CRITHARDY ENGINEERS

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Via e-mail: client@email.com

February 2, 2017

Attn: John Smith, Treasurer BOARD OF MANAGERS

c/o , Property Manager MANAGEMENT GROUP

St. Louis, MO

Property: **TALL HEIGHTS** 123 Street, Saint Louis, MO

Service: SAMPLE - FULL RESERVE STUDY

Attachment: FINAL

Dear Ms. Smith and members of the Board,

As requested by Management Group on your behalf, Criterium-Hardy Engineers has completed a Full Reserve Study for the . We appreciate your careful review of our September 19, 2016 draft submittal, and have made changes as discussed and directed. Attached hereto, please find our final report for the Board's consideration and use. (Although this edition is labeled "final," we will, of course, revise again if necessary.)

This Reserve Study has been performed in general accordance with Community Association Institute (CAI) National Reserve Study Standards. However, Criterium's scope of service has exceeded CAI's guidelines with regard to our engineering evaluation of the property's condition, identification of current deficiencies, and consideration of appropriate capital expenditures.

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We observed the property on two occasions: on June 23 and July 29, 2016. Our findings and recommendations are principally based on observations made during our on-site visual inspection performed June 23, 2016. During that site visit, we met primarily with John Smith and went through the clubhouse, interior common areas of buildings 10315, 10331, 10335, 10352, and 10355. We also walked a portion of the site including exteriors of buildings 10307, 10311, 10331, 10327, 10315, 10335, 10341, 10345, and 10349. During our second site visit on July 29, 2016 we walked the balance of the site.

We have reviewed the Declaration of Condominium and By-Laws and County Real Estate Records.

The report herewith should be reviewed in its entirety, including its Appendices which contain the financial analysis, captioned photographs, and reference documents.

In summary, given the reported \$276,000 starting balance of the Capital Reserve Fund on June 12, 2016, the current ongoing rate of contribution (a) \$115 thousand per year (based on historical budget data for 2014 and 2015), and an anticipated average rate of return on investment of 0 % per year, our financial analysis indicates that the Association's current funding will prove inadequate to meet future needs.

The 20-year total of projected capital expenditure (CapEx) budgets, (current dollar cost estimates inflated at 2.5 % annually), is \$2.4 million. Because of draw-downs to pay for these CapEx expenses, projected year-end fund balances fall to deficit levels in Year 16, 2032 before returning to positive year-end balances in Year 18, 2034.

In this final report, we suggested minimum threshold fund balances to be maintained and two alternate funding plans for the Board's consideration.

As a result of our on-site inspections and other investigations, we find the common components of your community to be in good general condition and well-maintained. However, we did observe a few deficiencies and a few deferred repairs which are noted in the report.

In reviewing the engineering assumptions, cost estimates and projected fund values herein, please understand that their accuracy diminishes greatly beyond Year 5. Long range facility maintenance projections are intended only to indicate the likely pattern of capital expenditures and to guide financial planning. Criterium agrees with CAI's recommendation that reserve studies should be updated regularly to allow periodic adjustment of facility plans and funding strategies.



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If you have any questions or would like to discuss our findings then please contact Kyle Hardy by email at kyle@criterium-hardy.com or by phone at 314.878.0806..

Criterium-Hardy Engineers appreciates this opportunity to assist the Board in support of the Association's facility and financial planning. Thank you.

CRITERIUM ENGINEERS

KI = Hand

Kyle Hardy, P.E. President



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BUILDING INSPECTION

ENGINEERS PROUDLY SERVING

NORTH AMERICA

FULL RESERVE STUDY

TALL HEIGHTS ASSOCIATION 123 STREET SAINT LOUIS, MO

Prepared for: BOARD OF MANAGERS

As requested by the Treasurer, John Smith



Site Inspections June 23 and July 29, 2016 FINAL submitted: December 1, 2016

CE Project No. SAMPLE

TABLE OF CONTENTS

| 1.0 INTRODUCTION | |
|------------------------------------|----|
| 2.0 EXECUTIVE SUMMARY | |
| 3.0 PURPOSE & SCOPE | |
| 4.0 PHYSICAL ANALYSIS | |
| 4.1 PROPERTY DESCRIPTION | 12 |
| 4.2 COMMON COMPONENTS | 13 |
| 4.3 CONDITION ASSESSMENT | 15 |
| 4.4 CURRENT DEFICIENCIES | 20 |
| 4.5 LIFE & VALUATION | 21 |
| 5.0 FINANCIAL ANALYSIS | |
| 5.1 CAPITAL EXPENDITURE PROJECTION | 24 |
| 5.2 CURRENT FUNDING | 24 |
| 5.3 ALTERNATE FUNDING PLANS | 25 |
| 5.4 FUNDING METHODOLOGIES | 26 |
| 6.0 LIMITATIONS | |
| 7.0 CONCLUSION | |

APPENDICES

A: FINANCIAL EXHIBITS

Common Component Inventory & Capital Expenditure (CapEx) Planning 20-Year Projection of the Current Funding Plan

B: GRAPHIC EXHIBITS

Municipal Aerial Parcel Map County Real Estate Information

C: PHOTOGRAPHS

D: REFERENCE DOCUMENTS

CAI National Reserve Study Standards Definitions of Other Terms & References used in the Report Definitions of Building Systems - Common Abbreviations and Acronyms

E: PROJECT TEAM QUALIFICATIONS

1.0 INTRODUCTION

Following authorization by the 's BOARD OF MANAGERS, Management Group requested Criterium-Hardy Engineers to conduct a Full Reserve Study of your 200 unit residential community located off Lindbergh Blvd in Saint Louis, MO.

This report must be reviewed in its entirety to understand our findings and their limitations. The Appendices are an integral part of this report and must be included in any review. Please refer to Appendix D for definitions of common terms of reference used herein.

We have conducted the study in general accordance with the National Reserve Study Standards published by the Community Association Institute (CAI). Please refer to Appendix D which contains a copy of the CAI standard.

This study was conducted by licensed Professional Engineers and other qualified staff working under the responsible charge of a CAI-certified Reserve Specialist. Please refer to Appendix E for the qualifications of the project team.

Criterium Engineers Kyle D. Hardy, P.E., performed this study. He visited the site on June 23, 2016 and July 29, 2016. This report is principally based on our visual inspection(s) of grounds, building exteriors, clubhouse and other common areas. Mr. Hardy prepared this report and the attached financial analysis. Alan Mooney, P.E. reviewed his findings. Mr. Hardy presents this confidential report for the Board's review and use.

In reviewing the engineering assumptions, cost estimates and projected fund values herein, please understand that their accuracy diminishes greatly beyond Year 5. Long range facility maintenance projections are intended only to indicate the likely pattern of capital expenditures and to guide financial planning. Criterium agrees with CAI's recommendation that reserve studies should be updated regularly to allow periodic adjustment of facility plans and funding strategies.



2.0 EXECUTIVE SUMMARY

In summary, as a result of our on-site inspections and other investigations, we find the common components of the property to be in good general condition and well-maintained.

We observed a few deficiencies and a few deferred repairs which are noted herein.

We have identified an inventory of Association-responsible common components which are likely to require periodic repair or replacement or other recurrent capital investment.

We have formed an opinion of the remaining useful life of each component. We have estimated the current cost of required capital expenditures for their repair or replacement. We have projected annual capital budgets over a 20-year planning period.

We have also interviewed the Board to learn of any planned facility improvements which will require capital expenditures.

In the summary, the 20-year total of projected capital expenditure (CapEx) budgets, (current dollar cost estimates inflated at 2.5 % annually), is \$2.4 million.

The Board has provided us with information on the Association's Capital Reserve Fund and the current funding plan. Our initial financial analysis was based on the data supplied. The two year average annual contribution rate to the reserve fund was \$115 thousand in 2014 and 2015.

Given the reported \$276 thousand starting balance of the Capital Reserve Fund on June 23, 2016, the current ongoing rate of contribution \$115 thousand per year (based on historical budget data for 2014 and 2015), and an anticipated average rate of return on investment of 0.0% per year, our financial analysis indicates that the Association's current funding will prove inadequate to meet future needs.

Because of draw-downs to pay for projected CapEx expenses, projected year-end fund balances fall to deficit levels in Year 16, 2032 before returning to positive year-end balances in Year 18, 2034.



3.0 PURPOSE & SCOPE

3.1 OBJECTIVES

The purpose of this reserve study is to determine a capital needs plan for the Association, to evaluate the current rate of contribution to the capital reserve fund, and, if required, to suggest alternate funding strategies.

This report is intended to be used as a tool by the Association's Board for considering and managing its future financial obligations, for determining appropriate capital reserve fund allocations, and for informing the individual Owners of the Association's required capital expenditures and the resulting financial plan.

For purposes of financial planning, Association-responsible expenses are typically divided into two categories:

- Operation and maintenance (O&M) of commonly-held elements of real property and other assets. These O&M expenses usually include taxes, insurance, property management costs and other service fees.
- Capital expenditures for major periodic repairs or replacement of commonly-held elements.

Normal, recurring O&M costs are typically paid by the individual Owners through periodic assessments or service fees equal to their share of the annual budget, which is estimated based on cost projections of either actual or average levels of expense.

Some additional contingency amount may be included in annual O&M budgets to result in a yearend surplus which is carried forward year-to-year to cover variations in annual costs or any uninsured losses. This carry-over is often referred to as an operating reserve.

These O&M costs, their funding and operating reserves are not typically considered by a Reserve Study.

Long-term capital expenditures, their funding plan and ensuring adequate Capital Reserve Fund balances are the focus of this Reserve Study.

Studies of this nature are important to ensure that a community will have sufficient funds for long-term, periodic capital expenditure requirements. This helps preserve the value of the community and the units within it.

Anticipating significant expenditures over an extended period of time will assist the Association in determining appropriate levels of present and ongoing contribution to a capital reserve fund which will result in adequate balances to cover these expenses as they arise without any need for borrowing or special assessments.



Of course, borrowing or special assessments may be part of some capital plans. However, our study will not consider these sources of revenue unless directed to do so by the Board. We caution our clients to check state regulations which may limit or preclude these options.

Our capital expenditure forecast is more reliable over its first few years than in later years.

History demonstrates that, as time progresses, property conditions and management strategies will change. As a result, planned scopes of work may be altered or deferred. Actual cost in the marketplace will vary from estimates. Actual rates of inflation and returns on investment will vary from projections.

For these reasons, we concur with the Community Association Institute guidelines and recommend that this reserve study be updated every three to five years.

3.2 LEVEL OF SERVICE

The Community Association Institute (CAI) identifies three levels of service for Reserve Studies:

- I. Full Reserve Study, with site visit
- II. Reserve Study Update, with site visit
- III. Reserve Study Update, without site visit

All may be appropriate for a community, depending on the condition of the facility and the phase of their planning cycle. The CAI National Reserve Study Standard in Appendix D contains more detail on these levels of service and the scope of study of each of them.

Our current study is a Level I Full Reserve Study.

Criterium's actual scope of service is enhanced and exceeds the CAI standard in two principal ways:

- Our investigation and evaluation of the property is performed by experienced professional engineers
- After preparing and submitting our initial analysis, we engage in an iterative review process with the Board and their Property Manager, toward developing a financial plan more responsive to the needs of the Association.



3.3 SOURCES OF INFORMATION

The following people were interviewed during our study:

Board members:

•

• John Smith, Treasurer

Property management staff at Management Group

- , Maintenance
 - , Property Manager

The following unit interiors were inspected and/or their Owners were interviewed

• 10335 Forest Brook Lane, Unit F

Inquiries were sent to the municipal officials:

- Building Code Official
- Zoning Official
- Fire Marshal

Maintenance/repair contractors :

- Keith Locey
- Brett Shelton

The following documents were provided to us and reviewed:

- Declarations and By-Laws
- Criterium Reserve Study Input Forms

The following documents were reviewed:

- County Assessor on-line records
- Good on-line maps and aerial photos

The construction project's detailed building plans, technical specifications, fixture, finishes & equipment schedules material submittals and as-built mark-ups were not available for review.

We were not provided with any construction cost records, maintenance history or capital planning documentation.



4.0 PHYSICAL ANALYSIS

4.1 PROPERTY DESCRIPTION

Please refer to Appendix C for captioned photographs and aerial photographs and tax map.

According to County records the property was originally developed in 1967 as an apartment complex. It was reported the property was converted to condominiums in 1980.

Tall Heights is a 200-unit residential community located on an approximate 11.5-acre site west of Lindbergh Boulevard in Saint Louis, MO. Access to the property is via Forest Brook Lane.

Approximately in the center of the property, along Forest Brook Lane, the main common facilities are located: a clubhouse with meeting rooms and outdoor swimming pool.

It is our understanding that the Association plans to replace landscaping and update interior finishes including all 27 building hallways and entry ways.

Forest Brook Lane runs generally east-west and provides access to the building frontage and service drives that provide access to the rear of the buildings. Forest Brook Lane is accessed from Lindbergh Boulevard to the East and Guelbeth Lane to the west. There is no enclosing fence or controlled access to the property. Residential multi-family developments are located to the north and south.

Electrical power is provided by the regional utility from pad-mounted transformers located in lawn areas of the property. Distribution is underground to each unit. Units are individually metered; meters are mounted in the building basements.

Natural gas is provided by the regional utility to each unit. Each unit is individually metered; meters are mounted in the building basements.

The community is served by the local public water utility. Private sewers connect the whole community and gravity flow to the municipal system.

The association maintains Forest Brook Lane, a 2-lane private road, which is approximately 1,500 feet long. There are approximately 4,200 linear feet of service drives and approximately 139 parking spaces. Driving and parking surfaces are asphalt pavement.

There are approximately 1,500 linear feet of 4-feet wide, cast-in-place concrete walks. There is approximately 700 square yards of pool deck and walks at the clubhouse.

Landscaping is lawn areas with native trees, shrubs and bushes. Flower beds are located around building perimeters.



Monument signage is located at the entrance drives. Both modular block retaining walls and castin-place concrete retaining walls are located throughout the property.

There are 200 two or three bedroom Units with two full baths ranging in size from 1,053 to 1,232 square feet. The exception is Building 10352, which includes two larger 3 bedroom Units and two one bedroom Units. Buildings are two-story, structures with brick veneer exterior and asphalt shingle roofs. There are four, four Unit buildings and 23, eight Unit buildings. The buildings have concrete basement foundations containing rear-entry parking garages, laundry, storage areas, and utility rooms. Units are accessed by central stairwells and hallways. Units include Owner-maintained balconies and patios.

4.2 COMMON COMPONENTS

Please refer to Appendix A for the Common Component Inventory.

Association-responsible common components include:

<u>Site</u>

- Asphalt-paved roads and parking pads
- Storm drain collection, retention and infiltration system
- Sanitary sewers
- Landscaping
- Modular block retaining walls
- Cast-in-place concrete retaining walls
- Cast-in-place concrete walks, steps, dumpster pads, curbs
- Bollards, fences & guard rails
- Entrance signage and building identification signage

Structures & Exteriors

- Foundations, framing, floor slabs and roof decks
- Roof
 - Asphalt shingles
 - Metal fascia and flashing
 - Gutters and downspouts
- Brick veneer and vinyl exterior wall covering
- Basement garages
- Exterior doors and windows
 - Vestibule entrances doors and windows
 - Metal service and egress doors rear stairwells
 - Windows rear stairwells
 - Clubhouse

Interiors

- Mail kiosks
- Club house finishes, fixtures and furnishings
 - Upper level lobby and Property Manager's office
 - Upper level Party Room



- Lower level recreation area
- Utility areas
- Interior furnishings
- Lower level shower rooms
- Common area finishes
 - Entrances, lobbies, stairwells including railings
 - Hallways with carpeting and painted drywall or wallpaper
 - Garage firewall separation
 - Unit storage lockers in basement
 - Laundry rooms in basement
 - Mechanical and electrical spaces
 - Stair framing, treads and railings
 - Interior doors

Mechanical Systems *

- Plumbing system
 - Meters and distribution piping serving common areas
 - Domestic water heaters serving laundries and clubhouse
 - Sanitary piping outside of Units
- Electrical system
 - House meters
 - Common area distribution and breaker panels
 - Common area lighting and outlets
 - Building-mounted lighting
- HVAC system outside Units
 - Natural gas meters and distribution piping serving common areas
 - Furnaces (three at clubhouse and four at building laundries)
 - Condensing units and evaporator coils at clubhouse
- Lobby access door intercoms
- Clubhouse surveillance cameras, monitors and video recorder

Amenities

- Swimming pool and equipment
- Cast-in-place concrete pool deck
- Exterior furnishings pool side cabanas and lawn chairs

* It appears that the underground water, electrical services & pad-mount transformers and onproperty low-voltage telephone & broadband cabling are owned and maintained by the utility carriers. This should be verified. Although no capital expenditures for these systems are anticipated over the 20-years considered by this reserve study, it may be important to include repair or replacement of any association-responsible utility infrastructure in a future reserve study update.



Individual Owners are responsible for maintenance & repair of their own mechanical, electrical, plumbing & HVAC systems including everything between the meters and Units, windows, entry doors, exterior decks/balconies, patios, and interior fixtures, finishes & furnishings.

4.3 CONDITION ASSESSMENT

4.3.1 Site Improvements

Description & Observations

The site generally slopes from east to west. The topography is suitable for the development and the building design utilizes the slope well. The site appears to have been reconfigured to achieve level pads for some of the buildings and to provide access to tuck-under basement garages.

Elevations changes at several locations include cast concrete or modular block retaining walls. Concrete and modular block retaining walls were observed to be generally in good condition. Smaller wood retaining walls near condenser units, such as at Building 10379, are deteriorated and should be replaced as part of annual operations budget. The concrete retaining wall between Buildings 10387 and 10379 has had previous repair including anchors, is continuing to move and is anticipated to require replacement. Concrete retaining walls in front of Buildings 10360 and 10372 are leaning which has contributed to cracking and settling of the entry porches at these buildings and these walls are anticipated to require replacement. A wood retaining wall near Building 10308 is deteriorated and requires replacement.

Roof and surface storm water runoff drain by gravity flow through private sewers that connect to off-site municipal system via gutters, downspouts, and catch basins at paved areas. Drain tile and area drains have been installed in courtyards in front of Buildings 10311, 10331, 10345, 10375, and 10391. Overall, the storm drainage system appears to function as designed. We anticipate repairs during the term including catch basin repair.

The private asphalt-paved street (Forest Brook Lane), service drives and 139 parking spaces are in good condition, and include designated handicapped accessible spaces as required by the ADA. Other paved areas include concrete dumpster pads in the service drives. The network of interior roads providing access to the units are in good general condition. It was reported there was a significant capital expenditure for improvement of private roads approximately 6-years ago.

There are guard rails and chain link fencing along a portion of the south and west property line along the elevated service drive. There is fencing along the top of concrete retaining wall behind Building 10352. Bollards are located along service drives next to the Clubhouse and next to utility transformers. Fencing, bollards, and rails were observed to be in good condition.

The network of concrete sidewalks, steps, and other walkways providing pedestrian routes across the property is generally in good condition with some localized deterioration such as in front of Buildings 10371, 10387 and 10375.



Landscaping is lawn areas with native trees, shrubs and bushes. Flower beds are located around building perimeters. Landscaping is well maintained but has not been refreshed in many years.

Except as noted in Section 4.4 Current Deficiencies, the site improvements are in good general condition.

Common Components & Required Capital Expenditures

Appendix A contains an inventory of all site improvements which are common components, and a detailed schedule of projected Capital Expenditure (CapEx) budgets for these items:

- Asphalt pavement crack sealing and seal coating, Years 1, 6, 11, 16
- Asphalt pavement overlay or roads & parking lot, Year 15 and 16
- Storm drain repair, Ongoing
- Sidewalk and step replacement, Beginning in Year 1
- Landscaping allowance for improvements, Year 1
- Retaining wall replacement, Year 1-3

4.3.2 Building Structure and Exterior

Description & Observations

We walked the exteriors of all the buildings. The only attics surveyed were the clubhouse and attic in Building 10335.

The building foundations are constructed of cast-in-place reinforced concrete. Loads are transferred to the soil by spread footings surmounted by walls or column piers. Common area basement floors are concrete slabs-on-grades.

Elevated floors are wood framed. Shear & bearing wall panels are framed with dimension lumber. Sloped gable and hip roofs are framed with prefabricated trusses. Elevated flooring at the club house includes pre-cast concrete panels for the first floor.

The building's structural systems appear to be well designed and constructed. Prior foundation repairs including piering and epoxy injection of foundation cracks were noted in some buildings.

Four piers were observed in Building 10315 as well as diagonal cracking at the front foundation wall with some recracking noted. It was reported that there is significant cracking in finished walls in some of the Units. We have included a budget allowance for further study and repair. Ongoing foundation repairs are anticipated.

We noted previous repair/replacement of steel columns such as in the basement of Building 10352 due to corrosion; reported approximately 20 posts have been replaced. It was also reported that there had been past foundation repairs performed at Building 10375.



A sump installation was observed in the basement of Building 10335. It was reported that a draintile and sump system was planned for Building 10372 due to hydrostatic water intrusion in the basement.

The buildings' exterior walls are finished with brick veneer with some vinyl siding at framed gable ends. The clubhouse includes concrete slab balconies. Some rust expansion of the steel lintels above window openings was noted. Previous tuckpointing was noted at several of the buildings and it was reported that extensive tuckpointing repairs we made approximately 3-years ago. Ongoing tuckpointing is anticipated during the term. Vinyl siding is buckled at the gable end of Building 10307 and sheathing and siding repair is anticipated.

Most of the Unit buildings have aluminum storefront doors and windows at building entrances. The storefront units are more than 50-years old and replacement parts are no longer available. It was reported that ongoing maintenance includes wet sealing and flashing repairs to address leakage. Replacement of the storefront units is anticipated during the term.

Standard wood entry doors with side windows are utilized at Buildings 10316, 10315, 10311, 10307. Metal doors with windows are located at service entrances and it was reported all but 6 doors have been replaced over the past several years. Glass patio doors are used at the Clubhouse. Residential style operable windows are located at common areas and the Clubhouse. It was reported that the doors and windows at the Clubhouse were approximately 10-years old.

Sloped roofs are surfaced with fiberglass-reinforced asphalt shingles. These sloped roofs have typical metal gutters installed along edges. There are metal fascia and soffits. The eight family buildings are divided by a concrete block demising wall that extends through the roof and includes a metal coping cap. The ages of the roof coverings range from 19- to- 2-years old. Roof replacement was planned for Buildings 10307 and 10344 in the current fiscal year.

Common Components & Required Capital Expenditures

Appendix A contains an inventory of all building exterior items which are common components, and a detailed schedule of projected Capital Expenditure (CapEx) budgets for these items:

- Asphalt shingle roofing replacement, Years 1 20
- Tuckpointing, Ongoing
- Storefront door and window entries, Years 11-14
- Entry doors, Year 3
- Foundation study and repair for Building 10315, Year 1
- Foundation repair, Ongoing
- Draintile and sump installation, Building 10372, Year 2



4.3.3 Building Interior

Description & Observations

This section of the report does not address Owner-responsible Unit interiors. We entered Unit F in Building 10335 to view typical Unit layout.

We entered and observed portions of the interior common areas of Buildings 10315, 10331, 10335, 10352, 10355, and 10391.

The eight family buildings are divided by common area entry, hallway and two sets of stairwells. Four family buildings have an entry vestibule and stairwell. Entry vestibules are finished with tile floor, wallpaper and include mailboxes. Hallways and entry stairs are finished with carpet flooring, painted drywall ceiling and exposed or painted brick veneer walls. Rear stairwells typically include painted CMU walls.

Basement utility and laundry areas include vinyl floor tile and painted drywall. It was reported that washer and dryers are leased.

Basement garage ceilings include painted sheetrock that is part of a fire rated assembly. In buildings surveyed the drywall was compromised at some locations typically due to plumbing repairs. The basement garage walls in Building 10335 include louvered openings between the garage and utility areas that may compromise the firewall separation. Building 10352 garage has diffusers in the exposed ductwork.

The clubhouse includes the Property Manager's office and Party Room at the upper level. The entry and Property Manager's office include wallpaper. The Party Room has Pergo and carpet flooring, painted drywall and painted tile ceilings and includes a kitchenette with wall oven and refrigerator, tables and chairs. There are toilet rooms with cultured marble countertops and tile floors. The rear stair well is covered in carpet with painted drywall.

The lower level of the clubhouse includes a recreation room with ping pong table, small kitchenette, tables and chairs. There are bathrooms with showers in the lower level with tile floors and tile shower surrounds. There are saunas no longer in use without future plans to utilize. Bathrooms include floor-mounted toilets, wall-mounted urinals, and porcelain drop-in sink basins set in laminate counter tops. There is an unfinished mechanical room at the lower level also used for storage.

Common Components & Required Capital Expenditures

Appendix A contains an inventory of all interior items which are common components, and a detailed schedule of projected Capital Expenditure (CapEx) budgets for these items:



- Repair of garage ceilings, Year 1
- Planned replacement of entry way tile floors, Year 1
- Planned replacement of hallway and stair carpet, Year 1
- Replacement of clubhouse finishes and furnishings

4.3.4 Mechanical

Description & Observations

This section of the report does not address Owner-responsible mechanical, electrical and plumbing systems. We entered and observed portions of the interior common areas of Buildings 10335, 10352, 10355, and 10391.

Heating and cooling for the clubhouse is provided by three split system air conditioners and gas furnaces. A gas furnace and electric air conditioner consists of a compressor/condensing system at the exterior, and an evaporator coil, an air handler, and gas fired furnace at the interior. These units were installed in 2008 and appeared in good condition.

Four of the buildings included gas-fired furnaces located in lower level laundry areas and condition lower level common areas. The observed units were installed more than 30-years ago.

Gas-fired domestic water heaters are located in the clubhouse and basement laundry rooms.

Distribution piping is copper and serves lower level laundry areas. Sanitary waste piping was typically cast iron with some PVC replacement visible in the basement garages. Cast iron pipes are anticipated to require ongoing replacement. We have also included a budget allowance for future repair of the private sanitary sewer lateral system.

Natural gas meters are located in the basements and serve water heaters and furnaces.

Owner-responsible furnaces and water heaters are located in basement utility rooms provided with outside combustion air.

Electrical meters and distribution panels are located in the basements. Buildings typically have one or two 200-service disconnects with meter and panel banks that include common area meter and breaker panel. It was reported that there is both copper and aluminum distribution wiring and revised CO/ALR technology was installed approximately 15-years ago.

Exterior lighting includes building-mounted fixtures. Building hallways include wall-mounted sconces and ceiling-mounted light fixtures. Outlets are three-prong grounded outlets

Unit buildings have lobby access door intercoms. The Clubhouse has surveillance cameras, monitors and video recorder.

The pool equipment includes one pump and two filters.



In our opinion, the common area mechanical, electrical and plumbing systems were well designed and comprised of good quality materials and fixtures.

Common Components & Required Capital Expenditures

Appendix A contains an inventory of all mechanical items which are common components, and a detailed schedule of projected Capital Expenditure (CapEx) budgets for these items:

- Sanitary waste pipe replacement, Ongoing
- Club house HVAC system overhaul/replacement, Year 13
- Replace common electrical breaker panels, Year 5

4.3.5 Amenities

Description & Observations

The property includes an in-ground pool. The pool deck and coping is concrete with tile at the water line and the pool appears to be concrete with plaster finish, however, the interior of the pool was not inspected. Exterior furnishings at the pool include cabanas and lawn chairs. It was reported that the pool and retaining walls were installed approximately 9-years ago as part of a major capital improvement. The pool, equipment, deck, and furnishings were observed to be in good condition. Per discussion with representative with Pro Pools, the pool deck was recently replastered and pool cover purchased to protect the plaster.

All these amenities are well designed and constructed, and suitable for their present use.

Common Components & Required Capital Expenditures

Appendix A contains an inventory of all amenities which are common components, and a detailed schedule of projected Capital Expenditure (CapEx) budgets for these items:

• Pool deck resurfacing, Year 12

4.3.6 Other

We identified no other common components for which we anticipate any need for eventual capital expenditure.

4.4 CURRENT DEFICIENCIES

Based on the Board's list of concerns, individual Owner's reports and our own observations, we identified design & construction deficiencies and deferred repairs which may require near-term repair, corrective action or improvements:



- Updating interior common areas including entries and hallways
- Update landscaping
- Replacement of retaining walls near Buildings 10387, 10308, 10360 and 10372
- Roof replacement at Buildings 10344 and 10307
- Small wood retaining walls around condensers
- Sectional repair of sidewalks
- Foundation study and repair, Building 10315
- Replacement of concrete steps at Building 10387, 10371 and 10375
- Repair garage ceilings

Also, at the time of our inspection, various normal maintenance activities were pending:

• Seal coating of asphalt pavement

Correction of some of these items should be covered by normal operations & maintenance budgets. We have not made any allowance for these "de minimis" items in the capital expenditure budget projection.

4.5 LIFE & VALUATION

4.5.1 Opinions of Useful Life

Simply stated, for components which require periodic capital expenditures (CapEx) for their repairs or replacement, the frequency of work equals the typical, industry accepted expected useful life (EUL) for the type of feature:

• Component's Frequency of CapEx = Component's EUL

And, the remaining useful life (RUL) of a component before the next capital expenditure for its repair or replacement is equal to the difference between its EUL and its age:

• RUL = EUL - Age

Of course, the condition and rate of deterioration of actual site improvements and building elements rarely conform to such simple analysis. And, often, a property's history and available documentation does not provide any record of a particular component's actual age.

In our experience, the effective age and actual RUL of an installed item vary greatly from its actual age and calculated RUL. These variances depend on the quality of its original materials and workmanship, level of service, climatic exposure, and ongoing maintenance. As part of Criterium's work on this reserve study, we have determined our opinion of the effective age, EUL and RUL of each common component based on our evaluation of its existing condition and considering those factors.

As a result, in preparing the CapEx schedule for reserve studies, we often:



- Accelerate the schedule of work for components found to be in poorer condition than expected for their age.
- Defer work for components observed to be in unusually good condition.

In reality, capital repair and replacement work for some components is often spread over a number of years. This may be done because not all on-site installations of a particular type of component age or deteriorate at the same rate. Or, work may be scheduled in phases to limit disruption or ease cash flow.

For these reasons, when it seems appropriate we will spread some budgets over multiple years. However, it is beyond the scope of this reserve study to prioritize the need for work between a number of buildings or installed locations or to closely specify or breakdown phased work packages.

In summary, we have based our opinion of the remaining service life and expected frequency and schedule of repair for each common component on some or all of the following:

- Actual or assumed age
- Observed existing condition
- Association's or Property Manager's maintenance history and plan
- Our experience with actual performance of such components under similar service and exposure
- Our experience managing the repairs and replacements of such components

We use the following documentation to guide our considerations:

- Fannie Mae Expected Useful Life Tables
- National Association of Home Builders Life Expectancy of Components
- Marshall & Swift Valuation Service -Expected Life Expectancies

4.5.2 Cost Estimating

In developing our estimate of capital expenditure for most common components, we have estimated a quantity of each item and also a unit cost for its repair or replacement. In some cases, it is more appropriate to estimate a lump sum cost for a required work package or 'lot'.

Unless directed to take a different approach, we assume that contract labor will perform the work and apply appropriate installer's mark-ups on supplied material and equipment. When required, our estimated costs include demolition and disposal of existing materials, and protection of other portions of the property.

When appropriate for large capital projects, we will also include soft costs for design and project management, and typical general contractor's cost for general conditions, supervision, overhead and profit.

We have based our opinion of unit and lump sum costs on some or all of the following:



- Records of previous maintenance expenses
- Previously solicited Vendor quotations or Contractor proposals
- Provided capital budgets developed by others
- Our project files on repairs and replacements at other properties

We use the following publications to guide our considerations:

- On-Line R S Means Construction Cost Data
- Marshall & Swift Valuation Service Facility Cost Index

Annual aggregated capital expenditure budgets have been calculated for all years during the study period by inflating the annual tallies of current dollar cost estimates, and compounding for inflation at 3% per year.

Of course, it is impossible to accurately predict inflation fluctuation. Three percent is close to the average annual values of both consumer and construction cost increases since the US Bureau of Labor Statistics started publishing data approximately 85 years ago.



5.0 FINANCIAL ANALYSIS

Please refer to Appendix A which contains tables and graphs illustrating the findings following below.

5.1 CAPITAL EXPENDITURE PROJECTION

Based on our investigations and estimates described in Section 4 of this report, we have identified likely capital expenditures throughout the study period.

For detailed information on projected capital expenditures, please refer to the Appendix A. tables titled "Common Component Inventory & Capital Expenditure (CapEx) Planning" and "Annual Capital Expenditures 20-Year Budget Projection."

In summary, the 20-year total of projected capital expenditure (CapEx) budgets, (current dollar cost estimates inflated at 2.5 % annually,) is \$2.4 million.

The Board identified these planned improvements by the Trust over the 20-year study period:

- Landscaping updates,
- Update of entry and hallway flooring

Please note that we have assumed that the cost of minor repair & replacement work valued at less than \$2,000 will be covered by normal Operations & Maintenance budgets. Such "de minimis" costs may be for one-time work on a single item, or aggregated repairs of a type of component over a year.

We have also not included any capital budget allowances for repair of casualty damage by vehicle impact, severe storm action, etc. It is assumed that such expenses would be defrayed by proceeds of insurance claims.

5.2 CURRENT FUNDING

5.2.1 Board-Provided Information

At the time we were retained to provide this study, Management Group provided us with initial information on the Trust's Capital Reserve Fund and its funding plan.

Our initial financial analysis was based on the data supplied.

- Fiscal Year Starting Date:
- For Designated Year:
- Starting Fund Balance:
- On Date:

Tall Heights Full Reserve Study Page 24 January 1, 2017 2017 \$276,000 June 1, 2016



| • | Current Rate of Contribution: | NA |
|---|---|-------|
| • | Planned Increases: | None |
| • | Planned Special Assessments: | None |
| • | Projected Average Return on Investment: | 0.0 % |
| • | Projected Rate of inflation: | 2.5 % |

Financial data, records of past expenses, and cost estimates provided by others have been taken in good faith and at face value. No audit or other verification has been performed.

5.2.2 Current Funding Plan Projection

Our initial analysis was a projection of the Association's current rate of contribution forward over 20 years with no increases.

For detailed data, please refer to the Appendix A. tables and graphs titled "Capital Reserve Fund - 20-Year Cash flow Projection - Current Funding Plan"

Given the reported \$276,000 starting balance of the Capital Reserve Fund on June 1, 2016, the current ongoing rate of contribution @ \$115 thousand per year, and an anticipated average rate of return on investment of 0.0 % per year, our financial analysis indicates that the Association's current funding will prove inadequate to meet future needs.

Because of draw-downs to pay for projected CapEx expenses, projected year-end fund balances fall to deficit levels in Year 16, 2032 before returning to positive year-end balances in Year 18, 2034.

5.3 ALTERNATE FUNDING PLANS

In this report, we have recommended maintaining a minimum threshold fund balance equal to two times the average annual capital expenditure current dollar budgets. The initial value should be based on the average in dollars, and then the threshold value should grow over the planning period at the assured rate of inflation.

We have prepared two alternate funding plans for the Board's consideration:

- A one-time lump sum increase in Year 1. A 5% increase to \$10,105 (Overall) per month would be required to achieve positive year end balances throughout the planning period and achieve suggested minimum threshold balances at the end of the planning period.
- Phased annual increases in Years 1 3 (2017 2019). Three increases of 3% per year would be required to achieve positive year end balances throughout the planning period and achieve suggested minimum threshold balances at the end of the planning period.



5.4 FUNDING METHODOLOGIES (Background Information)

The following sections of the report are general in nature and most are not specific to your Association.

They are included to provide a framework for consideration of the study, and to explain our approach to the funding analysis. We also recommend the Board review the Community Association Institute (CAI) National Reserve Study Standards attached hereto in Appendix D.

The Community Association Institute (CAI) recognizes several funding methodologies, all of which may be used to satisfy these goals:

- Fiscally Responsible
- Maintains Property Values
- Sufficient Funds Available When Required
- Stable Contribution Rate over the Years
- Evenly Distributed Contributions over the Years

Some of the more common methods are outlined below

For this reserve study, Criterium has utilized a cash flow based funding approach as described in Section 5.4.3 below.

5.4.1 Statutory Funding

Some states regulate the management of home owner associations, including the fiduciary responsibility of its Officers or Board regarding reserve funding.

To our knowledge, MO does not require any particular funding criteria.

5.4.2 Covenantal Funding

The legal documents which originally establish a home owners association may set forth guidelines for its reserve funding.

The Master Deed for Tall Heights does not stipulate any specific long-term funding criteria.

5.4.3 Cash Flow Based Funding

Criterium's recommended approach to reserve planning utilizes a cash flow model.

A cash flow based funding plan is prepared so that contributions to capitol reserves are selected to be sufficient to offset future variable annual capital expenditures.



Our engineering evaluation and planning yields a projected annual capital expenditure (CapEx) budget schedule over the planning period. This CapEx plan and the Association's current rate of contribution to reserves is entered into our computer model.

The model allows us to determine whether the Association's current rate of contribution will prove sufficient to meet capital obligations over the planning period.

And, if not, our computer model allows us to develop alternate contribution strategies for the Association's consideration.

Baseline Funding

The goal of baseline funding is to maintain positive year-end balances throughout the planning period.

Threshold Funding

One strategy to ensure there will be sufficient funds available to cover unplanned emergencies is to maintain prudent minimum threshold reserve balances. In the face of unusual and uninsured expenses, this may eliminate the need for either making a special assessment or borrowing money.

Often, the initial threshold is established as some multiple of the average annual CapEx budget in current dollars, and then projected ahead at the selected rate of inflation.

Maintaining significant threshold balances has the additional benefit of allowing the association to generate greater returns on investments and thereby reduce the rate of Owners' contribution to reserves.

Of course, the benefits of establishing larger threshold balance values must be weighed against Unit Owners' preference to control their own funds.

5.4.4 Component Based

A component-based funding plan is based on calculated incremental savings toward the eventual repair or replacement of each individual common component.

The accounting concept underlying component-based funding is that an Association should save for repair or replacement of each of their common assets at an annual incremental amount equal to the annual straight-line depreciation of the item. In this way, it will accumulate its full value in capital reserves at the time it is fully depreciated and funds may be required for a capital expenditure.

In our experience, a component-based funding plan based on a comprehensive common component inventory will produce a very conservative funding strategy for an Association.



Full Funding

For each Fiscal Year, a component-based funding plan calculates an ideal reserve balance that should be on-hand at the beginning of the year. This recommended balance is based on saving money at the rate of depreciation of each common component as explained in the previous section.

If the Association's cash flow projection indicates that their capital reserve fund balance will be equal to or greater than that ideal value at the beginning of any given year, then, by Community Association Institute (CAI) definition, the Association is said to be "fully funded" in that year. In our opinion, when an association is "fully funded" per the CAI definition, then, very often, an Association is holding more cash reserves than absolutely necessary for prudent management of their financial obligations.

Percent Fully Funded

In component-based fund planning, the percentage ratio between the projected actual reserve balance and the calculated ideal amount of accumulated savings at any point of time is the "percent fully funded".

This metric is used to indicate whether an Association is:

- Under-funded percent fully funded less than 100%
- Over-funded percent fully funded greater than 100%

Often, statutory and covenantal funding requirements may obligate an Association to maintain their reserve balance above some minimum percent fully funded value.

Such rules were originally promulgated to ensure conservative funding practices which would protect the membership from unsound financial policies which some developers and associations have practiced in the past.

5.4.5 Special Assessments

The goal of nearly all reserve studies is to establish a regular, periodic rate of contribution to reserves which ensures there will be sufficient funds when required.

However, sometimes it is necessary to boost the reserve balance quickly, before there is adequate time to accumulate funds through regular savings. In those cases, assuming the Unit Owners' personal finances can support it, it is expeditious to assess a lump sum special payment.

Special assessments are often tied to, or ear-marked for, some particular capital expenditure. This may be a periodic but unusually high expense such as re-paving or re-roofing. Or, it may be to collect funds to pay for some desired new amenity, such as a new tennis court or an elevator.

Although it is unusual, if the individual Unit Owners who form an Association all have sufficient



means, the membership may prefer to manage their own investments and contribute to capital expenses only on the basis of annual special assessments.

5.4.6 Borrowing

The goal of nearly all reserve studies is to establish a regular, periodic rate of contribution to reserves which ensures there will be sufficient funds when required.

However, sometimes it is necessary to boost the reserve balance quickly, before there is adiquate time to accumulate funds through regular savings. In those cases, if the Unit Owners' personal finances cannot support a special assessment, then the Association may need to borrow the funds.

Borrowing is often justified to obtain fund for some particular capital expenditure. This may be a periodic but unusually high expense such as re-paving or re-roofing. Or, a loan may be taken to obtain funds to pay for some desired new feature, such as a tennis court or enhanced interior furnishings.

When funds are borrowed, then part of regular, periodic contributions of the membership in the following years will be ear-marked for repaying the loan.



6.0 LIMITATIONS

This information in this study is not to be considered a warranty of condition, quality, compliance or cost. No warranty is implied.

Financial data, records of past expenses, and cost estimates provided by others have been taken in good faith and at face value. No audit or other verification has been performed.

The observations described in this study are valid on the dates of the investigation and have been made under the conditions noted in the report.

This study is limited to the visual observations made during our inspection. We did not undertake any excavation conduct any destructive or invasive testing, remove surface materials or finishes, or displace furnishings or equipment.

Except as specifically noted, we did not observe or inspect the following areas and items:

- Buried foundations, utility services and infrastructure
- Locked or inaccessible or confined spaces
- Building and roof structural elements and members
- Attics and other concealed spaces
- Interior of mechanical enclosures and equipment
- Systems and equipment which was not operating was not tested
- Unit Owner-responsible items and individual Owner's improvements

In the absence of other information such as records from construction or previous inspections, or indirect evidence of concealed conditions, we cannot form any opinion on unobserved portions of the facility.

However, our opinion regarding concealed portions of the property and their condition are informed by our experience with other similar facilities.

In some cases, we inspected only a representative sample of site improvements and building spaces, components, systems or equipment. We cannot be responsible for unobserved aberrations.

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

We did not undertake to completely assess the structural stability of the buildings or the underlying foundations and soils. Similarly, we performed no seismic assessment.

We did not undertake a comprehensive environmental assessment of the facility, nor perform any sampling or testing for hazardous materials.



Capital budgets are opinions of likely expense based on rough cost estimates. We have not obtained competitive quotations or estimates from contractors. Actual costs can vary significantly, based on the eventually determined scope of work, availability of materials and qualified contractors, and many other variables. We cannot be responsible for variances.

Criterium-Hardy Engineers prepared this confidential report for the review and use of the Board of the Association. We do 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, defend and hold Criterium-Hardy Engineers, its subsidiaries, affiliates, officers, directors, members, shareholders, partners, agents, employees and such other parties in interest specified by Criterium-Hardy Engineers harmless for any damages, losses, or expenses they may incur as a result of its use. Any use or reliance of the report by an individual or party other than Management Group shall constitute acceptance of these terms and conditions.

Criterium-Hardy Engineers does not offer financial counseling services. Although reasonable rates of inflation and return on investment must be assumed to calculate projected balances, no one can accurately predict actual economic performance. Although reserve fund management and investment may be discussed during the course of the study, we do not purport to hold any special qualifications in this area.

We recommend that the Board also seek other professional guidance before finalizing their current capital reserve fund planning activity. Depending on issues which may arise, an appropriate team of consultants to aid decision-making might include their property manager, accountant, financial counselor and attorney.



7.0 CONCLUSION

Criterium-Hardy Engineers appreciates this opportunity to assist Management Group and the Board in support of the Association's facility and financial planning. We are pleased to present this report for the Board's consideration and use.

To the best of our ability, we have attempted to work in the best interest of the Board and to aid the Board toward fulfillment of their fiduciary responsibilities and obligations to the individual Unit Owners who comprise the association's membership.

In our professional opinion, and within the limitations disclosed elsewhere herein, all information contained herein is reliable and appropriate to guide the Board's deliberations and decision-making.

All of Criterium's work for this study has been carried out in strict accordance with the CAI Code of Ethics. We consider our report confidential, and will not share its content with anyone but the Board without its knowledge and release.

We are unaware of any other involvement or business relationship between Criterium-Hardy Engineers and the Board), or individual Unit Owners, or members of the Board, or your Property Manager or any other entities which constitutes any conflict of interest.

We look forward to meeting with the Board and learning more about your views on revenue & expense planning. It is our intent that the final edition of the report will set fourth an alternative funding strategy which reflects the Board's adopted or their recommendation to the wider membership.

If you have any further questions or would like to direct additional, follow-on services then please contact Kyle Hardy, P.E. at 314-878-0806.

Criterium-Hardy Engineers appreciates this opportunity to assist the Board in support of the association's facility and financial planning. Thank you.

Thank you.

Respectfully submitted,

CRITERIUM-HARDY ENGINEERS

KI = Handy

Kyle Hardy, P.E. President



APPENDIX A: FINANCIAL EXHIBITS





Initial Capital Reserve Funding Information provided by the Association and agreed Forecasting Assumptions

1 Organization:

2 Address:

| 3 | Number of Units | | 200 |
|----|-------------------------------|--------------------------------|-----------------|
| 4 | Age of Building (in years) | | 52 |
| 5a | Study Period (in years) | | 20 |
| 5b | Normal Fiscal Year starts: | | January 1, 2017 |
| 5c | Partial Fiscal Year starts: | | January 1, 2017 |
| 5d | Partial Year Length: | | 12 months |
| 6 | Site Inspection Date | | June 23, 2016 |
| 7 | Reserve Funds at start | | \$276,000 |
| 8 | Rate of Return on invested Re | eserve Funds (%) | 0.00% |
| 9 | Inflation Rate (%) | | 2.50% |
| 10 | Initial Minimum Threshold | Suggest using two times the | \$191,038 |
| 11 | | annual CapEx budget in current | |
| 12 | | dollars, then inflate ahead | |
| 13 | | | |

| | Total/Month | Total Annual | Per Unit/Month | Per Unit/Year | s | Special Assessments | | | | |
|--------------------------------------|-------------|--------------|----------------|---------------|-----------|---------------------|----------|--|--|--|
| Res. Fund Contrib. (First Year) | \$9,605 | \$115,258 | \$48.02 | \$576.29 | Years Out | Total/Year | Per Unit | | | |
| Res. Fund Contrib. (Remaining Years) | \$9,605 | \$115,258 | \$48.02 | \$576.29 | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| Final Balance Computed | \$190,149 | | | | | | | | | |
| Average Capital Expenditure per year | \$119,550 | | | | | | | | | |



Common Component Inventory and Capital Expenditure Planning

| Capital Item | Quantity | | CapEx | Beginning | Expected Useful Life (or Frequency) | Percent Funded Amount | Remaining Useful Life | Reserve Fundin | g Required | Full Funding | Planning |
|---|-------------|-------------|--------------|-------------|---|-----------------------------|--------------------------|----------------|-------------|-----------------|---|
| To Be Replaced | Count Units | Unit cost | Budget | Balance | Years | Per Year | Years | Monthly | Annual | Balance | Notes |
| Sile Barble Water President Maine & Dedenste | | | 50.00 | 60.00 | 100 | 50.00 | | 60.00 | 50.00 | 50.00 | No Confluenced |
| Founde Water Services - Mains & Hydranis | 1.48 | \$10,000,00 | \$0.00 | 50.00 | 100 | \$0.00 | | \$0.00 | 50.00 | 50.00 | No Capex anticipated |
| Samuery Sewer Mantis Design Design Markeder and Cataly Design. Maintenance | 1 Allow | \$10,000.00 | \$10,000.00 | 32,330.08 | 10 | \$1,000.00 | - | \$319.38 | 33,834.90 | 38,000.00 | Budget for repair of private sewer interal system |
| Storm Drain Manholes and Catch Basins - Manhemmee | | | 50.00 | 50.00 | | 50.00 | | \$0.00 | 50.00 | 50.00 | THD |
| Storm Drain - Jet Fiping Storm Drain - Vidao Samay | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | TRD |
| Storm Drain - Catch Basine | 1.1.07 | \$2,000,00 | \$2,000,00 | \$218.44 | 4 | \$750.00 | 1 | \$77.27 | \$977.19 | \$750.00 | Oncoing catch basin manir |
| Electrical Service & Meters | 1 1.01 | 30,000.00 | \$0.00 | \$0.00 | 100 | \$750.00 | - | \$0.00 | \$0.00 | \$0.00 | No ConFx antisinated |
| Licence ici ne de mateix | | | 30.00 | 30.00 | | 30.00 | | 30.00 | 30.00 | 30.00 | Budget annual crack sealing under O&M Capital Budgets |
| | | | | | | | | | | | include 5% area excavate & patch. MH & CH frame |
| Asphalt Pavement - Overlay | 19,111 SY | \$14.40 | \$275,200.00 | \$24,046.42 | 20 | \$13,760.00 | 14 | \$1,494.96 | \$17,939.54 | \$82,560.00 | mising, 1° overlay & 10% shimming allowance. Over 2- |
| | | | | | | | | | | | year period. |
| | | | | | | | | | | | Budget annual crack sealing under O&M Crack repair, |
| Asphalt Pavement - Seacout | 19,111 SY | \$2.40 | \$45,866.67 | \$13,339.12 | 5 | \$9,175.55 | 0 | \$0.00 | \$0.00 | \$45,866.67 | patch, seal coat, re-stripe |
| Concrete Curbs and Gutters | | | \$0.00 | \$0.00 | 50 | \$0.00 | 46 | \$0.00 | \$0.00 | \$0.00 | No CapEx anticipated |
| Converte Woller | 740 55 | 610.00 | 67 600 00 | 67 104 44 | 10 | 6760.00 | 0 | 60.00 | 50.00 | 67 600 00 | Approximately 6,000 SF total. Deterioration noted in |
| Concrete wates | 730 SF | \$10.00 | \$7,500.00 | 32,104.43 | 10 | \$750.00 | 0 | 30.00 | 30.00 | \$7,300.00 | front of Bldg 10371. Ongoing replacement anticipated. |
| Hand and Guard Rails | | | \$0.00 | \$0.00 | 25 | \$0.00 | 20 | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Landscaping | 1 LS | \$40,000.00 | \$40,000.00 | \$11,650.40 | 30 | \$1,333.33 | 0 | \$0.00 | \$0.00 | \$40,000.00 | Budget for refresh of landscaping |
| Signage - Monument | 3 EA | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Guard Rails | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | No CapEx anticipated |
| Bollards | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | No CapEx anticipated |
| Curb Stops | 139 EA | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Retaining Walls - Modular Block | 1 LS | \$10,000.00 | \$10,000.00 | \$2,912.60 | 50 | \$200.00 | 0 | \$0.00 | \$0.00 | \$10,000.00 | Replace wood retaining wall near Bldg 10308 |
| Retaining Wall - Concrete Replacement | 40 LF | \$320.00 | \$12,800.00 | \$3,579.00 | 50 | \$256.00 | 2 | \$384.21 | \$4,610.50 | \$12,288.00 | Leaning retaining walls in front of Bldgs 10360 and |
| · · | | | | | | | | | | | 10372 approximately 6-foot walls |
| Retaining Walls - Modular Block | 1 LS | \$30,000.00 | \$30,000.00 | \$8,563.04 | 50 | \$600.00 | 1 | \$1,786.41 | \$21,436.96 | \$29,400.00 | Replace leaning concrete retaining wall behind Bidg |
| Environ Chain Link | | | 50.00 | 60.00 | | 50.00 | | 60.00 | 50.00 | 50.00 | Podest on des OBM |
| Constante Dumostar Pade | | | \$0.00 | \$0.00 | 40 | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | No Confer ortisinated |
| concice bumpier rate | | | 30.00 | 30.00 | 40 | 30.00 | | 30.00 | 30.00 | 30.00 | Penlace datarianted store in front of Bldge 10287-10275 |
| Concrete Step Replacement | 3 EA | \$8,000.00 | \$24,000.00 | \$6,815.48 | 40 | \$600.00 | 1 | \$1,432.04 | \$17,184.52 | \$23,400.00 | and 10371 |
| Building Exterior | | | | | | | | | | | |
| Walls - Vinvl Siding | 1.000 SF | | \$0.00 | \$0.00 | 30 | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Clubhouse and 4 Bldgs. Budget under O&M |
| Roofs - Gutters & Downspouts | 9.817 LF | | \$0.00 | \$0.00 | 35 | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | No CapEx anticipated |
| Roofs - Asphalt Shingle Replacement, Bldg 10308 | 1 LOT | \$23,000.00 | \$23,000.00 | \$5,024,23 | 20 | \$1,150.00 | 5 | \$299.60 | \$3,595,15 | \$17,250.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10316 | 1 LOT | \$20,000.00 | \$20,000.00 | \$4,368.90 | 20 | \$1,000.00 | 5 | \$260.52 | \$3,126,22 | \$15,000.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10328 | 1 LOT | \$23,000.00 | \$23,000.00 | \$5,024,23 | 20 | \$1,150.00 | 5 | \$299.60 | \$3,595,15 | \$17,250.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10336 | 1 LOT | \$23,000.00 | \$23,000.00 | \$1,339.80 | 20 | \$1,150.00 | 16 | \$112.81 | \$1,353.76 | \$4,600.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10344 | 1 LOT | \$23,000.00 | \$23,000.00 | \$6,698.98 | 20 | \$1,150.00 | 0 | \$0.00 | \$0.00 | \$23,000.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10360 | 1 LOT | \$20,000.00 | \$20,000.00 | \$3,495.12 | 20 | \$1,000.00 | 8 | \$171.93 | \$2,063.11 | \$12,000.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10364 | 1 LOT | \$20,000.00 | \$20,000.00 | \$3,495.12 | 20 | \$1,000.00 | 8 | \$171.93 | \$2,063.11 | \$12,000.00 | Based on proposals by Prestige Home Repair |



Common Component Inventory and Capital Expenditure Planning

| | | | | | Expected | Percent | | | | | |
|---|-------------|-------------|--------------|-------------|----------------|------------|-------------|----------------|-------------|--------------|--|
| | | | | | Useful Life | Funded | Remaining | | | Full | |
| Capital Item | Quantity | | CapEx | Beginning | (or Frequency) | Amount | Useful Life | Reserve Fundin | g Required | Funding | Planning |
| To Be Replaced | Count Units | Unit cost | Budget | Balance | Years | Per Year | Years | Monthly | Annual | Balance | Notes |
| Roofs - Asphalt Shingle Replacement, Bldg 10368 | 1 LOT | \$20,000.00 | \$20,000.00 | \$3,495.12 | 20 | \$1,000.00 | 8 | \$171.93 | \$2,063.11 | \$12,000.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10352 | 1 LOT | \$23,000.00 | \$23,000.00 | \$5,024.23 | 20 | \$1,150.00 | 5 | \$299.60 | \$3,595.15 | \$17,250.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10356 | 1 LOT | \$20,000.00 | \$20,000.00 | \$2,621.34 | 20 | \$1,000.00 | 11 | \$131.66 | \$1,579.88 | \$9,000.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10395 | 1 LOT | \$20,000.00 | \$20,000.00 | \$3,495.12 | 20 | \$1,000.00 | 8 | \$171.93 | \$2,063.11 | \$12,000.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10391 | 1 LOT | \$11,000.00 | \$11,000.00 | \$1,281.54 | 20 | \$550.00 | 12 | \$67.49 | \$809.87 | \$4,400.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10387 | 1 LOT | \$23,000.00 | \$23,000.00 | \$2,679.59 | 20 | \$1,150.00 | 12 | \$141.11 | \$1,693.37 | \$9,200.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10372 | 1 LOT | \$23,000.00 | \$23,000.00 | \$2,679.59 | 20 | \$1,150.00 | 12 | \$141.11 | \$1,693.37 | \$9,200.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10388 | 1 LOT | \$23,000.00 | \$23,000.00 | \$2,679.59 | 20 | \$1,150.00 | 12 | \$141.11 | \$1,693.37 | \$9,200.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10349 | 1 LOT | \$23,000.00 | \$23,000.00 | \$5,024.23 | 20 | \$1,150.00 | 5 | \$299.60 | \$3,595.15 | \$17,250.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10345 | 1 LOT | \$11,000.00 | \$11,000.00 | \$1,281.54 | 20 | \$550.00 | 12 | \$67.49 | \$809.87 | \$4,400.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10341 | 1 LOT | \$23,000.00 | \$23,000.00 | \$4,689.28 | 20 | \$1,150.00 | 6 | \$254.32 | \$3,051.79 | \$16,100.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10379 | 1 LOT | \$20,000.00 | \$20,000.00 | \$2,912.60 | 20 | \$1,000.00 | 10 | \$142.40 | \$1,708.74 | \$10,000.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10375 | 1 LOT | \$20,000.00 | \$20,000.00 | \$2,912.60 | 20 | \$1,000.00 | 10 | \$142.40 | \$1,708.74 | \$10,000.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10371 | 1 LOT | \$23,000.00 | \$23,000.00 | \$3,349.49 | 20 | \$1,150.00 | 10 | \$163.75 | \$1,965.05 | \$11,500.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10315 | 1 LOT | \$23,000.00 | \$23,000.00 | \$669.90 | 20 | \$1,150.00 | 18 | \$103.38 | \$1,240.56 | \$2,300.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10311 | 1 LOT | \$11,000.00 | \$11,000.00 | \$3,043.67 | 20 | \$550.00 | 1 | \$663.03 | \$7,956.33 | \$10,450.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10307 | 1 LOT | \$20,000.00 | \$20,000.00 | \$5,825.20 | 20 | \$1,000.00 | 0 | \$0.00 | \$0.00 | \$20,000.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10335 | 1 LOT | \$23,000.00 | \$23,000.00 | \$5,024.23 | 20 | \$1,150.00 | 5 | \$299.60 | \$3,595.15 | \$17,250.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10331 | 1 LOT | \$11,000.00 | \$11,000.00 | \$1,441.74 | 20 | \$550.00 | 11 | \$72.41 | \$868.93 | \$4,950.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Bldg 10327 | 1 LOT | \$23,000.00 | \$23,000.00 | \$3,014.54 | 20 | \$1,150.00 | 11 | \$151.41 | \$1,816.86 | \$10,350.00 | Based on proposals by Prestige Home Repair |
| Roofs - Asphalt Shingle Replacement, Clubhouse | 1 LOT | \$12,000.00 | \$12,000.00 | \$3,495.12 | 20 | \$600.00 | 0 | \$0.00 | \$0.00 | \$12,000.00 | Based on proposals by Prestige Home Repair |
| Column Replacement In Basements | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Storefront Doors & Windows | 2,070 SF | \$85.00 | \$175,950.00 | \$40,997.74 | 50 | \$3,519.00 | 10 | \$1,124.60 | \$13,495.23 | \$140,760.00 | Phased replacement over 4 Years |
| Doors, Service, Metal With Glass | 6 EA | \$3,800.00 | \$22,800.00 | \$6,198.01 | 30 | \$760.00 | 2 | \$691.75 | \$8,300.99 | \$21,280.00 | All but 6 service doors have been recently replaced |
| Doors, Wood Front Entry | 4 EA | \$2,000.00 | \$8,000.00 | \$1,456.30 | 40 | \$200.00 | 15 | \$36.35 | \$436.25 | \$5,000.00 | Bldgs 10316, 10315, 10311, 10307 |
| Doors, Patio at Clubhouse | 5 EA | | \$0.00 | \$0.00 | 30 | \$0.00 | 20 | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Walls - Tuckpointing | 1,000 SF | \$10.00 | \$10,000.00 | \$1,456.30 | 2 | \$5,000.00 | 1 | \$711.98 | \$8,543.70 | \$5,000.00 | Budget tuckpointing, approximately 500 SF annually |
| Windows, Residential | 59 EA | | \$0.00 | \$0.00 | 20 | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Fascia and Soffits | 15,700 SF | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | No CapEx anticipated |
| Windows, Clubhouse | 12 EA | | \$0.00 | \$0.00 | 20 | \$0.00 | 10 | \$0.00 | \$0.00 | \$0.00 | |
| Foundation Repairs | 1 Allow | \$10,000.00 | \$10,000.00 | \$582.52 | 5 | \$2,000.00 | 4 | \$196.20 | \$2,354.37 | \$2,000.00 | Allowance for ongoing foundation repairs |
| Foundation Study & Repair Bldg 10315 | 1 Allow | \$30,000.00 | \$30,000.00 | \$8,737.80 | 50 | \$600.00 | 0 | \$0.00 | \$0.00 | \$30,000.00 | Allowance for engineer inspection to develop plan of repair and for cost of repairs |
| Draintile and Sump Installation Bldg 10372 | 1 LS | \$10,000.00 | \$10,000.00 | \$2,766.97 | 20 | \$500.00 | 1 | \$602.75 | \$7,233.03 | \$9,500.00 | Repairs to address hydrostatic water in basement |
| Building Interior | | | | | | | | | | | |
| Walls & Ceiling - Paint | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Normal repairs are O&M. No CapEx work anticipated. |
| Garage - Repair Fire Rated Barrier | 1 LS | \$10,000.00 | \$10,000.00 | \$2,912.60 | 20 | \$500.00 | 0 | \$0.00 | \$0.00 | \$10,000.00 | Allowance for repair of garage ceilings |
| Mailboxes | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Furnishings - Clubhouse | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Furnishings - Pool Cabanas and Chairs | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Laundry Finishes | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |



Common Component Inventory and Capital Expenditure Planning

| | | | | | Expected | Percent | | | | | |
|---|-------------|-------------|----------------|--------------|----------------|-------------|-------------|----------------|--------------|--------------|--|
| | | | | | Useful Life | Funded | Remaining | | | Full | |
| Capital Item | Quantity | | CapEx | Beginning | (or Frequency) | Amount | Useful Life | Reserve Fundin | ig Required | Funding | Planning |
| To Be Replaced | Count Units | Unit cost | Budget | Balance | Years | Per Year | Years | Monthly | Annual | Balance | Notes |
| Utility Area Finishes | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Stair Framing, Treads, and Railings | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Doors - Interior | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Flooring - Entry Way Tile | 27 LOT | \$480.00 | \$12,960.00 | \$3,680.36 | 40 | \$324.00 | 1 | \$773.30 | \$9,279.64 | \$12,636.00 | Update tile floors at entrances |
| Flooring - Hallway and Stair Carpet | 23 LOT | \$3,200.00 | \$73,600.00 | \$19,650.33 | 12 | \$6,133.33 | 1 | \$4,495.81 | \$53,949.67 | \$67,466.67 | Update hallways |
| Flooring - Stair Carpet, 4 Unit Bldgs | 4 LOT | | \$0.00 | \$0.00 | 12 | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Clubhouse Party Room | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Clubhouse Maintenance Office | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Clubhouse Showers | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Clubhouse Basement Recreation Room | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Mechanical | | | | | | | | | | | |
| Water - Distribution Piping | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Piping - Sanitary Waste Replacement | 128 LF | \$100.00 | \$12,750.00 | \$1,485.43 | 5 | \$2,550.00 | 3 | \$312.90 | \$3,754.86 | \$5,100.00 | Anticipated ongoing replacement of aging pipe |
| Domestic Water Heaters | 28 EA | | \$0.00 | \$0.00 | 15 | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Electrical - Distribution Panels | 30 EA | \$1,200.00 | \$36,000.00 | \$9,436.82 | 40 | \$900.00 | 4 | \$553.40 | \$6,640.79 | \$32,400.00 | Common and Clubhouse panels |
| Electrical - Distribution Wiring | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | No CapEx anticipated |
| Electrical - Common Area Lighting & Outlets | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Normal repairs are O&M. No CapEx work anticipated. |
| Electrical - Building Mounted Lighting | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Normal repairs are O&M. No CapEx work anticipated. |
| HVAC - Gas Furnace and Split A/C | 3 EA | \$5,000.00 | \$15,000.00 | \$1,747.56 | 20 | \$750.00 | 12 | \$92.03 | \$1,104.37 | \$6,000.00 | Clubhouse |
| HVAC - Building Basement Gas Furnaces | 4 EA | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Intercoms At Lobby Entrances | 3 EA | \$1,200.00 | \$3,600.00 | \$524.27 | 2 | \$1,800.00 | 1 | \$256.31 | \$3,075.73 | \$1,800.00 | Replace approximately 1-2 per year |
| Surveillance Equipment At Clubhouse | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Normal repairs are O&M. No CapEx work anticipated. |
| Amenities | | | | | | | | | | | |
| Pool Equipment - Pump and Filters | 1 LOT | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Pool Deck & Pool Allowance | 1 Allow | \$20,000.00 | \$20,000.00 | \$2,621.34 | 20 | \$1,000.00 | 11 | \$131.66 | \$1,579.88 | \$9,000.00 | Recently refinished |
| Exterior Furnishings - Cabanas & Chairs | | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Pool Cover | 1 EA | | \$0.00 | \$0.00 | | \$0.00 | | \$0.00 | \$0.00 | \$0.00 | Budget under O&M |
| Other | | | | | | | | | | | |
| | | | | | | | | | | | In accordance with CAI recommendations. This will |
| Update Reserve Fund Study | 1 | \$4,000.00 | \$4,000.00 | \$0.00 | 5 | \$800.00 | 5 | \$66.67 | \$800.00 | \$0.00 | become more important as the facility ages, and more commonents require renewal |
| | | | | | | | | | | | |
| | | Totals | \$1,471,026.67 | \$276,000.00 | | \$83,659.00 | | \$20,482.26 | \$245,787.09 | \$947,607.33 | |

Total Over Term \$1,910,376.67

* Costs are typically 10%±

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

Reserve Study Worksheet - Itemized Graph







| Year: | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
|---|--------|--------|--------|-------|------|--------|------|-------|--------|------|--------|-------|--------|------|---------|
| Year Number: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Site | | | | | | | | | | | | | | | |
| Potable Water Services - Mains & Hydrants | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sanitary Sewer Mains | 0 | 0 | 10,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10,000 | 0 | 0 |
| Storm Drain Manholes and Catch Basins - Maintenance | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storm Drain - Jet Piping | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storm Drain - Video Survey | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storm Drain - Catch Basins | 0 | 0 | 0 | 3,000 | 0 | 0 | 0 | 3,000 | 0 | 0 | 0 | 3,000 | 0 | 0 | 0 |
| Electrical Service & Meters | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Asphalt Pavement - Overlay | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 137,600 |
| Asphalt Pavement - Sealcoat | 45,867 | 0 | 0 | 0 | 0 | 45,867 | 0 | 0 | 0 | 0 | 45,867 | 0 | 0 | 0 | 0 |
| Concrete Curbs and Gutters | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Concrete Walks | 7,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7,500 | 0 | 0 | 0 | 0 |
| Hand and Guard Rails | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Landscaping | 40,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Signage - Monument | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Guard Rails | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bollards | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Curb Stops | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retaining Walls - Modular Block | 10,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retaining Wall - Concrete Replacement | 0 | 0 | 12,800 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retaining Walls - Modular Block | 0 | 30,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fencing, Chain Link | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Concrete Dumpster Pads | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Concrete Step Replacement | 0 | 24,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Building Exterior | | | | | | | | | | | | | | | |
| Roofs - Asphalt Shingle Replacement, Bldg 10308 | 0 | 0 | 0 | 0 | 0 | 23,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10316 | 0 | 0 | 0 | 0 | 0 | 20,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10328 | 0 | 0 | 0 | 0 | 0 | 23,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10336 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10344 | 23,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10360 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10364 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20,000 | 0 | 0 | 0 | 0 | 0 | 0 |



| | Year: | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
|---|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Year Number: | 1 | 2 | 3 | 4 | 3 | 0 | | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| Rools - Asphalt Shingle Replacement, Bidg 10368 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rools - Asphalt Shingle Replacement, Bidg 10352 | | 0 | 0 | 0 | 0 | 0 | 23,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10356 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20,000 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10395 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10391 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11,000 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10387 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23,000 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10372 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23,000 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10388 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23,000 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10349 | | 0 | 0 | 0 | 0 | 0 | 23,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10345 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11,000 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10341 | | 0 | 0 | 0 | 0 | 0 | 0 | 23,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10379 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20,000 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10375 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20,000 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10371 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23,000 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10315 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10311 | | 0 | 11,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10307 | | 20,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10335 | | 0 | 0 | 0 | 0 | 0 | 23,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10331 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11,000 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10327 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23,000 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Clubhouse | | 12,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Column Replacement In Basements | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storefront Doors & Windows | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43,988 | 43,988 | 43,988 | 43,988 | 0 |
| Doors, Service, Metal With Glass | | 0 | 0 | 22,800 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Doors, Wood Front Entry | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Doors, Patio at Clubhouse | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Walls - Tuckpointing | | 0 | 10,000 | 0 | 10,000 | 0 | 10,000 | 0 | 10,000 | 0 | 10,000 | 0 | 10,000 | 0 | 10,000 | 0 |
| Windows, Residential | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Fascia and Soffits | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Windows, Clubhouse | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Foundation Repairs | | 0 | 0 | 0 | 0 | 10,000 | 0 | 0 | 0 | 0 | 10,000 | 0 | 0 | 0 | 0 | 10,000 |
| Foundation Study & Repair Bldg 10315 | | 30,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



20 Year Projection

Annual totals inflated @ 2.50% at the bottom line

| | Year: | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
|---|--------------|--------|----------|------|--------|--------|-------|------|-------|--------|-------|------|-------|--------|--------|------|
| Desired and Computer Market Did. 10222 | Year Number: | 1 | 2 10 000 | 3 | 4 | 3 | 0 | 1 | • | 9 | 10 | 11 | 12 | 15 | 14 | 15 |
| Drainule and Sump Installation Bidg 103/2 | | 0 | 10,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Building Interior | | | | | | | | | | | | | | | | |
| Walls & Ceiling - Paint | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Garage - Repair Fire Rated Barrier | | 10,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mailboxes | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Furnishings - Clubhouse | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Furnishings - Pool Cabanas and Chairs | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Laundry Finishes | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Utility Area Finishes | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Stair Framing, Treads, and Railings | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Doors - Interior | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Flooring - Entry Way Tile | | 0 | 12,960 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Flooring - Hallway and Stair Carpet | | 0 | 73,600 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 73,600 | 0 |
| Flooring - Stair Carpet, 4 Unit Bldgs | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Clubhouse Party Room | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Clubhouse Maintenance Office | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Clubhouse Showers | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Clubhouse Basement Recreation Room | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mechanical | | | | | | | | | | | | | | | | |
| Water - Distribution Piping | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Piping - Sanitary Waste Replacement | | 0 | 0 | 0 | 12,750 | 0 | 0 | 0 | 0 | 12,750 | 0 | 0 | 0 | 0 | 12,750 | 0 |
| Domestic Water Heaters | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Electrical - Distribution Panels | | 0 | 0 | 0 | 0 | 36,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Electrical - Distribution Wiring | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Electrical - Common Area Lighting & Outlets | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Electrical - Building Mounted Lighting | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| HVAC - Gas Furnace and Split A/C | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15,000 | 0 | 0 |
| HVAC - Building Basement Gas Furnaces | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Intercoms At Lobby Entrances | | 0 | 3,600 | 0 | 3,600 | 0 | 3,600 | 0 | 3,600 | 0 | 3,600 | 0 | 3,600 | 0 | 3,600 | 0 |
| Surveillance Equipment At Clubhouse | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Amenities | | | | | | | | | | | | | | | | |
| Pool Equipment - Pump and Filters | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |



| Voor N | Year: | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |
|---|---------|---------|---------|--------|--------|--------|---------|--------|--------|---------|--------|---------|-------------|---------|---------|---------|
| Pool Deck & Pool Allowance Exterior Furnishings - Cabanas & Chairs | initer. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20,000 0 | 0 | 0 | 0 |
| Pool Cover | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other | | | | | | | | | | | | | | | | |
| Update Reserve Fund Study | | 0 | 0 | 0 | 0 | 0 | 4,000 | 0 | 0 | 0 | 0 | 4,000 | 0 | 0 | 0 | 0 |
| Total Costs | _ | 198,427 | 175,160 | 45,600 | 29,350 | 46,000 | 198,467 | 23,000 | 16,600 | 92,750 | 23,600 | 164,354 | 134,588 | 159,988 | 143,938 | 147,600 |
| Total Costs Adjusted For 2.5% Inflation | | 198,367 | 179,539 | 47,909 | 31,607 | 50,775 | 224,547 | 26,673 | 19,732 | 113,007 | 29,473 | 210,387 | 176,590 | 215,165 | 198,419 | 208,555 |



| Year: | 2032 | 2033 | 2034 | 2035 | 2036 |
|---|---------|--------|------|------|-------|
| Year Number: | 16 | 17 | 18 | 19 | 20 |
| Site | | | | | |
| Potable Water Services - Mains & Hydrants | 0 | 0 | 0 | 0 | 0 |
| Sanitary Sewer Mains | 0 | 0 | 0 | 0 | 0 |
| Storm Drain Manholes and Catch Basins - Maintenance | 0 | 0 | 0 | 0 | 0 |
| Storm Drain - Jet Piping | 0 | 0 | 0 | 0 | 0 |
| Storm Drain - Video Survey | 0 | 0 | 0 | 0 | 0 |
| Storm Drain - Catch Basins | 3,000 | 0 | 0 | 0 | 3,000 |
| Electrical Service & Meters | 0 | 0 | 0 | 0 | 0 |
| Asphalt Pavement - Overlay | 137,600 | 0 | 0 | 0 | 0 |
| Asphalt Pavement - Sealcoat | 45,867 | 0 | 0 | 0 | 0 |
| Concrete Curbs and Gutters | 0 | 0 | 0 | 0 | 0 |
| Concrete Walks | 0 | 0 | 0 | 0 | 0 |
| Hand and Guard Rails | 0 | 0 | 0 | 0 | 0 |
| Landscaping | 0 | 0 | 0 | 0 | 0 |
| Signage - Monument | 0 | 0 | 0 | 0 | 0 |
| Guard Rails | 0 | 0 | 0 | 0 | 0 |
| Bollards | 0 | 0 | 0 | 0 | 0 |
| Curb Stops | 0 | 0 | 0 | 0 | 0 |
| Retaining Walls - Modular Block | 0 | 0 | 0 | 0 | 0 |
| Retaining Wall - Concrete Replacement | 0 | 0 | 0 | 0 | 0 |
| Retaining Walls - Modular Block | 0 | 0 | 0 | 0 | 0 |
| Fencing, Chain Link | 0 | 0 | 0 | 0 | 0 |
| Concrete Dumpster Pads | 0 | 0 | 0 | 0 | 0 |
| Concrete Step Replacement | 0 | 0 | 0 | 0 | 0 |
| Building Exterior | | | | | |
| | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10308 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10316 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10328 | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10336 | 0 | 23,000 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10344 | 0 | 0 | 0 | 0 | 0 |



| | Year: | 2032 | 2033 | 2034 | 2035 | 2036 |
|---|-------------|--------|------|--------|--------|--------|
| , | ear Number: | 16 | 17 | 18 | 19 | 20 |
| Roofs - Asphalt Shingle Replacement, Bldg 10360 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10364 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10368 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10352 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10356 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10395 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10391 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10387 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10372 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10388 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10349 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10345 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10341 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10379 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10375 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10371 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10315 | | 0 | 0 | 0 | 23,000 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10311 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10307 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10335 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10331 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Bldg 10327 | | 0 | 0 | 0 | 0 | 0 |
| Roofs - Asphalt Shingle Replacement, Clubhouse | | 0 | 0 | 0 | 0 | 0 |
| Column Replacement In Basements | | 0 | 0 | 0 | 0 | 0 |
| Storefront Doors & Windows | | 0 | 0 | 0 | 0 | 0 |
| Doors, Service, Metal With Glass | | 0 | 0 | 0 | 0 | 0 |
| Doors, Wood Front Entry | | 8,000 | 0 | 0 | 0 | 0 |
| Doors, Patio at Clubhouse | | 0 | 0 | 0 | 0 | 0 |
| Walls - Tuckpointing | | 10,000 | 0 | 10,000 | 0 | 10,000 |
| Windows, Residential | | 0 | 0 | 0 | 0 | 0 |
| Fascia and Soffits | | 0 | 0 | 0 | 0 | 0 |
| Windows Clubbonce | | 0 | 0 | 0 | 0 | 0 |



| | Year: | 2032 | 2033 | 2034 | 2035 | 2036 |
|---|--------------|-------|------|-------|--------|--------|
| | Year Number: | 16 | 17 | 18 | 19 | 20 |
| Foundation Repairs | | 0 | 0 | 0 | 0 | 10,000 |
| Foundation Study & Repair Bldg 10315 | | 0 | 0 | 0 | 0 | 0 |
| Draintile and Sump Installation Bldg 10372 | | 0 | 0 | 0 | 0 | 0 |
| Building Interior | | | | | | |
| Walls & Ceiling - Paint | | 0 | 0 | 0 | 0 | 0 |
| Garage - Repair Fire Rated Barrier | | 0 | 0 | 0 | 0 | 0 |
| Mailboxes | | 0 | 0 | 0 | 0 | 0 |
| Furnishings - Clubhouse | | 0 | 0 | 0 | 0 | 0 |
| Furnishings - Pool Cabanas and Chairs | | 0 | 0 | 0 | 0 | 0 |
| Laundry Finishes | | 0 | 0 | 0 | 0 | 0 |
| Utility Area Finishes | | 0 | 0 | 0 | 0 | 0 |
| Stair Framing, Treads, and Railings | | 0 | 0 | 0 | 0 | 0 |
| Doors - Interior | | 0 | 0 | 0 | 0 | 0 |
| Flooring - Entry Way Tile | | 0 | 0 | 0 | 0 | 0 |
| Flooring - Hallway and Stair Carpet | | 0 | 0 | 0 | 0 | 0 |
| Flooring - Stair Carpet, 4 Unit Bldgs | | 0 | 0 | 0 | 0 | 0 |
| Clubhouse Party Room | | 0 | 0 | 0 | 0 | 0 |
| Clubhouse Maintenance Office | | 0 | 0 | 0 | 0 | 0 |
| Clubhouse Showers | | 0 | 0 | 0 | 0 | 0 |
| Clubhouse Basement Recreation Room | | 0 | 0 | 0 | 0 | 0 |
| Mechanical | | | | | | |
| Water - Distribution Piping | | 0 | 0 | 0 | 0 | 0 |
| Piping - Sanitary Waste Replacement | | 0 | 0 | 0 | 12,750 | 0 |
| Domestic Water Heaters | | 0 | 0 | 0 | 0 | 0 |
| Electrical - Distribution Panels | | 0 | 0 | 0 | 0 | 0 |
| Electrical - Distribution Wiring | | 0 | 0 | 0 | 0 | 0 |
| Electrical - Common Area Lighting & Outlets | | 0 | 0 | 0 | 0 | 0 |
| Electrical - Building Mounted Lighting | | 0 | 0 | 0 | 0 | 0 |
| HVAC - Gas Furnace and Split A/C | | 0 | 0 | 0 | 0 | 0 |
| HVAC - Building Basement Gas Furnaces | | 0 | 0 | 0 | 0 | 0 |
| Intercoms At Lobby Entrances | | 3,600 | 0 | 3,600 | 0 | 3,600 |
| Surveillance Equipment At Clubhouse | | 0 | 0 | 0 | 0 | 0 |



| | Year: | 2032 | 2033 | 2034 | 2035 | 2036 |
|---|--------------|---------|--------|--------|--------|-----------|
| | Year Number: | 16 | 17 | 18 | 19 | 20 |
| Amenities | | | | | | |
| Pool Equipment - Pump and Filters | | 0 | 0 | 0 | 0 | 0 |
| Pool Deck & Pool Allowance | | 0 | 0 | 0 | 0 | 0 |
| Exterior Furnishings - Cabanas & Chairs | | 0 | 0 | 0 | 0 | 0 |
| Pool Cover | | 0 | 0 | 0 | 0 | 0 |
| Other | | | | | | |
| Update Reserve Fund Study | | 4,000 | 0 | 0 | 0 | 0 |
| Total Costs | _ | 212,127 | 23,000 | 13,600 | 35,750 | 26,600 |
| Total Costs Adjusted For 2.5% Inflation | - | 307,136 | 34,144 | 20,694 | 55,758 | 42,524 |
| Total, Years 1-20, Current Dollars | | | | | | 1,910,497 |
| Total, Years 1-20, Inflated Dollars | | | | | | 2,391,001 |
| Average Annual Budget, Current Dollars | | | | | | 95,525 |
| Average Annual Budget, Inflated Dollars | | | | | | 119,550 |

20-Year Cast Flow Projection - Current Funding Plan

Rate of contribution @ \$9,605 Overall per month projected ahead unchanged throughout he planning periodResulting year-end balances less than suggested threshold values are highlighted in >>>BLUEResulting year-end balances with accumulating deficits are highlighted in >>>PINK

| | | Beginning | | | | | | | Minimum |
|------|--------|---------------------|-----------|-------------|------------|-----------|--------------|-------------|-----------|
| | Year | Reserve Fund | Fee | Special | Investment | Total | Capital | Ending | Threshold |
| Year | Number | Balance | Revenue | Assessments | Earnings | Revenue | Expenditures | Balance | Balance |
| 2017 | 1 | \$276,000 | \$115,258 | \$0 | \$0 | \$115,258 | \$198,367 | \$192,891 | \$191,038 |
| 2018 | 2 | \$192,891 | \$115,258 | \$0 | \$0 | \$115,258 | \$179,539 | \$128,609 | \$195,814 |
| 2019 | 3 | \$128,609 | \$115,258 | \$0 | \$0 | \$115,258 | \$47,909 | \$195,958 | \$200,709 |
| 2020 | 4 | \$195,958 | \$115,258 | \$0 | \$0 | \$115,258 | \$31,607 | \$279,609 | \$205,727 |
| 2021 | 5 | \$279,609 | \$115,258 | \$0 | \$0 | \$115,258 | \$50,775 | \$344,091 | \$210,870 |
| 2022 | 6 | \$344,091 | \$115,258 | \$0 | \$0 | \$115,258 | \$224,547 | \$234,802 | \$216,142 |
| 2023 | 7 | \$234,802 | \$115,258 | \$0 | \$0 | \$115,258 | \$26,673 | \$323,386 | \$221,546 |
| 2024 | 8 | \$323,386 | \$115,258 | \$0 | \$0 | \$115,258 | \$19,732 | \$418,912 | \$227,084 |
| 2025 | 9 | \$418,912 | \$115,258 | \$0 | \$0 | \$115,258 | \$113,007 | \$421,162 | \$232,761 |
| 2026 | 10 | \$421,162 | \$115,258 | \$0 | \$0 | \$115,258 | \$29,473 | \$506,947 | \$238,580 |
| 2027 | 11 | \$506,947 | \$115,258 | \$0 | \$0 | \$115,258 | \$210,387 | \$411,817 | \$244,545 |
| 2028 | 12 | \$411,817 | \$115,258 | \$0 | \$0 | \$115,258 | \$176,590 | \$350,484 | \$250,658 |
| 2029 | 13 | \$350,484 | \$115,258 | \$0 | \$0 | \$115,258 | \$215,165 | \$250,576 | \$256,925 |
| 2030 | 14 | \$250,576 | \$115,258 | \$0 | \$0 | \$115,258 | \$198,419 | \$167,414 | \$263,348 |
| 2031 | 15 | \$167,414 | \$115,258 | \$0 | \$0 | \$115,258 | \$208,555 | \$74,117 | \$269,932 |
| 2032 | 16 | \$74,117 | \$115,258 | \$0 | \$0 | \$115,258 | \$307,136 | (\$117,762) | \$276,680 |
| 2033 | 17 | (\$117,762) | \$115,258 | \$0 | \$0 | \$115,258 | \$34,144 | (\$36,648) | \$283,597 |
| 2034 | 18 | (\$36,648) | \$115,258 | \$0 | \$0 | \$115,258 | \$20,694 | \$57,916 | \$290,687 |
| 2035 | 19 | \$57,916 | \$115,258 | \$0 | \$0 | \$115,258 | \$55,758 | \$117,416 | \$297,954 |
| 2036 | 20 | \$117,416 | \$115,258 | \$0 | \$0 | \$115,258 | \$42,524 | \$190,149 | \$305,403 |

Alternate Funding Plan No. 1 - Lump Sum Increase in Rate of Contribution to Capital Reserves in Year One^{m Engineers 2004} 5 % increase to \$10,105 Overall per Month required to maintain Positive Year End Balances throughout the Planning Period and achieve Minimum Threshold Balance at End of Planning Period

| | | Beginning | | | | | | | Minimum |
|------|--------|---------------------|-----------|-------------|------------|-----------|--------------|-----------|-----------|
| | Year | Reserve Fund | Fee | Special | Investment | Total | Capital | Ending | Threshold |
| Year | Number | Balance | Revenue | Assessments | Earnings | Revenue | Expenditures | Balance | Balance |
| 2017 | 1 | \$276,000 | \$115,260 | \$0 | \$0 | \$115,260 | \$198,367 | \$192,893 | \$191,038 |
| 2018 | 2 | \$192,893 | \$121,260 | \$50,000 | \$0 | \$171,260 | \$179,539 | \$184,614 | \$195,814 |
| 2019 | 3 | \$184,614 | \$121,260 | \$0 | \$0 | \$121,260 | \$47,909 | \$257,966 | \$200,709 |
| 2020 | 4 | \$257,966 | \$121,260 | \$0 | \$0 | \$121,260 | \$31,607 | \$347,619 | \$205,727 |
| 2021 | 5 | \$347,619 | \$121,260 | \$0 | \$0 | \$121,260 | \$50,775 | \$418,104 | \$210,870 |
| 2022 | 6 | \$418,104 | \$121,260 | \$0 | \$0 | \$121,260 | \$224,547 | \$314,817 | \$216,142 |
| 2023 | 7 | \$314,817 | \$121,260 | \$0 | \$0 | \$121,260 | \$26,673 | \$409,404 | \$221,546 |
| 2024 | 8 | \$409,404 | \$121,260 | \$0 | \$0 | \$121,260 | \$19,732 | \$510,932 | \$227,084 |
| 2025 | 9 | \$510,932 | \$121,260 | \$0 | \$0 | \$121,260 | \$113,007 | \$519,185 | \$232,761 |
| 2026 | 10 | \$519,185 | \$121,260 | \$0 | \$0 | \$121,260 | \$29,473 | \$610,972 | \$238,580 |
| 2027 | 11 | \$610,972 | \$121,260 | \$0 | \$0 | \$121,260 | \$210,387 | \$521,844 | \$244,545 |
| 2028 | 12 | \$521,844 | \$121,260 | \$0 | \$0 | \$121,260 | \$176,590 | \$466,514 | \$250,658 |
| 2029 | 13 | \$466,514 | \$121,260 | \$0 | \$0 | \$121,260 | \$215,165 | \$372,609 | \$256,925 |
| 2030 | 14 | \$372,609 | \$121,260 | \$0 | \$0 | \$121,260 | \$198,419 | \$295,449 | \$263,348 |
| 2031 | 15 | \$295,449 | \$121,260 | \$0 | \$0 | \$121,260 | \$208,555 | \$208,154 | \$269,932 |
| 2032 | 16 | \$208,154 | \$121,260 | \$0 | \$0 | \$121,260 | \$307,136 | \$22,278 | \$276,680 |
| 2033 | 17 | \$22,278 | \$121,260 | \$0 | \$0 | \$121,260 | \$34,144 | \$109,395 | \$283,597 |
| 2034 | 18 | \$109,395 | \$121,260 | \$0 | \$0 | \$121,260 | \$20,694 | \$209,961 | \$290,687 |
| 2035 | 19 | \$209,961 | \$121,260 | \$0 | \$0 | \$121,260 | \$55,758 | \$275,463 | \$297,954 |
| 2036 | 20 | \$275,463 | \$121,260 | \$0 | \$0 | \$121,260 | \$42,524 | \$354,199 | \$305,403 |



Alternate Funding Plan No. 2 - Ongoing Annual Increases in the Rate of Contribution to Capital Reserves^{® Criterium Engineers 2004} 3.0 % annual increases in Years 1-3 required to achieve Positive Year End Balances throughout the Planning Period and achieve Minimum Threshold Balance at End of Planning Period

| | | Beginning | | | | | | | Minimum |
|------|--------|---------------------|-----------|-------------|------------|-----------|--------------|-----------|-----------|
| | Year | Reserve Fund | Fee | Special | Investment | Total | Capital | Ending | Threshold |
| Year | Number | Balance | Revenue | Assessments | Earnings | Revenue | Expenditures | Balance | Balance |
| 2017 | 1 | \$276,000 | \$115,260 | \$0 | \$0 | \$115,260 | \$198,367 | \$192,893 | \$191,038 |
| 2018 | 2 | \$192,893 | \$118,718 | \$0 | \$0 | \$118,718 | \$179,539 | \$132,072 | \$195,814 |
| 2019 | 3 | \$132,072 | \$122,279 | \$0 | \$0 | \$122,279 | \$47,909 | \$206,443 | \$200,709 |
| 2020 | 4 | \$206,443 | \$125,948 | \$0 | \$0 | \$125,948 | \$31,607 | \$300,784 | \$205,727 |
| 2021 | 5 | \$300,784 | \$125,948 | \$0 | \$0 | \$125,948 | \$50,775 | \$375,956 | \$210,870 |
| 2022 | 6 | \$375,956 | \$125,948 | \$0 | \$0 | \$125,948 | \$224,547 | \$277,357 | \$216,142 |
| 2023 | 7 | \$277,357 | \$125,948 | \$0 | \$0 | \$125,948 | \$26,673 | \$376,632 | \$221,546 |
| 2024 | 8 | \$376,632 | \$125,948 | \$0 | \$0 | \$125,948 | \$19,732 | \$482,847 | \$227,084 |
| 2025 | 9 | \$482,847 | \$125,948 | \$0 | \$0 | \$125,948 | \$113,007 | \$495,788 | \$232,761 |
| 2026 | 10 | \$495,788 | \$125,948 | \$0 | \$0 | \$125,948 | \$29,473 | \$592,263 | \$238,580 |
| 2027 | 11 | \$592,263 | \$125,948 | \$0 | \$0 | \$125,948 | \$210,387 | \$507,823 | \$244,545 |
| 2028 | 12 | \$507,823 | \$125,948 | \$0 | \$0 | \$125,948 | \$176,590 | \$457,181 | \$250,658 |
| 2029 | 13 | \$457,181 | \$125,948 | \$0 | \$0 | \$125,948 | \$215,165 | \$367,963 | \$256,925 |
| 2030 | 14 | \$367,963 | \$125,948 | \$0 | \$0 | \$125,948 | \$198,419 | \$295,491 | \$263,348 |
| 2031 | 15 | \$295,491 | \$125,948 | \$0 | \$0 | \$125,948 | \$208,555 | \$212,884 | \$269,932 |
| 2032 | 16 | \$212,884 | \$125,948 | \$0 | \$0 | \$125,948 | \$307,136 | \$31,696 | \$276,680 |
| 2033 | 17 | \$31,696 | \$125,948 | \$0 | \$0 | \$125,948 | \$34,144 | \$123,500 | \$283,597 |
| 2034 | 18 | \$123,500 | \$125,948 | \$0 | \$0 | \$125,948 | \$20,694 | \$228,754 | \$290,687 |
| 2035 | 19 | \$228,754 | \$125,948 | \$0 | \$0 | \$125,948 | \$55,758 | \$298,944 | \$297,954 |
| 2036 | 20 | \$298,944 | \$125,948 | \$0 | \$0 | \$125,948 | \$42,524 | \$382,367 | \$305,403 |



Summary of Reserve Ending Balances

| | | | Year-End Balances Suggested | | | | |
|------|---------------|---------------------|-----------------------------|---------------|---------------|------------------|--|
| | Year | Yearly | | | | Minimum | |
| Year | <u>Number</u> | Expenditures | Current | <u>Alt. 1</u> | <u>Alt. 2</u> | Threshold | |
| 2017 | 1 | \$198,367 | \$192,891 | \$192,893 | \$192,893 | \$191,038 | |
| 2018 | 2 | \$179,539 | \$128,609 | \$184,614 | \$132,072 | \$195,814 | |
| 2019 | 3 | \$47,909 | \$195,958 | \$257,966 | \$206,443 | \$200,709 | |
| 2020 | 4 | \$31,607 | \$279,609 | \$347,619 | \$300,784 | \$205,727 | |
| 2021 | 5 | \$50,775 | \$344,091 | \$418,104 | \$375,956 | \$210,870 | |
| 2022 | 6 | \$224,547 | \$234,802 | \$314,817 | \$277,357 | \$216,142 | |
| 2023 | 7 | \$26,673 | \$323,386 | \$409,404 | \$376,632 | \$221,546 | |
| 2024 | 8 | \$19,732 | \$418,912 | \$510,932 | \$482,847 | \$227,084 | |
| 2025 | 9 | \$113,007 | \$421,162 | \$519,185 | \$495,788 | \$232,761 | |
| 2026 | 10 | \$29,473 | \$506,947 | \$610,972 | \$592,263 | \$238,580 | |
| 2027 | 11 | \$210,387 | \$411,817 | \$521,844 | \$507,823 | \$244,545 | |
| 2028 | 12 | \$176,590 | \$350,484 | \$466,514 | \$457,181 | \$250,658 | |
| 2029 | 13 | \$215,165 | \$250,576 | \$372,609 | \$367,963 | \$256,925 | |
| 2030 | 14 | \$198,419 | \$167,414 | \$295,449 | \$295,491 | \$263,348 | |
| 2031 | 15 | \$208,555 | \$74,117 | \$208,154 | \$212,884 | \$269,932 | |
| 2032 | 16 | \$307,136 | (\$117,762) | \$22,278 | \$31,696 | \$276,680 | |
| 2033 | 17 | \$34,144 | (\$36,648) | \$109,395 | \$123,500 | \$283,597 | |
| 2034 | 18 | \$20,694 | \$57,916 | \$209,961 | \$228,754 | \$290,687 | |
| 2035 | 19 | \$55,758 | \$117,416 | \$275,463 | \$298,944 | \$297,954 | |
| 2036 | 20 | \$42,524 | \$190,149 | \$354,199 | \$382,367 | \$305,403 | |





APPENDIX B: GRAPHIC EXHIBITS



APPENDIX C: PHOTOGRAPHS



APPENDIX D: REFERENCE DOCUMENTS



R S National Reserve Study Standards

11/2014



Table of Contents

| Reserve Study General Information | 1 |
|------------------------------------|---|
| Levels of Service | 2 |
| Terms and Definitions | 2 |
| Reserve Study Required Contents | 6 |
| Reserve Study Required Disclosures | 7 |
| | |

General Information

Reserve Study

A Reserve Study is made up of two parts, 1) the information about the physical status and repair/ replacement cost of the major common area components the association is obligated to maintain (Physical Analysis), and 2) the evaluation and analysis of the association's Reserve balance, income, and expenses (Financial Analysis). The Physical Analysis is comprised of the Component Inventory, Condition Assessment, and Life and Valuation Estimates. The Component Inventory should be relatively "stable" from year to year, while the Condition Assessment and Life and Valuation Estimates will necessarily change from year to year. The Financial Analysis is made up of a finding of the client's current Reserve Fund Status (measured in cash or as Percent Funded) and a recommendation for an appropriate Reserve contribution rate (Funding Plan).

4

Physical Analysis

- Component Inventory
- Condition Assessment
- Life and Valuation Estimates

Financial Analysis

- Fund Status
- Funding Plan



Levels of Service

The following three categories describe the various types of Reserve Studies, from exhaustive to minimal.

- I. Full: A Reserve Study in which the following five Reserve Study tasks are performed:
 - Component Inventory
 - Condition Assessment (based upon on-site visual observations)
 - Life and Valuation Estimates
 - Fund Status
 - Funding Plan
- II. Update, With-Site-Visit/On-Site Review: A Reserve Study update in which the following five Reserve Study tasks are performed:
 - Component Inventory (verification only, not quantification)
 - Condition Assessment (based on on-site visual observations)
 - Life and Valuation Estimates
 - Fund Status
 - Funding Plan
- III. Update, No-Site-Visit/Off Site Review: A Reserve Study update with no on-site visual observations in which the following three Reserve Study tasks are performed:
 - Life and Valuation Estimates
 - Fund Status
 - Funding Plan

Terms and Definitions

CASH FLOW METHOD: A method of developing a Reserve Funding Plan where contributions to the Reserve fund are designed to offset the variable annual expenditures from the Reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of Reserve expenses until the desired Funding Goal is achieved.

COMPONENT: The individual line items in the Reserve Study, developed or updated in the Physical Analysis. These elements form the building blocks for the Reserve Study. Components typically are: 1) Association responsibility, 2) with limited Useful Life expectancies, 3) predictable Remaining Useful Life expectancies, 4) above a minimum threshold cost, and 5) as required by local codes.

COMPONENT INVENTORY: The task of selecting and quantifying Reserve Components. This task can be accomplished through on-site visual observations, review of association design and organizational documents, a review of established association precedents, and discussion with appropriate association representative(s) of the association or cooperative.

COMPONENT METHOD: A method of developing a Reserve Funding Plan where the total contribution is based on the sum of contributions for individual components. See "Cash Flow Method."



CONDITION ASSESSMENT: The task of evaluating the current condition of the component based on observed or reported characteristics.

CURRENT REPLACEMENT COST: See "Replacement Cost."

DEFICIT: An actual (or projected) Reserve Balance less than the Fully Funded Balance. The opposite would be a Surplus.

EFFECTIVE AGE: The difference between Useful Life and Remaining Useful Life. Not always equivalent to chronological age, since some components age irregularly. Used primarily in computations.

FINANCIAL ANALYSIS: The portion of a Reserve Study where current status of the Reserves (measured as cash or Percent Funded) and a recommended Reserve contribution rate (Reserve Funding Plan) are derived, and the projected Reserve income and expense over time is presented. The Financial Analysis is one of the two parts of a Reserve Study.

FULLY FUNDED: 100% Funded. When the actual (or projected) Reserve balance is equal to the Fully Funded Balance.

FULLY FUNDED BALANCE (FFB): Total Accrued Depreciation. An indicator against which Actual (or projected) Reserve balance can be compared. The Reserve balance that is in direct proportion to the fraction of life "used up" of the current Repair or Replacement cost. This number is calculated for each component, then summed together for an association total. Two formulae can be utilized, depending on the provider's sensitivity to interest and inflation effects. Note: Both yield identical results when interest and inflation are equivalent.

FFB = Current Cost X Effective Age / Useful Life

or

FFB = (Current Cost X Effective Age / Useful Life) + [(Current Cost X Effective Age / Useful Life) / (1 + Interest Rate) ^ Remaining Life] - [(Current Cost X Effective Age / Useful Life) / (1 + Inflation Rate) ^ Remaining Life]

FUND STATUS: The status of the reserve fund as compared to an established benchmark such as percent funding.

FUNDING GOALS: Independent of methodology utilized, the following represent the basic categories of Funding Plan goals:

Baseline Funding: Establishing a Reserve funding goal of keeping the Reserve cash balance above zero.

Full Funding: Setting a Reserve funding goal of attaining and maintaining Reserves at or near 100% funded.

Statutory Funding: Establishing a Reserve funding goal of setting aside the specific minimum amount of Reserves required by local statues.

Threshold Funding: Establishing a Reserve funding goal of keeping the Reserve balance above a specified dollar or Percent Funded amount. Depending on the threshold, this may be more or less conservative than "Fully Funding."



FUNDING PLAN: An association's plan to provide income to a Reserve fund to offset anticipated expenditures from that fund.

FUNDING PRINCIPLES:

- Sufficient Funds When Required
- Stable Contribution Rate over the Years
- Evenly Distributed Contributions over the Years
- Fiscally Responsible

LIFE AND VALUATION ESTIMATES: The task of estimating Useful Life, Remaining Useful Life, and Repair or Replacement Costs for the Reserve components.

PERCENT FUNDED: The ratio, at a particular point of time (typically the beginning of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage. 4

PHYSICAL ANALYSIS: The portion of the Reserve Study where the Component Inventory, Condition Assessment, and Life and Valuation Estimate tasks are performed. This represents one of the two parts of the Reserve Study.

REMAINING USEFUL LIFE (RUL): Also referred to as "Remaining Life" (RL). The estimated time, in years, that a reserve component can be expected to continue to serve its intended function. Projects anticipated to occur in the initial year have "zero" Remaining Useful Life.

REPLACEMENT COST: The cost of replacing, repairing, or restoring a Reserve Component to its original functional condition. The Current Replacement Cost would be the cost to replace, repair, or restore the component during that particular year.

RESERVE BALANCE: Actual or projected funds as of a particular point in time that the association has identified for use to defray the future repair or replacement of those major components which the association is obligated to maintain. Also known as Reserves, Reserve Accounts, Cash Reserves. Based upon information provided and not audited.

RESERVE PROVIDER: An individual that prepares Reserve Studies.

RESERVE STUDY: A budget planning tool which identifies the current status of the Reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures. The Reserve Study consists of two parts: the Physical Analysis and the Financial Analysis. "Our budget and finance committee is soliciting proposals to update our Reserve Study for next year's budget."

RESPONSIBLE CHARGE: A reserve specialist in responsible charge of a reserve study shall render regular and effective supervision to those individuals performing services which directly and materially affect the quality and competence rendered by the reserve specialist. A reserve specialist shall maintain such records as are reasonably necessary to establish that the reserve specialist exercised regular and effective supervision of a reserve study of which he was in responsible charge. A reserve specialist engaged in any of the following acts or practices shall be deemed not to have rendered the regular and effective supervision required herein:



- The regular and continuous absence from principal office premises from which professional services are rendered; except for performance of field work or presence in a field office maintained exclusively for a specific project;
- The failure to personally inspect or review the work of subordinates where necessary and appropriate;
- The rendering of a limited, cursory or perfunctory review of plans or projects in lieu of an appropriate detailed review;
- The failure to personally be available on a reasonable basis or with adequate advance notice for consultation and inspection where circumstances require personal availability.

SPECIAL ASSESSMENT: An assessment levied on the members of an association in addition to regular assessments. Special Assessments are often regulated by governing documents or local statutes.

SURPLUS: An actual (or projected) Reserve Balance greater than the Fully Funded Balance. See "Deficit."

USEFUL LIFE (UL): Total Useful Life or Depreciable Life. The estimated time, in years, that a reserve component can be expected to serve its intended function if properly constructed in its present application or installation.



Reserve Study Required Contents

Each Reserve Study prepared by a Reserve Specialist or Reserve Specialist applicant **must contain all** of the following elements:

| PAGE | CONTENTS |
|---------------------------------------|--|
| | 1. A summary of the association's number of units. |
| | 2. Association physical description (legal or physical narrative). |
| : | General statement or opinion describing the association's current reserve fund status (good/fair/ poor, adequate or inadequate. Percent Funded, etc.). |
| | General statement describing the methods and objectives utilized in computing or evaluating the association's Reserve Fund status (Percent Funded or otherwise). |
| | 5. Fiscal Year (start and end) for which the Reserve study is prepared. |
| | 6. A projection of starting reserve cash balance (as-of above start date). |
| 1. | A general statement describing the development or computation of the association's starting Re- serve Fund balance. |
| 22 | 8. Recommended reserve contributions (minimum 20 years). |
| | 9. Projected reserve expenses (minimum 20 years). |
| | 10. Projected ending reserve fund balance (minimum of 20 years). |
| | 11. A tabular listing of the components in the Reserve Study. |
| | 12. A tabular listing of the component quantities or identifying descriptions. |
| · · · · · · · · · · · · · · · · · · · | 13. A tabular listing showing each component's Useful Life. |
| · · · · · · | 14. A tabular listing showing each component's Remaining Useful Life, where RUL-O-initial year. |
| <u>0</u> | 15. A tabular listing showing each component's Current Replacement Cost. |
| | 16. A general statement describing the Methods (cash flow, component, etc.) and Goals (Full Funding, Threshold Funding, Baseline Funding) of the Funding Plan, using National Standard terminology. |
| | 17. Identification of the source(s) utilized to obtain component repair or replacement cost estimates. |
| | A clear description of which one of the three Reserve Study "Levels of Service" (ie: Full, Update With-Site-Visit, Update No-Site-Visit) was performed. |
| | 19. A clear statement of assumption used for Interest and inflation (whether zero or otherwise). |

Applicants MUST INCLUDE THE ABOVE TABLE with their work product submission, noting the page number where all the above required elements can be found in their sample work product.



Reserve Study Required Disclosures

Each Reserve Study prepared by a Reserve Specialist or Reserve Specialist applicant must contain all of the following disclosures:

| PAGE | DISCLOSURE |
|---|---|
| <u>, </u> | General: Description of other involvement(s) with the association, which could result in actual or perceived conflicts of interest. |
| 1 <u>0 - 11 - 1</u> 2 | Physical Analysis: Description of how thorough the on-site observations were performed: repre- sentative sampling vs. all common areas, destructive testing or not, field measurements vs. draw- ing take-offs, etc. |
| | Personnel Credentials: State or organizational licenses or credentials carried by the individual responsible for Reserve Study preparation or oversight. |
| | Completeness: Material issues which, if not disclosed, would cause a distortion of the association's situation. |
| | Reliance on Client Data: Information provided by the official representative of the association re- garding financial, physical, quantity, or historical issues will be deemed reliable by the consultant. |
| | Scope: The Reserve Study will be a reflection of information provided to the consultant and as- sembled for the association's use, not for the purpose of performing an audit, quality/forensic analyses, or background checks of historical records. |
| | Reserve Balance: The actual or projected total presented in the Reserve Study is based upon information provided and was not audited. |
| | Reserve Projects: Information provided about reserve projects will be considered reliable. Any on-site inspection should not be considered a project audit or quality inspection. |



APPENDIX 1: Reserve Specialist Code of Ethics

COMMUNITY ASSOCIATIONS INSTITUTE PROFESSIONAL RESERVE SPECIALIST (RS) CODE OF ETHICS

The Reserve Specialist Shall:

- Comply with current standards and practices as may be established from time to time by CAI, the Reserve Specialist (RS) Designation Review Board, subject to all federal, state and local laws, ordinances, and regulations, if any, in effect where the RS practices;
- Participate in continuing professional education through CAI and other industry related organizations as required;
- Act in the best interests of the client; refrain from making inaccurate or misleading representations or statements; not knowingly misrepresent facts to benefit the Specialist;
- Undertake only those engagements that they can reasonably expect to perform with professional competence;
- Exercise due care and perform planning and supervision as specified in the written client engagement agreement;
- Disclose all relationships in writing to the client regarding any actual, potential or perceived conflict of interest between the Specialist and other vendors, including, but not limited to, management companies, insurance carriers, contractors and legal counsel.
- Provide written disclosure of any compensation, gratuity or other form of remuneration from individuals or companies who act or may act on behalf of the client.
- 8. Conduct himself or herself in accordance with the Reserve Specialist requirements;
- Not represent to anyone as being a Reserve Specialist designee until such time as he or she receives written confirmation from the Reserve Specialist Designation Review Board or CAI of receipt of the designation;
- Recognize the original records, files, plats and surveys that are the property of the client are returned to the client at the end of the Specialists engagement; maintain the duty of confidentiality to all current and former clients.
- Refrain from criticizing competitors or their business practices; Act in the best interests of their Employers; Maintain a professional relationship with our peers and industry related professionals.
- 12. Conduct themselves in a professional manner at all times when acting in the scope of their employment.
- 13. Not engage in any form of price fixing, anti-trust, or anti-competition.
- Not use the work products of colleagues or competing Reserve Specialist firms that are considered proprietary without the expressed written permission of the author or the reserve specialist firm.
- 15. Abide by the re-designation policy of CAI.

Compliance with the Professional Reserve Specialist Code of Ethics is further amplified in the Code Clarification Document provided by the Community Associations Institute. Draft Revision April 2008



| | TERMS OF REFERENCE |
|---|---|
| | RESERVE STUDY |
| Association | The unit owners' association. May be referred to with different terminology in legal covenants of incorporation. |
| Board | Elected officers of the Association with fiduciary responsibility for the community's common holdings. May be referred to with different terminology in legal covenants of incorporation. |
| Owner | Individual Unit owner, a Member or the Association |
| Property Manager | Professional organization through which the Board delegates responsibilities for operations and maintenance of the community. |
| 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) Workmanship not in compliance with commonly accepted standards, b) Evidence of previous repairs not in compliance with commonly accepted practice, 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 stable, has capacity to function as required, is sufficient for its service, is suitable for operation, and/or conforms to standard construction practices. |
| Basis of Comparison | Ratings are determined by comparison to other buildings of similar age and construction type. |
| Left, Right, Front, Rear | Directions are taken from the viewpoint of an observer standing at the property frontage and facing it. Or, for a building within a campus setting, the viewpoint of an observer standing in front of the principal entrance and facing it. |
| Current deficiency Immediate expense | We will note any observed or reported physical condition which requires immediate action to correct an existing or potential safety hazard, an enforceable building code violation, or the poor or deteriorated condition of a critical element or system. Also, to address any conditions which, if left "as is", would likely result in the failure of a critical element or system. |
| | Such items will be noted in our report even if they do not require a capital expenditure. |
| Short-term capital expenditures | Correction of physical deficiencies including deferred maintenance, which may not warrant immediate attention, but require repairs or replacements which should be undertaken on a priority basis, taking precedence over preventive maintenance work within a one-year time frame. Included are physical deficiencies resulting from improper design, faulty installation, and/or substandard quality of original systems or materials. Components or systems that have exceeded their expected useful life and require repair or replacement within a one-year time frame are also included. Observed minor issues which would typically be addressed as normal operations & maintenance work may not be noted in the report. |
| Long-term capital | Non-routine repairs, replacements or planned improvements that will require significant expenditure during the study period. Included are items that will reach the end of their estimated useful life or which, in the opinion of the engineer, will require such expense during that time. If saving for longer- |



| expenditures | term expenditures is desired, then allowances or contingencies for such items may also be included. Observed minor issues which would typically be addressed as normal operations & maintenance work may not be noted in the report. |
|--------------------------------|--|
| | As components age, they wear and deteriorate at varying rates, depending on their service and exposure. |
| Expected Useful Life (EUL) | Although it is an inexact science, various financial underwriters, data services and trade organizations publish guidance regarding the EULs of typical building materials and operating systems. For short-lived components, their EUL is used as the frequency between periodic repairs or replacements. |
| | Some systems' economic life may be shortened because improved equipment or materials has become available which is less costly to operate or maintain. |
| | The simple equation for determining remaining useful life before repair or replacement is: |
| Remaining Useful Life (RUL) | EUL - Age = RUL |
| | However, based on our evaluation of a component and our professional judgment, we may assign a shorter or longer RUL to actual items being considered. |



BUILDING SYSTEMS AND COMPONENTS COMMON ABBREVIATIONS AND ACRONYMS

| COMMON ABBREVIATIONS AND ACKONYMIS | | | |
|------------------------------------|---|------|---|
| ACM | Asbestos Containing Material | HW | Hot Water |
| ACT | Acoustic Ceiling Tile | HWH | Hot Water Heater (domestic) |
| ADA | Americans with Disabilities Act | IBC | International Building Code |
| AHU | Air Handling Unit | IRC | International Residential Code |
| ASHRAE | American Society of Heating, Refrigeration and Air- Conditioning Engineers | KVA | Kilovolt-Ampere |
| ASTM | American Society for Testing and Materials | LF | Lineal Foot |
| BOCA | Building Officials Code Administrators International | MSL | Mean Sea Level |
| BTU | British Thermal Unit | NEC | National Electric Code |
| BTUH | British Thermal Unit / Hour | NFPA | National Fire Protection Association |
| CFM | Cubic Foot / Minute | MBH | Thousand British Thermal Units / Hour |
| CI | Cast Iron (piping) | MDP | Main Distribution Panel (electric power) |
| CIP | Cast In Place (concrete) | O&M | Operations & Maintenance |
| CMU | Concrete Masonry Unit (block) | OSB | Oriented Strand Board (sheathing or decking) |
| CPVC | Chlorinated Poly Vinyl Chloride (piping) | PCA | Property Condition Assessment |
| CW | Cold Water | PCR | Property Condition Report |
| DI | Ductile Iron (piping) | PE | Licensed Professional Engineer |
| EIFS | Exterior Insulating and Finishing System | PVC | Poly Vinyl Chloride (piping and siding) |
| EPDM | Ethylene Propylene Diene Monomer | PTAC | Packaged Terminal Air Conditioning Unit |
| EUL | Expected Useful Life | ROM | Rough Order of Magnitude |
| FCU | Fan Coil Unit | RUL | Remaining Useful Life |
| FEMA | Federal Emergency Management Agency | RTU | Roof Top Unit |
| FFE | Furniture, Fixtures and Equipment | SF | Square Foot |
| FHA | Forced Hot Air | SOG | Slab on Grade (concrete basement or ground floor) |
| FHAA | Fair Housing Act and Amendments | SQ | 100 Square Feet |
| FHW | Forced Hot Water | SY | Square Yard |
| FIRM | Flood Insurance Rate Map | UBC | Uniform Building Code |
| FOIA | Freedom of Information Act | UL | Underwriters Laboratories |
| GFI | Ground Fault Interruption (circuit breaker) | VAC | Volts Alternating Current |
| GWB | Gypsum Wall Board (drywall or sheetrock) | VAV | Variable Air Volume box |
| HID | High Intensity Discharge (lamp, lighting fixture) | VCT | Vinyl Composition Tile |
| HVAC | Heating Ventilation and Air Conditioning | VWC | Vinyl Wall Covering |

APPENDIX E: PROJECT TEAM QUALIFICATIONS

