FOR BOARD REVIEW

RESERVE FUND STUDY UPDATE

AVERA PLACE CONDOMINIUM ASSOCIATION
Raleigh, North Carolina

Prepared for

AVERA PLACE CONDOMINIUM ASSOCIATION

Prepared by:

CRITERIUM – GILES ENGINEERS INC.
7334 CHAPEL HILL ROAD, SUITE 200
RALEIGH, NC 27607
(919) 465-3801
NC LIC. NO. C-2871

August 30, 2017

CONTENTS

1.0 INTRODUCTION

The Avera Place Condominium Association and Wilson Property Management authorized Criterium–Giles Engineers to conduct a Reserve Study Update for the Avera Place Condominiums located in Raleigh, North Carolina. This study is based in part on our previous Reserve Fund Study completed in October 7, 2008. 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 program 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

The buildings and grounds are generally in fair-to-good condition. In this section of the report, we will address those issues that, in our opinion, will require immediate repair or replacement. For a more detailed discussion of all of our findings and any other material deficiencies that will require repair or replacement over the term of this study, refer to the appropriate sections of this report.

Based on our evaluation, the current level of funding of the reserve for this project is **not** adequate. The summary of our funding recommendations are provided below and a more detailed analysis of the reserve fund has been provided in Appendix A.

- **Alternative 1:** Increase the annual capital contribution to $15,000 per month ($180,000 per year) in 2018. Then increase the capital contribution as a step function every 2 years through 2024. The magnitude of step increase will be $5,000 per month ($60,000 per year). This alternative will maintain a positive balance for the term of the analysis.

- **Alternative 2:** Increase the annual capital contribution to $17,500 per month ($210,000 per year) in 2018. Then increase the capital contribution as a percentage increase every year through 2025. The magnitude of percentage increase will be 7% per unit per year. This alternative will maintain a positive balance for the term of the analysis.

Based on our observations, there are anticipated immediate and short term capital expenditures. Those items are as follows:

- Stormwater pond repairs and modifications required for compliance with municipal stormwater control device regulations
- Crack fill and reseal/stripe asphalt paving
- Resurface and repair swimming pool
- Resurface tennis courts

There are, of course, other capital expenditures including the very large building roofing expenses that are expected over the next twenty years. Those items that will require attention are discussed in detail in this report and can be found in their appropriate sections.

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 Association and Wilson Property Management in determining the allocation requirements into the reserve fund in order to meet future anticipated capital expenditures for the community.

The information included in this reserve study update provides estimated and suggested dates for future repairs and replacements. Final decisions on these repairs and replacements will be at the discretion of the Avera Place Board of Directors.

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 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 Association, Wilson Property Management, and Criterium–Giles Engineers. 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 "Threshold Funding" goal by maintaining a healthy reserve fund 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.

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

1. Examining Association managed equipment, buildings 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 2017 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 11.0.

3.3 Sources of Information

The onsite inspection of the property occurred on the following dates:

- July 31,2017

The following people were interviewed during our study:

- Jeb Black (Wilson Property Management)
- Mike Carlos (Onsite property manager)

The following documents were made available to us and reviewed:

- Avera Place Site Plan
- Wake County tax records regarding land owned by Association and footprint of townhome units
- Covenants on file with Wake County
- Association Balance Sheet (8/2017)

3.4 Standards of Reference

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

- R.S. Means
- Our data files on similar projects
- Local contractor estimates
- Historical project estimates provided by the Association

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

Construction of the buildings within Avera Place began as an apartment complex. The units were converted to individually owned condominiums and town homes with sales beginning in 2003. The development currently consists of 345 units located within 60 buildings. The buildings and common grounds are constructed on an approximately 50-acre site with moderate topographical change.

Each multi-story building houses individually owned condominiums. Each town home includes a garage. The property has one access road (Salem Glen Lane) off of TW Alexander Drive in northeast Raleigh. Salem Glen Lane and the streets within the development are private streets with road maintenance the responsibility of the Association.

The streets are asphalt paved with concrete curbing/gutter along each side of the streets. Concrete paved sidewalks are located are provided along the streets. Each town home unit has a concrete paved driveway extending from the road to the garage. Unit entries consist of concrete stoops.

Storm water drainage is routed to a combination of catch basins located in the grassed areas and streets and to five storm water ponds located in lower elevations of the development.

Keystone retaining walls were noted on the property southwest of the townhome buildings along Avocet Lane and Gordon Glen Court.

The buildings are of stick-framed, bearing wall construction with concrete slab-on-grade foundations. As no drawings were available for review, any comments made on the structural systems in the community are derived from how the community appears to be constructed. Roofing surfaces consist of 3-tab asphaltic fiberglass shingles and an aluminum gutter and downspout system. Attic ventilation is provided by roof ridge vents, gable end vents and soffit ventilation.

The exteriors of the buildings are comprised of a combination of brick veneer, manufactured stone, and vinyl siding. The fascia and soffits are vinyl covered. Wood, composite and vinyl trim were also noted on each building. Windows are vinyl clad, double-hung, thermal pane units. The front entry doors are metal and glass. Rear doors include single metal and glass doors, as well as double sliding and French doors. Garage doors are metal, and shutters are vinyl. The front stoops on the rear-access, three bedroom units incorporate vinyl fencing near the front door. Some units include a PVC railing leading to the front entry.

Electrical service is underground and metered individually at each residence. Water is also metered individually at each residence. A mailbox center with a small structure is located near the center of the community.

The property also incorporates a clubhouse with laundry room, swimming pool and associated equipment, two tennis courts, putting green, fitness center, mail center and car care building.

5.0 SITE IMPROVEMENTS

5.1 Topography

Description

The site slopes predominately to the southwest toward the low areas below the fountain at the traffic circle. Additionally, the site near the entrance walls slopes toward the traffic circle. Segmental concrete retaining walls and stormwater ponds (control devices) are also located at major changes in topography.

Evaluation & Recommendations

The condition of the stormwater control devices and retaining walls are discussed in sections 5.2 and 5.5 below.

5.2 Storm Drainage

Description

Storm drainage on the property is routed to catch basins located in the paved and grassed areas and to five stormwater retention ponds located at the north end (2), east end (2) and southwest end of the site. Note that some of the ponds were dry and others wet at the time of inspection.

Evaluation & Recommendations

The grassed areas appear to have slope sufficient for adequate drainage at the time of inspection. Typically, grassed swales will require drainage improvements such as re-sloping or installation of new erosion control measures every seven to ten years.

We were advised by the property manager that the stormwater control devices are not in compliance with City of Raleigh stormwater regulations and significant expenditures will be required to bring these devices (pond near the clubhouse will require most extensive repairs). Drawings from another engineering firm and estimated costs for these deficiencies are anticipated in September 2017. We have allocated estimated funds for these stormwater control device immediate modifications in 2018 and 2019.

Maintenance costs for stormwater control devices include inspections of the pond embankments, nuisance control, debris and litter removal, inlet and outlet maintenance and inspection, and sediment removal and disposal. Most of the minor repairs should be funded from a Maintenance budget but we have allocated funds to perform additional major maintenance including dredging if required on the ponds on a ten year cycle beginning in 2023.

Most of the site appears to adequately drain to either catch basins or to the ponds. We also noted some areas of erosion near rip rap inlets and general drainage improvements are anticipated during the term of this assessment. We have allocated funds for general drainage/erosion repairs and improvements in 2022 and on an 8-year cycle.

5.3 Paving & Curbing

Description

The asphalt paved streets within the community are private and parking areas are also asphalt paved. Each street is asphalt paved with concrete curb/gutter on both sides. Street signs are welded metal posts with painted metal signs. Maintenance of the paving, curbing and street signage is the responsibility of the Association.

Evaluation & Recommendations

No indications of major structural failures were observed in the roads. However, we observed areas of significant cracking in the asphalt and some larger depressions and small potholes observed.

Typically, we recommend the application of an oil resistant sealant or slurry to all asphalt paved surfaces on a five to eight-year cycle. At this same time, all cracks and potholes should be properly filled, patched, and sealed. Funds are allocated to complete road/parking lot repairs and reseal/stripe in 2018 and on a 7-year cycle.

We have anticipated the need for re-surfacing the asphalt roadways and parking areas in the community in approximately 2028. At that time, we anticipate some milling of the asphalt will be required followed by installation of an approximately 1½-inch thick asphalt overlay.

Minor cracking was noted in the concrete curb and gutter system. We have anticipated various concrete repairs to the curbing/gutters to occur on a five-year cycle beginning in 2021.

Based on the relatively low cost incurred to repair/paint street signs, this activity should be funded from the Maintenance budget.

5.4 Flatwork

Description

Flatwork on the site consists of concrete sidewalks throughout the community and a combination of concrete sidewalks and concrete steps leading to the front of the buildings and concrete driveways leading to the garages. Concrete slabs for rear patios are located the 1st floor units.

Evaluation & Recommendations

Areas of the concrete flatwork have settled and some cracking observed. Sections of sidewalk along the entrance road have settled below the top of curbing. The concrete flatwork will require periodic repairs due to increased settlement, upheaval and damage and we have allocated repair/replacement of 2% of all the concrete sections on 5-year cycle beginning in 2018.

We have also provided an allowance for concrete driveway repairs beginning in 2020 and on a 5-year cycle.

5.5 Landscaping & Appurtenances

Description

Landscaping on the site is reasonably well established with the exception of the grassed areas. The landscaping consists primarily of ornamental trees and shrubs throughout the property, with foundation plantings surrounding many of the building footprints. Note that a sprinkler system provides water only for the landscaped areas at the community entrances. Ground lighting is also provided in these areas.

The small sections of PVC privacy fencing that are perpendicular to the rear face of the buildings were installed by the builder and are assumed the responsibility of the Association. However, privacy fencing or screening installed to enclose the patios behind individual town homes is **not** considered the responsibility of the Association. Additionally, PVC privacy fencing is provided around the solid waste dumpsters within the community.

PVC rail-type fencing is also provided behind clusters of buildings and along the entranceway to the clubhouse and community.

The entrance to the community incorporates two sections of stone wall that include the community permanent signage. A metal sign is also provided in front of the clubhouse. Additionally, a small fountain with a manufactured stone base is in the traffic circle in front of the clubhouse.

A long section of keystone-type, segmental concrete retaining wall observed southwest of the buildings on Avocet Lane and Gordon Glen Court and smaller sections of brick retaining walls noted in the community.

Evaluation & Recommendations

Landscaping on the site is typically maintained through a service contract with an outside servicing company. Seasonal lawn treatment and maintenance, annual plantings, and pruning should be addressed in a general operating/maintenance budget.

Minor repairs to underground sprinkler systems should be funded under the

maintenance budget. Funds for major controls and piping/sprinkler head replacement are allocated in 2024 and on a 12-year cycle.

We have included funds for anticipated replacement of the PVC site fencing. Over the 20-year term of this analysis, portions of the fencing will be damaged by landscaping activities and wear from the elements. Additionally, we noted that significant portions of the site fencing along the entrance road leading to the community are leaning. We have allocated funds to replace the site PVC fencing in 2021.

The PVC screening fences around the dumpsters and at the rear of some buildings and the PVC fencing and PVC railings appeared to be in adequate condition. We have allocated funds to replace all of this fencing in 2028. Note that damage to small sections of fencing or railings should be repaired from the Maintenance budget.

The keystone-type concrete segmental walls and brick retaining walls appeared to be in good structural condition and except for minor repairs to segmental wall cap stones (maintenance item), no capital reserve expenditures are projected for these walls.

6.0 STRUCTURE

6.1 Structure

Description

As no building construction documents were available for review, any comment on the structural systems for the community is based on how the buildings appear to be constructed. The buildings are of stick-framed construction with pitched roofs on concrete slab-on-grade foundations.

Evaluation & Recommendations

Previous cracking was observed in the concrete slab foundations and we were advised by the property manager that foundation stabilization repairs to various building have been required in the past 10 years. Typically, building foundation repair work and installation of helical piers is relatively expensive.

We cannot anticipate the degree of foundation settlement that will occur in all the buildings, but have provided an allowance in 2027 to stabilize limited sections of foundation within the community.

6.2 Ventilation

Description

Attic ventilation is provided by a combination of gable end vents, roof ridge vents and soffit vents. Bathroom fans exhaust moist air through vent piping.

Evaluation & Recommendations

The roof ventilation system was examined at ground level on the buildings. The quantity and location of vents appears to be adequate.

The Environmental Protection Agency (EPA) has determined that some buildings may be affected by unhealthy indoor air contamination. We do not test for this and cannot provide you with an opinion about the indoor air quality of the buildings on this property as this is beyond the scope of this analysis. However, there are experts who test for indoor air contamination, and we recommend you enlist the services of such a professional should a concern over indoor air quality arise. In order to

aid in healthy interior building environments, it is important that attic ventilation be adequate, bathroom, kitchen, and laundry exhausts discharge air directly to the outside, and moisture problems be immediately rectified.

7.0 EXTERIOR SYSTEMS

7.1 Roofing Systems

Description

The pitched roof surfaces over the buildings are covered in 3-tab asphaltic fiberglass shingles. Roof surfacing is applied over roof sheathing.

An aluminum gutter and downspout system was noted on each building that discharges storm water to grade.

Evaluation & Recommendations

Typically, roofing surfaces are assumed to last approximately twenty years. It is our opinion that the expected useful life of the roof shingles in this community will be limited to an additional 5-10 years of service. Although the shingles likely have a 20-25 year warranty, growing evidence suggests that materials used on other similar construction projects, techniques used during installation of the surfaces, inadequate attic ventilation, and other substandard practices has played a part in shortening the expected useful life of the roof surfaces. We strongly recommend that any re-roofing project closely follow procedures outlined by the National Roofing Contractors Association's *Roofing and Waterproofing Manual*, Current Edition.

We have assumed that 25% of the shingled roofing surfaces will be replaced on an annual basis beginning in 2022. A re-roofing sequence should include removal of the existing shingle surfacing, replacement of any inadequate roof sheathing, replacement of any damaged flashing, and replacement of drip edge components.

Gutters and downspouts are in generally good condition and should not require replacement until the time of roof replacement, as this component typically provides twenty years of relatively trouble free service. Minor gutter/downspout repairs and roof flashing/vent boot replacement and repairs should be completed as part of the operations and maintenance budget.

7.2 Exterior Finishes

Description

The exteriors of the buildings are comprised of a combination of brick veneer, manufactured stone, and vinyl siding. The fascia and soffits are vinyl covered. Wood, composite and vinyl trim were also noted on each building. Windows are vinyl clad, double-hung, thermal pane units. The front entry doors are metal and glass. Rear doors include single metal and glass doors, as well as double sliding and French doors. Garage doors are metal, and shutters are vinyl and awnings are included on the multi-story buildings.

The front stoops on the rear access, three-bedroom units incorporate vinyl fencing near the front door. Some units include a PVC railing leading to the front entry. The multi-story 1-bedroom flat buildings include metal stairs with concrete treads and metal railings.

Evaluation & Recommendations

Vinyl siding typically has a manufacturer's warranty of fifty years, although the actual service life can vary greatly. The lifespan depends primarily upon exposure conditions and maintenance. Based on the age of the property, we do not anticipate a need for significant quantities of siding to be replaced until after the term of this study.

Note that siding and flashing repairs have been completed in recent years to minimize water intrusion. We observed during our inspection that the vinyl siding and trim has been damaged in several locations including base of siding at 100 Involute. This damage is apparently due to mowing and landscaping activities. We have made a provision in our budget recommendations for periodic (3-year cycle) repair of damaged siding and installation of new building wrap beginning in 2020.

Painting of the minimal wood trim components and front doors will be required on a regular basis. We expect that some of the front doors will begin to fade due to sunlight exposure. We recommend painting these components on a 7-year basis beginning in 2022. The property manager advised that the metal staircases/railings and exterior doors on the multi-story buildings were repainted in approximately 2017. Note that the pool equipment building doors will likely require replacement at least once during the term of this analysis due to corrosive environment in this building and these doors should be repaired/replaced from the Maintenance budget.

Note that we have assumed the HOA is **not** responsible for glass replacement and screens for doors and windows. However, we have assumed that exterior trim maintenance and/or replacement is the responsibility of the HOA. Note that the door and window frames and thresholds should be carefully caulked to the exterior façade for protection against driving rains.

No significant structural cracking or missing mortar was noted in the building brick veneer faces. Limited re-pointing of the brick exterior walls and masonry retaining walls may be required during the term of this analysis, but these activities should be funded from the Maintenance budget.

The condition of the condominium building exterior light fixtures varied from good to fair. These fixtures are relatively inexpensive and we anticipate that replacement of fixtures as they fail will be funded from the Maintenance budget.

The large awnings on the buildings that were observed at the time of our original reserve study inspection have been removed. We were advised by the property manager that smaller awnings that are showing some signs of deterioration and fading will either be removed or if replaced, replacement costs will be funded from the Maintenance budget.

8.0 MECHANICAL SYSTEMS

8.1 Electrical Systems

Description

Underground electrical wires feed exterior, pad-mounted transformers and subsequent meters at each of the units to accomplish electrical distribution in the community. Exterior light fixtures in the townhome units are the responsibility of each individual owner; however, the Association is responsible for condominium building, clubhouse and pool lighting. A fountain electrical panel is also provided for the community and we observed tennis court light fixtures.

Evaluation & Recommendations

There did not appear to be any issues of significance regarding the electrical system at the community at the time of the investigation. Replacement of the exterior entrance signage lighting is anticipated in approximately 2023 and on a 12-year cycle. We have also allocated funds to replace the tennis court light fixtures in 2021 and the clubhouse/pool exterior fixtures at the same time.

The exterior lighting in the condominium buildings is the responsibility of the Association and is addressed in Exterior Finishes, Section 7.2.

8.2 Plumbing/Mechanical Systems

Description

As there were no drawings available for review, the size of the domestic water distribution piping systems and the wastewater collection piping systems, and their locations, could not be determined. As noted earlier, a fountain is provided at the entrance to the community off of Salem Glen Lane.

The clubhouse incorporates both men's and women's restrooms. The men's room has 2 sinks, 2 toilets and a urinal. The women's room incorporates 3 sinks and 4 toilets.

The clubhouse kitchen is equipped with plumbing for the sink, dishwasher and refrigerator.

The clubhouse is heated and cooled by two split system electric heat pumps rated at 5-Tons of cooling each. These heat pumps were manufactured in 2009 and 2010.

A laundry room is also included in the clubhouse building. Four dryers and four washing machines are included within the laundry; however, this area is leased to an outside vendor and the equipment is not maintained by the Association.

Evaluation & Recommendations

There did not appear to be any issues of significance regarding the plumbing systems at the community at the time of the investigation. We have assumed that entrance fountain major repairs and/or replacement of the electrical components associated with fountain will be required in 2019 and on a 6-year cycle. Additionally, we have allocated funds to upgrade the clubhouse restrooms and plumbing fixtures by 2026.

The clubhouse HVAC units were operative at the time of inspections. The projected life of this equipment is 15-years and we have allocated funds for replacement the one unit in 2023 and the other unit in 2025.

Replacement and/or rebuild of the filtration equipment components will be required periodically and we have allocated funds for component replacement every three years beginning in 2019.

9.0 MISCELLANEOUS AMENITIES

Description

A small structure shelters the metal mailbox center for the community located near the clubhouse. Boxes for the entire community and the clubhouse building are located within this mailcenter.

The clubhouse interior is finished with a combination of ceramic tile and carpeted flooring. The interior walls are covered with either painted or papered drywall. The clubhouse offices and sitting areas are furnished.

A small kitchen is located within the clubhouse and the kitchen includes cabinetry, countertops, bar stools, microwave and refrigerator. The fitness center includes two treadmills, two stationary bikes and other machines and weight equipment.

Two asphalt paved tennis courts enclosed with vinyl covered link fencing is provided near the center of the property. Playground equipment and picnic area with charcoal grills and metal tables/benches are located near the tennis courts. A small putting green with artificial grass is provided near the clubhouse and traffic circle.

A concrete swimming pool with concrete decking surrounded by anodized aluminum fencing is located behind the clubhouse building. Pool filtration equipment and pool chemicals are located in a separate brick pool building. The filtration equipment includes a circulation pump, sand filters and associated piping. Pool furniture is located within the pool anodized aluminum fencing.

The car care center building includes a maintenance shop and covered area with water for washing cars.

Evaluation & Recommendations

The clubhouse building and interior finishes appeared to be in relatively good condition. We do not anticipate replacement of the ceramic tile flooring in this building will be required over the next 20 years. Painting of the interior, re-carpeting the fitness room and replacing furniture and office equipment will be required over the term of this analysis. We have allocated funds to repaint the clubhouse interior and replace clubhouse carpet on a 10-year cycle beginning in 2022 and replacing the fitness area flooring on a 10-year cycle beginning in 2025.

The office and clubhouse furnishings appeared to be in relatively good condition and we have provided an allowance for replacement of both the furniture and equipment in 2022. The clubhouse appliances are not used excessively and we have assumed and 18-year expected life for this equipment with funds allocated for replacement in 2022.

The property manager advised that the fitness center treadmills were replaced in approximately 2014/2015 and the other equipment appeared to be in adequate condition. We have allocated funds to replace the treadmills again in 2021 and on a 6-year cycle. The other fitness equipment typically has a longer expected life and funds are allocated to replace this equipment in 2021 and on a 10-year cycle.

We noted several low areas within the tennis court surfacing and the surfacing was significantly worn; however, no major structural cracking or upheaval in the courts was observed. Typically asphalt paved tennis courts will require resurfacing on an approximately 5-8 year cycle. Resurfacing would include repairing cracks, repairing small depressions, installing an acrylic resurfacer and repainting lines. We have allocated funds for this activity in 2018 and on an 8-year cycle.

We have also allocated funds to reconstruct the courts beginning in 2033. Reconstruction would include removing the fencing and installing new fencing, pulverizing the existing asphalt, repairing the sub grade/base course with root barrier if required, installing new asphalt paving, acrylic resurfacer and repainting the lines.

As noted above, we have included funds to replace the chain link fencing around the tennis courts during reconstruction in 2033. Note that minor repairs and spot painting and replacement of the tennis court nets and posts should be funded from an annual maintenance budget. Replacement of the putting green carpet is anticipated by 2020 and on an 10-year cycle.

The playground equipment appeared to be in adequate condition and replacement of this equipment is anticipated in approximately 2030. Replacement of the grills will likely be required by 2019 (and on a 10-year cycle) and the metal tables/benches in 2034.

The pool was filled with water and appeared to be in fair condition at the time of inspection; however, the pool has not been resurfaced to date. Additionally, we observed damage to the coping and inadequate sealants around the waterline tiles and anticipate that these tiles have a very limited life expectancy. The pool surface and coping will likely require repairs and recoating and waterline tile replacement prior to pool opening in 2018. Note that recently most pools have been resurfaced with a more expensive quartz type finish and we have allocated funds for pool resurfacing with this type finish and pool/tile repairs discussed above in 2018 and on a 12-year cycle.

The life of pool furniture is highly variable depending on usage and storage conditions, and we have assumed replacement of 1/3 of the furniture on a 3-year basis beginning in 2018. We have also provided funds to replace up to 5% of the concrete decking around the pool every five years beginning in 2019. Painting and/or general repairs to the pool fencing is anticipated by 2020.

The property manager advised that periodic repairs to the car washing equipment and area have been required and we have allocated funds for

general repairs to this area in a 3-year cycle beginning in 2019.

The mailcenter and mailboxes appear to be in good condition. The small structure at the mail center will require regular maintenance similar to the exterior of the residential buildings and clubhouse. Because the mailboxes are partially covered by the building and generally appeared to be in good condition, we have assumed the mail boxes have a remaining expected life that exceeds 20-years.

10.0 CONCLUSION

In summary, we consider these buildings and site improvements to be in generally fair-to-good condition when compared to others of similar age and construction type. While some components are in need of a repair and replacement program, the program can be prioritized and planned in conjunction with reserve strategies.

The reserve financials included with this report outline several possible strategies for the community to adopt given the current condition of the project as a whole. As time passes, it may become necessary to re-establish financial priorities and capital expenditure schedules given any unforeseen circumstances. We recommend and encourage this activity.

11.0 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 Avera Place Condominium Association. Criterium–Giles Engineers 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 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
- Interior of units

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 update 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 Update 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,

Robert C. Giles, PE, RS
Principal Engineer
Criterium-Giles Engineers Inc.

Appendix A: RESERVE FUND PROJECTIONS

INTRODUCTION

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 by the property manager. However, Association by-laws vary and, therefore, which components are the responsibility of the owner and which are the responsibility of the Association can vary. The Association should confirm that the items listed should be financed by the Association 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 and rate of return on deposited reserve funds. The model utilized assumes a fixed inflation rate of 3% and a fixed return on investments of 1.5% over the 20 year term of the study. These figures represent historical averages and are used as an estimate of future inflation and rate of returns.

- 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. Care should be taken in analyzing the graphs due to varying graphic scales that occur within each graph and between graphs.

- Note that based on our developed list of capital items and taking inflation into account, the current funding 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.

Current Reserve Balance: $350,000 (August 1, 2017 balance)
Current Annual Reserve Contribution: $80,000 per year

We have included two alternatives to your current funding program that appears to reflect the objectives of the community. Other potential alternatives that include special assessments do not appear to best serve the community at this time.

- **Alternative 1:** Increase the annual capital contribution to $15,000 per month ($180,000 per year) in 2018. Then increase the capital contribution as a step function every 2 years through 2024. The magnitude of step increase will be $5,000 per month ($60,000 per year). This alternative will maintain a positive balance for the term of the analysis.

- **Alternative 2:** Increase the annual capital contribution to $17,500 per month ($210,000 per year) in 2018. Then increase the capital contribution as a percentage increase every year through 2025. The magnitude of percentage increase will be 7% per unit per year. This alternative will maintain a positive balance for the term of the analysis.

Note that third alternative which would include a special assessment is not provided. This type alternative is typically not preferred unless a substantial shortfall of funds coupled with forecasted significant short-term outlays are identified.

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 beginning of 2017 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.

Reserve Study Worksheet

General Information:

1 Organization: **Avera Place Condominium Association**

2 Address: **Salem Glen Lane**
Raleigh, NC

3	Number of Units	**345**
4	Age of Building (in years)	**14**
5a	Study Period (in years)	**20**
5b	Normal Fiscal Year starts:	**January 1, 2018**
5c	Partial Fiscal Year starts:	**January 1, 2018**
5d	Partial Year Length:	**12 months**
6	Site Inspection Date	**July 31, 2017**
7	Reserve Funds at start	**$350,000**
8	Rate of Return on invested Reserve Funds (%)	**1.5%**
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		$6,667	**$80,000**	**$19.32**	**$231.88**
	Years Out		**Total Annual**	**Per Unit**	
Planned Special Assessment	0		$0	$0	
Balance Computed	**($2,414,975)**				

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)		**$15,000**	**$180,000**	**$43.48**	**$521.74**
Monthly Amount, (Last Year)		**$30,000**	**$360,000**	**$86.96**	**$1,043.48**
Balance Required Final Year		$219,083			
Special Assessments:	**Years Out**		Total/Year	Per Unit	
First Assessment	0		$0	$0	
Second Assessment	0		$0	$0	
Balance Computed	**$2,724,533**				

Alternative 2 Escalating Funding at 7% per Year

		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year)		**$17,500**	**$210,000**	**$50.72**	**$608.70**
Monthly Amount, (Last Year)		**$28,101**	**$337,214**	**$81.45**	**$977.43**
Balance Required Final Year		$219,083			
Base Escalation %	**7.00%**				
Special Assessments:	**Years Out**		Total/Year	Per Unit	
First Assessment	0		$0	$0	
Second Assessment	0		$0	$0	
Balance Computed	**$2,424,322**				

Alternative 3 Escalating Funding with Special Assessments (NOT USED)

		Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year)		**$0**	**$0**	**$0.00**	**$0.00**
Monthly Amount, (Last Year)		**$0**	**$0**	**$0.00**	**$0.00**
Balance Required Final Year		$219,083			
Base Escalation %	**0.00%**				
Special Assessments:	**Years Out**		Total/Year	Per Unit	
First Assessment	0		$0	$0	
Second Assessment	0		$0	$0	
Balance Computed	**($4,026,867)**				

Itemized Worksheet

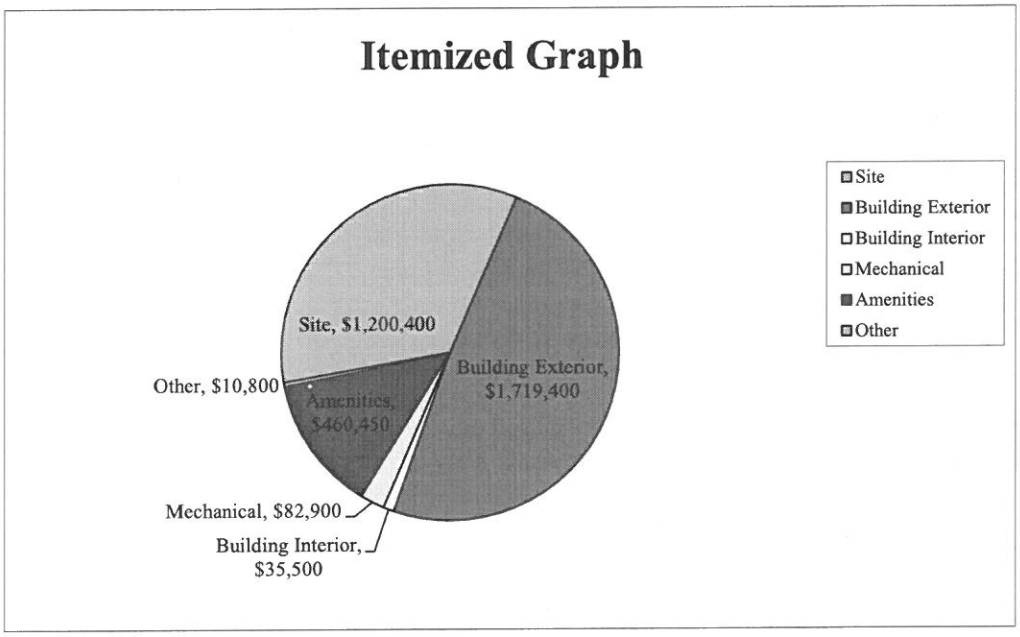
Capital Item To Be Replaced	Quantity		Unit cost	Reserve Requirement (*)	Frequency (yrs**)	Remaining Life (yrs)	Information Source
Site							
Fill cracks and reseal streets and parking lots	32,000	SY	$1.65	$52,800.00	7	0	
Milling and overlay - asphalt streets/parking	32,000	SY	$18.00	$576,000.00	25	10	Some milling will be required
Repair driveways - Allowance	1	sys	$15,000.00	$15,000.00	5	2	Allowance
Repair concrete walks/sidewalks- sectional	150	SY	$90.00	$13,500.00	8	0	Replace 2% every 8 years
Replace PVC site perimter fencing	2,200	LF	$20.00	$44,000.00	20	3	Sections of fencing are leaning
Replace dumpster enclosures	400	LF	$30.00	$12,000.00	25	10	
Stormwater ponds - major repairs for compliance (Ph 1)	1	sys	$50,000.00	$50,000.00	25	0	
Stormwater ponds - major repairs for compliance (Ph 2)	1	sys	$50,000.00	$50,000.00	25	1	
Stormwater pond dredging/major repairs	1	sys	$35,000.00	$35,000.00	10	5	Allowance for major repairs/dredging
Drainage/erosion improvements	1	sys	$15,000.00	$15,000.00	8	4	
Irrigation system - major repairs & controls	1	sys	$7,500.00	$7,500.00	12	6	
Replace sections of concrete curb/gutter	850	LF	$35.00	$29,750.00	8	4	Replace 2% every 5 years
Replace PVC railings to homes	1,000	LF	$5.00	$5,000.00	25	10	
Replace PVC privacy fencing	800	LF	$25.00	$20,000.00	25	10	
Replace PVC picket fencing	400	LF	$25.00	$10,000.00	25	10	
Building Exterior							
Exterior painting - multi-story buildings	14	ea	$1,200.00	$16,800.00	7	4	Doors, rails and stairs
Exterior painting - single story buildings	46	ea	$1,000.00	$46,000.00	7	4	Doors and paintable trim
Trim and siding repairs - Allowance	1	sys	$2,500.00	$2,500.00	3	2	
Replace roofing (Phase 1)	1,360	SQ	$275.00	$374,000.00	20	4	Includes gutter/downspouts
Replace roofing (Phase 2)	1,360	SQ	$275.00	$374,000.00	20	5	Includes gutter/downspouts
Replace roofing (Phase 3)	1,360	SQ	$275.00	$374,000.00	20	6	Includes gutter/downspouts
Replace roofing (Phase 4)	1,360	SQ	$275.00	$374,000.00	20	7	Includes gutter/downspouts
Foundation stabilization - Allowance	1	sys	$20,000.00	$20,000.00	25	9	Allowance
Building Interior							
Clubhouse painting and minor repairs	1	sys	$3,500.00	$3,500.00	10	4	
Replace clubhouse furniture	1	sys	$12,500.00	$12,500.00	20	4	
Replace clubhouse carpet	600	SF	$3.50	$2,100.00	10	4	
Replace clubhouse misc. equipment	1	sys	$2,000.00	$2,000.00	20	4	
Replace clubhouse appliances	1	sys	$1,800.00	$1,800.00	18	4	
Replace fitness room flooring	1	sys	$4,000.00	$4,000.00	10	7	
Mechanical							
Replace clubhouse HVAC units	10	Tons	$1,500.00	$15,000.00	15	7	
Upgrade clubhouse restooms and fixtures	2	sys	$5,000.00	$10,000.00	22	8	
Replace fountain equipment	1	ea	$4,500.00	$4,500.00	6	1	
Replace entrance lighting	1	sys	$2,500.00	$2,500.00	12	5	
Pool filtration sys - component replacement	1	sys	$3,500.00	$3,500.00	3	1	Replace individual components - 3 yrs
Replace tennis court light fixtures	8	ea	$800.00	$6,400.00	18	3	
Replace pool are/clubhuse light fixtures	16	ea	$250.00	$4,000.00	18	3	
Amenities							
Resurface pool - includes coping/tile repairs	2,350	SF	$15.00	$35,250.00	12	0	Includes quartz finish
Sectional repair to pool deck	65	SY	$110.00	$7,150.00	5	1	5% every 5 years
Replace pool furniture	25	ea	$150.00	$3,750.00	3	0	Replace 33% every 3 years
Resurface tennis courts	2	ea	$9,500.00	$19,000.00	8	0	
Reconstruct tennis courts	2	ea	$45,000.00	$90,000.00	25	15	
Replace putting green carpet	1	sys	$8,000.00	$8,000.00	10	2	
Replace grills	5	ea	$400.00	$2,000.00	10	1	
Replace metal tables/benches	2	ea	$800.00	$1,600.00	18	16	
Replace playground equipment	1	sys	$30,000.00	$30,000.00	25	12	
Replace treadmills	2	ea	$3,500.00	$7,000.00	6	3	
Replace other fitness center equipment	1	sys	$12,000.00	$12,000.00	10	3	
Replace tennis court fencing (time of reconstruction)	1	sys	$15,000.00	$15,000.00	25	15	
Repair/paint pool perimeter fencing	350	LF	$10.00	$3,500.00	15	2	
Replace maintenance/golf carts	2	ea	$6,500.00	$13,000.00	6	0	
Car wash miscellaneous repairs	1	sys	$2,500.00	$2,500.00	3	1	
Other							
Reserve study updates	1	ea	$3,600.00	$3,600.00	5	5	
			Totals	$2,842,000.00			
			Total Over Term	$3,509,450.00			

* Costs are typically 10%±

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

Itemized Graph

Categories	Totals
Site	$1,200,400
Building Exterior	$1,719,400
Building Interior	$35,500
Mechanical	$82,900
Amenities	$460,450
Other	$10,800
Total	**$3,509,450**



Itemized Funding

Categories	Reserve Requirement	Beginning Balance	Balance Requiring Funding	Monthly Reserve Funding Required	Annual Reserve Funding Required	Full Funding Balance	Percent Funded
Site	$1,200,400	$112,125	$1,088,275	$11,158	$133,900	$628,125	
Building Exterior	$1,719,400	$200,847	$1,518,553	$22,029	$264,350	$1,125,148	
Building Interior	$35,500	$3,135	$32,365	$440	$5,286	$17,560	
Mechanical	$82,900	$5,457	$77,443	$1,113	$13,360	$30,572	
Amenities	$460,450	$28,436	$432,014	$2,451	$29,410	$159,298	
Other	$10,800	$0	$10,800	$60	$720	$0	
Totals	**$3,509,450**	**$350,000**	**$3,159,450**	**$37,252**	**$447,025**	**$1,960,702**	**17.9%**

Annual Expense By Year

Year:	2018	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	16
Site																
Fill cracks and reseal streets and parking lots	52,800	0	0	0	0	0	0	52,800	0	0	0	0	0	0	52,800	0
Milling and overlay - asphalt streets/parking	0	0	0	0	0	0	0	0	0	0	576,000	0	0	0	0	0
Repair driveways - Allowance	0	0	15,000	0	0	0	0	15,000	0	0	0	0	15,000	0	0	0
Repair concrete walks/sidewalks- sectional	13,500	0	0	0	0	0	0	0	13,500	0	0	0	0	0	0	0
Replace PVC site perimter fencing	0	0	0	44,000	0	0	0	0	0	0	0	0	0	0	0	0
Replace dumpster enclosures	0	0	0	0	0	0	0	0	0	0	12,000	0	0	0	0	0
Stormwater ponds - major repairs for compliance (Ph 1)	50,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stormwater ponds - major repairs for compliance (Ph 2)	0	50,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stormwater pond dredging/major repairs	0	0	0	0	0	35,000	0	0	0	0	0	0	0	0	0	35,000
Drainage/erosion improvements	0	0	0	0	15,000	0	0	0	0	0	0	0	15,000	0	0	0
Irrigation system - major repairs & controls	0	0	0	0	0	0	7,500	0	0	0	0	0	0	0	0	0
Replace sections of concrete curb/gutter	0	0	0	0	29,750	0	0	0	0	0	0	0	29,750	0	0	0
Replace PVC railings to homes	0	0	0	0	0	0	0	0	0	0	5,000	0	0	0	0	0
Replace PVC privacy fencing	0	0	0	0	0	0	0	0	0	0	20,000	0	0	0	0	0
Replace PVC picket fencing	0	0	0	0	0	0	0	0	0	0	10,000	0	0	0	0	0
Building Exterior																
Exterior painting - multi-story buildings	0	0	0	0	16,800	0	0	0	0	0	0	16,800	0	0	0	0
Exterior painting - single story buildings	0	0	0	0	46,000	0	0	0	0	0	0	46,000	0	0	0	0
Trim and siding repairs - Allowance	0	0	2,500	0	0	2,500	0	0	2,500	0	0	2,500	0	0	2,500	0
Replace roofing (Phase 1)	0	0	0	0	374,000	0	0	0	0	0	0	0	0	0	0	0
Replace roofing (Phase 2)	0	0	0	0	0	374,000	0	0	0	0	0	0	0	0	0	0
Replace roofing (Phase 3)	0	0	0	0	0	0	374,000	0	0	0	0	0	0	0	0	0
Replace roofing (Phase 4)	0	0	0	0	0	0	0	374,000	0	0	0	0	0	0	0	0
Foundation stabilization - Allowance	0	0	0	0	0	0	0	0	0	20,000	0	0	0	0	0	0
Building Interior																
Clubhouse painting and minor repairs	0	0	0	0	3,500	0	0	0	0	0	0	0	0	0	3,500	0
Replace clubhouse furniture	0	0	0	0	12,500	0	0	0	0	0	0	0	0	0	0	0
Replace clubhouse carpet	0	0	0	0	2,100	0	0	0	0	0	0	0	0	0	2,100	0
Replace clubhouse misc. equipment	0	0	0	0	2,000	0	0	0	0	0	0	0	0	0	0	0
Replace clubhouse appliances	0	0	0	0	1,800	0	0	0	0	0	0	0	0	0	0	0
Replace fitness room flooring	0	0	0	0	0	0	0	4,000	0	0	0	0	0	0	0	0
Mechanical																
Replace clubhouse HVAC units	0	0	0	0	0	7,500	0	7,500	0	0	0	0	0	0	0	0
Upgrade clubhouse restooms and fixtures	0	0	0	0	0	0	0	0	10,000	0	0	0	0	0	0	0
Replace fountain equipment	0	4,500	0	0	0	0	0	4,500	0	0	0	0	0	4,500	0	0
Replace entrance lighting	0	0	0	0	0	2,500	0	0	0	0	0	0	0	0	0	0
Pool filtration sys - component replacement	0	3,500	0	0	3,500	0	0	3,500	0	0	3,500	0	0	3,500	0	0
Replace tennis court light fixtures	0	0	0	6,400	0	0	0	0	0	0	0	0	0	0	0	0
Replace pool are/clubhuse light fixtures	0	0	0	4,000	0	0	0	0	0	0	0	0	0	0	0	0
Amenities																
Resurface pool - includes coping/tile repairs	35,250	0	0	0	0	0	0	0	0	0	0	0	35,250	0	0	0
Sectional repair to pool deck	0	7,150	0	0	0	0	7,150	0	0	0	0	7,150	0	0	0	0
Replace pool furniture	3,750	0	0	3,750	0	0	3,750	0	0	3,750	0	0	3,750	0	0	3,750
Resurface tennis courts	19,000	0	0	0	0	0	0	0	19,000	0	0	0	0	0	0	0
Reconstruct tennis courts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90,000
Replace putting green carpet	0	0	8,000	0	0	0	0	0	0	0	0	0	8,000	0	0	0
Replace grills	0	2,000	0	0	0	0	0	0	0	0	0	2,000	0	0	0	0
Replace metal tables/benches	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Replace playground equipment	0	0	0	0	0	0	0	0	0	0	0	0	30,000	0	0	0
Replace treadmills	0	0	0	7,000	0	0	0	0	0	7,000	0	0	0	0	0	7,000
Replace other fitness center equipment	0	0	0	12,000	0	0	0	0	0	0	0	0	0	12,000	0	0
Replace tennis court fencing (time of reconstruction)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15,000
Repair/paint pool perimeter fencing	0	0	3,500	0	0	0	0	0	0	0	0	0	0	0	0	0

Annual Expense By Year

Year:	2018	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	16
Replace maintenance/golf carts	13,000	0	0	0	0	0	13,000	0	0	0	0	0	13,000	0	0	0
Car wash miscellaneous repairs	0	2,500	0	0	2,500	0	0	2,500	0	0	2,500	0	0	2,500	0	0
Other																
Reserve study updates	0	0	0	0	0	3,600	0	0	0	0	3,600	0	0	0	0	3,600
Total Costs	**187,300**	**69,650**	**29,000**	**77,150**	**509,450**	**425,100**	**405,400**	**463,800**	**45,000**	**30,750**	**632,600**	**74,450**	**149,750**	**22,500**	**60,900**	**154,350**
Total Costs Adjusted For 3% Inflation	**187,300**	**71,740**	**30,766**	**84,304**	**573,390**	**492,807**	**484,069**	**570,415**	**57,005**	**40,122**	**850,162**	**103,056**	**213,508**	**33,042**	**92,117**	**240,472**

Annual Expense By Year

Year:	2034	2035	2036	2037
Year Number:	17	18	19	20
Site				
Fill cracks and reseal streets and parking lots	0	0	0	0
Milling and overlay - asphalt streets/parking	0	0	0	0
Repair driveways - Allowance	0	15,000	0	0
Repair concrete walks/sidewalks- sectional	13,500	0	0	0
Replace PVC site perimter fencing	0	0	0	0
Replace dumpster enclosures	0	0	0	0
Stormwater ponds - major repairs for compliance (Ph 1)	0	0	0	0
Stormwater ponds - major repairs for compliance (Ph 2)	0	0	0	0
Stormwater pond dredging/major repairs	0	0	0	0
Drainage/erosion improvements	0	0	0	0
Irrigation system - major repairs & controls	0	0	7,500	0
Replace sections of concrete curb/gutter	0	0	0	0
Replace PVC railings to homes	0	0	0	0
Replace PVC privacy fencing	0	0	0	0
Replace PVC picket fencing	0	0	0	0
Building Exterior				
Exterior painting - multi-story buildings	0	0	16,800	0
Exterior painting - single story buildings	0	0	46,000	0
Trim and siding repairs - Allowance	0	2,500	0	0
Replace roofing (Phase 1)	0	0	0	0
Replace roofing (Phase 2)	0	0	0	0
Replace roofing (Phase 3)	0	0	0	0
Replace roofing (Phase 4)	0	0	0	0
Foundation stabilization - Allowance	0	0	0	0
Building Interior				
Clubhouse painting and minor repairs	0	0	0	0
Replace clubhouse furniture	0	0	0	0
Replace clubhouse carpet	0	0	0	0
Replace clubhouse misc. equipment	0	0	0	0
Replace clubhouse appliances	0	0	0	0
Replace fitness room flooring	0	4,000	0	0
Mechanical				
Replace clubhouse HVAC units	0	0	0	0
Upgrade clubhouse restooms and fixtures	0	0	0	0
Replace fountain equipment	0	0	0	4,500
Replace entrance lighting	0	2,500	0	0
Pool filtration sys - component replacement	3,500	0	0	3,500
Replace tennis court light fixtures	0	0	0	0
Replace pool are/clubhuse light fixtures	0	0	0	0
Amenities				
Resurface pool - includes coping/tile repairs	0	0	0	0
Sectional repair to pool deck	7,150	0	0	0
Replace pool furniture	0	0	3,750	0
Resurface tennis courts	0	0	0	0
Reconstruct tennis courts	0	0	0	0
Replace putting green carpet	0	0	0	0
Replace grills	0	0	0	0
Replace metal tables/benches	1,600	0	0	0
Replace playground equipment	0	0	0	0
Replace treadmills	0	0	0	0
Replace other fitness center equipment	0	0	0	0
Replace tennis court fencing (time of reconstruction)	0	0	0	0
Repair/paint pool perimeter fencing	0	3,500	0	0

Annual Expense By Year

	Year:	2034	2035	2036	2037
	Year Number:	17	18	19	20
Replace maintenance/golf carts		0	0	13,000	0
Car wash miscellaneous repairs		2,500	0	0	2,500
Other					
Reserve study updates		0	0	0	0
Total Costs		**28,250**	**27,500**	**87,050**	**10,500**
Total Costs Adjusted For 3% Inflation		**45,333**	**45,453**	**148,197**	**18,412**

Existing Funding Levels

Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments	Investment Earnings	Capital Expenditures	Ending Balance
2018	1	$350,000	$80,000	$0	$3,641	$187,300	$246,341
2019	2	$246,341	$80,000	$0	$3,819	$71,740	$258,420
2020	3	$258,420	$80,000	$0	$4,615	$30,766	$312,269
2021	4	$312,269	$80,000	$0	$4,619	$84,304	$312,584
2022	5	$312,584	$80,000	$0	$0	$573,390	($180,806)
2023	6	($180,806)	$80,000	$0	$0	$492,807	($593,614)
2024	7	($593,614)	$80,000	$0	$0	$484,069	($997,682)
2025	8	($997,682)	$80,000	$0	$0	$570,415	($1,488,098)
2026	9	($1,488,098)	$80,000	$0	$0	$57,005	($1,465,102)
2027	10	($1,465,102)	$80,000	$0	$0	$40,122	($1,425,224)
2028	11	($1,425,224)	$80,000	$0	$0	$850,162	($2,195,386)
2029	12	($2,195,386)	$80,000	$0	$0	$103,056	($2,218,442)
2030	13	($2,218,442)	$80,000	$0	$0	$213,508	($2,351,950)
2031	14	($2,351,950)	$80,000	$0	$0	$33,042	($2,304,992)
2032	15	($2,304,992)	$80,000	$0	$0	$92,117	($2,317,108)
2033	16	($2,317,108)	$80,000	$0	$0	$240,472	($2,477,581)
2034	17	($2,477,581)	$80,000	$0	$0	$45,333	($2,442,914)
2035	18	($2,442,914)	$80,000	$0	$0	$45,453	($2,408,367)
2036	19	($2,408,367)	$80,000	$0	$0	$148,197	($2,476,564)
2037	20	($2,476,564)	$80,000	$0	$0	$18,412	($2,414,975)

Existing Funding Levels

Beginning Balance as of start of year beginning Jan 2018: $350,000

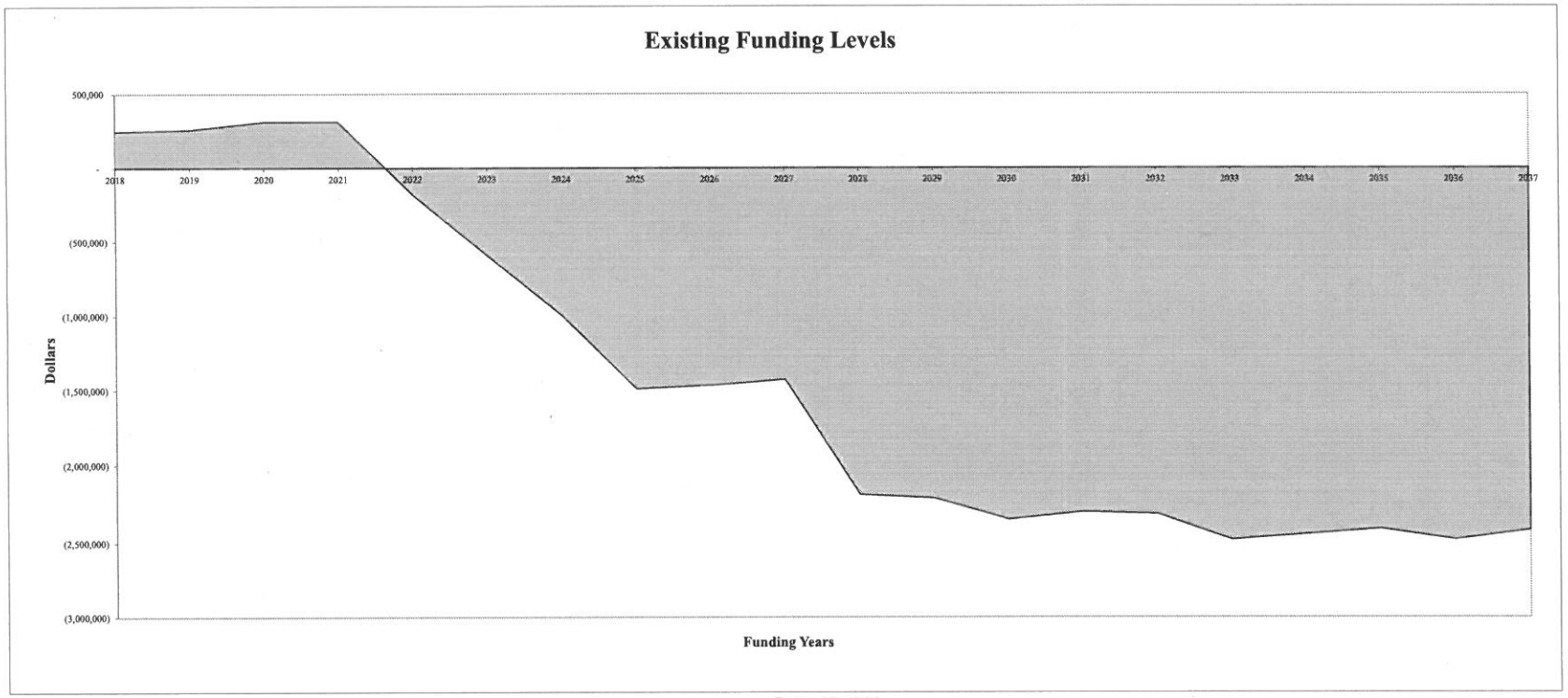
CONTRIBUTIONS	
AMOUNT	
$80,000.00	per year
$231.88	per unit per year
$6,666.67	per month
$19.32	per unit per month

SPECIAL ASSESSMENTS			
Totals			
Per Year	$0	Per Unit	$0

Projected Annual Funding and Expenditures:

Year:	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	246,341	258,420	312,269	312,584	(180,806)	(593,614)	(997,682)	(1,488,098)	(1,465,102)	(1,425,224)	(2,195,386)	(2,218,442)	(2,351,950)	(2,304,992)	(2,317,108)
Capital Expenditures:	187,300	71,740	30,766	84,304	573,390	492,807	484,069	570,415	57,005	40,122	850,162	103,056	213,508	33,042	92,117
Total Revenue (all sources)	83,641	83,819	84,615	84,619	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000

Year:	2033	2034	2035	2036	2037
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	(2,477,581)	(2,442,914)	(2,408,367)	(2,476,564)	(2,414,975)
Capital Expenditures:	240,472	45,333	45,453	148,197	18,412
Total Revenue (all sources)	80,000	80,000	80,000	80,000	80,000



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
2018	1	$350,000	$180,000	$0	$0	$5,141	$187,300	$347,841
2019	2	$347,841	$180,000	$0	$0	$6,842	$71,740	$462,943
2020	3	$462,943	$240,000	$0	$0	$10,083	$30,766	$682,259
2021	4	$682,259	$240,000	$0	$0	$12,569	$84,304	$850,525
2022	5	$850,525	$300,000	$0	$0	$8,657	$573,390	$585,791
2023	6	$585,791	$300,000	$0	$0	$5,895	$492,807	$398,878
2024	7	$398,878	$360,000	$0	$0	$4,122	$484,069	$278,932
2025	8	$278,932	$360,000	$0	$0	$1,028	$570,415	$69,544
2026	9	$69,544	$360,000	$0	$0	$5,588	$57,005	$378,127
2027	10	$378,127	$360,000	$0	$0	$10,470	$40,122	$708,476
2028	11	$708,476	$360,000	$0	$0	$3,275	$850,162	$221,589
2029	12	$221,589	$360,000	$0	$0	$7,178	$103,056	$485,711
2030	13	$485,711	$360,000	$0	$0	$9,483	$213,508	$641,686
2031	14	$641,686	$360,000	$0	$0	$14,530	$33,042	$983,174
2032	15	$983,174	$360,000	$0	$0	$18,766	$92,117	$1,269,823
2033	16	$1,269,823	$360,000	$0	$0	$20,840	$240,472	$1,410,191
2034	17	$1,410,191	$360,000	$0	$0	$25,873	$45,333	$1,750,731
2035	18	$1,750,731	$360,000	$0	$0	$30,979	$45,453	$2,096,257
2036	19	$2,096,257	$360,000	$0	$0	$34,621	$148,197	$2,342,681
2037	20	$2,342,681	$360,000	$0	$0	$40,264	$18,412	$2,724,533

Alternative 1: Level Funding with Steps

Beginning Balance as of start of year beginning Jan 2018: $350,000

CONTRIBUTIONS		
FIRST YR	LAST YR	
$180,000.00	$360,000.00	per year
$521.74	$1,043.48	per unit per year
$15,000.00	$30,000.00	per month
$43.48	$86.96	per unit per month

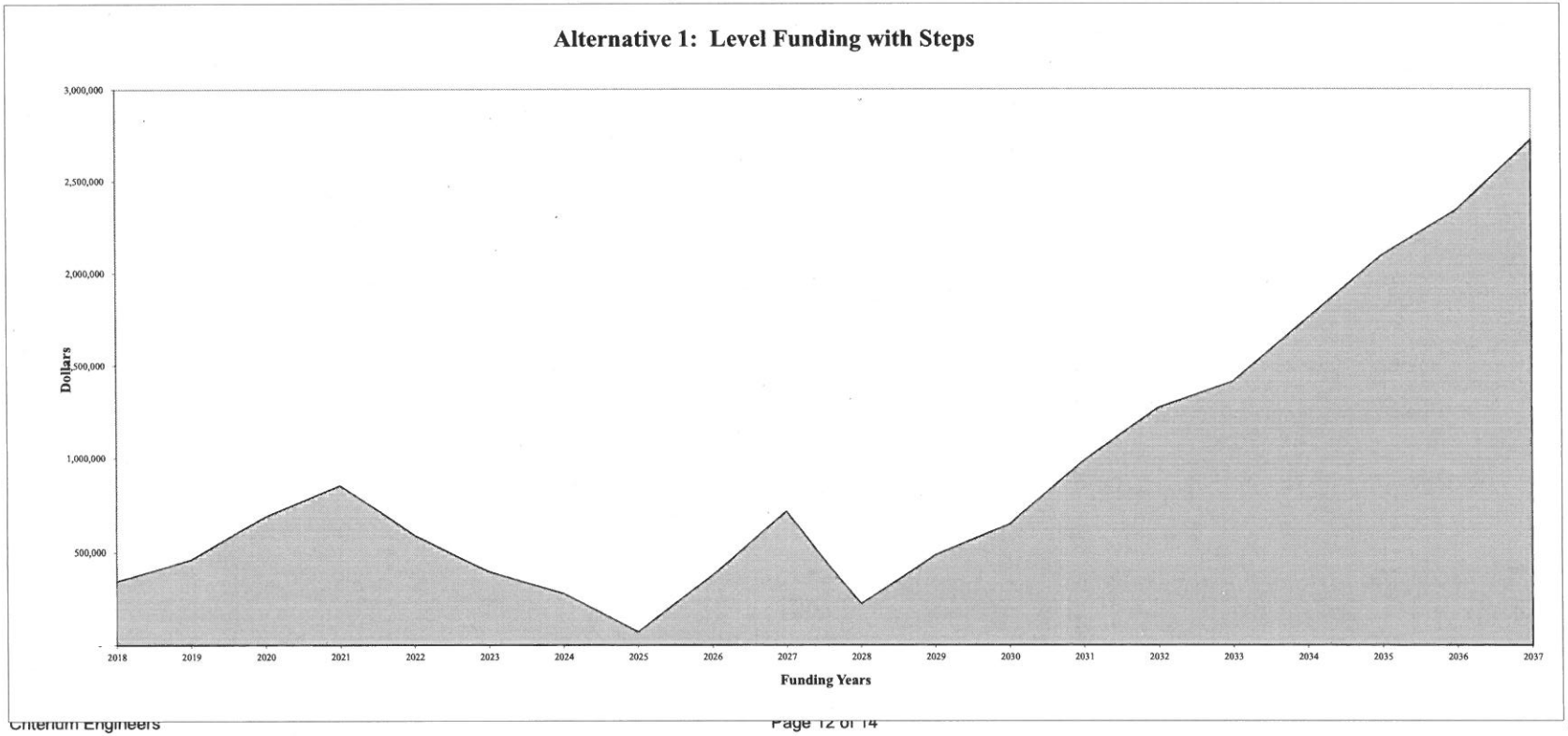
SPECIAL ASSESSMENTS					
		Totals			
First	Per Year	$0	Per Unit	$0	
Second	Per Year	$0	Per Unit	$0	

SETTINGS (analyzed by year)		
Starting amount ($):	15000	
Increment by ($):	5000	
Every	2	year
Frequency:	3	time

Projected Annual Funding and Expenditures:

Year:	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	347,841	462,943	682,259	850,525	585,791	398,878	278,932	69,544	378,127	708,476	221,589	485,711	641,686	983,174	1,269,823
Capital Expenditures:	187,300	71,740	30,766	84,304	573,390	492,807	484,069	570,415	57,005	40,122	850,162	103,056	213,508	33,042	92,117
Total Revenue (all sources)	185,141	186,842	250,083	252,569	308,657	305,895	364,122	361,028	365,588	370,470	363,275	367,178	369,483	374,530	378,766

Year:	2033	2034	2035	2036	2037
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	1,410,191	1,750,731	2,096,257	2,342,681	2,724,533
Capital Expenditures:	240,472	45,333	45,453	148,197	18,412
Total Revenue (all sources)	380,840	385,873	390,979	394,621	400,264



Alternative 2: Escalating Funding at 7% per Year

Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments 1	Special Assessments 2	Investment Earnings	Capital Expenditures	Ending Balance
2018	1	$350,000	$210,000	$0	$0	$5,591	$187,300	$378,291
2019	2	$378,291	$224,700	$0	$0	$7,969	$71,740	$539,220
2020	3	$539,220	$240,429	$0	$0	$11,233	$30,766	$760,116
2021	4	$760,116	$257,259	$0	$0	$13,996	$84,304	$947,067
2022	5	$947,067	$275,267	$0	$0	$9,734	$573,390	$658,678
2023	6	$658,678	$294,536	$0	$0	$6,906	$492,807	$467,313
2024	7	$467,313	$315,153	$0	$0	$4,476	$484,069	$302,873
2025	8	$302,873	$337,214	$0	$0	$1,045	$570,415	$70,717
2026	9	$70,717	$337,214	$0	$0	$5,264	$57,005	$356,190
2027	10	$356,190	$337,214	$0	$0	$9,799	$40,122	$663,082
2028	11	$663,082	$337,214	$0	$0	$2,252	$850,162	$152,386
2029	12	$152,386	$337,214	$0	$0	$5,798	$103,056	$392,342
2030	13	$392,342	$337,214	$0	$0	$7,741	$213,508	$523,789
2031	14	$523,789	$337,214	$0	$0	$12,419	$33,042	$840,381
2032	15	$840,381	$337,214	$0	$0	$16,282	$92,117	$1,101,761
2033	16	$1,101,761	$337,214	$0	$0	$17,978	$240,472	$1,216,480
2034	17	$1,216,480	$337,214	$0	$0	$22,625	$45,333	$1,530,987
2035	18	$1,530,987	$337,214	$0	$0	$27,341	$45,453	$1,850,089
2036	19	$1,850,089	$337,214	$0	$0	$30,587	$148,197	$2,069,692
2037	20	$2,069,692	$337,214	$0	$0	$35,827	$18,412	$2,424,322

Alternative 2: Escalating Funding at 7% per Year

Beginning Balance as of start of year beginning Jan 2018: $350,000

CONTRIBUTIONS		
FIRST YR	LAST YR	
$210,000.00	$337,214.11	per year
$608.70	$977.43	per unit per year
$17,500.00	$28,101.18	per month
$50.72	$81.45	per unit per year

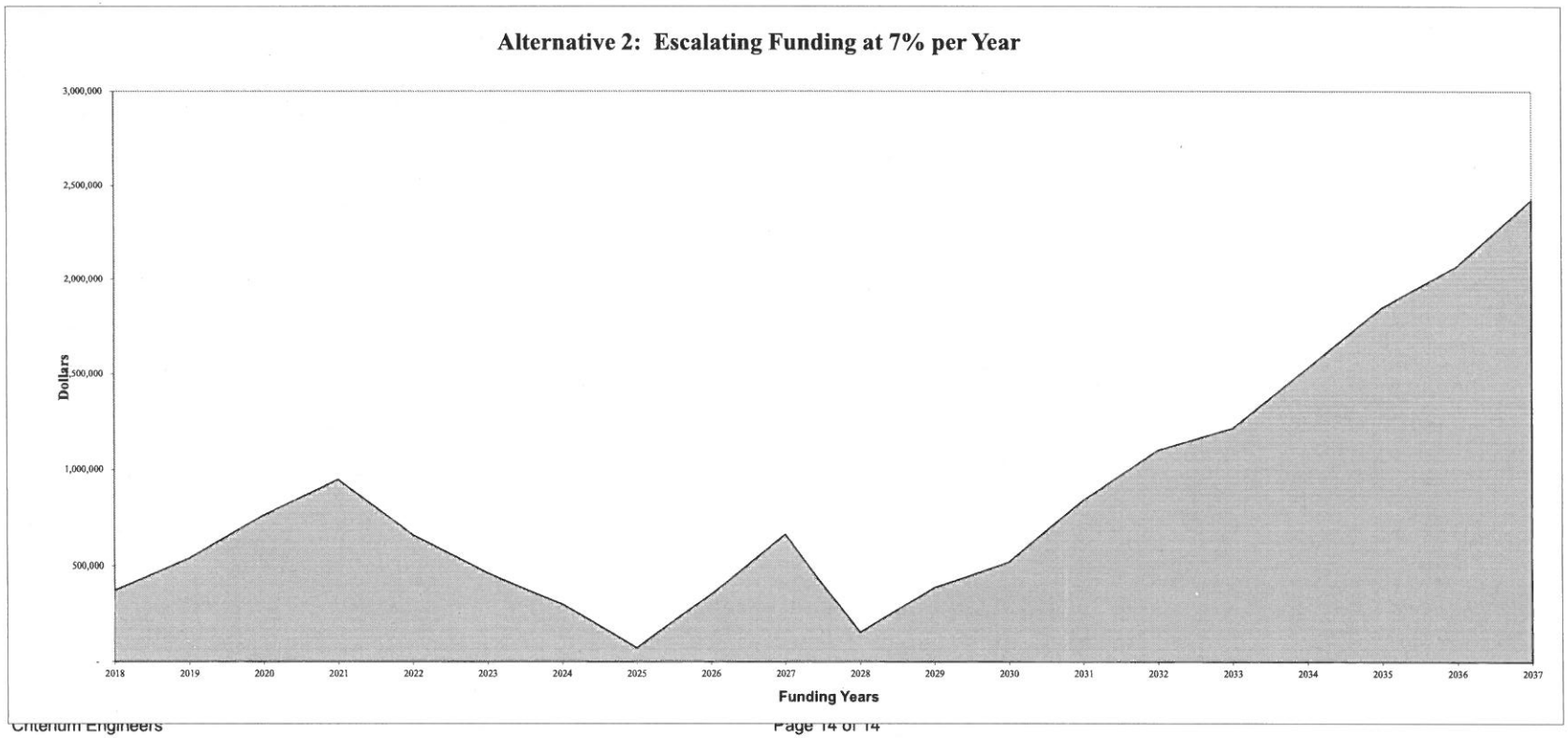
SPECIAL ASSESSMENTS					
		Totals			
First	Per Year	$0	Per Unit	$0	
Second	Per Year	$0	Per Unit	$0	

SETTINGS (analyzed by year)		
Starting amount ($):	17500	
Increment by (%):	7	
Step (%):		
Every	1	year
Frequency:	7	time

Projected Annual Funding and Expenditures:

Year:	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	378,291	539,220	760,116	947,067	658,678	467,313	302,873	70,717	356,190	663,082	152,386	392,342	523,789	840,381	1,101,761
Capital Expenditures:	187,300	71,740	30,766	84,304	573,390	492,807	484,069	570,415	57,005	40,122	850,162	103,056	213,508	33,042	92,117
Total Revenue (all sources)	215,591	232,669	251,662	271,255	285,001	301,442	319,629	338,259	342,478	347,013	339,466	343,012	344,955	349,634	353,496

Year:	2033	2034	2035	2036	2037
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	1,216,480	1,530,987	1,850,089	2,069,692	2,424,322
Capital Expenditures:	240,472	45,333	45,453	148,197	18,412
Total Revenue (all sources)	355,192	359,840	364,555	367,801	373,042



Appendix B: PHOTO LOG

CRITERIUM GILES ENGINEERS

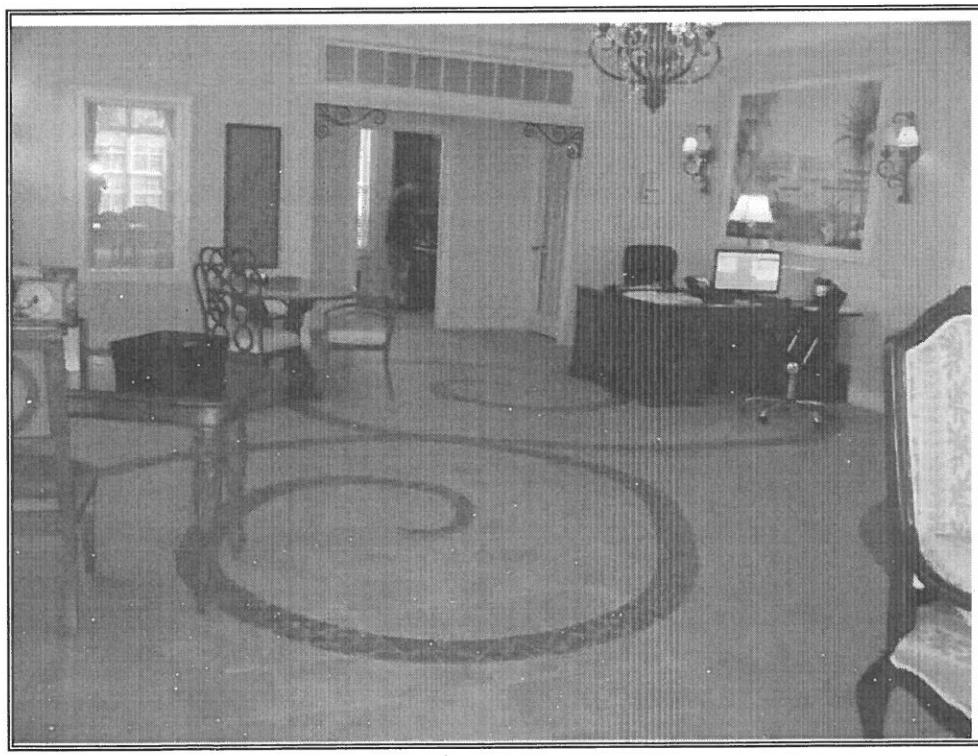
Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
View of clubhouse

Photo Number
1



Description:
Clubhouse interior

Photo Number
2

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
Drinking water fountains and interior finishes

Photo Number
3

Description:
Previous water intrusion required repairs to clubhouse wall

Photo Number
4

CRITERIUM GILES ENGINEERS

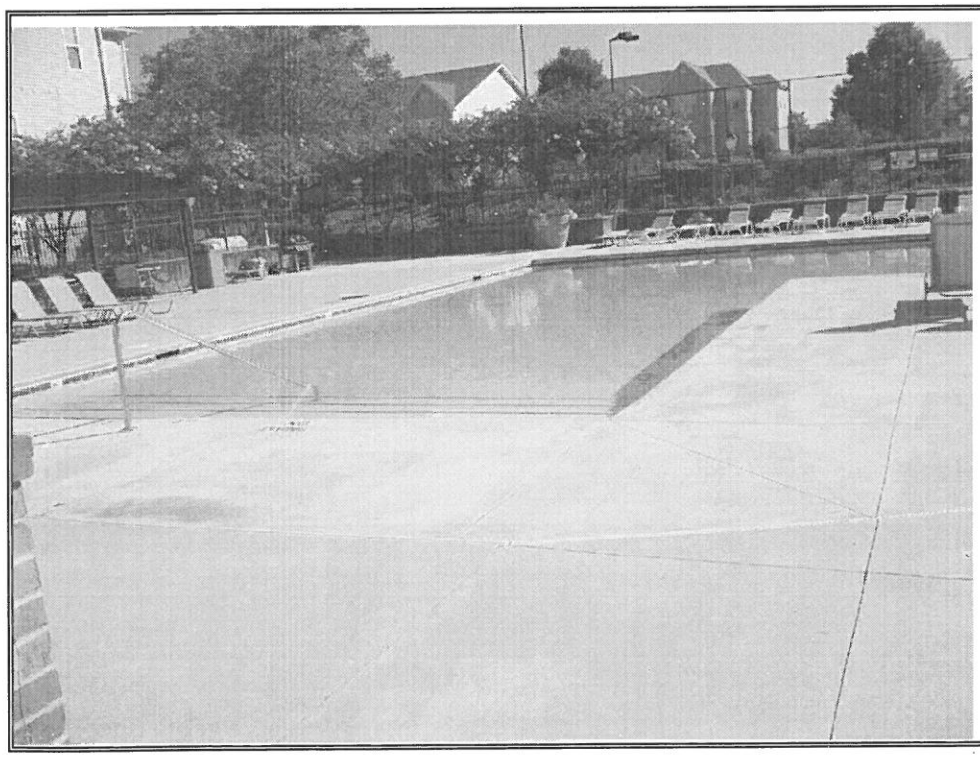
Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
View of mailcenter and boxes

Photo Number
5



Description:
View of swimming pool and deck

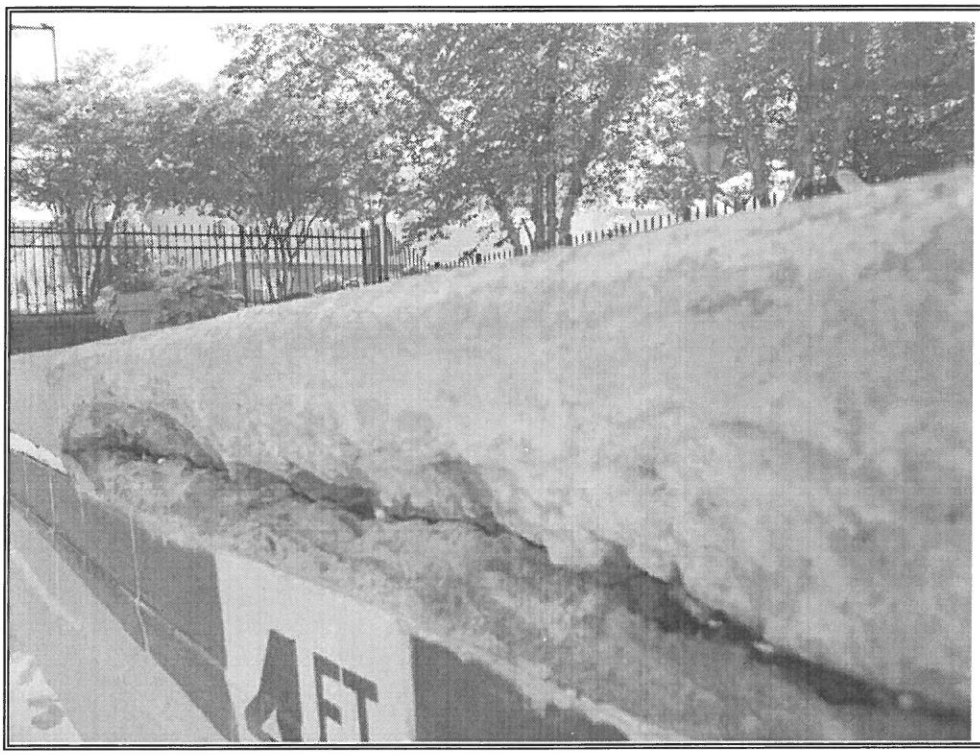
Photo Number
6

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

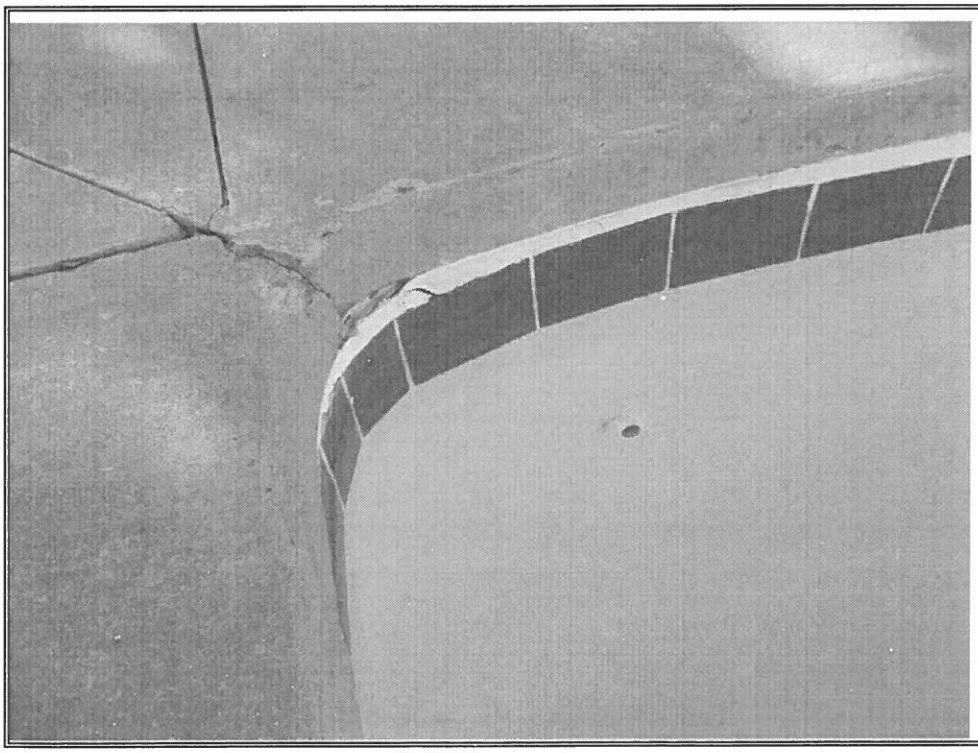
Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017



Description:
Note damage to pool coping

Photo Number
7



Description:
Damage to pool coping and waterline tiles

Photo Number
8

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
Typical pool furniture

Photo Number
9

Description:
Typical crack in pool deck

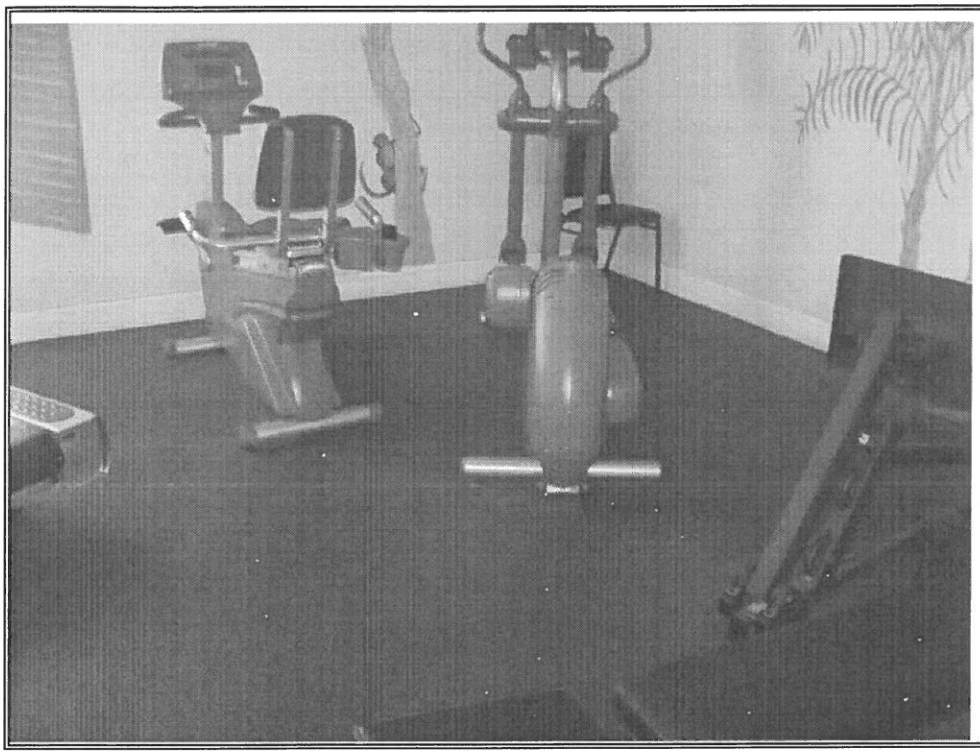
Photo Number
10

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017



Description:
Fitness equipment

Photo Number
11

Description:
Clubhouse typical exterior light fixture

Photo Number
12

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
Pool area light fixture

Photo Number
13

Description:
Rust at base of pool room door

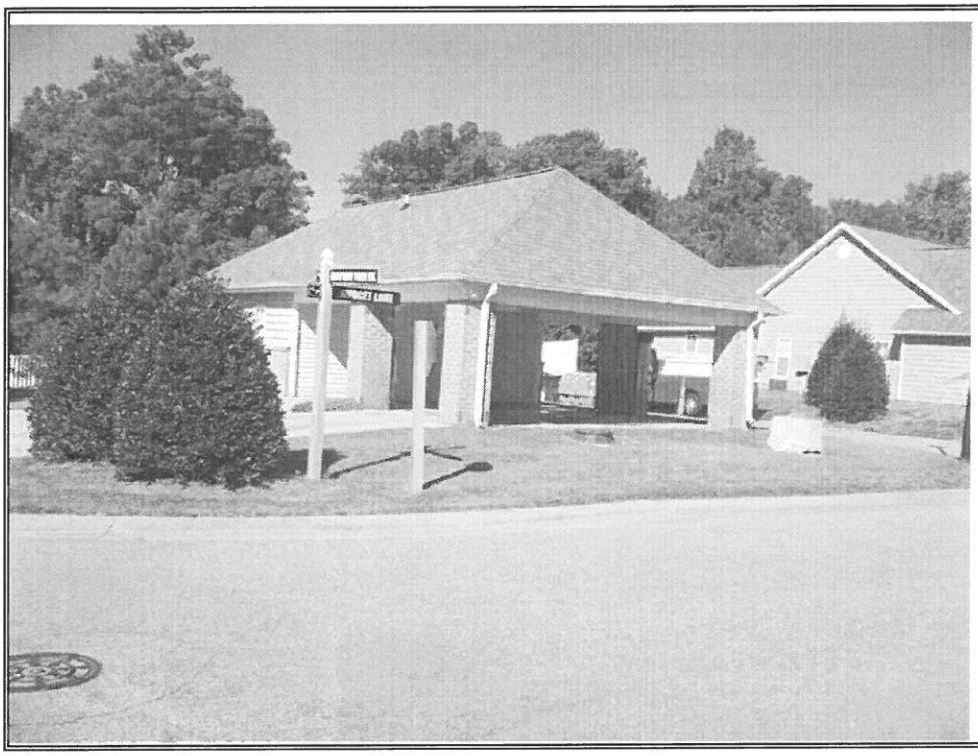
Photo Number
14

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017



Description:
View of car wash building and street signs

Photo Number
15

Description:
View of tennis court surface wear

Photo Number
16

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
Another view of tennis court condition

Photo Number
17

Description:
Playground equipment and metal picnic table

Photo Number
18

CRITERIUM GILES ENGINEERS

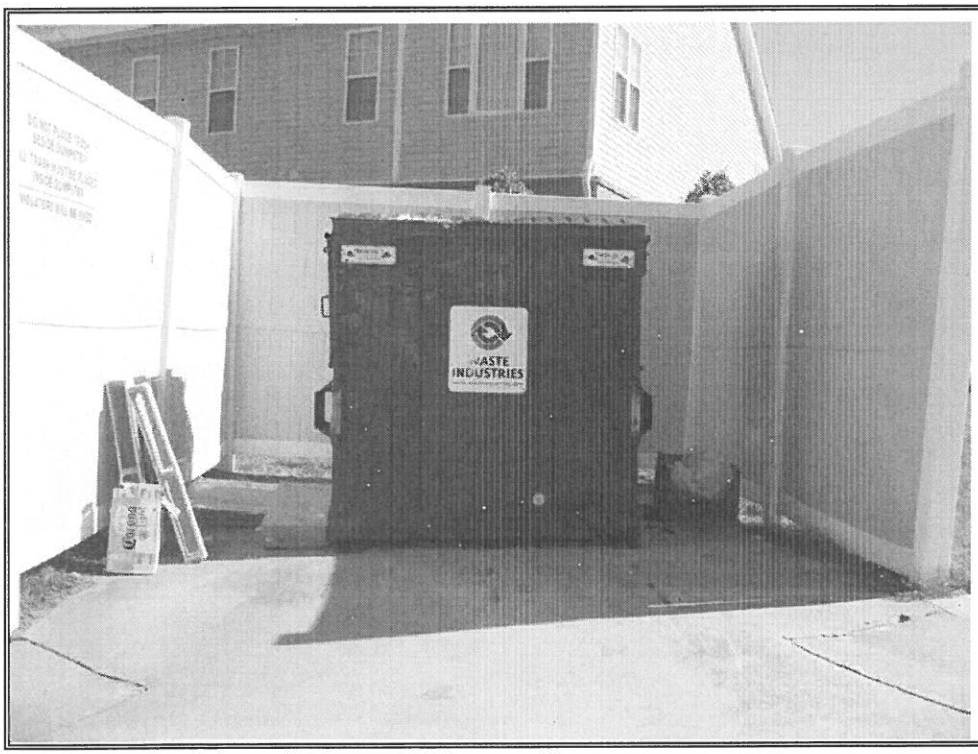
Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
Another view of playground equipment

Photo Number
19



Description:
PVC fencing around dumpster

Photo Number
20

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
Fountain at traffic circle near entrance

Photo Number
21

Description:
PVC split rail fencing is leaning in sections

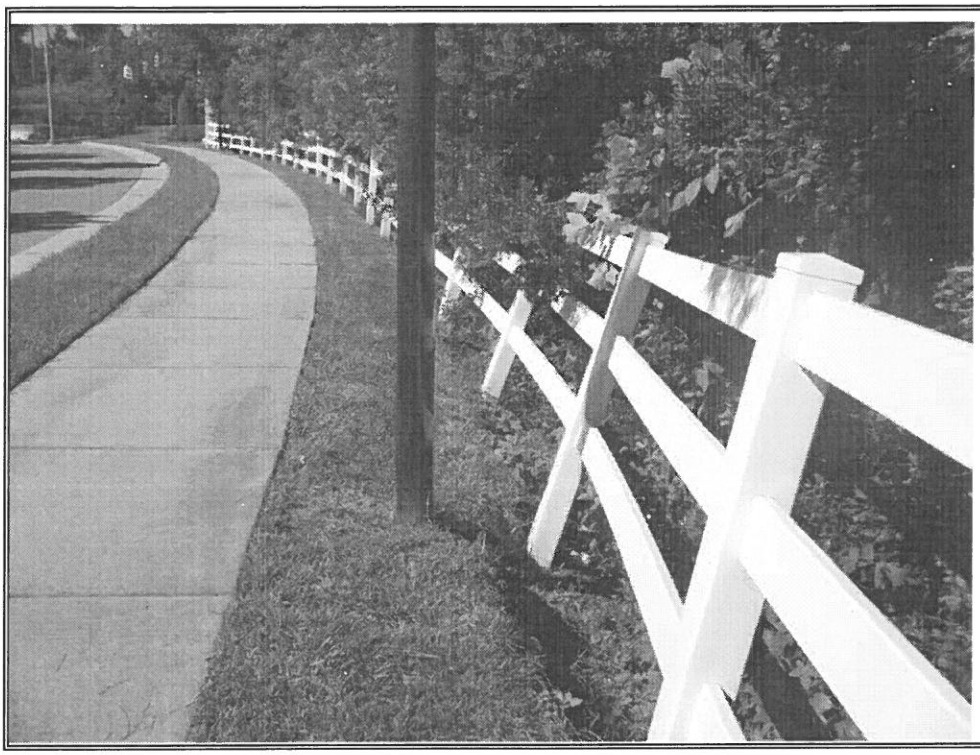
Photo Number
22

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017



Description:
Another view of leaning PVC fencing

Photo Number
23

Description:
Entry monuments and signage

Photo Number
24

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
Typical townhome style unit and entry steps with railing

Photo Number
25

Description:
Another view of typical entry and brick retaining walls

Photo Number
26

CRITERIUM GILES ENGINEERS

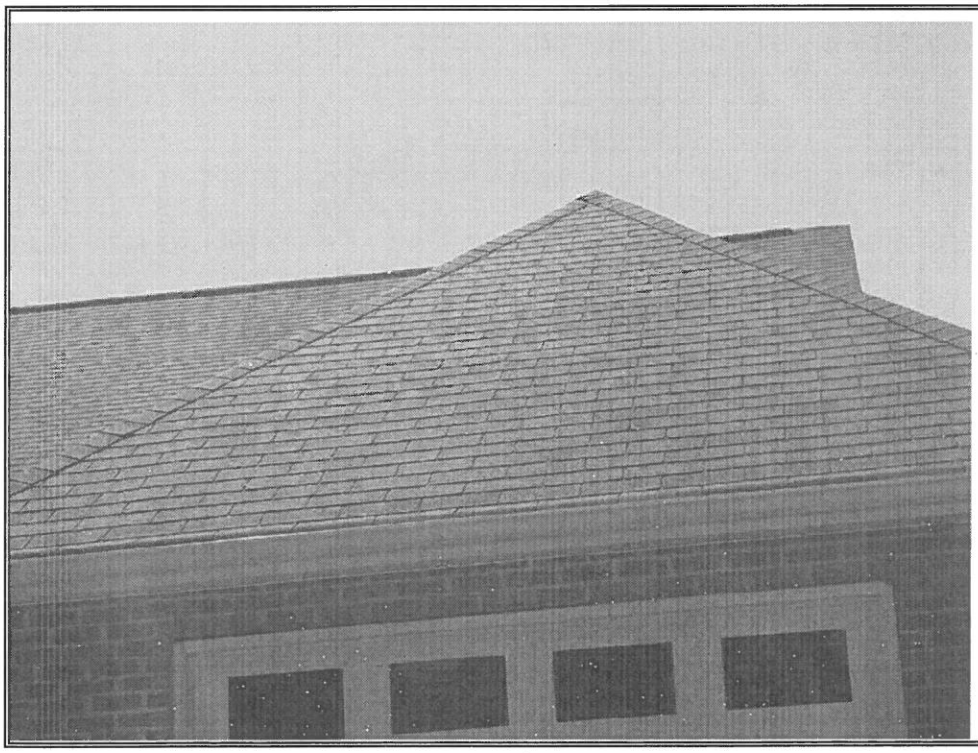
Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
View of typical unit roofing and garage doors

Photo Number
27



Description:
Close-up view of typical 3-Tab shingles

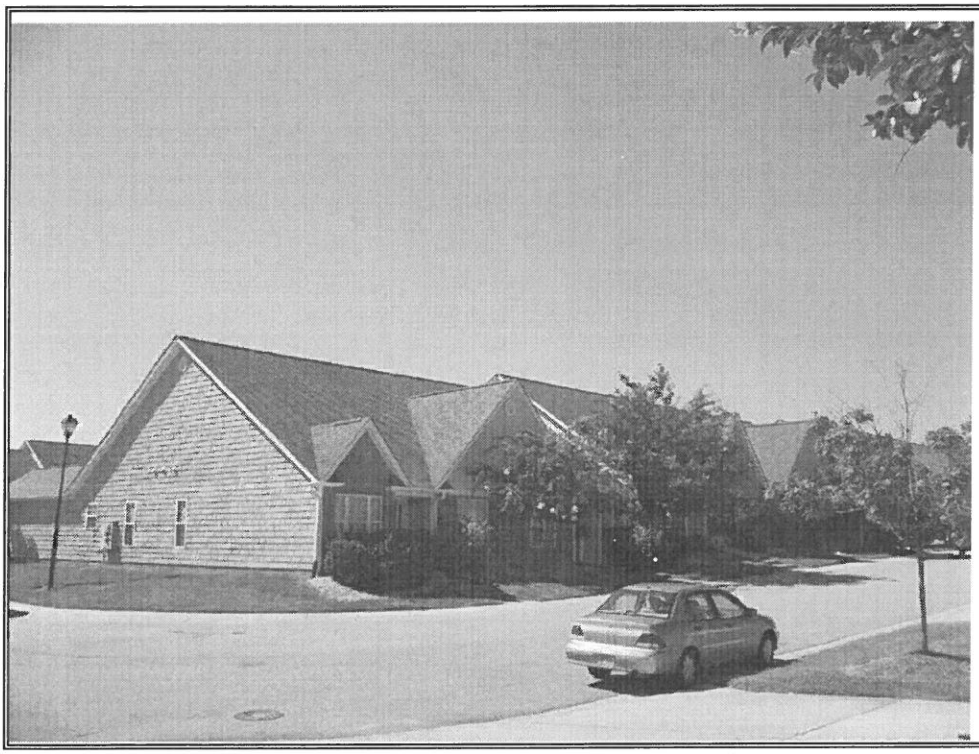
Photo Number
28

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

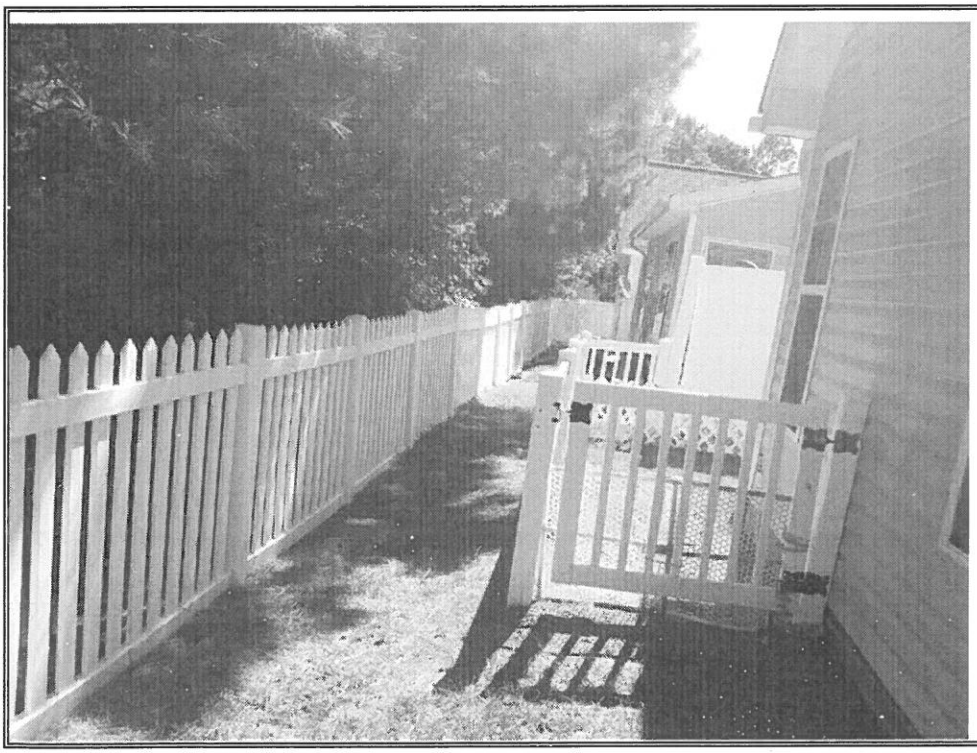
Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017



Description:
Another view of typical townhome-style unit

Photo Number
29



Description:
Rear PVC picket fencing

Photo Number
30

CRITERIUM GILES ENGINEERS

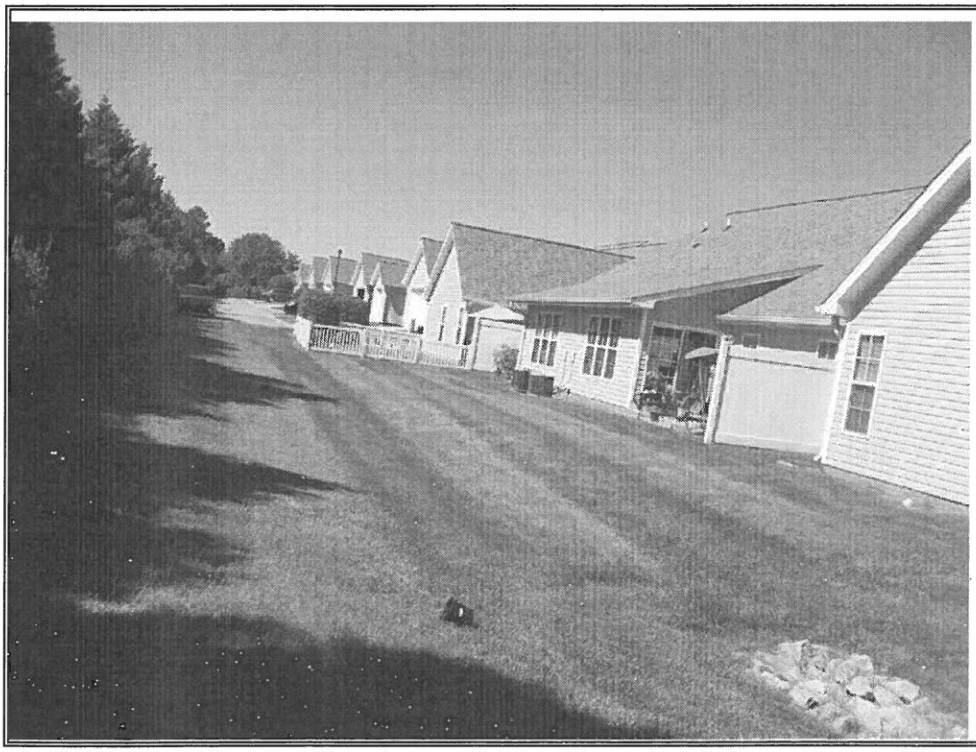
Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
Note damage to vinyl siding at base of wall

Photo Number
31



Description:
Another view of rear of units

Photo Number
32

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
Another view or typical roof condition

Photo Number
33

Description:
Two-story building view

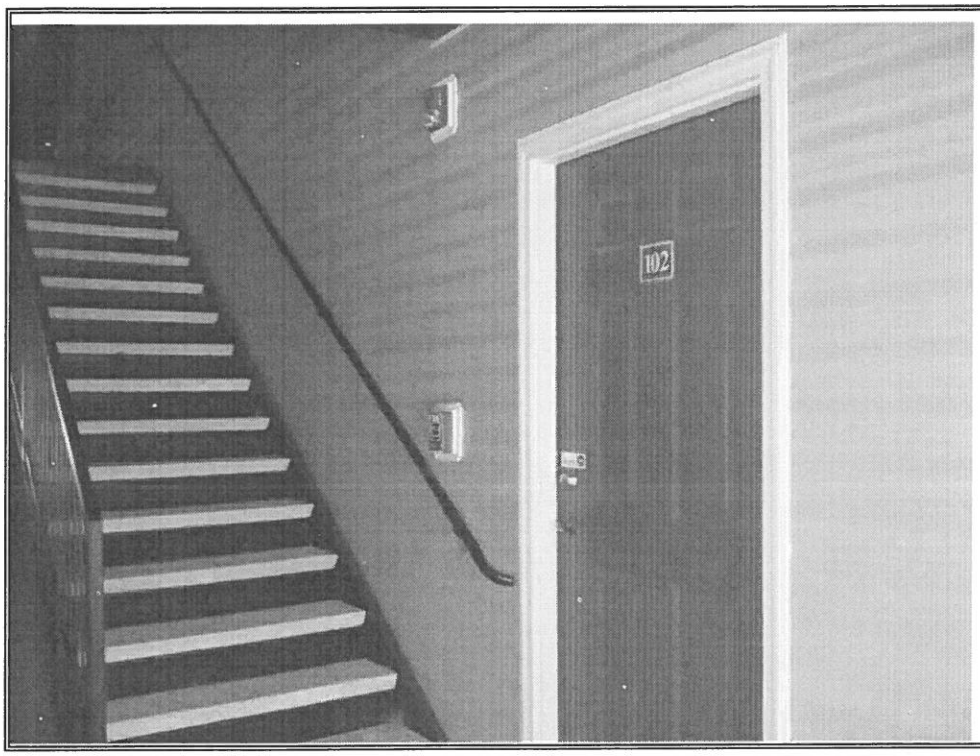
Photo Number
34

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

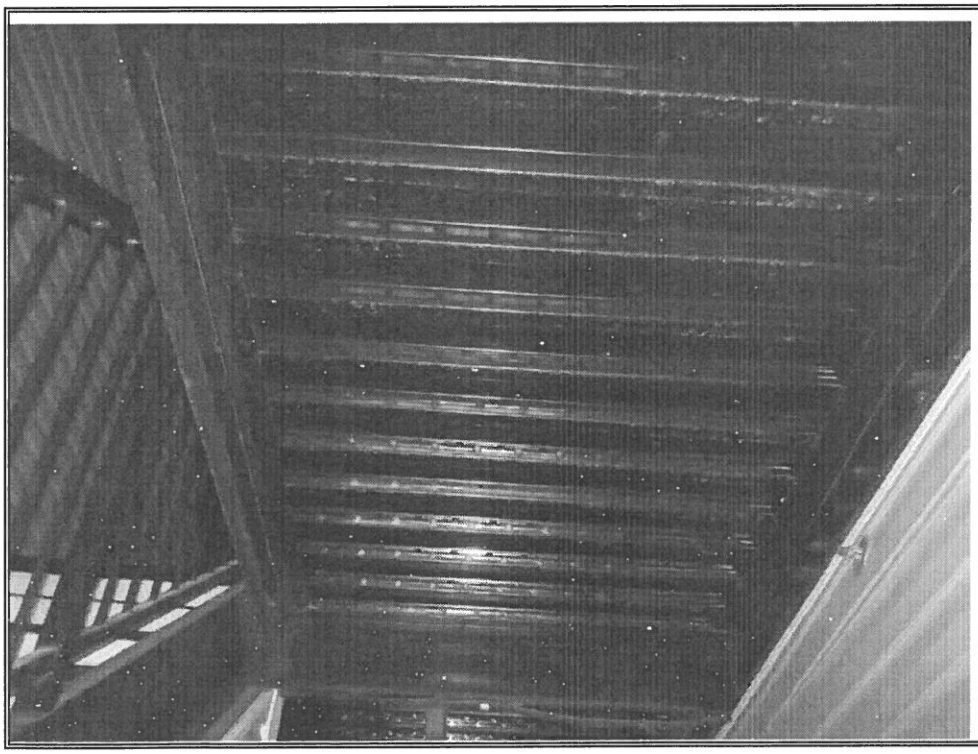
Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017



Description:
Typical entry door, siding and stairs in 2-story building

Photo Number
35



Description:
Underside of stairway metal pan

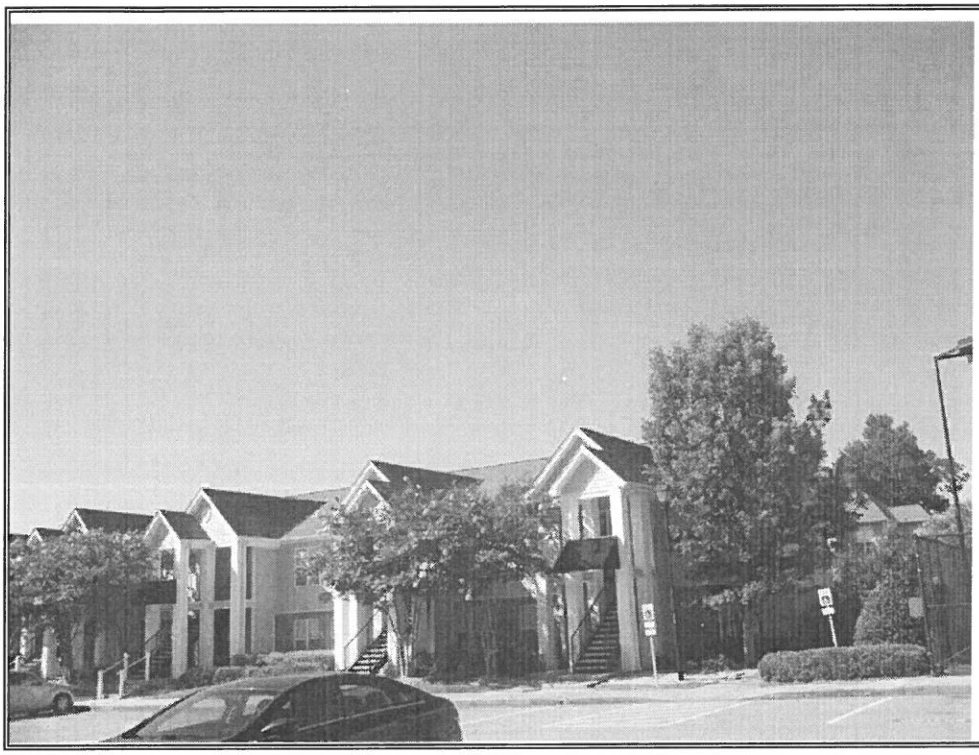
Photo Number
36

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

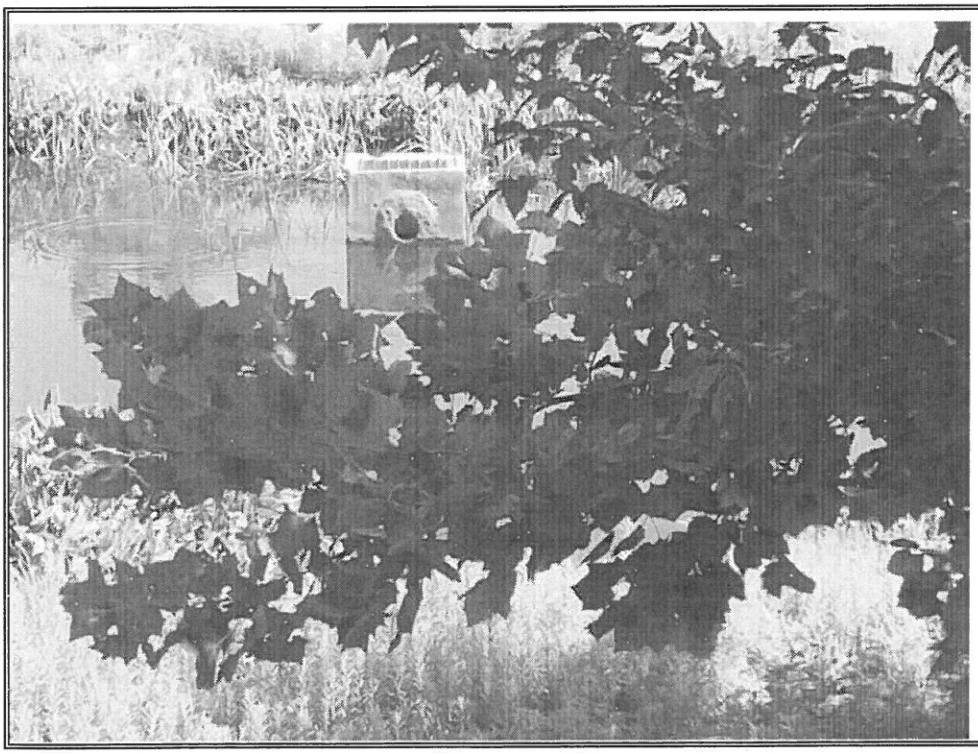
Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017



Description:
Another view of 2-story building

Photo Number
37



Description:
Stormwater retention device and riser

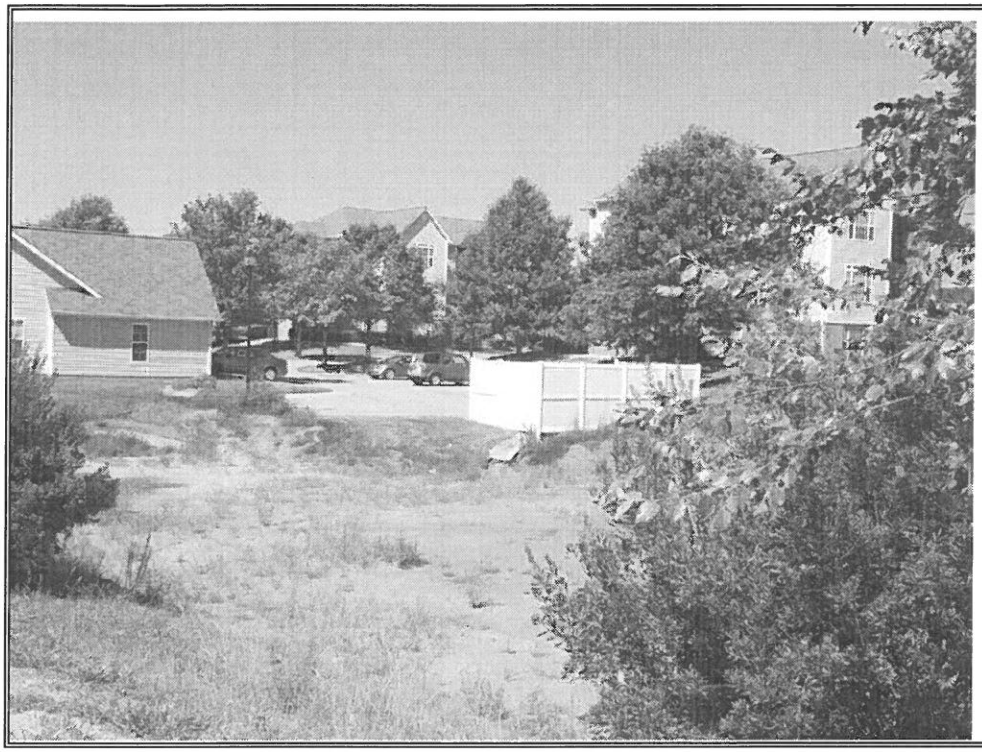
Photo Number
38

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017



Description:
View of another stromwater retention device

Photo Number
39

Description:
Typical asphalt street condition

Photo Number
40

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
Note alligator cracking in asphalt street

Photo Number
41

Description:
Longitudinal cracking in asphalt street

Photo Number
42

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
Note previous repairs and damage to asphalt street

Photo Number
43

Description:
Another view of damaged section of asphalt

Photo Number
44

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
View of clubhouse in background and cracking in asphalt

Photo Number
45

Description:
Concrete sidewalks sections have settled adjacent to curbing near entrance

Photo Number
46

CRITERIUM GILES ENGINEERS

Location:
Avera Place
Raleigh, NC

Photo Taken by:
Robert C. Giles, PE

Date:
July 31, 2017

Description:
Another view of curb/gutter, sidewalks and paving

Photo Number
47

Description:
Valley gutter and inlet drain

Photo Number
48