

Beacon Hill Community Association, Inc.
Leesburg, Virginia

Dear Board of Directors of Beacon Hill Community Association, Inc.:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of Beacon Hill Community Association, Inc. in Leesburg, Virginia and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, July 21, 2020.

This *Full Reserve Study* exceeds the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a "Level I Full Reserve Study."

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

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

Respectfully submitted on August 18, 2020 by

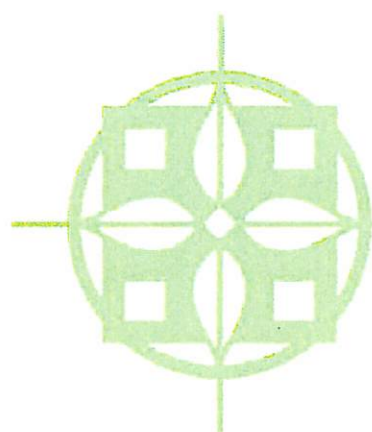
Reserve Advisors, LLC

Visual Inspection and Report by: Stephen E. Breski, RS¹ and Justin B. Klein
Review by: Alan M. Ebert, RS, PRA², Director of Quality Assurance



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

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



RESERVE

ADVISORS

Long-term thinking. Everyday commitment.



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1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Beacon Hill Community Association, Inc. (Beacon Hill)

Location: Leesburg, Virginia

Reference: 200631

Property Basics: Beacon Hill Community Association, Inc. is a homeowners association which is responsible for the common elements shared by 225 single family homes. The community was built from 2001 to 2006.

Reserve Components Identified: Five General Reserve Components and Five Golf Reserve Components.

Inspection Date: July 21, 2020.

Funding Goal: The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended General Funding Plan recognizes this threshold funding year in 2050 due to landscaping at the entrance monuments.

Our recommended Golf Funding Plan recognizes these threshold funding years in 2033 due to sediment removal and in 2034 due to partial replacement of concrete walking paths.

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

- Current and future local costs of replacement
- 0.9% anticipated annual rate of return on invested reserves
- 2.0% future Inflation Rate for estimating Future Replacement Costs

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

Cash Status of General Reserve Fund:

- \$199,346 as of December 31, 2019
- 2020 budgeted Reserve Contributions of \$14,451

Cash Status of Golf Reserve Fund:

- \$77,968 as of December 31, 2019
- 2020 budgeted Reserve Contributions of \$29,430
- A potential deficit in reserves might occur by 2028 based upon continuation of the most recent annual reserve contribution of \$29,430 and the identified Reserve Expenditures.

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

- Reduced reserve budget of \$6,200 in 2021
- Inflationary increases through 2050, the limit of this study's Cash Flow Analysis
- 2021 Reserve Contribution of \$6,200 is equivalent to an average monthly contribution of \$2.30 per homeowner.



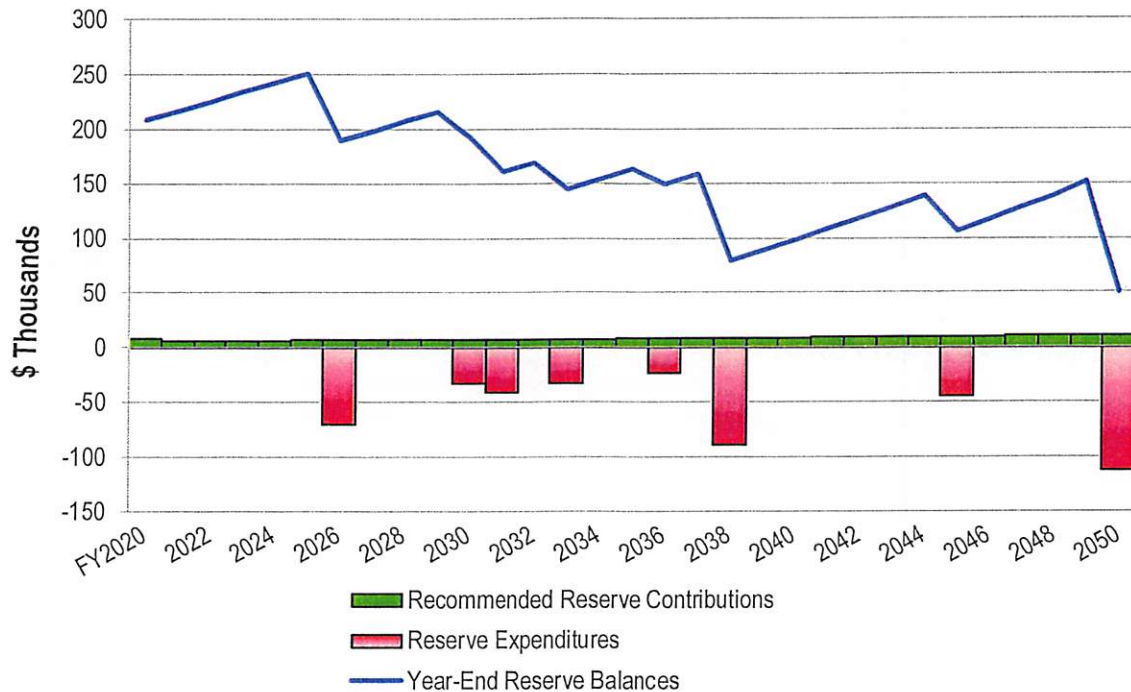
Recommended Golf Reserve Funding: We recommend the following in order to achieve a stable and equitable Funding Plan:

- Phased increases of approximately \$16,000 from 2021 through 2025
- Inflationary increases from 2026 through 2034
- Decrease to \$65,000 by 2035 due to fully funding for replacement of concrete walking paths
- Inflationary increases from 2036 through 2050, the limit of this study's Cash Flow Analysis
- 2021 Reserve Contribution of \$45,400 is equivalent to an average monthly contribution of \$16.81 per homeowner.



Beacon Hill
Recommended General Reserve Funding Table and Graph

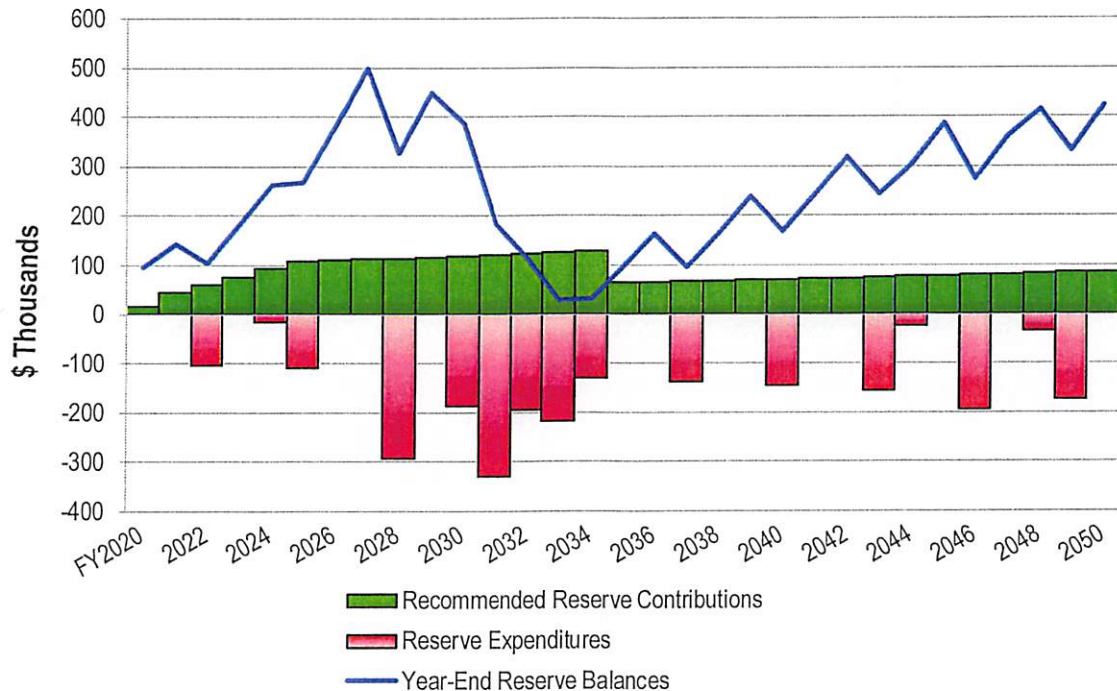
Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2021	6,200	216,953	2031	7,200	160,466	2041	8,900	107,781
2022	6,300	225,234	2032	7,300	169,243	2042	9,100	117,892
2023	6,400	233,690	2033	7,400	144,967	2043	9,300	128,295
2024	6,500	242,322	2034	7,500	153,805	2044	9,500	138,992
2025	6,600	251,133	2035	7,700	162,924	2045	9,700	105,491
2026	6,700	189,987	2036	7,900	148,884	2046	9,900	116,385
2027	6,800	198,527	2037	8,100	158,360	2047	10,100	127,578
2028	6,900	207,245	2038	8,300	79,173	2048	10,300	139,073
2029	7,000	216,142	2039	8,500	88,424	2049	10,500	150,872
2030	7,100	192,158	2040	8,700	97,959	2050	10,700	50,169





Recommended Golf Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2021	45,400	142,055	2031	123,200	182,988	2041	73,200	242,865
2022	61,400	103,010	2032	125,700	116,972	2042	74,700	320,087
2023	77,400	181,685	2033	128,200	29,375	2043	76,200	244,913
2024	93,400	262,462	2034	130,800	31,667	2044	77,700	303,355
2025	109,400	266,474	2035	65,000	97,245	2045	79,300	385,742
2026	111,600	380,974	2036	66,300	164,719	2046	80,900	274,899
2027	113,800	498,715	2037	67,600	96,827	2047	82,500	360,244
2028	116,100	325,797	2038	69,000	167,009	2048	84,200	415,274
2029	118,400	447,662	2039	70,400	239,229	2049	85,900	331,196
2030	120,800	386,636	2040	71,800	167,825	2050	87,600	422,171





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

Beacon Hill Community Association, Inc.

Leesburg, Virginia

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, July 21, 2020.

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

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

IDENTIFICATION OF PROPERTY



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

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

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

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

- Beacon Hill responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

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

- Electrical Systems, Common
- Inlet/Outlet Structures, Concrete, Storm Water Management System



Concrete outlet structure

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

- General Maintenance to the Common Elements
- Expenditures less than \$5,000, excluding Concrete Walking Paths Signage (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Bridges, Wood, Deck Board Replacements and Interim Repairs
- Landscape
- Signage, Entrance Monument, Interim Repairs
- Wood, Open Rail, Fence
- Other Repairs normally funded through the Operating Budget



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

- Homes and Lots

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

- Dry Hydrants (Loudoun County)



Dry hydrant

- Pump Station (Loudoun County)
- Pipes, Subsurface Utilities (Loudoun County)
- Street Systems, Excluding Count Turf Place and Carry Back Lane (Virginia Department of Transportation)



3. RESERVE EXPENDITURES and FUNDING PLANS

The tables following this introduction present:

Reserve Expenditures

- Line item numbers
- Total quantities
- Quantities replaced per phase (in a single year)
- Reserve component inventory
- Estimated first year of event (i.e., replacement, application, etc.)
- Life analysis showing
 - useful life
 - remaining useful life
- 2020 local cost of replacement
 - Per unit
 - Per phase
 - Replacement of total quantity
- Percentage of future expenditures anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

Reserve Funding Plans

- 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

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

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

RESERVE FUNDING PLAN**General****CASH FLOW ANALYSIS****Beacon Hill****Community Association, Inc.****Leesburg, Virginia****Individual Reserve Budgets & Cash Flows for the Next 30 Years**

	FY2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Reserves at Beginning of Year	(Note 1) 199,346	208,845	216,953	225,234	233,690	242,322	251,133	189,987	198,527	207,245	216,142	192,158	160,466	169,243	144,967	153,805
Total Recommended Reserve Contributions	(Note 2) 8,430	6,200	6,300	6,400	6,500	6,600	6,700	6,800	6,900	7,000	7,100	7,200	7,300	7,400	7,500	7,700
Estimated Interest Earned, During Year	(Note 3) 1,069	1,908	1,981	2,056	2,132	2,211	1,976	1,740	1,818	1,897	1,829	1,580	1,477	1,408	1,338	1,419
Anticipated Expenditures, By Year	0	0	0	0	0	0	(69,822)	0	0	0	(32,913)	(40,472)	0	(33,084)	0	0
Anticipated Reserves at Year End	\$208,845	\$216,953	\$225,234	\$233,690	\$242,322	\$251,133	\$189,987	\$198,527	\$207,245	\$216,142	\$192,158	\$160,466	\$169,243	\$144,967	\$153,805	\$162,924

(continued)

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

	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Reserves at Beginning of Year	162,924	148,884	158,360	79,173	88,424	97,959	107,781	117,892	128,295	138,992	105,491	116,385	127,578	139,073	150,872
Total Recommended Reserve Contributions	7,900	8,100	8,300	8,500	8,700	8,900	9,100	9,300	9,500	9,700	9,900	10,100	10,300	10,500	10,700
Estimated Interest Earned, During Year	1,397	1,376	1,064	751	835	922	1,011	1,103	1,197	1,095	994	1,093	1,195	1,299	901
Anticipated Expenditures, By Year	(23,337)	0	(88,551)	0	0	0	0	0	0	(44,296)	0	0	0	0	(112,304)
Anticipated Reserves at Year End	\$148,884	\$158,360	\$79,173	\$88,424	\$97,959	\$107,781	\$117,892	\$128,295	\$138,992	\$105,491	\$116,385	\$127,578	\$139,073	\$150,872	\$50,169

NOTES 4&5**Explanatory Notes:**

- 1) Year 2020 starting reserves are as of December 31, 2019; FY2020 starts January 1, 2020 and ends December 31, 2020.
- 2) Reserve Contributions for 2020 are the remaining budgeted 7 months; 2021 is the first year of recommended contributions.
- 3) 0.9% is the estimated annual rate of return on invested reserves; 2020 is a partial year of interest earned.
- 4) Accumulated year 2050 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Year (reserve balance at critical point).

Golf
RESERVE EXPENDITURES

Years 2020 to 2035

Beacon Hill
 Community Association, Inc.
 Leesburg, Virginia

Explanatory Notes:

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

Line Item	Total Quantity	Per Phase Quantity	Units		Estimated 1st Year of Event	Life Analysis, Years		Unit (2020)	Costs, \$		Percentage of Future Expenditures	RUL = 0 FY2020	1 2021	2 2022	3 2023	4 2024	5 2025	6 2026	7 2027	8 2028	9 2029	10 2030	11 2031	12 2032	13 2033	14 2034	15 2035	
Reserve Component Inventory						Useful	Remaining		Per Phase (2020)	Total (2020)																		
4.090	9,320	3,107 Square Feet	Bridges, Wood, Replacement		2028	to 35	8 to 12	49.00	152,227	456,680	22.9%									178,358		185,564		193,060				
4.140	390,200	9,760 Square Feet	Concrete Walking Paths, Partial		2022	to 65	2 to 30+	10.00	97,600	3,902,000	55.4%			101,543			107,758			114,354				121,353			128,781	
4.710	10,000	750 Linear Feet	Ponds, Erosion Control		2031	to 15	11	25.00	18,750	250,000	4.6%												23,313		24,255			
4.730	55,600	7,075 Square Yards	Ponds, Sediment Removal		2031	to 30	11	21.00	148,575	1,188,600	15.5%												184,734		192,198			
4.811	1	1 Allowance	Signage, Concrete Walkings Paths		2024	15 to 20	4	13,500.00	13,500	13,500	1.5%					14,613												
Anticipated Expenditures, By Year (\$2,427,864 over 30 years)													0	0	101,543	0	14,613	107,758	0	0	292,712	0	185,564	329,400	193,060	216,453	128,781	0

General
RESERVE EXPENDITURES

Years 2036 to 2050

Beacon Hill
Community Association, Inc.
Leesburg, Virginia

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
						Useful	Remaining	Unit (2020)	Per Phase (2020)	Total (2020)		2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
4.040	1,650	1,650	Square Yards	Asphalt Pavement, Carry Back Lane, M2 and Overlay	2033	20 to 25	13	15.50	25,575	25,575	7.4%															
4.041	2,100	2,100	Square Yards	Asphalt Pavement, Council Turf Place, M2 and Overlay	2031	20 to 25	11	15.50	32,550	32,550	9.1%															
4.500	1	1	Allowance	Landscape, Entrance Monuments	2026	10 to 15	6	62,000.00	62,000	62,000	60.9%			88,551												112,304
4.800	1	1	Allowance	Signage, Entrance Monuments, Renovation	2030	15 to 20	10	27,000.00	27,000	27,000	17.4%										44,296					
4.810	1	1	Allowance	Signage, Traffic Management and Street Identification, Replacement	2036	15 to 20	16	17,000.00	17,000	17,000	5.2%	23,337														
Anticipated Expenditures, By Year (\$444,779 over 30 years)												23,337	0	88,551	0	0	0	0	0	0	44,296	0	0	0	0	112,304

RESERVE FUNDING PLAN

Golf

CASH FLOW ANALYSIS

Beacon Hill

Community Association, Inc.

Leesburg, Virginia

Individual Reserve Budgets & Cash Flows for the Next 30 Years

	FY2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Reserves at Beginning of Year	(Note 1) 77,968	95,590	142,055	103,010	181,685	262,462	266,474	380,974	498,715	325,797	447,662	386,636	182,988	116,972	29,375	31,667
Total Recommended Reserve Contributions	(Note 2) 17,168	45,400	61,400	77,400	93,400	109,400	111,600	113,800	116,100	118,400	120,800	123,200	125,700	128,200	130,800	65,000
Estimated Interest Earned, During Year	(Note 3) 454	1,065	1,098	1,275	1,990	2,370	2,900	3,941	3,694	3,465	3,738	2,552	1,344	656	273	578
Anticipated Expenditures, By Year	0	0	(101,543)	0	(14,613)	(107,758)	0	0	(292,712)	0	(185,564)	(329,400)	(193,060)	(216,453)	(128,781)	0
Anticipated Reserves at Year End		<u>\$95,590</u>	<u>\$142,055</u>	<u>\$103,010</u>	<u>\$181,685</u>	<u>\$262,462</u>	<u>\$266,474</u>	<u>\$380,974</u>	<u>\$498,715</u>	<u>\$325,797</u>	<u>\$447,662</u>	<u>\$386,636</u>	<u>\$182,988</u>	<u>\$116,972</u>	<u>\$29,375</u>	<u>\$31,667</u>
Predicted Reserves based on 2020 funding level of:	\$29,430	95,590	126,013	54,710	84,765	100,412	22,635	52,401	82,435	(181,290)	(153,359)			(NOTE 5)	(NOTE 5)	

(continued)

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

	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
Reserves at Beginning of Year	97,245	164,719	96,827	167,009	239,229	167,825	242,865	320,087	244,913	303,355	385,742	274,899	360,244	415,274	331,196
Total Recommended Reserve Contributions	66,300	67,600	69,000	70,400	71,800	73,200	74,700	76,200	77,700	79,300	80,900	82,500	84,200	85,900	87,600
Estimated Interest Earned, During Year	1,174	1,172	1,182	1,820	1,824	1,840	2,522	2,531	2,456	3,087	2,960	2,845	3,474	3,344	3,375
Anticipated Expenditures, By Year	0	(136,664)	0	0	(145,028)	0	0	(153,905)	(21,714)	0	(194,703)	0	(32,644)	(173,322)	0
Anticipated Reserves at Year End	<u>\$164,719</u>	<u>\$96,827</u>	<u>\$167,009</u>	<u>\$239,229</u>	<u>\$167,825</u>	<u>\$242,865</u>	<u>\$320,087</u>	<u>\$244,913</u>	<u>\$303,355</u>	<u>\$385,742</u>	<u>\$274,899</u>	<u>\$360,244</u>	<u>\$415,274</u>	<u>\$331,196</u>	<u>\$422,171</u>
															(NOTE 4)

Explanatory Notes:

- 1) Year 2020 starting reserves are as of December 31, 2019; FY2020 starts January 1, 2020 and ends December 31, 2020.
- 2) Reserve Contributions for 2020 are the remaining budgeted 7 months; 2021 is the first year of recommended contributions.
- 3) 0.9% is the estimated annual rate of return on invested reserves; 2020 is a partial year of interest earned.
- 4) Accumulated year 2050 ending reserves consider the need to fund for subsequent replacement of the bridges shortly after 2050, and the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

Golf
RESERVE EXPENDITURES

Years 2036 to 2050

Beacon Hill
Community Association, Inc.
Leesburg, Virginia

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Unit (2020)	Costs, \$		Percentage of Future Expenditures	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
						Useful	Remaining		Per Phase (2020)	Total (2020)		2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
4.090	9,320	3,107	Square Feet	Bridges, Wood, Replacement	2028	to 35	8 to 12	49.00	152,227	456,680	22.9%															
4.140	390,200	9,760	Square Feet	Concrete Walking Paths, Partial	2022	to 65	2 to 30+	10.00	97,600	3,902,000	55.4%		136,664			145,028			153,905			163,326			173,322	
4.710	10,000	750	Linear Feet	Ponds, Erosion Control	2031	to 15	11	25.00	18,750	250,000	4.6%											31,377		32,644		
4.730	56,600	7,075	Square Yards	Ponds, Sediment Removal	2031	to 30	11	21.00	148,575	1,188,600	15.5%															
4.811	1	1	Allowance	Signage, Concrete Walkways Paths	2024	15 to 20	4	13,600.00	13,600	13,600	1.3%									21,714						
Anticipated Expenditures, By Year (\$2,427,894 over 30 years)												0	136,664	0	0	145,028	0	0	153,905	21,714	0	194,703	0	32,644	173,322	0

4. RESERVE COMPONENT DETAIL

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

GENERAL EXPENDITURES

Asphalt Pavement, Repaving

Line Items: 4.040 and 4.041

Quantity: Approximately 1,650 square yards of asphalt pavement comprising Carry Back Lane and approximately 2,100 square yards of asphalt pavement comprising Count Turf Place

History: Count Turf Place is original to 2007 and Carry Back Lane is original to 2009

Condition: Good to fair overall with isolated cracks evident



Crack at Count Turf



Cracks at Count Turf



Cracks at Count Turf



Carry Back Lane overview

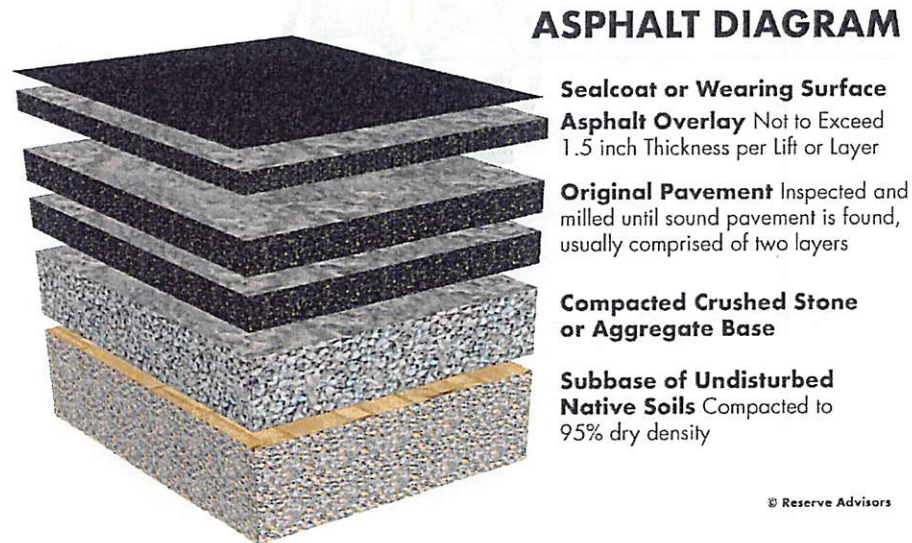


Street location overview

Useful Life: 20- to 25-years with the benefit of timely crack repairs and patching

Component Detail Notes: The initial installation of asphalt uses at least two lifts, or two separate applications of asphalt, over the base course. The first lift is the binder course. The second lift is the wearing course. The wearing course comprises a finer

aggregate for a smoother more watertight finish. The following diagram depicts the typical components although it may not reflect the actual configuration at Beacon Hill:



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

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

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

Landscape, Entrance Monuments

Line Item: 4.500

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

Useful Life: At the request of Management and the Board, we include a landscape allowance for partial replacements and updating at the entrance monuments every 12 years.

Priority/Criticality: Per Board discretion

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

Signage, Entrance Monuments

Line Item: 4.800

Quantity: Three entrance monuments

History: Original with repairs conducted as needed

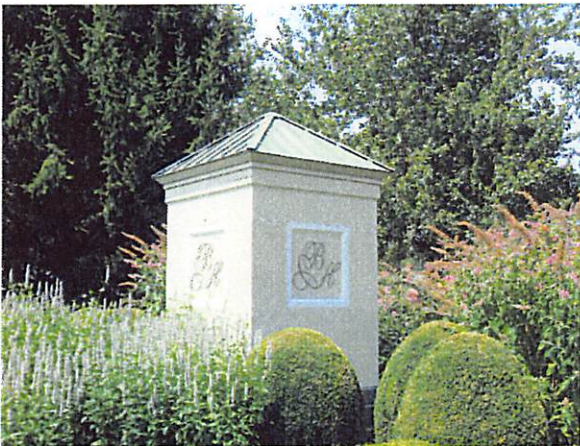
Condition: Good to fair overall with efflorescence, organic growth and finish deterioration evident



Farm Market Road entrance monument



Efflorescence evident



Silver Charm Place entrance monument



Finish deterioration



Beacon Hill Drive entrance monument



Organic growth

Useful Life: 15- to 20-years

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

- Landscaping
- Light fixtures
- Letters
- Masonry
- Metal roofs
- Metal siding

Priority/Criticality: Per Board discretion

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

Signage, Traffic Management and Street Identification, Replacement

Line Item: 4.810

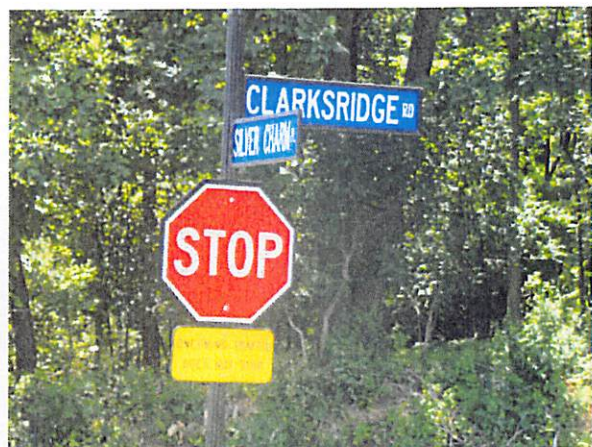
Quantity: 20 street identification signs and 24 traffic management signs

History: Installed in 2016

Condition: Good overall



Street identification sign



Traffic management sign and street identification sign

Useful Life: 15- to 20-years

Component Detail Notes: The community signs contribute to the overall aesthetic appearance of the property to owners and potential buyers. 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 time for replacement of the signs is discretionary.

Priority/Criticality: Per Board discretion

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

GOLF EXPENDITURES

Bridges, Wood, Replacement

Line Item: 4.090

Quantity: The Association maintains 27 bridges comprising approximately 9,320 square feet

History: Original with repairs conducted as needed

Condition: Fair with warped wood, cracks and damage evident



Wood bridge overview



Wood bridge overview



Wood crack



Warped wood



Organic growth and wood damage



Wood deterioration



Bridge overview



Organic growth

Useful Life: Up to 35-years with proper maintenance and interim replacement of the deck boards funded as needed through the operating budget.

Component Detail Notes: Bridge construction includes the following:

- Open railings
- Concrete abutments
- Deck boards fastened with screws

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for interim repairs includes replacement of the deck boards and partial replacement of deteriorated wood components. Proper maintenance should include the following activities funded through the operating budget:

- Annual inspections to identify and correct any unsafe conditions
- Securing of loose fasteners and replacement of deteriorated fasteners
- Replacement of deteriorated wood components
- Power washing with an algaecide and application of a sealer/stain if needed

Concrete Walking Paths

Line Item: 4.140

Quantity: Approximately 390,200 square feet

Condition: Good to fair overall with cracks, trip hazards evident



Concrete sidewalk overview



Sidewalk crack



Concrete settlement



Concrete center line cracks



Organic growth in concrete cracks



Concrete crack



Concrete cracks



Concrete cracks and organic growth

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

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We estimate that up to 97,600 square feet of concrete sidewalks, or twenty-five (25%) of the total, will require replacement during the next 30 years.

Ponds, Erosion Control

Line Item: 4.710

Quantity: 10,000 linear feet of natural vegetation

Location: The following aerial image depicts the location of the nine ponds:



Condition: Good to fair with erosion and algae growth evident



Pond 7 overview



Pond 5 overview



Algae and organic growth at Pond 3



Algae and organic growth at Pond 4



Erosion evident at Pond 2



Erosion evident at Pond 2

Useful Life: Shorelines are subject to fluctuations in water levels, increased plant growth and migrating storm and ground water resulting in the need for erosion control measures up to every 15-years.

Component Detail Notes: The steep shoreline embankments are likely to exacerbate soil movement and erosion. The use and maintenance of landscape, natural vegetation and/or stone rip rap along the pond shoreline will help maintain an attractive appearance and prevent soil erosion.

Shoreline plantings are referred to as buffer zones. Buffer zones provide the following advantages:

- Control insects naturally
- Create an aesthetically pleasing shoreline
- Enhance water infiltration and storage
- Filter nutrients and pollutants
- Increase fish and wildlife habitat
- Reduce lawn maintenance
- Stabilize shoreline and reduce erosion
- Trap sediments

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association plan to install a combination of plantings and stabilization mechanisms around the ponds along 1500 linear feet, or approximately fifteen percent (15%), of the shorelines per event.

Ponds, Sediment Removal

Line Item: 4.730

Quantity: Approximately 56,600 square yards of water surface area

Condition: Good to fair with sediment accumulation evident



Sediment accumulation evident at Pond 6



Sediment accumulation at Pond 4



Sediment accumulation at Pond 2

Useful Life: Based on the visual condition, construction, adjacent deciduous trees and visibly apparent erosion, we recommend the Association anticipate the need to remove pond sediment up to every 30-years.

Component Detail Notes: The gradual build-up of natural debris, including tree leaves, branches and silt, may eventually change the topography of areas of the pond. Silt typically accumulates at inlets, outlets and areas of shoreline erosion. Sediment removal of ponds becomes necessary if this accumulation alters the quality of pond water or the functionality of the ponds as storm water management structures. Sediment removal is the optimal but also the most capital intensive method of pond management.

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

Expenditure Detail Notes: Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. For reserve budgeting purposes, we estimate the need to remove an average depth of one yard from approximately twenty-five percent (25%) of the surface area. However, the actual volume of material to remove may vary dependent upon an invasive analysis at the time of removal. A visual inspection of a body of water cannot reveal the amount of accumulated silt. This is especially true on larger bodies of water. It is therefore inaccurate to assume an entire body of water will require sediment removal. It is more cost effective to spot remove in areas of intense silt accumulation as noted through bathymetric surveys. The amount or depth of silt is determined through prodding into the silt until a relatively solid base is found or through bathymetric surveys. A bathymetric survey establishes a base of data about the depth of the body of water over many locations against which the data of future surveys is compared. These invasive procedures are beyond the scope of a Reserve Study and require multiple visits to the site. We recommend Beacon Hill contract with a local engineer for periodic bathymetric surveys. Future updates of the Reserve Study can incorporate future anticipated expenditures based on the results of the bathymetric surveys.

Unit costs per cubic yard to remove can vary significantly based on the type of equipment used, quantity of removed material and disposal of removed material.

Sediment removal costs must also include mobilization, or getting the equipment to and from the site. Also, the portion of the overall cost to remove associated with mobilization varies based on the volume removed. Costs for sediment disposal also vary depending on the site. Compact sites will require hauling and in some cases disposal fees.

Signage, Concrete Walking Paths

Line Item: 4.810

Quantity: 33 signs at the walking paths

History: Varied ages

Condition: Good to fair overall



Concrete path stop sign

Useful Life: 15- to 20-years

Component Detail Notes: The community signs contribute to the overall aesthetic appearance of the property to owners and potential buyers. 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 time for replacement of the signs is discretionary.

Priority/Criticality: Per Board discretion

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



Reserve Study Update

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

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

Periodic updates incorporate these variable changes since the last Reserve Study or Update. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. Budgeting for an Update demonstrates the Board's objective to continue fulfilling its fiduciary responsibility to maintain the commonly owned property and to fund reserves appropriately.

5. METHODOLOGY

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

Beacon Hill can fund capital repairs and replacements in any combination of the following:

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

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

This Reserve Study is in compliance with and exceeds the National standards¹ set forth by the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Level I Full Reserve Study." These standards require a Reserve Component to have a "predictable remaining Useful Life." Estimating Remaining Useful Lives and Reserve Expenditures beyond 30 years is often indeterminate. Long-Lived Property Elements are necessarily excluded from this analysis. We considered the following factors in our analysis:

- The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan
- Local² costs of material, equipment and labor
- Current and future costs of replacement for the Reserve Components
- Costs of demolition as part of the cost of replacement
- Local economic conditions and a historical perspective to arrive at our estimate of long term future inflation for construction costs in Leesburg,

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

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



Virginia at an annual inflation rate³. 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 Beacon Hill and their effects on remaining useful lives
- Financial information provided by the Association pertaining to the cash status of the reserve fund and budgeted reserve contribution
- The anticipated effects of appreciation of the reserves over time in accord with a return or yield on investment of your cash equivalent assets. (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).
- The Funding Plan excludes necessary operating budget expenditures. It is our understanding that future operating budgets will provide for the ongoing normal maintenance of Reserve Components.

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

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



6. CREDENTIALS

HISTORY AND DEPTH OF SERVICE

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

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

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

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

TOTAL STAFF INVOLVEMENT

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

OUR GOAL

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

VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

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

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

OLD TO NEW

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



STEPHEN E. BRESKI, RS
Manager of Product Development
Responsible Advisor

CURRENT CLIENT SERVICES

Stephen E. Breski, a Senior Civil Engineer, is an Advisor for Reserve Advisors. Mr. Breski 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, planned unit developments and homeowner associations.



The following is a partial list of clients served by Stephen Breski demonstrating the breadth of experiential knowledge of community associations in construction and related systems.

30 Park Place Condominium Association, Inc. - Located in downtown Manhattan in New York City, this 82-story luxury tower offers 157 private residences and 189 hotel guest suites. The building was designed by renowned architect Robert A.M. Stern and is operated by the Four Seasons staff. On the 37th floor the residences enjoy their private amenity area complete with a fitness center and film screening room. The hotel includes a spa and indoor swimming pool.

Merion Golf Club - Located in the suburbs of Philadelphia, PA, this club was founded in 1865 as the Merion Cricket Club. Later, the Merion Cricket Club founded the Merion Golf Club in 1896 and has been an iconic golf club since. Merion Golf Club's East Course is consistently ranked as one of the top golf courses and has hosted five U.S. Opens featuring champions Ben Hogan (1950), Lee Trevino and his playoff victory over Jack Nicklaus (1971) and, most recently, Justin Rose (2013).

Saint Sophia Greek Orthodox Cathedral - Located in Northwest Washington, D.C., the cornerstone of this cathedral was laid by President Dwight D. Eisenhower in 1956. A second building was constructed in addition to the cathedral in 2004. This building, known as the Education and Activities Center, includes classrooms and a library.

Big Bass Lake Community Association, Inc. - Located in Gouldsboro, Pennsylvania, this community features three dams which provide the 1,655 single family homes with over 850,000 square yards of surface area for boating and recreation. Residents enjoy a clubhouse, a recreational center, a ski hill, docks, recreational courts, beaches and playgrounds. The Association also maintains an administration building, maintenance shop, sales office and library.

Woodmont Country Club - This exclusive club was established more than 100 years ago. The elegant design of Woodmont's Clubhouse, incorporates several dining venues, a grand ballroom and an expansive fitness and wellness center. The clubhouse overlooks Woodmont's two premiere golf courses, swimming complex and 22 *Har-Tru* tennis courts.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Breski worked for a private construction management company in Pittsburgh, Pennsylvania, where he was working as a cost estimator. Prior to working as an estimator, Mr. Breski also worked for the nation's largest provider of wireless infrastructure, where he assisted in the structural analysis of cell phone towers. Mr. Breski attended the Swanson School of Engineering at the University of Pittsburgh where he attained his Bachelor of Science degree in Civil and Environmental Engineering. His studies focused on structural engineering.

EDUCATION

University of Pittsburgh - B.S. Civil and Environmental Engineering

PROFESSIONAL AFFILIATIONS

Reserve Specialist (RS) – Community Association Institute
Engineer in Training (E.I.T.) – State of Maryland



NICHOLAS R. JULIA, RS
Regional Engineering Manager, Northeast Region

CURRENT CLIENT SERVICES

Nicholas R. Julia, a Civil Engineer, is an Advisor for Reserve Advisors, LLC. Mr. Julia 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 homeowner associations. Nicholas Julia often serves as Quality Assurance Reviewer for all types of developments to ensure our reports maintain the level of quality which is expected of our firm.



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

One Park Crest Condominium is an upscale 19-story high rise building located in McLean, Virginia just outside of Washington, D.C. Residents enjoy an 18th floor club room and outdoor pool. The building also contains an exercise room, library, professionally decorated lobby and underground parking.

The Maryland Club is an exclusive club located in the heart of Baltimore, Maryland. The elegant white marble main building dates back to 1892. The club contains squash courts, a banquet area, a dining hall, and a professional kitchen amongst many other amenities.

Town of St. Michaels, a scenic town located on the Eastern Shore of Maryland. The town includes an administrative building, police station, public works garage and offices, and a historic log cabin. The municipality also maintains the asphalt pavement streets throughout the town, multiple parks, two water towers and a complex arsenic removal water treatment system.

One Loudoun Neighborhood Association is an upscale planned unit development comprising townhomes and single family homes located in Ashburn, Virginia. The property includes a high-end clubhouse with over 12,000 square feet of interior space including a gymnasium and yoga studio. The property also includes walking trails, multiple playgrounds, a tennis court, sports court, and a pool.

3883 Connecticut Avenue Condominium is a 10-story midrise located in Washington, D.C. The building was constructed in 2002 and contains luxurious amenities including an elevated outdoor pool on the 8th floor, party room, exercise facility and an underground parking garage.

Lake Petersburg Association This man-made lake community of 380 single family homes is located in Petersburg, Illinois. Components of the property include a community boat launch, dock, three tennis courts, a basketball court, two maintenance buildings, an office, and vehicular equipment. The Association also maintains an earthen dam on the far side of the lake.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Mr. Julia attended Marquette University in Milwaukee, Wisconsin where he attained his Bachelor of Science degree in Civil Engineering. His studies focused on transportation engineering and construction management engineering.

EDUCATION

Marquette University - B.S. Civil Engineering

PROFESSIONAL AFFILIATIONS / DESIGNATIONS

Engineer in Training (E.I.T.) – Washington D.C.

Reserve Specialist (RS) - Community Association Institute



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

CURRENT CLIENT SERVICES

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

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



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

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

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

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

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

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

PRIOR RELEVANT EXPERIENCE

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

EDUCATION

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

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

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

Reserve Specialist (RS) - Community Associations Institute

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



RESOURCES

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

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

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

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

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

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

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



7. DEFINITIONS

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

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

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

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

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

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

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

Long-Lived Property Component - Property component of Beacon Hill 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) Beacon Hill responsibility; 2) limited Useful Life expectancies; 3) predictable Remaining Useful Life expectancies; and 4) a replacement cost above a minimum threshold.

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

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

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

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

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

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

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



8. PROFESSIONAL SERVICE CONDITIONS

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

Our inspection and analysis of the subject property is limited to visual observations, is noninvasive and is not meant to nor does it include investigation into statutory, regulatory or code compliance. RA inspects sloped roofs from the ground and inspects flat roofs where safe access (stairs or ladder permanently attached to the structure) is available. The report is based upon a "snapshot in time" at the moment of inspection. RA may note visible physical defects in our report. The inspection is made by employees generally familiar with real estate and building construction but in the absence of invasive testing RA cannot opine on, nor is RA responsible for, the structural integrity of the property including its conformity to specific governmental code requirements for fire, building, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

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

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

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

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

Use of Our Report and Your Name - Use of this Report is limited to only the purpose stated herein. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and you shall hold RA harmless from any consequences of such use. Use by any unauthorized third party is unlawful. The Report in whole or in part **is not and cannot be used as a design specification for design engineering purposes or as an appraisal**. You may show our Report in its entirety to the following third parties: members of your organization, your accountant, attorney, financial institution and property manager who need to review the information contained herein. Without the written consent of RA, you shall not disclose the Report to any other third party. The Report contains intellectual property developed by RA and **shall not be reproduced or distributed to any party that conducts reserve studies without the written consent of RA**.

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

Payment Terms, Due Dates and Interest Charges - Retainer payment is due upon authorization and prior to inspection. The balance is due net 30 days from the report shipment date. Any balance remaining 30 days after delivery of the Report shall accrue an interest charge of 1.5% per month. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court for the State of Wisconsin.