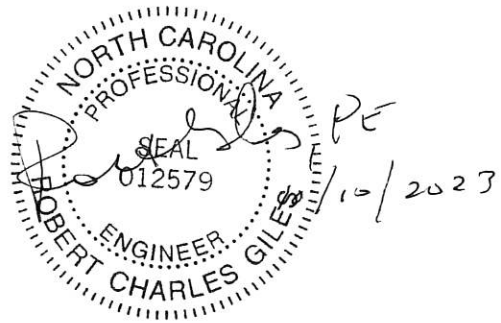


PREPARED FOR:

**PARK PLACE OWNER'S  
ASSOCIATION  
CARY, NC**

**OCTOBER 10, 2023**

**FULL RESERVE STUDY**



Raleigh Office:  
7334 Chapel Hill Road  
Suite 200  
Raleigh, NC 27607  
919.465.3801  
NC Lic. No.: C-2871

Charlotte Office:  
10400 Mallard Creek Rd.  
Suite 320  
Charlotte, NC 28262  
704.810.1808



**GILES + FLYTHE**  
ENGINEERS

# TABLE OF CONTENTS

<b>INTRODUCTIONS</b>	<b>1</b>
<b>EXECUTIVE SUMMARY</b>	<b>2</b>
<b>PURPOSE &amp; SCOPE</b>	<b>3</b>
Standards of Reference	4
<b>SOURCES OF INFORMATION</b>	<b>5</b>
Date of Inspection	5
Interviews	5
Documents	5
Cost Estimates	5
<b>DESCRIPTION</b>	<b>6</b>
<b>OBSERVATIONS</b>	<b>7</b>
Site Improvements	7
Common Building Exteriors	9
Common Building Interiors	11
Mechanical, Electrical and Plumbing Systems	12
Amenities	13
<b>RESERVE FUND ANALYSIS</b>	<b>14</b>
<b>PREVENTATIVE MAINTENANCE</b>	<b>16</b>
<b>CONCLUSION &amp; LIMITATIONS</b>	<b>17</b>
<b>Appendix A: Reserve Fund Projections</b>	
<b>Appendix B: Project Photographs</b>	

# INTRODUCTIONS

Park Place Owner's Association authorized Giles Flythe Engineers to perform a Full Reserve Study for the Park Place townhomes community located in Cary, NC. The purpose of the reserve study is to assist the association in planning future capital repair expenses. A reserve study is an important tool for an association to adequately fund capital reserve accounts through regular annual reserve contributions. Adequately funded capital reserve accounts reduce the need to defer capital repairs, collect special assessments or borrow funds for capital repair projects.

A community association typically has certain responsibilities as described in the association governing documents. These responsibilities often include maintaining common areas and other components. An association, as a non-profit organization, will typically have two general asset cash accounts including an operating account and a reserve account. The operating account is funded from regular budgeted assessments and is used to fund routine operating expenses that occur on a predictable cycle, typically monthly or up to annually. The reserve account is funded from regular contributions and is primarily used to fund non-annual capital repair expenses.

The focus of the reserve study is on the reserve account. We have projected capital repair expenses over a term of thirty years. The capital repair expenses are limited to those components for which the association is responsible for maintaining. Capital repair expense estimates include an expected useful life and remaining useful life of the components to develop a projected schedule for capital repairs over the term. After developing a schedule of capital repairs over the term, we completed a cash flow analysis forecasting reserve account balances over the term and provided funding recommendations as needed. Capital repair expense estimates and funding estimates are most reliable in the first portion of the term. Updating a reserve study every three to five years will mitigate the impacts of variation in repair costs, component wear, inflation and reserve funding over time.

Capital reserve funding recommendations are provided to address funding principles including providing sufficient funds required, a stable reserve contribution rate over the term, an equitable contribution rate over the term, and fiscal responsibility. The reserve study is intended to assist the association in developing budgeted reserve contributions.

The report includes a narrative section which describes the scope of the reserve study, a discussion of observations and capital repair allocations, a general description of capital repairs and a description of our cash flow analysis and funding recommendations. The report appendices include the capital reserve analysis with tables detailing an itemized list of capital repair expenses, an itemized list of expenses by year and our cash flow analysis. A photo log is provided and includes a representative sample of our observations. The report includes multiple sections with information presented in various forms and should, therefore, be read in its entirety.

# EXECUTIVE SUMMARY

The Park Place community is comprised of 104 residential townhomes that were constructed in phases between approximately 1995 and 1999 according to Wake County Tax Records. The community is located along Vinca Circle, Center Pointe Drive and Colchis Court in Cary, NC.

The association has responsibility for the townhome building exterior components and various site improvements and amenities. The most significant site improvements are the asphalt paved parking areas, the drainage systems, and retaining walls. Amenities include a swimming pool and clubhouse facility.

The buildings, common areas and grounds are generally in good to fair condition with some areas of deferred maintenance observed. 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 are intended in the long term to provide a reserve balance over a minimum threshold balance. We generally recommend a threshold balance of at least an average year of capital repair expenditures. A more detailed analysis of the reserve fund has been provided in Appendix A.

- **Alternative 1:** In 2024, collect a special assessment or possibly a loan in the amount of \$425,000 to fund near term repair needs. Beginning in 2024, increase the annual reserve contribution by \$30,000 per year for 13 years.
- **Alternative 2:** In 2024, increase the annual reserve contribution to \$435,000 per year. Then, increase the reserve contribution by 3% each year for the following 5 years.

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

- Resurface asphalt paving
- Repair/replace building roofs
- Paint/repair/replace exterior surfaces

Additional capital expenditures are anticipated over the term of this study. Those items that will require repair or replacement are discussed later in this report.

## PURPOSE & SCOPE

We have completed this study to estimate capital repair expenses the association is responsible for over the term of the study and provide a cash flow analysis and capital reserve funding plan. This study is intended to assist the association in determining the allocation requirements into the reserve fund which are projected to meet future anticipated capital expenditures for the community.

This report estimates capital repair expenses for the community thirty years into the future. Variations in capital repair expense forecasts due to the quality of maintenance, weather and other events may occur. Over time, age, premature deterioration, or other factors may necessitate the addition of assets into the reserve study. Additionally, fluctuations in material and labor costs beyond assumed inflation rates may also affect the accuracy of the forecasts. Therefore, a reserve study should be routinely updated, typically on a three to five-year cycle to provide the most accurate assessment of needs and financial obligations of the community.

This study has been performed according to the scope as generally defined by Park Place Owner's Association, Giles Flythe 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 a limited visual inspection of the components maintained by the association.

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 intended in the long term to provide a reserve balance over a minimum threshold balance. We generally recommend a threshold balance of at least an average year of capital repair expenditures. This minimum threshold balance will help offset the risk of fluctuations in labor and material costs and component wear. Note that under certain circumstances to accommodate restricted budgets, projected balances may be below the threshold balance for a short period of time.

To determine which components should be included in this analysis, we used the following guidelines:

- The component must be maintained by the association.
- The component must have an estimated remaining useful life within the term of this study.
- The funding for the repair should be from the reserve account, not through an annual operating budget or other maintenance contracts.
- The cost of the capital repair must be significant enough to not be reasonably funded from an annual operating budget.

### What is a reserve study?

A reserve study is a long-term capital budget planning tool which compares the current reserve fund of an organization to future capital repairs and replacements.

A reserve study is a tool to help identify and prepare for major repair and replacement projects for a community.

It is recommended that a reserve study be performed every five years to ensure that communities are saving the necessary funds for capital repairs and improvements.

Our process for completing the reserve study includes:

1. Reviewing information provided including governing documents, association financial statements, and information on previous or planned capital repairs.
2. Reviewing available information on the property as needed. This may include plat maps, tax records, historical aerial photographs, available site, and building plans.
3. Conducting a visual inspection of the property. This may include interviewing association representatives during the inspection.
4. Developing an inventory of components to be included in the reserve study.
5. Predicting their remaining service life and, approximating how frequently they will require repair or replacement.
6. Estimating repair or replacement costs (in current dollars) for each capital item.
7. Develop a cash flow analysis adjusting for inflation and return on invested monies to determine the adequacy of current reserve funding plans.
8. Develop funding recommendations with specific reserve contribution recommendations for each year of the term.

The statements in this report are opinions about the present condition of the areas inspected within the community. Our inspection is limited to a visual ground level inspection and we did not remove any surface materials, perform any testing, or move any furnishings. This study is not an exhaustive technical evaluation or building code compliance review. For additional limitations, see Conclusion and Limitations.

## Standards of Reference

The following definitions are provided as a standard of reference:

*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 the 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. The 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.

# SOURCES OF INFORMATION

## Date of Inspection

Onsite inspection of the property occurred on August 14, 2023

## Interviews

We interviewed the following people in connection with this study:

- Board members during site inspection and meeting on 10/6/2023
- Community Manager

## Documents

The following documents were made available to us and reviewed:

- Wake County tax records and a sample of recorded plat maps
- Association governing documents
- Association financial information
- Recent and planned capital repair projects and cost information

## Cost Estimates

- Our internal data files on similar projects
- Local contractor estimates for similar projects
- R.S. Means Construction Cost Estimating Data

## DESCRIPTION

The Park Place community is comprised of 104 residential townhomes that were constructed in phases between approximately 1995 and 1999 according to Wake County Tax Records. The community is located along Vinca Circle, Center Pointe Drive and Colchis Court in Cary, NC.

The association has responsibility for the townhome building exterior components and various site improvements and amenities. The most significant site improvements are the asphalt paved parking areas, the drainage systems, and retaining walls. Amenities include a swimming pool and clubhouse facility.

The townhome buildings are generally wood framed on masonry/concrete foundations. The exterior of the townhomes includes lap siding with composite and wood trim components. The clubhouse building is wood framed and includes interior areas and bathroom facilities along with a mechanical room.



# OBSERVATIONS

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

**Note that some capital repairs were delayed beyond ideal repair timelines due to funding constraints.**

## Site Improvements

The asphalt paved parking areas located throughout the community are maintained by the association and varied in condition. We observed substantial areas with significant fatigue cracking (alligatoring). Fatigue cracking is evidence of base course/sub-grade failure and will require full depth reclamation to repair or full resurfacing to repair. Several areas of asphalt delamination and failure were also observed.

We have allocated funds for full depth repairs of sections of the asphalt paving on a 5-year cycle beginning in 2024. This would include saw-cutting and removing asphalt paving in limited areas of the most significant fatigue cracking and failure. After removing the asphalt paving in sections, the sub-grade/base-course may require improvement prior to installation of a 3- to 4-inch-thick asphalt patch. Note that we have allocated funds for repairing limited areas of the most significant failures in the asphalt paving. Ideally, full milling and resurfacing would be completed in the near term.

Asphalt paving in this area typically has an expected useful life of approximately 20-30 years, depending on size and frequency of traffic. Over time, asphalt oxidation, fatigue cracking (alligator cracking), longitudinal/transverse cracking, exposed aggregate, and potholes will continue to develop in asphalt paving, depending on the amount of wear and age. We have allocated funds to resurface the asphalt paving in 2028. Note that this has been deferred due to significant funding constraints.

Resurfacing of the asphalt paving will require milling the existing asphalt wearing surface down to maintain an adequate drainage profile. In areas of fatigue cracking, substantial repairs will be required and may include saw cutting damaged areas of the asphalt base course, repairing and re-compaction of the stone aggregate, and repairing sub-grade. Depending on conditions, a minimum of a single new course at approximately 1.5 to 2-inches thick for a total thickness of approximately 3 to 4-inches of paving is typically recommended for resurfacing.

We typically recommend crack filling and surface treatment (seal coating) of asphalt paved surfaces on an approximately 5-year cycle to prolong the useful life of the paving. We have allocated funds for crack filling and surface treatment of the asphalt paved parking areas on a 5-year cycle beginning in 2029 (after remaining areas are resurfaced). This would include re-striping parking lot markings.

The asphalt paving is bordered by concrete curb and gutter. We noted areas of cracking and spalling developing in sections of the concrete curb and gutter. We have allocated funds to replace approximately 5%

of the concrete curb and gutter every 8 years beginning in 2028. This would include saw-cutting and removing damaged sections of curbing and installing new concrete curb and gutter.

Concrete flatwork includes walkways leading up the individual units and the concrete around the clubhouse and swimming pool deck. Note that the association is reportedly not responsible for maintaining concrete driveways serving individual townhome units. We observed cracking and upheaval developing in sections of the concrete flatwork. We have allocated funds to replace approximately 5% of the concrete flatwork every 4 years beginning in 2025. We have assumed any potential trip-hazards would be repaired in the interim. Replacement would include saw-cutting and removing damaged sections of concrete flatwork and installing a new concrete approximately 4-inches thick with welded wire and/or steel rebar reinforcement as needed.

Masonry steps lead to front porches on the units and masonry accent/privacy walls are installed between units on the front of the buildings. We noted settlement cracking and concerns in limited areas and reportedly the association has been repairing/replacing sections of brick steps and accent walls periodically. We have allocated funds to continue to repair/replace sections of brick steps and accent walls in the community on a 2-year cycle.

Common area drainage systems include inlet catch basins in the paved and landscaped areas, swales between buildings, and roof gutters that lead to downspout leaders. Limited areas include previously installed buried piping and inlets. The larger inlet catch basins lead to stormwater piping that discharges toward a creek along the southwest border of the property. Stone rip rap armoring is installed in several areas in the community. We observed erosion developing along embankments in multiple areas and adjacent to buildings in multiple areas. Note that shaded areas include minimal soil stabilizing ground cover. We have allocated funds for common area drainage system repairs and improvements on a 5-year cycle beginning in 2026. Repairs will likely include repairing concerns noted above, clearing catch basins and underground piping, repairing erosion concerns, and installing other types of minor subsurface drainage systems. Maintenance should include a camera inspection of sections of piping with potential blockages or leaks and pressure-jetting any accumulated silts or debris and/or repairing leaks as necessary.

Entrance signage includes a masonry structure at the entrance on Center Pointe Drive and Cary Parkway. The sign includes a painted sign inlay with raised lettering. The sign generally appeared to be in good condition and we have allocated funds to refurbish the sign on a 10-year cycle beginning in 2020. This would include replacing the sign inlay, repairing the masonry structure and the landscape lighting system around the sign.

Metal fencing is installed around the pool area and appears to be of a height less than the 48 to 54-inches currently required. We have allocated funds to replace the pool fencing in 2025 and on a 30-year cycle.

Mailboxes are installed on posts throughout the community along the streets in front of the units. The mailboxes appeared to be in fair to poor condition and the association is planning to replace the mailboxes in the near term. We have allocated funds to replace the mailboxes based on cost information provided in 2024 and on a 15-year cycle.

A wood timber retaining wall is located adjacent to 506 Center Pointe Drive along the street. The wood timber retaining wall is in poor condition and is planned for replacement in 2023. Replacement is reportedly to include the installation of a mechanically stabilized earth (MSE) concrete block retaining wall system. The funding of this project is planned through the current 2023 capital repair budget. Assuming this type of wall system is installed correctly and drainage systems around the wall are well maintained, the new retaining wall should have an expected useful life well beyond the term of this study. We observed other small sections of wood timber retaining walls in the community, we have assumed these wall sections would be repaired/replaced through an annual maintenance budget.

Typically, an association is responsible for maintaining common water and sewer piping installed under common areas. These components typically have an expected useful life beyond the term of this study. However, it is likely that sections of the buried PVC sewer lines in common areas will begin to require repair over the term. Reportedly, limited sections of piping have been previously replaced. We have provided an allocation of funds to repair the buried utilities on a 3-year cycle beginning in 2025. The association may conduct video borescope inspections of a sample of sections to the piping to determine condition and better predict repair needs.

As requested, we have included an allocation of funds for major tree trimming/removal and landscape overhaul projects on a 5-year cycle beginning in 2028.

## **Common Building Exteriors**

The townhome and clubhouse building roof surfaces are clad in architectural grade shingles. Architectural grade shingles have an expected useful life of approximately 25-years. The roofing on the following units appears to be of original construction: 442 and 444 Center Pointe Drive; 200, 202, 204, 206, 312 and 314 Vinca Circle. We have allocated funds to replace these unit roofs in 2024 and on a 25-year cycle. The roofs on the all the remaining buildings were reportedly replaced in 2016 and 2017 as a result of hail/storm damage and generally appeared to be in good condition. We have allocated funds to replace these remaining shingled roofs in 2041 and on a 25-year cycle. Note that minor repairs to flashing, vent boots, curbs, and other transitions may be required in the interim. We have assumed these repairs would be funded from an operating or maintenance budget.

We strongly recommend that any re-roofing project closely follow procedures outlined by the National Roofing Contractors Association's *Roofing and Waterproofing Manual*. A re-roofing sequence should include removal of the existing roofing material, and the replacement of any damaged flashing.

The gutters on the buildings generally appeared to be in adequate condition and typically have an expected useful life of approximately 40-years assuming minor repairs and maintenance are completed in the interim. However, the association has experienced premature failure in wood trim and patio door units on the rear of select units. At the rear of select units, a steep section of roofing drains to gutters directly above rear patio door units with minimal overhang. At these locations, gutter downspouts from upper-level roofs discharge onto the roof directly above the patio door units. It is likely that the combination of the large steep sloped roof area and the gutter downspouts from upper-level roofs in the same area has resulted in gutters overflowing

above the patio door units during significant rain events. The gutters in this area appear to be standard 5-inch k-style gutters with 2"x3" downspouts. Repair options would likely include installing larger gutters (6-inch or larger) and larger downspouts (3"x4" or larger). Additionally, the downspouts from upper-level roofs discharging in this area may be routed all the way down to discharge at grade to reduce volume of water in the gutters above the patio doors. Finally, the gutters and downspouts should be maintained free for debris and adequately sloped to ensure adequate flow of water. Gutter guards may also be installed to reduce the need for cleaning/maintenance. We have allocated funds in 2024 to replace these sections of gutters above patio doors on select units. The remaining gutters and downspouts generally appeared adequate, and we have allocated funds for their replacement in conjunction with roof replacements in 2041.

The buildings are predominantly clad in lap siding. It appears the original siding was a Masonite type composite siding. Previous paint cycles have included sectional replacement with more moisture resistant fiber-cement type lap siding. Painted wood and composite trim were observed on the buildings. We recommend continuing with exterior siding repair and paint cycles on a 6-year cycle. Each paint cycle should include replacing damaged sections of siding and trim with moisture resistant fiber cement components or possibly rot proof PVC trim components. Paint cycles should also include removing and replacing damaged caulking and sealants as needed, adequate surface preparations and the application of 2-coats of a high-quality exterior latex paint on the painted surfaces of the buildings. The association provided a schedule for exterior painting/repair projects and the condition of the siding and trim generally appeared consistent with the provided schedule. We have allocated funds to continue exterior repairs and painting cycle in 4 phases on a 6-year cycle with the first phase beginning in 2025. We have allocated funds on the following phases by unit:

Address	Phase	Next	Address	Phase	Next
<b>Center Pointe Drive</b>			<b>Colchis Court</b>		
501, 503, 505, 507	3	2028	120, 122, 124, 126	3	2028
500, 502, 504, 506	1	2025	111, 113, 115, 117	2	2027
440, 442, 444, 446	3	2028	110, 112, 114, 116	2	2027
437, 439, 441, 443	3	2028	101, 103, 105, 107	2	2027
430, 432, 434, 436	3	2028	100, 102, 104, 106	2	2027
420, 422, 424, 426	3	2028	<b>Vinca Circle</b>		
410, 412, 414, 416	3	2028	320, 322, 324, 326	2	2027
401, 403, 405, 407	3	2028	310, 312, 314, 316	2	2027
400, 402, 404, 406	1	2025	301, 303, 305, 307	2	2027
324, 326, 328, 330	1	2025	300, 302, 304, 306	4	2029
319, 321, 323, 325	1	2025	230, 232, 234, 236	2	2027
309, 311, 313, 315	1	2025	220, 222, 224, 226	4	2029
<b>Clubhouse</b>	4	2029	210, 212, 214, 216	4	2029
			201, 203, 205, 207	4	2029
			200, 202, 204, 206	4	2029

Rear wood framed decks are installed on most of the units in the community. We observed 19 of the units with enclosed rear decks which are reportedly the responsibility of the individual unit owner to maintain. The rear decks varied in condition and appeared to have been periodically stained with repairs completed as needed. We observed approximately 24 unit decks in poor condition with significant deterioration in deck boards, loose/damaged railings and structural framing concerns. Note that the reserve study inspection is a general inspection of the condition of the components, we did not perform a full evaluation of the condition of all the decks in the community. There may be other significant structural concerns with other unit decks that were not observed during the reserve study inspection. We recommend the association routinely inspect the condition of the rear decks and steps and complete any structural repairs as needed. We noted the following unit decks to generally be in poor condition during our inspection: Center Pointe Drive: 400-406, 420-426, 437-443, 500-506; Vinca Circle: 210-216, 220-226. Considering the age of the decks and the significance of the concerns observed, we recommend fully replacing these units' decks in the immediate term and have allocated funds for replacement in 2024. We have allocated funds to replace all the remaining unit decks on a schedule to include approximately ¼ of the remaining decks every 7-years. We have also allocated funds to stain and repair the decks on a schedule to include ½ of the unit decks every 3-years beginning in 2024. Deck replacements should be completed in accordance with the North Carolina Building Code and include new footings, posts, girders, floor joists, railings, steps and decking. Stain/repair projects should include structural repairs as needed, repairing railings, steps and decking as needed and the application of an exterior wood stain to exposed components.

The association is reportedly responsible for the replacement of the rear patio doors and front entry doors on the buildings. Premature failure has reportedly been an ongoing concern with select rear patio doors and we have provided recommendations above to address gutter concerns above select units to reduce the premature failure in rear patio doors. We have also allocated funds to replace approximately ¼ of the rear patio door units on a 7-year cycle beginning in 2027. The front entry doors generally appeared to be in adequate condition, and we have allocated funds for replacement of the front doors on a 40-year cycle beginning in 2039.

The clubhouse includes windows and doors, and the majority of the windows were recently replaced. We have assumed the remaining windows would be replaced through a maintenance budget as needed. We have allocated funds to replace the doors at the clubhouse in 2034. We have assumed the pool room/chemical room doors would be replaced as needed through an annual maintenance budget.

The association is reportedly responsible for assisting with window replacement on the individual units. This has reportedly included a partial reimbursement of the expense of window replacements and has been funded from an annual maintenance budget. We have assumed future partial reimbursements for window replacements would continue to be funded from an annual maintenance budget.

## **Common Building Interiors**

The association is responsible for maintaining the interior of the clubhouse building. The interior walls of the buildings are primarily finished with smooth finished painted drywall and trim. To maintain a clean and bright

appearance, the interior walls will require periodic repainting and minor repairs. We have assumed this would be funded from an annual maintenance budget.

Flooring in the main areas of the clubhouse is comprised of a vinyl tile type flooring that appeared to be in good condition. We have allocated funds to replace this flooring on a 15-year cycle beginning in 2032. The clubhouse includes a kitchen area with cabinets and countertops that appeared to be of significant age. Kitchen appliances include a refrigerator, microwave, stove/oven, and dishwasher. We have allocated funds to replace the appliances on a 15-year cycle beginning in 2038. We have allocated funds to replace the cabinets and countertops on a 15-year cycle beginning in 2029.

The clubhouse includes men's and women's restrooms with a standard toilet and sink in each. We have allocated funds to replace the restroom fixtures in 2025 and on a 15-year cycle.

The clubhouse storage room includes rough finishes that we have assumed would be maintained through an annual maintenance budget. We have also assumed the limited furnishings would be replaced as needed through an annual maintenance budget.

## **Mechanical, Electrical and Plumbing Systems**

The Association is responsible for maintaining the mechanical, electrical and plumbing systems servicing the clubhouse. This includes backflow preventers, water supply and wastewater piping, and electrical distribution wiring and panels. These systems should have an expected useful life beyond the term of this study and not require full replacement. However, we have provided a contingency to repair the plumbing and electrical systems at the clubhouse/pool area on a 10-year cycle. Considering the age of the facility, we recommend the association hire a licensed electrician to periodically check the condition of the electrical systems and bonding wire system at the swimming pool and complete any repairs as needed.

Domestic hot water for the clubhouse is provided by a 40-gallon capacity electric water heater that was manufactured in 1996. Water heaters have an expected usable life of approximately 12 to 15 years, and we have allocated funds for replacement in 2024. A drinking water fountain is located in the clubhouse, and we have allocated funds for its replacement in 2027 and on a 15-year cycle.

Heating Ventilation and Air Conditioning (HVAC) systems include a Trane 3.5-ton capacity heat pump located on the exterior of the building with a fan coil unit located in the attic space. The heat pump was manufactured in 2011 and has an expected useful life of approximately 15 years. We have allocated funds for replacing the HVAC equipment in 2026 and on a 15-year cycle.

Entry to the buildings and swimming pool is secured by a traditional keyed lock system. Most communities have converted to electronic lock systems with key-fob/card readers to provide secure access to pool areas for members. We have allocated funds to install an electronic access control system at the swimming pool/clubhouse in 2025 and for future repair/replacement on an 8-year cycle.

## **Amenities**

Amenities owned and maintained by the Association include the swimming pool with associated furnishings and equipment.

The swimming pool surfaces appeared to be in adequate condition, however; the swimming pools were filled with water at the time of inspection, and we could not physically examine the entire surface. Swimming pool plaster surfaces typically require repair and recoating on an approximate 10- to 15-year cycle. We have allocated funds to resurface the pool on a 12-year cycle beginning in 2027. Resurfacing would include draining the pool, removing plastering, repairing concrete as needed, repairing/replacing tilework and replastering the pool surface with a quartz type plaster.

Pool pump and filtration equipment is located in an equipment room. Pool pump and filtration equipment components are typically replaced as they fail. We have allocated funds to repair/replace components of the pump and filtration equipment servicing the pool on a 3-year cycle beginning in 2026.

The pool includes a safety cover that has been recently replaced. The pool cover has an expected useful life of approximately 10-years, and we have allocated funds as such.

We have assumed the limited pool area furnishings would be replaced as needed through an annual maintenance budget.

# RESERVE FUND ANALYSIS

We have performed a cash flow analysis projecting balances in the reserve account over the term of this study. We have included estimated capital repair expenses detailed in the first several pages of Appendix A. We have included tables and graphs depicting current funding levels along with recommended funding alternatives.

The financial projections include an assumed inflation rate and average return on invested funds noted on the first page of the appendices. The inflation rate adjustment is noted at the bottom of the annual expense page and the return on invested funds is noted in the existing funding level and funding alternative cash flow tables.

The software utilized to analyze the reserve funds was developed by Giles Flythe Engineers, Inc. in cooperation with a technology consultancy. The software and our analysis system have been extensively reviewed by leading community association and non-profit certified public accountants.

The capital repairs listed were derived from the initial request for proposal, discussions with association representatives, our informal review of governing documents and our site inspection. The association should confirm that the items listed are, in fact, the responsibility of the association and appropriate to fund from the reserve account.

Appendix A includes the following:

1. The Project Summary page lists pertinent details specific to the association, the terms of the analysis and summarizes total over term expenses and recommended threshold balance.
2. The Expense Projection page that itemizes the capital repairs by category, illustrates our cost estimating by unit and provides estimated useful life and remaining useful life of each item.
3. The Annual Expense Projection pages that populate the capital repairs over the term of the study. This page includes a total adjusted for inflation at the bottom of the pages.
4. The Itemized Funding Analysis page provides a summary of the capital expenditures over the term and a graph breaking down the portion of the capital repairs into each category – Site Improvements, Building Exterior, Building Interior, Mechanical/Electrical/Plumbing Systems and Amenities.
5. The Current Funding Projection page provides a table and graph illustrating our cash flow analysis assuming the association maintains the current level of reserve contributions over the term of this study. The table includes projected reserve account balances, contributions, return on invested funds and capital repair expenses for each year of the term of this study.
6. The Funding Alternative pages each provide a table and graph illustrating our cash flow analysis assuming the association implements one of our funding recommendations detailed below.



<b>Current Reserve Funding Rate:</b>	<b>\$155,000 per year. Note this assumes the current “painting, door replacement, mailboxes, siding replacement” line items from the budget would be applied to reserve contributions going forward.</b>
<b>Starting Reserve Balance:</b>	<b>\$20,900</b>

Note that based on our cash flow analysis, maintaining the current funding level is not projected to maintain a positive/healthy balance over the term. We have included recommended funding alternatives to your current reserve-funding program and recommend that the board adopt an alternative that best reflects the objectives of the community. We have provided recommendations for annual reserve contribution schedules that are intended in the long term to provide a reserve balance over a minimum threshold balance. We generally recommend a threshold balance of at least an average year of capital repair expenditures. Our funding recommendations are as follows:

- **Alternative 1:** In 2024, collect a special assessment or possibly a loan in the amount of \$425,000 to fund near term repair needs. Beginning in 2024, increase the annual reserve contribution by \$30,000 per year for 13 years.
- **Alternative 2:** In 2024, increase the annual reserve contribution to \$435,000 per year. Then, increase the reserve contribution by 3% each year for the following 5 years.

The reserve study is focused on the capital reserve account and budgeted contributions to reserves. The recommendations above are solely attributed to the annual reserve contributions. The association likely has many line items in the annual operating budget that should also be periodically adjusted as part of an annual budgeting process.

The capital repair/replacement cost estimates we have developed are based on 2023 dollars. Our reserve study does include an adjustment for inflation and an assumed rate of return on invested funds.

# PREVENTATIVE MAINTENANCE

Preventative maintenance is a critical aspect affecting a property's life cycle costs and structural safety. It is encouraged that every property owner have a preventative maintenance plan prepared. The reserve study is not to be considered a preventative maintenance plan. A preventative maintenance plan should incorporate all applicable common elements, not just those components included within the reserve study.

Any information provided by the client regarding ongoing maintenance or repair being performed with any component has been noted within the notes for that component. We can only be aware of preventative maintenance plans or programs that have been disclosed by the client. Note that an audit or evaluation of any maintenance plan or maintenance contract is outside the scope of the services of this project.

In some states and municipalities, periodic structural inspection reports are required for certain types of buildings. This periodic inspection report is critical to assist the reserve study provider in incorporating necessary corrective maintenance costs and timing. We recommend the association complete any and all required structural inspections and reports and have assumed these reports would be made available for our review during the reserve study.

We have assumed repairs under a dollar value of approximately \$1,000 would be funded as part of an annual maintenance budget. These repairs were not included in the funding allocations of this reserve study unless otherwise noted. We have assumed other component repairs/replacements would be funded from an annual maintenance budget as noted in the report.

## CONCLUSION & LIMITATIONS

We have provided reserve funding recommendations based on our analysis of the association-maintained components, estimated capital repair costs over the term and the current funding levels. Further detail of the reserve fund analysis is provided in Appendix A.

The physical analysis portion of this reserve study was completed through a limited visual inspection. The visual inspection was completed from ground level unless otherwise specified. The visual inspection is generally limited to readily accessible and visible common areas that would likely require capital repair activities over the term. However, in some instances a representative sample inspection may be performed. Measurement of components is completed by a combination of field measurements, aerial imagery measuring tools and take-offs from construction drawings as available. Unless specifically noted, the components included in this study have an anticipated remaining useful life within 30-years from the time the field observations used in preparing the study was performed.

Note that this inspection does not include removing surface materials, excavation or any testing. The inspection does not include riparian buffers or other protected common areas. Buried utility components and other concealed components were not inspected as part of this analysis and we cannot be responsible for the condition of components not inspected.

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 Park Place Owner's Association. No other party should rely on the information in this report without consent. If another individual or party relies on this study, they shall indemnify and hold Giles Flythe Engineers Inc. harmless for any damages, losses, or expenses they may incur as a result of its use. 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. The Reserve Specialist shall incur no civil liability for performing the physical or financial portions of a reserve study performed in accordance with CAI standards.

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

Information provided by the representatives of the association regarding financial, physical, quantity, or historical issues, will be deemed reliable by Giles Flythe 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. Giles Flythe Engineers is not aware of any additional material issues which, if not disclosed, would cause a distortion of the association's situation.

This reserve study is partially a reflection of information provided to us. The reserve study is assembled for the association's use and is not intended to be used for the purpose of performing an audit, quality/forensic

analyses or background checks of historical records. Structural integrity evaluations are not included in the reserve study unless otherwise noted. The financial information provided, including starting balances and budgeted contribution rates are deemed reliable and have not been audited. Further, this study should not be considered a building code compliance analysis. The purpose of this study is to provide the association with a financial tool and is not to be considered an exhaustive technical or engineering evaluation which would consist of a broader scope of work. Except as noted in the report, we have not relied on the validity of prior reserve studies performed by other firms.

We have provided estimated costs of capital repairs. These costs are based on our general knowledge of the construction industry. We have relied on standard sources as needed, such as Means Building Construction Cost Data and estimates reviewed by Giles Flythe Engineers on similar projects. We have performed no design work or other engineering analysis as part of this study, nor have we obtained competitive quotations or estimates from contractors. Actual repair costs can vary due to a variety of factors. We cannot be responsible for the specific cost estimates provided.

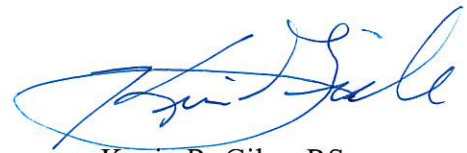
This report has been prepared and reviewed by a professional engineer (PE) and reserve specialist (RS) on our staff.

If you have any questions about this reserve study, please feel free to contact us. Thank you for the opportunity to serve you.

Respectfully submitted,



Robert C. Giles, PE, RS  
President  
Giles Flythe Engineers, Inc.  
NC Lic. No. C-2871



Kevin R. Giles, RS  
Project Manager  
Giles Flythe Engineers, Inc.

# APPENDIX A: RESERVE FUND PROJECTIONS

## PROJECT SUMMARY

Park Place Townhomes	
City/state location:	Cary, NC
Date of inspection:	8/14/2023
Number of units:	104
Term of study (years):	30
Beginning Year of Term	2024
Estimated starting reserve account balance:	\$20,900
Current annual reserve contribution rate:	\$155,000
Assumed inflation rate:	4.00%
Assumed rate of return on invested funds:	1.50%
<b>Total over term capital expenditure (un-inflated):</b>	<b>\$7,394,550</b>
<b>Total over term capital expenditure with inflation:</b>	<b>\$13,869,648</b>
<b>Recommended threshold reserve balance: (Average annual capital expenditure)</b>	<b>\$462,322</b>



GILES FLYTHE  
ENGINEERS

**EXPENSE ESTIMATES**



Capital Item Description	Quantity	Unit	Unit Cost	Total Cost Per Cycle	Estimated Useful Life (years)	Estimated Remaining Life (years)	Notes
<b>Site Improvements</b>							
Full depth repairs of sections of asphalt paving	300	SY	\$60.00	\$18,000	5	0	
Resurface asphalt paving	11,250	SY	\$38.00	\$427,500	20	4	
Sealcoat and stripe asphalt paving	11,250	SY	\$3.00	\$33,750	5	5	
Repair sections of concrete curb and gutter	350	LF	\$50.00	\$17,500	8	4	Approx. 5% every 8 years
Repair sections of concrete flatwork	40	SY	\$125.00	\$5,000	4	1	Approx. 5% every 4 years
Repair sections of brick steps/accent walls	1	LS	\$15,000.00	\$15,000	2	1	
Common area drainage improvements	1	LS	\$15,000.00	\$15,000	5	2	
Refurbish entrance signs	1	LS	\$10,000.00	\$10,000	10	6	
Replace pool fencing	200	LF	\$45.00	\$9,000	30	1	
Replace mailboxes	1	LS	\$17,500.00	\$17,500	15	0	
Allocation for landscape overhaul/tree removal	1	LS	\$20,000.00	\$20,000	5	4	
Allocation for buried utility repair	1	LS	\$10,000.00	\$10,000	3	1	
<b>Building Exterior</b>							
Replace building roofs phase 1	135	SQ	\$360.00	\$48,600	25	0	
Replace building roofs phase 2	1,900	SQ	\$360.00	\$684,000	25	17	
Replace gutters and downspouts	23,500	LF	\$12.00	\$282,000	40	17	
Repair gutters at rear of units	2,500	LF	\$12.00	\$30,000	40	0	
Paint/repair siding and trim phase 1	20	Units	\$3,200.00	\$64,000	6	1	
Paint/repair siding and trim phase 2	32	Units	\$3,200.00	\$102,400	6	3	
Paint/repair siding and trim phase 3	32	Units	\$3,200.00	\$102,400	6	4	
Paint/repair siding and trim phase 4	21	Units	\$3,200.00	\$67,200	6	5	includes clubhouse
Replace rear decks	4,900	SF	\$55.00	\$269,500	7	0	Approx. 1/4 every 7 years
Stain/repair rear decks	43	EA	\$1,200.00	\$51,600	3	0	Approx. 1/2 every 3 years
Replace rear patio doors	26	EA	\$3,000.00	\$78,000	7	3	Approx. 1/4 every 7 years
Replace front doors	104	EA	\$2,000.00	\$208,000	40	15	
Replace doors at clubhouse	10	EA	\$1,500.00	\$15,000	25	10	
<b>Building Interior</b>							
Replace clubhouse flooring	1,200	SF	\$10.00	\$12,000	15	8	
Replace kitchen cabinets, counters	1	LS	\$22,000.00	\$22,000	15	5	
Replace kitchen appliances	1	LS	\$9,500.00	\$9,500	15	14	
Refurbish bathrooms, fixtures	2	EA	\$5,000.00	\$10,000	15	1	
<b>Mechanical, Electrical, Plumbing</b>							
Replace HVAC at clubhouse	4	Tons	\$3,000.00	\$10,500	15	2	
Replace water heater at clubhouse	1	LS	\$2,500.00	\$2,500	15	0	
Replace water fountain at clubhouse	1	EA	\$2,500.00	\$2,500	15	3	
Repair electrical/plumbing at clubhouse	1	LS	\$3,500.00	\$3,500	10	3	
Install access control system at clubhouse/pool	1	LS	\$17,000.00	\$17,000	8	1	
<b>Amenities</b>							
Repair, resurface swimming pool	1,500	SF	\$22.00	\$33,000	12	3	
Replace pool cover	1,200	SF	\$6.00	\$7,200	10	9	
Repair pool pump and filtration equipment	1	LS	\$3,500.00	\$3,500	3	2	

SY: Square Yard SF: Square Feet LF: Linear Feet SQ: Roofing Square  
EA: Each LS: Lump Sum SYS: System

# ANNUAL EXPENSE PROJECTION



Description	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
<b>Site Improvements</b>										
Full depth repairs of sections of asphalt paving	\$18,000					\$21,900				
Resurface asphalt paving					\$500,115					
Sealcoat and stripe asphalt paving						\$41,062				
Repair sections of concrete curb and gutter					\$20,473					
Repair sections of concrete flatwork		\$5,200				\$6,083				\$7,117
Repair sections of brick steps/accent walls		\$15,600		\$16,873		\$18,250		\$19,739		\$21,350
Common area drainage improvements			\$16,224					\$19,739		
Refurbish entrance signs							\$12,653			
Replace pool fencing		\$9,360								
Replace mailboxes	\$17,500									
Allocation for landscape overhaul/tree removal					\$23,397					\$28,466
Allocation for buried utility repair		\$10,400			\$11,699			\$13,159		
<b>Building Exterior</b>										
Replace building roofs phase 1	\$48,600									
Replace building roofs phase 2										
Replace gutters and downspouts										
Repair gutters at rear of units	\$30,000									
Paint/repair siding and trim phase 1		\$66,560						\$84,220		
Paint/repair siding and trim phase 2				\$115,186						\$145,747
Paint/repair siding and trim phase 3					\$119,794					
Paint/repair siding and trim phase 4						\$81,759				
Replace rear decks	\$269,500							\$354,644		
Stain/repair rear decks	\$51,600			\$58,043			\$65,290			\$73,443
Replace rear patio doors				\$87,739						
Replace front doors										
Replace doors at clubhouse										
<b>Building Interior</b>										
Replace clubhouse flooring									\$16,423	
Replace kitchen cabinets, counters						\$26,766				
Replace kitchen appliances										
Refurbish bathrooms, fixtures		\$10,400								
<b>Mechanical, Electrical, Plumbing</b>										
Replace HVAC at clubhouse			\$11,357							
Replace water heater at clubhouse	\$2,500									
Replace water fountain at clubhouse				\$2,812						
Repair electrical/plumbing at clubhouse				\$3,937						
Install access control system at clubhouse/pool		\$17,680								\$24,196
<b>Amenities</b>										
Repair, resurface swimming pool				\$37,121						
Replace pool cover										\$10,248
Repair pool pump and filtration equipment			\$3,786			\$4,258			\$4,790	
<b>Total per year:</b>	<b>\$437,700</b>	<b>\$135,200</b>	<b>\$31,366</b>	<b>\$321,711</b>	<b>\$675,476</b>	<b>\$200,079</b>	<b>\$77,944</b>	<b>\$491,501</b>	<b>\$21,213</b>	<b>\$310,567</b>



# ANNUAL EXPENSE PROJECTION



Description	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043
<b>Site Improvements</b>										
Full depth repairs of sections of asphalt paving	\$26,644					\$32,417				
Resurface asphalt paving										
Sealcoat and stripe asphalt paving	\$49,958					\$60,782				
Repair sections of concrete curb and gutter			\$28,018							
Repair sections of concrete flatwork				\$8,325				\$9,740		
Repair sections of brick steps/accent walls		\$23,092		\$24,976		\$27,014		\$29,219		\$31,603
Common area drainage improvements			\$24,015					\$29,219		
Refurbish entrance signs							\$18,730			
Replace pool fencing										
Replace mailboxes						\$31,517				
Allocation for landscape overhaul/tree removal					\$34,634					\$42,137
Allocation for buried utility repair	\$14,802			\$16,651			\$18,730			\$21,068
<b>Building Exterior</b>										
Replace building roofs phase 1										
Replace building roofs phase 2								\$1,332,364		
Replace gutters and downspouts								\$549,308		
Repair gutters at rear of units										
Paint/repair siding and trim phase 1				\$106,565						\$134,838
Paint/repair siding and trim phase 2						\$184,417				
Paint/repair siding and trim phase 3	\$151,577						\$191,793			
Paint/repair siding and trim phase 4		\$103,451						\$130,899		
Replace rear decks					\$466,687					
Stain/repair rear decks			\$82,613			\$92,929			\$104,532	
Replace rear patio doors	\$115,459							\$151,936		
Replace front doors						\$374,596				
Replace doors at clubhouse	\$22,204									
<b>Building Interior</b>										
Replace clubhouse flooring										
Replace kitchen cabinets, counters										
Replace kitchen appliances					\$16,451					
Refurbish bathrooms, fixtures							\$18,730			
<b>Mechanical, Electrical, Plumbing</b>										
Replace HVAC at clubhouse								\$20,453		
Replace water heater at clubhouse						\$4,502				
Replace water fountain at clubhouse									\$5,065	
Repair electrical/plumbing at clubhouse				\$5,828						
Install access control system at clubhouse/pool								\$33,114		
<b>Amenities</b>										
Repair, resurface swimming pool						\$59,431				
Replace pool cover										\$15,169
Repair pool pump and filtration equipment		\$5,388			\$6,061			\$6,818		
<b>Total per year:</b>		<b>\$131,931</b>	<b>\$134,647</b>	<b>\$162,345</b>	<b>\$523,832</b>	<b>\$867,605</b>	<b>\$247,983</b>	<b>\$2,293,068</b>	<b>\$109,597</b>	<b>\$244,816</b>

# ANNUAL EXPENSE PROJECTION

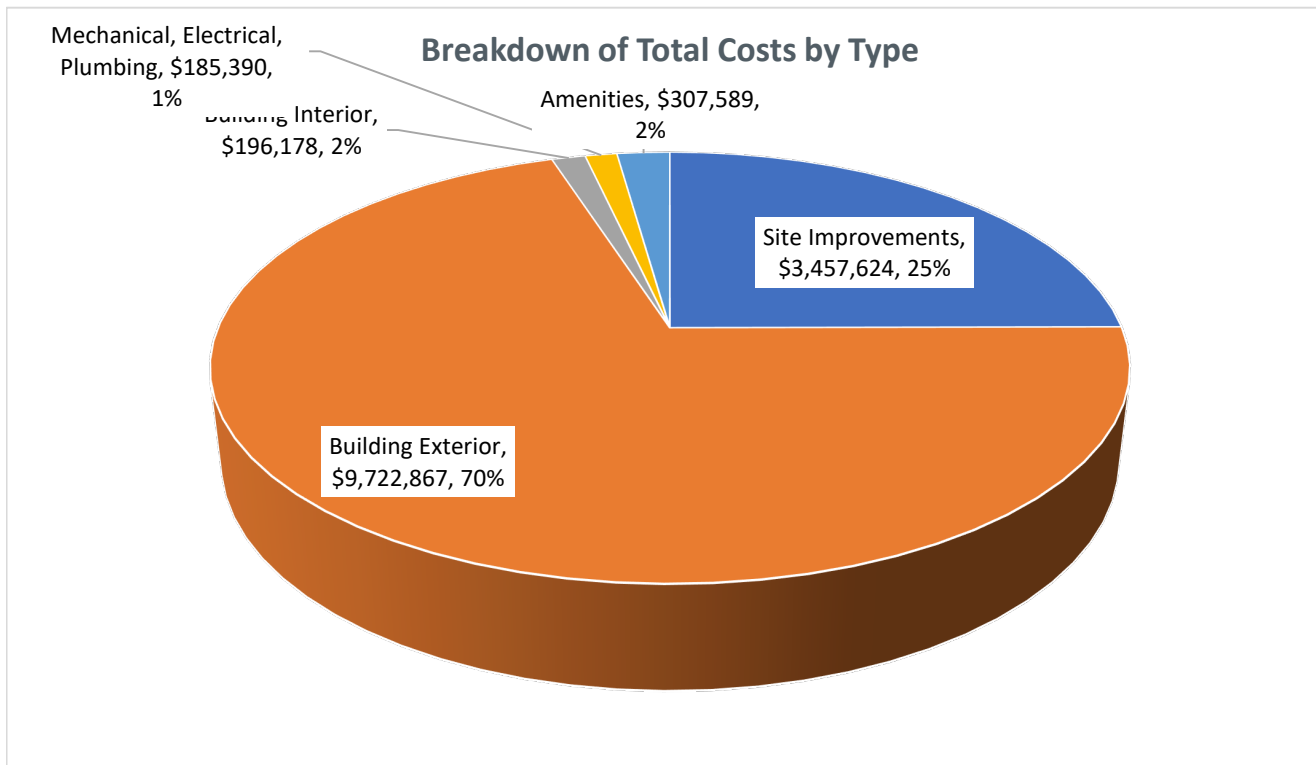


Description	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
<b>Site Improvements</b>										
Full depth repairs of sections of asphalt paving	\$39,440						\$47,985			
Resurface asphalt paving					\$1,095,813					
Sealcoat and stripe asphalt paving	\$73,950					\$89,972				
Repair sections of concrete curb and gutter	\$38,345								\$52,477	
Repair sections of concrete flatwork		\$11,394				\$13,329				\$15,593
Repair sections of brick steps/accent walls		\$34,182		\$36,971		\$39,988		\$43,251		\$46,780
Common area drainage improvements			\$35,549					\$43,251		
Refurbish entrance signs							\$27,725			
Replace pool fencing										
Replace mailboxes										
Allocation for landscape overhaul/tree removal					\$51,266					\$62,373
Allocation for buried utility repair			\$23,699			\$26,658			\$29,987	
<b>Building Exterior</b>										
Replace building roofs phase 1						\$129,560				
Replace building roofs phase 2										
Replace gutters and downspouts										
Repair gutters at rear of units										
Paint/repair siding and trim phase 1						\$170,614				
Paint/repair siding and trim phase 2		\$233,346						\$295,257		
Paint/repair siding and trim phase 3			\$242,680						\$307,067	
Paint/repair siding and trim phase 4				\$165,629						\$209,573
Replace rear decks		\$614,128							\$808,151	
Stain/repair rear decks		\$117,584			\$132,266			\$148,782		
Replace rear patio doors					\$199,938					
Replace front doors										
Replace doors at clubhouse										
<b>Building Interior</b>										
Replace clubhouse flooring				\$29,577						
Replace kitchen cabinets, counters	\$48,205									
Replace kitchen appliances										\$29,627
Refurbish bathrooms, fixtures										
<b>Mechanical, Electrical, Plumbing</b>										
Replace HVAC at clubhouse										
Replace water heater at clubhouse										
Replace water fountain at clubhouse										
Repair electrical/plumbing at clubhouse				\$8,627						
Install access control system at clubhouse/pool						\$45,319				
<b>Amenities</b>										
Repair, resurface swimming pool								\$95,151		
Replace pool cover										\$22,454
Repair pool pump and filtration equipment	\$7,669			\$8,627			\$9,704			\$10,915
<b>Total per year:</b>		<b>\$1,010,634</b>	<b>\$301,928</b>	<b>\$249,429</b>	<b>\$1,479,283</b>	<b>\$563,425</b>	<b>\$37,428</b>	<b>\$625,691</b>	<b>\$1,197,682</b>	<b>\$397,316</b>

## EXPENSE SUMMARY

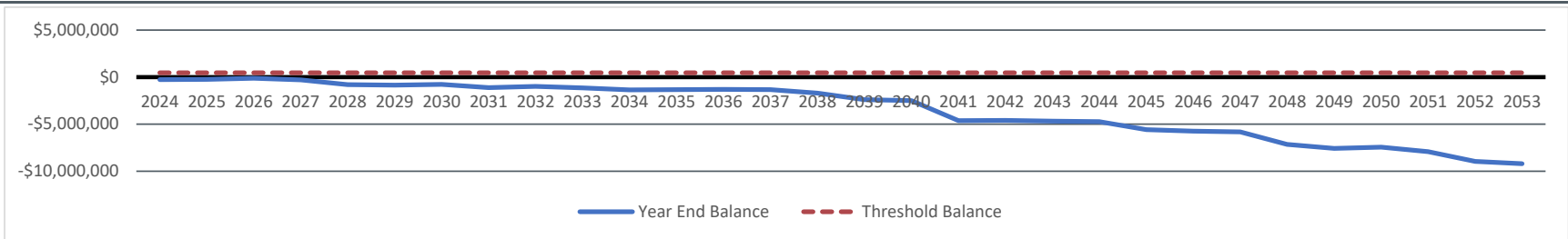


Total over term capital expenditure (un-inflated)	\$7,394,550
Total over term capital expenditure (with inflation)	\$13,869,648
Recommended Threshold Balance (average annual expenditure)	\$462,322
Current Reserve Account Balance	\$20,900
Full Funding Balance	\$1,631,830
Percent Funded	1.28%



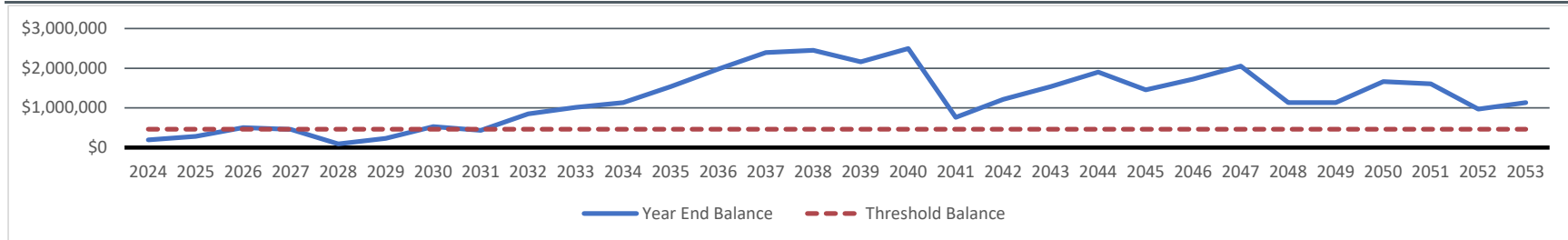
### Current Funding Analysis

Year	Starting Balance	Reserve Account Contribution	Average Per Unit/Month	Return on Investments	Repair Expenses	Special Assessments	Year End Balance
2024	\$20,900	\$155,000	\$124.20	\$0	\$437,700	\$0	-\$261,800
2025	-\$261,800	\$155,000	\$124.20	\$0	\$135,200	\$0	-\$242,000
2026	-\$242,000	\$155,000	\$124.20	\$0	\$31,366	\$0	-\$118,366
2027	-\$118,366	\$155,000	\$124.20	\$0	\$321,711	\$0	-\$285,078
2028	-\$285,078	\$155,000	\$124.20	\$0	\$675,476	\$0	-\$805,554
2029	-\$805,554	\$155,000	\$124.20	\$0	\$200,079	\$0	-\$850,632
2030	-\$850,632	\$155,000	\$124.20	\$0	\$77,944	\$0	-\$773,576
2031	-\$773,576	\$155,000	\$124.20	\$0	\$491,501	\$0	-\$1,110,077
2032	-\$1,110,077	\$155,000	\$124.20	\$0	\$21,213	\$0	-\$976,289
2033	-\$976,289	\$155,000	\$124.20	\$0	\$310,567	\$0	-\$1,131,856
2034	-\$1,131,856	\$155,000	\$124.20	\$0	\$380,645	\$0	-\$1,357,501
2035	-\$1,357,501	\$155,000	\$124.20	\$0	\$131,931	\$0	-\$1,334,432
2036	-\$1,334,432	\$155,000	\$124.20	\$0	\$134,647	\$0	-\$1,314,079
2037	-\$1,314,079	\$155,000	\$124.20	\$0	\$162,345	\$0	-\$1,321,424
2038	-\$1,321,424	\$155,000	\$124.20	\$0	\$523,832	\$0	-\$1,690,256
2039	-\$1,690,256	\$155,000	\$124.20	\$0	\$867,605	\$0	-\$2,402,860
2040	-\$2,402,860	\$155,000	\$124.20	\$0	\$247,983	\$0	-\$2,495,843
2041	-\$2,495,843	\$155,000	\$124.20	\$0	\$2,293,068	\$0	-\$4,633,911
2042	-\$4,633,911	\$155,000	\$124.20	\$0	\$109,597	\$0	-\$4,588,508
2043	-\$4,588,508	\$155,000	\$124.20	\$0	\$244,816	\$0	-\$4,678,324
2044	-\$4,678,324	\$155,000	\$124.20	\$0	\$207,609	\$0	-\$4,730,933
2045	-\$4,730,933	\$155,000	\$124.20	\$0	\$1,010,634	\$0	-\$5,586,566
2046	-\$5,586,566	\$155,000	\$124.20	\$0	\$301,928	\$0	-\$5,733,494
2047	-\$5,733,494	\$155,000	\$124.20	\$0	\$249,429	\$0	-\$5,827,923
2048	-\$5,827,923	\$155,000	\$124.20	\$0	\$1,479,283	\$0	-\$7,152,206
2049	-\$7,152,206	\$155,000	\$124.20	\$0	\$563,425	\$0	-\$7,560,631
2050	-\$7,560,631	\$155,000	\$124.20	\$0	\$37,428	\$0	-\$7,443,059
2051	-\$7,443,059	\$155,000	\$124.20	\$0	\$625,691	\$0	-\$7,913,750
2052	-\$7,913,750	\$155,000	\$124.20	\$0	\$1,197,682	\$0	-\$8,956,432
2053	-\$8,956,432	\$155,000	\$124.20	\$0	\$397,316	\$0	-\$9,198,748



### Funding Alternative 1 - Increase by \$30,000 per year, \$425,000 special assessment in 2024

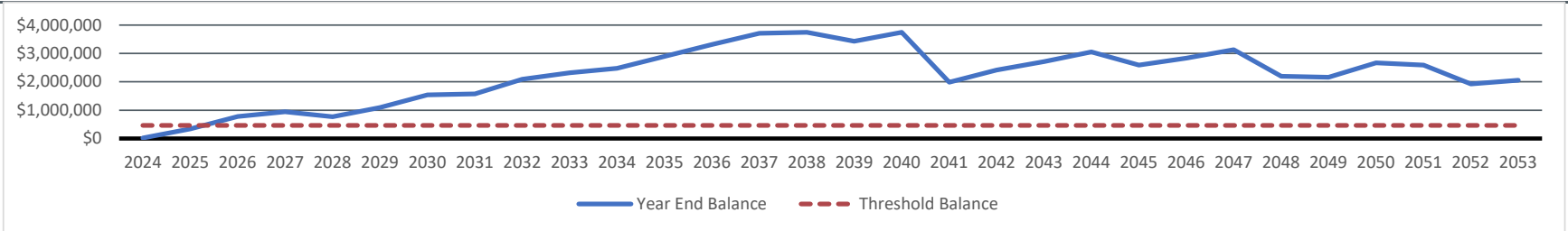
Year	Starting Balance	Reserve Account Contribution	Average Per Unit/Month	Return on Investments	Repair Expenses	Special Assessments	Year End Balance
2024	\$20,900	\$185,000	\$148.24	\$2,898	\$437,700	\$425,000	\$196,098
2025	\$196,098	\$215,000	\$172.28	\$4,138	\$135,200	\$0	\$280,036
2026	\$280,036	\$245,000	\$196.31	\$7,405	\$31,366	\$0	\$501,075
2027	\$501,075	\$275,000	\$220.35	\$6,815	\$321,711	\$0	\$461,179
2028	\$461,179	\$305,000	\$244.39	\$1,361	\$675,476	\$0	\$92,064
2029	\$92,064	\$335,000	\$268.43	\$3,405	\$200,079	\$0	\$230,390
2030	\$230,390	\$365,000	\$292.47	\$7,762	\$77,944	\$0	\$525,208
2031	\$525,208	\$395,000	\$316.51	\$6,431	\$491,501	\$0	\$435,138
2032	\$435,138	\$425,000	\$340.54	\$12,584	\$21,213	\$0	\$851,509
2033	\$851,509	\$455,000	\$364.58	\$14,939	\$310,567	\$0	\$1,010,882
2034	\$1,010,882	\$485,000	\$388.62	\$16,729	\$380,645	\$0	\$1,131,965
2035	\$1,131,965	\$515,000	\$412.66	\$22,726	\$131,931	\$0	\$1,537,760
2036	\$1,537,760	\$545,000	\$436.70	\$29,222	\$134,647	\$0	\$1,977,335
2037	\$1,977,335	\$545,000	\$436.70	\$35,400	\$162,345	\$0	\$2,395,390
2038	\$2,395,390	\$545,000	\$436.70	\$36,248	\$523,832	\$0	\$2,452,806
2039	\$2,452,806	\$545,000	\$436.70	\$31,953	\$867,605	\$0	\$2,162,154
2040	\$2,162,154	\$545,000	\$436.70	\$36,888	\$247,983	\$0	\$2,496,059
2041	\$2,496,059	\$545,000	\$436.70	\$11,220	\$2,293,068	\$0	\$759,211
2042	\$759,211	\$545,000	\$436.70	\$17,919	\$109,597	\$0	\$1,212,533
2043	\$1,212,533	\$545,000	\$436.70	\$22,691	\$244,816	\$0	\$1,535,408
2044	\$1,535,408	\$545,000	\$436.70	\$28,092	\$207,609	\$0	\$1,900,891
2045	\$1,900,891	\$545,000	\$436.70	\$21,529	\$1,010,634	\$0	\$1,456,786
2046	\$1,456,786	\$545,000	\$436.70	\$25,498	\$301,928	\$0	\$1,725,357
2047	\$1,725,357	\$545,000	\$436.70	\$30,314	\$249,429	\$0	\$2,051,241
2048	\$2,051,241	\$545,000	\$436.70	\$16,754	\$1,479,283	\$0	\$1,133,713
2049	\$1,133,713	\$545,000	\$436.70	\$16,729	\$563,425	\$0	\$1,132,018
2050	\$1,132,018	\$545,000	\$436.70	\$24,594	\$37,428	\$0	\$1,664,183
2051	\$1,664,183	\$545,000	\$436.70	\$23,752	\$625,691	\$0	\$1,607,245
2052	\$1,607,245	\$545,000	\$436.70	\$14,318	\$1,197,682	\$0	\$968,881
2053	\$968,881	\$545,000	\$436.70	\$16,748	\$397,316	\$0	\$1,133,313



Funding Alternative 2 - Increase to \$435,000 in 2024, then 3% per year for 5 years



Year	Starting Balance	Reserve Account Contribution	Average Per Unit/Month	Return on Investments	Repair Expenses	Special Assessments	Year End Balance
2024	\$20,900	\$435,000	\$348.56	\$273	\$437,700	\$0	\$18,473
2025	\$18,473	\$448,050	\$359.01	\$4,970	\$135,200	\$0	\$336,293
2026	\$336,293	\$461,492	\$369.78	\$11,496	\$31,366	\$0	\$777,914
2027	\$777,914	\$475,336	\$380.88	\$13,973	\$321,711	\$0	\$945,512
2028	\$945,512	\$489,596	\$392.30	\$11,394	\$675,476	\$0	\$771,027
2029	\$771,027	\$504,284	\$404.07	\$16,128	\$200,079	\$0	\$1,091,361
2030	\$1,091,361	\$504,284	\$404.07	\$22,766	\$77,944	\$0	\$1,540,467
2031	\$1,540,467	\$504,284	\$404.07	\$23,299	\$491,501	\$0	\$1,576,550
2032	\$1,576,550	\$504,284	\$404.07	\$30,894	\$21,213	\$0	\$2,090,515
2033	\$2,090,515	\$504,284	\$404.07	\$34,263	\$310,567	\$0	\$2,318,496
2034	\$2,318,496	\$504,284	\$404.07	\$36,632	\$380,645	\$0	\$2,478,768
2035	\$2,478,768	\$504,284	\$404.07	\$42,767	\$131,931	\$0	\$2,893,888
2036	\$2,893,888	\$504,284	\$404.07	\$48,953	\$134,647	\$0	\$3,312,478
2037	\$3,312,478	\$504,284	\$404.07	\$54,816	\$162,345	\$0	\$3,709,234
2038	\$3,709,234	\$504,284	\$404.07	\$55,345	\$523,832	\$0	\$3,745,031
2039	\$3,745,031	\$504,284	\$404.07	\$50,726	\$867,605	\$0	\$3,432,437
2040	\$3,432,437	\$504,284	\$404.07	\$55,331	\$247,983	\$0	\$3,744,069
2041	\$3,744,069	\$504,284	\$404.07	\$29,329	\$2,293,068	\$0	\$1,984,614
2042	\$1,984,614	\$504,284	\$404.07	\$35,690	\$109,597	\$0	\$2,414,991
2043	\$2,414,991	\$504,284	\$404.07	\$40,117	\$244,816	\$0	\$2,714,576
2044	\$2,714,576	\$504,284	\$404.07	\$45,169	\$207,609	\$0	\$3,056,421
2045	\$3,056,421	\$504,284	\$404.07	\$38,251	\$1,010,634	\$0	\$2,588,322
2046	\$2,588,322	\$504,284	\$404.07	\$41,860	\$301,928	\$0	\$2,832,539
2047	\$2,832,539	\$504,284	\$404.07	\$46,311	\$249,429	\$0	\$3,133,705
2048	\$3,133,705	\$504,284	\$404.07	\$32,381	\$1,479,283	\$0	\$2,191,087
2049	\$2,191,087	\$504,284	\$404.07	\$31,979	\$563,425	\$0	\$2,163,926
2050	\$2,163,926	\$504,284	\$404.07	\$39,462	\$37,428	\$0	\$2,670,243
2051	\$2,670,243	\$504,284	\$404.07	\$38,233	\$625,691	\$0	\$2,587,069
2052	\$2,587,069	\$504,284	\$404.07	\$28,405	\$1,197,682	\$0	\$1,922,076
2053	\$1,922,076	\$504,284	\$404.07	\$30,436	\$397,316	\$0	\$2,059,480



## **APPENDIX B: PROJECT PHOTOGRAPHS**

Description

General view of site improvements, asphalt paving, concrete curbing, mailboxes.



Photo No.  
1

Description

Example of deterioration in asphalt paving.



Photo No.  
2



Description

Example of fatigue cracking in asphalt paving.



Photo No.  
3

Description

Example of fatigue cracking in asphalt paving.



Photo No.  
4

Description  
Typical brick steps,  
accent walls.

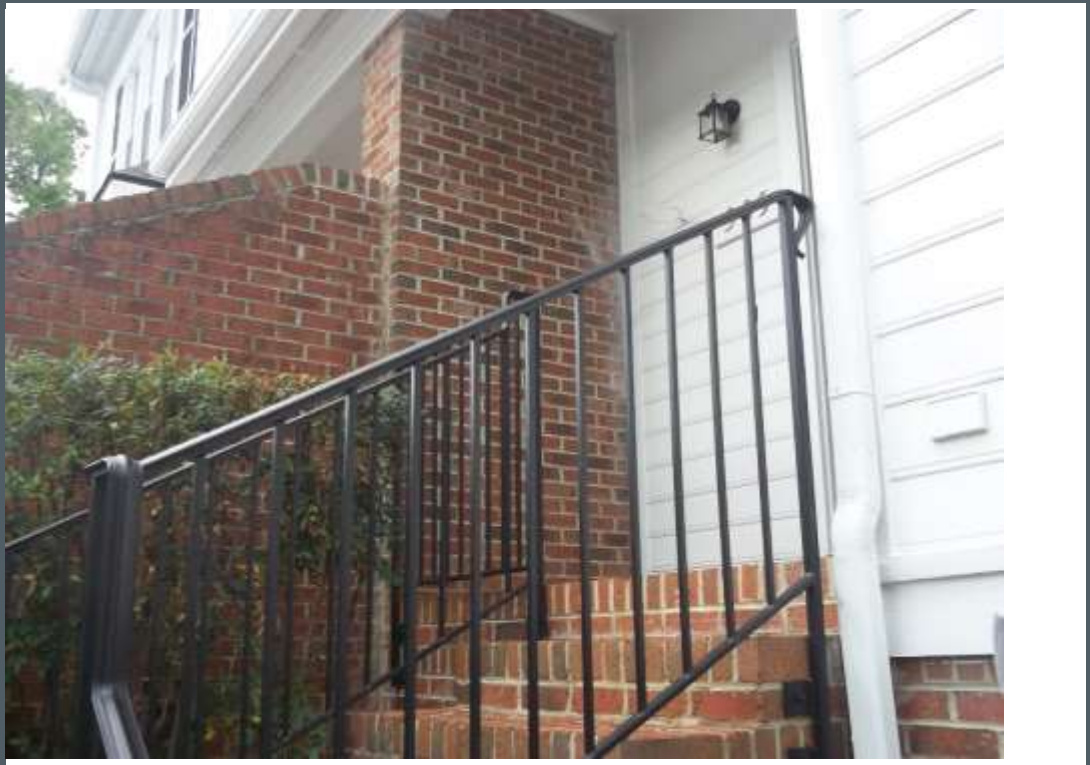


Photo No.  
5

Description  
Drainage inlet basin in  
landscaped area.



Photo No.  
6

Description

Stone rip rap armoring at stormwater pipe discharge.



Photo No.  
7

Description

Stone rip rap armoring on sloped areas at drainage swale.



Photo No.  
8

Description

Section of retaining  
planned for replacement  
in 2023.



Photo No.  
9

Description

Area of bare  
soils/erosion developing  
near foundation wall.



Photo No.  
10

Description  
View of roof shingles.



Photo No.  
11

Description  
General view of siding and trim.



Photo No.  
12

Description

View of area at rear patio door with steep roof and upper level downspout leading to gutter section and limited overhang above rear patio door.



Photo No.  
13

Description

Close up view of section of swelling/moisture damage on exterior siding.



Photo No.  
14

Description  
View of caulking at butt joint and minor swelling in lap siding at butt joint.



Photo No.  
15

Description  
Typical rear decks.



Photo No.  
16

Description

View of example of deck stair framing in poor condition.



Photo No.  
17

Description

Example of decking in poor condition.



Photo No.  
18



<p>Description</p> <p>Example of deterioration in deck boards.</p>	
<p>Photo No. 19</p>	

<p>Description</p> <p>View of deck section generally in good condition.</p>	
<p>Photo No. 20</p>	

Description

General view of swimming pool area.



Photo No.  
21

Description

General view of clubhouse interior.



Photo No.  
22

Description

Heat pump serving clubhouse.



Photo No.  
23

Description

Typical bathroom fixtures at clubhouse.



Photo No.  
24