

# FULL RESERVE STUDY

## Liberty Isles Homeowners' Association, Inc.



West Palm Beach, Florida

January 10, 2017



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## 1. RESERVE STUDY EXECUTIVE SUMMARY

**Client:** Liberty Isles Homeowners' Association, Inc. (Liberty Isles)

**Location:** West Palm Beach, Florida

**Reference:** 162102

**Property Basics:** Liberty Isles Homeowners' Association, Inc. is a planned unit development of 115 single family homes. The development was constructed in 2002 and contains asphalt pavement streets, concrete flatwork, mailboxes, signage and an entrance monument.

**Reserve Components Identified:** 10 Reserve Components.

**Inspection Date:** January 10, 2017.

**Funding Goal:** The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes these threshold funding years in 2024 and 2044 due to replacement of the asphalt pavement streets.

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

- current and future local costs of replacement
- 1.2% annual rate of return on invested reserves
- 1.3% 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:** \$55,796 as of January 1, 2017.

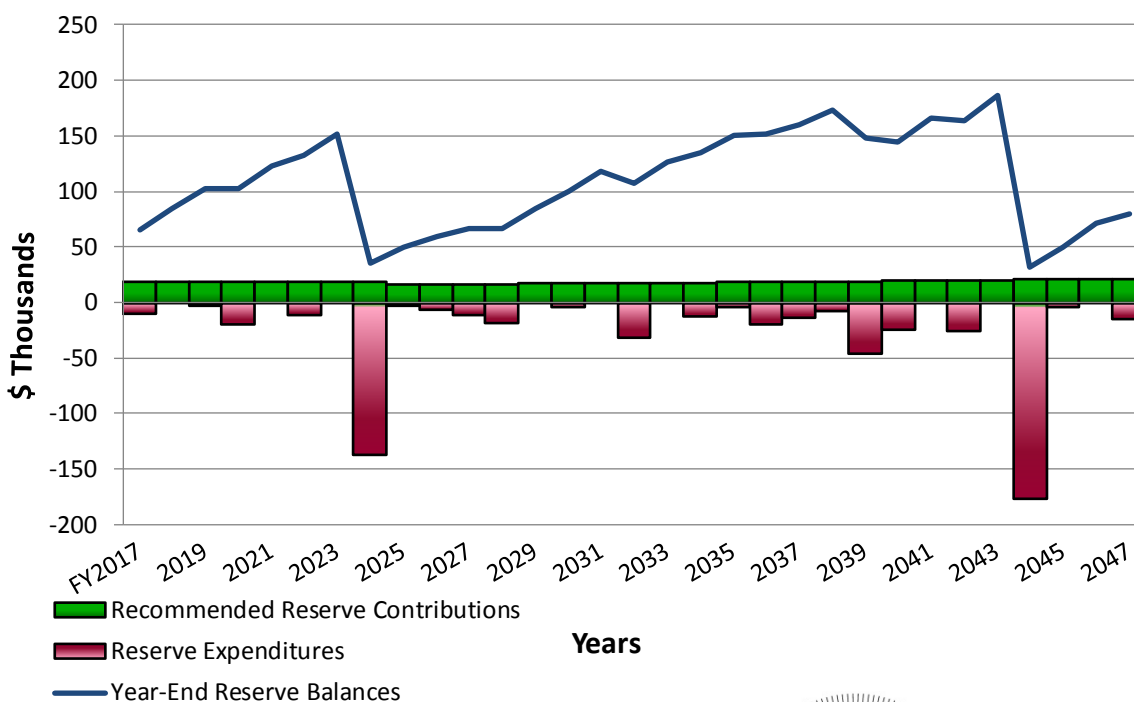
**Recommended Reserve Funding:** The Association budgeted \$18,520 for Reserve Contributions in 2017. We recommend the Association budget stable contributions of \$18,520 from 2018 through 2024. By 2025, the Association will have fully funded for replacement of the asphalt pavement streets. Therefore, the Association may anticipate a decrease in the annual Reserve Contribution to \$16,500. Afterwards, the Association should budget gradual annual increases in reserve funding that in part consider the effects of inflation through 2047, the limit of this study's Cash Flow Analysis. The recommended year 2018 Reserve Contribution of \$18,520 is equivalent to an average monthly contribution of \$13.42 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."

## Liberty Isles

### Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2018	18,520	84,449	2028	17,100	66,091	2038	19,100	172,699
2019	18,520	101,880	2029	17,300	84,288	2039	19,300	148,074
2020	18,520	102,623	2030	17,500	99,603	2040	19,600	144,824
2021	18,520	122,486	2031	17,700	118,604	2041	19,900	166,581
2022	18,520	131,856	2032	17,900	106,897	2042	20,200	163,892
2023	18,520	152,069	2033	18,100	126,388	2043	20,500	186,482
2024	18,520	35,260	2034	18,300	134,286	2044	20,800	31,921
2025	16,500	49,187	2035	18,500	150,986	2045	21,100	49,523
2026	16,700	59,797	2036	18,700	151,680	2046	21,400	71,646
2027	16,900	66,069	2037	18,900	159,488	2047	21,700	79,515



Respectfully submitted on January 20, 2017 by  
RESERVE ADVISORS, INC.



Alan M. Ebert, PRA<sup>1</sup>, RS<sup>2</sup>, Director of Quality Assurance  
Visual Inspection and Report by: Graham W. Culkar



<sup>1</sup>PRA (Professional Reserve Analyst) is the professional designation of the Association of Professional Reserve Analysts. Learn more about APRA at <http://www.apra-usa.com>.

<sup>2</sup> RS (Reserve Specialist) is the reserve provider professional designation of the Community Associations Institute (CAI) representing America's more than 300,000 condominium, cooperative and homeowners associations.

## 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

**Liberty Isles Homeowners' Association, Inc.**

**West Palm Beach, Florida**

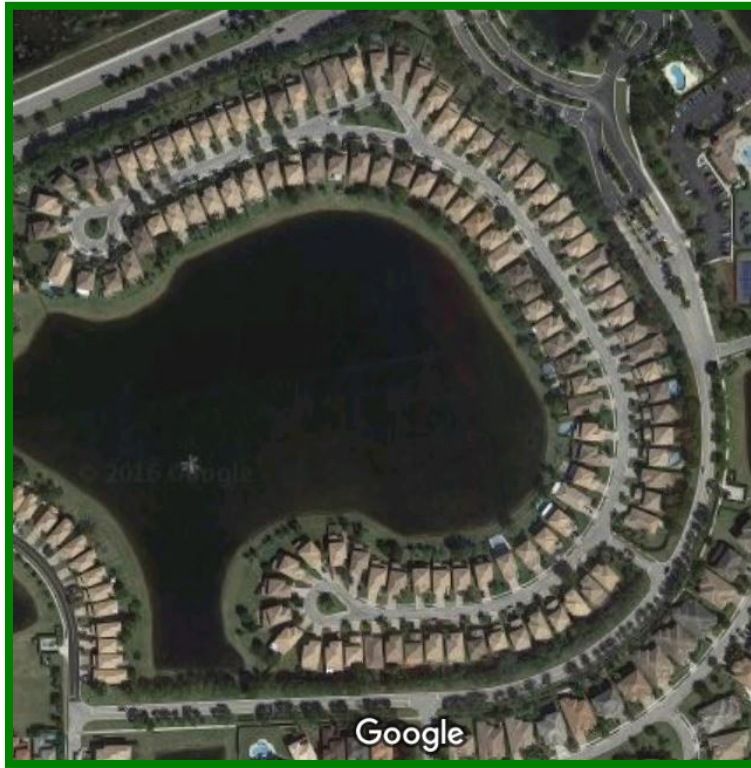
and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, January 10, 2017.

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



Liberty Isles Homeowners' Association, Inc. is a planned unit development of 115 single family homes. The development was constructed in 2002 and contains asphalt pavement streets, concrete flatwork, mailboxes, signage and an entrance monument. We identify 10 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:

- Liberty Isles 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
- Pipes, Subsurface Utilities

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 \$2,500 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Landscape, Interim
- Paint Finishes, Touch Up
- Paint Finishes, Mailboxes



- Paint Finishes, Street Identification and Traffic Management Signage
- Pet Waste Stations
- 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:

- Driveways
- Fences, at Lots
- Homes and Lots

Certain items have been designated as the responsibility of others to repair or replace.

Property Maintained by Others relates to:

- Chain Link Fence, Northeast Perimeter (Briar Bay)
- Light Poles and Fixtures (Florida Power and Light)
- Ponds (CDD)
- Perimeter Walls, Northwest Perimeter (CDD)
- Other Irrigation (Briar Bay)

### **3. RESERVE EXPENDITURES and FUNDING PLAN**

The tables following this introduction present:

#### **Reserve Expenditures**

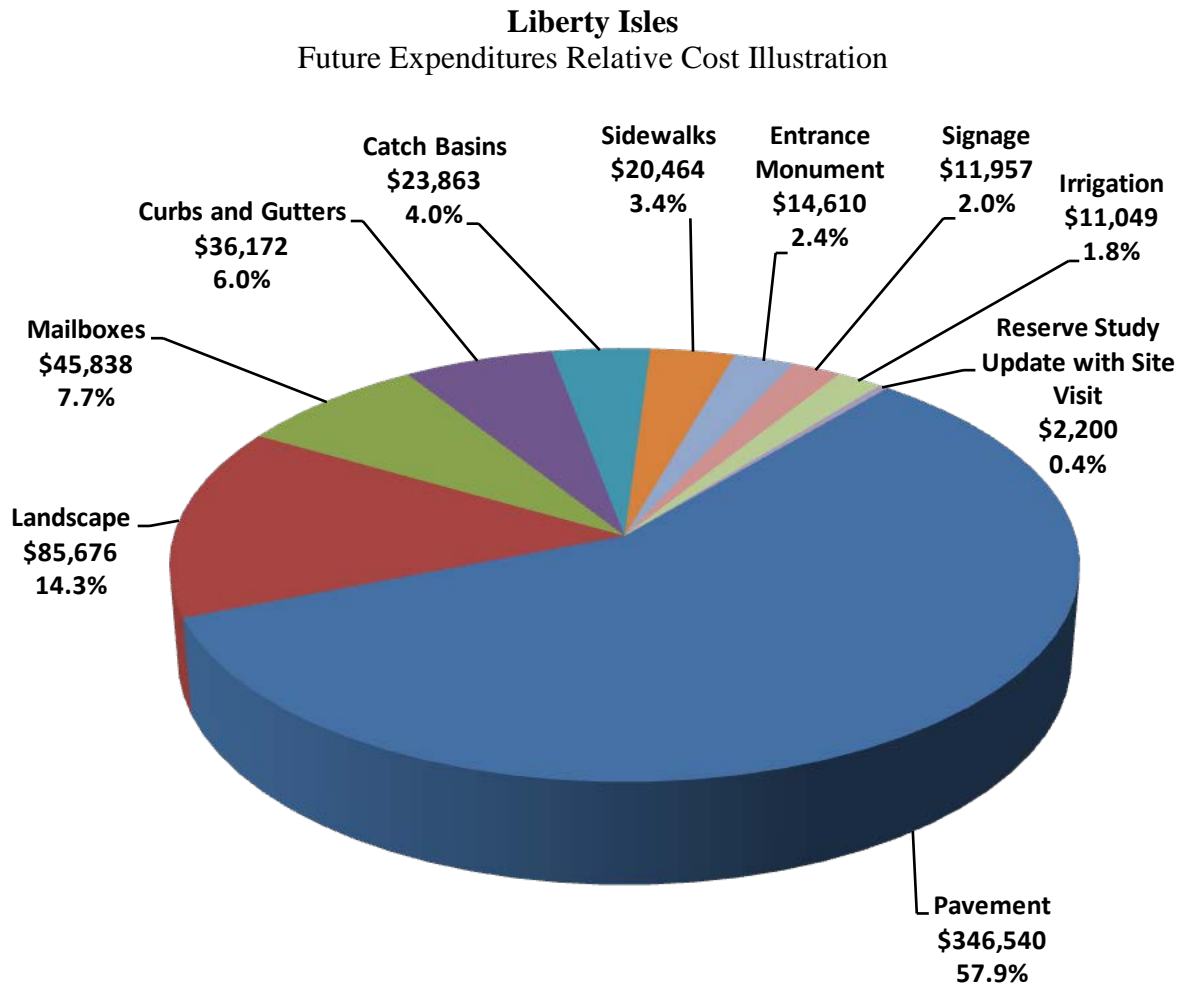
- Line item numbers
- Total quantities
- Quantities replaced per phase (in a single year)
- Reserve component inventory
- Estimated first year of event (i.e., replacement, application, etc.)
- Life analysis showing
  - useful life
  - remaining useful life
- Unit cost of replacement
- 2017 local cost 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

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.



RESERVE EXPENDITURES

Liberty Isles  
Homeowners' Association, Inc.  
West Palm Beach, Florida

Explanatory Notes:

- 1) 1.3% is the estimated future Inflation Rate for estimating Future Replacement Costs.  
2) FY2017 is Fiscal Year beginning January 1, 2017 and ending December 31, 2017.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				RUL = 0 FY2017	1 2018	2 2019	3 2020	4 2021	5 2022	6 2023	7 2024	8 2025	9 2026	10 2027	11 2028	12 2029	13 2030	14 2031	15 2032
						Useful	Remaining	Unit (2017)	Per Phase (2017)	Total (2017)	30-Year Total (Inflated)																
4.020	7,750	7,750	Square Yards	Asphalt Pavement, Patch and Seal Coat	2020	3 to 5	3	2.00	15,500	15,500	93,465				16,112							17,866				18,814	
4.040	7,750	7,750	Square Yards	Asphalt Pavement, Mill and Overlay	2024	15 to 20	7	13.00	100,750	100,750	253,075							110,284									
4.100	19	19	Each	Catch Basins, Inspections and Capital Repairs	2024	15 to 20	7	500.00	9,500	9,500	23,863							10,399									
4.110	6,000	600	Linear Feet	Concrete Curbs and Gutters, Partial	2024	to 65	7 to 30+	24.00	14,400	144,000	36,172							15,763									
4.140	8,900	370	Square Feet	Concrete Sidewalks, Partial	2020	to 65	3 to 30+	7.50	2,775	66,750	20,464				2,885			3,077					3,282				
4.300	1	1	Allowance	Entrance Monument, Renovation	2026	10 to 15	9	6,000.00	6,000	6,000	14,610								6,740								
4.420	1	1	Allowance	Irrigation System	2042	to 40	25	8,000.00	8,000	8,000	11,049																
4.500	1	1	Allowance	Landscape, Partial Replacements	2017	to 5	0	10,000.00	10,000	10,000	85,676	10,000				10,667					11,379				12,138		
4.600	115	115	Each	Mailboxes	2039	to 25	22	300.00	34,500	34,500	45,838																
4.810	12	12	Each	Signage, Street Identification and Traffic Management	2034	15 to 20	17	800.00	9,600	9,600	11,957																
		1	Allowance	Reserve Study Update with Site Visit	2019	2	2	2,200.00	2,200	2,200	2,200			2,200													
				Anticipated Expenditures, By Year							\$598,369	10,000	0	2,200	18,997	0	10,667	0	136,446	3,077	6,740	11,379	17,866	0	3,282	0	30,952

RESERVE EXPENDITURES

Liberty Isles  
Homeowners' Association, Inc.  
West Palm Beach, Florida

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				16 2033	17 2034	18 2035	19 2036	20 2037	21 2038	22 2039	23 2040	24 2041	25 2042	26 2043	27 2044	28 2045	29 2046	30 2047
						Useful	Remaining	Unit (2017)	Per Phase (2017)	Total (2017)	30-Year Total (Inflated)															
4.020	7,750	7,750	Square Yards	Asphalt Pavement, Patch and Seal Coat	2020	3 to 5	3	2.00	15,500	15,500	93,465				19,811				20,862							
4.040	7,750	7,750	Square Yards	Asphalt Pavement, Mill and Overlay	2024	15 to 20	7	13.00	100,750	100,750	253,075												142,791			
4.100	19	19	Each	Catch Basins, Inspections and Capital Repairs	2024	15 to 20	7	500.00	9,500	9,500	23,863												13,464			
4.110	6,000	600	Linear Feet	Concrete Curbs and Gutters, Partial	2024	to 65	7 to 30+	24.00	14,400	144,000	36,172												20,409			
4.140	8,900	370	Square Feet	Concrete Sidewalks, Partial	2020	to 65	3 to 30+	7.50	2,775	66,750	20,464			3,501				3,735					3,984			
4.300	1	1	Allowance	Entrance Monument, Renovation	2026	10 to 15	9	6,000.00	6,000	6,000	14,610						7,870									
4.420	1	1	Allowance	Irrigation System	2042	to 40	25	8,000.00	8,000	8,000	11,049									11,049						
4.500	1	1	Allowance	Landscape, Partial Replacements	2017	to 5	0	10,000.00	10,000	10,000	85,676					12,948				13,811					14,733	
4.600	115	115	Each	Mailboxes	2039	to 25	22	300.00	34,500	34,500	45,838							45,838								
4.810	12	12	Each	Signage, Street Identification and Traffic Management	2034	15 to 20	17	800.00	9,600	9,600	11,957		11,957													
		1	Allowance	Reserve Study Update with Site Visit	2019	2	2	2,200.00	2,200	2,200	2,200															
				Anticipated Expenditures, By Year							\$598,369	0	11,957	3,501	19,811	12,948	7,870	45,838	24,597	0	24,860	0	176,664	3,984	0	14,733

RESERVE FUNDING PLAN

CASH FLOW ANALYSIS																
Liberty Isles																
Homeowners' Association, Inc.																
West Palm Beach, Florida																
	Individual Reserve Budgets & Cash Flows for the Next 30 Years															
	FY2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Reserves at Beginning of Year (Note 1)	55,796	65,037	84,449	101,880	102,623	122,486	131,856	152,069	35,260	49,187	59,797	66,069	66,091	84,288	99,603	118,604
Total Recommended Reserve Contributions (Note 2)	18,520	18,520	18,520	18,520	18,520	18,520	18,520	18,520	16,500	16,700	16,900	17,100	17,300	17,500	17,700	17,900
Plus Estimated Interest Earned, During Year (Note 3)	721	892	1,111	1,220	1,343	1,517	1,693	1,117	504	650	751	788	897	1,097	1,301	1,345
Less Anticipated Expenditures, By Year	(10,000)	0	(2,200)	(18,997)	0	(10,667)	0	(136,446)	(3,077)	(6,740)	(11,379)	(17,866)	0	(3,282)	0	(30,952)
Anticipated Reserves at Year End	<u>\$65,037</u>	<u>\$84,449</u>	<u>\$101,880</u>	<u>\$102,623</u>	<u>\$122,486</u>	<u>\$131,856</u>	<u>\$152,069</u>	<u>\$35,260</u> (NOTE 5)	<u>\$49,187</u>	<u>\$59,797</u>	<u>\$66,069</u>	<u>\$66,091</u>	<u>\$84,288</u>	<u>\$99,603</u>	<u>\$118,604</u>	<u>\$106,897</u>

(continued)																
Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued																
	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	
Reserves at Beginning of Year	106,897	126,388	134,286	150,986	151,680	159,488	172,699	148,074	144,824	166,581	163,892	186,482	31,921	49,523	71,646	
Total Recommended Reserve Contributions	18,100	18,300	18,500	18,700	18,900	19,100	19,300	19,600	19,900	20,200	20,500	20,800	21,100	21,400	21,700	
Plus Estimated Interest Earned, During Year	1,391	1,555	1,701	1,805	1,856	1,981	1,913	1,747	1,857	1,971	2,090	1,303	486	723	902	
Less Anticipated Expenditures, By Year	0	(11,957)	(3,501)	(19,811)	(12,948)	(7,870)	(45,838)	(24,597)	0	(24,860)	0	(176,664)	(3,984)	0	(14,733)	
Anticipated Reserves at Year End	<u>\$126,388</u>	<u>\$134,286</u>	<u>\$150,986</u>	<u>\$151,680</u>	<u>\$159,488</u>	<u>\$172,699</u>	<u>\$148,074</u>	<u>\$144,824</u>	<u>\$166,581</u>	<u>\$163,892</u>	<u>\$186,482</u>	<u>\$31,921</u> (NOTE 5)	<u>\$49,523</u>	<u>\$71,646</u>	<u>\$79,515</u> (NOTE 4)	

Explanatory Notes:

- 1) Year 2017 starting reserves are as of January 1, 2017; FY2017 starts January 1, 2017 and ends December 31, 2017.
- 2) Reserve Contributions for 2017 are budgeted; 2018 is the first year of recommended contributions.
- 3) 1.2% is the estimated annual rate of return on invested reserves.
- 4) Accumulated year 2047 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (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.*

##### **Property Site Elements**

**Asphalt Pavement, Patch and Seal Coat** - Asphalt pavement comprises 7,750 square yards of streets throughout the community. The pavement is original and in good overall condition. Management informs us the Association applied a seal coat in 2016. The Association should plan future applications and repairs every three- to five-years. These activities reduce water infiltration and the effects of inclement weather. We elaborate on solutions and procedures necessary for the optimal maintenance of asphalt pavement in the following discussion.

We recommend periodic seal coat applications and patching to maintain the pavement. These activities minimize the damaging effects of vehicle fluids, maintain a uniform and positive appearance, and maximize the useful life of the pavement. Asphalt pavement is susceptible to isolated areas of accelerated deterioration at the centerlines of streets and at high traffic areas such as intersections. Depressions often appear at areas where vehicles park such as driveways and parking areas. Isolated areas of depressions, cracks and deterioration indicate the need for

patching. The contractor should patch areas that exhibit potholes, alligator or spider web pattern cracks, and areas of pavement that are severely deteriorated from oil and gasoline deposits from parking vehicles. Area patching requires total replacement of isolated areas of pavement.

There are four main types of seal coats available: fog coat, acrylic sealer, chip seals and asphaltic emulsion. A fog coat is a simple mixture of water and asphalt. Acrylic sealers include an acrylic additive to the water and asphalt mixture for greater resistance to abrasion. Fog coats and acrylic sealers are typically spray applied and are only for aesthetic purposes. Chip seal is the most substantial type of seal coat which involves placement of oil and aggregate on the driving surface. Either a roller or normal vehicular traffic works the gravel into the oil. Asphaltic emulsions combine a sharp sand mixture or mineral fibers, and an emulsifying agent with the water and asphalt mixture. Asphaltic emulsions are typically hand applied with squeegees to ensure that the sealer fills surface abrasions and minor cracks. This prevents the infiltration of water through cracks into the underlying pavement base. Seal coats therefore minimize the damaging effects of water from expansion and contraction. We regard asphaltic emulsions as the most effective and economical type of seal coat.

Liberty Isles should repair any isolated areas of deteriorated pavement prior to seal coat applications. Proposals for seal coat applications should include patching. The contractor should only apply seal coat applications after repairs are completed. Our future estimates of cost include an allowance for repair activities.

We recommend Liberty Isles plan the next application of seal coat by 2020 and subsequent applications every four years thereafter except when repaving occurs. Line Item

4.020 of ***Reserve Expenditures*** notes our estimate of future costs and anticipated times of these activities.

**Asphalt Pavement, Repaving** - As previously stated, asphalt pavement comprises 7,750 square yards of streets throughout the community. The pavement is original and in good overall condition. We note cracks, deterioration, raveling and previous pavement repairs.



**Asphalt pavement overview**



**Asphalt pavement overview**



**Asphalt pavement overview**



**Pavement cracks**





**Pavement depressions**



**Previous pavement patch**



**Pavement cracks**



**Pavement cracks**



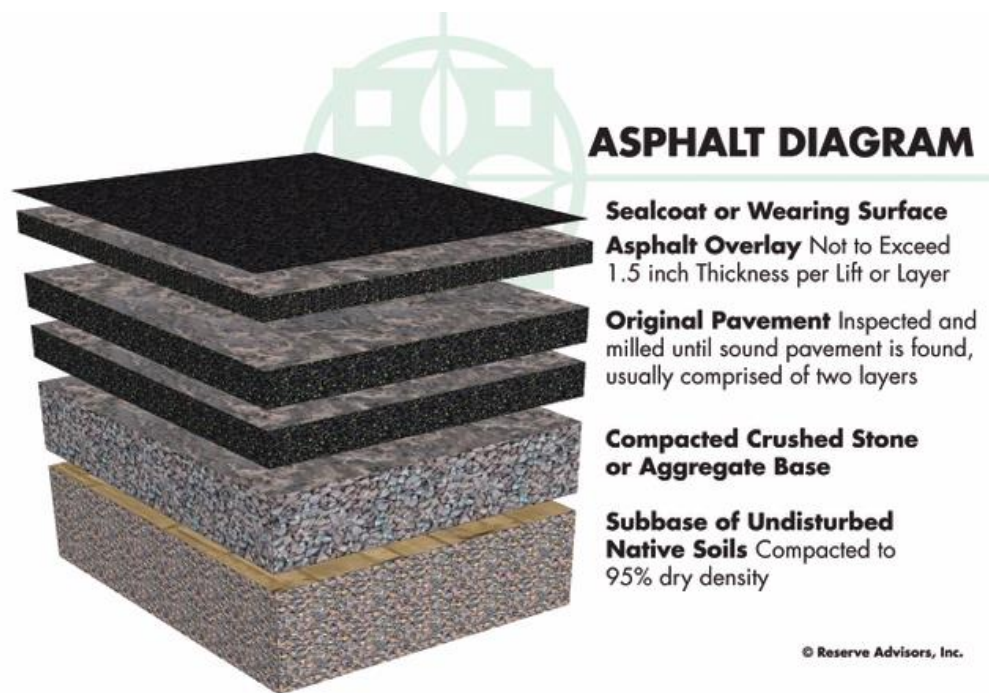
**Pavement deterioration**



**Pavement raveling**

The useful life of pavement in West Palm Beach is from 15- to 20-years. We include the following repaving solutions and procedures for the benefit of the present and future board members.

Components of asphalt pavement include native soil, aggregate and asphalt. First the contractor creates a base course of aggregate or crushed stone and native soil. The base course is individually compacted to ninety-five percent (95%) dry density prior to the application of the asphalt. Compaction assures a stable base for the asphalt that reduces the possibility of settlement. For street systems, 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 these components:



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 Liberty Isles.

A variety of repairs are necessary to deteriorated pavement prior to the application of an overlay. The contractor should use a combination of area patching, crack repair and milling before the overlayment. Properly milled pavement removes part of the existing pavement and permits the overlay to match the elevation of adjacent areas not subject to repaving. Milling also allows the contractor to make adjustments to the slope of the pavement to ensure proper drainage. The contractor should clean the milled pavement to ensure proper bonding of the new overlayment. We recommend an overlayment thickness that averages 1½ inches (not less than one inch or more than two inches). Variable thicknesses are often necessary to create an adequate slope for proper drainage. The contractor should identify and quantify areas of pavement that require area patching, crack repair and milling to help the Association compare proposed services.



Total replacement requires the removal of all existing asphalt. For area patching, we recommend the contractor use a rectangular saw cut to remove the deteriorated pavement. For larger areas such as entire parking areas or driveways, we recommend the contractor grind, mill or pulverize the existing pavement to remove it. The contractor should then augment and compact the existing aggregate and native soil to create a stable base. Finally the contractor should install the new asphalt in at least two lifts.

The time of replacement is dependent on the useful life, age and condition of the pavement. The useful life is dependent in part on the maintenance applied to the pavement, the amounts and concentration of auto solvents that penetrate the pavement, the exposure to sunlight and detrimental effects of inclement weather. Liberty Isles should repair any isolated areas of deteriorated pavement concurrent with periodic seal coat applications. Based on the current good condition, we recommend the Association plan for milling and overlayment of the pavement with area patching of up to ten percent (10%) by 2024 and again by 2044. We depict this information on Line Item 4.040 of *Reserve Expenditures*. The Association should coordinate asphalt repaving with related activities such as partial replacement of concrete curbs and gutters, and capital repairs to catch basins.

**Catch Basins** - The 19 catch basins collect storm water from the pavement and conduct it into the storm water system. The overall condition of the catch basins is good with minor settlement visually apparent.



**Typical catch basin with minor settlement**



**Typical 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. Liberty Isles should plan to repair or replace any displaced or failed catch basins concurrently with the surrounding pavement, and curbs and gutters. 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 19 catch basins in conjunction with repaving. 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 Curbs and Gutters*** - Concrete curbs and gutters line the pavement of Liberty Isles. These curbs and gutters comprise 6,000 linear feet and are in good condition overall. We note isolated gutter cracks and edge deterioration.



**Concrete gutter overview**



**Gutter crack at 3308 Turtle cove**



**Gutter crack at 3344 Turtle Cove**



**Gutter crack at 3362 Turtle Cove**



**Gutter Cracks at 3382 Turtle Cove**



**Gutter edge deterioration at 3163 Turtle Cove**

We estimate that up to 1,200 linear feet of curbs and gutters, or twenty percent (20%) of the total, will require replacement during the next 30 years. We estimate that up to 600 linear feet of curbs and gutters, or ten percent (10%) of the total, will require replacement in conjunction with each repaving event. We depict this information on Line Item 4.110 of *Reserve Expenditures*. We assume the use of 3,500 pounds per square inch (PSI) concrete.

***Concrete Sidewalks*** - Concrete sidewalks comprise 8,900 square feet throughout the community. The sidewalks are in good overall condition. We note isolated deterioration.





**Concrete sidewalk overview**



**Concrete sidewalk overview**



**Sidewalk edge deterioration at 3302 Turtle Cove**

We estimate that up to 2,220 square feet of concrete sidewalks, or twenty-five percent (24.9%) of the total, will require replacement during the next 30 years. We recommend the Association budget for replacement of 370 square feet of concrete sidewalks every five years beginning by 2020. 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.

The Association should coordinate partial replacements of concrete curbs and gutters with asphalt pavement, due to the interrelated nature of these items. The times and costs of these replacements may vary. However, the estimated expenditures detailed in *Reserve Expenditures* are sufficient to budget appropriate reserves.

**Entrance Monument** - The Association maintains an entrance monument that includes the following elements:

- Fountain
- Letters
- Light fixtures
- Stucco
- Tile

The entrance monument is in good condition at an age of three years.



**Entrance monument overview**



**Entrance monument overview**





**Entrance monument rear overview**

The functional useful life of an entrance monument is from 10- to 15-years. Entrance monuments contribute to the overall aesthetic appearance of the property to owners and potential buyers. Renovation or replacement 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 renovate the entrance monument by 2026 and again by 2038. We note this information on Line Item 4.300 of *Reserve Expenditures*. The Association should fund interim repairs and replacements through the operating budget.

**Irrigation System** - The Association maintains the irrigation system at the three landscaped islands in the community. The system includes three backflow devices and five zones. Management informs us the Master Association is responsible for all other irrigation at Liberty Isles. The system is original and reported in good condition. 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. Liberty Isles 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 Liberty Isles budget for a complete replacement of the system by 2042. We note this information on Line Item 4.420 of *Reserve Expenditures*.

**Landscape, Partial Replacements** - The Association contains a large quantity of trees, shrubbery and other landscape elements. Replacement of these elements is an ongoing need. Many associations budget for these replacements as normal maintenance. Other associations fund ongoing replacements from reserves. Large amounts of landscape may need replacement due to disease, drought or other forces of nature. If the cost of removal and replacement is substantial, funding from reserves is logical. The Association may also desire to periodically update the appearance of the community through major improvements to the landscape. In consideration of these factors and at the request of Management, we include a landscape allowance of \$10,000, plus inflation, every five years beginning in 2017 to ensure the accumulation of sufficient reserves for partial replacements of the landscape. The times and costs of these replacements may vary. However, we judge the amounts shown on Line Item 4.500 of *Reserve Expenditures* sufficient to budget appropriate reserves.

**Mailboxes** - The Association maintains 115 metal mailboxes that serve the residents of Liberty Isles.



**Mailboxes**



**Mailbox**

The mailbox stations are in good condition at an age of three years and have a useful life of up to 25 years. Liberty Isles should budget for replacement of the mailbox stations by 2039. We depict this information on Line Item 4.600 of ***Reserve Expenditures***. The Association should verify the new mailboxes meet the specifications of the *United States Postal Service*. The Association should fund paint finishes and repairs to the mailboxes from the operating budget.

**Signage, Street Identification and Traffic Management** - The Association maintains the street identification and traffic management signs throughout the community. These signs are in good condition at an age of three years.



**Street identification and traffic management signage**



**Traffic management signage**



**Traffic management signage**

The functional useful life of the signs is from 15- to 20-years. Like the entrance monument, these signs contribute to the overall aesthetic appearance of the property to owners and potential buyers. Replacement of the 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. We recommend the Association plan to replace the signs by 2034. We note this information on Line Item 4.810 of ***Reserve Expenditures***. The Association should fund paint finishes and repairs to the signs from 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.

Liberty Isles can fund capital repairs and replacements in any combination of the following:

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

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

This Reserve Study is in compliance with and exceeds the National standards<sup>1</sup> set forth by the 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:

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



Information Furnished by the Association	
2017 unaudited Cash Status of the Reserve Fund	55,796
2017 Budgeted Reserve Contribution	18,520
Anticipated Interest on Reserve Fund	721
Less Anticipated Reserve Expenditures	(10,000)
Projected 2017 Year-End Reserve Balance	\$65,037

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

Local<sup>2</sup> costs of material, equipment and labor

Current and future costs of replacement for the Reserve Components

Costs of demolition as part of the cost of replacement

Local economic conditions and a historical perspective to arrive at our estimate of long term future inflation for construction costs in West Palm Beach, Florida at an annual inflation rate of 1.3%. Isolated or regional markets of greater construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

The past and current maintenance practices of Liberty Isles 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 1.2% (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. Overall, no material near term changes in savings rates are anticipated. 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

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



table summarizes rates of inflation and key rates for government securities, generally considered as safe investment alternatives.

Interest Rate and Inflation Data	2015				2016			
	<u>2015:1 (A)</u>	<u>2015:2 (A)</u>	<u>2015:3 (A)</u>	<u>2015:4 (A)</u>	<u>2016:1 (A)</u>	<u>2016:2 (A)</u>	<u>2016:3 (A)</u>	<u>2016:4 (E)</u>
Average or Last Actual = (A)								
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%	1.85%
30-Year Treasury Bond	2.55%	3.20%	3.40%	3.00%	2.65%	2.60%	2.60%	2.90%
Consumer Price Index (annualized rate)	0.00%	0.00%	0.00%	0.00%	0.10%	0.00%	1.15%	1.15%
Although past indicators are not predictive of future inflation in "building" construction, minimal inflation exists for past year Sept. 2015 to Sept. 2016 of approximately 1.7%.								
Savings Rates Results RANGE as found in <a href="http://www.bankrate.com">http://www.bankrate.com</a>	0.02 to 1.11% Money Market Savings				0.15 to 1.35% 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 . . . . .	1.2%							
Est. Near Term Local Inflation Rate for Future Capital Expenditures . . . . .	1.3%				11/11/2016			

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 Liberty Isles 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) Liberty Isles 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



**GRAHAM W. CULKAR, EIT**  
**Responsible Advisor**

**CURRENT CLIENT SERVICES**

Graham W. Culkar, an Environmental Engineer, is an Advisor for Reserve Advisors. Mr. Culkar 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 Analysis and Capital Replacement Forecast services and the preparation of Reserve Study Reports of apartments, condominiums townhomes, and homeowners associations

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

**Harbor Light Waterfront Condominium Association** Built in 1974 this 10-story mid-rise condominium association is located in picturesque Clearwater, Florida on the intercostal waterway. The building contains 92 units along with a fitness room, party room and lobby. The association is also responsible for two elevators, the surrounding asphalt pavement, carports, retaining walls, and a pool.

**Tiers II Condominium Association** This condominium development located in Kingstowne, Virginia is responsible for maintaining six building exteriors and the surrounding property elements. These elements include asphalt shingle roofs, windows and doors, exterior vinyl siding, asphalt pavement, concrete flatwork and mailbox stations.

**Weston Lakes Property Owners Association** Located near Houston, Texas this community contains 1,465 single family homes spanning over 1,775 acres. In addition to the extensive concrete streets, the association maintains two playgrounds, metal fencing, a gate house, masonry perimeter walls and multiple masonry entrance monuments.

**Harbour Light Condominium Association** A 19-story high rise condominium consisting of 136 units in Clearwater Beach, Florida. Built from 1974 to 1978 this condominium association is responsible for two elevators, elevated concrete breezeways and balconies, a two story parking garage, asphalt pavement and a pool.

**Little Oak Island Community Association** Located near Charleston, South Carolina this community association is responsible for the common elements shared by two condominium associations and 35 single family homes. The community association maintains timber bulkheads along the causeway, two tennis courts, two ponds, a pool and a dock.

**Jardin Master Association** A master association located in Jacksonville Beach, Florida is responsible for the common elements shared by 22 individual condominium associations that comprise 176 total units. The community contains timber and vinyl bulkheads at the detention pond, asphalt pavement streets, concrete flatwork, chain link fencing and an irrigation system.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Mr. Culkar attended Florida Gulf Coast University in Fort Myers, Florida where he attained his Bachelor of Science degree in Environmental Engineering. During his time at Florida Gulf Coast University, Mr. Culkar participated in an internship at Algenol Biofuels where he worked with a team of engineers on the design and fabrication of photo-bioreactors and the construction of a photo-bioreactor flow system to convert algae into ethanol fuel. Mr. Culkar was also the student chapter president for the Water Environment Association at Florida Gulf Coast University.

**EDUCATION**

Florida Gulf Coast University - B.S. Environmental Engineering

**PROFESSIONAL AFFILIATIONS / DESIGNATIONS**

*Engineer In Training (E.I.T.) Registration – Florida 2014*





## 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](http://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](http://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](http://www.marshallswift.com).

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

**Reserve Advisors, 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.