Corporate Office
Reserve Advisors, Inc.
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1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Heron Lakes Townhome Association, Inc. (Heron Lakes)
Location: Houston, Texas
Reference: 060490

Property Basics: Heron Lakes Townhome Association, Inc. is a townhome style development of 84 units in 22 buildings. The exteriors of the buildings comprise fiber cement siding and asphalt shingle roofs. The buildings were built in 2001. The development contains concrete streets, vinyl perimeter walls, metal fences, and two entrance gates.

Reserve Components Identified: 19 Reserve Components.

Inspection Date: November 15, 2016.

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 this threshold funding year in 2028 due to replacement of the roofs.

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
- 1.20% annual rate of return on invested reserves
- 1.70% future Inflation Rate for estimating Future Replacement Costs

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

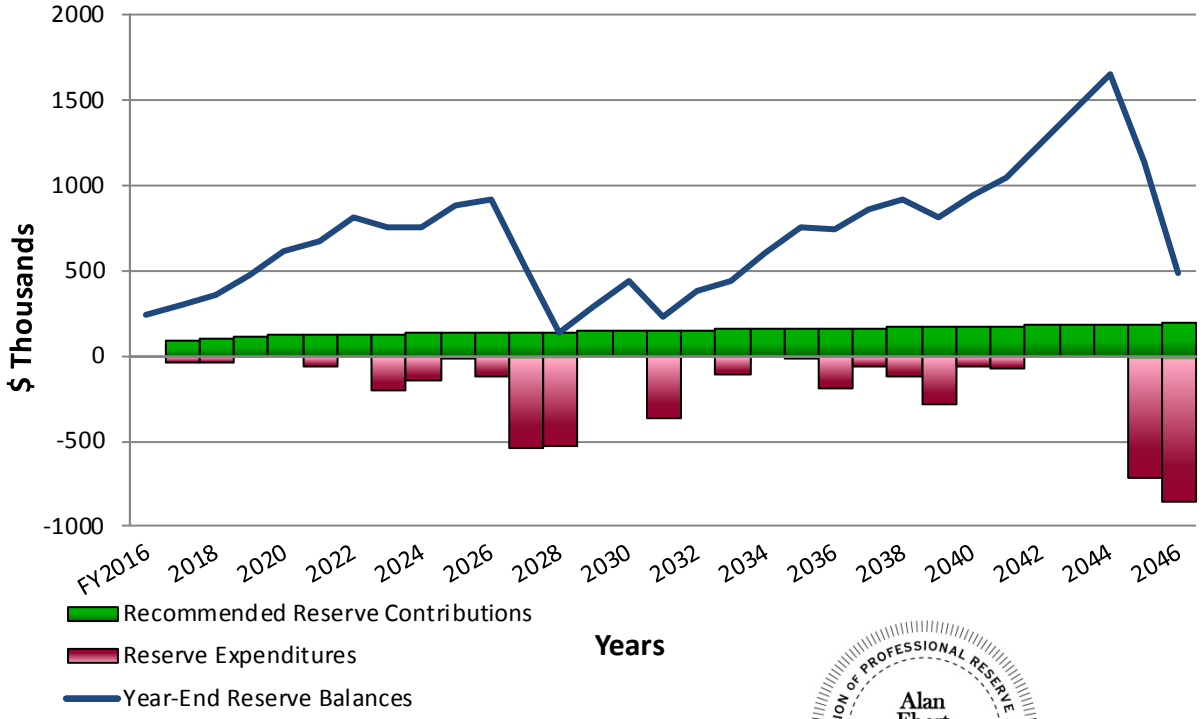
Cash Status of Reserve Fund: $239,639 as of January 1, 2017. A potential deficit in reserves might occur by 2028 based upon continuation of the most recent annual reserve contribution of $94,000 and the identified Reserve Expenditures.

Recommended Reserve Funding: The Association budgeted $94,000 for Reserve Contributions in 2017. We recommend the Association budget annual phased increases in Reserve Contributions of approximately $10,000 from 2018 through 2020. Afterwards, the Association should budget gradual annual increases in reserve funding that in part consider the effects of inflation through 2046, the limit of this study's Cash Flow Analysis. The initial recommended adjustment in Reserve Contributions of $10,000 represents about a three percent (2.8%) adjustment in the 2017 total Operating Budget of $352,800. This initial recommended adjustment of $10,000 is equivalent to an increase of $9.92 in the monthly contributions per homeowner.

Certification: This *Full Reserve Study* exceeds the Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a "Level I Full Reserve Study."

Heron Lakes
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)
2017	94,000	295,183	2027	139,500	523,804	2037	165,200	856,310
2018	104,000	360,741	2028	141,900	139,429	2038	168,000	917,595
2019	114,000	479,754	2029	144,300	286,268	2039	170,900	815,664
2020	124,000	610,255	2030	146,800	437,384	2040	173,800	939,989
2021	126,100	678,263	2031	149,300	224,720	2041	176,800	1,050,963
2022	128,200	815,371	2032	151,800	380,127	2042	179,800	1,244,453
2023	130,400	753,507	2033	154,400	434,168	2043	182,900	1,443,384
2024	132,600	753,479	2034	157,000	597,320	2044	186,000	1,647,821
2025	134,900	882,424	2035	159,700	755,445	2045	189,200	1,140,812
2026	137,200	912,727	2036	162,400	739,934	2046	192,400	491,335



Respectfully submitted on March 24, 2017 by
RESERVE ADVISORS, INC.

Alan M. Ebert, PRA[1], RS[2], Director of Quality Assurance
Visual Inspection and Report by: John D. Zawadsky and Tanner Oldenburger, RS

[1]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.
[2] 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. 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

Heron Lakes Townhome Association, Inc.

Houston, Texas

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, November 15, 2016.

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
- **Condition Assessment -** 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, financial information relied upon for the Financial Analysis of 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

Heron Lakes Townhome Association, Inc. is a townhome style development of 84 units in 22 buildings. The exteriors of the buildings comprise fiber cement siding and asphalt shingle roofs. The buildings were built in 2001. The development contains concrete streets, vinyl perimeter walls, metal fences, and two entrance gates. We identify 19 major reserve components that are likely to require capital repair or replacement during the next 30 years.

Our investigation includes Reserve Components or property elements as set forth in your Declaration. 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:

- Heron Lakes 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 reserve funding at this time.

- Electrical Systems, Common
- Foundations
- Pipes, Subsurface Utilities
- Structural Frames
- Walls, Fiber Cement Siding, Replacement

The operating budget provides money for the repair and replacement of certain Reserve Components. Operating Budget Funded Repairs and Replacements relate to:

- General Maintenance to the Common Elements
- Expenditures less than $3,500 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Fences, Wood, Paint Finishes and Repairs
- Fire Hydrants, Paint Finishes
- Irrigation System, Controllers
- Landscape
- Light Fixtures, Recessed
- Paint Finishes, Touch Up

- Pond, Maintenance (Golf Course maintains approximately ninety-nine percent (99%) of the pond area)
- Security System, Entrance
- Signage, Street Identification and Traffic Management
- 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:

- Backyards
- Electrical Systems
- Fences, Metal, Between Units
- Fences, Wood, Between Units
- Garage Doors
- Heating, Ventilating and Air Conditioning (HVAC) Units
- Interiors
- Light Fixtures
- Pipes, Interior Building, Water and Sewer
- Windows and Doors

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

- Mailbox Stations (United States Postal Service)

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
- Unit cost of replacement
- 2016 local cost of replacement
- Total future costs of replacement anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

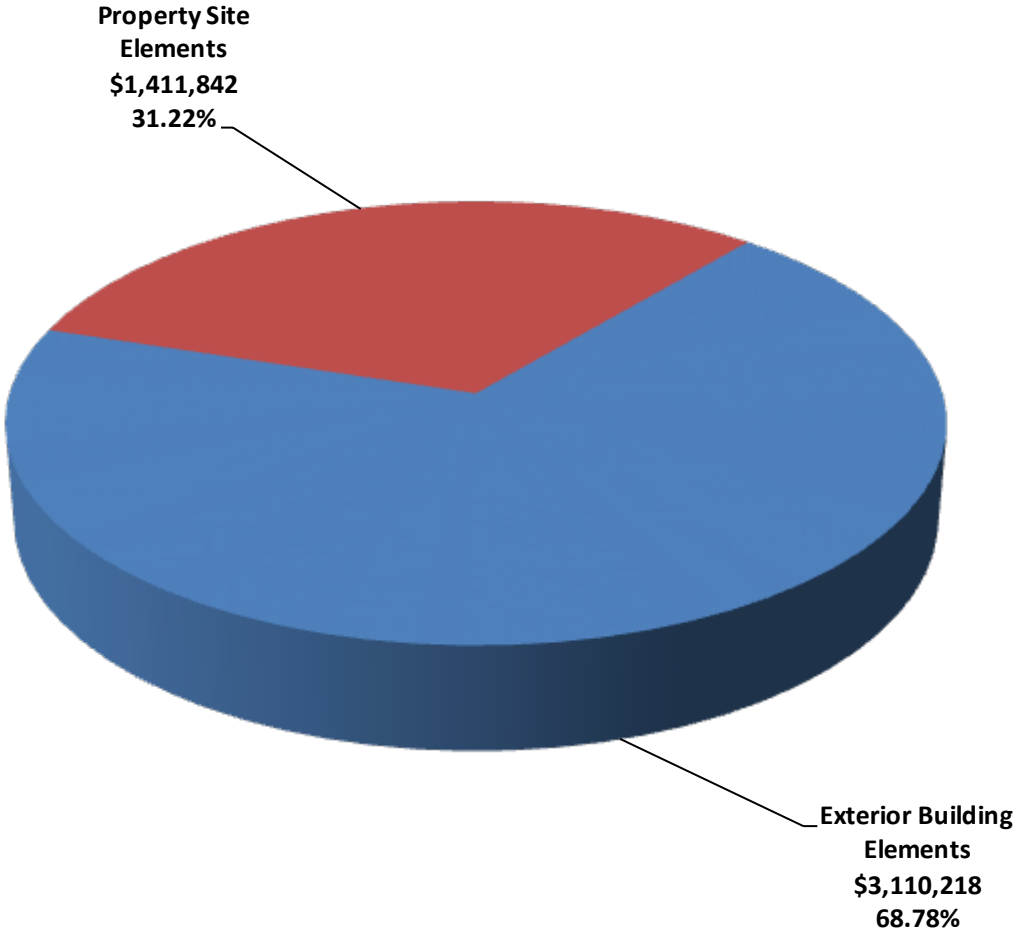
Reserve Funding Plan

- 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

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***.

The following chart illustrates the relative importance of the categories noted in ***Reserve Expenditures*** and relative funding during the next 30 years.

Heron Lakes
Future Expenditures Relative Cost Illustration



RESERVE EXPENDITURES

Heron Lakes
Townhome Association, Inc.
Houston, Texas

Explanatory Notes:

1) 1.7% is the estimated future Inflation Rate for estimating Future Replacement Costs.

2) FY2016 is Fiscal Year beginning January 1, 2016 and ending December 31, 2016.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2016)	Per Phase (2016)	Total (2016)	30-Year Total (Inflated)	RUL = 0 FY2016	1 2017	2 2018	3 2019	4 2020	5 2021	6 2022	7 2023	8 2024	9 2025	10 2026	11 2027	12 2028	13 2029	14 2030	15 2031
				Exterior Building Elements																							
1.140	84	42	Each	Chimney Caps, Metal, Phased	2027	to 25	11 to 12	450.00	18,900	37,800	45,888												22,751	23,137			
1.240	10,350	5,175	Linear Feet	Gutters and Downspouts, Aluminum, Phased	2027	15 to 20	11 to 12	7.00	36,225	72,450	207,082												43,605	44,347			
1.280	2,100	1,050	Squares	Roofs, Asphalt Shingles, Phased	2027	15 to 20	11 to 12	360.00	378,000	756,000	2,160,856												455,011	462,747			
1.760	93,400	93,400	Square Feet	Walls, Fiber Cement Siding, Paint Finishes and Repairs	2023	8 to 10	7	1.75	163,450	163,450	635,256								183,921								210,474
1.800	28,600	28,600	Square Feet	Walls, Masonry, Inspections and Repairs	2023	8 to 12	7	0.55	15,730	15,730	61,136								17,700								20,256
				Property Site Elements																							
4.100	12	12	Each	Catch Basins, Inspections and Capital Repairs	2026	15 to 20	10	500.00	6,000	6,000	17,051											7,102					
4.120	50,100	2,090	Square Feet	Concrete Driveways, Partial	2021	to 65	5 to 30+	10.50	21,945	526,050	178,688						23,875					25,974					28,259
4.140	50,800	2,115	Square Feet	Concrete Sidewalks, Partial	2021	to 65	5 to 30+	9.00	19,035	457,200	154,992						20,709					22,530					24,511
4.180	65,500	4,365	Square Feet	Concrete Streets (Incl. Curbs and Gutters), Partial	2026	to 65	10 to 30+	12.00	52,380	786,000	222,234											61,998					
4.240	1,580	1,580	Linear Feet	Fences, Metal, Paint Finishes	2021	6 to 8	5	6.00	9,480	9,480	51,152						10,314						11,411				
4.245	1,580	1,580	Linear Feet	Fences, Metal, Replacement	2033	to 35	17	50.00	79,000	79,000	105,216																
4.285	2,100	1,050	Linear Feet	Fences, Wood, Phased	2017	15 to 20	1 to 2	39.00	40,950	81,900	201,680		41,646	42,354													
4.310	1	1	Panel	Gate Entry System	2027	10 to 15	11	3,500.00	3,500	3,500	9,371												4,213				
4.320	2	2	Each	Gate Operators	2025	to 10	9	3,500.00	7,000	7,000	29,203										8,147						
4.330	2	2	Each	Gates	2021	to 20	5	5,000.00	10,000	10,000	26,120						10,879										
4.420	3	1	Allowance	Irrigation System, Phased	2036	to 40	20 to 24	40,000.00	40,000	120,000	173,943																
4.560	16	16	Each	Light Poles and Fixtures	2031	to 30	15	4,000.00	64,000	64,000	82,413																82,413
4.640	1,650	1,650	Linear Feet	Perimeter Walls, Vinyl	2024	20 to 25	8	75.00	123,750	123,750	141,616									141,616							
4.810	1	1	Allowance	Signage, Entrance Monument, Replacement	2025	15 to 20	9	6,500.00	6,500	6,500	18,163										7,565						
				Anticipated Expenditures, By Year							$4,522,060	0	41,646	42,354	0	0	65,777	0	201,621	141,616	15,712	117,604	536,991	530,231	0	0	365,913

RESERVE EXPENDITURES

Heron Lakes
Townhome Association, Inc.
Houston, Texas

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Life Analysis, Years Remaining	Costs, $ Unit (2016)	Costs, $ Per Phase (2016)	Costs, $ Total (2016)	Costs, $ 30-Year Total (Inflated)	16 2032	17 2033	18 2034	19 2035	20 2036	21 2037	22 2038	23 2039	24 2040	25 2041	26 2042	27 2043	28 2044	29 2045	30 2046
				Exterior Building Elements																						
1.140	84	42	Each	Chimney Caps, Metal, Phased	2027	to 25	11 to 12	450.00	18,900	37,800	45,888															
1.240	10,350	5,175	Linear Feet	Gutters and Downspouts, Aluminum, Phased	2027	15 to 20	11 to 12	7.00	36,225	72,450	207,082														59,063	60,067
1.280	2,100	1,050	Squares	Roofs, Asphalt Shingles, Phased	2027	15 to 20	11 to 12	360.00	378,000	756,000	2,160,856														616,310	626,788
1.760	93,400	93,400	Square Feet	Walls, Fiber Cement Siding, Paint Finishes and Repairs	2023	8 to 10	7	1.75	163,450	163,450	635,256								240,861							
1.800	28,600	28,600	Square Feet	Walls, Masonry, Inspections and Repairs	2023	8 to 12	7	0.55	15,730	15,730	61,136								23,180							
				Property Site Elements																						
4.100	12	12	Each	Catch Basins, Inspections and Capital Repairs	2026	15 to 20	10	500.00	6,000	6,000	17,051															9,949
4.120	50,100	2,090	Square Feet	Concrete Driveways, Partial	2021	to 65	5 to 30+	10.50	21,945	526,050	178,688					30,744					33,447					36,389
4.140	50,800	2,115	Square Feet	Concrete Sidewalks, Partial	2021	to 65	5 to 30+	9.00	19,035	457,200	154,992					26,667					29,012					31,563
4.180	65,500	4,365	Square Feet	Concrete Streets (Incl. Curbs and Gutters), Partial	2026	to 65	10 to 30+	12.00	52,380	786,000	222,234					73,381										86,855
4.240	1,580	1,580	Linear Feet	Fences, Metal, Paint Finishes	2021	6 to 8	5	6.00	9,480	9,480	51,152								13,970						15,457	
4.245	1,580	1,580	Linear Feet	Fences, Metal, Replacement	2033	to 35	17	50.00	79,000	79,000	105,216		105,216													
4.285	2,100	1,050	Linear Feet	Fences, Wood, Phased	2017	15 to 20	1 to 2	39.00	40,950	81,900	201,680						58,344	59,336								
4.310	1	1	Panel	Gate Entry System	2027	10 to 15	11	3,500.00	3,500	3,500	9,371								5,158							
4.320	2	2	Each	Gate Operators	2025	to 10	9	3,500.00	7,000	7,000	29,203				9,643										11,413	
4.330	2	2	Each	Gates	2021	to 20	5	5,000.00	10,000	10,000	26,120										15,241					
4.420	3	1	Allowance	Irrigation System, Phased	2036	to 40	20 to 24	40,000.00	40,000	120,000	173,943					56,038		57,959		59,946						
4.560	16	16	Each	Light Poles and Fixtures	2031	to 30	15	4,000.00	64,000	64,000	82,413															
4.640	1,650	1,650	Linear Feet	Perimeter Walls, Vinyl	2024	20 to 25	8	75.00	123,750	123,750	141,616															
4.810	1	1	Allowance	Signage, Entrance Monument, Replacement	2025	15 to 20	9	6,500.00	6,500	6,500	18,163														10,598	
				Anticipated Expenditures, By Year							$4,522,060	0	105,216	0	9,643	186,830	58,344	117,295	283,169	59,946	77,700	0	0	0	712,841	851,611

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS
Heron Lakes
Townhome Association, Inc.
Houston, Texas

Individual Reserve Budgets & Cash Flows for the Next 30 Years

			FY2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
	Reserves at Beginning of Year (Note 1)		N/A	239,639	295,183	360,741	479,754	610,255	678,263	815,371	753,507	753,479	882,424	912,727	523,804	139,429	286,268	437,384
	Total Recommended Reserve Contributions (Note 2)		N/A	94,000	104,000	114,000	124,000	126,100	128,200	130,400	132,600	134,900	137,200	139,500	141,900	144,300	146,800	149,300
Plus	Estimated Interest Earned, During Year (Note 3)		N/A	3,190	3,912	5,013	6,501	7,685	8,908	9,357	8,988	9,757	10,707	8,568	3,956	2,539	4,316	3,949
Less	Anticipated Expenditures, By Year		N/A	(41,646)	(42,354)	0	0	(65,777)	0	(201,621)	(141,616)	(15,712)	(117,604)	(536,991)	(530,231)	0	0	(365,913)
	Anticipated Reserves at Year End		$239,639	$295,183	$360,741	$479,754	$610,255	$678,263	$815,371	$753,507	$753,479	$882,424	$912,727	$523,804	$139,429	$286,268	$437,384	$224,720
															(NOTE 5)			
	Predicted Reserves based on 2017 funding level of:	$94,000	239,639	295,183	350,681	449,453	549,410	584,395	685,972	585,937	545,067	630,366	614,185	175,906	(260,832)	(169,398)		

(continued)

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

		2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
	Reserves at Beginning of Year	224,720	380,127	434,168	597,320	755,445	739,934	856,310	917,595	815,664	939,989	1,050,963	1,244,453	1,443,384	1,647,821	1,140,812
	Total Recommended Reserve Contributions	151,800	154,400	157,000	159,700	162,400	165,200	168,000	170,900	173,800	176,800	179,800	182,900	186,000	189,200	192,400
Plus	Estimated Interest Earned, During Year	3,607	4,857	6,152	8,068	8,919	9,520	10,580	10,338	10,471	11,874	13,690	16,031	18,437	16,632	9,734
Less	Anticipated Expenditures, By Year	0	(105,216)	0	(9,643)	(186,830)	(58,344)	(117,295)	(283,169)	(59,946)	(77,700)	0	0	0	(712,841)	(851,611)
	Anticipated Reserves at Year End	$380,127	$434,168	$597,320	$755,445	$739,934	$856,310	$917,595	$815,664	$939,989	$1,050,963	$1,244,453	$1,443,384	$1,647,821	$1,140,812	$491,335
																(NOTE 4)

Explanatory Notes:

1) Year 2016 starting reserves are projected by Management as of January 1, 2017; FY2016 starts January 1, 2016 and ends December 31, 2016.
2) Reserve Contributions for 2016 are budgeted; 2017 is budgeted; 2018 is the first year of recommended contributions.
3) 1.20% is the estimated annual rate of return on invested reserves.
4) Accumulated year 2046 ending reserves consider the need to fund for replacement of the fiber cement siding shortly after 2046, and the age, size, overall condition and complexity of the property.
5) Threshold Funding Year (reserve balance at critical point).

4. CONDITION ASSESSMENT

The Condition Assessment of this *Full Reserve Study* includes *Enhanced Solutions and Procedures* for select significant components. These narratives describe the Reserve Components, document specific problems and conditions, 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

Chimney Caps, Metal - Heron Lakes maintains 84 metal chimney caps. The chimney caps are original and in good overall condition based on our visual inspection from the ground.

Chimney cap

Chimney caps of this type have useful lives of up to 25 years. We recommend the Association anticipate a phased replacement of the chimney caps and related flashing beginning by 2027 and concluding by 2028 in coordination with the roofs. We depict this information on Line Item 1.140 of ***Reserve Expenditures***. We recommend the Association inspect the condition of the chimney caps concurrent with replacement of the roof systems.

Gutters and Downspouts, Aluminum - Approximately 10,350 linear feet of aluminum six-inch seamless gutters and three-inch by four-inch downspouts drain storm water from the roofs of Heron Lakes. These gutters are original and in good to fair overall condition. The downspouts were replaced in 2016.

Gutters and downspouts

Gutters

These gutters and downspouts have a useful life of 15- to 20-years. We include the following solutions and procedures for gutter and downspout maintenance and replacements for present and future board members.

The most common and economical type of gutter profile is the metal roll-formed seamless K-style. The five-inch wide K-style gutter is standard but six-inch wide K-style gutters should be used on larger roofs. The size of the gutter is determined by the roof's watershed area, a roof pitch factor and the rainfall intensity number of the Association's region. We recommend sloping gutters 1/16 inch per linear foot and providing fasteners a maximum of every three feet.

Downspouts can drain 100 square feet of roof area per one square inch of downspout cross sectional area. Downspouts should be of the same material as the gutters. We recommend the use of downspout extensions and splash blocks at the downspout discharge to direct storm water away from the foundations. Downspouts that discharge directly onto roofs cause premature deterioration of the roofs due to the high concentration of storm water. We recommend either routing these downspouts directly to the ground, connecting the downspouts to the gutters of the lower roof or distributing the storm water discharge over a large area.

Maintenance of the gutters and downspouts should include semiannual inspections, repairs at seams and fastening points, verification that the downspouts discharge away from foundations and cleaning. More frequent maintenance may be required for gutters and downspouts in areas of concentrated landscape growth. The Association should fund these expenses through the operating budget. A lack of maintenance resulting in misdirected storm water will result in deterioration of soffits, fascia, siding, foundations, and the gutters and downspouts themselves.

The useful life of gutters and downspouts coincides with that of the asphalt shingle roofs at 15- to 20-years. Therefore, we recommend the Association budget for the phased replacement of the gutters and downspouts in conjunction with the roof replacement beginning by 2027 and concluding by 2028. This will result in the most economical unit price and minimize the possibility of damage to other roof components as compared to separate replacements. A subsequent phased replacement is likely beginning by 2045 and concluding by 2046. We depict this information on Line Item 1.240 of ***Reserve Expenditures***. We base our cost on replacement with .027-inch thick aluminum.

Roofs, Asphalt Shingles - Approximately 2,100 *squares*[1] of asphalt shingles comprise the roofs of Heron Lakes. The roofs are in good to fair overall condition at an age of seven years. Management does not report a history of leaks. Our visual inspection from the ground notes shingle lift, sheathing deflection, roof stains and trees in contact with roofs. Trees in contact with exterior building elements may lead to damage and/or accelerated deterioration of

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

these elements. We recommend the Association fund tree trimming through the operating budget on an as needed basis.

Asphalt shingle lift at building with Unit 10827

Roof stains at building with Unit 10843

Asphalt shingle lift at building with Unit 10807

Asphalt shingle roof sheathing deflection at building with Unit 10830

Trees in contact with roof at building with Unit 10810

Trees in contact with roof at building with Unit 10802

The existing roof assembly comprises the following:

- Laminate shingles
- Boston style ridge caps
- Soffit and gable vents
- Metal drip edge
- Enclosed half weaved valleys

The useful life of asphalt shingle roofs in Houston is from 15- to 20-years. We include the following solutions and procedures pertaining to the components of an asphalt shingle roof system, times of replacement, recommended method of replacement, and coordination of other related work for the benefit of present and future board members.

Insulation and ventilation are two major components of a sloped roof system. Together, proper insulation and ventilation help to control attic moisture and maintain an energy efficient building. Both insulation and ventilation prevent moisture buildup which can cause wood rot, mold and mildew growth, warp sheathing, deteriorate shingles, and eventually damage building interiors. Sufficient insulation helps to minimize the quantity of moisture that enters the attic spaces and adequate ventilation helps to remove any moisture that enters the attic spaces. These two roof system components also help to reduce the amount of energy that is required to heat and

cool a building. Proper attic insulation minimizes heat gain and heat loss between the residential living spaces and attic spaces. This reduces energy consumption year-round. Proper attic ventilation removes excessive heat from attic spaces that can radiate into residential living spaces and cause air conditioners to work harder. Properly installed attic insulation and ventilation work together to maximize the useful life of sloped roof systems.

The Association should periodically ensure that the vents are clear of debris and are not blocked from above by attic insulation. If the soffit vents are blocked from above, the Association should install polystyrene vent spaces or baffles between the roof joists at these locations to ensure proper ventilation. Heron Lakes should fund this ongoing maintenance through the operating budget.

Certain characteristics of condition govern the times of replacement. Replacement of an asphalt shingle roof becomes necessary when there are multiple or recurring leaks and when the shingles begin to cup, curl and lift. These conditions are indications that the asphalt shingle roof is near the end of its useful life. Even if the shingles are largely watertight, the infiltration of water in one area can lead to permanent damage to the underlying roof sheathing. This type of deterioration requires replacement of saturated sections of sheathing and greatly increases the cost of roof replacement. Roof leaks may occur from interrelated roof system components, i.e., flashings. Therefore, the warranty period, if any, on the asphalt shingles, may exceed the useful life of the roof system.

Warranties are an indication of product quality and are not a product guarantee. Asphalt shingle product warranties vary from 20- to 50-years and beyond. However, the scope is usually limited to only the material cost of the shingles as caused by manufacturing defects. Warranties

may cover defects such as thermal splitting, granule loss, cupping, and curling. Labor cost is rarely included in the remedy so if roof materials fail, the labor to tear off and install new shingles is extra. Other limitations of warranties are exclusions for "incidental and consequential" damages resulting from age, hurricanes, hail storms, ice dams, severe winds, tornadoes, earthquakes, etc. There are some warranties which offer no dollar limit for replacement at an additional cost (effectively an insurance policy) but again these warranties also have limits and may not cover all damages other than a product defect. We recommend a review of the manufacturers' warranties as part of the evaluation of competing proposals to replace a roof system. This evaluation should identify the current costs of remedy if the roof were to fail in the near term future. A comparison of the costs of remedy to the total replacement cost will assist in judging the merits of the warranties.

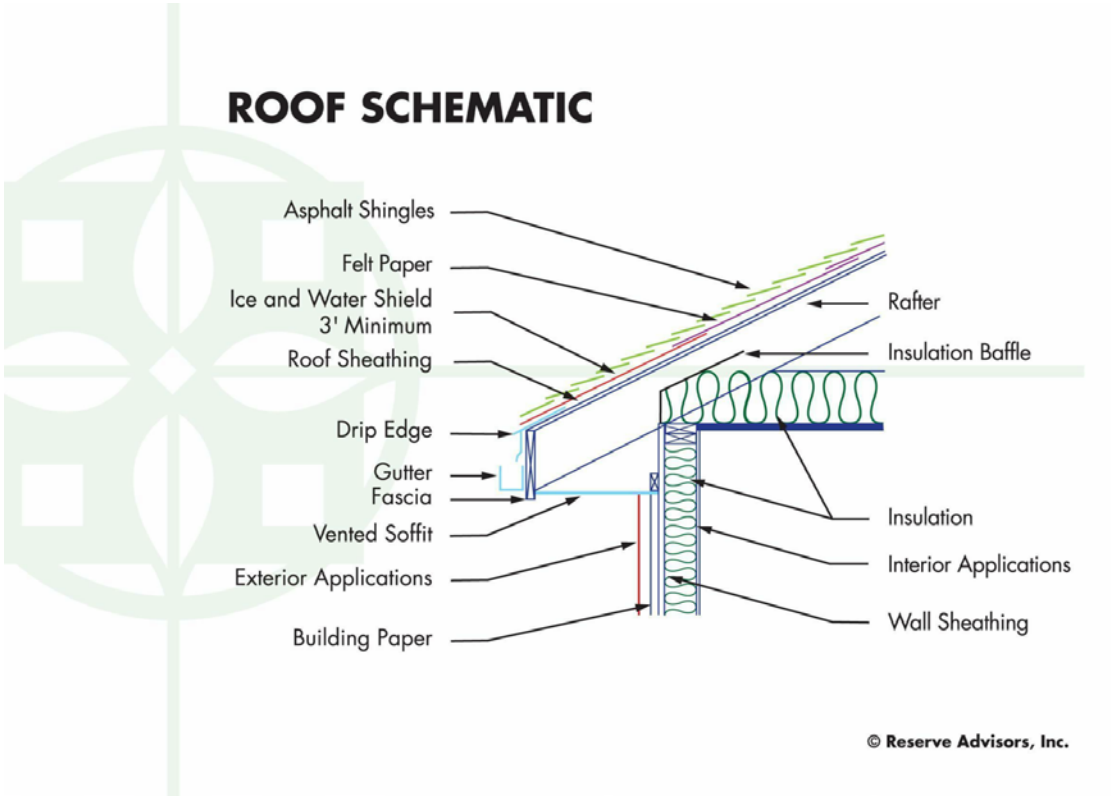
Our estimate of remaining useful life considers this possibility and the Association should anticipate the need for capital repairs to the shingles and other roof system components to achieve or maximize the remaining useful life of the roofs. The Association should fund ongoing roof repairs as normal maintenance from the operating budget.

Contractors use one of two methods of replacement for sloped roofs, either an overlayment or a tear-off. Overlayment is the application of new shingles over an existing roof. Although this method is initially more economical, the following disadvantages exist for this type of replacement:

1. Overlaid shingles hide condition defects of the roof system and do not allow for replacement of critical flashings, underlayments and ventilation.
2. Additional layers of shingles absorb and store more heat resulting in premature deterioration of the new shingles and continued deterioration of the underlying shingles and other roof system components.
3. New shingles installed over deteriorated shingles may result in an uneven appearance.

The disadvantages above result in a shorter useful life of 10- to 15-years for overlaid roofs. This shortened useful life and the inevitable eventual replacement of both shingle layers will actually result in increased long-term replacement costs. The costs of an eventual total replacement are deferred onto future homeowners thereby conflicting with the purpose of a reserve study to ensure homeowners pay their "fair share" of the weathering and aging of this commonly owned property. Therefore, we recommend only the tear-off method of replacement. The advantages of the tear-off method include the correction of hidden or latent defects and extend the useful life of the new roof.

The tear-off method of replacement includes removal of the existing shingles, flashings if required and underlayments. The contractor should then inspect the roof sheathing for areas of water damage and partially replace the sheathing as needed. Once the roof sheathing is repaired, the contractor can begin installation of the new underlayments, flashings and shingles. The following cross-sectional schematic illustrates an asphalt shingle roof system:



The two types of underlayment most often used in an asphalt shingle roof system are ice and water shield membrane, and organic felt paper of varying weights depending on local building codes. Both types of underlayment protect the roof sheathing from moisture damage and wind-driven ice and snow. They have a low vapor resistance that impedes the accumulation of moisture between the underlayment and the roof sheathing. Ice and water shield membrane is thicker than organic paper and is used in areas that are subject to ice dams and standing water. The contractor should install ice and water shield membranes (often a modified bitumen product) at the outer 36 inches of the gutter and rake edge roof eaves, and in the roof valleys. Standard 15-pound organic felt paper should provide sufficient protection over the remaining portions of the roof. Underlayments work in conjunction with flashings to form a watertight roof system.

The function of flashing is to provide a watertight junction between the roofing material and the other parts of the structure and between roof sections. Flashing material is usually galvanized metal, although some roofs use copper or synthetic rubber. The Association should require the contractor to augment existing flashings or replace deteriorated flashings at the time of roof replacement at the following locations:

- Changes in the slope
- Valleys
- Roof intersections with a wall, vertical structure, roof penetration, i.e., vent stacks
- Rakes (sloped edges of the roof) and soffits (lower roof edges)

Another critical type of flashing is drip edge flashing. This important flashing sheds water off the edges of the roofs. The drip edge flashing allows storm water to run off the roof into the gutters without coming into contact with the underlayment and eave board. The special profile of a metal drip edge also prevents or minimizes the possibility of rain water blowing back under the shingles. The contractor should install this flashing at the gutter edge before the installation of underlayment and at the rake edge *after* the installation of underlayment.

Asphalt shingles include both fiberglass shingles and organic mat shingles. Both shingle types are made with asphalt. Fiberglass shingles use a fiberglass reinforcing mat while organic shingles use a wood based cellulose fiber mat. Fiberglass shingles are thinner, lighter and carry a better fire rating than organic shingles. Organic mat shingles are more durable and stay more flexible in cold weather. The contractor should install the shingles atop the underlayment and in conjunction with flashing. Based on a better fire rating, we suggest Heron Lakes use a standard strip, fiberglass, Class A, minimum weight class of 210 pounds per square self-sealing shingle at the time of replacement. The self-sealing strip affixes to the lower exposed edges of the shingles. Heat from ambient weather and sunlight activates the shingle adhesive material and

seals the two adjacent courses of shingles together. Contractor proposals should specify the types of proposed materials and types of proposed fasteners. The Association should require the use of nail fasteners, not staples, at the time of replacement. Nail guns are acceptable. Staples are of lesser quality and might not withstand wind forces as well as nails.

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

Based on the age and condition of the roofs, we recommend Heron Lakes budget for a phased replacement beginning by 2027 and concluding by 2028. A subsequent phased replacement is likely beginning by 2045 and concluding by 2046. We note this information on Line Item 1.280 of ***Reserve Expenditures***. We base our cost on replacement with standard laminate Class A 240-260-pounds per square shingles. The Association should fund any repairs prior to the complete replacement of the roofs through the operating budget.

Walls, Fiber Cement Siding, Paint Finishes - The buildings include paint finish applications on the following surfaces:

- Fiber cement siding
- Fiber cement soffit and fascia

Periodic application of a protective finish of paint or stain is an essential maintenance activity to maintain the physical appearance and integrity of these elements. The finish is in good condition at an age of one year. We note isolated damage, cracks, and warp, and isolated paint finish deterioration.

Siding paint finish in good condition

Isolated paint finish deterioration

Fiber cement siding crack at building with Unit 10843

Fiber cement siding warp

Isolated damaged fiber cement siding

Fiber cement siding warp

Fiber cement siding has a useful life of up to 50 years. Therefore, we do not anticipate complete replacement during the next 30 years. The Board is likely familiar with many of the requirements for the periodic application of paint[2] products. We include the following solutions and procedures as a summary of the minimum requirements for a successful paint finish application for present and future board members.

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 or chalking of the prior paint finish.

Summarizing the minimum requirements of the proposed scope of work, all bids should include the following:

1. Name of paint finish product
2. The contractor will involve manufacturer representatives to ensure specifications and warranty
3. The contractor will apply the paint to clean and dry surfaces at the manufacturer's recommended spreading rates
4. The contractor will apply successive coats of the paint finish, with sufficient time elapse between coats, as necessary to ensure uniform appearance
5. The contractor will replace deteriorated or damaged materials prior to the application of the paint finish
6. The contractor will replace deteriorated sealants or caulk prior to the application of the paint finish

The useful life of protective paint finishes in Houston is from 8- to 10-years. Based on the condition of the paint finishes, we recommend the Association budget for the following activities by 2023:

[2]The term *paint* is a generic reference to a specialized mixture of solid pigment in a liquid solution that results in a clear, opaque or solid color protective finish. Product types are too numerous to list but include latex, oil, acrylic and elastomeric based products.

- Paint finish applications
- Replacement of 3,100 square feet, or up to five percent (5%), of the fiber cement siding and soffit and fascia (The exact amount of material in need of replacement will depend on the actual future conditions and desired appearance. We recommend replacement wherever holes, cracks and deterioration impair the ability of the material to prevent water infiltration.)
- Replacement of sealants as needed

Heron Lakes should budget subsequent applications and associated replacements every eight years thereafter. We depict this information on Line Item 1.760 of ***Reserve Expenditures***.

Walls, Masonry - Heron Lakes maintains approximately 28,600 square feet of stone masonry at the buildings. This masonry is original and in good overall condition. We note detached masonry, masonry cracks, stains and efflorescence.

Efflorescence

Detached masonry and masonry cracks at building with Unit 7814

Masonry stains

Masonry cracks

We recommend the Association anticipate an inspection and capital repairs to this masonry veneer every 8- to 12-years. These components will require repairs as a result of efflorescence accumulation, delamination of the stone and mortar deterioration. We recommend Heron Lakes budget for a complete inspection of all the masonry veneer and repairs of less than one percent (0.5%) by 2023 and every eight years thereafter in coordination with paint finishes at the buildings. Line Item 1.800 of ***Reserve Expenditures*** notes our estimate of future costs and anticipated times of capital repairs.

Property Site Elements

Catch Basins – Twelve concrete catch basins collect storm water from the streets and conduct it into the storm water system. The overall condition of the catch basins is good without settlement visually apparent.

Catch basin

The useful life of catch basins is up to 65 years. However, achieving this useful life usually requires interim capital repairs or partial replacements every 15- to 20-years.

The Association should anticipate the occasional displacement or failure of a catch basin and the surrounding pavement from erosion. Erosion causes settlement around the collar of catch basins. Left unrepaired, the entire catch basin will shift and need replacement. Heron Lakes should plan to repair or replace any displaced or failed catch basins concurrently with repairs at the streets. The exact times and amount of capital repairs or replacements are dependent upon variable natural forces. Based on the age and condition of the catch basins, we recommend the Association anticipate the inspection, capital repair or partial replacement of the 12 catch basins by 2026 and 2046. We include this information on Line Item 4.100 of ***Reserve Expenditures***.

Concrete, Flatwork - The Association maintains various applications of concrete flatwork. These applications of concrete have useful lives of up to 65 years although isolated deterioration of limited areas of concrete is common. Inclement weather, inadequate subsurface preparation and improper concrete mixtures or finishing techniques can result in premature

deterioration such as settlement, chips, cracks and spalls. Variable conditions like these result in the need to plan for periodic partial replacements of the concrete flatwork throughout the next 30 years. We comment on the respective quantities, conditions and times of partial replacements of concrete flatwork in the following sections of this narrative.

Concrete Driveways - Concrete driveways of varying sizes and configurations allow for access to the individual residences throughout the Association. The driveways are in good overall condition and comprise approximately 50,100 square feet. We note driveway cracks and deterioration.

Concrete driveway cracks and deterioration at building with Unit 10843

Concrete driveway deterioration at building with Unit 10807

Concrete driveway cracks

Concrete driveway cracks

We estimate that up to 12,540 square feet of concrete driveways, or twenty-five percent (25%) of the total, will require replacement during the next 30 years. We advise the Association budget for the replacement of 2,090 square feet of driveways, every five years beginning by 2021. Line Item 4.120 of ***Reserve Expenditures*** notes our estimate of future costs and anticipated times of replacements. We base our estimate of replacement on five-inch thick, 3,000 pounds per square inch (PSI) concrete with 6x6 - W1.4xW1.4 steel reinforcing mesh.

Concrete Sidewalks - Concrete sidewalks comprise 50,800 square feet throughout the community. The sidewalks are in good overall condition. We note sidewalk cracks.

Concrete sidewalk cracks

Concrete sidewalk cracks

We estimate that up to 12,690 square feet of concrete sidewalks, or twenty-five percent (25%) of the total, will require replacement during the next 30 years. We recommend the Association budget for replacement of 2,115 square feet of concrete sidewalks every five years beginning by 2021. Line Item 4.140 of ***Reserve Expenditures*** notes our estimate of future costs and anticipated times of replacements. We base our estimate of replacement on four-inch thick, 3,000 PSI concrete with 6x6 - W1.4xW1.4 steel reinforcing mesh. We recommend an annual inspection of the sidewalks to identify potential trip hazards. We suggest the Association grind down or mark these hazards with orange safety paint prior to replacement and fund this ongoing activity through the operating budget.

Concrete Streets - The Association maintains approximately 65,500 square feet of concrete at the private streets. The streets are original and in good overall condition. We note concrete cracks and deterioration.

Concrete street overview

Concrete street overview

Concrete street cracks and deterioration

Concrete street cracks

Heavy wear from vehicle traffic increases the potential for deterioration. Therefore, concrete streets have a useful life of up to 65 years. We estimate that up to 13,095 square feet of concrete streets, or twenty percent (20%) of the total, will require replacement during the next 30 years. We advise the Association budget for the replacement of 4,365 square feet of the streets every 10 years beginning by 2026. Line Item 4.180 of Reserve Expenditures notes our estimate of future costs and anticipated times of replacements.

The Association should coordinate the concrete flatwork partial replacements on Line Items 4.120 through 4.180 of ***Reserve Expenditures*** to maximize the given amount of concrete in a single event. This will permit the use of a single contractor and likely achieve the most economical unit price for the work. The times and costs of these replacements may vary. However, the estimated expenditures detailed in ***Reserve Expenditures*** are sufficient to budget appropriate reserves.

Fences, Metal - Approximately 1,580 linear feet of metal fences are found throughout the property. The homeowners are responsible for the fences between the units. The fences are original and in good condition. The protective finishes are in fair overall condition at an age of one year. We note isolated paint finish deterioration.

Metal fence overview

Paint finish deterioration

Fences of this type have a long useful life but are not maintenance free. Periodic maintenance should include applications of protective paint finish to the metal surfaces and partial replacement of deteriorated sections as needed. Metal 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. We recommend paint

applications every six- to eight-years and we anticipate a useful life of up to 35 years for the fences.

Periodic applications of paint to the metal will help maximize the useful life. Preparation of the metal before application of the paint finish is important. The paint 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 metal. The primer for metal surfaces should include a rust inhibitor for added protection. We recommend the Association refinish the fences by 2021 and every six years thereafter except when replacement occurs. We anticipate replacement by 2033. We depict this information on Line Items 4.240 and 4.245 of ***Reserve Expenditures***.

Fences, Wood - Approximately 2,100 linear feet of wood fences are found at the rears of the units. The fences between each unit are maintained by the homeowners. The fences are original and in fair to poor condition.

Wood fence at unit rear

Wood fences of this type have useful lives of 15- to 20-years. The Association should anticipate periodic partial replacements due to the non-uniform nature of wood deterioration. Along with these partial replacements, the Association should apply periodic paint applications as needed and fund these activities through the operating budget. We suggest the Association plan for a phased replacement beginning by 2017 and concluding by 2018. A subsequent phased replacement is likely beginning by 2037 and concluding by 2038. We depict this information on Line Item 4.285 of ***Reserve Expenditures***.

Gate Entry System - The Association utilizes one gate entry system intercom panel for communication between the units and guests at Heron Lakes. Management informs us the panel in good operational condition at age of one year.

Gate entry panel

Gate entry system intercom panels of this type have useful lives of 10- to 15-years. We recommend the Association anticipate replacement by 2027 and again by 2039. We depict this information on Line Item 4.310 of ***Reserve Expenditures***.

Gates and Operators - The two metal gates and two bi-parting operators limit access into the community. The gates are original and in good condition, and the operators are in good condition at one year of age.

Entrance gates

Gate operator

We anticipate a useful life of up to 10 years for the operators and recommend the Association budget for replacement by 2025 and every 10 years thereafter. The gates have a longer useful life of up to 20 years. Heron Lakes should anticipate replacement of the gates by 2021 and again by 2041. We depict this information on Line Items 4.320 and 4.330 of ***Reserve Expenditures***.

Irrigation System - An irrigation system waters approximately 100,000 square feet of the lawn and landscaped areas at the common areas throughout the site. The system is original and reported in good condition. Management does not report any deficiencies. Irrigation systems typically include the following components:

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

Water pressure activates the lawn spray pop-up heads. Controllers operate the main water flow valves. The exact amounts and locations of system components were not ascertained due to the nature of the underground construction and the non-invasive nature of the inspection.

The system as a whole has a useful life of up to 40 years. The system network supply pipes will dislodge as tree roots grow and soil conditions change. Heron Lakes 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. In addition, we recommend Heron Lakes budget for a phased replacement of the system beginning by 2036 and concluding by 2040. We note this information on Line Item 4.420 of ***Reserve Expenditures***.

Light Poles and Fixtures - The Association uses 16 metal light fixtures atop metal poles to illuminate the property. These elements are original, in good condition and have useful lives of up to 30 years.

Light pole and fixture

The Association should anticipate the need for replacement by 2031. We note this information on Line Item 4.560 of ***Reserve Expenditures***.

Perimeter Walls, Vinyl - The Association maintains approximately 1,650 linear feet of panelized vinyl perimeter walls, also referred to as panel fences. The walls are primarily located at the perimeter of the property. The walls are original and in good to fair condition. We note deflection, gaps and damaged areas.

Vinyl perimeter wall overview with deflection evident

Gaps in vinyl perimeter wall

Vinyl perimeter wall damage

Gaps in vinyl perimeter wall

These walls comprise vinyl panels and do not utilize a foundation for support. Rather, the panels are supported internally typically with wood frames. These types of walls are prone to damage and deflection. Based on the type of walls we anticipate a useful life of 20-to 25- years. We suggest the Association budget for replacement of the walls by 2024. We depict this information on Line Item 4.640 of ***Reserve Expenditures***. To maximize the useful life of these walls, the Association should direct irrigation system heads away from the walls and ensure tree roots do not undermine the support columns.

Signage - The Association maintains two stone property identification entrance monument signs. One sign is original and one was recently replaced due to damage.

Entrance signage

The functional useful life of these signs is from 15- to 20-years. 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. We recommend the Association plan to replace the signage by 2025 and again by 2045. We note this information on Line Item 4.810 of ***Reserve Expenditures***. The Association should fund interim repairs and replacements through the operating budget.

Reserve Study Update

An ongoing review by the Board and an Update of this Reserve Study in two- to three-years are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. Many variables change after the study is conducted that may result in significant

overfunding or underfunding the reserve account. Variables that may affect the Reserve Funding Plan include, but are not limited to:

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

Periodic updates incorporate these variable changes since the last Reserve Study or Update.

The Association can expense the fee for an Update with site visit from the reserve account. This fee is included in the Reserve Funding Plan. We base this budgetary amount on updating the same property components and quantities of this Reserve Study report. 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.

Heron Lakes 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[1] set forth by the Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "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

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

2016 Year-End Reserve Balance of $239,639

2017 budgeted reserve contribution of $94,000

The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan

Local[2] costs of material, equipment and labor

Current and future costs of replacement for the Reserve Components

Costs of demolition as part of the cost of replacement

Local economic conditions and a historical perspective to arrive at our estimate of long term future inflation for construction costs in Houston, Texas at an annual inflation rate of 1.70%. Isolated or regional markets of greater construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

The past and current maintenance practices of Heron Lakes and their effects on remaining useful lives

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.

The anticipated effects of appreciation of the reserves over time in accord with an anticipated future return or yield on investment of your cash equivalent assets at an annual rate of 1.20% (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).

Interest rates on reserves are steady or increasing in concert with the certificates of deposit and money market rates. Slight increases exist in the savings rates of one, two or three-year CDs. Without significant differences in these savings rates, shorter term investments are the choice of many investors. We recommend consultation with a professional investment adviser before investing reserves to determine an appropriate investment strategy to maximize a safe return on reserve savings. The following table summarizes rates of inflation and key rates for government securities, generally considered as safe investment alternatives.

[2] See Credentials for addition information on our use of published sources of cost data.

Interest Rate and Inflation Data	2015				2016			
Average or Last Actual = (A)	2015:1 (A)	2015:2 (A)	2015:3 (A)	2015:4 (A)	2016:1 (A)	2016:2 (E)	2016:3 (E)	2016:4 (E)
1-Year Treasury Bill	0.25%	0.27%	0.30%	0.65%	0.60%	0.55%	0.60%	0.65%
10-Year Treasury Note	1.90%	2.50%	2.70%	2.25%	1.80%	1.80%	1.85%	1.90%
30-Year Treasury Bond	2.55%	3.20%	3.40%	3.00%	2.65%	2.60%	2.60%	2.65%
Consumer Price Index (annualized rate)	0.00%	0.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.00%

Although past indicators are not predictive of future inflation in "building" construction, minimal inflation exists for past 2 years April, 2014 to April 2016 of 1% to 2.5%.

Savings Rates Results RANGE as found in http://www.bankrate.com	0.02 to 1.11%	Money Market Savings	0.15 to 1.45%	for 2-Year Certificate of Deposit
	0.1 to 1.25%	1-Year Certificate of Deposit	0.15 to 1.50%	for 3-Year Certificate of Deposit

Estimated Near Term Yield Rate for Reserve Savings	1.20%	
Est. Near Term Local Inflation Rate for Future Capital Expenditures	1.70%	**05/05/2016**

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

6. 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 Heron Lakes 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) Heron Lakes 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.

7. PROFESSIONAL SERVICE CONDITIONS

Our Services - Reserve Advisors, Inc. will perform its services as an independent contractor in accordance with our professional practice standards. Our compensation is not contingent upon our conclusions.

Our inspection and analysis of the subject property is limited to visual observations and is noninvasive. We will inspect sloped roofs from the ground. We will inspect 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 our observation. Conditions can change between the time of inspection and the issuance of the report. Reserve Advisors does not investigate, nor assume any responsibility for any existence or impact of any hazardous materials, structural, latent or hidden defects which may or may not be present on or within the property. Our opinions of estimated costs and remaining useful lives are not a guarantee of the actual costs of replacement, a warranty of the common elements or other property elements, or a guarantee of remaining useful lives.

We assume, without independent verification, the accuracy of all data provided to us. You agree to indemnify and hold us 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 as 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 controlling person of Reserve Advisors, Inc., including any director, officer, employee, affiliate, or agent. Liability of Reserve Advisors, Inc. 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 - Reserve Advisors, Inc. will complete the services in accordance with the Proposal. The Report represents a valid opinion of our findings and recommendations and is deemed complete. However, we will consider any additional information made available to us in the interest of promptly issuing a Revised Report if changes are requested within six months of receiving the Report. We retain the right to withhold a Revised Report if payment for services is not rendered in a timely manner. All files, work papers or documents developed by us during the course of the engagement remains our property.

Your Obligations - You agree to provide us access to the subject property during our on-site visual inspection and tour. You will provide to us to the best of your ability and if reasonably available, historical and budgetary information, the governing documents, and other information that we request and deem necessary to complete our Study. You agree to pay our actual attorneys' fees and any other costs incurred in the event we have to initiate litigation to collect on any unpaid balance for our services.

Use of Our Report and Your Name - Use of this Report is limited to only the purpose stated herein. Any use or reliance for any other purpose, by you or third parties, is invalid. Our Reserve Study Report in whole or part is not and cannot be used as a design specification, design engineering services or an appraisal. You may show our report in its entirety to those third parties who need to review the information contained herein. The Client and other third parties viewing this report should not reference our name or our report, in whole or in part, in any document prepared and/or distributed to third parties without our written consent. ***This report contains intellectual property developed by Reserve Advisors, Inc. specific to this engagement and cannot be reproduced or distributed to those who conduct reserve studies without the written consent of Reserve Advisors, Inc.***

We reserve the right to include our client's name in our client lists, but we will maintain the confidentiality of all conversations, documents provided to us, and the contents of our reports, subject to legal or administrative process or proceedings. These conditions can only be modified by written documents executed by both parties.

Payment Terms, Due Dates and Interest Charges - The retainer payment is due upon authorization and prior to shipment of the report. The final payment of the fee is due immediately upon receipt of the Report. Subsequent changes to the report can be made for up to six months from the initial report date. Any outstanding balance after 30 days of the invoice date is subject to an interest charge of 1.5% per month. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court in the State of Wisconsin.

CONDITIONS OF OUR SERVICE ASSUMPTIONS

To the best of our knowledge, all data set forth in this report are true and accurate. Although gathered from reliable sources, we make no guarantee nor assume liability for the accuracy of any data, opinions, or estimates identified as furnished by others that we used in formulating this analysis.

We did not make any soil analysis or geological study with this report; nor were any water, oil, gas, coal, or other subsurface mineral and use rights or conditions investigated.

Substances such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials could, if present, adversely affect the validity of this study. Unless otherwise stated in this report, the existence of hazardous substance, that may or may not be present on or in the property, was not considered. Our opinions are predicated on the assumption that there are no hazardous materials on or in the property. We assume no responsibility for any such conditions. We are not qualified to detect such substances, quantify the impact, or develop the remedial cost.

We have made a visual inspection of the property and noted visible physical defects, if any, in our report. Our inspection and analysis was made by employees generally familiar with real estate and building construction; however, we did not do any invasive testing. Accordingly, we do not opine on, nor are we responsible for, the structural integrity of the property including its conformity to specific governmental code requirements, such as fire, building and safety, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

Our opinions of the remaining useful lives of the property elements do not represent a guarantee or warranty of performance of the products, materials and workmanship.

8. CREDENTIALS

HISTORY AND DEPTH OF SERVICE

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

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

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

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

TOTAL STAFF INVOLVEMENT

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

OUR GOAL

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

VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

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

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

OLD TO NEW

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

QUALIFICATIONS
THEODORE J. SALGADO
Principal Owner

CURRENT CLIENT SERVICES

Theodore J. Salgado is a co-founder of Reserve Advisors, Inc., which is dedicated to serving community associations, city and country clubs, religious organizations, educational facilities, and public and private entities throughout the United States. He is responsible for the production, management, review, and quality assurance of all reserve studies, property inspection services and consulting services for a nationwide portfolio of more than 6,000 clients. Under his direction, the firm conducts reserve study services for community associations, apartment complexes, churches, hotels, resorts, office towers and vintage architecturally ornate buildings.

PRIOR RELEVANT EXPERIENCE

Before founding Reserve Advisors, Inc. with John P. Poehlmann in 1991, Mr. Salgado, a professional engineer registered in the State of Wisconsin, served clients for over 15 years through American Appraisal Associates, the world's largest full service valuation firm. Mr. Salgado conducted facilities analyses of hospitals, steel mills and various other large manufacturing and petrochemical facilities and casinos.

He has served clients throughout the United States and in foreign countries, and frequently acted as project manager on complex valuation, and federal and state tax planning assignments. His valuation studies led to negotiated settlements on property tax disputes between municipalities and property owners.

Mr. Salgado has authored articles on the topic of reserve studies and facilities maintenance. He also co-authored *Reserves*, an educational videotape produced by Reserve Advisors on the subject of Reserve Studies and maintaining appropriate reserves. Mr. Salgado has also written in-house computer applications manuals and taught techniques relating to valuation studies.

EXPERT WITNESS

Mr. Salgado has testified successfully before the Butler County Board of Tax Revisions in Ohio. His depositions in pretrial discovery proceedings relating to reserve studies of Crestview Estates Condominium Association in Wauconda, Illinois, Rivers Point Row Property Owners Association, Inc. in Charleston, South Carolina and the North Shore Club Associations in South Bend, Indiana have successfully assisted the parties in arriving at out of court settlements.

EDUCATION - Milwaukee School of Engineering - B.S. Architectural Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

American Association of Cost Engineers - Past President, Wisconsin Section
Association of Construction Inspectors - Certified Construction Inspector
Association of Professional Reserve Analysts - Past President & Professional Reserve Analyst (PRA)
Community Associations Institute - Member and Volunteer Leader of multiple chapters
Concordia Seminary, St. Louis - Member, National Steering Committee
Milwaukee School of Engineering - Member, Corporation Board
Professional Engineer, Wisconsin (1982) and North Carolina (2014)

Ted continually maintains his professional skills through American Society of Civil Engineers, ASHRAE, Association of Construction Inspectors, and continuing education to maintain his professional engineer licenses.

JOHN P. POEHLMANN, RS
Principal

John P. Poehlmann is a co-founder of Reserve Advisors, Inc. He is responsible for the finance, accounting, marketing, and overall administration of Reserve Advisors, Inc. He also regularly participates in internal Quality Control Team Reviews of Reserve Study reports.

Mr. Poehlmann directs corporate marketing, including business development, advertising, press releases, conference and trade show exhibiting, and electronic marketing campaigns. He frequently speaks throughout the country at seminars and workshops on the benefits of future planning and budgeting for capital repairs and replacements of building components and other assets.

PRIOR RELEVANT EXPERIENCE

Mr. Poehlmann served on the national Board of Trustees of Community Associations Institute. An international organization, Community Associations Institute (CAI) is a nonprofit 501(c)(3) trade association created in 1973 to provide education and resources to America's 335,000 residential condominium, cooperative and homeowner associations and related professionals and service providers.

He is a founding member of the Institute's Reserve Committee. The Reserve Committee developed national standards and the Reserve Specialist (RS) Designation Program for Reserve Study providers. Mr. Poehlmann has authored numerous articles on the topic of Reserve Studies, including Reserve Studies for the First Time Buyer, Minimizing Board Liability, Sound Association Planning Parallels Business Concepts, and Why Have a Professional Reserve Study. He is also a contributing author in Condo/HOA Primer, a book published for the purpose of sharing a wide background of industry knowledge to help boards in making informed decisions about their communities.

INDUSTRY SERVICE AWARDS

CAI Wisconsin Chapter Award
CAI National Rising Star Award
CAI Michigan Chapter Award

EDUCATION

University of Wisconsin-Milwaukee - Master of Science Management
University of Wisconsin - Bachelor of Business Administration

PROFESSIONAL AFFILIATIONS

Community Associations Institute (CAI) - Founding member of Reserve Committee; former member of National Board of Trustees; Reserve Specialist (RS) designation; Member of multiple chapters

Association of Condominium, Townhouse, & Homeowners Associations (ACTHA) – member

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

CURRENT CLIENT SERVICES

Alan M. Ebert, a Professional Engineer, is 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 hundreds 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
Reserve Specialist (RS) - Community Associations Institute
Professional Reserve Analyst (PRA) - Association of Professional Reserve Analysts

JOHN D. ZAWADSKY, RS
Responsible Advisor

CURRENT CLIENT SERVICES

John D. Zawadsky, a Civil Engineer, is an Advisor for Reserve Advisors. Mr. Zawadsky 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 John Zawadsky demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

Maple Lawn Homeowners Association Located in Fulton, Maryland, this residential unit development began construction in 2005 and plans to have 1,340 homes upon completion. Maple Lawn Homeowners Association contains an 11,000 square foot clubhouse, pools, sports courts, parks throughout the community and asphalt pavement alleys.

Country Club Apartment Homes North Condominium Built in the 1970's this Ohio development is comprised of 111 townhome units in 27 buildings. The exteriors of the buildings include both vinyl and aluminum siding, masonry veneer, and asphalt shingle roofs. The development also contains asphalt pavement drives and driveways, concrete sidewalks, carports and a pool.

Briarcliffe Lakes Manor Homes Situated in the west suburbs of Chicago, these manor style homes feature extensive brick veneer and ornate woodwork throughout 336 units. This quaint property also features a gazebo, several ponds, and a bridge over a creek.

5340 Hyde Park Condominium Association A four-story condominium in downtown Chicago, this 1900's building was converted into 12 unit residences from 1976-1977. The exterior of the building features original brick, wood staircases and a modified bitumen roof.

Highlands Condominium Association 144-unit townhomes encompassing a central pond in Somerset, Pennsylvania, the Highlands features a lush landscape and an adjacent tennis court.

Lakeway Marina Village Condominium Association, Inc. A newer-construction development in Lakeway, Texas, these apartment style buildings sit atop four concrete garages with asphalt pavement access drives. A blend of fiber cement and masonry siding, along with metal roofs and wooden shutters, give this development a unique look.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Zawadsky attended the University of Wisconsin in Milwaukee, Wisconsin where he attained his Bachelor of Science degree in Civil Engineering. His studies focused on environmental engineering and water resources.

EDUCATION

University of Wisconsin, Milwaukee - B.S. Civil Engineering

PROFESSIONAL AFFILIATIONS

Engineer in Training (E.I.T.) - Wisconsin 2013
Reserve Specialist (RS) - Community Associations Institute

TANNER A. OLDENBURGER, RS
Review Coordinator

CURRENT CLIENT SERVICES

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

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

University Place Neighborhood Association Located in Bradenton, Florida, this distinguished homeowners association contains 403 single family homes. The Association maintains two large pools and pool houses, a community and management office, sixteen ponds, and common asphalt pavement parking areas.

River Oaks Golf and Tennis Resort II Homeowners Association This well-maintained townhome development is located in Myrtle Beach, South Carolina. The 23 three-story buildings utilize vinyl siding and asphalt shingle sloped roofs. The development features two pools and pool houses, a tennis court and multi-level wood balconies.

Holly Road Professional Village Located in Grand Blanc, Michigan, this commercial business park includes 12 businesses in four buildings. The buildings include aluminum framed windows and doors, masonry walls and asphalt shingle roofs. The Association also maintains a storm water detention basin and a large common asphalt pavement parking area.

Dulles Business Center A Condominium This commercial development comprises 20 separate operating businesses. The development is located in the Washington, D.C. metro area in Sterling, Virginia. Concrete exterior walls, aluminum dual pane windows and doors, concrete catch basins and a flat EPDM roof are some of the elements maintained by the Association.

Stonefield at Bartram Park Homeowners Association Located in Jacksonville, Florida, this gated townhome community includes 252 units in 55 buildings. In addition to extensive roads and parking areas, the Association maintains a pool and pool house, a pond with fountains and bulkheads, an entrance gate and a fitness center.

Spring Valley Property Owners Association This development contains over 1,700 single family homes and is located in Pembroke Pines, Florida. This Association maintains 21 ponds, asphalt pavement streets, tennis courts, a playground and a pool for seven communities within the development.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Oldenburger attended Montana State University in Bozeman, Montana where he attained his Bachelor of Science degree in Civil Engineering and his Masters of Science degree in Civil Engineering with a focus on Structural Engineering. His relevant employment history includes working for the structural design team at Compass Consulting Engineers. He was responsible for the design and analysis of custom residential and commercial projects throughout the Northwest.

EDUCATION

Montana State University - B.S. Civil Engineering
Montana State University – M.S. Civil Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

Engineer In Training (E.I.T.) Registration – Montana 2012

RESOURCES

Reserve Advisors, Inc. 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. Several advisors and a Principal of Reserve Advisors, Inc. hold Senior Memberships with ACI.

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, Inc. 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, Inc., 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.