

# RESERVE ANALYSIS REPORT

## Whitewing at Wiehl Estates

Gilbert, Arizona

Version 005

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### ADVANCED RESERVE SOLUTIONS

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# Whitewing at Wiehl Estates

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# Preface

This preface is intended to provide an introduction to the enclosed reserve analysis as well as detailed information regarding the reserve analysis report format, reserve fund goals/objectives and calculation methods. The following sections are included in this preface:

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## ◆ ◆ ◆ ◆ INTRODUCTION TO RESERVE BUDGETING ◆ ◆ ◆ ◆

The Board of Directors of an association has a fiduciary duty to maintain the community in a good state of repair. Individual unit property values are significantly impacted by the level of maintenance and upkeep provided by the association as well as the amount of the regular assessment charged to each owner.

A prudent plan must be implemented to address the issues of long-range maintenance, repair and replacement of the common areas. Additionally, the plan should recognize that the value of each unit is affected by the amount of the regular assessment charged to each unit.

There is a fine line between “not enough,” “just right” and “too much.” Each member of an association should contribute to the reserve fund for their proportionate amount of “depreciation” (or “use”) of the reserve components. Through time, if each owner contributes his “fair share” into the reserve fund for the depreciation of the reserve components, then the possibility of large increases in regular assessments or special assessments will be minimized.

An accurate reserve analysis and a “healthy” reserve fund are essential to protect and maintain the association's common areas and the property values of the individual unit owners. A comprehensive reserve analysis is one of the most significant elements of any association's long-range plan and provides the critical link between sound business judgment and good fiscal planning. The reserve analysis provides a “financial blueprint” for the future of an association.

## ◆ ◆ ◆ ◆ UNDERSTANDING THE RESERVE ANALYSIS ◆ ◆ ◆ ◆

In order for the reserve analysis to be useful, it must be understandable by a variety of individuals. Board members (from seasoned, experienced Board members to new Board members), property managers, accountants, attorneys and even homeowners may ultimately review the reserve analysis. The reserve analysis must be detailed enough to provide a comprehensive analysis, yet simple enough to enable less experienced individuals to understand the results.

There are four key bits of information that a comprehensive reserve analysis should provide: Budget, Percent Funded, Projections and Inventory. This information is described as follows:

### **Budget**

Amount recommended to be transferred into the reserve account for the fiscal year for which the reserve analysis was prepared. In some cases, the reserve analysis may present two or more funding plans based on different goals/objectives. The Board should have a clear understanding of the differences among these funding goals/objectives prior to implementing one of them in the annual budget.

### **Percent Funded**

Measure of the reserve fund “health” (expressed as a percentage) as of the beginning of the fiscal year for which the

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reserve analysis was prepared. This figure is the ratio of the actual reserve fund on hand to the fully funded balance. A reserve fund that is “100% funded” means the association has accumulated the proportionately correct amount of money, to date, for the reserve components it maintains.

### **Projections**

Indicate the “level of service” the association will provide the membership as well as a “road map” for the fiscal future of the association. The projections define the timetables for repairs and replacements, such as when the buildings will be painted or when the asphalt will be seal coated. The projections also show the financial plan for the association – when an underfunded association will “catch up” or how a properly funded association will remain fiscally “healthy.”

### **Inventory**

Complete listing of the reserve components. Key bits of information are available for each reserve component, including placed-in-service date, useful life, remaining life, replacement year, quantity, current cost of replacement, future cost of replacement and analyst’s comments.

## ◆ ◆ ◆ ◆ RESERVE FUNDING GOALS / OBJECTIVES ◆ ◆ ◆ ◆

There are four reserve funding goals/objectives which may be used to develop a reserve funding plan that corresponds with the risk tolerance of the association: Full Funding, Baseline Funding, Threshold Funding and Statutory Funding. These goals/objectives are described as follows:

### **Full Funding**

Describes the goal/objective to have reserves on hand equivalent to the value of the deterioration of each reserve component. The objective of this funding goal is to achieve and/or maintain a 100% percent funded reserve fund. The component calculation method or cash flow calculation method is typically used to develop a full funding plan.

### **Baseline Funding**

Describes the goal/objective to have sufficient reserves on hand to never completely run out of money. The objective of this funding goal is to simply pay for all reserve expenses as they come due without regard to the association’s percent funded. The cash flow calculation method is typically used to develop a baseline funding plan.

### **Threshold Funding**

Describes the goal/objective other than the 100% level (full funding) or just staying cash-positive (baseline funding). This threshold goal/objective may be a specific percent funded target or a cash balance target. Threshold funding is often a value chosen between full funding and baseline funding. The cash flow calculation method is typically used to develop a threshold funding plan.

### **Statutory Funding**

Describes the pursuit of an objective as described or required by local laws or codes. The component calculation method or cash flow calculation method is typically used to develop a statutory funding plan.

## ◆ ◆ ◆ ◆ RESERVE FUNDING CALCULATION METHODS ◆ ◆ ◆ ◆

There are two funding methods which can be used to develop a reserve funding plan based on a reserve funding goal/objective: Component Calculation Method and Cash Flow Calculation Method. These calculation methods are described as follows:

### **Component Calculation Method**

This calculation method develops a funding plan for each individual reserve component. The sum of the funding plan for each component equals the total funding plan for the association. This method is often referred to as the “straight line”

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method and is widely believed to be the most conservative reserve funding method. This method structures a funding plan that enables the association to pay all reserve expenditures as they come due, enables the association to achieve the ideal level of reserves in time, and then enables the association to maintain the ideal level of reserves through time. The following is a detailed description of the component calculation method:

### Step 1: Calculation of fully funded balance for each component

The fully funded balance is calculated for each component based on its age, useful life and current cost. The actual formula is as follows:

$$\text{Fully Funded Balance} = \frac{\text{Age}}{\text{Useful Life}} \times \text{Current Cost}$$

### Step 2: Distribution of current reserve funds

The association's current reserve funds are assigned to (or distributed amongst) the reserve components based on each component's remaining life and fully funded balance as follows:

Pass 1: Components are organized in remaining life order, from least to greatest, and the current reserve funds are assigned to each component up to its fully funded balance, until reserves are exhausted.

Pass 2: If all components are assigned their fully funded balance and additional funds exist, they are assigned in a "second pass." Again, the components are organized in remaining life order, from least to greatest, and the remaining current reserve funds are assigned to each component up to its current cost, until reserves are exhausted.

Pass 3: If all components are assigned their current cost and additional funds exist, they are assigned in a "third pass." Components with a remaining life of zero years are assigned double their current cost.

Distributing, or assigning, the current reserve funds in this manner is the most efficient use of the funds on hand – it defers the make-up period of any underfunded reserves over the lives of the components with the largest remaining lives.

### Step 3: Developing a funding plan

After step 2, all components have a "starting" balance. A calculation is made to determine what funding would be required to get from the starting balance to the future cost over the number of years remaining until replacement. The funding plan incorporates the annual contribution increase parameter to develop a "stair stepped" contribution.

For example, if an association needs to accumulate \$100,000 in ten years, \$10,000 could be contributed each year. Alternatively, the association could contribute \$8,723 in the first year and increase the contribution by 3% each year thereafter until the tenth year.

In most cases, this rate should match the inflation parameter. Matching the annual contribution increase parameter to the inflation parameter indicates, in theory, that member contributions should increase at the same rate as the cost of living (inflation parameter). Due to the "time value of money," this creates the most equitable distribution of member contributions through time.

Using an annual contribution increase parameter that is greater than the inflation parameter will reduce the burden to the current membership at the expense of the future membership. Using an annual contribution increase parameter that is less than the inflation parameter will increase the burden to the current membership to the benefit of the future membership. The following chart shows a comparison:

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	<u>0% Increase</u>	<u>3% Increase</u>	<u>10% Increase</u>
Year 1	\$10,000.00	\$8,723.05	\$6,274.54
Year 2	\$10,000.00	\$8,984.74	\$6,901.99
Year 3	\$10,000.00	\$9,254.28	\$7,592.19
Year 4	\$10,000.00	\$9,531.91	\$8,351.41
Year 5	\$10,000.00	\$9,817.87	\$9,186.55
Year 6	\$10,000.00	\$10,112.41	\$10,105.21
Year 7	\$10,000.00	\$10,415.78	\$11,115.73
Year 8	\$10,000.00	\$10,728.25	\$12,227.30
Year 9	\$10,000.00	\$11,050.10	\$13,450.03
Year 10	\$10,000.00	\$11,381.60	\$14,795.04
TOTAL	\$100,000.00	\$100,000.00	\$100,000.00

This parameter is used to develop a funding plan only; it does not necessarily mean that the reserve contributions must be raised each year. There are far more significant factors that will contribute to a total reserve contribution increase or decrease from year to year than this parameter.

One of the major benefits of using this calculation method is that for any single component (or group of components), the accumulated balance and reserve funding can be precisely calculated. For example, using this calculation method, the reserve analysis can indicate the exact amount of current reserve funds “in the bank” for the roofs and the amount of money being funded towards the roofs each month. This information is displayed on the Management / Accounting Summary and Charts as well as elsewhere within the report.

### **Cash Flow Calculation Method**

This calculation method develops a funding plan based on current reserve funds and projected expenditures during a specific timeframe (typically 30 years). This funding method structures a funding plan that enables the association to pay for all reserve expenditures as they come due, but is not necessarily concerned with the ideal level of reserves through time.

This calculation method tests reserve contributions against reserve expenditures through time to determine the minimum contribution necessary (baseline funding) or some other defined goal/objective (full funding, threshold funding or statutory funding). Unlike the component calculation method, this calculation method cannot precisely calculate the reserve funding for any single component (or group of components). In order to work-around this issue to provide this bookkeeping information, a formula has been applied to component method results to calculate a reasonable breakdown. This information is displayed on the Management / Accounting Summary and Charts as well as elsewhere within the report.

The **Directed Cash Flow Calculation Method** is our primary calculation method. It allows for several funding strategies to be manually tested until the optimal funding strategy accomplishing three goals is created:

Goal #1: Ensures that all scheduled reserve expenditures are covered by keeping the reserve cash balance above zero during the projected period (typically 30 years)

Goal #2: Uniformly distributes the costs of replacements over time to benefit both current & future members of the association by using consistent, incremental contribution increases

Goal #3: Provides for the lowest reserve funding recommendation as possible over time with the goal of approaching, reaching and/or maintaining a 100% fully funded reserve balance

These very important aspects of the **Directed Cash Flow Calculation Method** will greatly aid the board of directors during the annual budgeting process.

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## ◆ ◆ ◆ ◆ READING THE RESERVE ANALYSIS ◆ ◆ ◆ ◆

In some cases, the reserve analysis may be a lengthy document of one hundred pages or more. A complete and thorough review of the reserve analysis is always a good idea. However, if time is limited, it is suggested that a thorough review of the summary pages be made. If a “red flag” is raised in this review, the reader should then check the detail information, of the component in question, for all relevant information. In this section, a description of most of the summary or report sections is provided along with comments regarding what to look for and how to use each section.

### Executive Summary

Provides general information about the client, global parameters used in the calculation of the reserve analysis as well as the core results of the reserve analysis.

**Client Information**  
Provides various client information including fiscal year for which the reserve analysis was prepared, number of units, phasing, etc.

**Global Parameters**  
Displays the calculation parameters that were used to calculate the reserve analysis including inflation, annual contribution increase, investment rate, tax rate and contingency.

**Community Profile**  
Provides brief description of the community, as well as other “global” type comments.

**Budget**  
Provides recommended funding for the fiscal year for which the reserve analysis was prepared. Indicates the reserve funding from the membership, anticipated interest contribution and the total contribution

**Sample Homeowners Association**  
Executive Summary  
Component Calculation Method

Client Information:		Global Parameters:	
Account Number	00000	Inflation Rate	2.00%
Version Number	1	Annual Contribution Increase	2.00%
Analysis Date	3/18/2014	Investment Rate	1.00%
Fiscal Year	6/1/2014 to 5/31/2015	Taxes on Investment	30.00%
Number of Units	167	Contingency	3.00%
Phasing	8 of 8		

**Community Profile:**  
This community consists of 167 attached units with private roadways, pool area and extensive landscaped areas. For budgeting purposes, unless otherwise indicated, we have used June 1995 as the average placed-in-service date for aging the original components in this community.  
ARS site visits: March 1, 2014; January 2011; February 2009; April 2006; March 2005; March 2003; March 2002; April 2001 and March 2000

**Adequacy of Reserves as of June 1, 2014:**

Anticipated Reserve Balance	\$865,450.00
Fully Funded Reserve Balance	\$1,011,228.83
Percent Funded	85.58%

**Recommended Funding for the 2014-2015 Fiscal Year:**

	Annual	Monthly	Per Unit Per Month
Member Contribution	\$110,659	\$9,221.58	\$55.22
Interest Contribution	\$5,977	\$498.09	\$2.98
Total Contribution	\$116,636	\$9,719.66	\$58.20

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**Adequacy of Reserves**  
Displays the results of calculations with regard to the “health” of the reserve fund as of the beginning of the fiscal year for which the reserve analysis was prepared. Provides the anticipated reserve balance, fully funded reserve balance and the percent funded.

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## Calculation of Percent Funded

Summary displays all reserve components, shown here in “category” order. Provides the remaining life, useful life, current cost and the fully funded balance at the beginning of the fiscal year for which the reserve analysis was prepared.

### Reserve Components

All components are displayed (shown here in “category” order).

### Lifespans

Remaining life and useful life are displayed. And, these columns are conveniently sub totaled to show range.

**Sample Homeowners Association  
Calculation of Percent Funded  
Sorted by Category**

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
<b>010 Streets</b>				
Streets - Asphalt, Overlay / Major Rehab	8	27	\$101,867.50	\$71,564.91
Streets - Asphalt, Repair	0	4	\$3,621.75	\$3,621.75
Streets - Asphalt, Seal Coat	0	4	\$5,926.50	\$5,926.50
Streets - Concrete, Unfunded	n.a.	n.a.	\$0.00	\$0.00
<b>Sub Total</b>	<b>0-8</b>	<b>4-27</b>	<b>\$111,245.75</b>	<b>\$81,113.16</b>
<b>020 Roads</b>				
Roads - Tile				
<b>Sub Total</b>				
<b>030 Painting</b>				
Painting - Cabana Interior				
Painting - Red Curbs				
Painting - Stucco				
Painting - Woodwork & Trim				
Painting - Wrought Iron, Buildings				
Painting - Wrought Iron, Pool Area				
<b>Sub Total</b>				
<b>040 Fencing</b>				
Fencing - Wrought Iron, Pool Area				
Railing - Wrought Iron, Buildings				
<b>Sub Total</b>				
<b>050 Lighting</b>				
Lighting - Buildings				
Lighting - Grounds				
<b>Sub Total</b>				
<b>060 Pool Area</b>				
Cabana - Ceramic Tile				
Cabana - Doors				
Cabana - Plumbing Fixtures				
Cabana - Restroom Partitions				
Cabana - Water Heater				
Pool - Filter				
Pool - Heater				
Pool - Replaster & Tile Replace				
Pool Area - Barbecues				
<b>Sub Total</b>				

**Sample Homeowners Association  
Calculation of Percent Funded  
Sorted by Category**

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
Pool Area - Ceramic Tile	2	21	\$8,501.63	\$7,773.38
Pool Area - Concrete Deck, Unfunded	n.a.	n.a.	\$0.00	\$0.00
Pool Area - Furniture (Refurbish)	0	12	\$9,255.00	\$9,255.00
Pool Area - Furniture (Replace)	6	25	\$17,315.00	\$13,159.40
Pool Area - Mastic	0	4	\$5,131.50	\$5,131.50
Spa - Filter	0	13	\$1,350.00	\$1,350.00
Spa - Heater	0	10	\$3,050.00	\$3,050.00
Spa - Replaster & Tile Replace	3	8	\$5,250.00	\$3,126.40
<b>Sub Total</b>	<b>0-6</b>	<b>4-25</b>	<b>\$91,747.38</b>	<b>\$71,964.53</b>
<b>070 Decks</b>				
Decks - Clean & Top Coat	2	5	\$30,480.00	\$18,288.00
Decks - Resurface	2	13	\$65,227.20	\$54,720.81
<b>Sub Total</b>	<b>2</b>	<b>5-13</b>	<b>\$95,707.20</b>	<b>\$73,008.81</b>
<b>080 Misc (Buildings)</b>				
Fire Extinguisher Cabinets	2	21	\$27,625.00	\$24,994.05
Utility Closet Doors	2	21	\$73,900.00	\$69,801.90
<b>Sub Total</b>	<b>2</b>	<b>21</b>	<b>\$101,525.00</b>	<b>\$94,855.95</b>
<b>090 Misc (Grounds)</b>				
Landscape - Irrigation Controllers	0	12	\$29,000.00	\$29,000.00
Landscape - Renovation, Unfunded	n.a.	n.a.	\$0.00	\$0.00
Mailboxes	2	21	\$37,200.00	\$33,657.14
<b>Sub Total</b>	<b>0-2</b>	<b>12-21</b>	<b>\$66,200.00</b>	<b>\$62,657.14</b>
<b>100 Termite Control</b>				
Termite Control	n.a.	n.a.	\$0.00	\$100,000.00
<b>Sub Total</b>	<b>n.a.</b>	<b>n.a.</b>	<b>\$0.00</b>	<b>\$100,000.00</b>
Contingency	n.a.	n.a.	n.a.	\$29,453.27
<b>Total</b>	<b>0-11</b>	<b>2-30</b>	<b>\$1,091,533.70</b>	<b>\$1,011,228.83</b>
<b>Anticipated Reserve Balance</b>				<b>\$865,456.00</b>
<b>Percent Funded</b>				<b>85.58%</b>

### Current Cost

Displays the current cost to replace or otherwise maintain each component. This column is conveniently sub totaled.

### Fully Funded Balance

Displays the fully funded balance for each component. This column is conveniently sub totaled.

The total current cost to replace or otherwise maintain all components, total fully funded balance, anticipated reserve balance and percent funded are provided at the bottom of this summary. Also shown is the range of reserve component remaining lives and useful lives.



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## Management / Accounting Summary and Charts

Summary displays all reserve components, shown here in “category” order. Provides the assigned reserve funds at the beginning of the fiscal year for which the reserve analysis was prepared along with the monthly member contribution, interest contribution and total contribution for each component and category. Pie charts show graphically how the total reserve fund is distributed amongst the reserve component categories and how each category is funded on a monthly basis.

**Balance at FYB**  
Shows the amount of reserve funds assigned to each reserve component. And, this column is conveniently sub totaled.

**Sample Homeowners Association**  
Management / Accounting Summary  
Component Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
<b>010 Streets</b>				
Streets - Asphalt, Overlay / Major Rehab	\$17,837.90	\$949.09	\$13.37	\$963.07
Streets - Asphalt, Repair	\$3,821.75	\$78.20	\$0.25	\$78.45
Streets - Asphalt, Seal Coat	\$5,928.50	\$127.96	\$0.41	\$128.37
Streets - Concrete, Unfunded	\$0.00	\$0.00	\$0.00	\$0.00
<b>Sub Total</b>	<b>\$27,588.15</b>	<b>\$1,155.84</b>	<b>\$14.04</b>	<b>\$1,169.88</b>
<b>020 Roofs</b>				
Roofs - Tile				
<b>Sub Total</b>				
<b>030 Painting</b>				
Painting - Cabana Interior				
Painting - Red Curbs				
Painting - Stucco				
Painting - Woodwork & Trim				
Painting - Wrought Iron, Buildings				
Painting - Wrought Iron, Pool Area				
<b>Sub Total</b>				
<b>040 Fencing</b>				
Fencing - Wrought Iron, Pool Area				
Railing - Wrought Iron, Buildings				
<b>Sub Total</b>				
<b>050 Lighting</b>				
Lighting - Buildings				
Lighting - Grounds				
<b>Sub Total</b>				
<b>060 Pool Area</b>				
Cabana - Ceramic Tile				
Cabana - Doors				
Cabana - Plumbing Fixtures				
Cabana - Restroom Partitions				
Cabana - Water Heater				
Pool - Filter				
<b>Sub Total</b>				
<b>070 Decks</b>				
Decks - Clean & Top Coat	\$18,288.00	\$539.52	\$12.44	\$551.96
Decks - Resurfacing	\$94,720.81	\$906.93	\$33.65	\$940.58
<b>Sub Total</b>	<b>\$113,008.81</b>	<b>\$1,446.45</b>	<b>\$46.09</b>	<b>\$1,492.54</b>
<b>080 Misc (Buildings)</b>				
Fire Extinguisher Cabinets	\$24,994.05	\$139.11	\$15.07	\$154.19
Utility Closet Doors	\$95,881.90	\$372.15	\$40.32	\$412.47
<b>Sub Total</b>	<b>\$120,875.95</b>	<b>\$511.26</b>	<b>\$55.40</b>	<b>\$566.66</b>
<b>090 Misc (Grounds)</b>				
Landscape - Irrigation Controllers	\$20,000.00	\$219.48	\$0.71	\$220.19
Landscape - Renovation, Unfunded	\$0.00	\$0.00	\$0.00	\$0.00
Mailboxes	\$33,657.14	\$187.33	\$20.30	\$207.63
<b>Sub Total</b>	<b>\$53,657.14</b>	<b>\$406.82</b>	<b>\$21.00</b>	<b>\$427.82</b>
<b>100 Termite Control</b>				
Termite Control	\$100,000.00	\$0.00	\$58.52	\$58.52
<b>Sub Total</b>	<b>\$100,000.00</b>	<b>\$0.00</b>	<b>\$58.52</b>	<b>\$58.52</b>
Contingency	\$25,207.28	\$268.59	\$15.61	\$284.20
<b>Total</b>	<b>\$865,450.00</b>	<b>\$9,221.58</b>	<b>\$498.09</b>	<b>\$9,719.66</b>

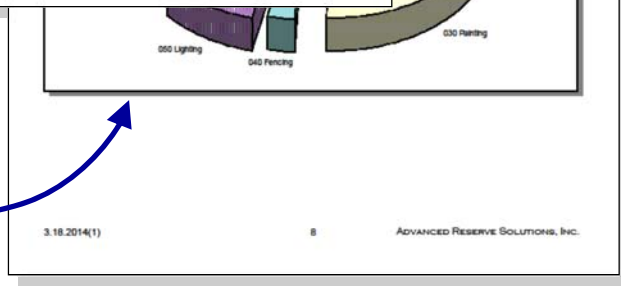
**Monthly Funding**  
Displays the monthly funding for each component from the members and interest. Total monthly funding is also indicated. And, these columns are conveniently sub totaled.

**Sample Homeowners Association**  
Management / Accounting Summary  
Component Calculation Method; Sorted by Category

	Balance at Fiscal Year Beginning	Monthly Member Contribution	Monthly Interest Contribution	Total Monthly Contribution
Pool - Heater	\$3,250.00	\$24.00	\$0.08	\$24.08
Pool - Replaster & Tile Replace	\$7,070.58	\$146.76	\$4.61	\$151.37
Pool Area - Barbecues	\$1,010.00	\$26.98	\$0.69	\$30.67
Pool Area - Ceramic Tile	\$7,773.38	\$43.27	\$4.69	\$47.96
Pool Area - Concrete Deck, Unfunded	\$0.00	\$0.00	\$0.00	\$0.00
Pool Area - Furniture (Refurbish)	\$9,255.00	\$70.05	\$0.23	\$70.27
Pool Area - Furniture (Replace)	\$13,159.40	\$74.78	\$7.94	\$82.70
Pool Area - Mastic	\$5,131.50	\$110.79	\$0.36	\$111.15
Spa - Filter	\$1,350.00	\$12.11	\$0.04	\$12.15
Spa - Heater	\$2,200.00	\$27.36	\$0.09	\$27.44
Spa - Replaster & Tile Replace	\$3,128.40	\$54.12	\$2.04	\$56.15
<b>Sub Total</b>	<b>\$71,964.53</b>	<b>\$716.19</b>	<b>\$30.10</b>	<b>\$746.28</b>
<b>070 Decks</b>				
Decks - Clean & Top Coat	\$18,288.00	\$539.52	\$12.44	\$551.96
Decks - Resurfacing	\$94,720.81	\$906.93	\$33.65	\$940.58
<b>Sub Total</b>	<b>\$113,008.81</b>	<b>\$1,446.45</b>	<b>\$46.09</b>	<b>\$1,492.54</b>
<b>080 Misc (Buildings)</b>				
Fire Extinguisher Cabinets	\$24,994.05	\$139.11	\$15.07	\$154.19
Utility Closet Doors	\$95,881.90	\$372.15	\$40.32	\$412.47
<b>Sub Total</b>	<b>\$120,875.95</b>	<b>\$511.26</b>	<b>\$55.40</b>	<b>\$566.66</b>
<b>090 Misc (Grounds)</b>				
Landscape - Irrigation Controllers	\$20,000.00	\$219.48	\$0.71	\$220.19
Landscape - Renovation, Unfunded	\$0.00	\$0.00	\$0.00	\$0.00
Mailboxes	\$33,657.14	\$187.33	\$20.30	\$207.63
<b>Sub Total</b>	<b>\$53,657.14</b>	<b>\$406.82</b>	<b>\$21.00</b>	<b>\$427.82</b>
<b>100 Termite Control</b>				
Termite Control	\$100,000.00	\$0.00	\$58.52	\$58.52
<b>Sub Total</b>	<b>\$100,000.00</b>	<b>\$0.00</b>	<b>\$58.52</b>	<b>\$58.52</b>
Contingency	\$25,207.28	\$268.59	\$15.61	\$284.20
<b>Total</b>	<b>\$865,450.00</b>	<b>\$9,221.58</b>	<b>\$498.09</b>	<b>\$9,719.66</b>



**Pie Charts**  
Show graphically how the reserve fund is distributed amongst the reserve components and how the components are funded.



# Preface

## Projections and Charts

Summary displays projections of beginning reserve balance, member contribution, interest contribution, expenditures and ending reserve balance for each year of the projection period (shown here for 30 years). The two columns on the right-hand side provide the fully funded ending balance and the percent funded for each year. Charts show the same information in an easy-to-understand graphic format.

**Sample Homeowners Association  
Projections  
Component Calculation Method**

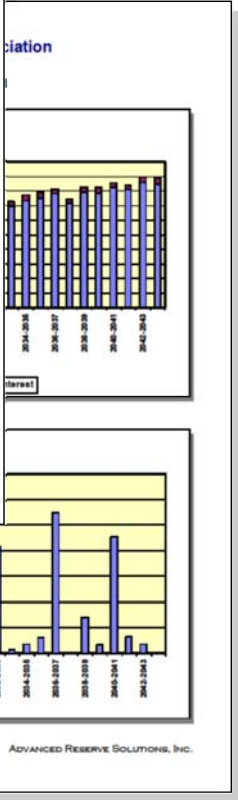
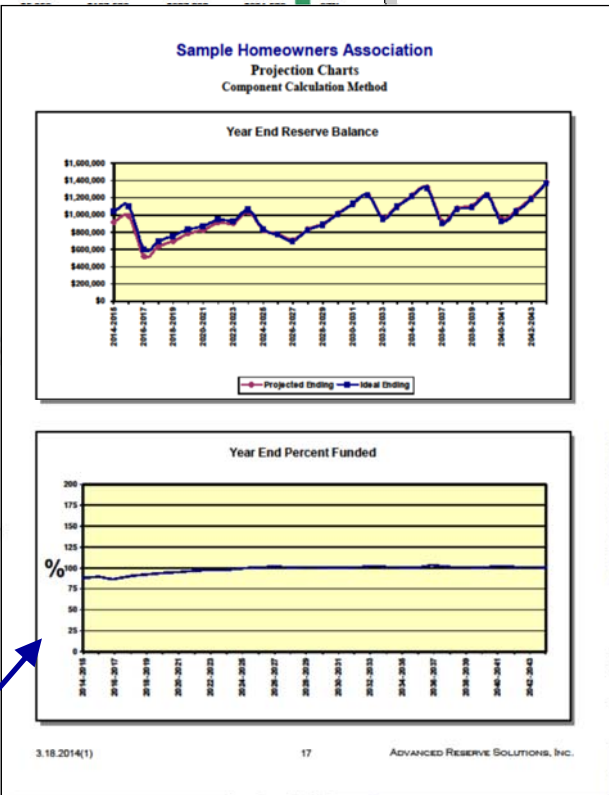
Fiscal Year	Beginning Balance	Member Contribution	Interest Contribution	Expenditures	Ending Balance	Fully Funded Ending Balance	Percent Funded
2014-2015	\$865,450	\$110,659	\$5,977	\$54,980	\$917,106	\$1,046,139	88%
2015-2016	\$917,106	\$111,857	\$6,482	\$45,317	\$990,127	\$1,104,098	90%
2016-2017	\$990,127	\$116,806	\$3,175	\$591,549	\$518,559	\$598,939	87%
2017-2018	\$518,559	\$115,807	\$3,900	\$7,715	\$630,610	\$698,915	90%
2018-2019	\$630,610	\$116,508	\$4,431	\$52,973	\$698,577	\$755,512	92%
2019-2020	\$698,577	\$116,723	\$5,037	\$34,701	\$785,578	\$834,243	94%
2020-2021	\$785,578	\$118,645	\$5,331	\$80,731	\$828,821	\$896,179	92%
2021-2022	\$828,821	\$121,028	\$5,925	\$40,530	\$915,241	\$949,147	96%
2022-2023	\$915,241	\$123,506					
2023-2024	\$907,080	\$125,898					
2024-2025	\$1,037,322	\$126,436					
2025-2026	\$825,894	\$127,755					
2026-2027	\$780,089	\$125,648					
2027-2028	\$713,358	\$119,373					
2028-2029	\$631,867	\$131,699					
2029-2030	\$696,194	\$131,038					
2030-2031	\$1,013,798	\$137,575					
2031-2032	\$1,130,018	\$141,510					
2032-2033	\$1,237,543	\$143,162					
2033-2034	\$973,366	\$138,561					
2034-2035	\$1,104,489	\$147,134					
2035-2036	\$1,222,996	\$149,242					
2036-2037	\$1,317,743	\$150,808					
2037-2038	\$926,826	\$142,178					
2038-2039	\$1,078,902	\$157,813					
2039-2040	\$1,102,377	\$157,111					
2040-2041	\$1,234,862	\$165,390					
2041-2042	\$952,363	\$161,588					
2042-2043	\$1,056,301	\$171,747					
2043-2044	\$1,200,105	\$169,299					

NOTE: In some cases, the projected Ending Balance Expenditures. This is a result of the provision of contingency is continually adjusted according to

3.18.2014(1)

Improved format makes the numbers as easy to read and understand as possible. The color-coded bar indicates the reserve fund status:

Green: Good  
Yellow: Fair  
Red: Poor



**Charts**  
Show graphically the reserve funding plan through time.

# Preface

## Component Detail

Summary provides detailed information about each reserve component. These pages display all information about each reserve component as well as comments from site observations and historical information regarding replacement or other maintenance.

### Lifespan Information

Displays placed-in-service date, useful life, remaining life and replacement year.

### Cost Information

Displays quantity, unit cost, percentage of replacement, current cost and future cost.

### Calculation Results

Displays assigned reserves and funding requirements.

**Streets - Asphalt, Seal Coat**

Category	010 Streets	Quantity	65,850 sq. ft.
Photo Date	January 2011	Unit Cost	\$0.090
		% of Replacement	100.00%
		Current Cost	\$5,926.50
		Future Cost	\$6,415.03
Placed In Service	11/09	Assigned Reserves at FYB	\$5,926.50
Useful Life	4	Monthly Member Contribution	\$127.96
Remaining Life	0	Monthly Interest Contribution	\$0.41
Replacement Year	2014-2015	Total Monthly Contribution	\$128.37

**Painting - Woodwork & Trim**

Category	030 Painting	Quantity	31,575 sq. ft.
Photo Date	January 2011	Unit Cost	\$0.620
		% of Replacement	100.00%
		Current Cost	\$20,949.00
		Future Cost	\$30,222.58
Placed In Service	06/12	Assigned Reserves at FYB	\$14,524.50
Useful Life	4	Monthly Member Contribution	\$634.91
Remaining Life	2	Monthly Interest Contribution	\$10.54
Replacement Year	2016-2017	Total Monthly Contribution	\$645.45

**Pool - Replaster & Tile Replace**

Category	060 Pool Area	Quantity	1 pool
Photo Date	January 2011	Unit Cost	\$15,075.000
		% of Replacement	100.00%
		Current Cost	\$15,075.00
		Future Cost	\$16,644.02
Placed In Service	01/10	Assigned Reserves at FYB	\$7,070.58
Useful Life	10	Monthly Member Contribution	\$146.70
Remaining Life	5	Monthly Interest Contribution	\$4.61
Replacement Year	2019-2020	Total Monthly Contribution	\$151.37

**Comments**

The association seal coated and restriped the streets for a total cost of \$5,926.50. The association repaired, seal coated and restriped the streets for a total cost of \$5,926.50. The association seal coated and restriped the streets for a total cost of \$5,926.50.

The current cost used for this component is adjusted for inflation where applicable.

Asphalt surfaces should be seal coated on a regular basis.

3.18.2014(1)

The association painted the woodwork and trim for a total cost of \$20,949.00. The association painted the woodwork and trim for a total cost of \$20,949.00.

The current cost used for this component is adjusted for inflation where applicable.

For budgeting purposes, we have used the current cost.

The inventory for this component has been reviewed and we believe this inventory is accurate.

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The pool and spa were replastered in March 2000 for a total cost of approximately \$6,700. The association washed the pool in June 2002 for a total cost of \$675. The association replastered the pool and spa (including replacement of the mastic directly adjacent to the pool and spa) in January 2010 for a total cost of \$15,000.

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### Comments

Useful information from site observations and historical expenses included here.

### Photos

Optional inclusion of photos adds an additional layer of detail to the reserve analysis.

# Preface

## ◆ ◆ ◆ ◆ GLOSSARY OF KEY TERMS ◆ ◆ ◆ ◆

### **Annual Contribution Increase Parameter**

The rate used in the calculation of the funding plan. This rate is used on an annual compounding basis. This rate represents, in theory, the rate the association expects to increase contributions each year.

In most cases, this rate should match the inflation parameter. Matching the annual contribution increase parameter to the inflation parameter indicates, in theory, that member contributions should increase at the same rate as the cost of living (inflation parameter). Due to the “time value of money,” this creates the most equitable distribution of member contributions through time.

This parameter is used to develop a funding plan only; it does not necessarily mean that the reserve contributions must be raised each year. There are far more significant factors that will contribute to a total reserve contribution increase or decrease from year to year than this parameter. See the description of “reserve funding calculation methods” in this preface for more detail on this parameter.

### **Anticipated Reserve Balance (or Reserve Funds)**

The amount of money, as of a certain point in time, held by the association to be used for the repair or replacement of reserve components. This figure is “anticipated” because it is calculated based on the most current financial information available as of the analysis date, which is almost always prior to the fiscal year beginning date for which the reserve analysis is prepared.

### **Assigned Funds (and “Fixed” Assigned Funds)**

The amount of money, as of the fiscal year beginning date for which the reserve analysis is prepared, that a reserve component has been assigned.

The assigned funds are considered “fixed” when the normal calculation process is bypassed and a specific amount of money is assigned to a reserve component. For example, if the normal calculation process assigns \$10,000 to the roofs, but the association would like to show \$20,000 assigned to roofs, “fixed” funds of \$20,000 can be assigned.

### **Cash Flow Calculation Method**

Reserve funding calculation method developed based on total annual expenditures. A more detailed description of the actual calculation process is included in the “reserve funding calculation methods” section of the preface.

### **Component Calculation Method**

Reserve funding calculation method developed based on each individual component. A more detailed description of the actual calculation process is included in the “reserve funding calculation methods” section of the preface.

### **Contingency Parameter**

The rate used as a built-in buffer in the calculation of the funding plan. This rate will assign a percentage of the reserve funds, as of the fiscal year beginning, as contingency funds and will also determine the level of funding toward the contingency each month.

### **Current Replacement Cost**

The amount of money, as of the fiscal year beginning date for which the reserve analysis is prepared, that a reserve component is expected to cost to replace.

### **Fiscal Year**

Indicates the budget year for the association for which the reserve analysis was prepared. The fiscal year beginning (FYB) is the first day of the budget year; the fiscal year end (FYE) is the last day of the budget year.

### **Fully Funded Reserve Balance (or Ideal Reserves)**

The amount of money that should theoretically have accumulated in the reserve fund as of a certain point in time. Fully funded reserves are calculated for each reserve component based on the current replacement cost, age and useful life:

## Preface

$$\text{Fully Funded Reserves} = \frac{\text{Age}}{\text{Useful Life}} \times \text{Current Replacement Cost}$$

The fully funded reserve balance is the sum of the fully funded reserves for each reserve component.

An association that has accumulated the fully funded reserve balance does not have all of the funds necessary to replace all of its reserve components immediately; it has the proportionately appropriate reserve funds for the reserve components it maintains, based on each component's current replacement cost, age and useful life.

### **Future Replacement Cost**

The amount of money, as of the fiscal year during which replacement of a reserve component is scheduled, that a reserve component is expected to cost to replace. This cost is calculated using the current replacement cost compounded annually by the inflation parameter.

### **Global Parameters**

The financial parameters used to calculate the reserve analysis. See also "inflation parameter," "annual contribution increase parameter," "investment rate parameter" and "taxes on investments parameter."

### **Inflation Parameter**

The rate used in the calculation of future costs for reserve components. This rate is used on an annual compounding basis. This rate represents the rate the association expects the cost of goods and services relating to their reserve components to increase each year.

### **Interest Contribution**

The amount of money contributed to the reserve fund by the interest earned on the reserve fund and member contributions.

### **Investment Rate Parameter**

The gross rate used in the calculation of interest contribution (interest earned) from the reserve balance and member contributions. This rate (net of the taxes on investments parameter) is used on a monthly compounding basis. This parameter represents the weighted average interest rate the association expects to earn on their reserve fund investments.

### **Membership Contribution**

The amount of money contributed to the reserve fund by the association's membership.

### **Monthly Contribution (and "Fixed" Monthly Contribution)**

The amount of money, for the fiscal year which the reserve analysis is prepared, that a reserve component will be funded.

The monthly contribution is considered "fixed" when the normal calculation process is bypassed and a specific amount of money is funded to a reserve component. For example, if the normal calculation process funds \$1,000 to the roofs each month, but the association would like to show \$500 funded to roofs each month, a "fixed" contribution of \$500 can be assigned.

### **Number of Units (or other assessment basis)**

Indicates the number of units for which the reserve analysis was prepared. In "phased" developments (see phasing), this number represents the number of units, and corresponding common area components, that existed as of a certain point in time.

For some associations, assessments and reserve contributions are based on a unit of measure other than the number of units. Examples include time-interval weeks for timeshare resorts or lot acreage for commercial/industrial developments.

## Preface

### **One-Time Replacement**

Used for components that will be budgeted for only once.

### **Percent Funded**

A measure, expressed as a percentage, of the association's reserve fund "health" as of a certain point in time. This number is the ratio of the anticipated reserve fund balance to the fully funded reserve balance:

$$\text{Percent Funded} = \frac{\text{Anticipated Reserve Fund Balance}}{\text{Fully Funded Reserve Balance}}$$

An association that is 100% funded does not have all of the reserve funds necessary to replace all of its reserve components immediately; it has the proportionately appropriate reserve funds for the reserve components it maintains, based on each component's current replacement cost, age and useful life.

### **Percentage of Replacement**

The percentage of the reserve component that is expected to be replaced.

For most reserve components, this percentage should be 100%. In some cases, this percentage may be more or less than 100%. For example, fencing which is shared with a neighboring community may be set at 50%.

### **Phasing**

Indicates the number of phases for which the reserve analysis was prepared and the total number of phases expected at build-out (i.e. Phase 4 of 7). In phased developments, the first number represents the number of phases, and corresponding common area components, that existed as of a certain point in time. The second number represents the number of phases that are expected to exist at build-out.

### **Placed-In-Service Date**

The date (month and year) that the reserve component was originally put into service or last replaced.

### **Remaining Life**

The length of time, in years, until a reserve component is scheduled to be replaced.

### **Remaining Life Adjustment**

The length of time, in years, that a reserve component is expected to last in excess (or deficiency) of its useful life for the current cycle of replacement.

If the current cycle of replacement for a reserve component is expected to be greater than or less than the "normal" life expectancy, the reserve component's life should be adjusted using a remaining life adjustment.

For example, if wood trim is painted normally on a 4 year cycle, the useful life should be 4 years. However, when it comes time to paint the wood trim and it is determined that it can be deferred for an additional year, the useful life should remain at 4 years and a remaining life adjustment of +1 year should be used.

### **Replacement Year**

The fiscal year that a reserve component is scheduled to be replaced.

### **Reserve Components**

Line items included in the reserve analysis.

### **Taxes on Investments Parameter**

The rate used to offset the investment rate parameter in the calculation of the interest contribution. This parameter represents the marginal tax rate the association expects to pay on interest earned by the reserve funds and member contributions.

## Preface

### Total Contribution

The sum of the membership contribution and interest contribution.

### Useful Life

The length of time, in years, that a reserve component is expected to last each time it is replaced. See also “remaining life adjustment.”

## ◆ ◆ ◆ ◆ LIMITATIONS OF RESERVE ANALYSIS ◆ ◆ ◆ ◆

This reserve analysis is intended as a tool for the association’s Board of Directors to be used in evaluating the association’s current physical and financial condition with regard to reserve components. The results of this reserve analysis represent the independent opinion of the preparer. There is no implied warranty or guarantee of this work product.

For the purposes of this reserve analysis, it has been assumed that all components have been installed properly, no construction defects exist and all components are operational. Additionally, it has been assumed that all components will be maintained properly in the future.

The representations set forth in this reserve analysis are based on the best information and estimates of the preparer as of the date of this analysis. These estimates are subject to change. This reserve analysis includes estimates of replacement costs and life expectancies as well as assumptions regarding future events. Some estimates are projections of future events based on information currently available and are not necessarily indicative of the actual future outcome. The longer the time period between the estimate and the estimated event, the more likely the possibility of error and/or discrepancy. For example, some assumptions inevitably will not materialize and unanticipated events and circumstances may occur subsequent to the preparation of this reserve analysis. Therefore, the actual replacement costs and remaining lives may vary from this reserve analysis and the variation may be significant. Additionally, inflation and other economic events may impact this reserve analysis, particularly over an extended period of time and those events could have a significant and negative impact on the accuracy of this reserve analysis and, further, the funds available to meet the association’s obligation for repair, replacement or other maintenance of major components during their estimated useful life. Furthermore, the occurrence of vandalism, severe weather conditions, earthquakes, floods, acts of nature or other unforeseen events cannot be predicted and/or accounted for and are excluded when assessing life expectancy, repair and/or replacement costs of the components.



# Whitewing at Wiehl Estates

## Executive Summary

### Directed Cash Flow Calculation Method

#### Client Information:

Account Number	1334
Version Number	005
Analysis Date	06/06/2018
Fiscal Year	1/1/2019 to 12/31/2019
Number of Lots	62
Phasing	1 of 1

#### Global Parameters:

Inflation Rate	2.60 %
Annual Contribution Increase	2.00 %
Investment Rate	0.20 %
Taxes on Investments	0.00 %
Contingency	0.00 %

#### Community Profile:

This community was built in 1999. Refer to the Component Detail section of this report for the dates used to age each reserve component. The projected reserve balance calculation follows:

Reserve Balance as of 3/31/2018: \$122,278  
Remaining 2018 Contribution to Reserves: \$16,937 (\$1,881.87/month x 9 months remaining)  
Transfer from Operating to Reserves: \$50,000  
Projected 1/1/2019 Reserve Balance: \$189,215

Completed Reports: RDA (1999, 2001, 2003, 2008) ARS (5/2018 - updated with site visit)

#### Adequacy of Reserves as of January 1, 2019:

Anticipated Reserve Balance	\$189,215.00
Fully Funded Reserve Balance	\$227,032.09
Percent Funded	83.34%

Recommended Funding for the 2019 Fiscal Year:	Annual	Monthly	Per Lot
			Per Month
Member Contribution	\$33,250	\$2,770.83	\$44.69
Interest Contribution	\$409	\$34.11	\$0.55
Total Contribution	\$33,659	\$2,804.94	\$45.24



**Whitewing at Wiehl Estates**  
**Distribution of Current Reserve Funds**  
**Sorted by Remaining Life**

	<b>Remaining Life</b>	<b>Fully Funded Balance</b>	<b>Assigned Reserves</b>
Drywells - Repair & Clean Out	2	\$4,285.71	\$4,285.71
Asphalt - Crack Seal & Seal Coat	3	\$6,410.00	\$6,410.00
Gate Operators	3	\$12,500.00	\$12,500.00
Paint - Wrought Iron Components	3	\$234.04	\$234.04
Access Phone	4	\$3,094.34	\$3,094.34
Walls - Common Areas (Repair)	5	\$11,476.80	\$11,476.80
Asphalt - Overlay	7	\$172,740.74	\$147,969.34
Asphalt - Repairs	7	\$1,590.00	\$1,590.00
Paint - Common Area Walls	7	\$1,654.77	\$1,654.77
Granite Replenishment	8	\$2,944.74	\$0.00
Irrigation Controllers	11	\$1,066.67	\$0.00
Entrance Gates (Cullumber)	15	\$5,285.71	\$0.00
Entrance Gates (Vaughn)	15	\$3,748.57	\$0.00
Concrete Components (Unfunded)	n.a.	\$0.00	\$0.00
Irrigation Pump System (Unfunded)	n.a.	\$0.00	\$0.00
Irrigation System (Unfunded)	n.a.	\$0.00	\$0.00
Lighting (Unfunded)	n.a.	\$0.00	\$0.00
Monument Sign (Unfunded)	n.a.	\$0.00	\$0.00
Tree Trimming (Unfunded)	n.a.	\$0.00	\$0.00
Contingency	n.a.	\$0.00	\$0.00
<b>Total</b>	<b>2-15</b>	<b>\$227,032.09</b>	<b>\$189,215.00</b>
<b>Percent Funded</b>			<b>83.34%</b>

# Whitewing at Wiehl Estates

## Calculation of Percent Funded

Sorted by Category

	Remaining Life	Useful Life	Current Cost	Fully Funded Balance
<b><u>010 Streets</u></b>				
Asphalt - Crack Seal & Seal Coat	3	4	\$25,640.00	\$6,410.00
Asphalt - Overlay	7	27	\$233,200.00	\$172,740.74
Asphalt - Repairs	7	8	\$12,720.00	\$1,590.00
<b>Sub Total</b>	<b>3-7</b>	<b>4-27</b>	<b>\$271,560.00</b>	<b>\$180,740.74</b>
<b><u>030 Painting</u></b>				
Paint - Common Area Walls	7	8	\$14,291.17	\$1,654.77
Paint - Wrought Iron Components	3	4	\$1,000.00	\$234.04
<b>Sub Total</b>	<b>3-7</b>	<b>4-8</b>	<b>\$15,291.17</b>	<b>\$1,888.81</b>
<b><u>040 Fencing/Walls</u></b>				
Entrance Gates (Cullumber)	15	35	\$9,250.00	\$5,285.71
Entrance Gates (Vaughn)	15	35	\$6,560.00	\$3,748.57
Walls - Common Areas (Repair)	5	25	\$14,346.00	\$11,476.80
<b>Sub Total</b>	<b>5-15</b>	<b>25-35</b>	<b>\$30,156.00</b>	<b>\$20,511.09</b>
<b><u>050 Lighting</u></b>				
Lighting (Unfunded)	n.a.	n.a.	\$0.00	\$0.00
<b>Sub Total</b>	<b>n.a.</b>	<b>n.a.</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b><u>080 Security</u></b>				
Access Phone	4	18	\$4,000.00	\$3,094.34
Gate Operators	3	18	\$15,000.00	\$12,500.00
<b>Sub Total</b>	<b>3-4</b>	<b>18</b>	<b>\$19,000.00</b>	<b>\$15,594.34</b>
<b><u>100 Grounds</u></b>				
Concrete Components (Unfunded)	n.a.	n.a.	\$0.00	\$0.00
Drywells - Repair & Clean Out	2	7	\$6,000.00	\$4,285.71
Granite Replenishment	8	10	\$18,650.00	\$2,944.74
Irrigation Controllers	11	15	\$4,000.00	\$1,066.67
Irrigation Pump System (Unfunded)	n.a.	n.a.	\$0.00	\$0.00
Irrigation System (Unfunded)	n.a.	n.a.	\$0.00	\$0.00
Monument Sign (Unfunded)	n.a.	n.a.	\$0.00	\$0.00
Tree Trimming (Unfunded)	n.a.	n.a.	\$0.00	\$0.00
<b>Sub Total</b>	<b>2-11</b>	<b>7-15</b>	<b>\$28,650.00</b>	<b>\$8,297.12</b>

# Whitewing at Wiehl Estates

## Calculation of Percent Funded

Sorted by Category

	<b>Remaining Life</b>	<b>Useful Life</b>	<b>Current Cost</b>	<b>Fully Funded Balance</b>
Contingency	n.a.	n.a.	n.a.	\$0.00
<b>Total</b>	<b>2-15</b>	<b>4-35</b>	<b>\$364,657.17</b>	<b>\$227,032.09</b>
<b>Anticipated Reserve Balance</b>				<b>\$189,215.00</b>
<b>Percent Funded</b>				<b>83.34%</b>

# Whitewing at Wiehl Estates

## Projections

### Directed Cash Flow Calculation Method

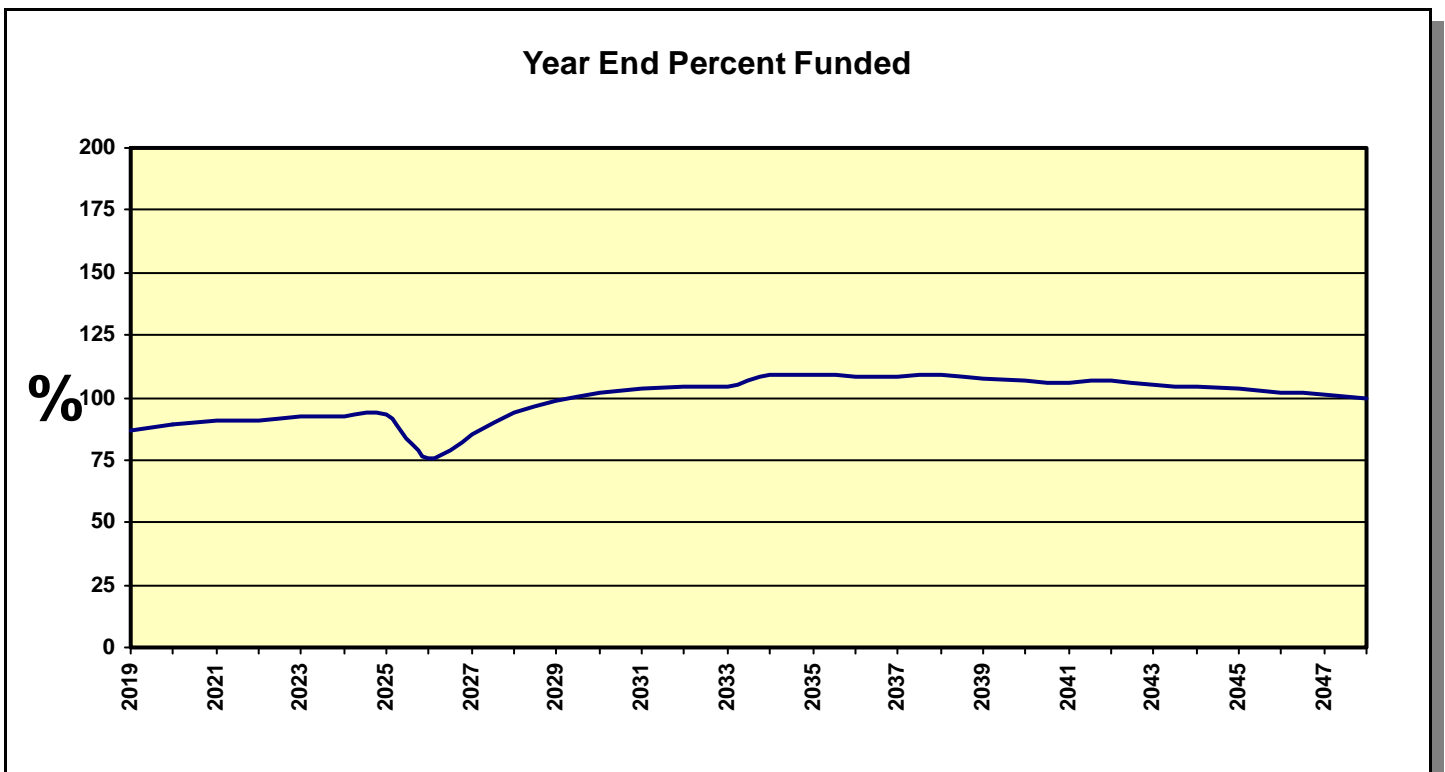
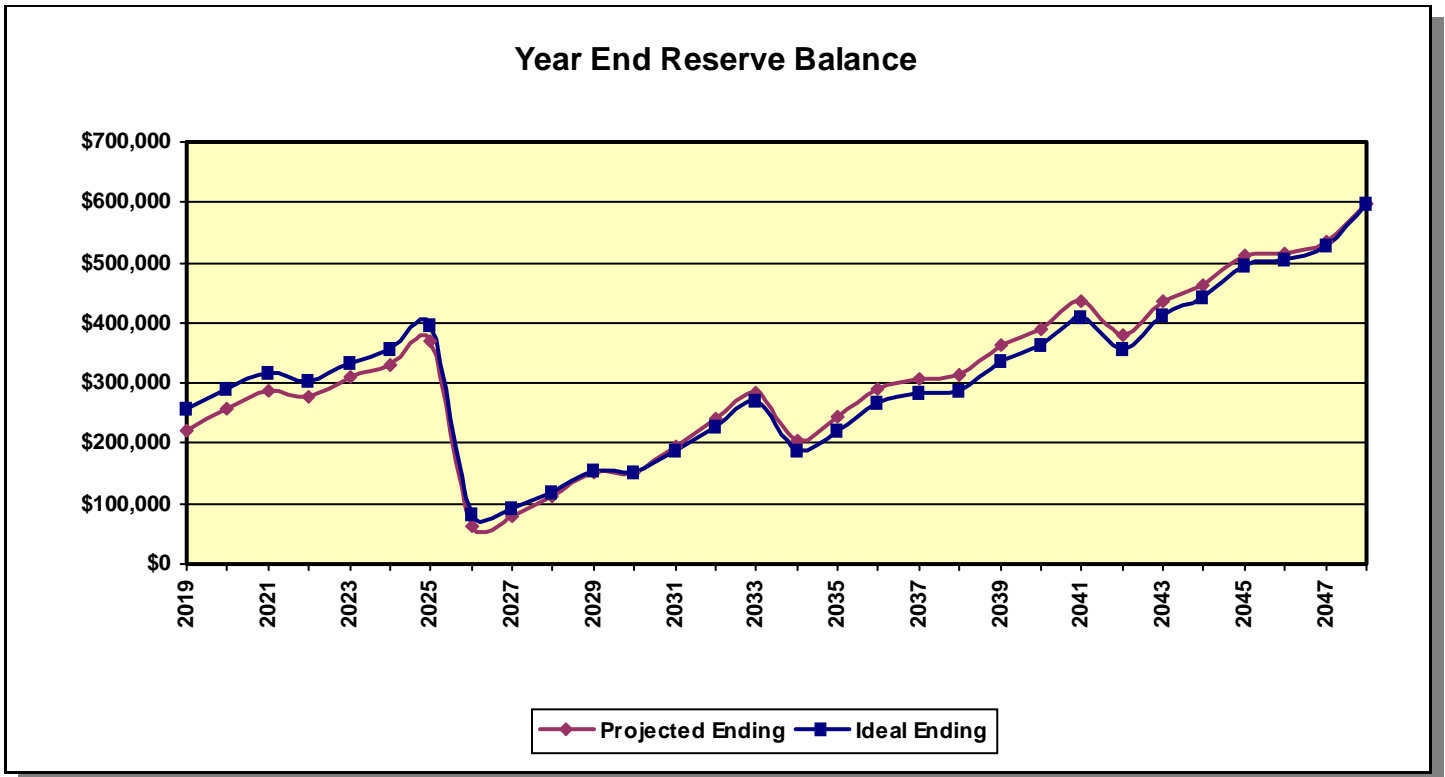
Fiscal Year	Beginning Balance	Member Contribution	Interest Contribution	Expenditures	Ending Balance	Fully Funded Ending Balance	Percent Funded
2019	\$189,215	\$33,250	\$409	\$0	\$222,874	\$257,425	87%
2020	\$222,874	\$33,915	\$477	\$0	\$257,267	\$289,246	89%
2021	\$257,267	\$34,593	\$534	\$6,316	\$286,078	\$316,066	91%
2022	\$286,078	\$35,285	\$515	\$44,973	\$276,905	\$304,586	91%
2023	\$276,905	\$35,991	\$578	\$4,433	\$309,042	\$335,086	92%
2024	\$309,042	\$36,711	\$620	\$16,311	\$330,062	\$355,900	93%
2025	\$330,062	\$37,445	\$695	\$0	\$368,202	\$394,741	93%
2026	\$368,202	\$38,194	\$85	\$343,311	\$63,169	\$83,100	76%
2027	\$63,169	\$38,958	\$116	\$22,901	\$79,342	\$92,762	86%
2028	\$79,342	\$39,737	\$180	\$7,559	\$111,699	\$119,222	94%
2029	\$111,699	\$40,532	\$261	\$0	\$152,492	\$154,952	98%
2030	\$152,492	\$41,342	\$262	\$40,636	\$153,460	\$150,768	102%
2031	\$153,460	\$42,169	\$346	\$0	\$195,975	\$189,037	104%
2032	\$195,975	\$43,012	\$432	\$0	\$239,419	\$229,195	104%
2033	\$239,419	\$43,873	\$520	\$0	\$283,811	\$271,313	105%
2034	\$283,811	\$44,750	\$363	\$123,166	\$205,758	\$189,098	109%
2035	\$205,758	\$45,645	\$436	\$9,047	\$242,791	\$222,796	109%
2036	\$242,791	\$46,558	\$529	\$0	\$289,878	\$267,643	108%
2037	\$289,878	\$47,489	\$565	\$29,603	\$308,329	\$284,298	108%
2038	\$308,329	\$48,439	\$575	\$43,384	\$313,959	\$288,288	109%
2039	\$313,959	\$49,408	\$674	\$0	\$364,040	\$337,963	108%
2040	\$364,040	\$50,396	\$723	\$25,715	\$389,445	\$363,643	107%
2041	\$389,445	\$51,404	\$813	\$7,036	\$434,626	\$410,280	106%
2042	\$434,626	\$52,432	\$703	\$107,649	\$380,111	\$356,056	107%
2043	\$380,111	\$53,481	\$810	\$0	\$434,402	\$412,054	105%
2044	\$434,402	\$54,550	\$865	\$27,253	\$462,564	\$442,761	104%
2045	\$462,564	\$55,641	\$961	\$7,796	\$511,370	\$495,476	103%
2046	\$511,370	\$56,754	\$969	\$53,274	\$515,820	\$504,182	102%
2047	\$515,820	\$57,889	\$1,009	\$38,265	\$536,453	\$529,824	101%
2048	\$536,453	\$59,047	\$1,128	\$0	\$596,627	\$596,741	100%

NOTE: In some cases, the projected Ending Balance may exceed the Fully Funded Ending Balance in years following high Expenditures. This is a result of the provision for contingency in this analysis, which in these projections is never expended. The contingency is continually adjusted according to need and any excess is redistributed among all components included.

# Whitewing at Wiehl Estates

## Projection Charts

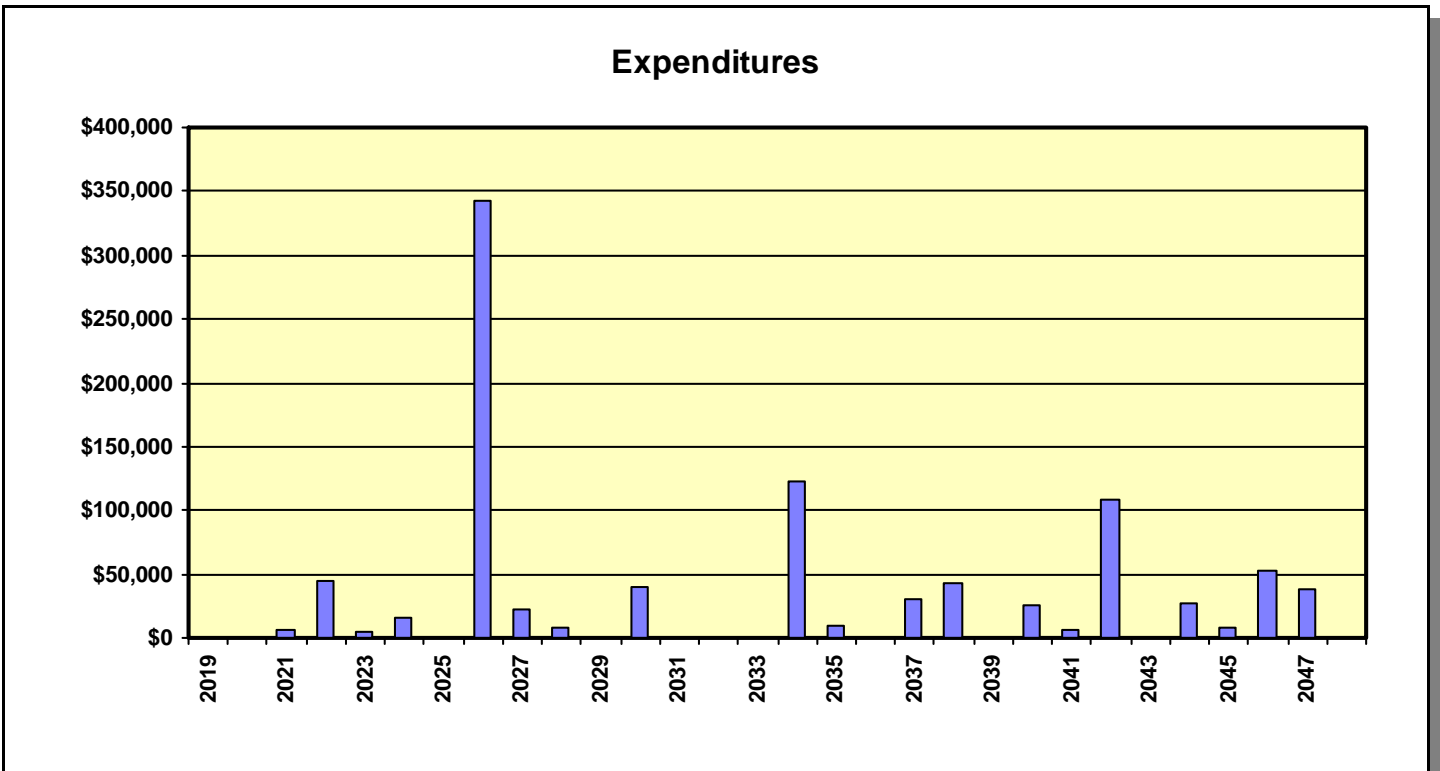
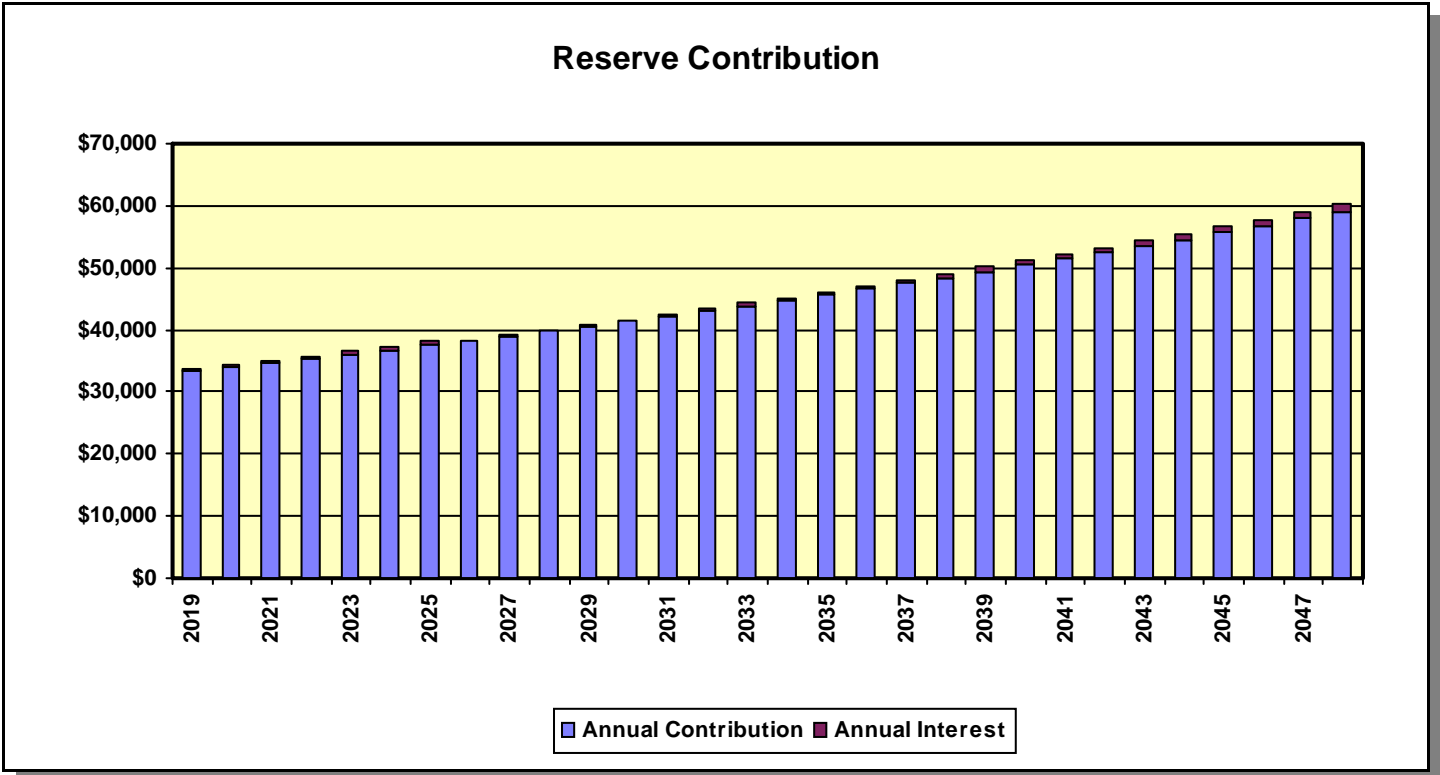
Directed Cash Flow Calculation Method



# Whitewing at Wiehl Estates

## Projection Charts

### Directed Cash Flow Calculation Method



**Whitewing at Wiehl Estates**  
**Annual Expenditure Detail**  
**Sorted by Description**

**2021 Fiscal Year**

Drywells - Repair & Clean Out \$6,316.06

**Sub Total** \$6,316.06

**2022 Fiscal Year**

Asphalt - Crack Seal & Seal Coat \$27,692.37

Gate Operators \$16,200.68

Paint - Wrought Iron Components \$1,080.05

**Sub Total** \$44,973.10

**2023 Fiscal Year**

Access Phone \$4,432.51

**Sub Total** \$4,432.51

**2024 Fiscal Year**

Walls - Common Areas (Repair) \$16,310.51

**Sub Total** \$16,310.51

**2026 Fiscal Year**

Asphalt - Crack Seal & Seal Coat \$30,686.65

Asphalt - Overlay \$279,100.15

Asphalt - Repairs \$15,223.64

Paint - Common Area Walls \$17,104.06

Paint - Wrought Iron Components \$1,196.83

**Sub Total** \$343,311.34

**2027 Fiscal Year**

Granite Replenishment \$22,901.17

**Sub Total** \$22,901.17

**2028 Fiscal Year**

Drywells - Repair & Clean Out \$7,559.23

**Sub Total** \$7,559.23

**2030 Fiscal Year**

Asphalt - Crack Seal & Seal Coat \$34,004.70

Irrigation Controllers \$5,304.95

Paint - Wrought Iron Components \$1,326.24

**Sub Total** \$40,635.89

**2034 Fiscal Year**

Asphalt - Crack Seal & Seal Coat \$37,681.52

**Whitewing at Wiehl Estates**  
**Annual Expenditure Detail**  
**Sorted by Description**

Asphalt - Repairs	\$18,693.80
Entrance Gates (Cullumber)	\$13,594.15
Entrance Gates (Vaughn)	\$9,640.83
Paint - Common Area Walls	\$21,002.85
Paint - Wrought Iron Components	\$1,469.64
Walls - Common Areas (Repair)	\$21,083.43
<b>Sub Total</b>	<b>\$123,166.21</b>
<b>2035 Fiscal Year</b>	
Drywells - Repair & Clean Out	\$9,047.09
<b>Sub Total</b>	<b>\$9,047.09</b>
<b>2037 Fiscal Year</b>	
Granite Replenishment	\$29,602.70
<b>Sub Total</b>	<b>\$29,602.70</b>
<b>2038 Fiscal Year</b>	
Asphalt - Crack Seal & Seal Coat	\$41,755.90
Paint - Wrought Iron Components	\$1,628.55
<b>Sub Total</b>	<b>\$43,384.45</b>
<b>2040 Fiscal Year</b>	
Gate Operators	\$25,714.96
<b>Sub Total</b>	<b>\$25,714.96</b>
<b>2041 Fiscal Year</b>	
Access Phone	\$7,035.61
<b>Sub Total</b>	<b>\$7,035.61</b>
<b>2042 Fiscal Year</b>	
Asphalt - Crack Seal & Seal Coat	\$46,270.83
Asphalt - Repairs	\$22,954.95
Drywells - Repair & Clean Out	\$10,827.81
Paint - Common Area Walls	\$25,790.34
Paint - Wrought Iron Components	\$1,804.63
<b>Sub Total</b>	<b>\$107,648.57</b>
<b>2044 Fiscal Year</b>	
Walls - Common Areas (Repair)	\$27,253.03
<b>Sub Total</b>	<b>\$27,253.03</b>



# Whitewing at Wiehl Estates

## Annual Expenditure Detail

Sorted by Description

### 2045 Fiscal Year

Irrigation Controllers

\$7,796.35

### Sub Total

\$7,796.35

### 2046 Fiscal Year

Asphalt - Crack Seal & Seal Coat

\$51,273.95

Paint - Wrought Iron Components

\$1,999.76

### Sub Total

\$53,273.71

### 2047 Fiscal Year

Granite Replenishment

\$38,265.28

### Sub Total

\$38,265.28

# Whitewing at Wiehl Estates

## Component Detail

Directed Cashflow Calculation Method; Sorted by Category

### Asphalt - Crack Seal & Seal Coat

Category	010 Streets	Quantity	1 total
		Unit Cost	\$25,640.00
		% of Replacement	100.00%
		Current Cost	\$25,640.00
Placed In Service	01/18	Future Cost	\$27,692.37
Useful Life	4		
		Assigned Reserves at FYB	\$6,410.00
Remaining Life	3	Monthly Member Contribution	\$531.01
Replacement Year	2022	Monthly Interest Contribution	\$1.59
		Total Monthly Contribution	\$532.60

Comments:

ACE Asphalt completed a project at the beginning of 2018 to crack seal and seal coat the community asphalt for \$25,640. We are budgeting for this scope of work every four (4) years..

It should be noted that the repair/seal coat and rehabilitation assets are budgeted to occur in the same budget year. It is recommended that the asphalt is seal coated within 6 months of resurfacing or replacement. Therefore, this component appears in the same year as the removal and repaving or overlay project. If the Association chooses not to seal coat within 6 months of resurfacing or replacement, the accumulated funds can be used for any additional expenses associated with the major project or remain in the reserve account to be reallocated to other projects in the future.

Instead of using a typical seal coat maintenance program, the Association has the option to go with a High Density Mineral Bond (HA5) surface treatment. This product, sold in AZ by Holbrook Asphalt, provides a durable surface that reduces the frequency of "coating", preserves the underlying asphalt, and can significantly extend the timeframe before the major asphalt project may be needed. If the Association would like us to create an alternative reserve study that assumes an HA5 program, we can do so at the Board's request for an additional fee.

Note that we are not endorsing Holbrook Asphalt, but presenting the HA5 program as an alternative option to a typical seal coat maintenance program. We recommend that the Association contact Holbrook Asphalt (602.377.5406) to have the community asphalt evaluated to determine if the HA5 program is a viable option.

# Whitewing at Wiehl Estates

## Component Detail

Directed Cashflow Calculation Method; Sorted by Category

### Asphalt - Overlay

Category	010 Streets	Quantity	212,000 sq. ft.
		Unit Cost	\$1.100
		% of Replacement	100.00%
		Current Cost	\$233,200.00
Placed In Service	01/99	Future Cost	\$279,100.15
Useful Life	27		
		Assigned Reserves at FYB	\$147,969.34
Remaining Life	7	Monthly Member Contribution	\$1,322.72
Replacement Year	2026	Monthly Interest Contribution	\$25.83
		Total Monthly Contribution	\$1,348.55

Comments:

This component budgets to edge mill next to existing concrete curbs/aprons in order to match heights and apply a conventional 1.5" overlay atop the existing asphalt.

This maintenance program assumes that at the time this project is scheduled to occur the asphalt has been maintained in a good enough condition that existing cracks will not quickly reflect through the newly paved surface.

If it becomes evident over time that an overlay will not be the best option, we will adjust this asset to begin accounting for a removal and repaving (R & R) project at a current cost in the \$1.90 - \$2.00 per sq. ft. range.

### Asphalt - Repairs

Category	010 Streets	Quantity	212,000 sq. ft.
		Unit Cost	\$3.000
		% of Replacement	2.00%
		Current Cost	\$12,720.00
Placed In Service	01/18	Future Cost	\$15,223.64
Useful Life	8		
		Assigned Reserves at FYB	\$1,590.00
Remaining Life	7	Monthly Member Contribution	\$139.52
Replacement Year	2026	Monthly Interest Contribution	\$0.40
		Total Monthly Contribution	\$139.91

Comments:

It is estimated that a percentage of the asphalt areas will require repair or replacement. The actual condition of the asphalt should be monitored over time and these estimates adjusted accordingly.

# Whitewing at Wiehl Estates

## Component Detail

Directed Cashflow Calculation Method; Sorted by Category

### Paint - Common Area Walls

Category	030 Painting	Quantity	1 total
		Unit Cost	\$14,291.170
		% of Replacement	100.00%
		Current Cost	\$14,291.17
Placed In Service	02/18	Future Cost	\$17,104.06
Useful Life	8		
		Assigned Reserves at FYB	\$1,654.77
Remaining Life	7	Monthly Member Contribution	\$158.12
Replacement Year	2026	Monthly Interest Contribution	\$0.43
		Total Monthly Contribution	\$158.54

Comments:

CertaPro Painters completed a project to paint all common area block walls in 2/2018 for \$14,291.17. We are budgeting to paint these walls every eight (8) years.

### Paint - Wrought Iron Components

Category	030 Painting	Quantity	1 total
		Unit Cost	\$1,000.000
		% of Replacement	100.00%
		Current Cost	\$1,000.00
Placed In Service	02/18	Future Cost	\$1,080.05
Useful Life	4		
		Assigned Reserves at FYB	\$234.04
Remaining Life	3	Monthly Member Contribution	\$21.11
Replacement Year	2022	Monthly Interest Contribution	\$0.06
		Total Monthly Contribution	\$21.17

Comments:

CertaPro Painters completed a project to paint all common area wrought iron in 2/2018 for \$1,000. We are budgeting to paint the wrought iron every four (4) years.

# Whitewing at Wiehl Estates

## Component Detail

Directed Cashflow Calculation Method; Sorted by Category

### Entrance Gates (Cullumber)

Category	040 Fencing/Walls	Quantity	1 total
		Unit Cost	\$9,250.00
		% of Replacement	100.00%
		Current Cost	\$9,250.00
Placed In Service	01/99	Future Cost	\$13,594.15
Useful Life	35		
		Assigned Reserves at FYB	\$0.00
Remaining Life	15	Monthly Member Contribution	\$59.46
Replacement Year	2034	Monthly Interest Contribution	\$0.06
		Total Monthly Contribution	\$59.52

Comments:

This component budgets to replace the following gates:

1 5'7" x 3'3" pedestrian gate	@	\$670.00	=	\$670.00
2 5'10" x 11'1" vehicle gates	@	\$1,950.00	=	\$3,900.00
2 6'2" x 8'6" vehicle gates	@	\$1,570.00	=	\$3,140.00
55 LF of 3'3" fencing	@	\$28.00	=	\$1,540.00
		TOTAL	=	\$9,250.00

### Entrance Gates (Vaughn)

Category	040 Fencing/Walls	Quantity	1 total
		Unit Cost	\$6,560.00
		% of Replacement	100.00%
		Current Cost	\$6,560.00
Placed In Service	01/99	Future Cost	\$9,640.83
Useful Life	35		
		Assigned Reserves at FYB	\$0.00
Remaining Life	15	Monthly Member Contribution	\$42.17
Replacement Year	2034	Monthly Interest Contribution	\$0.04
		Total Monthly Contribution	\$42.21

Comments:

This component budgets to replace the following gates:

2 6'10" x 16'0" vehicle gates	@	\$3,280.00	=	\$6,560.00
		TOTAL	=	\$6,560.00

# Whitewing at Wiehl Estates

## Component Detail

Directed Cashflow Calculation Method; Sorted by Category

### Walls - Common Areas (Repair)

Category	040 Fencing/Walls	Quantity	39,850 sq. ft.
		Unit Cost	\$12.000
		% of Replacement	3.00%
		Current Cost	\$14,346.00
Placed In Service	01/99	Future Cost	\$16,310.51
Useful Life	10		
Adjustment	+15	Assigned Reserves at FYB	\$11,476.80
Remaining Life	5	Monthly Member Contribution	\$69.22
Replacement Year	2024	Monthly Interest Contribution	\$1.97
		Total Monthly Contribution	\$71.19

Comments:

This component will accumulate funds for 25 years, and then on a continuous 10 year cycle, for the major repair/replacement of a percentage of the common area walls. The accumulate funds should be used as needed, and the percentage budgeted for repair/replacement should be adjusted over time as conditions dictate.

### Lighting (Unfunded)

Category	050 Lighting	Quantity	1 comment
		Unit Cost	\$0.000
		% of Replacement	0.00%
		Current Cost	\$0.00
Placed In Service	01/99	Future Cost	\$0.00
Useful Life	n.a.		
		Assigned Reserves at FYB	\$0.00
Remaining Life	n.a.	Monthly Member Contribution	\$0.00
Replacement Year	n.a.	Monthly Interest Contribution	\$0.00
		Total Monthly Contribution	\$0.00

Comments:

We are not budgeting to replace any ground level landscape, monument or pathway lighting systems. Individual light fixtures are most often replaced as needed using operating funds due to frequent damage by pedestrians, landscape personnel, and/or weather conditions. Should complete replacement of the lighting system(s) be required, expert evaluation will be necessary to provide replacement cost information.

# Whitewing at Wiehl Estates

## Component Detail

Directed Cashflow Calculation Method; Sorted by Category

### Access Phone

Category	080 Security	Quantity	1 phone
		Unit Cost	\$4,000.000
		% of Replacement	100.00%
		Current Cost	\$4,000.00
Placed In Service	05/05	Future Cost	\$4,432.51
Useful Life	18		
		Assigned Reserves at FYB	\$3,094.34
Remaining Life	4	Monthly Member Contribution	\$24.35
Replacement Year	2023	Monthly Interest Contribution	\$0.54
		Total Monthly Contribution	\$24.89

Comments:

This is a Door King "hands-free" entry access phone.

\$1,200 was spent in 5/2005 on the access phone. Based on cost this was most likely a board replacement.

### Gate Operators

Category	080 Security	Quantity	4 operators
		Unit Cost	\$3,750.000
		% of Replacement	100.00%
		Current Cost	\$15,000.00
Placed In Service	01/04	Future Cost	\$16,200.68
Useful Life	18		
		Assigned Reserves at FYB	\$12,500.00
Remaining Life	3	Monthly Member Contribution	\$90.62
Replacement Year	2022	Monthly Interest Contribution	\$2.17
		Total Monthly Contribution	\$92.79

Comments:

These are swing gate operators that were replaced in 1/2004.

Manufacturer: Elite

Model #: CSW-200-UL

# Whitewing at Wiehl Estates

## Component Detail

Directed Cashflow Calculation Method; Sorted by Category

### Concrete Components (Unfunded)

Category	100 Grounds	Quantity	1 comment
		Unit Cost	\$0.00
		% of Replacement	0.00%
		Current Cost	\$0.00
Placed In Service	01/99	Future Cost	\$0.00
Useful Life	n.a.		
		Assigned Reserves at FYB	\$0.00
Remaining Life	n.a.	Monthly Member Contribution	\$0.00
Replacement Year	n.a.	Monthly Interest Contribution	\$0.00
		Total Monthly Contribution	\$0.00

#### Comments:

We are not budgeting for repair or replacement of concrete components in this analysis. It is anticipated that any repairs/replacements required will be addressed immediately due to safety concerns. There should not be a need for complete replacement at a single point in time, and good maintenance practice won't allow the need for repairs to accumulate to a point of major expense. We recommend that a line item be set up in the annual operating budget to account for potential concrete repairs/replacements on an as needed basis. However, should the client wish to include budgeting for concrete components as a reserve expense, we will do so at their request (cost and useful life to be provided by client).



# Whitewing at Wiehl Estates

## Component Detail

Directed Cashflow Calculation Method; Sorted by Category

### Drywells - Repair & Clean Out

Category	100 Grounds	Quantity	6 drywells
		Unit Cost	\$1,000.000
		% of Replacement	100.00%
		Current Cost	\$6,000.00
Placed In Service	01/14	Future Cost	\$6,316.06
Useful Life	7		
		Assigned Reserves at FYB	\$4,285.71
Remaining Life	2	Monthly Member Contribution	\$76.31
Replacement Year	2021	Monthly Interest Contribution	\$0.78
		Total Monthly Contribution	\$77.10

Comments:

This component includes a provision to clean out the drywells located in the community's common area water retention tracts.

Drywell systems should be inspected annually to determine how much debris has accumulated in the system and to develop a clean out schedule. Some drywell systems will require immediate repair of broken components and clean out, while others won't require maintenance for a number of years. On average, drywell systems require clean out every 5 - 7 years. A drywell should be cleaned out once 10% or more of the chamber is occupied. If maintained properly, drywells are designed to last as long as any other part of the community infrastructure.

### Granite Replenishment

Category	100 Grounds	Quantity	1 total
		Unit Cost	\$18,650.000
		% of Replacement	100.00%
		Current Cost	\$18,650.00
Placed In Service	07/17	Future Cost	\$22,901.17
Useful Life	10		
		Assigned Reserves at FYB	\$0.00
Remaining Life	8	Monthly Member Contribution	\$203.13
Replacement Year	2027	Monthly Interest Contribution	\$0.20
		Total Monthly Contribution	\$203.33

Comments:

Brightview Landscape Services completed a project to replenish the common area granite landscape rock in mid-2017 for \$18,647.27. We are budgeting to replenish every 10 years.

# Whitewing at Wiehl Estates

## Component Detail

Directed Cashflow Calculation Method; Sorted by Category

### Irrigation Controllers

Category	100 Grounds	Quantity	1 total
		Unit Cost	\$4,000.000
		% of Replacement	100.00%
		Current Cost	\$4,000.00
Placed In Service	01/15	Future Cost	\$5,304.95
Useful Life	15		
		Assigned Reserves at FYB	\$0.00
Remaining Life	11	Monthly Member Contribution	\$33.10
Replacement Year	2030	Monthly Interest Contribution	\$0.03
		Total Monthly Contribution	\$33.12

Comments:

This component will accumulate \$4,000 every 15 years to be used as needed for repair/replacement of the irrigation controllers.

### Irrigation Pump System (Unfunded)

Category	100 Grounds	Quantity	1 comment
		Unit Cost	\$0.000
		% of Replacement	0.00%
		Current Cost	\$0.00
Placed In Service	01/99	Future Cost	\$0.00
Useful Life	n.a.		
		Assigned Reserves at FYB	\$0.00
Remaining Life	n.a.	Monthly Member Contribution	\$0.00
Replacement Year	n.a.	Monthly Interest Contribution	\$0.00
		Total Monthly Contribution	\$0.00

Comments:

We have been advised by the Board that all expenses associated with the irrigation pump station are handled as needed using funds from the annual operating budget.

# Whitewing at Wiehl Estates

## Component Detail

Directed Cashflow Calculation Method; Sorted by Category

### Irrigation System (Unfunded)

Category	100 Grounds	Quantity	1 comment
		Unit Cost	\$0.00
		% of Replacement	0.00%
		Current Cost	\$0.00
Placed In Service	01/99	Future Cost	\$0.00
Useful Life	n.a.		
		Assigned Reserves at FYB	\$0.00
Remaining Life	n.a.	Monthly Member Contribution	\$0.00
Replacement Year	n.a.	Monthly Interest Contribution	\$0.00
		Total Monthly Contribution	\$0.00

#### Comments:

Irrigation systems are one of the most difficult items to budget for without specific information provided by an expert who is specifically familiar with the system inventory and system condition.

We have been advised by irrigation system experts that most system components (piping, sprinkler heads, valves, etc) have a useful life of 20+ years. However, budgeting for the replacement of an irrigation system requires evaluation of the present condition (to identify remaining useful life) and replacement cost - both of which call for expert evaluation, but fall outside the scope of a reserve study.

Therefore, we recommend that the Association board and/or management company have the system evaluated to determine the appropriate scope of work, projected replacement cost and remaining life, all of which are necessary, so that budgeting can be included in a revision or future update of this analysis.

# Whitewing at Wiehl Estates

## Component Detail

Directed Cashflow Calculation Method; Sorted by Category

### Monument Sign (Unfunded)

Category	100 Grounds	Quantity	1 comment
		Unit Cost	\$0.00
		% of Replacement	0.00%
		Current Cost	\$0.00
Placed In Service	01/99	Future Cost	\$0.00
Useful Life	n.a.		
		Assigned Reserves at FYB	\$0.00
Remaining Life	n.a.	Monthly Member Contribution	\$0.00
Replacement Year	n.a.	Monthly Interest Contribution	\$0.00
		Total Monthly Contribution	\$0.00

Comments:

The monument sign is made up of solid steel letters that are mounted on a boulder and indicate "WHITEWING AT WIEHL ESTATES".

We are not budgeting to replace the solid steel letters making up this sign because they have an indefinite useful life and should last for the life of the community. Any required repairs and/or replacements should be handled as needed using funds from the operating budget.

Please note that should the Board wish to budget to replace these letters for aesthetic/remodeling purposes, we will do so at upon request in a revision or future update of this report.

# Whitewing at Wiehl Estates

## Component Detail

Directed Cashflow Calculation Method; Sorted by Category

### Tree Trimming (Unfunded)

Category	100 Grounds	Quantity	1 comment
		Unit Cost	\$0.00
		% of Replacement	0.00%
		Current Cost	\$0.00
Placed In Service	01/99	Future Cost	\$0.00
Useful Life	n.a.		
		Assigned Reserves at FYB	\$0.00
Remaining Life	n.a.	Monthly Member Contribution	\$0.00
Replacement Year	n.a.	Monthly Interest Contribution	\$0.00
		Total Monthly Contribution	\$0.00

#### Comments:

We have been advised by arborists that major tree trimming is usually required every 3 – 5 years and could be considered a reserve expense. However, the cost for a major tree trimming project depends on the size, type, maturity and number of trees at the community – all of which call for expert evaluation, but fall outside the scope of a reserve study.

Should the Board obtain a proposal and trimming schedule we will include budgeting for tree trimming in a revision or future update of this analysis at the Board's request.

# Whitewing at Wiehl Estates

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Number of components included in this reserve analysis is 19.