

FULL RESERVE STUDY

***BRIAR CHAPEL TOWNHOME SERVICE AREA #4
WINKLER WAY AND OWEN TOWNE ROAD
CHAPEL HILL, NC***

Prepared for:

***BRIAR CHAPEL COMMUNITY ASSOCIATION
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CONTENTS

1.0 INTRODUCTION 1

2.0 EXECUTIVE SUMMARY 2

3.0 PURPOSE & SCOPE..... 3

3.1 PURPOSE 3

3.2 SCOPE 3

3.3 SOURCES OF INFORMATION..... 4

4.0 DESCRIPTION 5

5.0 OBSERVATIONS 6

6.0 RESERVE FUND ANALYSIS..... 7

7.0 CONCLUSION..... 9

8.0 LIMITATIONS 9

APPENDIX A: RESERVE FUND PROJECTIONS.....

APPENDIX B: PROJECT PHOTOGRAPHS

1.0 INTRODUCTION

The Briar Chapel Community Association authorized Criterium-Giles Engineers to conduct a Reserve Fund Study for the Briar Chapel Townhome Service Area #4 community located in Chapel Hill, North Carolina. Studies of this nature are important to ensure a community has sufficient funds for long-term, periodic capital expenditure requirements. Anticipating large expenditures over an extended period of time through a structured analysis and scheduling process assists the Association in meeting financial requirements without increasing the service fees above permitted maximums, borrowing the funds, or levying special financial assessments to the home owners.

Typically, a community association has two broad cash requirements: the general operating reserves and the capital repair and replacement reserves. In this report, we will focus on those items falling under the capital repair and replacement reserve criteria. We have projected a capital repair and replacement reserve for twenty (20) years. The first ten years are the most reliable. Such a study should be updated every five years.

This report is structured to analyze components of the community for which the Association is responsible and to assess a useful expected life and useful remaining life to those components. The anticipated scheduled repair or replacement of the component and the anticipated expense for the activity are then analyzed in conjunction with the current capital reserves funding program for the community. Funding recommendations are made with the objective of limiting substantial cash excesses while minimizing financial burdens that can result from significant cash inadequacies.

This report is intended to be used as a tool to determine reserve fund allocation requirements for the community, to manage future Association obligations, and to inform the community of future financial needs in general. The report that follows has been prepared from the perspective of what an owner of this property would benefit from knowing. Some items, beyond those of immediate concern, may be discussed. Therefore, the report should be read in its entirety in order to fully understand all of the information that has been obtained.

2.0 EXECUTIVE SUMMARY

Briar Chapel Townhome Service Area #4 is currently comprised of 14 individually owned townhomes within 3 buildings along Winkler Way and Owen Towne Road, on Lots 507-520. According to Chatham County Real Estate records, the buildings along Winkler Way were constructed around 2012, while the building fronting Owen Towne Road was constructed in 2014.

The association has responsibility for the exterior of the buildings including roofing, painting of siding and front porches and rear decks, and various site improvements. The most significant site improvements include the common area drainage systems.

The buildings, common areas and grounds are generally in good condition. Based on our evaluation, the current level of funding does not maintain a positive balance through the term of this study. We have provided recommendations for annual reserve contribution schedules that provide sufficient funding to meet capital expenditure requirements in the next twenty years. A more detailed analysis of the reserve fund has been provided in Appendix A.

Some significant expenditures are expected over the term of the study. Some of the more notable examples are listed below:

- Replace building roofs
- Paint trim and siding

There are, of course, other capital expenditures to be expected over the next twenty years. Those items that will require attention are discussed later in this report. For your convenience, we have prepared the following summary of the condition of the major systems of the property.

3.0 PURPOSE & SCOPE

3.1 Purpose

The purpose of this study is to perform a reserve fund analysis and to determine a capital needs plan. It is intended to be used as a tool for the Briar Chapel Community Association in determining the allocation requirements into the reserve fund in order to meet future anticipated capital expenditures for the community.

This report forecasts obligations for the community twenty years into the future. It should be noted that events might occur that could have an effect on the underlying component or system useful life assumptions used in this study. Likewise, inevitable market fluctuations can have an impact on component or system replacement and repair costs. Therefore, a study such as this should be updated from time to time, usually on a three to five-year cycle, in order to reflect the most accurate needs and obligations of the community.

3.2 Scope

This study has been performed according to the scope as generally defined by the Briar Chapel Community Association, Criterium-Giles Engineers Inc., and the standards of the Community Associations Institute. The findings and recommendations are based on interviews with the community's management personnel; a review of available documents; and an investigation of the buildings and site.

The "Cash Flow Method" of calculating reserves has been utilized, whereby contributions to the reserve fund are designed to offset the variable annual expenditures. Funding alternates are recommended which are designed to achieve a "Baseline Funding" goal by maintaining a positive balance for the term of the study.

The guidelines used to determine which physical components within the community are to be included in the component inventory are based on the following general criteria:

1. The component must be a common element, or otherwise noted to be the responsibility of the Association to replace.
2. The component must have an estimated remaining useful life of twenty years or less. As the site ages, additional components may need to be added.
3. The funding for replacement should be from one source only, not funded from another area of the budget or through a maintenance contract.
4. The cost of replacement should be high enough to make it financially unsound to fund it from the operating budget.

Our reserve study analysis included evaluating the following association property:

- **Buildings:** The HOA is responsible for maintenance and replacement of the roofing, gutters and downspouts, and painting the siding, trim, rear decks and front porches.
- **Mechanical Systems:** The Association is not responsible for the

individual townhome HVAC units.

- **Site and Grounds:** The HOA is responsible for the common area drainage systems.

The above list was obtained from the site inspection and discussions with the management firm prior to the inspection.

This study estimates the funding levels required for maintaining the long-term viability of the facility. Our approach involves:

1. Examining association managed equipment, building and site facilities.
2. Predicting their remaining service life and, approximating how frequently they will require repair or replacement.
3. Estimating repair or replacement costs (in 2018 dollars) for each capital item.
4. Using data developed in Steps 1, 2 and 3 to project Capital Reserve balances for Years 1 through 20.

The statements in this report are opinions about the present condition of the subject community. They are based on visual evidence available during a diligent investigation of all reasonably accessible areas falling under the responsibility of the Association. We did not remove any surface materials, perform any destructive testing, or move any furnishings. This study is not an exhaustive technical evaluation. Such an evaluation would entail a significantly larger scope than this effort. For additional limitations, see Section 8.0.

Onsite inspections of the property occurred on the following date:

- May 2, 2018

The following people were interviewed during our study:

- Chris Johnson, Community Manager, First Service Residential

The following documents were made available to us and reviewed:

- Chatham County tax records
- Service Area Map
- Association budget and financials
- Owners and Association Responsibilities matrix
- Painting proposals

We based our cost estimates on some or all of the following:

- R.S. Means
- Our data files on similar projects
- Local contractor estimates

3.3 Sources of Information

For your reference, the following definitions may be helpful:

Excellent: Component or system is in "as new" condition, requiring no rehabilitation and should perform in accordance with expected performance.

Good: Component or system is sound and performing its function, although it may show signs of normal wear and tear. Some minor rehabilitation work may be required.

Fair: Component or system falls into one or more of the following categories: a) Evidence of previous repairs not in compliance with commonly accepted practice, b) Workmanship not in compliance with commonly accepted standards, c) Component or system is obsolete, d) Component or system approaching end of expected performance. Repair or replacement is required to prevent further deterioration or to prolong expected life.

Poor: Component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its expected performance, excessive deferred maintenance, or state of disrepair. Present condition could contribute to or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.

Adequate: A component or system is of a capacity that is defined as enough for what is required, sufficient, suitable, and/or conforms to standard construction practices.

All ratings are determined by comparison to other buildings of similar age and construction type. Further, some details of workmanship and materials will be examined more closely in higher quality buildings where such details typically become more relevant.

All directions (left, right, rear, etc.), when used, are taken from the viewpoint of an observer standing in front of a building and facing it.

Repair/Replacement Reserves - Non-annual maintenance items that will require significant expenditure over the life of the buildings. Included are items that will reach the end of their estimated useful life during the course of this forecast, or, in the opinion of the investigator, will require attention during that time.

4.0 DESCRIPTION

Briar Chapel Townhome Service Area #4 is currently comprised of 14 individually owned townhomes within 3 buildings along Winkler Way and Owen Towne Road, on Lots 507-520. According to Chatham County Real Estate records, the buildings along Winkler Way were constructed around 2012, while the building fronting Owen Towne Road was constructed in 2014.

The association has responsibility for the exterior of the buildings including roofing, painting of siding and front porches and rear decks, and various site improvements. The most significant site improvements include concrete driveways, and common area drainage systems.

Exterior surfaces are primarily comprised of fiber-cement siding and trim with sections of wood trim. Unpainted brick veneer is located along the front and side elevations for Lots 511-514 as well as the front steps of each unit.

The building roofs are primarily shingled with asphaltic fiberglass architectural grade shingles. The front porch overhangs for Lots 507-510 & 517-518 include standing seam metal roof panels. Aluminum gutters and downspouts are located along the rear of the buildings and discharge stormwater to underground drainage systems.

The asphalt-paved alley is maintained by the Master Association.

5.0 OBSERVATIONS

The following key observations were made about the current condition of the more significant and costly common elements of the property.

Site and Grounds

Per the responsibilities matrix, the front porch concrete and rear decks are the responsibility of the individual homeowner. Also, the small repairs for common area drainage will be funded from the general operating budget.

It is assumed that the mailbox kiosks will be maintained by the Master Association in order to maintain a consistent appearance throughout the community.

Common Building Exteriors

The HOA is responsible for maintenance and replacement of the roofing, gutters and downspouts; painting and repairing the siding and trim; and painting the front porches.

The predominant pitched roof surfaces over the buildings are covered in asphaltic fiberglass, architectural grade shingles. Roof surfacing is applied over plywood roof sheathing, and appears to be in good condition with no known active roof leaks or problems. Typically, this type of roofing surface will last approximately twenty to twenty-five years. We strongly recommend that any re-roofing project closely follow procedures outlined by the National Roofing Contractors Association's *Roofing and Waterproofing Manual*, Fourth Edition. A re-roofing sequence should include removal of the existing roofing material, replacement of any inadequate roof sheathing, replacement of any damaged flashing, and replacement of drip edge components. Re-roofing of the existing buildings is proposed to be completed in 2032. As the buildings were built within approximately 2 years, we recommend replacing all roofs at the same time to take advantage of the potential cost savings for a larger project.

Gutters and downspouts are in generally good condition and should not require replacement until the time of the 2nd roof replacement, as this component typically provides forty years of relatively trouble free service. Limited sections of damaged gutters and downspouts are included with the roof replacement project.

It is likely that minor roofing repairs will be required in the interim. Repairs would likely include replacing exhaust vent boots and flashing repairs. We have assumed that these minor repairs would be funded from a general operating budget.

The front porches of Lots 511-520 include painted timber framing, rails, balusters, and miscellaneous trim work. Lots 507-510 include painted timber framing for the roof overhang. The rear decks include painted edge bands, while the remaining structural framing, decking, rails, and balusters are unpainted. We noted the toe-nailed structural support for the front porch overhang pulling away from the house. Note that painting of the fiber cement siding, trim, and doors (including garage) will be required for all townhome buildings. It appears that all painting is original to construction. We noted flaking paint at the rear decks, front porch framing, and several areas of cracked caulk. A section of cracked siding was noted under the front window of Unit 35. Previous spot painting was noted at the rear of units 11-23. Faded paint was noted on all units, particularly on the darker colored sections.

While there is some faded paint on some of the units, this is primarily an aesthetic concern. The caulk is generally in adequate condition at this time and spot caulking can be performed on the limited areas of deterioration. We have included funds to re-paint the exterior of the townhome buildings every 7 years, deferred until 2021 to allow for adequate funds to accumulate.

Exterior lights and the rear decks are the responsibility of the individual homeowners per discussions with the Board.

6.0 RESERVE FUND ANALYSIS

Using software developed by Criterium Engineers and KPMG Peat Marwick, we have analyzed capital reserves draw-down for the projected capital expenditures to determine the amount needed. The following is a projected reserve fund analysis for non-annual items as discussed in the report. This projection takes into consideration a reasonable return on invested moneys and inflation. Please review this thoroughly and let us know of any changes that may be desired.

The intent of this reserve fund projection is to help the Association develop a reserve fund to provide for anticipated repair or replacements of various system components during the next twenty years.

The capital items listed are those that are typically the responsibility of the Association and are derived from a list provided the Association with several items added as a result of the inspection. However, association by-laws vary, and therefore, which components are the responsibilities of the

owner and which are the responsibilities of the Association can vary. The Association should confirm that the items listed should be financed by the reserve fund.

This projection provides the following:

- An input sheet that defines all the criteria used for the financial alternatives, including the assumed inflation rate of 3% annually and rate of return on deposited reserve funds of 1.0% annually.
- A table that lists anticipated replacement and/or repair items complete with estimated remaining life expectancies, projected costs of replacement and/or repair, a frequency in years of when these items require replacement and/or repair, and a projection based on this frequency.
- A table and graph that represent end of year balances versus capital expenditures based on your current funding program and reserve balances, and alternatives to your current program. The provided graphs illustrate what effects the funding methods will have over the presented twenty-year period versus the anticipated capital expenditures.
- Note that based on our developed list of capital items and taking inflation into account, the current funding level is not adequate.
- The Association should bear in mind that unanticipated expenditures can always arise and maintenance of a significant reserve fund balance can be viewed as a way to avoid special assessments.

We have included alternatives to your current reserve funding program and recommend that the board adopt an alternative that best reflects the objectives of the community. In summary they are as follows:

Current Reserve Funding Rate: \$6,806 per year

Current Reserve Balance: \$28,291 (projected January 2019 balance)

- **Alternative 1:** In 2019, increase the contributions to capital reserves to a rate of \$13,440/year (\$80.00/unit/month). Then, increase the annual reserve contribution by \$1,680 (\$10.00/unit/month) every year for the next 3 years. This alternative is projected to maintain a positive balance through the term of this study.
- **Alternative 2:** In 2019, increase the contributions to capital reserves to a rate of \$15,120/year (\$90.00/unit/month). Then, increase the annual contribution by 10% every year for the next 3 years. This alternative is projected to maintain a positive balance through the term of this study.
- **Alternative 3:** In 2019, increase the contributions to capital reserves to a rate of \$8,400/year (\$50.00/unit/month). Then, increase the annual contribution by 5% every year for the remainder of the 20 year term. In addition, 2 special assessments each in the amount of

\$42,000 (\$3,000/unit) are projected to be collected in 2021 and 2025. This alternative is projected to maintain a positive balance through the term of this study.

Please note that the reserve fund study does not include typical annual maintenance items. Our assumption is that you already have an annual operating budget that provides for these typical, repetitive items. This includes miscellaneous repairs, lawn and grounds maintenance, routine minor painting, etc. We have focused on those significant, non-annual items where careful financial planning is important.

Finally, please note that the estimates we have developed are based on 2018 dollars. Our reserve fund study does adjust for an estimated annual inflation and a given return on investment assuming that the indicated fund balances are maintained.

7.0 CONCLUSION

The alternatives provided above will provide sufficient funding to meet estimated capital expenditures during the next twenty years. Further detail of the reserve fund analysis is provided in Appendix A.

8.0 LIMITATIONS

The observations described in this study are valid on the date of the investigation and have been made under the conditions noted in the report. We prepared this study for the exclusive use of the Briar Chapel Community Association. Criterium-Giles Engineers Inc. does not intend any other individual or party to rely upon this study without our express written consent. If another individual or party relies on this study, they shall indemnify and hold Criterium-Giles Engineers Inc. harmless for any damages, losses, or expenses they may incur as a result of its use.

This study is limited to the visual observations made during our inspection. We did not remove surface materials, conduct any destructive or invasive testing, move furnishings or equipment, or undertake any digging or excavation. Accordingly, we cannot comment on the condition of systems that we could not see, such as buried structures and utilities, nor are we responsible for conditions that could not be seen or were not within the scope of our services at the time of the investigation. We did not undertake to completely assess the stability of the buildings or the underlying foundation soil since this effort would require excavation and destructive testing. Likewise, this is not a seismic assessment.

We did not investigate the following areas:

- Buried utilities or infrastructure
- Concealed structural members or systems
- Unit interiors

We do not render an opinion on uninvestigated portions of the community.

We did not perform any computations or other engineering analysis as part of this evaluation, nor did we conduct a comprehensive code compliance

investigation. This study is not to be considered a warranty of condition, and no warranty is implied. The appendices are an integral part of this report and must be included in any review.

Members of the Criterium-Giles Engineers team working on this reserve study are not members of, or otherwise associated with the association. Criterium-Giles Engineers has disclosed any other involvement with the association that could result in conflicts of interest.

Information provided by the official representative of the association regarding financial, physical, quantity, or historical issues, will be deemed reliable by Criterium-Giles Engineers. The reserve balance presented in the Reserve Study is based upon information provided and was not audited. Information provided about reserve projects will be considered reliable. Any on-site inspection should not be considered a project audit or quality inspection. Criterium-Giles Engineers is not aware of any additional material issues which, if not disclosed, would cause a distortion of the association's situation.

In our Reserve Fund Analysis, we have provided estimated costs. These costs are based on our general knowledge of building systems and the contracting and construction industry. When appropriate, we have relied on standard sources, such as Means Building Construction Cost Data, to develop estimates. However, for items that we have developed costs (e.g.: structural repairs), no standard guide for developing such costs exists. Actual costs can vary significantly, based on the availability of qualified contractors to do the work, as well as many other variables. We cannot be responsible for the specific cost estimates provided.

We have performed no design work as part of this study, nor have we obtained competitive quotations or estimates from contractors as this also is beyond the scope of the project. The actual cost to remedy deficiencies and deferred maintenance items that we have identified may vary significantly from estimates and competitive quotations from contractors.

If you have any questions about this study or the reserve fund analysis, please feel free to contact us. Thank-you for the opportunity to be of assistance to you.

Respectfully submitted,



Christopher A. Flythe, PE, RS
Principal Engineer
Criterium-Giles Engineers, Inc.

Appendix A: RESERVE FUND PROJECTIONS

Itemized Worksheet

Capital Item To Be Replaced	Quantity	Unit cost	Reserve Requirement (*)	Frequency (yrs**)	Remaining Life (yrs)	Information Source
Site						
Building Exterior						
Replace building roofs	180 SQ	\$300.00	\$54,000.00	20	13	
Paint and repair siding and trim, non-brick units	10 unit	\$5,000.00	\$50,000.00	7	2	
Paint and repair siding and trim, brick units	4 unit	\$2,800.00	\$11,200.00	7	2	
Building Interior						
Mechanical						
Amenities						
Other						
			Totals	\$115,200.00		
			Total Over Term	\$237,600.00		

* Costs are typically 10%±

** Reserve study is based on a 20 year projection of non-annual maintenance

Reserve Study Worksheet

General Information:

- 1 Organization: **Briar Chapel Townhomes-Winkler Way**
 2 Address: **Winkler Way**
Chapel Hill, NC

3	Number of Units	14
4	Age of Building (in years)	1
5a	Study Period (in years)	20
5b	Normal Fiscal Year starts:	January 1, 2019
5c	Partial Fiscal Year starts:	January 1, 2019
5d	Partial Year Length:	12 months
6	Site Inspection Date	May 2, 2018
7	Reserve Funds at start	\$28,291
8	Rate of Return on invested Reserve Funds (%)	1.0%
9	Inflation Rate (%)	3.0%

10 Current Funding Levels

Existing Funding Levels					
		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Reserve Fund Contribution		\$567	\$6,806	\$40.51	\$486.12
	Years Out		Total Annual	Per Unit	
Planned Special Assessment	0		\$0	\$0	
Balance Computed	(\$156,497)				

11 Alternative Reserve Fund Contribution

Alternative 1 Level Funding with Steps					
		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year)		\$1,120	\$13,440	\$80.00	\$960.00
Monthly Amount, (Last Year)		\$1,540	\$18,480	\$110.00	\$1,320.00
Balance Required Final Year		\$16,114			
Special Assessments:	Years Out		Total/Year	Per Unit	
First Assessment	0		\$0	\$0	
Second Assessment	0		\$0	\$0	
Balance Computed	\$79,314				

Alternative 2 Escalating Funding at 10% per Year					
		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year)		\$1,260	\$15,120	\$90.00	\$1,080.00
Monthly Amount, (Last Year)		\$1,677	\$20,125	\$119.79	\$1,437.48
Balance Required Final Year		\$16,114			
Base Escalation %	10.00%				
Special Assessments:	Years Out		Total/Year	Per Unit	
First Assessment	0		\$0	\$0	
Second Assessment	0		\$0	\$0	
Balance Computed	\$115,596				

Alternative 3 Escalating Funding with Special Assessments					
		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year)		\$700	\$8,400	\$50.00	\$600.00
Monthly Amount, (Last Year)		\$1,769	\$21,226	\$126.35	\$1,516.17
Balance Required Final Year		\$16,114			
Base Escalation %	5.00%				
Special Assessments:	Years Out		Total/Year	Per Unit	
First Assessment	3	Jan 2021	\$42,000	\$3,000	
Second Assessment	17	Jan 2035	\$42,000	\$3,000	
Balance Computed	\$78,294				

Annual Expense By Year

	Year:	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Site																	
Building Exterior																	
Replace building roofs		0	0	0	0	0	0	0	0	0	0	0	0	0	54,000	0	0
Paint and repair siding and trim, non-brick units		0	0	50,000	0	0	0	0	0	0	50,000	0	0	0	0	0	0
Paint and repair siding and trim, brick units		0	0	11,200	0	0	0	0	0	0	11,200	0	0	0	0	0	0
Building Interior																	
Mechanical																	
Amenities																	
Other																	
Total Costs		0	0	61,200	0	0	0	0	0	0	61,200	0	0	0	54,000	0	0
Total Costs Adjusted For 3% Inflation		0	0	64,927	0	0	0	0	0	0	79,852	0	0	0	79,301	0	0

Annual Expense By Year

	Year: 2035	2036	2037	2038
	Year Number: 17	18	19	20
Site				
Building Exterior				
Replace building roofs	0	0	0	0
Paint and repair siding and trim, non-brick units	50,000	0	0	0
Paint and repair siding and trim, brick units	11,200	0	0	0
Building Interior				
Mechanical				
Amenities				
Other				
Total Costs	61,200	0	0	0
Total Costs Adjusted For 3% Inflation	98,208	0	0	0

Existing Funding Levels

Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments	Investment Earnings	Capital Expenditures	Ending Balance
2019	1	\$28,291	\$6,806	\$0	\$351	\$0	\$35,448
2020	2	\$35,448	\$6,806	\$0	\$423	\$0	\$42,676
2021	3	\$42,676	\$6,806	\$0	\$0	\$64,927	(\$15,446)
2022	4	(\$15,446)	\$6,806	\$0	\$0	\$0	(\$8,640)
2023	5	(\$8,640)	\$6,806	\$0	\$0	\$0	(\$1,834)
2024	6	(\$1,834)	\$6,806	\$0	\$50	\$0	\$5,021
2025	7	\$5,021	\$6,806	\$0	\$118	\$0	\$11,945
2026	8	\$11,945	\$6,806	\$0	\$188	\$0	\$18,938
2027	9	\$18,938	\$6,806	\$0	\$257	\$0	\$26,001
2028	10	\$26,001	\$6,806	\$0	\$0	\$79,852	(\$47,045)
2029	11	(\$47,045)	\$6,806	\$0	\$0	\$0	(\$40,239)
2030	12	(\$40,239)	\$6,806	\$0	\$0	\$0	(\$33,434)
2031	13	(\$33,434)	\$6,806	\$0	\$0	\$0	(\$26,628)
2032	14	(\$26,628)	\$6,806	\$0	\$0	\$79,301	(\$99,123)
2033	15	(\$99,123)	\$6,806	\$0	\$0	\$0	(\$92,317)
2034	16	(\$92,317)	\$6,806	\$0	\$0	\$0	(\$85,512)
2035	17	(\$85,512)	\$6,806	\$0	\$0	\$98,208	(\$176,914)
2036	18	(\$176,914)	\$6,806	\$0	\$0	\$0	(\$170,108)
2037	19	(\$170,108)	\$6,806	\$0	\$0	\$0	(\$163,303)
2038	20	(\$163,303)	\$6,806	\$0	\$0	\$0	(\$156,497)

Existing Funding Levels

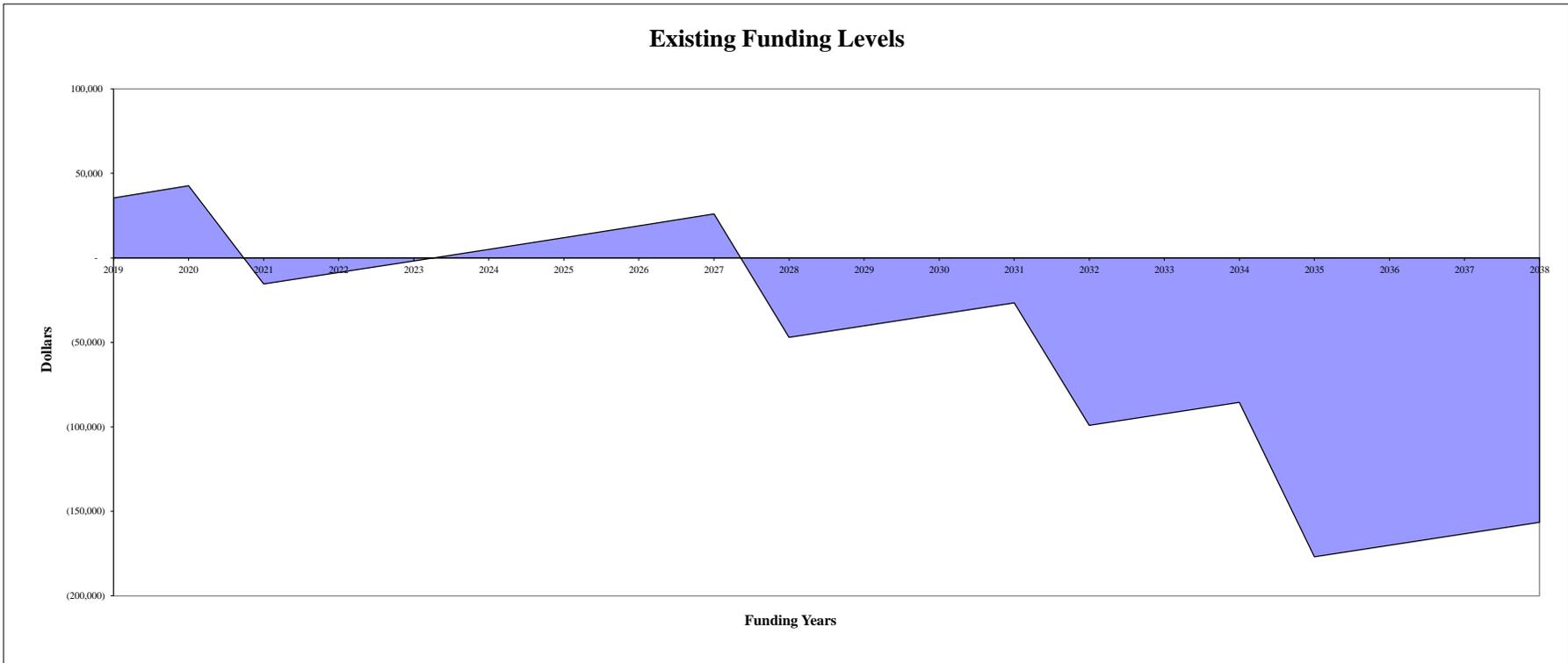
Beginning Balance as of start of year beginning Jan 2019: \$28,291

CONTRIBUTIONS	
AMOUNT	
\$6,805.68	per year
\$486.12	per unit per year
\$567.14	per month
\$40.51	per unit per month

SPECIAL ASSESSMENTS			
Totals			
Per Year	\$0	Per Unit	\$0

Projected Annual Funding and Expenditures:

Year:	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	35,448	42,676	(15,446)	(8,640)	(1,834)	5,021	11,945	18,938	26,001	(47,045)	(40,239)	(33,434)	(26,628)	(99,123)	(92,317)
Capital Expenditures:	-	-	64,927	-	-	-	-	-	-	79,852	-	-	-	79,301	-
Total Revenue (all sources)	7,157	7,228	6,806	6,806	6,806	6,855	6,924	6,993	7,063	6,806	6,806	6,806	6,806	6,806	6,806
Year:	2034	2035	2036	2037	2038										
Year Number:	16	17	18	19	20										
End of Year Reserve Fund Balance	(85,512)	(176,914)	(170,108)	(163,303)	(156,497)										
Capital Expenditures:	-	98,208	-	-	-										
Total Revenue (all sources)	6,806	6,806	6,806	6,806	6,806										



Alternative 1: Level Funding with Steps



Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments 1	Special Assessments 2	Investment Earnings	Capital Expenditures	Ending Balance
2019	1	\$28,291	\$13,440	\$0	\$0	\$417	\$0	\$42,148
2020	2	\$42,148	\$15,120	\$0	\$0	\$573	\$0	\$57,841
2021	3	\$57,841	\$16,800	\$0	\$0	\$97	\$64,927	\$9,811
2022	4	\$9,811	\$18,480	\$0	\$0	\$283	\$0	\$28,574
2023	5	\$28,574	\$18,480	\$0	\$0	\$471	\$0	\$47,525
2024	6	\$47,525	\$18,480	\$0	\$0	\$660	\$0	\$66,665
2025	7	\$66,665	\$18,480	\$0	\$0	\$851	\$0	\$85,996
2026	8	\$85,996	\$18,480	\$0	\$0	\$1,045	\$0	\$105,521
2027	9	\$105,521	\$18,480	\$0	\$0	\$1,240	\$0	\$125,241
2028	10	\$125,241	\$18,480	\$0	\$0	\$639	\$79,852	\$64,507
2029	11	\$64,507	\$18,480	\$0	\$0	\$830	\$0	\$83,817
2030	12	\$83,817	\$18,480	\$0	\$0	\$1,023	\$0	\$103,320
2031	13	\$103,320	\$18,480	\$0	\$0	\$1,218	\$0	\$123,018
2032	14	\$123,018	\$18,480	\$0	\$0	\$622	\$79,301	\$62,819
2033	15	\$62,819	\$18,480	\$0	\$0	\$813	\$0	\$82,112
2034	16	\$82,112	\$18,480	\$0	\$0	\$1,006	\$0	\$101,598
2035	17	\$101,598	\$18,480	\$0	\$0	\$219	\$98,208	\$22,089
2036	18	\$22,089	\$18,480	\$0	\$0	\$406	\$0	\$40,975
2037	19	\$40,975	\$18,480	\$0	\$0	\$595	\$0	\$60,049
2038	20	\$60,049	\$18,480	\$0	\$0	\$785	\$0	\$79,314

Alternative 1: Level Funding with Steps

Beginning Balance as of start of year beginning Jan 2019: \$28,291

CONTRIBUTIONS	
FIRST YR	LAST YR
\$13,440.00	\$18,480.00
\$960.00	\$1,320.00
\$1,120.00	\$1,540.00
\$80.00	\$110.00

per year
per unit per year
per month
per unit per month

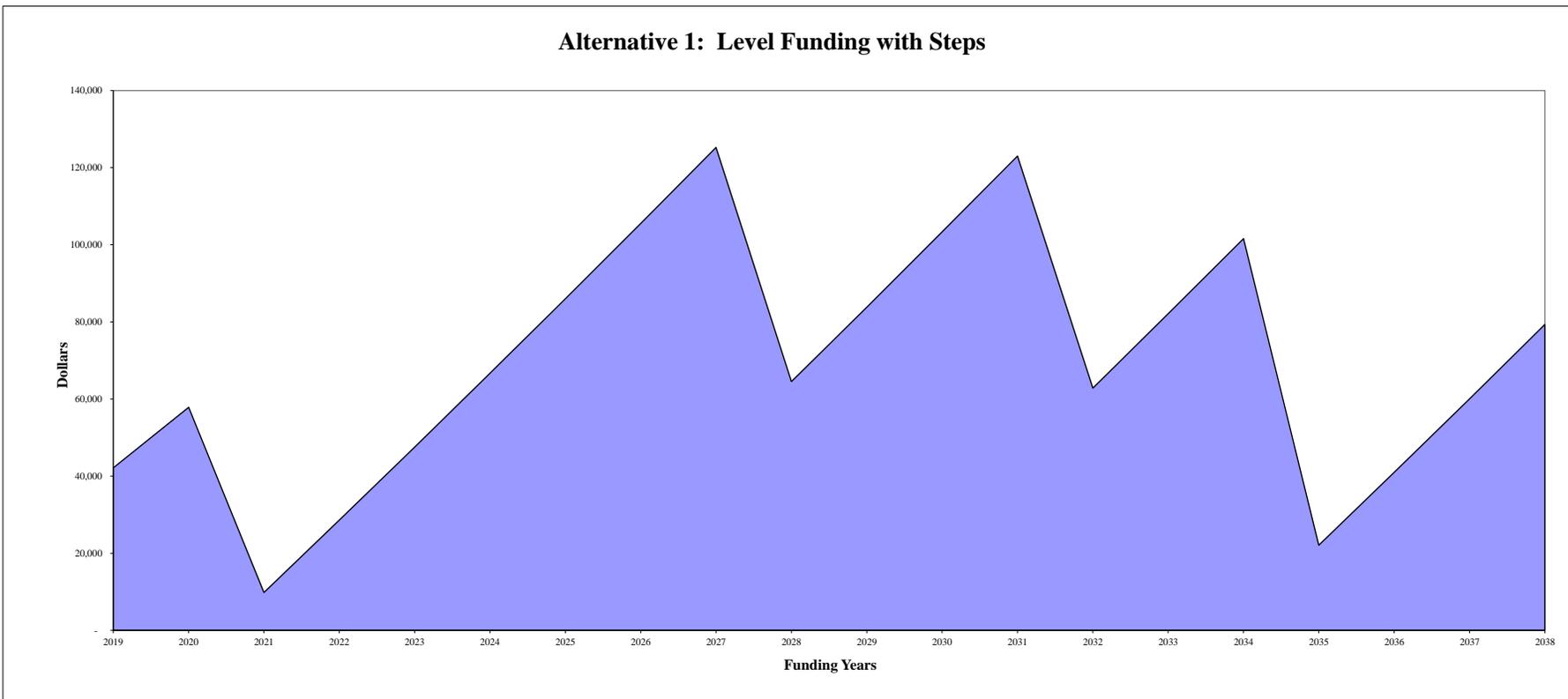
SPECIAL ASSESSMENTS			
		Totals	
First	Per Year	\$0	Per Unit
Second	Per Year	\$0	Per Unit
		\$0	\$0

SETTINGS (analyzed by unit/month)			
Starting amount (\$):	80		
Increment by (\$):	10		
Every	1	year	
Frequency:	3	time	

Projected Annual Funding and Expenditures:

Year:	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	42,148	57,841	9,811	28,574	47,525	66,665	85,996	105,521	125,241	64,507	83,817	103,320	123,018	62,819	82,112
Capital Expenditures:	-	-	64,927	-	-	-	-	-	-	79,852	-	-	-	79,301	-
Total Revenue (all sources)	13,857	15,693	16,897	18,763	18,951	19,140	19,331	19,525	19,720	19,119	19,310	19,503	19,698	19,102	19,293

Year:	2034	2035	2036	2037	2038
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	101,598	22,089	40,975	60,049	79,314
Capital Expenditures:	-	98,208	-	-	-
Total Revenue (all sources)	19,486	18,699	18,886	19,075	19,265



Alternative 2: Escalating Funding at 10% per Year



Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments 1	Special Assessments 2	Investment Earnings	Capital Expenditures	Ending Balance
2019	1	\$28,291	\$15,120	\$0	\$0	\$434	\$0	\$43,845
2020	2	\$43,845	\$16,632	\$0	\$0	\$605	\$0	\$61,082
2021	3	\$61,082	\$18,295	\$0	\$0	\$145	\$64,927	\$14,595
2022	4	\$14,595	\$20,125	\$0	\$0	\$347	\$0	\$35,066
2023	5	\$35,066	\$20,125	\$0	\$0	\$552	\$0	\$55,743
2024	6	\$55,743	\$20,125	\$0	\$0	\$759	\$0	\$76,626
2025	7	\$76,626	\$20,125	\$0	\$0	\$968	\$0	\$97,719
2026	8	\$97,719	\$20,125	\$0	\$0	\$1,178	\$0	\$119,022
2027	9	\$119,022	\$20,125	\$0	\$0	\$1,391	\$0	\$140,538
2028	10	\$140,538	\$20,125	\$0	\$0	\$808	\$79,852	\$81,619
2029	11	\$81,619	\$20,125	\$0	\$0	\$1,017	\$0	\$102,761
2030	12	\$102,761	\$20,125	\$0	\$0	\$1,229	\$0	\$124,114
2031	13	\$124,114	\$20,125	\$0	\$0	\$1,442	\$0	\$145,682
2032	14	\$145,682	\$20,125	\$0	\$0	\$865	\$79,301	\$87,371
2033	15	\$87,371	\$20,125	\$0	\$0	\$1,075	\$0	\$108,570
2034	16	\$108,570	\$20,125	\$0	\$0	\$1,287	\$0	\$129,982
2035	17	\$129,982	\$20,125	\$0	\$0	\$519	\$98,208	\$52,418
2036	18	\$52,418	\$20,125	\$0	\$0	\$725	\$0	\$73,268
2037	19	\$73,268	\$20,125	\$0	\$0	\$934	\$0	\$94,326
2038	20	\$94,326	\$20,125	\$0	\$0	\$1,145	\$0	\$115,596

Alternative 2: Escalating Funding at 10% per Year

Beginning Balance as of start of year beginning Jan 2019: \$28,291

CONTRIBUTIONS	
FIRST YR	LAST YR
\$15,120.00	\$20,124.72
\$1,080.00	\$1,437.48
\$1,260.00	\$1,677.06
\$90.00	\$119.79

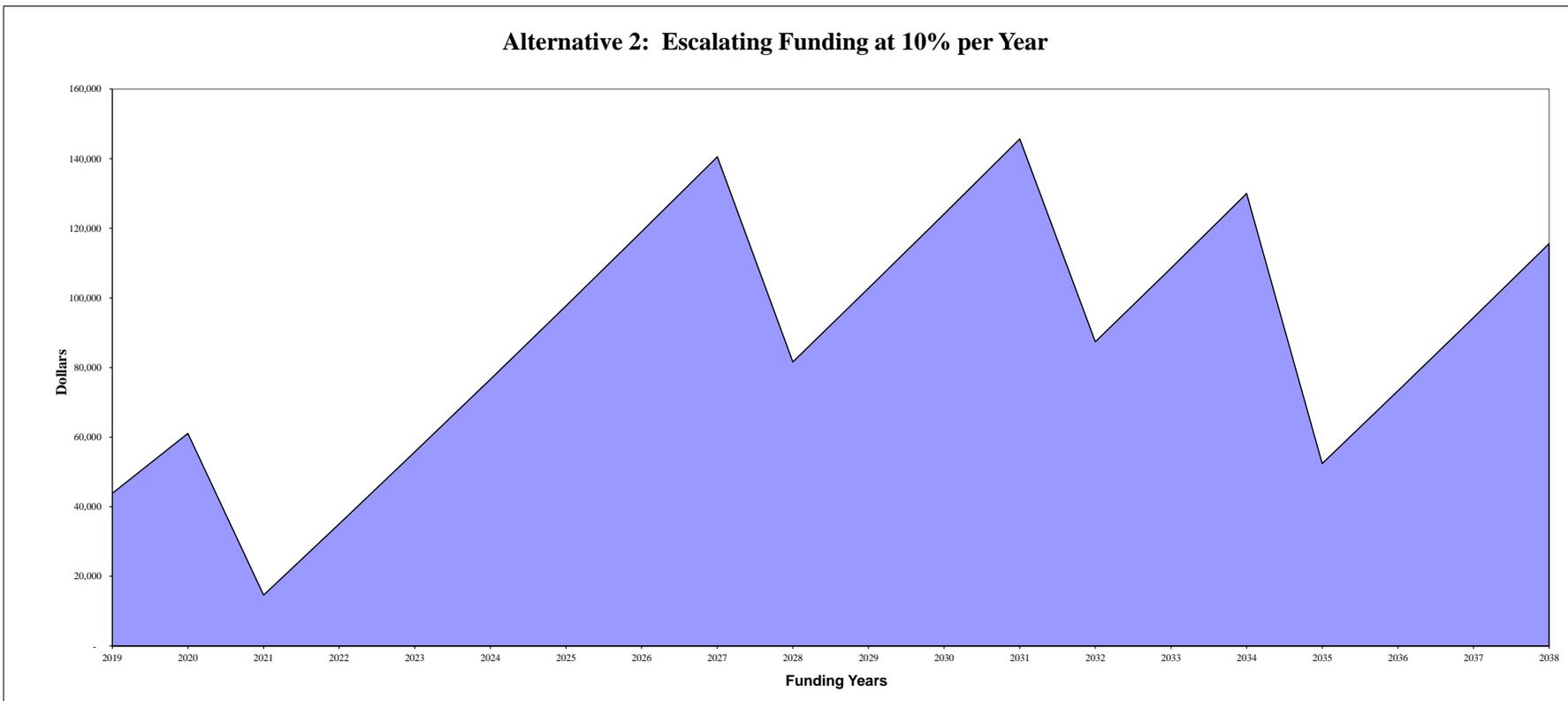
per year
per unit per year
per month
per unit per month

SPECIAL ASSESSMENTS				
First Second	Per Year Per Year	Totals		
		\$0	Per Unit	\$0
		\$0	Per Unit	\$0

SETTINGS (analyzed by unit/month)		
Starting amount (\$):	90	
Increment by (%):	10	
Step (%):		
Every	1	year
Frequency:	3	time

Projected Annual Funding and Expenditures:

Year:	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	43,845	61,082	14,595	35,066	55,743	76,626	97,719	119,022	140,538	81,619	102,761	124,114	145,682	87,371	108,570
Capital Expenditures:	-	-	64,927	-	-	-	-	-	-	79,852	-	-	-	79,301	-
Total Revenue (all sources)	15,554	17,237	18,440	20,472	20,677	20,883	21,092	21,303	21,516	20,933	21,142	21,354	21,567	20,990	21,200
Year:	2034	2035	2036	2037	2038										
Year Number:	16	17	18	19	20										
End of Year Reserve Fund Balance	129,982	52,418	73,268	94,326	115,596										
Capital Expenditures:	-	98,208	-	-	-										
Total Revenue (all sources)	21,412	20,644	20,850	21,059	21,269										



Alternative 3: Escalating Funding with Special Assessments



Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments 1	Special Assessments 2	Investment Earnings	Capital Expenditures	Ending Balance
2019	1	\$28,291	\$8,400	\$0	\$0	\$367	\$0	\$37,058
2020	2	\$37,058	\$8,820	\$0	\$0	\$459	\$0	\$46,337
2021	3	\$46,337	\$9,261	\$42,000	\$0	\$327	\$64,927	\$32,997
2022	4	\$32,997	\$9,724	\$0	\$0	\$427	\$0	\$43,149
2023	5	\$43,149	\$10,210	\$0	\$0	\$534	\$0	\$53,892
2024	6	\$53,892	\$10,721	\$0	\$0	\$646	\$0	\$65,259
2025	7	\$65,259	\$11,257	\$0	\$0	\$765	\$0	\$77,281
2026	8	\$77,281	\$11,820	\$0	\$0	\$891	\$0	\$89,992
2027	9	\$89,992	\$12,411	\$0	\$0	\$1,024	\$0	\$103,427
2028	10	\$103,427	\$13,031	\$0	\$0	\$366	\$79,852	\$36,972
2029	11	\$36,972	\$13,683	\$0	\$0	\$507	\$0	\$51,161
2030	12	\$51,161	\$14,367	\$0	\$0	\$655	\$0	\$66,183
2031	13	\$66,183	\$15,085	\$0	\$0	\$813	\$0	\$82,081
2032	14	\$82,081	\$15,839	\$0	\$0	\$186	\$79,301	\$18,806
2033	15	\$18,806	\$16,631	\$0	\$0	\$354	\$0	\$35,792
2034	16	\$35,792	\$17,463	\$0	\$0	\$533	\$0	\$53,787
2035	17	\$53,787	\$18,336	\$0	\$42,000	\$0	\$98,208	\$15,915
2036	18	\$15,915	\$19,253	\$0	\$0	\$352	\$0	\$35,520
2037	19	\$35,520	\$20,216	\$0	\$0	\$557	\$0	\$56,293
2038	20	\$56,293	\$21,226	\$0	\$0	\$775	\$0	\$78,294

Alternative 3: Escalating Funding with Special Assessments

Beginning Balance as of start of year beginning Jan 2019: \$28,291

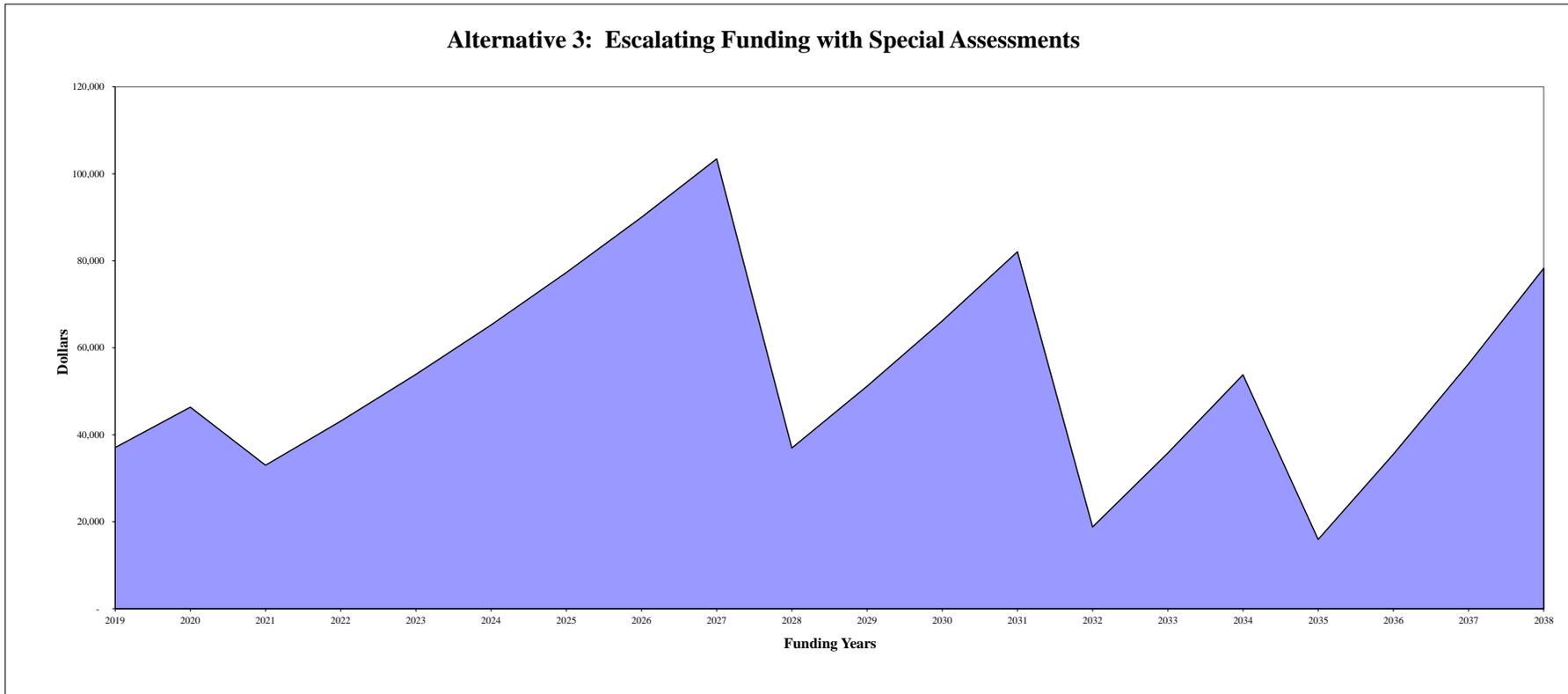
CONTRIBUTIONS	
FIRST YR	LAST YR
\$8,400.00	\$21,226.38 per year
\$600.00	\$1,516.17 per unit per year
\$700.00	\$1,768.87 per month
\$50.00	\$126.35 per unit per month

SPECIAL ASSESSMENTS				
		Totals		
First Jan 2021	Per Year	\$42,000	Per Unit	\$3,000
Second Jan 2035	Per Year	\$42,000	Per Unit	\$3,000

SETTINGS (analyzed by unit/month)	
Starting amount (\$):	50
Increment by (%):	5
Step (%):	0
Every	3 year
Frequency:	3 time

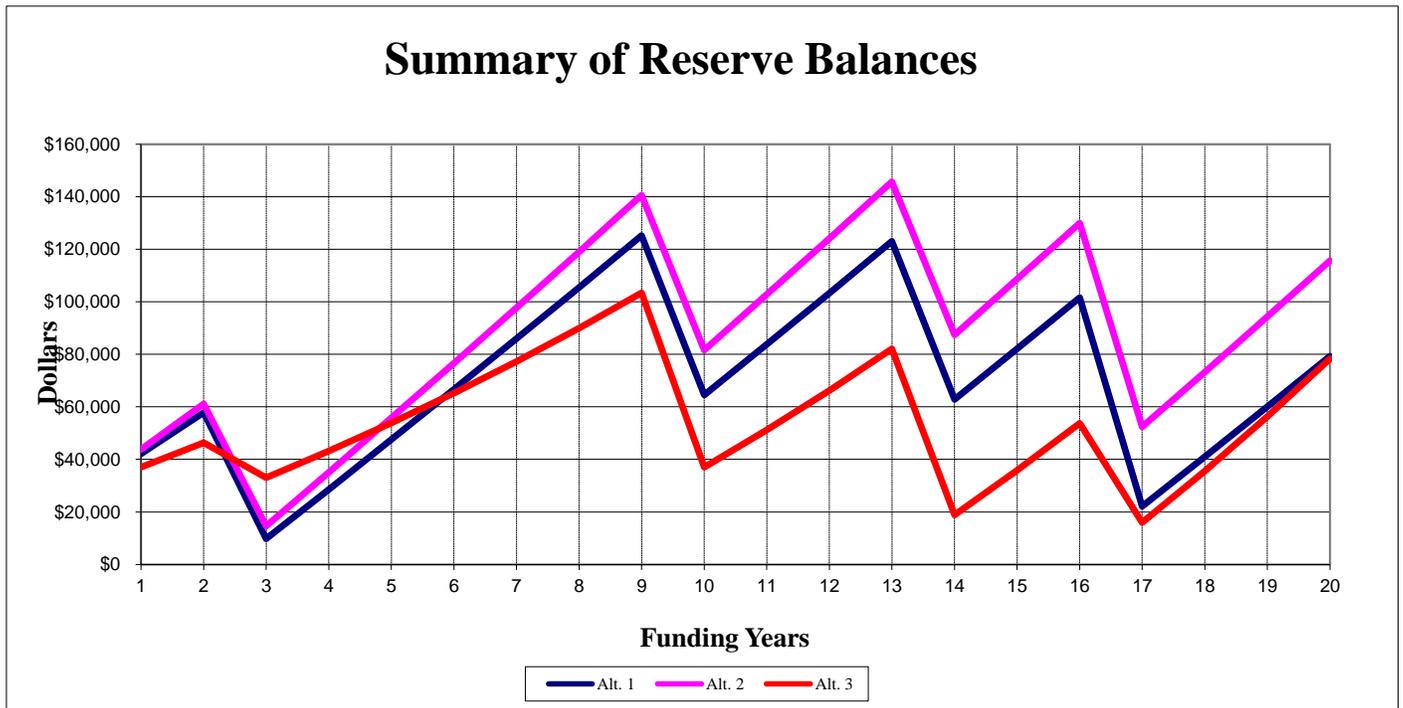
Projected Annual Funding and Expenditures:

Year:	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	37,058	46,337	32,997	43,149	53,892	65,259	77,281	89,992	103,427	36,972	51,161	66,183	82,081	18,806	35,792
Capital Expenditures:	-	-	64,927	-	-	-	-	-	-	79,852	-	-	-	79,301	-
Total Revenue (all sources)	8,767	9,279	51,588	10,151	10,744	11,367	12,022	12,711	13,435	13,397	14,189	15,022	15,898	16,026	16,986
Year:	2034	2035	2036	2037	2038										
Year Number:	16	17	18	19	20										
End of Year Reserve Fund Balance	53,787	15,915	35,520	56,293	78,294										
Capital Expenditures:	-	98,208	-	-	-										
Total Revenue (all sources)	17,996	60,336	19,605	20,773	22,002										



Summary of Reserve Balances

<u>Year</u>	<u>Year Number</u>	<u>Yearly Expenditures</u>	<u>Alt. 1</u>	<u>Alt. 2</u>	<u>Alt. 3</u>
2019	1	\$0	\$42,148	\$43,845	\$37,058
2020	2	\$0	\$57,841	\$61,082	\$46,337
2021	3	\$64,927	\$9,811	\$14,595	\$32,997
2022	4	\$0	\$28,574	\$35,066	\$43,149
2023	5	\$0	\$47,525	\$55,743	\$53,892
2024	6	\$0	\$66,665	\$76,626	\$65,259
2025	7	\$0	\$85,996	\$97,719	\$77,281
2026	8	\$0	\$105,521	\$119,022	\$89,992
2027	9	\$0	\$125,241	\$140,538	\$103,427
2028	10	\$79,852	\$64,507	\$81,619	\$36,972
2029	11	\$0	\$83,817	\$102,761	\$51,161
2030	12	\$0	\$103,320	\$124,114	\$66,183
2031	13	\$0	\$123,018	\$145,682	\$82,081
2032	14	\$79,301	\$62,819	\$87,371	\$18,806
2033	15	\$0	\$82,112	\$108,570	\$35,792
2034	16	\$0	\$101,598	\$129,982	\$53,787
2035	17	\$98,208	\$22,089	\$52,418	\$15,915
2036	18	\$0	\$40,975	\$73,268	\$35,520
2037	19	\$0	\$60,049	\$94,326	\$56,293
2038	20	\$0	\$79,314	\$115,596	\$78,294



Appendix B: PROJECT PHOTOGRAPHS

Location:
Winkler Way
Briar Chapel

Photo Taken by:
Christopher A. Flythe, PE

Date:
May 2, 2018



Description:
Front elevation

Photo Number
1



Description:
Front elevation

Photo Number
2

Location:
Winkler Way
Briar Chapel

Photo Taken by:
Christopher A. Flythe, PE

Date:
May 2, 2018



Description:
Front elevation

Photo Number
3



Description:
Rear elevation

Photo Number
4

Location:
Winkler Way
Briar Chapel

Photo Taken by:
Christopher A. Flythe, PE

Date:
May 2, 2018



Description:
Side elevation

Photo Number
5



Description:
Rear elevation

Photo Number
6

Location:
Winkler Way
Briar Chapel

Photo Taken by:
Christopher A. Flythe, PE

Date:
May 2, 2018



Description:
Previous spot
painting at rear of
units

Photo Number
7



Description:
Flaking paint at
rear trim

Photo Number
8

Location:
Winkler Way
Briar Chapel

Photo Taken by:
Christopher A. Flythe, PE

Date:
May 2, 2018



Description:
Faded paint on
darker sections

Photo Number
9



Description:
Side elevation

Photo Number
10

Location:
Winkler Way
Briar Chapel

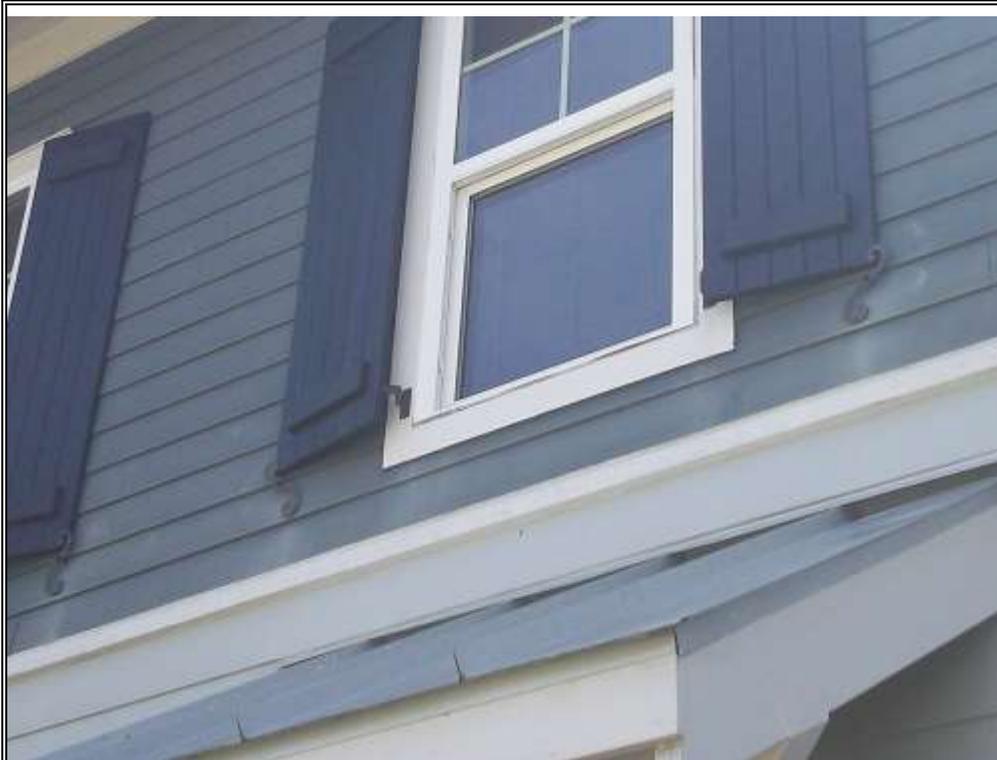
Photo Taken by:
Christopher A. Flythe, PE

Date:
May 2, 2018



Description:
Cracked caulking

Photo Number
11



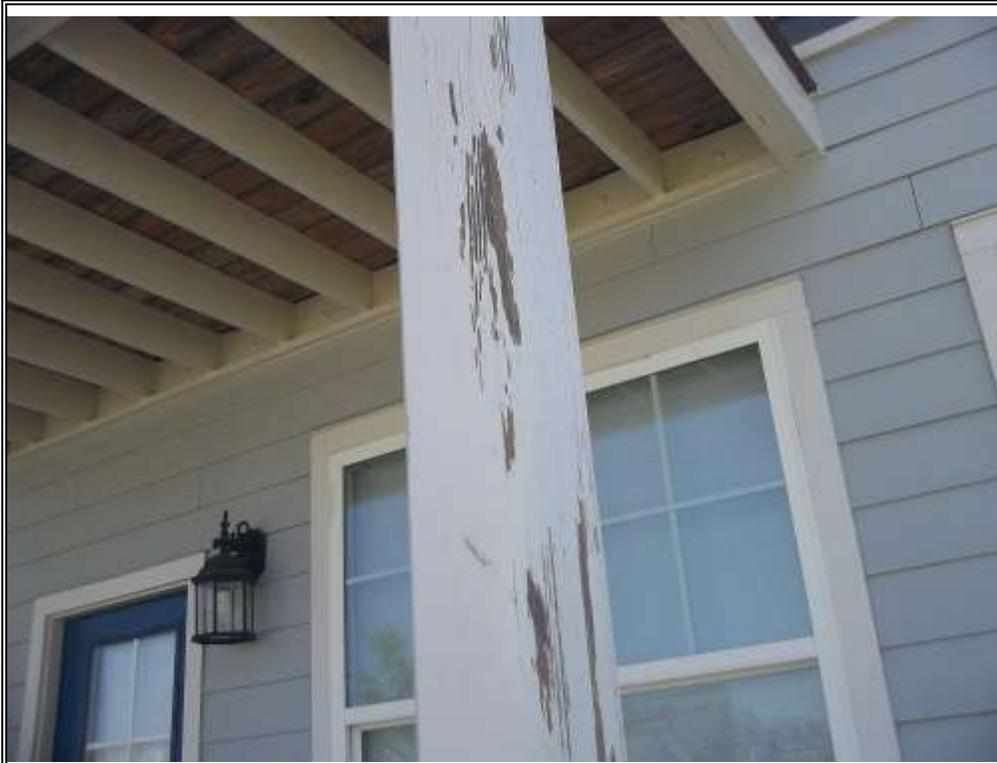
Description:
Faded paint

Photo Number
12

Location:
Winkler Way
Briar Chapel

Photo Taken by:
Christopher A. Flythe, PE

Date:
May 2, 2018



Description:
Flaking paint

Photo Number
13



Description:
Flaking paint

Photo Number
14

Location:
Winkler Way
Briar Chapel

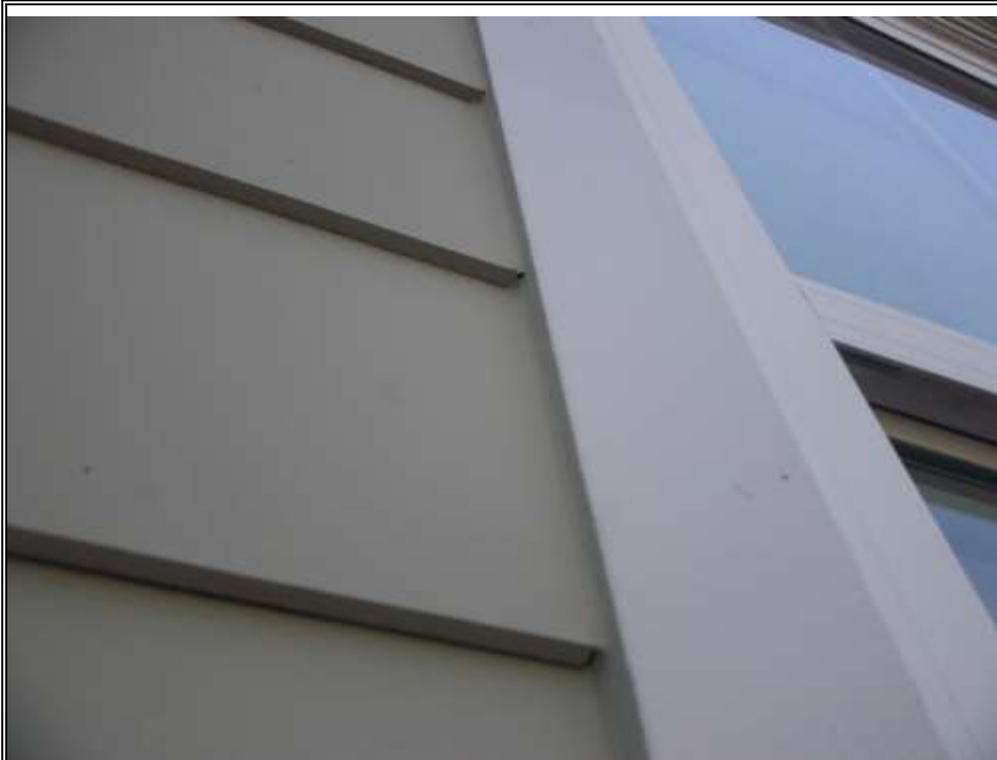
Photo Taken by:
Christopher A. Flythe, PE

Date:
May 2, 2018



Description:
Timber trim in fair
condition

Photo Number
15



Description:
Caulking in
generally good
condition

Photo Number
16

Location:
Winkler Way
Briar Chapel

Photo Taken by:
Christopher A. Flythe, PE

Date:
May 2, 2018



Description:
Cracked siding at
front window of
unit 35

Photo Number
17



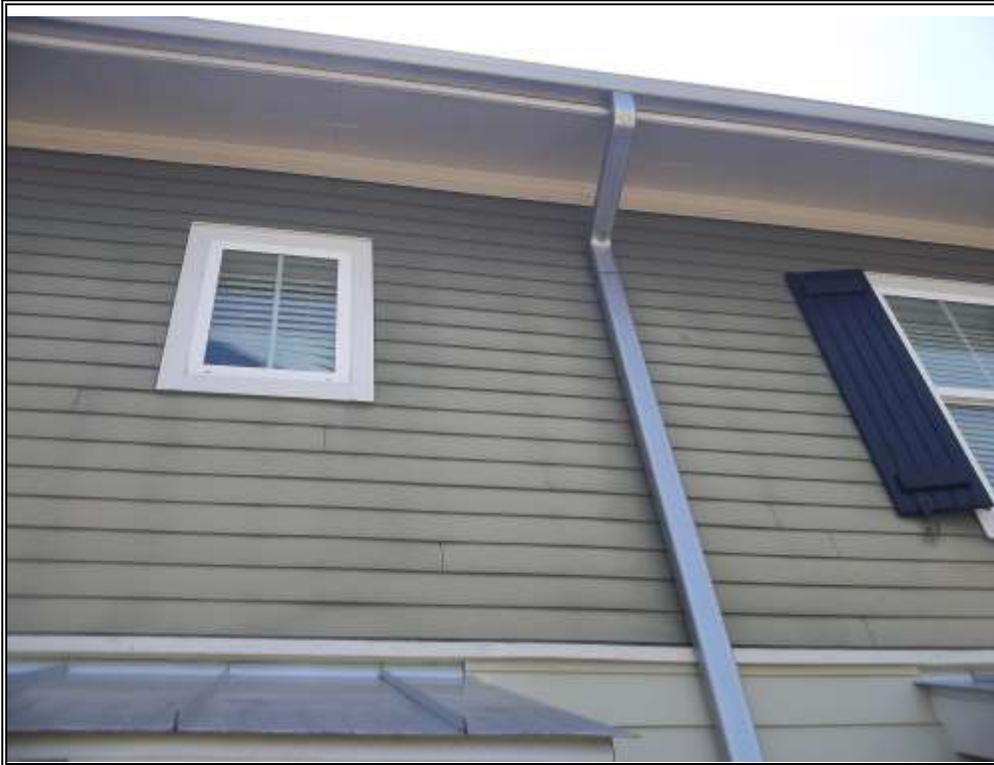
Description:
Paint in fair
condition

Photo Number
18

Location:
Winkler Way
Briar Chapel

Photo Taken by:
Christopher A. Flythe, PE

Date:
May 2, 2018



Description:
Faded paint,
typical

Photo Number
19



Description:
Limited areas of
cracked caulk

Photo Number
20