

## 2020 Reserve Study Resolution Worksheet

Date: September 18, 2019

### **Suggested Motion:**

"I move to approve funding for the amount of \$\_\_\_\_\_ for a reserve study as prescribed by section 55-79.83:1 of the Virginia Condominium Act with funds to come from Reserves Account 9901-000.

2<sup>nd</sup>.

**Summary:** Management received 3 separate proposals from Reserve Advisors (current provider), DMA Reserves and Falcon Group. All 3 will provide a full study and pricing is included in the attached spreadsheet.

Management has reviewed the proposals and recommend making a change to DMA Reserves who will include a full roof survey building by building. This will be essential in planning future funding. DMA also employs local engineers and architects whereas previous studies had out of state personnel.

### **Vote:**

	In Favor	Opposed	Abstained	Absent
Scott Buchanan				
Dan Courtney				
Susan Cox				
Anna Fernezian				
James Konkel				
Rich Moha				
Kathy Schramek				
Nicholas Soto				
Robin Woods				

FIRM	Phone	Cost Full onsite study Level 1	Update Current Study only Level 2	Level 3	Additional Update	Other Services
DMA Douglas Greene	804-644-6404	\$ 16,700.00		n/a		includes live meetings with management and 1 board presentation
Falcon Group Stefanie Hosgood	240.328.1095	\$ 18,445.00	\$ 14,895.00	n/a		includes live meetings with management and 1 board presentation
Reserve Advisors Michelle Baldry	703.812.0580	\$ 14,400.00	\$ 9,750.00			Plans include ForeSite Basic fee basic only. Add additional \$975.00 for ForeSite Plus live meeting with management and unlimited video conferencing w/engineers No Board meeting







# PARKFAIRFAX CONDOMINIUM UNIT OWNERS ASSOCIATION

August 15, 2019

## INTERACTIVE RESERVE ANALYSIS



### DMA Reserves

2302 E Cary Street  
Richmond, Virginia 23223  
804.644.6404  
DMAreserves.com

## PROPOSAL

### INCLUDES

- ♦ Proposal for Services
- ♦ The Working Session
- ♦ Contract for Service
- ♦ Reference Project List
- ♦ DMA Company Profile



# PROPOSAL FOR SERVICES

**Date:** August 15, 2019  
**Client Name:** Parkfairfax Condominium Unit Owners Associat  
**Property:** Parkfairfax Condominium Unit Owners Associat  
**Represented by:** Mark Miller

DMA proposes to conduct a Level I Capital Reserve Study with Site Visit, in accordance with the National Reserve Study Standards created by the Community Associations Institute (CAI), AND to provide additional hands-on education and guidance to create your own capital reserve funding plan. Additional services, described in this proposal, are available to assist you in managing your reserve funding plan after this project is complete.

DMA reserve studies are asset-based, meaning that, with a few exceptions, each component will be a specific asset recorded by individual location, age (year placed in service) and condition. This will create a significantly longer Schedule of Components than in previous studies, but this will also make this study an ongoing updatable management tool that will preserve the actual history of replacement activity at Parkfairfax. This will require multiple site visits which can be easily accomplished by our local reserve analysts.

## **PROJECT FEES**

DMA will prepare your Capital Reserve Plan including all tasks defined in the Scope above, for a Fixed Fee, which includes up to two (2) live online Working Sessions with our Reserve Specialist and management using Go-To-Meeting (see attached Working Session description), and one (1) live in-person working session / presentation with the Board of Directors:

**Sixteen Thousand Seven Hundred Dollars (\$16,700.00)**

## **BASIC PROJECT SCOPE**

Every DMA Level I Capital Reserve Plan includes the following scope:

- ❖ We will ask you for information on your property history, financials, any available actual inventories and known replacement costs, past project history, present issues and future priorities.
- ❖ We fully inspect the property on-site in multiple site visits and develop a detailed Schedule of Components – individual property assets and replacement projects by location.
- ❖ We develop a component replacement cost and life-cycle analysis.
- ❖ Using our 30-year "Reserve Navigator", we create a unique funding model for your property.
- ❖ Our Reserve Specialist conducts an interactive working session with you to assess all expenditure and funding options, and arrive at a selected funding plan or alternate plans that are tailored to your community. Our on-board loan calculator can insert loan funding for specific projects directly into the overall funding plan, either with or without payback included in the reserve expenditure account.
- ❖ We digitally publish and transmit to you the complete reserve analysis with selected funding plans in Adobe .pdf format.

## **PERSONNEL**

All DMA reserve plans are completed by professional Reserve Specialists® certified by the Community Associations Institute (CAI). Site visits and plan reviews are executed by trained professionals in the design and construction industry. DMA's company profile and a listing of our professional staff and partners are attached to this proposal.

The Reserve Specialist in charge of your project will be Douglas Greene, RS, who is President of DMA Reserves and an architect with over 40 years of architectural project experience and 25 years of capital reserve analysis experience.

The site analysis will be completed by two local DMA reserve analysts - Richard Weinberg, an architect based in Falls Church, and William Ertel, a mechanical engineer based in Baltimore.



### **THE SITE VISIT**

ALL DMA Level I and Level II plans include on-site inspections. We will spend as much time as necessary on site to identify and document all assets and likely projects that should be included in your reserve account. In large communities, this will often include multiple day inspections. We document our inspections with photographs of all components observed, and those photographs are made available to the client upon completion of the project. We require access to locked or restricted areas that contain replaceable assets and will tour with management, staff or representatives as required.

### **"FACILITY MANAGEMENT" QUALITY SCHEDULE OF COMPONENTS**

DMA's Schedules of Components are the most extensive and complete in the industry. Our Reserve Specialist will document the known or estimated in-service date of each component and assess its condition as well as its projected remaining useful life. We break major components down into specific work items, and we group together components that would likely be combined in major repair projects. We do this so that you will be able to track your actual reserve expenditures against the budget model after completion of the study.

### **UPDATABLE PROFESSIONAL COST ESTIMATING**

Compare our cost estimating to other providers. Our professional experienced cost estimator has created our extensive cost data base, and is always adding to it for unique infrastructure or amenities on each new project. Your reserve plan is linked to our proprietary database so that we can update all costs in the plan every time we open it. This makes your reserve plan an ongoing management tool rather than a simple one-time report.

### **UPDATABLE ANNUAL EXPENDITURE SUMMARY**

We show you all projects budgeted for replacement in each year of our 30 year study. Actively linked to our Schedule of Components, this summary is updated any time we modify or update anticipated or actual reserve replacement projects. This is one of your main analytical tools in evaluating and updating your reserve spending and funding plans.

### **DMA'S RESERVE FUNDING NAVIGATOR AND LIVE WORKING SESSION**

The heart of DMA's service is our interactive 30-year Cash Flow funding model which will show you your community's reserve picture – from component replacement expectations to the impact of inflation on costs to alternative funding plans. We can track investments, special assessments, major capital projects, non-scheduled cash infusions, and most importantly – your community's actual replacement experience over time.

You have many options for managing your reserves in the best interest of your community, and the only way to maximize the value of this analysis is in our live working session where every idea can be tested with our interactive tools during the discussion. Often options come up that you would never have thought of in just reviewing a report. The best ideas from the working session become part of the final reserve plan. All of this is included in our fixed fee.

### **PROJECT DELIVERABLES**

The Schedule of Components, Annual Expenditure Summary and 30-Year Funding Model along with other charts and descriptive information are transmitted to you in draft form prior to the live Working Session, and in final form following the session. All spreadsheets are provided in Adobe.pdf format, which can be easily read on a computer, uploaded to your community website, or published as a report. We often use our site photographs during the working session, and digital copies of these can be made available to you upon completion of the project.

### **TYPICAL SCHEDULE – INITIAL PROJECT DURATION**

Project schedules vary depending on our current work and the scope of the project. Typically, we schedule our work based on the order in which we receive signed contracts. The project effort includes:

- ❖ Site Visit – typically scheduled within 30 days of receipt of the signed contract forms.
- ❖ Draft Analysis - typically delivered electronically within 45 - 60 days after the site visit.
- ❖ Working Session – scheduled by the Client subject to DMA's availability.
- ❖ Final Analysis - typically delivered electronically within 14 days after the Working Session.

### **PROFESSIONAL RESPONSIBILITY**

- ❖ DMA carries a Consultants Professional Liability Policy with a per-claim and aggregate limit of \$1,000,000. The policy is provided by Hiscox Inc.
- ❖ DMA also carries a Commercial General Liability Policy with limits of \$1,000,000 per each occurrence and \$2,000,000 General Aggregate and Workers Compensation limits of \$ 500,000. The policy is provided by Nationwide Mutual Insurance Company.

**TO RETAIN DMA FOR THIS SERVICE**

If you are interested in retaining DMA to perform this Level 1 Capital Reserve Study with Site Visit, including our Interactive services, we are providing you with our standard Contract for Service and General Conditions of Contract. Simply have the appropriate contracting officer for the Association sign the contract where indicated and return a signed copy to our office.

Please also see our attached proposal for our Interactive Reserve Management service which is available for all DMA Capital Reserve Studies. You may select that service at any time in years 2 through 4, following completion of the original study.

We appreciate the opportunity to furnish this proposal to you. If you have any questions or need additional information beyond what is included in this package, please let us know. Upon request, DMA can also conduct a sample on-line Working Session with you, which will show you a sample analysis and demonstrate the power of our interactive tools. We look forward to hearing from you.

Sincerely,  
DMA Reserves, Inc.

A handwritten signature in blue ink, appearing to read "Douglas L. Greene", is written over a faint, illegible printed name.

Douglas L. Greene, NCARB, RS  
President





# DMA WORKING SESSION

HOW DOES IT WORK?

## INTERACTIVE RESERVE ANALYSIS



### **ON-LINE**

DMA uses the internet service "GoToMeeting" to host our online working sessions. This service is easy to use. DMA sends a meeting invitation by e-mail, which contains a link to the meeting. All necessary software to conduct the meeting at your end is downloaded from the link, and you are instructed how to sign in and how to use audio. You may attend the online meeting as a group in a room that has wifi, or with a wifi "hotspot". All you need is a host computer connected to a flat-screen TV or a projector and screen.

Audio can be provided through the computer, through a microphone in the meeting room, or through a speaker phone – available on all smart phones.

Alternatively, all participants can sign on individually from their own computers, notebooks, or smart phones from wherever they are. In a group meeting, absent members can do this as well. Simply provide the link to any members who want to sign on individually.

### **ON-SITE**

For an additional fee stated in the proposal, DMA can attend a meeting in person at your property, management company office or another location. We can bring a TV or projector and screen if none is available at your site.

### **WHAT HAPPENS DURING THE WORKING SESSION?**

DMA's analyses are operational management tools – not mere reports. Our Reserve Specialist™ will explain how the analysis works, and then go through both the expenditure and funding plans with you. We can make changes to each plan in the meeting – correcting mistakes, adjusting priorities, setting goals, and reviewing alternate scenarios. Funding scenarios can include commercial loan options and special assessment options. Our funding plans are 30-year cash flow plans and include interest and inflation – both of which can be set in the meeting. The result is a funding plan that works for your community – not a generic solution.

Optional annual financial updates (Level III studies) also include an online working session (on-site at additional cost).

Reserve Specialist (RS)™ is a registered trademark of the Community Associations Institute (CAI)

DMA Reserves  
2302 E. Cary Street  
Richmond, Virginia 23223  
804.644.6404  
DMAreserves.com



# CONTRACT FOR SERVICES

**Date:** August 15, 2019  
**Client Name:** Parkfairfax Condominium Unit Owners Associat  
**Property:** Parkfairfax Condominium Unit Owners Associat  
**Represented by:** Mark Miller

## PROJECT

DMA will conduct a Capital Reserve Study, as defined in the attached Proposal for Services.

## CLIENT RESPONSIBILITIES

### 1. PROVIDE NECESSARY INFORMATION:

DMA's Proposal for Services is based on information that the Client has provided to us either in our website-based Proposal Request Form, your own Request for Proposal or information on the community contained in a previous reserve study provided by the Client. We rely on this information when we prepare our Capital Reserve Study. We reserve the right to amend this proposal and our Project Fee if the information that the Client provided is not accurate for the community currently and requires us to go beyond the scope of work that we have anticipated based upon that information. If this is an update of a previous reserve study prepared by DMA, and the scope of the reserves has changed materially since that study was prepared, the Client is responsible to provide us with information on the changes in scope.

DMA will incorporate and rely on information provided by the Client in completing both the physical analysis and financial analysis for this reserve study. This information includes:

- ♦ Identification of Client's fiscal year if other than the calendar year.
  - ♦ Most recent year-end reserve account balance.
  - ♦ Current year's budgeted contribution to the reserve account.
  - ♦ Current rate(s) of return over all reserve accounts or other investment instruments in which capital reserve monies are located.
  - ♦ Information on past, current or currently contracted reserve replacement projects, including project cost and date of replacement. Detailed information such as the name of the contractor, supplier or product(s) and any specific contracted scope of work, if available, will help us understand better what was done and how the cost was calculated.
  - ♦ For Condominiums - definition of units, common area and limited common area (typically from the Declaration) or a maintenance responsibility chart for Owner vs. Association.
  - ♦ Access to scale drawings (when available) of the community infrastructure (engineered site plans, utility plans, drainage plans, etc.) and/or building plans and elevations of buildings containing common elements.
- NOTE: Timely receipt of the above information is critical to the preparation of the study. DMA reserves the right at any time to suspend work on the project until we receive the information listed above.

### 2. PROVIDE REASONABLE ACCESS TO THE PROPERTY:

A DMA representative will contact you to set up a time when we can visit your property. We will need to be able to access any locked or restricted access areas that are part of, or that contain common area components. We encourage you to have an authorized representative meet us on site during this visit to provide background information about the community, show us components that may not be readily visible, and provide access to any restricted areas. If any components include decks, balconies, courtyards, etc. that are part of individual units, we recommend that you provide access to at least one representative example of each type if at all possible.

### **3. SCHEDULE AND ATTEND THE WORKING SESSION:**

As early as possible in the project, the date for the Working Session should be scheduled. The Working Session should be conducted within 120 days following DMA's issuance of the draft analysis. These sessions are typically scheduled as part of a board meeting, or a special meeting of the board, or a financial committee meeting. They can be held at other times as desired by the Board, and members can attend at one location or individually at their own Wi-Fi connected PC's, laptops or tablets, along with an audio connection, which can be any telephone or cell phone. We recommend that the Working Session be attended by the Board of Directors and/or committee members, management, and any appropriate maintenance staff.

NOTE: DMA does not support the validity or accuracy of the analysis until a Working Session has been conducted and the final report issued. In the event that the client fails to hold the Working Session within 120 days of delivery of the Draft Working Reserve Analysis, the draft shall complete the services provided under the Project Fee (See Invoicing and Payment terms below). The Working Session may still be scheduled at a later date with issuance of a final report, but will be charged as an additional service.

### **LIMITATIONS OF SERVICE**

The Site Visit and assessment of components is limited to (1) visual inspections, (2) information from you about your service history with each component, (3) the age of each component, and (4) information that may be provided by contractors who regularly service or maintain certain components. No sub-surface investigations, disassembly, or testing is conducted. All component valuation is based only on our visual inspection and any other information provided to us by the Association. We will ask for any information that you have on previous replacement or major repair work.

Roofs or other hard-to reach areas will be accessed only by safe means (as determined by the DMA representative) provided by the Client. DMA provides no ladders or other special equipment to access difficult areas, which will be observed from ground locations when other access is not available. DMA will not, as part of this work, access confined spaces (such as crawl spaces or elevator pits) or areas containing hazardous material storage or containment.

### **SCHEDULE**

DMA does not guarantee a completion schedule as part of this contract, unless a written agreement is added for a specific schedule required by the client. For reference purposes only, we have illustrated a typical project duration in the Proposal for Services.

### **INVOICING AND PAYMENT**

We will invoice monthly up to 90% of the fee at the delivery of the first draft analysis prior to the Working Session, and the remaining 10% of the fee after delivery of the final Working Reserve Plan or within sixty (60) days after the delivery of the draft analysis, whichever occurs first. Full payment of the fee does not eliminate your right to schedule your working session up to within four (4) months of issuance of the draft report.

### **AGREEMENT TO PURCHASE SERVICES**

I agree to retain DMA to provide services for the above captioned project in accordance with the Proposal for Services, this Contract for Service and the attached General Conditions of Contract:

**Printed Name:**

**Title:**

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**Signature**

**Date:**

# GENERAL CONDITIONS OF CONTRACT

## **DMA**

Hereinafter, DMA Reserves Inc. (DMA), shall include its employees, officers, directors, agents, insurers, partners, and consultants.

## **ENTIRETY OF THE AGREEMENT**

The Client and DMA agree that the "Agreement" consists of (1) the Proposal for Services which sets forth the scope of services that DMA will furnish, the project fee and additional fees, (2) the Contract for Service, which includes Client responsibilities, project limitations, and schedule, (3) these General Conditions of Contract, (4) the Billing Rates for Professional Services attached hereto, and (4) any letter or letters, electronic communications, emails or other forms of communication, from DMA to the Client, setting forth any additional terms and conditions for DMA's work. These documents and forms of communications shall constitute the entire Agreement between the parties, the terms of said Agreement shall remain in effect throughout the term of engagement.

## **FEES AND EXPENSES**

DMA's basic fee in this matter shall be the amount set forth in any Proposal for Services or any letter or letters from DMA to the Client amending the fee relative to DMA's work. DMA's basic fee for the various phases of any of DMA's work may be quoted as a Fixed Fee amount or may be based on Time, Expenses and Materials as incurred.

### **Fixed Fee**

If a Fixed Fee is quoted for a particular phase of DMA's work then a reasonable allowance has been included for travel expenses and out of pocket expenses associated with site visits and travel to meeting locations. Extraordinary expenses are not included in the lump sum fee and will be billed as incurred in accordance with our Billing Rates for Professional Services attached herewith. Extraordinary expenses include but are not necessarily limited to:

- ♦ Additional car mileage and any other travel expenses to and from the site and meeting location beyond those site visits and meetings offered and specified in the Proposal letter, and requested by the Client.
- ♦ Outside services and special consultants providing services not specified in the scope of services, as approved by the Client.
- ♦ Specialized equipment and supplies as approved by the Client.
- ♦ Work performed by DMA beyond any specified Scope of services set forth in any Proposal letter(s) shall be considered Extra Services and the costs incurred will be billed as a Time, Expenses and Materials Fee.

### **Time, Expenses and Materials Fee**

If a Time, Expenses and Materials Fee is quoted for any particular phase of DMA's work, then the costs incurred shall be based on the Billing Rates for Professional Services attached hereto as well as expenses incurred in the process of producing DMA's work.

## **BILLING RATES**

The Billing Rates for Professional Services shall be in effect until December 31, 2019. DMA may adjust the rates effective January 1 of each year thereafter and shall apply such adjusted rates to any of DMA's work in progress after that time.

## **INVOICES AND STATEMENTS**

Invoices are due and payable within 30 days of the invoice date. Invoices not paid within 30 days will incur interest at the rate of 1 ½ percent per month on the unpaid balance of the invoice. All fees incurred by DMA in collecting past due amounts are to be paid by the Client. These fees include but are not limited to attorney's fees in an amount of 33% of any outstanding balance and any litigation expenses. Any receipt or delay in payment shall not be contingent upon receipt of payment to the Client from third parties unless specifically agreed to in writing by DMA. A statement of account will be provided to the Client upon request and periodically as the need arises.



### **PAST DUE ACCOUNTS**

The Client will be in default if the Client fails to make any payment when due. Upon default, the Client agrees to pay the past due amount owed to DMA, including any accrued past due penalty charges, together with reasonable attorney's fees and any litigation expenses and/or costs incurred by DMA in collecting any past due amount owed by the Client. Any and all of DMA's work including drawings, specifications, reports, calculations, and design notes in the possession of the Client, agencies, or any other party having an interest in DMA's work, shall be returned to DMA or otherwise subject to confiscation. DMA expressly reserves the right to seek legal or injunctive relief for the purpose of having DMA's work product returned in the event of default.

### **DISPUTE OF CHARGE**

If the Client disputes any of DMA's charges, the Client shall give notice in writing of such disputed charges to DMA within 15 days of the date of the invoice. If the Client fails to provide such notice, the Client shall be precluded from seeking any legal or injunctive relief for those charges. Those charges not in dispute shall otherwise be due and payable in accordance with the provisions for "Invoices and Statements" as set forth herein. The Client and DMA shall work in good faith to resolve their differences with regard to the disputed charges. If they are unable to resolve their differences within 15 days after the date of the Client's notice, then DMA shall have the right to suspend or to terminate service and seek legal or injunctive action against the Client for payment in accordance with the provisions for "Past Due Accounts" as set forth herein.

### **CLIENT COOPERATION**

Client acknowledges and agrees that its cooperation and the cooperation of its employees are essential to the successful provision of Service as described herein. Client agrees to provide appropriate and reasonable resources to DMA to facilitate successful performance by DMA.

### **TERMINATION**

The Client may terminate DMA's services at any time followed immediately by written notice to DMA. Likewise, DMA reserves the right to discontinue service and terminate the Agreement between the parties at any time followed immediately by written notice to the Client. In either case, termination shall be effective upon receipt of the notice. Services rendered up to the date of receipt of the notice of termination shall be billed as incurred together with expenses in accordance with the Billing Rates for Professional Services attached hereto. The Client agrees that DMA has the right to immediately terminate services or in lieu of termination, discontinue or suspend services if the Client fails to make any payment when due. The Client further agrees to waive any claim against DMA and to indemnify, defend, and hold harmless DMA from and against any and all claims arising from DMA's suspension or termination of services.

### **SOFTWARE PROGRAMMING**

DMA makes no offer to provide or sell any computer software programs or functional arguments or programming as part of a commercially available program to the Client or any third party as part of the Agreement.

### **OWNERSHIP OF REPORTS, ELECTRONIC FILES, DATA, MEDIA, SOFTWARE PROGRAMS AND OTHER RELATED MATERIALS**

Reports, electronic files, data, media, software programs and other related materials are instruments of professional service. Therefore, the aforementioned are considered the intellectual property of DMA and shall remain the exclusive property of DMA and, where appropriate, shall be protected and copyrighted under the laws of the United States with all rights reserved. In the event of default of payment as defined above, the Client shall immediately return all reports, electronic files, data, media, software, programs, and other related materials to DMA. The Client may distribute pdf. or physically published paper reports generated from this work to management and their members in a mandatory membership Association, Condominium, Cooperative or other membership organization, and may post such reports on client websites for use by their members. Reports may also be shared with Client's outside CPA's and Attorneys in connection with this project. Distribution of reports, electronic files, data, media, software programs, written and electronic communications, and other related materials produced by DMA under the Agreement to ANY OTHER THIRD PARTIES is strictly prohibited without the express written consent of DMA.

### **USE OF ELECTRONIC FILES, MEDIA, SOFTWARE AND PROGRAMS**

Electronic files, media, software and programs are provided solely as a convenience to the Client. DMA shall not be responsible for any viruses that may be transmitted with the electronic files, media, software or programs. DMA shall not be responsible for any data erosion, erasure, alteration or failure of electronic files, media, software or programs that may occur at the time of transmission or over time. DMA makes no warranty as to the compatibility of the electronic files, media, software or programs with any operation system or programs.

### **NOTICES**

Any notice required or permitted by this Agreement shall be in writing and shall be made by nationally recognized overnight courier service or by certified mail (postage prepaid, return receipt requested).

### **TERM**

The term of engagement shall commence on the date when the Client has executed the Agreement for Services and shall continue until DMA has been paid in full for all services rendered as set forth in the Agreement, or until Termination occurs as defined in this Agreement.

### **FORCE MAJEURE**

If, at any time during the term of this Agreement, a party is delayed in or is prevented from or hampered or interrupted or interfered with in any manner whatever in fully performing its duties hereunder by reason of any present or future statute, law, ordinance, regulation, order, judgment or decree, whether legislative, executive or judicial (whether or not valid), act of God, earthquake, flood, fire, epidemic, accident, explosion, casualty, lockout, boycott, strike, labor controversy (including but not limited to threat of lockout, boycott or strike), riot, civil disturbance, war or armed conflict (whether or not there has been an official declaration of war or official statement as to the existence of a state of war), invasion, occupation, intervention of military forces, act of public enemy, embargo, delay of a common carrier, inability without fault on the party's part to obtain sufficient material, labor, transportation, power or other essential commodity required in the conduct of its business; or by reason of any other cause or causes of any similar nature (all of the foregoing being herein referred to as an "event of force majeure"), then the party's obligations hereunder shall be suspended as often as any such event occurs and during such periods of time as such events exist and such non-performance shall not be deemed to be a breach of this Agreement; provided however, that any event of force majeure that continues for a period of more than fifteen (15) days shall give the other party the right to terminate this Agreement without cause as provided herein.

### **INDEPENDENT CONTRACTOR**

It is understood and agreed that the services which DMA shall provide hereunder shall be in the capacity of any independent contractor and not as an employee or agent of Client. DMA is not in any manner authorized or empowered herein to conduct business under the name of or for the account of Client; or make any representations, promises, or commitments on Client's behalf; and this Agreement shall not be deemed to create any partnership, joint venture, or relationship of principal and agent or of employer and employee between Client and DMA.

### **SUCCESSOR AND ASSIGNS**

DMA and the Client agree that each is hereby bound and that the successors and assigns of DMA and the Client are hereby bound to the Agreement and all covenants, conditions and obligations set forth in the Agreement documents. Neither DMA nor the Client may assign, sublet, or transfer any rights under or interest in the Agreement without the written consent of the other, except to the extent that any assignment, subletting, or transfer is mandated or restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Agreement.

### **LIABILITY AND FIDUCIARY RESPONSIBILITIES**

DMA agrees to indemnify and hold Client harmless from and against any and all claims, demands, suits, liabilities, losses, damages, expenses or injuries (including attorney's fees) in any way resulting from the acts or omissions of DMA, its employees or agents in the performance of this Agreement. Client agrees to indemnify and hold DMA harmless from and against any and all claims, demands, suits, liabilities, losses, damages, expenses or injuries (including attorney's fees) in any way resulting from the acts or omissions of Client, its employees or agents in the performance of this Agreement.

### **INSURANCE**

DMA carries a Consultants Professional Liability Policy with a per-claim and aggregate limit of \$1,000,000. The policy is provided by Hiscox Inc. DMA carries a Commercial General Liability Policy with limits of \$1,000,000 per each occurrence and \$2,000,000 General Aggregate and Workers Compensation limits of \$ 500,000. The policy is provided by Nationwide Mutual Insurance Company.

## BILLING RATES FOR PROFESSIONAL SERVICES

Effective January 1, 2019

### **PERSONNEL ASSIGNMENTS**

Personnel assignments to projects will be based on the level of professional and technical responsibility required for the project. Every effort will be made to assign only the appropriately qualified personnel. On some occasions, due to the lack of availability of subordinate personnel, senior personnel may have to be assigned in order to meet schedules and deadlines.

### **PERSONNEL RESOURCE**

### **HOURLY RATE**

Senior Partner	\$180.00
Registered Architect/Reserve Specialist	\$150.00
Registered Professional Engineer/Reserve Specialist	\$150.00
Reserve Specialist	\$120.00
Site Representative – Analyst	\$112.50
Administrative/Bookkeeping	\$ 75.00
Clerical	\$ 50.00

**Direct Expert Testimony and Appearances for Mediation, Arbitration, Legal Depositions & Trial: Rates are double for any classification.**

### **REIMBURSABLE EXPENSES**

### **COST RATE**

Printing and Reproduction Services	Direct Cost
Shipping and Special Delivery	Direct Cost
Fees and Permits	Direct Cost
Equipment and Supplies	Direct Cost
Outside Services and Special Consultants	Direct Cost
Travel	
Mileage	\$0.58 per mile
Out of Town per Diem (outside 50 miles from office)	
One Day (per person)	\$40.00 per day
Overnight (per person)	\$140.00 per night

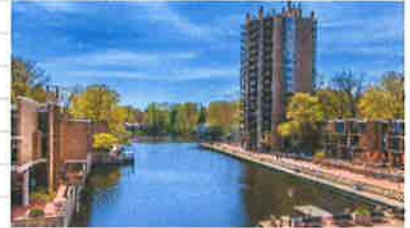


## RECENT DMA RESERVE STUDIES - LARGE COMMUNITIES

DMA Reserves Inc. is a leading reserve study provider for communities of all sizes and types, and the only reserve provider with an interactive process that involves the client directly in the development of your funding plan(s). A list of recent large-scale community clients is provided below. Feel free to contact any of these relative to DMA services.

### The Reston Association

Association Name:	The Reston Association
Community Location / Address:	12001 Sunrise Valley Drive, Reston, VA 20191
Community Size (Number of Units):	22,047
Community Type:	One of largest planned communities in the United States
Management:	Self Managed
Represented by:	Mr. Chris Schumaker, Sr. Capital Projects Operations Manager
Telephone and E-mail:	703-465-6505 cschumaker@reston.org



### Montgomery Village Foundation

Association Name:	Montgomery Village Foundation
Community Location / Address:	10120 Apple Ridge Road, Montgomery Village, MD 20886
Community Size (Number of Units):	12,098
Community Type:	Large Master Planned Community, 7 Pools and Clubhouses
Management:	Self Managed
Represented by:	Mr. Daniel Salazar, CPA, Chief Financial Officer
Telephone and E-mail:	240-243-2332 dsalazar@mvf.org



### Ocean Pines Association

Association Name:	Ocean Pines Association, Inc.
Community Location / Address:	239 Ocean Parkway, Ocean Pines, MD 21811
Community Size (Number of Units):	8,400
Community Type:	Large Master Planned Community, Golf Course, Marinas, Clubs
Management:	Self Managed
Represented by:	Mr. John Bailey, General Manager
Telephone and E-mail:	410-641-7717 jbailey@oceanpines.org



### Greenbelt Homes

Association Name:	Greenbelt Homes, Incorporated, A Cooperative
Community Location / Address:	1 Hamilton Place, Greenbelt, MD
Community Size (Number of Units):	1600
Community Type:	Freestanding and attached homes - membership coop.
Management:	Self Managed
Represented by:	Mr. Eldon Ralph, General Manager
Telephone and E-mail:	301-474-4161 ext. 148 e.ralph@ghi.coop



### Kiln Creek

Association Name:	Kiln Creek Homeowners Association
Community Location / Address:	970 Brick Kiln Boulevard, Newport News, VA 23602
Community Size (Number of Units):	2918
Community Type:	Large Master Planned Community, Golf Course, Lakes, Hotel
Management:	Self managed
Represented by:	Laura L. Camrlike, CMCA, AMS, Director of HOA Operations
Telephone and E-mail:	757-877-9835



**Kiawah Island**

Association Name:	Kiawah Island Community Association
Community Location / Address:	Kiawah Island, SC
Community Size (Number of Units):	4000
Community Type:	Mixed Use Residential, Golf and Resort Community
Management:	Self Managed
Represented by:	Ms. Shannon White, Director of Operations
Telephone and E-mail:	866.226.1770 / shannon.white@kica.us

**Ocean Reef Community Association**

Association Name:	Ocean Reef Community Association
Community Location / Address:	24 Dockside Lane, Key Largo, FL 33037
Community Size (Number of Units):	1900
Community Type:	Large Master Planned Community
Management:	Self Managed
Represented by:	Ms. Kaska Connolly, Controller
Telephone and E-mail:	305-367-7358 kconnolly@orcaareef.com

**Lake Caroline**

Association Name:	Lake Caroline Property Owners Association
Community Location / Address:	75 Saratoga Cove, Ruther Glen, VA
Community Size (Number of Units):	1581
Community Type:	Large Master Planned Lake Community
Management:	Self Managed
Represented by:	David A. Rababy, Executive Manager
Telephone and E-mail:	804.448.3400 exec.manager@lakecaroline.net

**Massanutten Village**

Association Name:	Massanutten Property Owners Association
Community Location / Address:	3980 Massanutten Dr., Massanutten, VA 22840
Community Size (Number of Units):	1300
Community Type:	Single Family Detached and Commercial
Management:	Self-Managed
Represented by:	Carter Miller, AMS, Administrator, COO
Telephone and E-mail:	540.289.9466 admin@massanuttenvillage.com

**Fawn Lake Community Association**

Association Name:	Fawn Lake Community Association
Community Location / Address:	11300 Longstreet Drive, Spotsylvania, VA 22551
Community Size (Number of Units):	1400
Community Type:	Large Master Planned Lake Community and Golf Course
Management:	Self Managed
Represented by:	Ms. Helen Bradley
Telephone and E-mail:	540-972-1000 Hbradley@NTSDEVCO.com







# DMA Reserves Inc. Company Profile

## INTERACTIVE RESERVE ANALYSIS



DMA Reserves has been in business providing reserve studies since 1994. In 2010 DMA pioneered the *Interactive Reserve Analysis* which lets community leaders participate directly in determining their own reserve funding solutions. President, Douglas L. Greene, RS, a Licensed Architect and Reserve Specialist based in Richmond Virginia oversees a growing cadre of reserve professionals in several states to most effectively serve our clients. DMA is currently producing between 150 and 200 studies per year.

DMA maintains offices in Richmond and Falls Church, Virginia and in Auburn Alabama. In addition to these offices we have business partners in Nashville, TN, Charleston, SC, Towson, MD, Hampton NH and Frankford DE. DMA is currently serving clients in 14 states and the District of Columbia.

Contact DMA today for in-person or online demonstrations for management companies or association Boards, and for sample reserve studies.



DMA Reserves  
2302 E. Cary Street  
Richmond, Virginia 23223  
804.644.6404  
DMAreserves.com

Member – CAI Chapters: Central Virginia Chapter • Chesapeake Chapter • Illinois Chapter • Kentucky Chapter • North Carolina Chapter • New Jersey Chapter • Pennsylvania / Delaware Chapter • South Carolina Chapter • Southeast Virginia Chapter • Southwest Virginia Chapter • Tennessee Chapter • Washington Metro Chapter • Florida Gulf Coast Chapter

## DMA RESERVE SPECIALISTS AND PROFESSIONAL ASSOCIATES

### **Douglas L. Greene, NCARB, RS – President, Reserve Specialist, Richmond VA:**

Registered Architect since 1977, Bachelor of Architecture, Kent State University. CAI certified Reserve Specialist. Past President, CAI – Central Virginia Chapter. A practicing architect for over 40 years, Mr. Greene formed DMA in 1994 and has been producing capital reserve studies for over 28 years.

### **Roy L. Kalista, RS – Reserve Specialist / Project Manager, Auburn AI:**

Bachelor and Masters of Architecture, Florida A&M University. CAI certified Reserve Specialist. Current President, CAI – Central Virginia Chapter. Mr. Kalista joined DMA in 2012 and has been a Reserve Specialist since 2014.

### **David L. Herring, RS – Reserve Specialist / Project Manager, Richmond VA:**

Bachelor of Arts in Interior Design, Virginia Commonwealth University; Former Director of Single Family Development, Richmond Housing Coalition. Mr. Herring, who also has a Real Estate Broker license, joined DMA in 2016 and has earned his Reserve Specialist Designation from CAI in 2018.

### **Edmundo Tunnermann, LEED AP – Reserve Analyst, Richmond, VA:**

Bachelor of Architecture, University of the District of Columbia. Mr. Tunnermann has a broad background in architectural design, construction management and facility surveys both in the United States and internationally. He joined DMA in 2019 and is an on-site Reserve Analyst in Virginia, Washington DC and Maryland.

### **Richard Weinberg, RA – Reserve Analyst, Falls Church, VA:**

Bachelor of Science in Architecture, Georgia Institute of Technology. Mr. Weinberg is a practicing architect in Washington DC and joined DMA in 2018. He is an on-site Reserve Analyst in Washington DC, Virginia and Maryland.

### **Missy A. Culley – Director of Administration, Richmond, VA:**

Ms. Culley joined DMA in 2011 and oversees all administrative functions and bookkeeping from the Richmond office.

**James L. Kelley, Reserve Systems Manager, Falls Church VA:** Mr. Kelley oversees the information technology central to DMA's interactive studies, cost data management, the DMA website.

### **Dale Cardwell, PE – Reserve Analyst, Charleston, SC:**

Bachelor of Science in Civil Engineering, North Carolina State University. Vice President of South Carolina Chapter, American Society of Civil Engineers. Mr. Cardwell has 35 years of experience in design, construction and condition assessments for major clients in the United States and overseas. He joined DMA in 2014 as a Business Partner and on-site Reserve Analyst from Charleston, SC.

### **Alan Dooley, Architect, LEED AP – Reserve Analyst, Nashville, TN:**

Bachelor of Architecture, University of Tennessee. Mr. Dooley, who has over 30 years of experience as a practicing Architect, joined DMA in 2014 as a Business Partner and on-site Reserve Analyst for DMA from Nashville, TN.

### **William Blair Ertel, Jr., BSME – Reserve Analyst, Baltimore MD:**

Bachelor of Science in Mechanical Engineering, Johns Hopkins University. Mr. Ertel, who has 35 years or experience as a construction engineer, joined DMA in 2017 as a Business Partner and on-site Reserve Analyst for DMA from Baltimore, MD.

### **Rob Plitko, Jr., P.E. – Reserve Analyst, Frankford, DE:**

Bachelor of Science in Civil Engineering, University of Delaware. Mr. Plitko who is a practicing Professional Engineer in Delaware, Maryland and Virginia joined DMA in 2018 as a Business Partner and on-site Reserve Analyst for DMA in Delaware, Pennsylvania and Maryland.

### **John M. Reddy, BSCE – Reserve Analyst, Hampton, NH:**

Bachelor of Science, Civil Engineering, University of Massachusetts. Mr. Reddy who is a professional building consultant in New Hampshire and Massachusetts, joined DMA in 2019 as a Business Partner and on-site Reserve Analyst for DMA in the New England states.

### **Esmond, T. McKoy, SR. – Site Inspector, Richmond, VA:**

Bachelor of Science, Chemistry, Virginia Commonwealth University. Mr. McKoy, who has a 24 year background in environmental assessment of sites and facilities in Virginia, joined DMA in 2019 as a Business Partner on site inspector in Virginia.



August 13, 2019

Mr. Mark Miller, General Manager  
Parkfairfax Unit Owners Association  
3360 Gunston Road  
Alexandria, VA 22302



Dear Mr. Miller:

Thank you for the opportunity to present Parkfairfax Unit Owners Association with a proposal for a Reserve Study Update, with Site-Visit. At Reserve Advisors, we're dedicated to providing peace of mind to boards, homeowners and their families by delivering a custom-comprehensive reserve study.

Our **easy-to-use reserve study system** provides a more effective way to manage your property. You will receive...

- A concise **Executive Summary** and **5-Year Outlook Table** to communicate near-term expenditures and funding recommendations to homeowners.
- **Property-specific recommendations** that prioritize the most effective use of reserve funds for you.
- **Spreadsheets with formulas** to easily evaluate what-if replacement schedules and reserve contributions.
- **Free Support** - Our team of multi-disciplined engineers are dedicated to making your experience of using the reserve study exceptional with ongoing assistance.

The following pages provide insight and the distinct reasons why communities rely on Reserve Advisors for their reserve study needs.

Please sign and return the [Confirmation of Services](#) page to get started.

Sincerely,



Michelle Baldry PE, PRA, RS  
Northeast Regional Executive Director  
MBaldry@reserveadvisors.com  
[See our report overview](#)

P.S. Our knowledge of your property and ability to observe the rate of deterioration, as well as preventative maintenance steps implemented since your last reserve study ensures the most accurate replacement schedule and funding needs.



## Reserve Study Benefits

### For Boards

- Fulfills fiduciary responsibility with expert advice
- Supports board decisions on replacement projects
- Saves hours in budget meetings for replacements
- Excel spreadsheets with formulas provide ability to create what-if scenarios for budgeting purposes

### For Homeowners

- Ensures fair reserve contributions
- More consistent household budgeting
- Reduces long-term homeowner cost of maintaining the common property
- Curb appeal increases demand for homes



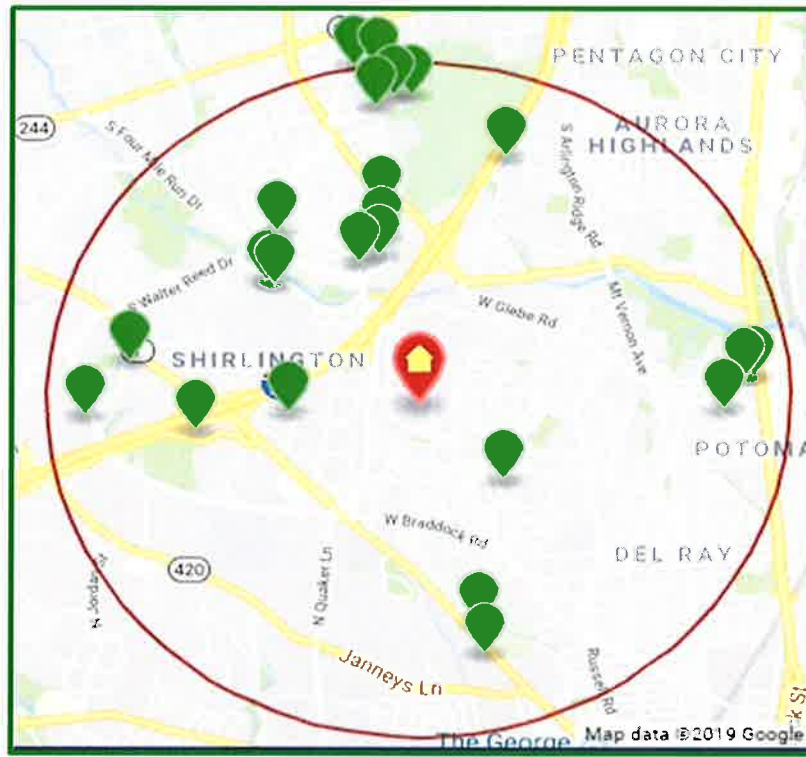
## Distinct Reasons Communities Choose Reserve Advisors

- ✓ **The History of Your Property** is well documented in our last reserve study. We observe the rate of deterioration and preventative maintenance steps implemented between studies to ensure your reserve study update includes the most accurate timing of capital projects. We will recommend appropriate funding levels based on our updated property condition analysis and updated replacement costs.
- ✓ **Easy to use Reports** that provide valuable insight to current and future owners. An executive summary promoting management's ability to communicate near-term expenditures, funding recommendations and other high level information to various stakeholders.
- ✓ **Dedication and Commitment to You** with an exceptional experience during and after the study. We listen to you and create a custom reserve study with your objectives in mind. Our staff of multi-disciplined engineers is dedicated to ensuring your satisfaction. We're always available with free support after the study is complete.
- ✓ **Comprehensive Reports** solve problems before they escalate. We include:
  - Thorough condition assessments that prioritize your near-term projects
  - Best practices and technical illustrations to better understand project scope and compare contractor bids
- ✓ **Knowledge of Local Replacement Costs** is the basis for adequate, not excessive, reserve budgets.
- ✓ **Multi-disciplined Engineers** – With more than 30 engineers, we match our expertise with your community rather than a "one size fits all" engineer.
- ✓ **Unbiased Recommendations** - Your best interest is our only goal. We don't provide design or project management services, nor do we profit from your capital projects.
- ✓ **Unmatched Local Experience** – We know the local costs and conditions that affect your community. Visit our map of our experience near your community on the following page.

[Download our report overview](#)



Red represents your property, Green represents our clients.  
References available upon request.



**Name**

Westminster Presbyterian Church  
Fairlington Mews Condominium Association  
Shirlington Crest Homeowners Association  
Bowmans Hill Community Association  
Valley Heights Condominium  
Animal Welfare League of Arlington  
Windgate of Arlington, Village II  
The Townes of Shirlington Condominium  
Park Place: A Condominium Unit Owners Association  
Concord Mews Condominium Unit Owners Association  
Eddington Terrace Owners' Association, Inc.  
Forest Hills Community Association  
King's Cloister Homeowners Association  
Northampton Place Condominium  
The Townes at Potomac Yard  
Preston Town Residences Association  
Arlington Court Condominium, Inc.  
Highpointe at Stonegate Foundation, Inc.  
The Preston Condominium Unit Owners Association  
Arlington Village Courtyards Condominium Unit Owners Association  
Fairway Village Condominium Association, Inc.  
Arlington Village Townhouse Association  
Commons of Arlington Condominium Unit Owners Association

**City**

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## Using Your Reserve Advisors Study Has Never Been Easier

We listened and responded to our clients with three tools to quickly access and use your custom-comprehensive reserve study.

- ✓ **The Report** – Comprehensive and Customized to Your Community
  - One-Click to read online
  - Executive Summary communicates key findings and recommendations **at a glance**
  - Flip through your report copy which includes panoramic 11" x 17" spreadsheets
  - Helps board planning with a prioritized capital project schedule
- ✓ **The Numbers** – Always Quick and Easy
  - One-Click to open your Expenditures & Funding Plan spreadsheets
  - Print your spreadsheets on any printer in panoramic multi-page format
- ✓ **Easy Planning** – Your reserve study includes:
  1. **Excel<sup>TM</sup> spreadsheets with formulas** for what-if scenarios
  2. **ForeSite<sup>TM</sup>** a cloud-based software solution
    - a. Store your photos and project documents
    - b. Record comments and costs of your actual capital projects
    - c. Optionally, subscribe to **ForeSite<sup>TM</sup> Plus** for multiple users to collaborate online, creating unlimited replacement and funding scenarios
    - d. Full support with Webinars and Tutorials

**ForeSite<sup>TM</sup>** brings everything together as individual board members can collaborate, comment, make changes and plan for the future in one place from anywhere.



**FORESITE<sup>TM</sup>**  
Tracking Your Past. Forecasting Your Future.

### Our Commitment to You



John Poehlmann and Theodore Salgado are the strategic leaders of Reserve Advisors. They've provided tens of thousands of comprehensive reserve studies for communities across America and abroad for over 25 years.

Collectively, John and Ted have lived in and served community associations for decades. They've served on CAI's (Community Associations Institute) national Board of Trustees and as a past President of APRA (the Association of Professional Reserve Analysts), respectively. Both were instrumental in establishing CAI's National Standards for Reserve Study providers.



Michelle Baldry PE, PRA, RS  
Northeast Regional Executive  
Director

*We deliver.* In all we do, we go the extra mile for you. Our core values are integrity, customer service, professionalism, accountability and technical quality. Our employees are hard-working individuals who value their client relationships and put great effort and dedication into providing the highest level of satisfaction to our clients.

As we have since 1991, Reserve Advisors will continue to use our values, people and services to provide reserve studies that help secure the financial health of communities and peace of mind to their homeowners.

Parkfairfax Unit Owners Association comprises 1,684 homes within 285 buildings in Alexandria. The specific property to be included in your custom-comprehensive reserve study includes:

**Exterior Building Elements**

- Flat & Sloped Roofs including Roofing Assembly
- Gutters & Downspouts (includes Gutter Guards)
- Exterior Wall Finishes
- Light Fixtures
- Shutters
- Crawl Spaces including Ventilation
- Stoops
- Windows & Doors (Common Areas)

**Additional Building Elements**

- Fitness Room including Equipment
- Rental and Staff Units including Kitchen & Restrooms (9)
- Plumbing & Mechanical Systems
- Laundry Rooms
- Water Heaters
- Electrical Systems
- Smoke Detectors

**Clubhouse/Management Office Elements**

- Roofs including Assembly
- Exterior Wall Finishes
- Windows and Doors
- Interior Finishes, Fixtures and Furnishings
- Fitness Room
- Office
- Plumbing, Mechanical and HVAC Systems

**Site Components**

- Pool Houses (3)
- Pools including Fence, Deck, Lighting, Mechanicals & Furniture (3)
- Wading Pools (2)
- Tennis and Basketball Courts (8)
- Playgrounds (9)
- Pavilion
- Restroom Building
- Streets & Curbs
- Parking Areas
- Catch Basins
- Subsurface Utilities
- Sidewalks
- Landscaping
- Retaining Walls
- Fences
- Signage

**Maintenance Facilities**

- Roofs including Assembly
- Exterior Wall Finishes
- Main Office Building Interior Finishes
- Plumbing & Mechanical Systems
- Information Technology Equipment
- Security System
- Equipment including Tractors, Vehicles, etc.



Parkfairfax Unit Owners Association Reference Photographs:





## RESERVE STUDY PROVIDER CHECKLIST

### YOUR REPORT INCLUDES:

- |                                     |                          |                          |   |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Executive summary of key findings and list of prioritized near-term projects                        |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 30-Year expenditure forecast derived from actual local costs, not standardized information          |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Project-specific best practices that provide in-depth information to support board decisions        |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Element-specific opportunities to save money through cost-effective alternative replacement options |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Detailed photographs documenting the condition of every reserve element                             |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Condition assessments that identify elements in need of repair vs replacement                       |

### EASE OF USE

- |                                     |                          |                          |   |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Easily print expenditure and funding plan spreadsheets in panoramic multi-page format   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Quickly create what-if scenarios with Excel spreadsheets that contain built-in formulas |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Cloud-based software, allowing for easy remote collaboration among your board members   |

### STAFF'S QUALIFICATIONS

- |                                     |                          |                          |   |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Only uses engineers who are committed to the highest industry standards, as shown by their Reserve Specialist (RS) and/or Professional Reserve Analyst (PRA) designations |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Specializes in prioritizing capital projects and funding needs based on your individual goals   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Always available to discuss your reserve study anytime in the future at no additional cost  |

### FIRM'S QUALIFICATIONS

- |                                     |                          |                          |   |
|-------------------------------------|--------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Offers local experience, utilizing actual project costs to provide a basis for realistic reserve budgets  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Comprises over 30 engineers from multiple engineering disciplines to ensure matching the appropriate background and expertise with your community association needs       |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | With over 25 years of expertise in the community association industry, has the knowledge to identify any common element issue and make recommendations for best practices |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | No real or perceived conflict of interest – An independent consultant that does not manage or profit from your replacement projects                                       |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | All reports are reviewed by a team of senior engineers to ensure the utmost quality   |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Provides high client satisfaction ★★★★★ 964 Reviews   |

**COLLABORATE.  
CREATE.  
STORE & SHARE.**

**FORESITE**<sup>TM</sup>  
Tracking Your Past. Forecasting Your Future.



All our reserve studies now include **ForeSite Basic**.



- ✓ Secure, 24/7 online access to your original reserve study for 7 years.
- ✓ Export and print your study.
- ✓ Add notes and comments.
- ✓ Store project bids, contracts and photos.
- ✓ Receive unlimited support for 10 registered users.
- ✓ Get 60 days of free access to ForeSite Plus. Each user can create and print multiple "what if" scenarios.

### Upgrade to **ForeSite Plus**...

All the  
features of  
**Basic** and  
**MORE!**



- ✓ Answer all your questions with the ability to create, print and save unlimited "what if" scenarios.
  - Change replacement timing, costs or quantities.
  - Reduce reserve contributions.
  - Raise the interest rate.
- ✓ Designate an approved scenario to guide your community.
  - Facilitate budgeting and reserve expenditure discussions.
  - Track actual capital projects.
  - Improve communication and streamline meetings.
  - Easily share information with new board members.

The benefits of ForeSite Plus add up.



**Confirmation of Services for Parkfairfax Unit Owners Association**

\_\_\_\_ **Reserve Study Update, with Site-Visit** for an investment of **\$9,750** (includes all expenses)



**Report** ([See our report overview](#))

- Electronic PDF Report with 30-year Reserve Expenditure and Funding Plan tables for printing in 8 1/2" x 11" panoramic multi-page format on *any printer*
- Excel® spreadsheet of Reserve Expenditures and Funding Plan with formulas for "what-if" alternative scenarios



**Support**

- We listen and respond to your questions and suggestions to create a custom report
- Meeting with our engineer on the day of our visual property inspection
- Unlimited video/teleconference support with our engineer during and after reserve study delivery



**ForeSite™ Basic** – Access your reserve study and Excel spreadsheets online, store photos and project documents, record comments and project costs. Also receive a free 60-day trial to [ForeSite Plus](#).

\_\_\_\_ One (1) Bound Report hard copy (no charge); Additional copies at \$75 ea. (indicate quantity \_\_\_\_ )


\_\_\_\_ **ForeSite™ Plus** 3-year subscription empowers multiple users to create, share and collaborate with unlimited models and scenarios for **\$975** per year

\_\_\_\_ **Full Reserve Study, with Site-Visit** of **\$14,000\*\*** which includes all expenses. This service includes the Report, Support and ForeSite™ Basic listed above.

*\*\*This option is **not recommended**, as Reserve Advisors, Inc. already completed a Full Reserve Study and the deliverables for an Update Study are the same as a Full Study. The Reserve Study Update above includes a condition assessment to confirm quantities, replacement timing and replacement costs.*

**Sign and Send to Get Started:**

Email: MBaldry@reserveadvisors.com or  
Fax: (571) 406-5331

by:   
Michelle Baldry, Northeast Regional Executive Director  
for Reserve Advisors, Inc.,  
on August 13, 2019  
Ref. 142516

**Mail \$4,875 retainer to:**

**Reserve Advisors, Inc.**  
**735 N. Water Street, Suite 175**  
**Milwaukee, WI 53202**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

(Print Name) \_\_\_\_\_

Title \_\_\_\_\_

for **Parkfairfax Unit Owners Association**

You will receive your electronic report approximately four (4) weeks after our inspection, based on timely receipt of all necessary information from you. Authorization to inspection time varies depending on demand for our services. This proposal is valid for 45 days.

*Payment Terms: Retainer payment is due upon authorization and prior to inspection. The balance is due net 30 days from the report shipment date. Following receipt of balance due, you may request one set of complimentary changes within six months of the report shipment. Any outstanding balance after 30 days of the final invoice date is subject to an interest charge of 1.5% per month. This agreement is subject to our Professional Services Conditions.*

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## PROFESSIONAL SERVICE CONDITIONS

**Our Services** - Reserve Advisors, Inc. (RA) performs its services as an independent contractor in accordance with our professional practice standards and its compensation is not contingent upon our conclusions. The purpose of our reserve study is to provide a budget planning tool that identifies the current status of the reserve fund, and an opinion recommending an annual funding plan to create reserves for anticipated future replacement expenditures of the property.

Our inspection and analysis of the subject property is limited to visual observations, is noninvasive and is not meant to nor does it include investigation into statutory, regulatory or code compliance. RA inspects sloped roofs from the ground and inspects flat roofs where safe access (stairs or ladder permanently attached to the structure) is available. The report is based upon a "snapshot in time" at the moment of inspection. RA may note visible physical defects in our report. The inspection is made by employees generally familiar with real estate and building construction but in the absence of invasive testing RA cannot opine on, nor is RA responsible for, the structural integrity of the property including its conformity to specific governmental code requirements for fire, building, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

RA is not responsible for conditions that have changed between the time of inspection and the issuance of the report. RA does not investigate, nor assume any responsibility for any existence or impact of any hazardous materials, such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials or structural defects that are latent or hidden defects which may or may not be present on or within the property. RA does not make any soil analysis or geological study as part of its services; nor does RA investigate water, oil, gas, coal, or other subsurface mineral and use rights or such hidden conditions. RA assumes no responsibility for any such conditions. The Report contains opinions of estimated costs and remaining useful lives which are neither a guarantee of the actual costs of replacement nor a guarantee of remaining useful lives of any property element.

RA assumes, without independent verification, the accuracy of all data provided to it. You agree to indemnify and hold RA harmless against and from any and all losses, claims, actions, damages, expenses or liabilities, including reasonable attorneys' fees, to which we may become subject in connection with this engagement, because of any false, misleading or incomplete information which we have relied upon supplied by you or others under your direction, or which may result from any improper use or reliance on the Report by you or third parties under your control or direction. Your obligation for indemnification and reimbursement shall extend to any director, officer, employee, affiliate, or agent of RA. Liability of RA and its employees, affiliates, and agents for errors and omissions, if any, in this work is limited to the amount of its compensation for the work performed in this engagement.

**Report** - RA completes the services in accordance with the Proposal. The Report represents a valid opinion of RA's findings and recommendations and is deemed complete. RA, however, considers any additional information made available to us within 6 months of issuing the Report if a timely request for a revised Report is made. RA retains the right to withhold a revised Report if payment for services was not tendered in a timely manner. All information received by RA and all files, work papers or documents developed by RA during the course of the engagement shall remain the property of RA and may be used for whatever purpose it sees fit.

**Your Obligations** - You agree to provide us access to the subject property for an on-site visual inspection. You agree to provide RA all available, historical and budgetary information, the governing documents, and other information that we request and deem necessary to complete the Report. You agree to pay actual attorneys' fees and any other costs incurred to collect on any unpaid balance for RA's services.

**Use of Our Report** - Use of our Report is limited to only the purpose stated herein. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and you shall hold RA harmless from any consequences of such use. Use by any unauthorized third party is unlawful. The Report in whole or in part **is not and cannot be used as a design specification for design engineering purposes or as an appraisal**. You may show our Report in its entirety to the following third parties: members of your organization, your accountant, attorney, financial institution and property manager who need to review the information contained herein. Without the written consent of RA, you shall not disclose the Report to any other third party. **The Report** contains intellectual property developed by RA and **shall not be reproduced or distributed to any party that conducts reserve studies without the written consent of RA**.

RA will include your name in our client lists. RA reserves the right to use property information to obtain estimates of replacement costs, useful life of property elements or otherwise as RA, in its sole discretion, deems appropriate.

**Payment Terms, Due Dates, and Interest Charges** - Retainer payment is due upon authorization and prior to inspection. The balance is due net 30 days from the report shipment date. Any balance remaining 30 days after delivery of the Report shall accrue an interest charge of 1.5% per month. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court for the State of Wisconsin.

August 13, 2019

Parkfairfax Unit Owners Association  
c/o 3360 Gunston Road  
Alexandria, VA 22302

**RETAINER INVOICE #**

**1973004R**

**Amount Due Now:**

**\$4,875**

**PROPERTY:**

**Parkfairfax Unit Owners Association  
Alexandria, Virginia**

Contract Number: 142516

RETAINER DUE: **\$4,875**

Terms:

***Retainer Due Upon Receipt of Authorized Contract and Prior to Inspection***

**Mail retainer to:**

**Reserve Advisors, Inc.  
735 N. Water Street, Suite 175  
Milwaukee, WI 53202**

**OR**

**CONTACT US FOR  
CREDIT CARD PAYMENT**



*Payment Terms: Retainer payment is due upon authorization and prior to inspection. The balance is due net 30 days from the report shipment date. Following receipt of balance due, you may request one set of complimentary changes within six months of the report shipment. Any outstanding balance after 30 days of the final invoice date is subject to an interest charge of 1.5% per month. This agreement is subject to our Professional Services Conditions.*

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# The Falcon Group

ENGINEERING • ARCHITECTURE • ENERGY CONSULTANTS • FORENSICS • DRONE SERVICES

7361 Calhoun Place, Suite 325, Rockville, MD 20855

Phone: (240) 328-1095 • Fax: (240) 328-1096

Email: [info@falconengineering.com](mailto:info@falconengineering.com)

[www.falconengineering.com](http://www.falconengineering.com)

August 21, 2019

Parkfairfax Condominium Unit Owners Association  
c/o Mr. Mark Miller  
General Manager  
3360 Gunston Road  
Alexandria, VA 22302

**VIA EMAIL ([mmiller@parkfairfax.info](mailto:mmiller@parkfairfax.info)) ONLY**

RE: Parkfairfax Condominium Unit Owners Association  
Capital Reserve Fund Analysis Proposal  
Y:\Clients\Falcon2019\19-0666\000\_General\_Parkfairfax CA\Proposals\P190821 - Reserve.Docx

Dear Mr. Miller:

In accordance with your recent request, we are pleased to submit this proposal to perform a Capital Reserve Replacement Funding Analysis for Parkfairfax Condominium Unit Owners Association located at 3360 Gunston Road in Alexandria, Virginia.

Falcon takes pride in the team that we are able to assign to each of our Capital Reserve Replacement Funding Analysis projects. Specialized personnel are assigned to evaluate the findings of our field observations, as appropriate to their respective areas of technical expertise. When you retain the services of the Falcon Group, you are working with a team of over 90 experienced and talented professionals, including Community Associations Institute (CAI) Certified Reserve Specialists (RS), Association of Professional Reserve Analysts (APRA) Certified Professional Reserve Analysts (PRA), District and State Licensed Professional Engineers (PE), District and State Registered Architects (AIA), Registered Roof Consultants (RRC), Certified Special Inspectors, and Building Code Officials. Specifically, for your capital reserve project, we anticipate using the following preliminary team (please see resumes attached):

- Andrew Amorosi, PE, RS, Principal of Falcon – Supervising Principal, Reserve Specialist
- J. Stewart Willis, RS, Senior VP – Project Director, Reserve Specialist
- Michael Palmer, RS, Senior Project Manager – Client Contact, Reserve Specialist, Inspections & Reporting

Offices also located in:

Stamford, CT | Miami, FL | Columbia, MD  
Bridgewater, NJ | New York, NY | Trevese, PA

Please read the following proposal carefully and verify that it is adequate to your needs. If necessary, an amended proposal can be created to include additional scopes of work, alter existing scopes of work to better suit the Association's concerns, and reflect fiscal, administrative, or governing requirements of the Association.

The Falcon Group has prepared this proposal based upon the following preliminary information supplied to us regarding the physical components of the Association:

1. The Association consists of 285 buildings containing a total of 1,684 residential units.
2. The Association is responsible for exterior building components, certain roadways, parking areas, driveways, sidewalks, entrance monuments, an entrance gate, signage, site lighting, a clubhouse, a fitness center, laundry rooms, three (3) swimming pools, a gazebo, four (4) maintenance buildings, nine (9) tot lots, walking trails, seven (7) tennis courts, two (2) volleyball courts, a basketball court, an irrigation system, a domestic/storm water sewer system, miscellaneous other site and building improvements for the use of the community residents.
3. The physical components of the community are approximately 76 years old.

Should any of the above-mentioned information be erroneous, please contact The Falcon Group.

### **Levels of Service**

In accordance with the National Standards published by the Community Associations Institute (CAI), The Falcon Group offers three (3) levels of capital reserve replacement funding analysis, the Level I – Full Study, the Level II Update Study (Site Visit without New Quantity Measurements), and the Level III Administrative Only Update (No Site Visit). The levels of service, and their corresponding work scopes provided, are as follows.

#### **Level I: Full Study**

- Component Inventory (including new field measurements for quantities)
- Condition Assessment (based upon on-site visual observations)
- Life and Valuation Estimates
- Fund Status
- Funding Plan

More specifically, the scope of work that will be performed by The Falcon Group for a Level I Full Study will include the following tasks.

1. A visual field inspection of the Association's common elements to determine the existing condition of these elements. The common elements will be inspected in order to determine the typical or "average" condition of the common elements.
2. All common elements to be included in the Capital Reserve Replacement Fund Analysis will be field-measured, and the common element quantities derived from these measurements will be included in the Capital Reserve Replacement Fund Analysis. Field measurement of the presently existing common elements is often useful to communities, especially after significant capital replacements, renovations, or modifications have been made. Field measurement prevents inaccuracies and discrepancies between design plans or previous reserve analyses and the currently

existing common element quantities from entering the Capital Reserve Replacement Fund Analysis. Please note that, if the Association does not currently have reliable information with regard to the quantities of common elements under its replacement and maintenance jurisdiction, then this service is necessary. Cost estimates cannot be generated without common element quantities. Once reliable field quantities have been produced, this data can be used for future Falcon updates.

3. Estimation of the remaining life and the probable replacement/rehabilitation costs of the various common elements based upon the field inspection of the common elements and any site-specific conditions that may affect the remaining life or replacement cost of these elements.
4. The Report will include a Capital Reserve Replacement Fund Schedule and an Expenditure Schedule developed as part of the analysis process, including current replacement costs and assessed remaining lives of the common elements included in the analysis. The line items to be included in the Schedule will be based upon the results of our field inspection and the information supplied by the Association. While these tables will concentrate on the listing of common elements supplied by the Association (see Necessary Documentation), additional, recommended items that the Association should, in our opinion, be reserving funds for will also be included, with an explanation in the report text.

The current replacement costs and assessed remaining lives are based upon industry pricing standards and any documentation provided by the Association; however, The Falcon Group will adjust these numbers based upon our observations of the community-specific conditions and variables that may impact the life cycle and replacement cost of the common elements.

The effect of community-specific conditions and variables is often overlooked during the preparation of a reserve analysis, and this oversight can become a substantial financial burden to a community in the future. A community-specific focus in the reserve analysis is, in our opinion, the most vital component of an accurate and realistic Capital Reserve Replacement Funding Analysis.

5. The Capital Reserve Replacement Funding and Expenditure Schedules will be used to illustrate recommended annual funding levels using both the Full Funding Method and Cash Flow (Threshold Method) Funding goals. Both funding goals will be graphically compared over the analysis time window. The Falcon Group uses a minimum time window of 30 years, although in unusual circumstances, longer time windows are sometimes used if such time windows would better reflect the Association's needs or concerns.
6. One meeting with the community association Board and/or Management to present the findings of our analysis is included in the lump sum fee for the Level I / Full Study service.

Please note that a Community Associations Institute (CAI) certified **Reserve Specialist (RS)** prepares all capital reserve replacement fund analyses performed by the Falcon Group. Reserve Specialists are individuals designated by CAI as having demonstrated the experience, code of conduct, professional ethics and work product, and volume of work, to be qualified to prepare capital reserve replacement analyses. All of our capital reserve replacement fund analyses conform to the CAI National Standards.

Specialized technical and replacement cost consultation for each reserve analysis is provided by the appropriate expert staff members at the Falcon Group as applicable.



## **Level II: Update Study, With Site Visit / On-Site Review**

- Component Inventory Verification (not including new field measurements for quantities)
- Condition Assessment (based upon on-site visual observations)
- Life and Valuation Estimates
- Fund Status
- Funding Plan

An existing professionally prepared capital replacement funding analysis, with documented line item quantities, is required in order to perform the Level II Update service. If the community association does not already possess this information, a Level I Full Study must be performed.

For the Level II Update Study, The Falcon Group performs all tasks listed for the Level I Full Study, with the exception of performing new field measurements for line item quantities, and with meetings provided on an extra work basis as may be requested.

## **Level III: Update Study, No Site Visit / Off-Site Review**

- Life and Valuation Estimates
- Fund Status
- Funding Plan

An existing capital replacement funding analysis *previously prepared by The Falcon Group* is required in order to perform the Level III Update service. Also known as a “Paper” Update, or an “Administrative Update”, the Level III Update does not include a site visit or meeting.

The Falcon Group will provide an updated capital reserve replacement fund analysis, correcting life cycles (based upon calendric passage of time) and estimated costs (based upon typical construction cost inflation since the previous analysis execution) for up to five (5) years after the issue date of the previous analysis. If more than five (5) years have passed since the last capital reserve analysis with an on-site review, then a Level I - Full Study with site visit will be required.

This Level III option allows the Association to assess the current state of the reserve fund, allowing for adjustments based upon changes in construction costs, any capital projects undertaken since the last reserve study was completed, or other significant changes to the Association’s finances. This option allows for the Association to confirm that the reserve funding remains adequate (or adjust the reserve funding to maintain adequacy) without the need or expense of a completely new analysis.

This option also can be implemented prior to major replacement projects in order to assess the feasibility of one or more proposed projects or after major replacement projects in order to determine how one or more projects have altered the Association’s capital reserve funding requirements.

The updates undertaken under the Level III service scope of work are “paper” updates, and do not include additional site visits; we therefore recommend that the Association undertake at least a Level II Update Study, with new site visit observations to verify existing conditions, in the third or later years after the execution of their last update that included a site visit.

## **Necessary Documentation**

Upon receipt of the executed proposal, The Falcon Group will request specific information (in writing) from the Association's Management Professional(s) and/or Governing Board in order to proceed with the Capital Reserve Replacement Fund Analysis. Should you wish to obtain a preliminary list of the required documentation prior to execution of this proposal, please feel free to contact our office.

## **Schedule**

The Falcon Group will submit the Capital Reserve Replacement Fund Analysis to the Association's Management Professional(s) and/or Governing Board within forty-five (45) business days of receiving the documentation necessary for the performance of the Analysis.

The Falcon Group will supply an electronic copy of the completed Capital Reserve Replacement Fund Analysis. Three (3) bound copies and one unbound copy of the report are available by request only.

Payment (see Fees, below) is due upon receipt of the Capital Reserve Replacement Fund Analysis. The Falcon Group reserves the right to charge interest on any unpaid balance, beginning thirty (30) days after payment is due.

## **Fees**

The Falcon Group will charge the following for the above services, although we reserve the right to increase these fees six (6) months after the posting date of this proposal.

### **Level I – Full Study**

The cost for the Level I – Full Study Capital Reserve Replacement Fund Analysis, including site visit(s) necessary to verify physical conditions and field measure quantities, and one meeting to present our findings, will be **Eighteen Thousand Eight Hundred Ninety-Five Dollars (\$18,895)**.

### **Level II – Update Study with Site Visit / No Field Measurements**

The fee for performing the Level II Update Study, including a site visit to verify physical conditions, but not including new field measurements, will be **Fourteen Thousand Eight Hundred Ninety-Five Dollars (\$14,895)**.

### **Level III – Update Study / No Site Visit**

The fee for performing a Level III Administrative-Only Capital Reserve Replacement Fund Analysis Update will be **Two Thousand Four Hundred Ninety-Five Dollars (\$2,495)** (the Association must already have a previous study performed by The Falcon Group to qualify for this option). Note that The Falcon Group will honor this "Paper Update" pricing for up to Two (2) Years after the completion of our Level I or II Reserve Analysis for the Association.

### **Alterations, Changes, & Errors**

Alterations to the Capital Reserve Replacement Fund Analysis after submission to the Association's Management Professional(s) or Governing Board will be considered as "extra work" and billed appropriately, with the exclusion of errors, which will be corrected gratis. "Errors" should be understood to include misunderstandings and omissions by The Falcon Group, but not modifications based upon documentation that was not supplied to The Falcon Group prior to or during the original execution of the Capital Reserve Replacement Fund Analysis primary scope of work.

Extra work, including meetings, will be charged on an hourly basis.

Falcon has prepared over 3,000 Capital Reserve Fund analyses since 1997, and we have accumulated more than 100 years of collective experience among our Reserve Specialist staff members alone, who include CAI designated Reserve Specialists (RS) and APRA certified Professional Reserve Analysts (PRA). Other professionals on staff who contribute to our deep knowledge of design, construction and cost estimating, include our regional teams of licensed professional engineers (PE) with disciplines in civil, structural, architectural, mechanical, electrical, plumbing and energy engineering, as well as our team of experienced registered architects (RA), cost estimators, and construction managers (additional CV's available upon request).

Thank you for the opportunity to provide this proposal for professional services. Should you have any questions please feel free to contact our office at 240.328.1095, or by emailing the undersigned directly at [swillis@falconengineering.com](mailto:swillis@falconengineering.com).

Sincerely,

Handwritten signature of J. Stewart Willis in cursive script, with the initials "Jh" written below the name.

J. Stewart Willis, R.S.  
Senior Vice President

JSW:sh:jh

Attachments: Falcon Approval Page; Falcon Terms & Conditions; Resumes



**Approval Page**  
**Parkfairfax Condominium Unit Owners Association**  
**Alexandria, Virginia**  
**Capital Reserve Fund Analysis Proposal**

Client #:19-0666  
Department Head: Stewart Willis

Should this proposal, dated August 21, 2019 be approved, please return a signed copy to The Falcon Group with all desired scopes of work initialed below. Our receipt of the signed proposal will serve as authorization to begin the project. By signing below, the authorizing party agrees to the Terms and Conditions of this proposal.

**Accepted by:**

\_\_\_\_\_  
**Authorized Signature: Parkfairfax Condominium Unit Owners Association**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Please Print Name and Title**

Payment shall be made within thirty (30) calendar days. Outstanding invoices after thirty (30) days shall be subject to a 1.33% monthly finance charge

***Scopes of Work (please initial selected options)***

**Level I – Full Study with New Measurements**

\_\_\_\_\_

**Level II – Update Study with Site Visit**

\_\_\_\_\_

**Level III – Update Study without Site Visit**

\_\_\_\_\_ *(previous Falcon study required)*

**In Falcon's efforts to become a greener company, in line with our Energy Consulting practices, we are offering the option for paperless communications and work product.**

**Please indicate if you would like to be a paper free client for all communications and reports:**

**Yes** ☐

**No** ☐

**(Any document transferred electronically will be offered in hard copy upon request)**

**Preferred Email:** \_\_\_\_\_

How did you learn about The Falcon Group? (Please specify)

Email Advertisement \_\_\_\_\_

Publication \_\_\_\_\_

Web Search \_\_\_\_\_

Marketing Event \_\_\_\_\_

Other \_\_\_\_\_

Current Client? Yes / No



**The Falcon Group**  
**General Conditions of Service**

Client: **Parkfairfax Condominium Unit Owners Association** Subject: **Capital Reserve Analysis**  
Project Number: **19-0666** Date: **August 21, 2019**

The terms and conditions which govern the performance of services pursuant to this Agreement are set forth below:

Please note "Falcon" and "Consultant" shall be used interchangeably. Owner refers to the Client. "Falcon" shall refer to Falcon Engineering, Falcon Architectural Services or Falcon Energy Consultants D.B.A. "The Falcon Group".

**RETAINER**

The Client shall make an initial retainer payment of **\$0.00** upon execution of this Agreement. Falcon will hold and apply this retainer against the final outstanding invoice.

**REIMBURSABLE EXPENSES** – (When Applicable)

Client shall pay Falcon for reimbursable expenses, including mileage at 58 cents per mile, application fees, printing and reproduction, courier and express delivery service, bulk/special mailings, computer design technology, specialized equipment and laboratory charges, GPS Survey Equipment usage, other costs of acquiring materials specifically for Client and related charges. Out of pocket expenses will have a 15% administrative fee added. The reimbursable expenses will be added to invoice.

**MATERIAL TESTING**

Unless specifically indicated, no testing of materials or testing of installation of materials is part of the proposed scope of work. Falcon is not responsible for the contractor deviating from specified materials or installation of the specified materials. Unless specifically stated in the proposal, air quality and/or mold testing and remediation is not a part of these services.

**PAYMENT SCHEDULE**

Payment in full is due upon receipt of report. Time shall be billed at a minimum increment of 0.25 hour rounded down. An account will be considered PAST DUE if the invoice is not paid in full within thirty (30) calendar days of the invoice date. Client agrees to pay all charges not in dispute within thirty (30) days of receipt of Consultant's invoice. Client recognizes that any charges not paid within thirty (30) days will be charged a late payment equivalent to 1.33 percent of the balance due for each additional month or fraction thereof that undisputed charges remain unpaid. Client agrees that Consultant has the right to suspend or terminate service if undisputed charges are not paid within thirty (30) days of receipt of Consultant's invoice, and Client agrees to waive any claim against Consultant, and to indemnify, defend, and hold Consultant harmless from and against any claims arising from Consultant's suspension or termination due to Client's failure to provide timely payment. Payment of fees for professional services rendered is in no way contingent upon approval of plans or documentation. In the event the Client decides to discontinue services, the open account reverts to hourly charges and the outstanding balance is due as described above. All bills must be paid in full prior to the issue of signed and sealed drawings for permit.

In the case of an unpaid past due balance, the Client is responsible for all collection and attorney costs incurred. The Client will be notified in writing, by Falcon, with an opportunity to pay in full prior to the initiation of any collection proceedings.

**INTEREST**

If payment in full is not received by Falcon within thirty (30) calendar days of the invoice date, the Client shall pay as interest an additional charge of (1.33%) per month of the PAST DUE amount. Payment after that shall first be applied to accrued interest and then to the unpaid principal.



**OVERTIME SERVICES** – (If Applicable)

For professional services billed on an hourly basis, Falcon shall bill all overtime services for requested off hour work. Overnight and Saturday work shall be billed at one and one half (1.5) times the standard hourly rate and Sunday work shall be billed at two (2) times the standard hourly rate.

**DISPUTED CHARGES**

Any charges held to be in dispute shall be called to Consultant's attention within ten (10) days of receipt of Consultant's invoice. Client and Consultant shall work together in good faith to resolve their differences. If Client and Consultant shall be unable to resolve their differences within thirty (30) days, Consultant shall have the right to suspend or terminate service.

**SUSPENSION OF SERVICES**

If the Client fails to make payments when due or otherwise is in breach of this Agreement, or in breach of any other Agreement between Client and Falcon, then Falcon may suspend performance of services at any time after providing notice to the Client. In the event the Client decides to discontinue services, the open account reverts to hourly charges and the outstanding balance is due as described above. Falcon shall have no liability whatsoever to the Client for any costs or damages as a result of such suspension.

**TERMINATION OF SERVICES**

Client shall not terminate this contract without cause. If the Client and Consultant mutually agree to terminate contract due to existing circumstances, the parties may decide to terminate contract on mutually agreeable date. All work and fees to be completed and paid prior to termination must also be mutually agreed upon. On lump sum fee project, fee shall revert to hourly charges for all work performed up to the date of termination. Termination by the Client without cause shall result in payment in full to the Consultant. Any and all work product shall remain the property of the Consultant.

The decision of termination shall be signed by the Authorized Representatives of both parties and shall be without prejudice to any other rights of the parties under the contract.

**FEE DURATION**

This Agreement shall be open for acceptance for sixty (60) days from the above date. If the Agreement is signed after that date, the proposed fees may be adjusted prior to commencement of services.

**HOURLY RATES**

The hourly rates charged for Falcon services are adjusted annually in January to reflect changes in the various elements that comprise such hourly rates. All adjustments will be in accordance with generally accepted accounting practices as applied on a consistent basis by Falcon and consistent with Falcon's overall compensation practices and procedures.

**EMERGENCY SERVICE RATES**

When "24/7 Emergency Service" is implemented during off hours, immediate response, Emergency Service Rates apply at two (2) times the standard hourly rate. If further planned work is required that falls within normal business hours, the standard hourly rate will apply. Expedited work, due to emergency services, may be subject to an additional percentage being included, dependent on the work and timeframe required.

**LUMP SUM CONTRACTS**

Where Lump Sum Contracts are signed, and the services provided by Falcon extends beyond a date twelve (12) months after the date of the execution of this Agreement, the quoted prices shall be subject to an increase in accordance with the Cost of Living Index, using the date of the Agreement as a base. In the event that a Lump Sum Contract item is partially completed at such time that the lump sum price is to be adjusted, the balance of the lump sum fee still to be billed as of the anniversary date shall be increased base on the Cost of Living Index as indicated above.

**SCOPE OF SERVICES**

Unless specifically specified in our proposal, the Client should be aware that our construction administration and observation services do not include any testing of the materials before, during or after installation.

A description of the services to be provided by Falcon is set forth above. If additional work becomes necessary during the course of the project and description or potential need of said work is not discussed in the body of the proposal, Falcon will perform such Additional Services in accordance with a written or verbal Agreement between the Client or a Client representative and Falcon setting forth the additional services and fees. Staff used on all projects subject to change.

If agreement is unsigned, delivery and payment for the inspection report shall constitute acceptance of all terms on inspection agreement and contract.

Unless specifically stated in our proposal, any reports issued by Falcon are not meant as expert reports for litigation purposes.

#### **OPINIONS OF COST**

Any opinions or estimates of probable construction cost provided by Consultant are prepared on the basis of Consultant's experience and qualifications and represent Consultant's judgment as a professional generally familiar with the industry. However, since Consultant has no control over the cost of labor, materials, equipment or services furnished by others, over contractor's methods of determining prices, or over competitive bidding or market conditions, Consultant cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from Consultant's opinions or estimates of probable construction cost.

#### **PROJECT FUNDING, FINANCING AND STATE/LOCAL UTILITY INCENTIVES (When Applicable)**

In the event that engineering fees are to be reimbursed to Client under various Incentive programs, whether or not the Client is reimbursed, or the Client elects not to implement the work and is no longer eligible for these Incentives, the Client agrees to pay Falcon as outlined in the PAYMENT SCHEDULE.

#### **STANDARD OF CARE**

Falcon agrees that it shall exercise its services in a manner consistent with the standard of care, skill, practice and judgment ordinarily performed by other members of the same or similar profession practicing in same or similar circumstances. Falcon makes no other representations or warranties, whether express or implied, with respect to the services rendered hereunder.

#### **EXTRA WORK**

Proposals/contracts are prepared based upon the Township, County, State and Federal regulations in effect at the time of preparation. Consultants shall not be responsible for revisions resulting from changes in regulations beyond the Consultant's control.

Experience has shown that municipal and governmental bodies frequently request revisions of engineering data. The administrative agency may also require attendance at meetings beyond the customary scope of the project. If and when this occurs, it will be necessary to invoice these additional services. If revisions are required, this agreement shall service to authorize the additional work and payment for the same in accordance with the current Schedule of Hourly Rates. Additionally, in the event that due to change of policy of said agencies after the date of this Agreement additional office or fieldwork is required, the said additional work shall be paid for by Client as extra work.

Consultant shall not be liable for damages resulting from the actions or inactions of governmental agencies including, but not limited to, permit processing, environmental impact reports, dedication, general plans and amendments thereto, zoning matters, annexation or consolidations, use or conditional use permits and building permits, and consultant shall only act as an advisor in all governmental relations.

#### **SUBPOENAS**

Any court or legally subpoenaed documents, Falcon time spent in depositions and / or court and legal expenses incurred by Falcon, related to the Client's project, is the sole responsibility of the Client to pay Falcon for these and any related costs, current hourly rates, travel time and copying costs.

Falcon shall be held harmless in any claims regarding the retention of electronic communications.

### **ATTORNEY'S FEES AND COSTS**

In the event of a claim made against Falcon whereas, the claim is brought upon Consultant by the Association, a member of the Association, an employee or contractor of the Association, or any party associated with the subject property and Falcon is found to not be at fault, whether a lawsuit or other proceedings are filed, Consultant shall be entitled to recover reasonable attorney's fees and costs, including attorney's fees and costs incurred in litigating entitlement to attorneys' fees and costs, as well as in determining or quantifying the amount of recoverable attorney fees and costs. The reasonable costs to which Consultant shall be entitled shall include costs that are taxable under any applicable statute, rule, or guideline, as well as non-taxable costs, including, but not limited to, costs of investigation, copying costs, electronic discovery costs, telephone charges, mailing and delivery charges, information technology support charges, consultant and expert witness fees, travel expenses, court reporter fees, and mediator fees, regardless of whether such costs are otherwise taxable.

### **INDEMNIFICATION**

Falcon agrees subject to the provisions herein, to indemnify and hold the Client harmless from any damage, liability or cost, allowed by law, to the extent caused solely by Falcon's negligent acts, errors or omissions in the performance of professional services under this Agreement. The Client agrees to indemnify and hold Falcon harmless from any damage, liability or cost (including reasonable attorneys' fees and costs of defense) to the extent caused by the Client's negligent acts, errors or omissions and those of his or her contractors, subcontractors or Consultants or anyone for whom the Client is legally liable. Falcon is not obligated to indemnify the Client for the Client's own negligence. In no event shall the indemnification obligation extend beyond the date when the institution of legal or equitable proceedings for professional negligence would be barred by an applicable statute of repose or statute of limitations. In recognition of the relative risks, rewards and benefits of the project to both the Client and Falcon, the risks have been allocated so that the Client agrees that, to the fullest extent permitted by law, Falcon's total liability to Client, for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this agreement, from any cause or causes, shall not exceed the total amount of Falcon's fee for this project. Such causes include, but are not limited to, Falcon's negligent acts, errors, omissions, strict liability, breach of contract or breach of warranty.

Work related to conversion reports or a transition from developer to an association or other entity reports shall be performed in general accordance with our proposal and with limitations as stated in said reports. Falcon is not responsible for any future damages or claims related to the entity's decisions regarding terms of settlements with the developer or sponsor related to these reports. Acceptance of our proposal shall grant a complete release of future claims against Falcon as it relates to this work product. Client further agrees to defend Falcon for any third party claims against Falcon related to work Falcon performed for Client.

When Falcon is only contracted for part-time construction observation services, Falcon will have a limited ability to observe and comment on the work, as we will only be able to comment on work observed while on-site. It shall be the sole responsibility of the contractor to follow the specifications accurately and to document all additional unit cost work.

### **OWNERSHIP AND REUSE OF DOCUMENTS**

All reports, plans, specifications, computer files, field data, notes and other documents and instruments prepared by Falcon pursuant to this Agreement ("Documents") are and remain the property of Falcon as instruments of service with respect to this Agreement. The Documents are not intended or represented to be suitable for reuse by the Client or others on extensions of this project or on any other project. Any reuse of the Documents without the written approval by Falcon will be at the Client's sole risk and without liability or legal exposure to Falcon. The Client shall waive any and all claims and indemnify, defend and hold harmless Falcon from and against any claims, damages or losses including attorney's fees and costs, arising out of or resulting there from.

Falcon grants to the Client and only the Client a non-exclusive, non-assignable and non-transferable license to reproduce, distribute and display the Documents, to the extent necessary for the Client to undertake construction and/or perform other acts that are all collectively required to construct the project. Falcon shall retain all common law, statutory and other reserved rights to Documents, including the copyright thereto. Both the Client and Falcon agree that none of the services or Documents provided by Falcon is "work made for hire" as defined in the Copyright Act.

#### **CLIENT RESPONSIBILITIES**

Client shall give prompt written notice to Falcon, whenever Client observes or otherwise becomes aware of any development that affects the scope or timing of engineer/surveyor's services.

Client shall provide all criteria and full information as to Client requirements for the project, including design objectives and constraints capacity and performance requirements, flexibility and expendability, and any budgetary limitations, and furnish copies of all design and construction standards, which the Client will require to be included in the drawings and specifications. Falcon is entitled to rely upon the accuracy and completeness of the information given by the Client.

Falcon shall not be responsible for any unknown environmental conditions.

Consultant shall not be liable for any and all damages or any and all costs due to its excusable delays in performance including, but not limited to damages or costs resulting from excusable delays in performance by Consultant, its agents, employees and independent contractors. Additionally, the Consultant is not responsible for delay nor shall Consultant be responsible for damages deemed to be the responsibility of the contractors. Additionally, the Consultant is not responsible for delay nor shall Consultant be responsible for damages or be in default or deemed to be in default by reason of lockouts, accidents or acts of God; or the failure of the client to furnish timely information or to approve or disapprove Consultant's work promptly; or delay or faulty performance by Client, other contractors or governmental agencies; or any other delays beyond Consultant's control.

Inasmuch as the remodeling and/or rehabilitation of the existing structure requires that certain assumptions be made by the Consultant regarding existing conditions, and because some of these assumptions may not be verifiable without the Client's expending substantial sums of money or destroying otherwise adequate or serviceable portions of the structure, the Client agrees, to the fullest extent permitted by the law, to indemnify and hold harmless the Consultant, its officers, directors, employees and sub consultants (collectively, Consultant) against all damages, liabilities or costs, including reasonable attorneys' fees and defense costs, arising out of or in any way connected with the existing conditions of this project, excepting only those damages, liabilities or costs attributable to the sole negligence and willful misconduct by the Consultant.

#### **PHOTOGRAPHY**

By acceptance of this proposal, Client is authorizing permission for Falcon staff to access Client property and/or individually owned property of the Association or building and take photographs as needed to complete work as defined in proposal.

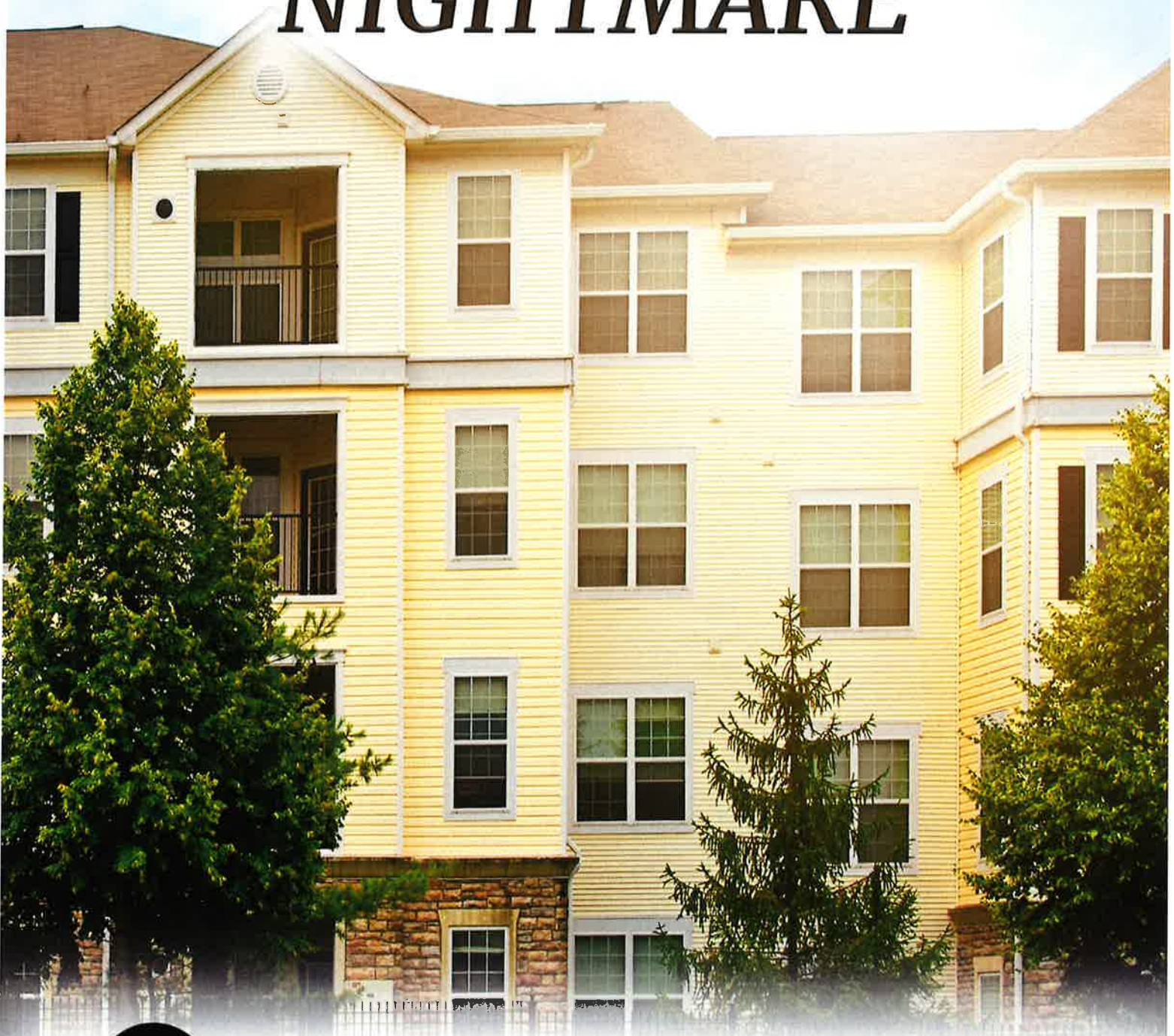
All photography and plans produced by Falcon for this project may be used for print and / or electronic advertisement purposes. Falcon reserves the right to advertise this Client project as required.

#### **MEDIATION**

Prior to the initiation of any legal proceedings, (with the exception of invoicing/ payment disputes), the parties to this Agreement agree to submit all claims, disputes or controversies arising out of, or in relation to, the interpretation, application or enforcement of this Agreement to AAA mediation. Such mediation shall be conducted under the auspices of the American Arbitration Association. The Party seeking to initiate mediation shall do so by submitting a formal, written request to the other party to this Agreement. This section shall survive completion or termination of this Agreement, but under no circumstances shall either party call for mediation of any claim or dispute arising out of this Agreement after such period of time as would normally bar the initiation of legal proceedings to litigate such claim or dispute under the Laws of the State of New Jersey.



# *Underfunded Reserves:* **A COMMUNITY'S NIGHTMARE**



**The Falcon Group**



# UNDERFUNDED RESERVES: A Community's Nightmare

**Andrew Amorosi, P.E., R.S., Principal**

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The primary purpose of a Capital Reserve Funding Analysis is to offer recommendations as to the amount of monies an association or other form of ownership should fund on a yearly basis for the future replacement of commonly owned elements of a single or multi-family development. The analysis and recommendations are important in that they help to avoid possible future special assessments of the individual unit owners. The analysis should be in the best interest of the community, period. The analysis should take into account the site specific existing conditions, their useful life, and the realistic replacement costs based upon actual material costs and the site specific individual item's method of reconstruction.

The primary purpose of a Capital Reserve Funding Analysis is not to attempt to reduce or maintain a community's monthly maintenance fees.

Unfortunately, and far too often, associations are finding themselves in an underfunded position at the time of the inception of a replacement project. Whether reconstructing roadways, sidewalks, roofs, or other aspects of the community, the association relies on the funding that has been recommended and established over the useful life of the item. The association schedules and bids the reconstruction project only to find that the proper funds are not available. The reserve funding recommended useful life was not accurate, the item's replacement cost was wrong and/or the unit quantities were smaller than what was actually constructed. This results in special assessments, community dissention, lost property value, and ill feelings toward the management company, board members, and residents.

The problem always seems to be that the original and/or updated analyses were not realistic, not site specific or not accurate. Errors or deficiencies in either the original Capital Reserve Analysis or, many times, the updated analysis can cause this dreaded position.

This unfortunate situation is, many times, the result of how these analyses are taken for granted by the expert preparing the study. Typically, site specific and qualified inspections and recommendations are not performed. The errors or deficiencies typically occur in the most important aspects of these studies and are as follows:

## **Useful life**

Every item listed in the funding table or schedule has a useful life associated with it. The useful life indicates the lifespan that the item should attain prior to its replacement, assuming it was installed properly. Standard useful lives are, often times, based solely upon standards used in the engineering industry. These standards are typically taken exclusively from information listed in life cycle analysis publications and/or manufacturers specifications. *This can result in underfunding.*

Site specific useful lives must be used. Actual conditions must be inspected and changes (reductions or increases) must be made to the projected useful lives as conditions change. In addition, aesthetics usually play a part in the replacement of an element. Structurally, an item may be sound, although the association may consider that the aesthetics of that particular item detract from the community, therefore requiring replacement prior to the item reaching its full useful life as determined by the manufacturer or an industry standard.

Often times, items are not individually (site specific) evaluated for remaining useful life. The consequence can result in a significantly higher actual replacement cost due to the accelerated (excessive) degradation of that item. The item

should have been replaced or reconstructed before this accelerated degradation occurred. Qualified, periodic inspection is paramount in reducing this possibility.

### **Quantities**

The quantities shown in the funding table or analysis are many times taken from site plans, architectural plans, or a previous funding table. *This can result in underfunding.*

The quantities used in these studies should be verified by the as built conditions. This must be done for initial analysis and should always be field checked on subsequent studies. Failure to provide an association with the correct replacement quantities may result in a significant underfunded condition down the road.

### **Replacement costs**

Here is a familiar scenario that it seems we are hearing all too often:

*...Our association is embarking on a much needed reconstruction project, however, we have found out that we have less than half of the monies needed for the work in our reserve account. How did this happen? What do we do now?...*

The CAI industry property managers, homeowners, accountants, and attorneys know this cry for help sounds all too familiar as the hundreds of communities constructed in the 1980's are aging. Most times the answer to the question "what do we do now?" is special assessments, bank loans, or worse, using inferior reconstruction materials or methods to cut costs.

What happened? Many times, the answer is shocking. Put simply, the estimates of the construction costs listed in the reserve analysis are wrong and unrealistic. Who gets the blame? Usually, unjustly, the current property management and/or professional team. The real culprit is typically no longer involved in the community.

The replacement costs shown in the funding tables or analysis are many times taken from an estimating book or, worse, an outdated estimating book. It appears that these estimates are not being performed properly.

While the unit costs provided in the funding table for the replacement of the capital reserve items should be based upon a number of sources, including published documentation on replacement costs, they more importantly should be based upon experience in site and building construction in New Jersey. The individual reconstruction or replacement of each item should be analyzed and the resulting unit costs should be adjusted accordingly. Individual (site-specific) characteristics affecting the units costs are different on every site and the replacement costs should be adjusted accordingly. Existing site conditions, the size (scale) and scope of the future replacement project, the job access locations; the site restoration costs and presence of existing components are all variables that affect the item's replacement costs. Many times the unit replacement costs shown in these studies barely cover the materials costs for the item.

This is an unacceptable error, and is by far the most glaring and unexplainable reason for underfunded Reserves.

Here are two (2) examples of the erroneous estimating that exists in some association's reserve funding tables.

*Situation 1: The association will eventually need to reconstruct the driveways of the community.*

Bad Estimator: Ok, asphalt overlays are listed in my 1999 estimating book at \$4. 51 per square yard, there are 4114 square yards, so the replacement cost is  $4114 \times 4.51$  or \$18,554.

Good Estimator: Ok, the driveways have significant failures, they are individually small in size, they are very flat and in some

cases back pitched towards the garage, the pavement surface is flush with the garage aprons, sidewalks and curbs. Since the driveways are failing, flat and small, it appears that the driveways have a deficient section thickness of asphalt. Based on the above, a complete removal and replacement will be required.

Using published costs and actual site variables.

Remove existing asphalt	\$1.58/s.y.
Excavate for desired section	\$2.22/s.y.
Prepare sub grade	\$0.27/s.y.
Install Base material (slow hand work required, not like a roadway)	\$6.78
Install surface material (slow hand work required, not like a road-way)	\$5.94
Topsoil and seed edges	\$0.26/s.y.
<b>Total</b>	<b>\$17.05/s.y.</b>

Therefore, the replacement cost is  $4,114 \times \$17.05$  or \$70,144.

*Situation 2: The association will eventually need to replace their wood siding of the community.*

Mr. Estimator Fantasy World: Ok, wood siding is listed in my 1999 estimating book at \$3.55 per square foot, there are 195,500 square feet, so the replacement cost is  $195,500 \times \$3.55$  or \$694,025.

Mr. Estimator Real World: The siding is a high end cedar product. The buildings have a history of leaks. The buildings are intricate with various small sections. The buildings have a extensive trim pattern.

Using published costs and actual site variables.

Remove siding and underlayment	\$0.70/s.f.
Disposal of siding	\$1.28/s.f.
Replace random framing/sheathing	\$0.50/s.f.
Install new underlayment	\$0.23/s.f.
Replace trim	\$0.21/s.f.
Replace corner ports:	\$0.17/s.f.
Install flashing	\$0.11/s.f.
Install new 5/8" beveled cedar siding:	\$4.89/s.f.
<b>Total</b>	<b>\$8.09/s.f.</b>

Therefore, the replacement cost is  $195,500 \times \$8.09$  or \$1,581,595.

As can be seen, the differences are enormous and can be detrimental to a community. The greater the scale of the project, the greater the potential magnitude of error. Combine any or all three of these "mistakes" made during the funding analysis and the association's reserve funding could be at a disastrous level.

### **The Cash Flow Analysis. Be careful!**

Your current Reserve Funding Analysis may contain a twenty (20) or thirty (30) year cash flow analysis as part of the report. As discussed above, reserve spending is dependent upon many variables. A reserve item's condition can change significantly over time due to deficient original construction or other variables (inferior materials, weather, vandalism etc.). The result is a remaining useful life that can be drastically reduced. Qualified inspections, realistic, site specific remaining life analysis and updating the reserve funding analysis every three (3) years will adjust these changing conditions and funding requirements.

Similarly, the replacement costs of a reserved item can change dramatically. Aside from the factors already mentioned, the costs of materials and labor are constantly changing. New materials and technologies appear every day. Reserve funding updates should adjust the funding requirements accordingly. These variables also affect cash flow on a regular basis.

In addition, an association's actual funding can change drastically from year to year. Catastrophic events or unpredicted spending (snow removal, storm damage, etc.) does occur from time to time and may also affect cash flow.

For the above reasons, projecting cash flow over a thirty (30) year period is not meant to be a long term tool for an association to use. The expenditure costs demonstrate that the association's reserve funding is on course toward proper funding. The cash flow numbers are all relative and dependant on each other and an unchanging, perfect world. Compound any of the problems associated with the deficient funding analysis (discussed above) and the result is that the thirty (30) year cash flow projection is less effective as time passes. The consequence is an underfunded association and a potential financial disaster to its residents.

Please be aware, however, that the cash flow analysis is an effective tool in adjusting the yearly funding requirements as long as the reserve analysis updates are performed regularly and performed accurately as discussed above.

### **Avoiding the Nightmare**

Any one of the above-discussed inaccuracies in a Capital Reserve Study can cause incorrect funding for a community. A combination of the errors can be disastrous. Continued periodic reserve updates using actual site conditions and realistic replacement dates and costs is a much more effective way (if not the only way) to ensure that an association's capital replacement items are being properly funded. The qualified inspection of the items by a licensed Professional Engineer (P.E.) and the preparation of the analysis by a CAI Reserve Specialist (R.S.) ensures that an accurate evaluation is made. The periodic update allows for adjustments to be made for useful life, unit quantity, unit cost, or additional items to be funded as required to avoid the "nightmare" of the special assessment.



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# The Falcon Group

ENGINEERS, ARCHITECTS AND RESERVE SPECIALISTS

## CAPITAL RESERVE REFERENCES - WASHINGTON DC METRO

**Capitol Hill West Condominium, Lenox School Condominium & Julius Hobson Plaza Condominium**

Ms. Leslee Behar  
EJF Real Estate  
1428 U Street NW  
Washington, D.C. 20009  
(202) 486.0610

**Faircrest Condo Association & Centreville Crossing Condominium**

Ms. Crystal Coats, FirstService Residential  
11351 Random Hills Road, Suite 500  
Fairfax, VA 22030  
(703) 385.1133

**The Corey Condominium**

Ms. Shannon Kelley, Board Member  
Orren Street, NE  
Washington, D.C. 20002  
(931) 237.8637

**Ellicott Hills III C.A.**

Mr. Kyle Ayers  
American Community Mgmt.  
7848 Candlewood Road  
Hanover, MD 21076  
(410) 997.7767

1

**4200 Cathedral Avenue Condominium**

Mr. Robert Shaw, MBA, CMCA  
CMC-Associa  
11300 Rockville Pike, Suite 907  
Rockville, MD 20852  
(310) 692.1700

**Sanderling Condominium**

Ms. Meghan Flynn  
FirstService Residential  
14301 Climbing Rose Way  
Centreville, VA 20121  
(703) 266.6017

**The Sierra C.A., Inc.**

Ms. Jennifer Gromada  
Gates Hudson Community Mgmt.  
3020 Hamaker Court, Suite 300  
Fairfax, VA 22031  
(877) 410.8777

**St. John's Episcopal Church**

Mr. Tim Dobbyn, Norwood Parish  
6701 Wisconsin Ave  
Bethesda, MD 20815  
(301) 693.7191

**Bentley Ridge C.A.**

Ms. Kimberly Murray  
Harford Property Services  
PO Box 345  
Aberdeen, MD 21001  
(410) 378.2740

**Virginia Landing Master Association, Inc.**

Mr. Sheriff Bah, CMC-Associa  
11300 Rockville Pike, Suite 907  
Rockville, MD 20852  
(301) 692.1700





# The Falcon Group

Engineers, Architects and Energy Consultants

## Andrew Amorosi, P.E., R.S.

*Principal*

### EDUCATION:

Bachelor of Science, Civil Engineering,  
New Jersey Institute of Technology

### LICENSES/CERTIFICATIONS:

Licensed Professional Engineer-P.E.:

New Jersey

New York

Maryland

Pennsylvania

South Carolina

Virginia

Washington D.C.

### MEMBERSHIPS:

Member, American Society of Civil  
Engineers

Member, National Society of Professional  
Engineers

Member, Chi Epsilon, National Civil  
Engineering Honor Society

New Jersey Concrete Placement Special  
Inspector

NJCAI Certified Mediator

### PROFILE:

Mr. Andrew Amorosi is the Managing Principal for engineering design and production for the firm's civil engineering design projects. Included in his responsibilities are residential subdivision lot layout, street and roadway design, including horizontal and vertical geometry, stormwater management, drainage, grading and wastewater sewer design. He is also responsible for the preparation of plans and specifications for the implementation of roadway construction, sanitary sewer and drainage improvements. Related areas of work include preparation of applications to the New Jersey Department of Environmental Protection for Stream Encroachment Permits, Wetland Permits, and Sanitary Disposal Permits, Municipal and County Planning Boards, and Soils Conservation Service Offices. He has extensive experience in 3rd party plans and specifications review.

Mr. Amorosi is also very knowledgeable in site feasibility analyses for land development as well as below-grade water infiltration detection, waterproofing designs and foundation reconstruction.

Mr. Amorosi maintains the chief responsibility for the inspection and observation of all site-related construction for multi-family developments, including the preparation of estimates for bonding, final inspection and release of sureties posted by the developer.

Mr. Amorosi conducts the analysis of numerous site construction problems, roadway reconstruction projects and the preparation of design documents for correction of these problems, the preparation of design documents and specifications for the replacement of retaining walls, detention basins, decks, balconies, and the analysis and design of remedial construction measures for foundation related problems, including water infiltration and foundation failures. Remedial measures have ranged from reinforcing existing foundations and installation of waterproofing measures, to complete removal and replacement of existing foundations walls.

Mr. Amorosi is also the managing principal for the preparation of capital reserve and transition studies or engineering reports for community associations and has achieved the CAI National Professional Designation as a Reserve Specialist (R.S.).

Other community association related projects have included analysis and development of corrective measures for failing stormwater and sanitary sewer systems, and other site design defects. Mr. Amorosi sustains a high involvement in the evaluation of community association common elements to determine the feasibility of replacement or repairs.

Mr. Amorosi is also a NJCAI certified mediator.

### **Published Articles:**

Consider solar power when replacing site and building lighting

Reducing or Avoiding Winter's Havoc

Transition inspections: What are engineers looking at?

The great debate: Should we reserve for siding?

Deicers and concrete. Vinegar and oil?

Reconstruction of asphalt pavement systems:

Proper planning, budgeting and methods are essential

Estimating reserve construction costs: Coming up short?

Underfunded reserves: A community's nightmare

Playground safety: Protect your children and your Association

The role of the Engineer to Community Associations

Drainage deficiencies: Analysis and repairs

### **Continuing Education:**

Underground Stormwater Storage and Infiltration for Sites with Challenging Inverts and Limited Space

From the Ground Up: Geotechnical Engineering and Subsurface Investigations

Digital Signatures and Seals – An Introduction

Professional Engineering Ethics 101

Concrete Removal, Repair and Maintenance

Storm Water Best Management Practice Design: Basins

An Introduction to Interior Lighting Design

Post Construction Storm Water Management – Structural BMP's

Earth Retaining Structures

IBC - Inspecting Soils, Footings, Foundations & Concrete Slabs

Helical Foundation Systems, Helical Soil Nails and Push Piers

Training and Mediation for Condominium Disputes

Geotechnical Reports and Designs

NJ-DCA- A18 Rehabilitation Subcode

Lorman- Pervious Concrete

Lorman- Building Codes

ASCE- Project Communication

ACI- Troubleshooting concrete construction

Sika- TCM monitoring and solutions for steel frame building corrosion

Lorman- Assessing and addressing aging water distribution systems

Lorman- Construction contract changes, extra work claims, and differing site conditions

ACI- Concrete repair basics

Wabo- Strengthening concrete structures with FRP

Unitex- Rehabilitation of concrete structures

Degussa- Corrosion of steel reinforced concrete- causes and prevention

CTS- Slabs without cracks, curling, joints or rebar

NSPE- Concrete structures improving lifecycle performance workshop

Lorman- Construction law: from bidding to final payment

Lorman- Mold Litigation, strategy, and investigation

Rutgers- Brownfield's redevelopment

IBC Inspections of soils, footings, and foundations

Slope Stabilization: Best Practices and Challenges

Bearing Capacity of Soils

Construction Site Stormwater Runoff Control



# The Falcon Group

Engineers, Architects and Energy Consultants

## J. Stewart Willis, Construction Official, HHS, R.S. *Senior Vice President, DC/Maryland/Virginia Region*

### EDUCATION:

Uniform Construction Code Technical and Administrative Course Work, Department of Community Affairs/ Rutgers University

Bachelor of Arts, Economics, Option-Finance, Rutgers College, Rutgers University

### LICENSES/CERTIFICATIONS:

Licensed Construction and Subcode Official-Building

Licensed Building Inspector-HHS, ICS, RCS

Licensed Mechanical Inspector

Certified Exterior Insulation Finish Systems (EIFS) Special Inspector

Certified Building Inspector-Commercial & Residential, International Code Council

Certified Suspended Scaffold User (16-Hour)

Certified Reserve Specialist

### MEMBERSHIPS:

Member, International Code Council (ICC)

Member, Community Associations Institute (CAI)

### PROFILE:

Mr. Stewart Willis is a Senior Vice President with the firm, in overall charge of our Baltimore-Washington Metro operations. Mr. Willis is a CAI certified Reserve Specialist (R.S.), a licensed construction official, building and mechanical inspector, and a certified EIFS special inspector. Mr. Willis has been qualified in several arbitrations and mediations as a recognized expert in building envelope issues, including roofing, siding, fenestration, ventilation and moisture control. Included in his responsibilities are inspections and analyses of existing building components and systems, site improvements, performing building diagnostics and forensic investigation procedures and the preparation of expert reports. His experience includes residential, commercial, industrial and institutional construction, in low-, mid- and high-rise structures. He has provided forensic code and technical analysis, investigations, reports, and expert testimony for a wide range of cases, including existing building and site work defects, building safety, and corrective construction methods and costs.

He has extensive experience in building construction code analysis, water infiltration and building envelope investigations, building ventilation issues, mold sampling and investigations, low slope and steep slope roofing construction, siding replacement projects, fire separation requirements, sound attenuation and insulation requirements and plumbing and mechanical issues. Mr. Willis is an expert in building siding systems investigation and analysis, including deep probe moisture testing of Exterior Insulation and Finish systems (EIFS) and traditional hard-coat stucco and cladding systems. He has investigated and prepared documentation in support of claims and litigation related to construction defects and deficiencies, including providing professional testimony.

Mr. Willis has extensive experience in the preparation of capital replacement reserve studies, in accordance with the national standards set by the Community Associations Institute (CAI). He has been conducting professional capital replacement funding analyses and transition engineering evaluations for communities since 1989.

Additional responsibilities include department head administration of daily operations for our Baltimore-Washington metro and surrounding mid-Atlantic region clients, including supervision of field personnel for field evaluations, design development, bidding and construction control services.

### Presentations and Publications:

- Winter 2017/2018 "Earth, Wind and Fire, How to Prepare for an Emergency" - Co-panelist speaker for Educational Seminar, Community Associations Institute Washington Metro Chapter Annual Expo
- Fall 2016 "Best Practices for Cluster Board Management" - Co-panelist speaker for two-part educational seminar for the Cluster Communities of the Reston Association, Reston, Virginia



- Spring 2014 "Capital Reserves and the Present Value of Your Community" – Participating presenter for Educational Seminar for Property Management Professionals and Board Members of Northeastern PA
- Spring 2014 "Sink Holes in Common Interest Communities" – Joint author, article published by Community Assets Magazine, CAI PA Chapter
- Summer 2014 "Capital Reserves and the Present Value of Your Community" – Participating presenter for Educational Seminar for Property Management Professionals and Board Members of Northeastern PA
- Summer 2014 "Senior Summit" – Participating expert panelist, question and answer session for age-restricted community issues, CAI NJ Chapter
- Fall 2012 "Showcase Your Community In Style – Decks, Balconies, Trims and More" – Participating speaker for Educational Seminar on Condition. Assessments for Decks & Balconies; Community Associations Institute – NJ Chapter Annual Expo
- Spring 2012 "Investing in Reserves" – Participating Speaker for Educational Seminar on Capital Reserves; Washington Metro Chapter CAI Annual Expo
- Spring 2011 Capital Reserves – "Full Funding vs. Fully-Funded" Speaker for Educational Seminar; Washington Metro Chapter CAI Annual Expo
- Spring 2007 "Planning for Telecommunications" – Author, article published in Community Assets quarterly newsletter, PA/Del Val Chapter of CAI
- Winter 2006/2007 "Breaches in Roofs and Firewalls" – Planning for Telecommunications"; author, February, 2007 publication of "Engineering Matters", a professional and informative Newsletter produced and distributed by The Falcon Group
- Winter 2002/2003 "Building Salt Resistant Sidewalks" – Contributing writer for the Winter 2002/2003 issue of Community Assets, the quarterly newsletter of the Pennsylvania/Delaware Valley Chapter of CAI. CAI is a non-profit national organization, recognized as the leader in providing education, legislative advocacy and professional development for the benefit of community associations.
- Fall 2002 "Maintenance" – Instructor for CAI's ABC's for community associations, Mt. Laurel, New Jersey, for the PA/Del Val Chapter of CAI
- Fall 2000 "Facilities Maintenance, Bidding and Contracts" – Instructor for CAI's Advanced ABC's Leadership Training Workshop for Property Managers and Board Members, as sponsored by the New England Chapter of CAI

#### **Testimony Experience:**

##### ***Zephyr Lofts Condominium***

Arbitration Testimony

Qualified Expert Testimony for Building Envelope Issues including Roof, Stucco, Balconies and Curtain Walls

##### ***Barrister Mews at Cambridge Crossings***

Mediation Testimony

Expert Testimony Regarding EIFS, Stone Veneer, Wood Decks, Roofs and Balconies

##### ***Green Brook Condominium Association***

Arbitration Testimony

Testimony on Various Construction Defects, Including Wood Deck Construction

Expert Witness for the Plaintiff

##### ***Tanglewood Homeowners Association***

Subpoena Testimony

Testimony on Building Code, Cedar Siding Systems, Steep Roofing Systems, Ice Damming, Fire Retardant Treated Plywood (FRTD) Roof Sheathing, and Building Ventilation

Fact Witness and Expert Testimony

##### ***Prudential, Allstate and Royal & Sun Insurance Companies***

Trial Appearance

Expert Witness on Building Code, Cedar Siding Systems, Steep Roofing Systems, Ice Damming, Fire Retardant Treated Plywood (FRTD) Roof Sheathing, and Building Ventilation.

Expert Witness for the Defense



**The Falcon Group**  
ENGINEERS, ARCHITECTS AND ENERGY CONSULTANTS

**Michael Palmer, E.I.T., R.S.**  
*Senior Project Manager*

**EDUCATION:**

Bachelor of Science, Civil Engineering,  
University of Missouri, Columbia, Missouri

**LICENSES/CERTIFICATIONS:**

Engineer In Training (E.I.T.)

CAI Capital Reserve Specialist (R.S.)

**MEMBERSHIPS:**

Community Associations Institute (CAI),  
Washington D.C. Metro Chapter

**PROFILE:**

Mr. Palmer is a Senior Project Manager and Reserve Specialist with the firm. Included in his responsibilities are transition/warranty study inspections, transition/warranty study defect settlement negotiations, building envelope inspections, reserve study preparation, and preparation of reports. His experience includes transition settlement and mediation support, in which he supported Community Associations in receiving over 10 million dollars in cash settlements and/or defect repairs. Mr. Palmer's experience includes inspections of all types of structures ranging from high-rise structures to single family homes. Along with his inspection experience, Mr. Palmer has extensive experience in design specification production for several existing building capital improvement projects, as well as, project management and oversight of these improvements.

Mr. Palmer has 15 years related professional service experience in providing engineering services to Community Association. Specifically, Mr. Palmer has extensive experience in building envelope and site evaluations for transition/warranty studies, water infiltration investigations, retaining wall replacement projects, concrete garage remediation projects, building condition assessments, low and steep slope roof replacement projects, building façade restoration projects and window flashing investigation and remediation projects. Mr. Palmer is an expert in transition/warranty studies, as well as, water infiltration investigations and invasive investigations of brick and siding exterior systems.

Additional responsibilities include construction management and control services for corrective construction, including needs assessment, design development, bidding and construction inspection. Mr. Palmer has extensive experience in the preparation of Capital Replacement Reserve Studies, in accordance with the national standards set by the Community Associations Institute (CAI). Mr. Palmer has conducted professional transition/warranty engineering, capital and maintenance reserve, and deficiency report analyses for Community Associations since 2003.





ENGINEERS  
ARCHITECTS  
CAPITAL RESERVE SPECIALISTS  
MEP / ENERGY SERVICES  
DRONE SERVICES  
LITIGATION SUPPORT

*Higher Standards*



CONNECTICUT DC DELAWARE FLORIDA MARYLAND NEW JERSEY NEW YORK PENNSYLVANIA VIRGINIA

## THE FALCON DIFFERENCE

### BUSINESS FOCUS & EFFICIENT PROJECT MANAGEMENT

Our project management and financial overview process allows us to consistently deliver projects on schedule and within your budget. We are able to minimize our clients' expenditures while maximizing savings and return on investment.

### SUPERIOR RESULTS

Our staff holds the highest level of skillsets and certifications for any job, which in turn yields a higher level of craftsmanship.

### CREATIVITY, FLEXIBILITY & INGENUITY

Having a seasoned, diverse staff with many different backgrounds allows us to customize solutions for specific situations creatively and effectively solving problems as they arise.

### ACTIVELY ENGAGED SENIOR MANAGEMENT

Our Principals maintain a visible role on projects to ensure that relevant issues will be anticipated and resolved in a timely fashion.

### ACCESSIBLE STAFF & UNPARALLELED PERSONAL ATTENTION

Our clients have peace of mind knowing we are "always on the job" 24 hours a day, 7 days a week. We are personally available to address any issues or emergencies that may arise while monitoring your projects progress.

### RESPONSIVE, PROACTIVE & TIMELY COMMUNICATION

We are diligent about keeping clients informed regarding the status of all projects.

## HIGHER STANDARDS

The Falcon Group is a unique, full-service Engineering, Architectural & Energy Consulting firm. Falcon's primary focus is on restoring and evaluating existing facilities ranging from site, building envelope and energy improvements. Our full-service capabilities focus on your building's specific needs. Falcon's mission is to ensure each of our clients are held at the highest level of individualized service.

Falcon takes pride in our work to ensure that our client expectations are exceeded every single time. We look forward to partnering with you on your next successful project.

## STAFF CREDENTIALS

APRA – Certified Professional Reserve Analysts

BCxA – Building Commissioning Association

AEE – CEM / Association of Energy Engineers

CPSE – Certified Playground Safety Inspector

HRS – High-Rise / Hazardous Specialists, Building & Fire Inspectors

ICCB – International Code Council Certified Building & Mechanical Inspectors

ITB – Inspector / Consultant (Specialty, Building & Fire Inspections)

LEED – Certified Green Building Professionals

LEED / GH – Leadership in Energy & Environmental Design Accredited Professionals

Licensed Landscape Architect

LCS – Licensed Civil Engineer

ME – Licensed Mechanical Engineers in NJ, NY, PA

NCARB – National Council of Architectural Registration Boards

NFPA – Fire Prevention Inspector

NJ – New Jersey Special Inspectors Certification for ERS (Envelope, Insulation & Finish Systems) & Concrete

NYC – Class 2 Special Inspection Agency

PE – Licensed Professional Engineers in CT, DC, DE, FL, MD, NJ, NY, PA, SD, VA, VT

PE – Disaster Safety / Assessment Evaluators (Infrastructure & Engineering)

RA – Registered Architect, DE, FL, MD, NJ, NY, PA, VA, VT, FL

RCI – Licensed Residential Construction Specialist / Building Inspector

RCC – Registered Risk Consultants with the Risk Consultants Institute

RTO – Registered Risk Observer

RS – Consulting Association's Mutual Certified Reserve Specialists

SAP – Safety – Safety Assessment Program



## CIVIL ENGINEERING

The Falcon Group's civil engineers have extensive training and the professional expertise to provide unmatched services. As your partner, we supply the planning, design and supervise the construction tailored to your specific needs.

- Wind & Seismic Analysis
- Land Use Planning
- Land Surveying / GPS
- Site & Subdivision Design
- 3rd Party Review Services
- Municipal Engineering
- Landscape / Lighting Plans
- Recreational Facility Designs
- Roadway / Parking Improvement Design
- Stormwater Management Analysis
- Drainage Analysis & Design
- Retaining Wall Design
- Basement Water / Foundation Repair Design
- Construction Stake-out
- Construction Observation

## ROOF CONSULTING

Our multi-disciplinary in-house staff is unique in the roof consulting field. We are able to look beyond just the roof to understand the entire envelope, structure and mechanical systems of a building, allowing us to better identify the most appropriate roofing repair and replacement strategies.

- Roof Inspections
- Storm Damage Inspections
- Insurance Claim Inspections
- Moisture Surveys
- Expert Testimony / Expert Witness
- Drone Inspections

- Plans & Specifications for Roof Replacement & Repair
- Project Management
- Preventive Maintenance
- Cool Roof & Green Roof Designs







#### CAPITAL RESERVE STUDIES

The primary purpose of a Capital Reserve Study is to offer recommendations as to the amount of money a community, building or other organization should set aside on a yearly basis for the future replacement or major refurbishment of their commonly owned elements. A properly funded reserve program is essential to keeping a community's physical assets in prime condition. We recommend updating your Capital Reserve Study every three (3) years.

##### Value

- Sustain / Increase Property Value By Upholding Exterior Appearances Through Timely Repair or Replacement of Common Elements
- Facilitating Project Efficiency & Cost Effectiveness
- Minimize Disruptions & Inconveniences
- Reduce Member Dissatisfaction Associated with the Passage of Large or Sudden Assessments

##### Process

- Inspection
- Evaluation for Repair / Replacement
- Develop Realistic Repair / Replacement Plans & Budgets
- Prepare a Comprehensive Report in Accordance with CAI & APRA Standards & Guidelines

#### TRANSITION ENGINEERING EVALUATIONS

Our experience with existing multi-family and single-family developments provides us with a wealth of insight, and foresight, regarding potential construction problems and deficiencies. We are well-equipped to support Associations at every phase of the transition process.

##### Site / Building Plan Review & Analysis

- Detailed Interior & Exterior Inspections & Measurements
- Anticipate & Identify Design Flaws & Code Violations

##### Resident Surveys

- Forecast Impact of Construction Defects
- Provide Appropriate, Timely & Cost-effective Solutions
- Expert Testimony & Mediation Services





ARCHITECTURE

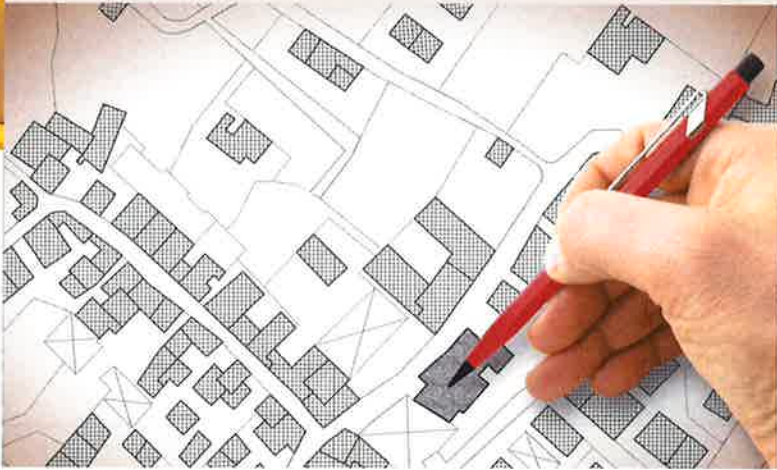
From conception to creation, we provide inspired architecture. Our well-conceived designs are strategically sculpted for function but aesthetically shaped for beauty. We specialize in blending new with the old and our clients receive customized services and personalized attention from a licensed architect ensuring a high-quality design tailored to their needs.

- New Construction
  - ADA Analysis & Compliance Renovations
  - Design Development
  - Building Code Review
  - Fire & Water Damage Reconstruction
  - Parking Garage Design & Renovation
  - Tenant Fit Out
- Residential Renovations
  - Office & Retail
  - Site Design
  - Single or Multi-family Residential
  - Zoning Analysis
  - Interior Design

DESIGN PLANS & SPECIFICATIONS

Clients receive customized, well-conceived design plans and specifications for initial, as well as remedial, site and building-related construction projects. We take great pride in ensuring that all our recommendations are practical, economically feasible and efficient.

- Building Cladding / Waterproofing
  - EIFS / Stucco Remediation
  - Curtain Walls
  - Roof Systems
  - Building Foundation Waterproofing
  - Fire Reconstruction
  - Parking Garage Restoration
  - Recreational Facilities
  - Retaining Walls
  - Sidewalk Vaults
- Commercial Architecture
  - Site / Building Capital Improvements
  - Asphalt Roadway / Driveway / Parking Area Improvements
  - Site Drainage Improvements
  - Stormwater Analysis
  - Soils Investigation / Subsurface Disposal
  - Mechanical, Electrical & Plumbing Design
  - Water Distribution & Plumbing Systems
  - HVAC (Boilers, Chillers, Cooling Towers)
  - Sites & Subdivisions







## STRUCTURAL & BUILDING ENVELOPE

Our structural engineers will design, plan and execute your project, tailored to suit each individual's specific needs and budgets. Our engineers will inspect all materials used to ensure the strength and stability of your structure from low-, mid-, to high-rise structures and facilities. Falcon's engineers pride themselves on ensuring the services and recommendations provided to each of our clients are held at the desired level of individualized care and attention.

- Building Condition Assessment
- Storm Damage Assessment
- Design Specifications
- Emergency Repair Design Services
- Construction Defect Reports & Claim Administration
- Construction Project Management
- Siding Replacement Specifications
- Roof Replacement Specifications
- Parking Garage Design & Renovation
- EIFS (Synthetic Stucco) / Stucco Investigations
- Concrete Design, Waterproofing & Repairs
- Fire & Flood Reconstruction Plans & Management
- Tenant Separation Analysis for Fire Protection / Sound Analysis
- Expert Witness Reports / Professional Testimony

## FAÇADE INSPECTION

With years of experience gained from working with a variety of building types and cladding systems, we have developed specialized expertise in investigating and evaluating aging building façades, designing appropriate, long-lasting economical repairs and providing the necessary oversight to ensure proper construction.

- Project Planning, Budgeting & Management
- Evaluation of Thermal & Moisture Concerns
- Non-destructive Test Methods to Identify Concealed Defects
- Identification of Deteriorated Components & Potentially Unsafe Conditions
- Facilitate Compliance with Local Building Department Requirements
- Specifications for Building Repair & Maintenance
- Development of Repair & Bid Plans
- Construction Administration & Inspection
- Coordination & Facilitation of Drawings, Plan Filings & Approvals from the Local Building Department
- Expertise in Complying with Local Façade Inspection Laws
- Drone Inspections





## DRONES

Aerial photo, videography and imaging services elevates projects to new heights, ensuring inspection and analysis happen faster. Our industrial-grade drones deliver the newest, most innovative aerial imaging solutions. As pioneers in Droneengineering, our expert engineers operating the drones know what information to capture and where to focus.

- Inspect Roofs, Façades & Vegetation
- Scanning for Timely Construction Updates
- Promotion & Website Enhancement
- Supporting Data for Forensic Engineering
- New Construction & Renovation Progress Monitoring & Documentation
- Disaster Recovery Surveying for Insurance Claims

## MEP / ENERGY SERVICES

Our expert team of licensed and accredited engineers and architects provide the most comprehensive services in our industry for assessment, design services and project administration. We offer full-service mechanical, electrical and plumbing (MEP) designs and specifications, inspections, troubleshooting, building commissioning and energy studies.

Energy Audits  
Mechanical, Electrical, Plumbing  
Analysis / Design  
Building Modeling &  
Simulation Commissioning  
Sub metering  
Analysis / Design  
Testing, Adjusting  
& Balancing  
Renewable Energy

Feasibility Studies  
Life Cycle Evaluations  
Control System  
Analysis / Design  
Energy Rebate &  
Incentive Analysis  
Solar & Alternative  
Energy Design  
Benchmarking





#### LITIGATION SUPPORT

For virtually any type of property or project, Falcon's Litigation Department provides a variety of analytic and related services to assist clients in obtaining successful litigation outcomes with a proven track record of recoveries exceeding \$100 million for our clients. Our expert engineering and architecture staff is on hand to partner with our litigators.

- ▶ Developer Transition / Turnover
- ▶ Construction Defect Reports & Claims
- ▶ Infrared Imaging
- ▶ Storm Damage Assessment & Insurance Claims
- ▶ Cost to Cure Estimate
- ▶ Light & Air Studies
- ▶ Material Defect Claims
- ▶ Expert Witness / Professional Testimony
- ▶ Mediation / Arbitration Services

#### CONSTRUCTION ADMINISTRATION & INSPECTION

Effective administration and inspection can reduce costs. Our years of experience allow us to anticipate and avoid mistakes or omissions, which may materially alter a project's schedule, cost, outcome or benefit for our clients.

- Preparation of Construction Documents
- Cost Estimate Preparation / Review
- Bid Specification Development
- Bid Administration Process
- Building Conditions Assessment

- Pre-construction Advisory / Meetings with Contractors, Owners & Managers
- Comprehensive Construction & Work Inspections
- Punchlist Preparation, Quantity / Invoice Verification & Payment Authorization







#### LAND SURVEYING

The Falcon Group uses the latest technology to provide for a wide variety of surveys for a diverse range of clients. Through the use of sophisticated computer software, such as digitizing and CAD equipment, we consistently produce accurate and timely surveys.

- ▶ Topographic
- ▶ Photogrammetric
- ▶ Boundary-single / Multi-family Lots
- ▶ Triangulation
- ▶ Construction-layout / Stakeout
- ▶ Control & Geodetic
- ▶ Commercial & Residential Subdivisions
- ▶ Flood Certificate / FEMA
- ▶ Deeds
- ▶ Bank Transactions
- ▶ Utility Location Compilation
- ▶ Boroscope
- ▶ Electrical
- ▶ Thermographic

#### CONSTRUCTION & MATERIAL TESTING

Sites, buildings and their systems require ongoing monitoring and maintenance to ensure that they fulfill their designed purpose. Weather, age, natural disaster, poor construction, and substandard materials all contribute to deterioration. We offer a complete range of testing services to anticipate and diagnose potential and current problems.

Pavement Coring  
Concrete Coring & Testing  
Mold Testing  
EIFS / Stucco Moisture Testing  
Lighting Analysis  
Temperature  
Water Pressure Evaluation

Sound Transmission  
Roofing Moisture Surveys  
Structural Movement Monitoring  
Window, Siding, Roofing, Insulation  
Destructive & Non-destructive Testing & Analysis  
HVAC Systems  
Piping Condition





# The Falcon Group

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CONNECTICUT ➤ DC ➤ DELAWARE ➤ FLORIDA ➤ MARYLAND ➤ NEW JERSEY ➤ NEW YORK ➤ PENNSYLVANIA ➤ VIRGINIA





# The Falcon Group

## CAPITAL RESERVE STUDIES

What every community should know





## What is a *Capital Reserve Study* and how can it help my community or building?

The primary purpose of a Capital Reserve Study is to offer recommendations as to the amount of money a community, building or other organization should set aside on a yearly basis for the future replacement or major refurbishment of their commonly owned elements.

The analysis and recommendations are important to help avoid possible future special assessments of individual unit owners. The analysis should take into account the site specific existing conditions and how they affect the useful life cycles of components and the realistic replacement costs based upon actual material costs and the individual item's site specific method of reconstruction.





## Reserve Specialist (RS)

The RS is a designation awarded by the Community Associations Institute (CAI) to members of the reserve specialist profession who demonstrate proficiency in preparing reserve studies for communities, buildings and other organizations.

An RS is an expert in the physical and financial asset replacement planning for communities, buildings and other organizations and has successfully met all designation requirements, including:

- Preparing at least 30 Reserve Studies within the last 3 years
- Holding a Bachelor's Degree in Construction Management, Architecture or Engineering (or equivalent experience & education)
- Adhering to CAI's national standards for reserve disclosures, reporting and professional code of ethics.

Falcon will help ensure that your community association prepares its reserve budget as accurately as possible. When Falcon conducts a reserve study, we will help your community maintain its long-term financial health by providing:

- Inventory of items subject to replacement
- Estimated useful remaining lives of those items
- Estimated cost of replacement
- Funding plan designed to cover future expenditures

**Falcon has 4 CAI Certified Reserve Specialists (RS) on staff. Falcon also has a Professional Reserve Analyst (PRA) designation awarded by the Association of Professional Reserve Analysts.**

## *Why is Falcon Different?*

Falcon is a full-service engineering and architecture firm with licensed engineers and architects who offer a wealth of hands-on construction, cost estimating and design experience which allows us to provide a Higher Standard of service. We have prepared over 2,000 capital reserve studies over the last 20 years.

To ensure your community is planning appropriately for future capital reserve projects, contact The Falcon Group to learn more or request a no obligation proposal.



# **The Falcon Group**

[info@falconengineering.com](mailto:info@falconengineering.com)

(800) 839.7740

[www.falconengineering.com](http://www.falconengineering.com)





## Capital Reserve Replacement Fund Analysis

FOR  
A CONDOMINIUM ASSOCIATION  
IN VIRGINIA

PREPARED BY



### The Falcon Group

ENGINEERING, ARCHITECTURE, ENERGY  
CONSULTANTS, FORENSICS, DRONE SERVICES

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Please observe that this document consists of three sections which are independently page numbered; the Narrative Report (whose page numbers have an "N" prefix), the Calculation Tables (whose page numbers have a "C" prefix), and the Appendix (whose page numbers have an "A" prefix).

## Community Description

The XXX Condominium Association consists of 318 condominium dwellings arranged throughout 13 separate 3-story multifamily buildings in Virginia. The community also contains a single story clubhouse facility, the recreational amenities associated with which include an outdoor swimming pool, outdoor spa tub, concrete pool deck, multipurpose room, office, fitness center, and indoor racquetball court. The community was reportedly constructed in phases, between 1991 and 1994.

There are 2 main phases in the design and construction of the XXX community. The first 6 multifamily buildings completed, located generally along the southern side of the property, were designed and constructed without fire sprinkler systems and, being 3 stories in height, are therefore required to meet 'Type 5A' construction requirements, wood framed structures requiring fire resistance rated construction at all load bearing walls and floors, including balconies. As such, these "Phase I" buildings contain fire retardant treated (FRT) lumber for the construction of the exterior balcony and breezeway structures and subfloors, which is covered by a thin concrete topping slab. At the time of this analysis, these Phase I FRT lumber balcony and breezeway structures are scheduled to be reconstructed, with FRT lumber deck planking, in 2017.

The remaining Phase II buildings of the community are of a similar architecture and lay-out; however, these buildings incorporate automated fire sprinkler systems, and, although 3 stories in height, are able to be Type 5B construction, wood framed structures that do not require fire resistance rated construction at all walls and floors. As such, these Phase II buildings utilize conventional pressure preservative treated (PPT) lumber at the balconies, and for breezeway framing and subfloor. These Phase II structures, being pressure preservative treated, still have several years of service life remaining as of the date of this analysis.

The property is accessed by vehicle from XXX at its east end, and is convenient to Interstate Route 66, being less than ½ mile away. The location is approximately 12 miles west of Interstate Route 495 / Outer Beltway, and about 20 miles due west of Washington, D.C., in Fairfax County, Virginia. Washington / Dulles International Airport lies just 6 miles to the north.

## Capital Reserve Replacement Analysis Overview

The function of a Capital Reserve Replacement Analysis is to inform and advise the Community Association as to the likely capital expenditures for replacement of common elements over the time frame considered by the analysis and the annual contribution levels to the Capital Reserve Replacement Fund calculated as being sufficient to avoid having to levy special assessments or take out a loan in order to support the predicted capital expenditures.

All Capital Reserve Replacement Analyses therefore assume that the Association is funding capital expenditures through the use of regular (e.g. annual, quarterly, or monthly), budgeted contributions to an account set aside for the sole purpose of funding the replacement of a designated set of common elements (often called the "Capital Reserve Fund").

A Community Association can defer common element replacement projects. Such deferrals tend to result in the gradual decrease in property values as the infrastructure and appearance of the community facilities degrade over time. In addition, such deferrals often result in the final replacement costs increasing significantly due to more extensive deterioration and additional damage to other common elements resulting from the failure of the common element to be replaced.

## Association Considerations for a Capital Reserve Replacement Analysis

Each Association has a number of choices and options to consider during the Capital Reserve Replacement Analysis process. Two of the most important decisions are the Methodology (q.v.) of the analysis and the Funding Goal (q.v.) of the Association, although there are a number of other considerations, including:

- **Budget Thresholds** – the budget threshold is simply the lowest total project cost that the Association wants to fund using the Capital Reserve Fund. This is normally a function of the Association's proclivities, operating budget size, and administrative/fiscal history – some communities will fund a \$5,000 project through the maintenance or operating budget, while others prefer to schedule and fund a \$500 project through the capital reserve budget. Many Associations never make a formal decision, leaving this to the professionals who prepare their Capital Reserve Replacement Analyses.
- **Federal Housing Authority/Housing & Urban Development Limitations** – the federal government is a significant mortgage insurance provider. The FHA/HUD mortgage insurance programs currently require that community Associations fund replacement reserves for capital expenditures and deferred maintenance with at least 10% of the Association budget in order to meet eligibility requirements for FHA mortgage insurance – failure to maintain this level of replacement reserve funding can trigger requests for a current (less than 12 month old) reserve study or a Fannie Mae form 1073a from lenders (see HUD Mortgagee Letter 2009-46 B).
- **Maintenance Budget** – no project should be funded in two places. Any and all maintenance contracts for common elements should be reviewed, and any common element whose complete replacement is included in the maintenance contract should be removed from consideration in the Capital Reserve Replacement Analysis, since the Association is already allocating funds to replace the element.
- **Operating Budget** – no project should be funded in two places. Any common elements that the Association is planning to replace in a series of incremental projects on an annual or irregular (as-needed) basis using the operating budget funds should be removed from consideration in the Capital Reserve Replacement Analysis, since the Association is already allocating funds to replace the element.
- **Preventive or Deferred Maintenance Budget** – no project should be funded in two places. The Association should compare its capital reserve budget to its preventive/deferred maintenance budget. Line items existing in both schedules should be removed from one or the other, since the Association is already allocating funds to replace the element.
- **Statutory Requirements** – some jurisdictions may require that certain elements are included in a reserve fund analysis, and other municipalities agree to accept responsibility for some elements (most commonly roadways). Such factors cannot be determined by site inspection – the Association should have documentation indicating any such factors, and should certainly inform the professionals performing the Capital Reserve Replacement Analysis of these factors.
- **Time Window** – the time window is simply the time span that the Association desires to consider its capital reserve expenditures over. Typically, Associations do not consider common elements with a condition assessed remaining life cycle of longer than 30 years as part of the Capital Reserve Replacement Analysis. As a general rule, longer time windows are more conservative (resulting in higher annual contribution levels), with the longer time windows allows the Association a longer lead-time to accumulate funds for large projects.
- **Interest and Inflation** – interest (sometimes called the rate of return) and inflation can have significant influence on the capital reserve budget. Increasing interest rates tends to reduce the necessary annual contributions, as the Association is essentially collecting additional funding from investment of its capital reserve fund. Increasing inflation rates tends to increase the necessary annual contributions, as the Association needs to collect additional funds to account for the decreasing purchasing power of money. The Falcon Group generally recommends that most Associations are better served by assuming interest and inflation rates of zero and updating their Capital Reserve Replacement Analysis every two to three years (thus correcting for the effects of interest and inflation every second or third year), rather than making assumptions about factors that vary significantly and unpredictably with market forces. That being said, if the Association desires, The Falcon Group can certainly assume whatever average annual interest and inflation rates the Association requests.

Besides the above considerations, there are two decisions that the Association will need to make:

## Funding Goals

The funding goal helps to determine the methodology used in the Capital Reserve Replacement Analysis and also is the principal reflection of the Association's fiscal policy. Funding goals can be categorized by their fiscal aggressiveness (willingness to risk the need to levy a special assessment or take out a loan) – more aggressive funding goals tend to result in lower annual levels of contribution to the capital reserve fund, with associated higher risks of shortfalls requiring special assessments or loans.

There are four basic funding goals used by communities when determining Capital Reserve Fund requirements:

- **Baseline Funding** is the most aggressive funding goal commonly used by Associations. Baseline funding is essentially a special case of threshold funding, where the goal is to never have a negative capital reserve fund balance (in other words the threshold is zero). As this funding goal provides no margin for errors, unexpected or unforeseeable expenses, or market forces that are not in the Association's favor, The Falcon Group does not recommend this as a funding goal for the Association's capital reserve budget.
- **Full Funding** is the most conservative funding goal commonly used by Associations. Full funding is best understood as an attempt to maintain the capital reserve fund at or near 100% of the accumulated common element depreciation. As an example: assuming element X has a life cycle of 10 years, is presently 5 years old, and has a replacement cost of \$10,000, then the full funding goal would be to have \$5,000 ( $5/10 \times \$10,000$ ) in the capital reserve fund for this item. Full funding, as defined by GAP Report #24 ("A Complete Guide to Reserve Funding & Reserve Investment Strategies", 4th ed., produced by CAI), appears simpler than it actually is in practice, and tends to result in over-funding if the community is starting with a capital reserve fund balance less than the current depreciation of its common elements, or to result in under-funding if the community is starting with a capital reserve fund balance greater than the current depreciation of its common elements, unless applied carefully and with the understanding that annual contributions will change over the course of time as overages and shortages are corrected, resulting in an annual contribution recommendation that decreases or increases with the passage of time in all except the simplest cases.
- **Statutory Funding** is a funding goal (and/or methodology) that the community is legally obligated to meet or exceed. Such funding goals are typically the result of state or local statutes or the result of one or more provisions in the governing documents of the Community Association. The relative aggressiveness of such funding goals will vary depending upon the statute or provision involved.
- **Threshold Funding** is normally a moderate funding goal. The essential goal of threshold funding is to avoid having a capital reserve fund balance below some predetermined level (the "threshold" or "threshold balance"), which can be determined as a percentage of the total cost to replace the considered common elements, by decree as some absolute value (e.g. the community decides that \$100,000 is the threshold balance because that is a number it is comfortable with), or as some multiple of the annual contribution (e.g. the community wants to have a capital reserve fund balance of no less than 9 months of capital reserve fund contributions). Note that Baseline Funding is essentially a threshold funding goal where the threshold balance equals zero.

## Methodology

There are essentially three methods used in Capital Reserve Analyses performed for most communities. The decision of which methodology to use is made by the Community Association, often under the advisement of its accountant, lawyer, and/or engineer. These three methodologies are:

- **Cash Flow methodologies** are based upon a projection of the future expenditures that the Community Association is likely to experience. The cash flow is then determined, based upon these expenditures, so that the resulting Capital Reserve Fund balances over the time window meet the funding goal.
- **Component methodologies** are based upon calculating the yearly contribution necessary to fund the replacement of each common element that is being considered. Each element is considered separately, producing a series of

distinct line item entries of necessary contributions, which are summed to produce the total annual contribution to meet the funding goal.

- Statutory methodologies, like Statutory Funding Goals, are determined entirely by the statutes and/or governing document provisions that create the methodology. Statutory methodologies will most commonly resemble cash flow or component methodologies, but can theoretically be based upon any fiscal or legal conceptualization of the capital reserve funding.

Methodology and funding goal are normally related closely to each other. As a rule, baseline and threshold funding goals are most easily calculated using a cash flow methodology, full funding goals are normally calculated using a component methodology, and statutory funding goals and methodologies are often found together (e.g. the local government legislates both what the funding goal is and how the community calculates its reserve fund contribution to insure that the funding goal is met).

Please note that cash flow methodologies and component methodologies cannot be easily compared on a line item by line item basis, as cash flow methodologies do not generate a definite line item breakdown of how the annual funding is distributed between the various line items. Likewise, cash flow methodologies do not lend themselves to division of common element responsibilities between various entities. For instance, if an Association is internally divided between several sub-groups that do not share all common elements (for instance, an Association where owners of detached dwelling units do not own a share of the common elements of multifamily buildings in the Association and vice versa, but all owners share responsibility for the recreational facilities and site improvements), then the proper application a cash flow methodology would require multiple analyses, with one analysis for each division of responsibility (in the aforesaid case, there would need to be an analysis for detached dwelling unit buildings, an analysis for multifamily buildings, and an analysis for the recreational facilities and site improvements), and each analysis requiring a distinct set of initial conditions (most notably initial capital reserve fund balances).

## Analysis

A Capital Reserve Replacement Analysis consists of a series of calculations, which essentially attempt to create a mathematical model of the Association's capital reserve fund expenditures/cash flows over a designated time window, and then determine the annual contributions to the capital reserve fund necessary to support the modeled expenditures/cash flows.

Capital Reserve Replacement Analyses, as performed by The Falcon Group, performs several sets of separate, distinct, and independent calculations upon the same basic information. This permits the analysis to include a component methodology full funding calculation and several cash flow methodology threshold funding calculations (using different threshold balances) to permit the Association to more fully examine its possible capital reserve funding options. Please note that the cash flow and component methodologies cannot be directly compared on a line item by line item basis, due to the significant differences between the underlying mathematics of these methodologies.

The Capital Reserve Replacement Analysis calculations and results are shown in a series of tables and graphs that demonstrate the general viability and end results of the various scenarios. These tables and graphs allow the Association to verify that one or more of the scenarios considered meet Association requirements and do not engage in unacceptable levels of over- or under-funding, as well as allowing the Association to inspect the underlying assumptions and numerical bases of the various scenarios and compare the costs (annual contributions over the time window of the analysis) of achieving these scenarios.

Please note that this Capital Reserve Replacement Analysis is a guide, not a legally binding document. The Association should not allow itself to feel constrained from performing necessary or desirable projects simply because they are not included in this analysis, nor should it feel itself forced to perform any project simply because it has been scheduled in this analysis. If work needs to be done, then do it, and likewise, if the common element condition does not justify replacement or refurbishment, then refrain from performing the work until it needs to be done. The Falcon Group believes and recommends that every Association should have a reserve analysis performed no less than once every three years to



allow the updating of estimated replacement costs to reflect inflation, technological advances, changes in the construction industry, and current market forces, as well to allow alterations in life cycle information to reflect any significant alterations in the Association's common element conditions or quantities, as well as any significant changes in industry standards or market forces.

## Limits of Inspection & Disclosures

The Falcon Group will not accept responsibility for the detection or analysis of conditions not visible to the naked eye under normal lighting conditions, or conditions located in areas which cannot be accessed by inspectors.

On-site inspections include walking the improved areas of the site and visual inspection of representative samples of the observable common elements and accessible areas of the clubhouse interior. Please note that The Falcon Group cannot accept responsibility for detection of non-representative conditions as part of the on-site inspections.

On-site inspections are limited, most notably by the following:

- Unless otherwise stated in the Common Element Descriptions & General Comments, no non-visual examinations were conducted.
- No destructive or invasive testing of any kind was undertaken.
- At no time was any private residence entered, nor were the interior conditions of any private residence examined.
- No security measures (locks, alarms, etc.) were circumvented, and areas within security perimeters were examined from outside said perimeter.
- No area of the site inaccessible to pedestrian traffic was examined and no areas requiring special tools to access or necessitating specific equipment or training to work in safely were entered.

Conditions stated in the report are representative of the general observed conditions of each item. Isolated areas of above or below average conditions may exist for any item. This analysis is not meant to be, nor should it be used as, a detailed condition evaluation of the common elements or a construction defect investigation.

The current Capital Reserve Replacement Analysis is an update of a previous analysis that, per Association direction, has been performed without a site visit. Line items have been modified based upon the passage of time since the previous analysis was performed, cost inflation during the time since the previous analysis was performed, and documentation/information from the Association and the Association's management professionals.

No attempt has been made to predict either the rate of inflation or the rate of return on investments and savings that can be achieved by the Association. The Falcon Group assumes that the Association can achieve a consistent rate of return on investments and savings that equals or exceeds inflation, and that any investment income above and beyond the rate of inflation will be retained within the Capital Reserve Fund, but, for budgeting purposes, assumes that the annual rate of cost inflation and the annual rate of investment return seen by the Association is zero (0%). The Association should consult with its accountant to verify the viability of these assumptions. If the Association desires inclusion of non-zero inflation and investment return, please contact The Falcon Group with the desired annual rates of inflation and investment return so that a revised analysis can be prepared to reflect the Association's desired assumptions in this regard.

Information provided by official representatives of the Association is assumed to be reliable and accurate. This analysis is a reflection of the information supplied to The Falcon Group, and has been assembled for the Association's use; this analysis is not meant to be an audit, quality/forensic analysis, or background check of historical information. Similarly, on-site inspections performed as part of this analysis should not be considered a project audit or quality inspection of any reserve project.

Common element quantities taken from a previous Capital Reserve Replacement Analysis were utilized in the current Capital Reserve Replacement Analysis, and the accuracy of the current analysis is therefore dependent upon the accuracy of the previous analysis' quantity information.

The Falcon Group has supplied previous professional services to the Association, including engineering design, bidding and construction phase services for the recently completed Roof Replacement program. In addition, the Association currently has retained The Falcon Group for professional services, including Balcony & Breezeway Reconstruction Plans.

## Community Specific Conditions & Commentary

### General Comments

Please note that, based upon professional judgment and information provided by the Association or the Association's management professionals, the following have not been considered as part of this Capital Reserve Replacement Analysis:

- Annual maintenance tasks (e.g. filling pot-holes & sealing pavement cracks).
- Drainage repairs or enhancements.
- Landscaping and irrigation systems, including maintenance, replacement, or enhancement.
- Landscape plantings.
- Painting, sealing, or staining of exterior or interior wooden components.
- Painting of exterior or interior metal components.
- Preventive maintenance tasks (e.g. power-washing siding, annual inspections).
- Protected or concealed structural components, such as foundations, wall framing, floor/ceiling framing, roof framing, and similar components.
- Radon mitigation systems.
- Routine (e.g. sweeping stoops, snow clearing) and emergency (e.g. repairing broken stair treads) maintenance tasks.
- Underground utilities.

Should the above list be incorrect, please notify The Falcon Group so that the analysis can be appropriately amended.

These items are excluded from this analysis because they are typically considered to be either maintenance or operating expenses, and are therefore expected to be accounted for in those budgets, or have predicted remaining life cycles that exceed the analysis time window, and are therefore not typically considered a capital expenditure (at this point in time), or are not common elements, and are therefore not the Association's responsibility. The Association should review all maintenance and operating budgets to confirm that sufficient funding is being allocated toward all maintenance and operating budget items, and the Association's legal professionals should verify the responsibilities of both Association and individual unit owners to confirm that the common element list used in the analysis is accurate.

### Calculation Table Notes

The following are notes that provide specific comments for use with the Association's current Capital Reserve Replacement Analysis. These notes are numbered and correspond to the numbers given in the analysis Calculation Tables, which immediately follow these notes.

1. Many of the items vary slightly in age and/or condition; however, most line items have been given an average remaining useful life based upon observed general conditions. Single or isolated replacements may be needed and should be funded through reserves as the need arises (such as-needed replacement may be especially prevalent for broken or heaved sections of concrete walkway, single light fixture, etc.). For purposes of establishing a funding plan, complete replacement projects are assumed in most cases (with exceptions for projects of exceptional scope and/or expense, where phasing is often used to reflect financial or other practical limitations). Performing capital reserve replacement projects as unified scopes of work will decrease costs from economies of scale and mobilization costs. Similarly, unit costs are typical average costs for the item understanding that specific costs can be expected to vary both above and below the unit cost used in the analysis.
2. Previous Capital Reserve Replacement Analysis quantities were utilized in the current Capital Reserve Analysis, and the accuracy of the current analysis is therefore dependent upon the accuracy of the previous analysis quantity information. It has been assumed that the Association is satisfied with the completeness, accuracy, and reliability of the common element quantity supplied by the previous analysis.
3. The current analysis also utilizes field measurements to verify certain Line Item Quantities. Field measurements performed as part of this analysis are not meant or intended to be used for contractor bidding, design work/calculations, or any function other than budget calculation.
4. Please note that decks and balconies are areas that are subject to failure from overloading due to furniture, equipment, and/or resident/guest usage in excess of design intent. This issue is often exacerbated by deterioration of wood structural members, which occurs in wood exposed to the elements at a rate dependent upon the species and quality of the lumber used in the construction, local weather conditions and climate, usage and loading patterns, and maintenance practices. Falcon performed a detailed evaluation of the Phase I balcony and breezeway structures in 2015-2016, and these structures are scheduled for reconstruction in 2017. For the purposes of this analysis, these Phase I structures have been shown with zero (0) useful life remaining as of January, 2017. We have estimated a remaining useful service life of approximately 5 more years for the Phase II balconies and breezeways of the community.

We have not performed a detailed inspection of every individual deck/balcony in the community as part of this capital reserve analysis, and detailed inspections would be required to verify the structural integrity/stability of each deck or balcony in the community.

5. Line item not funded due to estimated remaining useful life exceeding the time window of this funding analysis (greater than 30 years), such as newer cement board paneling. At such time as the estimated remaining useful service lives for these items fall within the 30-year timeline of the analysis, funding for the items should commence. Future capital reserve update analyses should take this into consideration.
6. Line item organization and quantities carried over directly from prior reserve analysis.
7. Line item added during this update analysis at the recommendation of the Falcon Group.
8. In the summer and fall of 2016, Falcon provided engineering services for the design, bidding and construction phase services for the shingle roof replacement program at the community. As of January 2017 all shingle roofs in the community, including the clubhouse, are new and show an estimated 30-year remaining useful service life. The replacement costs are based on the actual costs incurred during the 2016 program, and include tear-off and replacement of the existing roof systems, with allowances for new flashings and underlayment.

Please note however, that the sheet metal caps of the framed chimney chases were not systematically replaced as part of the recent roof replacement program. Some of the chimney chase caps have been replaced already, but we estimate that some 80% of the caps, approximately 92, will require replacement within the next 4 years (see photo as follows). The replacement cost is based on installing a long-life stainless steel cap, with a typical service life of 40 or more years.



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We have included a separate line item for gutters and leaders in order to track these components independently of the roofing. All gutters and leaders were replaced with new commercial sized materials during the 2016 roof replacement program.

9. The exercise equipment at the fitness center of the clubhouse appeared to be in good condition, and we have estimated a remaining useful life of some 13 years (see photo as follows).



XXX

10. We have expanded the line item funding for fire alarm panel (clubhouse) to account for the eventual need to replace a fire alarm panel at each one of the 14 buildings in the community. We have also added line item funding to account for as-needed repairs to the fire sprinkler system controls and alarm actuator check valve switches at the clubhouse and the 7 sprinklered Phase II buildings.
11. Please note that the given cost estimates for HVAC heat pumps, plumbing, and/or mechanical equipment is for replacement of the central equipment, and does not include replacement of all wiring, piping, or ductwork, which

is assumed to last indefinitely (typically wiring, piping, and ductwork would be repaired on an as-needed basis as an operating or maintenance expense).

12. No direct inspection of the existing swimming pool and spa shell, coping and tiles was made, as the facility was closed for the season during the inspection period of this analysis. For purposes of this analysis, it is assumed that these items have aged typically and consistently from the time of the last analysis. Note that we have broken out coping and tile replacement work from the shell refurbishment line item, since the coping and tile work generally last about twice as long as the plaster shell finish.
13. The pool and spa filtration and circulation equipment line item cost estimate includes pumps, chlorinators, and miscellaneous pieces, but assumes that the majority of the existing piping, wiring, and building elements surrounding the pool equipment will remain viable and be reused as is – significant alterations to building elements or piping, wiring, etc. would be expected to increase costs significantly.
14. This line item was measured at the property by Falcon during this analysis to verify quantity. The line item quantity has been adjusted based on the results of our field measurements.
15. The perimeter fence, running mainly along the north and west property boundary, has been replaced since the prior reserve analysis with a long-life vinyl / PVC material.
16. Areas of the existing asphalt paved roadway and parking areas contain substantial cracking and symptoms of sub-grade failures and will require some amount of full-depth structural patching prior to repaving. The costs shown in the funding schedule reflect these conditions, as well as a minor amount of storm drain inlet repairs that are typically needed at such time. The cost for this item assumes milling off approximately 2" of the existing pavement surface course to establish drainage and planar continuity, as well as to maintain curb/gutter elevations. The cost also includes installation of a new 2" thick wearing course, and line striping to match the existing layout of the community.

Note that we have broken out the quantity of asphalt paved foot paths from the prior 'asphalt pavements' line item, into a separate line item under 'Walkways' for this analysis. The footpaths are subject to much lighter loads and usage and generally do not require the same frequency and scope / cost of pavement reconstruction.

The Falcon Group has observed that a quality seal coat material (applied using a two coating application procedure) applied over the bituminous pavement surface approximately five (5) or six (6) years after installation of the asphalt, and every six (6) years thereafter until a new pavement surface is installed, to seal superficial cracks and prevent water infiltration is generally useful. In addition to its aesthetic appeal, sealcoating prevents water infiltration from occurring in small voids and small surface cracks. Large cracks in pavement should be cleaned of all debris and filled with a thicker sealant annually prior to the onset of winter as a matter of routine or preventive maintenance.

17. We have modified the line item funding for partial replacement of concrete curb/gutter to account for replacing approximately 5% during each asphalt paved roadway reconstruction project, as is customary practice during this work, and appropriate given the existing conditions observed.
18. Please note that based on our review of the prior reserve analysis, it is our understanding that the Association has been 'phasing out' the tot lot / playground equipment in favor of switching to more of a 'picnic area'. As such, we have not included line item funding for the replacement of the one heavy timber swing set that remains at the old tot lot area. We have included line item funding for the eventual need to replace the timber edging and connected small retaining wall that border this location. We have also included line item funding for outdoor furnishings replacement, such as the park benches, tables and fixed barbeque station.

Note: Based on our observations of the existing heavy timber swing set, along with the existing condition of the immediate ground surface, we strongly recommend that the swing set be immediately decommissioned (made unusable) and disassembled and removed from the picnic area as soon as possible. We did not observe any fall-



attenuating ground surface materials in the area, and we noted that there were at least 2 small exposed rock / shale outcroppings in the immediate area.



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Playgrounds are areas that are subject to deterioration from weathering and use. The rate of deterioration of impact attenuation surfacing materials and playground equipment will vary depending upon local climate/exposure and maintenance practices. Loose fill impact attenuation surfacing materials require regular maintenance (actual frequency depends upon usage and material characteristics). Detailed inspection of the playground impact attenuation surfacing materials, the playground equipment, or playground accessibility for conformance to U.S. Consumer Product Safety Commission guidelines (publication 325) and Uniform Construction Code requirements is not part of the scope of this analysis.

19. We have added line item funding to account for the need to perform partial masonry / concrete repairs on the substantial natural stone-faced concrete retaining wall that forms the perimeter foundation for the elevated swimming pool terrace. Funding assumes that approximately 5% of the wall will require major repair work at a frequency of about every 25 years. Note that during our recent site visit observations, we noted a substantial vertical crack developing at a return in the south face of this wall, approximately mid-way down the length of the wall (see photo, right).

20. Falcon verified the quantity of concrete sidewalks at the property through field measurements. Please note that we have modified this line item funding to account for the anticipated need to replace approximately 10% of concrete walk at a frequency of every 10 years (or roughly 1% per year, on average). Please note that, as a matter of best operating practice, all common area pedestrian walkways should be subjected to annual inspection for safety concerns, including trip hazards. This evaluation does not purport to be an inclusive or definitive walkway safety evaluation.



XXX

21. We have included line item funding to account for the need to refurbish the existing water garden / Koi pond and fountain on a frequency of approximately every 10 years.
22. We have carried over the line item funding from the prior study for timber retaining wall repair allowance. Wood timber retaining walls often suffer from prolonged contact with soil and dampness, resulting in rot on the inner surfaces (the surfaces facing the soil, and thus not apparent without destructive examination). The Falcon Group advocates replacing wood retaining walls in the future with segmental wall systems (specially designed concrete blocks, often with interlocking pins, designed for retaining wall applications), given the site disturbance and expense intrinsic in the replacement of retaining walls. Correctly designed and installed segmental retaining walls should not require replacement and require only minimal maintenance. Periodic, detailed inspection of the walls is recommended.

Note that the community also contains a quantity of segmental concrete masonry retaining walls that appear to be approximately 25 years old. While the useful life of such structures should be outside the time window of this analysis, there is likely to be some degradation of materials with the passage of time and it is likely that some repairs will be necessary within the time window of this analysis. Future reserve analyses should consider the condition of the segmental concrete masonry walls and adjust funding accordingly.

23. Site lighting fixture cost estimates anticipate replacement with fixtures of similar types, styles, and functionality. No testing or analysis of underground or otherwise concealed wiring has been performed; replacement cost estimates assume that the existing wiring and/or conduits are of acceptable capacity and condition and will be retained during fixture replacement.
24. Note that an adjustment was made to the calculated annual contribution for the initial fund year for the 10% Threshold Cash Flow Method scenario in order to allow for the "10% Threshold" minimum fund balance to be achieved in funding Year 2, instead of the Initial Fund Year, which would have resulted in a first year required contribution greater than the 'Full Funding' method (see Executive Summary, Page C-1, and Fund Balance Projection Graph, Page C-25, as follows). Likewise, adjustments were made to the calculated annual funding contributions for the 5% and 10% Threshold / Cash Flow Methods to prevent a surplus of funds after the fund 'catches up' in Year 2022. After Year 2022, the annualized funding requirement appears to 'settle out' around \$300,000 per year (see Graph of Annual Contribution Amounts, Page C-26, as follows).

Client		Scope of Work		
Condominium Association		Update with Site Visit		
File Number				
XX-XXX				
Version				
2017		Revisions		
Community Information		Description	Check By	Date
		Revised for \$2,270,000 Loan Available for 2017	JSW	11/16/16
Number of Units	318			
Date of Original Construction	1991-1994			
Location	Virginia			
Initial Conditions				
Initial Fiscal Year	2017			
Initial Fund Balance	\$4,000,000			
Prior Year Annual Contribution	\$428,624			
Current Fund Balance	\$1,690,231			
Date of Current Fund Balance	August 31, 2016	Analysis Calculation Constants		
Last Day of Fiscal Year	December 31	Time Window	30	
Initial Percent Funded	65.24%			
Initial Estimated Total Replacement Cost	\$8,512,943			
PV Expenditure in Time Window	\$11,813,857			
Summary of Funding Schedules Over Time Window				
Funding Schedule	Note	Initial Fiscal Year Annual Contribution	Maximum Fund Balance	Minimum Fund Balance
Full Funding	see Funding Projection for annual contributions in other than initial fiscal year	\$620,151	\$6,716,648	\$1,764,357
%5 Threshold Funding	see Funding Projection for annual contributions in other than initial fiscal year	\$397,033	\$4,491,495	\$425,647
%10 Threshold Funding	see Funding Projection for annual contributions in other than initial fiscal year	\$467,974	\$4,985,812	\$851,293

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**SAMPLE**



Line Item <small>footnotes in parentheses at the end of each line item</small>	Reserve Schedule					
	Life Cycle		Estimated Cost			
	Typically Expected	Condition Assessed Remaining (note 1)	Quantity (note 2)	Unit of Measure	Unit Cost	Line Item Occurrence Cost
BUILDING-Balconies-balcony decking, phase i-[4]	30	0	1	lump sum	\$ 1,500,000.00	\$ 1,500,000
BUILDING-Balconies-balcony decking, phase ii-[4]	30	5	1	lump sum	1,200,000.00	1,200,000
BUILDING-Breezeways-breezeway decking, phase i-[4]	30	0	1	lump sum	600,000.00	600,000
BUILDING-Breezeways-breezeway decking, phase ii-[4]	30	5	1	lump sum	600,000.00	600,000
BUILDING-Cladding-cement board paneling-[5]	40	35	1	lump sum	-	0
BUILDING-Cladding-clapboard siding, 3 bldgs + clubhouse-[6]	30	2	1	lump sum	280,000.00	280,000
BUILDING-Cladding-clapboard siding, 3 bldgs, '18-[6]	30	1	3	each	85,000.00	255,000
BUILDING-Cladding-clapboard siding, 3 bldgs, '21-[6]	30	4	3	each	85,000.00	255,000
BUILDING-Cladding-clapboard siding, 4 bldgs, '22-[6]	30	5	4	each	85,000.00	340,000
BUILDING-Concrete-breezeway and patio slab, 5%-[6]	5	1	1	lump sum	12,000.00	12,000
BUILDING-Fire Safety-fire alarm panels-[10]	25	2	14	each	4,000.00	56,000
BUILDING-Fire Safety-fire sprinkler controls repair fund-[7, 10]	30	10	8	each	5,000.00	40,000
BUILDING-Illumination-breezeway lighting	25	1	285	each	95.00	27,075
BUILDING-Postal-mailbox banks	25	2	22	each	450.00	9,900
BUILDING-Roof-chimney chase caps, stainless, 80%-[7, 8]	40	4	92	each	600.00	55,200
BUILDING-Roof-gutters and leaders, commercial-[7,8]	30	30	20,700	linear foot	5.25	108,675
BUILDING-Roof-shingle roof reconstruction-[8]	30	30	2,109	square	425.00	896,325
BUILDING-Windows/Doors-windows + doors, phase i-[6]	35	9	1	lump sum	330,000.00	330,000
BUILDING-Windows/Doors-windows + doors, phase ii-[6]	35	10	1	lump sum	330,000.00	330,000
BUILDING-Windows/Doors-windows + doors, phase iii-[6]	35	11	1	lump sum	330,000.00	330,000
BUILDING-Windows/Doors-windows + doors, phase iv-[6]	35	12	1	lump sum	330,000.00	330,000
CLUBHOUSE-Equipment-fitness center equipment-[9]	15	13	1	lump sum	15,000.00	15,000
CLUBHOUSE-Equipment-kitchen equipment/appliances-[6]	20	11	1	lump sum	10,000.00	10,000
CLUBHOUSE-Flooring-carpeting-[6]	12	3	250	square yard	48.00	12,000
CLUBHOUSE-Furnishings-furniture replacement-[6]	12	3	1	lump sum	15,000.00	15,000
CLUBHOUSE-Hvac-heat pump, smaller-[6, 11]	15	5	1	each	6,000.00	6,000
CLUBHOUSE-Hvac-heat pumps, large-[6, 11]	15	8	3	each	8,000.00	24,000
CLUBHOUSE-Interior Finish-racquet ball flooring, hardwood-[7]	35	10	800	square foot	16.00	12,800
CLUBHOUSE-Interior Finish-repaint interiors-[6]	10	5	1	lump sum	12,500.00	12,500
CLUBHOUSE-Interior Finish-restroom refurbishment-[6]	20	3	2	each	15,000.00	30,000
CLUBHOUSE-Plumbing-water heater, gas, 199 mbh, 100 gal-[6, 11]	15	3	1	each	3,800.00	3,800
CLUBHOUSE-Pool-pool and spa coping and tiles-[7, 12]	16	12	230	linear foot	32.00	7,360
CLUBHOUSE-Pool-pool and spa covers-[7]	10	3	1	lump sum	5,400.00	5,400
CLUBHOUSE-Pool-pool furniture-[6]	5	1	1	lump sum	8,500.00	8,500
CLUBHOUSE-Pool-pool heater, gas-fired-[6, 11]	15	2	1	lump sum	16,500.00	16,500
CLUBHOUSE-Pool-pool/spa filtration/treatment equipment-[13]	15	10	1	lump sum	9,500.00	9,500
CLUBHOUSE-Pool-pool and spa shell replaster-[12]	8	4	1	lump sum	15,500.00	15,500
CLUBHOUSE-Security-controlled card access reader-[7]	20	9	1	lump sum	4,000.00	4,000
SITE-Fence-perimeter fence, pvc-[14, 15]	35	30	1,950	linear foot	36.00	70,200
SITE-Fence-pool enclosure fence, aluminum-[14]	30	5	375	linear foot	65.00	24,375
SITE-Furnishings-outdoor benches, tables, bbq-[7, 18]	20	4	1	lump sum	6,500.00	6,500
SITE-Illumination-pole mount site lighting-[14, 23]	25	5	80	each	900.00	72,000
SITE-Pavement-asphalt pavement reconstruction-[16]	18	2	17,767	square yard	24.50	435,292
SITE-Pavement-asphalt pavement seal coat/stripe-[16]	6	8	17,767	square yard	1.30	23,097
SITE-Pavement-concrete compactor slab-[6]	20	6	1	lump sum	8,000.00	8,000
SITE-Pavement-concrete curb/gutter, 5%-[7, 14, 17]	18	2	363	linear foot	26.50	9,620
SITE-Picnic Area-timber edging and retaining wall-[7, 18]	25	4	1	lump sum	8,000.00	8,000
SITE-Plumbing-site drainage/utility repair fund-[6]	5	3	1	lump sum	5,500.00	5,500
SITE-Retaining Wall-masonry wall repairs, 5%, pool area-[7, 19]	25	3	82	square foot	200.00	16,400
SITE-Retaining Wall-timber retaining wall allowance-[6, 22]	10	4	200	square foot	45.00	9,000

	Typical	Condition Remaining	QTY	Unit of Measure
Signage-main entrance sign-[6]	20	7	2	each
Valkways-apsphalt footpath reconstruction-[7, 16]	20	2	4,077	square foot
Valkways-concrete sidewalk, 10%-[20]	10	5	2,720	square foot
Valkways-wood foot bridge-[7]	25	5	1	lump sum
Water Garden-water amenity refurbishment fund-[7, 21]	10	5	1	lump sum

Line Item <small>footnotes in parentheses at the end of each line item</small>	Total Line Item Cost	Full Funding Schedule				
		Current Theoretical Full Funding Line Item Balance	Initial Fund Allocation (pooling)	Current Coverage (+) or Shortage (-)	Effective Age of Component	Current Theoretical Full Funding Line Item Annual Contribution
BUILDING-Balconies-balcony decking, phase i-[4]	\$ 1,500,000	\$ 1,450,000	\$ 1,450,000	\$ -	29	\$ 50,000
BUILDING-Balconies-balcony decking, phase ii-[4]	1,200,000	960,000	461,166	(498,834)	24	40,000
BUILDING-Breezeways-breezeway decking, phase i-[4]	600,000	580,000	580,000	-	29	20,000
BUILDING-Breezeways-breezeway decking, phase ii-[4]	600,000	480,000	230,583	(249,417)	24	20,000
BUILDING-Cladding-cement board paneling-[5]	-	0	0	(0)	4	0
BUILDING-Cladding-clapboard siding, 3 bldgs + clubhouse-[6]	280,000	252,000	121,056	(130,944)	27	9,333
BUILDING-Cladding-clapboard siding, 3 bldgs, '18-[6]	255,000	238,000	114,331	(123,669)	28	8,500
BUILDING-Cladding-clapboard siding, 3 bldgs, '21-[6]	255,000	212,500	102,081	(110,419)	25	8,500
BUILDING-Cladding-clapboard siding, 4 bldgs, '22-[6]	340,000	272,000	130,664	(141,336)	24	11,333
BUILDING-Concrete-breezeway and patio slab, 5%-[6]	12,000	7,200	3,459	(3,741)	3	2,400
BUILDING-Fire Safety-fire alarm panels-[10]	56,000	49,280	23,673	(25,607)	22	2,240
BUILDING-Fire Safety-fire sprinkler controls repair fund-[7, 10]	40,000	25,333	12,170	(13,164)	19	1,333
BUILDING-Illumination-breezeway lighting	27,075	24,909	11,966	(12,943)	23	1,083
BUILDING-Postal-mailbox banks	9,900	8,712	4,185	(4,527)	22	396
BUILDING-Roof-chimney chase caps, stainless, 80%-[7, 8]	55,200	48,300	23,202	(25,098)	35	1,380
BUILDING-Roof-gutters and leaders, commercial-[7,8]	108,675	-	-	-	-	3,623
BUILDING-Roof-shingle roof reconstruction-[8]	896,325	-	-	-	-	29,878
BUILDING-Windows/Doors-windows + doors, phase i-[6]	330,000	235,714	113,233	(122,482)	25	9,429
BUILDING-Windows/Doors-windows + doors, phase ii-[6]	330,000	226,286	108,703	(117,582)	24	9,429
BUILDING-Windows/Doors-windows + doors, phase iii-[6]	330,000	216,857	104,174	(112,683)	23	9,429
BUILDING-Windows/Doors-windows + doors, phase iv-[6]	330,000	207,429	99,645	(107,784)	22	9,429
CLUBHOUSE-Equipment-fitness center equipment-[9]	15,000	1,000	480	(520)	1	1,000
CLUBHOUSE-Equipment-kitchen equipment/appliances-[6]	10,000	4,000	1,922	(2,078)	8	500
CLUBHOUSE-Flooring-carpeting-[6]	12,000	8,000	3,843	(4,157)	8	1,000
CLUBHOUSE-Furnishings-furniture replacement-[6]	15,000	10,000	4,804	(5,196)	8	1,250
CLUBHOUSE-Hvac-heat pump, smaller-[6, 11]	6,000	3,600	1,729	(1,871)	9	400
CLUBHOUSE-Hvac-heat pumps, large-[6, 11]	24,000	9,600	4,612	(4,988)	6	1,600
CLUBHOUSE-Interior Finish-racquet ball flooring, hardwood-[7]	12,800	8,777	4,216	(4,561)	24	366
CLUBHOUSE-Interior Finish-repaint interiors-[6]	12,500	5,000	2,402	(2,598)	4	1,250
CLUBHOUSE-Interior Finish-restroom refurbishment-[6]	30,000	24,000	11,529	(12,471)	16	1,500
CLUBHOUSE-Plumbing-water heater, gas, 199 mbh, 100 gal-[6, 11]	3,800	2,787	1,339	(1,448)	11	253
CLUBHOUSE-Pool-pool and spa coping and tiles-[7, 12]	7,360	1,380	663	(717)	3	460
CLUBHOUSE-Pool-pool and spa covers-[7]	5,400	3,240	1,556	(1,884)	6	540
CLUBHOUSE-Pool-pool furniture-[6]	8,500	5,100	2,450	(2,650)	3	1,700
CLUBHOUSE-Pool-pool heater, gas-fired-[6, 11]	16,500	13,200	6,341	(6,859)	12	1,100
CLUBHOUSE-Pool-pool/spa filtration/treatment equipment-[13]	9,500	2,533	1,217	(1,316)	4	633
CLUBHOUSE-Pool-pool and spa shell replaster-[12]	15,500	5,813	2,792	(3,020)	3	1,938
CLUBHOUSE-Security-controlled card access reader-[7]	4,000	2,000	961	(1,039)	10	200
SITE-Fence-perimeter fence, pvc-[14, 15]	70,200	8,023	3,854	(4,169)	4	2,006
SITE-Fence-pool enclosure fence, aluminum-[14]	24,375	19,500	9,367	(10,133)	24	813
SITE-Furnishings-outdoor benches, tables, bbq-[7, 18]	6,500	4,875	2,342	(2,533)	15	325
SITE-Illumination-pole mount site lighting-[14, 23]	72,000	54,720	26,286	(28,434)	19	2,880
SITE-Pavement-asphalt pavement reconstruction-[16]	435,292	362,743	174,255	(188,488)	15	24,183
SITE-Pavement-asphalt pavement seal coat/stripe-[16]	23,097	-	-	-	-	3,850
SITE-Pavement-concrete compactor slab-[6]	8,000	5,200	2,498	(2,702)	13	400
SITE-Pavement-concrete curb/gutter, 5%-[7, 14, 17]	9,620	8,016	3,851	(4,165)	15	534
SITE-Picnic Area-timber edging and retaining wall-[7, 18]	8,000	6,400	3,074	(3,326)	20	320
SITE-Plumbing-site drainage/utility repair fund-[6]	5,500	1,100	528	(572)	1	1,100
SITE-Retaining Wall-masonry wall repairs, 5%, pool area-[7, 19]	16,400	13,776	6,618	(7,158)	21	656
SITE-Retaining Wall-timber retaining wall allowance-[6, 22]	9,000	4,500	2,162	(2,338)	5	900

Case No.	Case Name	Case Type	Case Status	Case Date	Case Location	Case Description	Case Details	Case Notes	Case Comments	Case Actions	Case Results	Case Outcomes	Case Conclusions	Case Recommendations	Case Follow-up	Case Review	Case Approval	Case Sign-off	Case Closure
1	Case 1	Case 1 Type	Case 1 Status	Case 1 Date	Case 1 Location	Case 1 Description	Case 1 Details	Case 1 Notes	Case 1 Comments	Case 1 Actions	Case 1 Results	Case 1 Outcomes	Case 1 Conclusions	Case 1 Recommendations	Case 1 Follow-up	Case 1 Review	Case 1 Approval	Case 1 Sign-off	Case 1 Closure
2	Case 2	Case 2 Type	Case 2 Status	Case 2 Date	Case 2 Location	Case 2 Description	Case 2 Details	Case 2 Notes	Case 2 Comments	Case 2 Actions	Case 2 Results	Case 2 Outcomes	Case 2 Conclusions	Case 2 Recommendations	Case 2 Follow-up	Case 2 Review	Case 2 Approval	Case 2 Sign-off	Case 2 Closure
3	Case 3	Case 3 Type	Case 3 Status	Case 3 Date	Case 3 Location	Case 3 Description	Case 3 Details	Case 3 Notes	Case 3 Comments	Case 3 Actions	Case 3 Results	Case 3 Outcomes	Case 3 Conclusions	Case 3 Recommendations	Case 3 Follow-up	Case 3 Review	Case 3 Approval	Case 3 Sign-off	Case 3 Closure
4	Case 4	Case 4 Type	Case 4 Status	Case 4 Date	Case 4 Location	Case 4 Description	Case 4 Details	Case 4 Notes	Case 4 Comments	Case 4 Actions	Case 4 Results	Case 4 Outcomes	Case 4 Conclusions	Case 4 Recommendations	Case 4 Follow-up	Case 4 Review	Case 4 Approval	Case 4 Sign-off	Case 4 Closure
5	Case 5	Case 5 Type	Case 5 Status	Case 5 Date	Case 5 Location	Case 5 Description	Case 5 Details	Case 5 Notes	Case 5 Comments	Case 5 Actions	Case 5 Results	Case 5 Outcomes	Case 5 Conclusions	Case 5 Recommendations	Case 5 Follow-up	Case 5 Review	Case 5 Approval	Case 5 Sign-off	Case 5 Closure
6	Case 6	Case 6 Type	Case 6 Status	Case 6 Date	Case 6 Location	Case 6 Description	Case 6 Details	Case 6 Notes	Case 6 Comments	Case 6 Actions	Case 6 Results	Case 6 Outcomes	Case 6 Conclusions	Case 6 Recommendations	Case 6 Follow-up	Case 6 Review	Case 6 Approval	Case 6 Sign-off	Case 6 Closure
7	Case 7	Case 7 Type	Case 7 Status	Case 7 Date	Case 7 Location	Case 7 Description	Case 7 Details	Case 7 Notes	Case 7 Comments	Case 7 Actions	Case 7 Results	Case 7 Outcomes	Case 7 Conclusions	Case 7 Recommendations	Case 7 Follow-up	Case 7 Review	Case 7 Approval	Case 7 Sign-off	Case 7 Closure
8	Case 8	Case 8 Type	Case 8 Status	Case 8 Date	Case 8 Location	Case 8 Description	Case 8 Details	Case 8 Notes	Case 8 Comments	Case 8 Actions	Case 8 Results	Case 8 Outcomes	Case 8 Conclusions	Case 8 Recommendations	Case 8 Follow-up	Case 8 Review	Case 8 Approval	Case 8 Sign-off	Case 8 Closure
9	Case 9	Case 9 Type	Case 9 Status	Case 9 Date	Case 9 Location	Case 9 Description	Case 9 Details	Case 9 Notes	Case 9 Comments	Case 9 Actions	Case 9 Results	Case 9 Outcomes	Case 9 Conclusions	Case 9 Recommendations	Case 9 Follow-up	Case 9 Review	Case 9 Approval	Case 9 Sign-off	Case 9 Closure
10	Case 10	Case 10 Type	Case 10 Status	Case 10 Date	Case 10 Location	Case 10 Description	Case 10 Details	Case 10 Notes	Case 10 Comments	Case 10 Actions	Case 10 Results	Case 10 Outcomes	Case 10 Conclusions	Case 10 Recommendations	Case 10 Follow-up	Case 10 Review	Case 10 Approval	Case 10 Sign-off	Case 10 Closure



Line Item	Fiscal Year ►	2017	2018	2019
	Nominal Expenditure (in Future Dollars) in Fiscal Year  Present Value of Line Item Expenditures In Time Window	2,100,000  \$	302,575  \$	821,581  \$
BUILDING-Balconies-balcony decking, phase i-[4]	\$ 3,000,000	1,500,000	-	-
BUILDING-Balconies-balcony decking, phase ii-[4]	\$ 1,200,000	-	-	-
BUILDING-Breezeways-breezeway decking, phase i-[4]	\$ 1,200,000	600,000	-	-
BUILDING-Breezeways-breezeway decking, phase ii-[4]	\$ 600,000	-	-	-
BUILDING-Cladding-cement board paneling-[5]	\$ -	-	-	-
BUILDING-Cladding-clapboard siding, 3 bldgs + clubhouse-[6]	\$ 280,000	-	-	280,000
BUILDING-Cladding-clapboard siding, 3 bldgs, '18-[6]	\$ 255,000	-	255,000	-
BUILDING-Cladding-clapboard siding, 3 bldgs, '21-[6]	\$ 255,000	-	-	-
BUILDING-Cladding-clapboard siding, 4 bldgs, '22-[6]	\$ 340,000	-	-	-
BUILDING-Concrete-breezeway and patio slab, 5%-[6]	\$ 72,000	-	12,000	-
BUILDING-Fire Safety-fire alarm panels-[10]	\$ 112,000	-	-	56,000
BUILDING-Fire Safety-fire sprinkler controls repair fund-[7, 10]	\$ 40,000	-	-	-
BUILDING-Illumination-breezeway lighting	\$ 54,150	-	27,075	-
BUILDING-Postal-mailbox banks	\$ 19,800	-	-	9,900
BUILDING-Roof-chimney chase caps, stainless, 80%-[7, 8]	\$ 55,200	-	-	-
BUILDING-Roof-gutters and leaders, commercial-[7,8]	\$ 108,675	-	-	-
BUILDING-Roof-shingle roof reconstruction-[8]	\$ 896,325	-	-	-
BUILDING-Windows/Doors-windows + doors, phase i-[6]	\$ 330,000	-	-	-
BUILDING-Windows/Doors-windows + doors, phase ii-[6]	\$ 330,000	-	-	-
BUILDING-Windows/Doors-windows + doors, phase iii-[6]	\$ 330,000	-	-	-
BUILDING-Windows/Doors-windows + doors, phase iv-[6]	\$ 330,000	-	-	-
CLUBHOUSE-Equipment-fitness center equipment-[9]	\$ 30,000	-	-	-
CLUBHOUSE-Equipment-kitchen equipment/appliances-[6]	\$ 10,000	-	-	-
CLUBHOUSE-Flooring-carpeting-[6]	\$ 36,000	-	-	-
CLUBHOUSE-Furnishings-furniture replacement-[6]	\$ 45,000	-	-	-
CLUBHOUSE-Hvac-heat pump, smaller-[6, 11]	\$ 12,000	-	-	-
CLUBHOUSE-Hvac-heat pumps, large-[6, 11]	\$ 48,000	-	-	-
CLUBHOUSE-Interior Finish-racquet ball flooring, hardwood-[7]	\$ 12,800	-	-	-
CLUBHOUSE-Interior Finish-repaint interiors-[6]	\$ 37,500	-	-	-
CLUBHOUSE-Interior Finish-restroom refurbishment-[6]	\$ 60,000	-	-	-
CLUBHOUSE-Plumbing-water heater, gas, 199 mbh, 100 gal-[6, 11]	\$ 7,600	-	-	-
CLUBHOUSE-Pool-pool and spa coping and tiles-[7, 12]	\$ 14,720	-	-	-
CLUBHOUSE-Pool-pool and spa covers-[7]	\$ 16,200	-	-	-
CLUBHOUSE-Pool-pool furniture-[6]	\$ 51,000	-	8,500	-
CLUBHOUSE-Pool-pool heater, gas-fired-[6, 11]	\$ 33,000	-	-	16,500
CLUBHOUSE-Pool-pool/spa filtration/treatment equipment-[13]	\$ 19,000	-	-	-
CLUBHOUSE-Pool-pool and spa shell replaster-[12]	\$ 62,000	-	-	-
CLUBHOUSE-Security-controlled card access reader-[7]	\$ 8,000	-	-	-
SITE-Fence-perimeter fence, pvc-[14, 15]	\$ 70,200	-	-	-
SITE-Fence-pool enclosure fence, aluminum-[14]	\$ 24,375	-	-	-
SITE-Furnishings-outdoor benches, tables, bbq-[7, 18]	\$ 13,000	-	-	-
SITE-Illumination-pole mount site lighting-[14, 23]	\$ 144,000	-	-	-
SITE-Pavement-asphalt pavement reconstruction-[16]	\$ 870,583	-	-	435,292
SITE-Pavement-asphalt pavement seal coat/stripe-[16]	\$ 69,291	-	-	-
SITE-Pavement-concrete compactor slab-[6]	\$ 16,000	-	-	-
SITE-Pavement-concrete curb/gutter, 5%-[7, 14, 17]	\$ 19,239	-	-	9,620
SITE-Picnic Area-timber edging and retaining wall-[7, 18]	\$ 16,000	-	-	-
SITE-Plumbing-site drainage/utility repair fund-[6]	\$ 33,000	-	-	-
SITE-Retaining Wall-masonry wall repairs, 5%, pool area-[7, 19]	\$ 32,800	-	-	-
SITE-Retaining Wall-timber retaining wall allowance-[6, 22]	\$ 27,000	-	-	-

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Line Item	2020	2021	2022	2023
	88,100	349,200	2,295,095	28,500
	\$	\$	\$	\$
BUILDING-Balconies-balcony decking, phase i-[4]	-	-	-	-
BUILDING-Balconies-balcony decking, phase ii-[4]	-	-	1,200,000	-
BUILDING-Breezeways-breezeway decking, phase i-[4]	-	-	-	-
BUILDING-Breezeways-breezeway decking, phase ii-[4]	-	-	600,000	-
BUILDING-Cladding-cement board paneling-[5]	-	-	-	-
BUILDING-Cladding-clapboard siding, 3 bldgs + clubhouse-[6]	-	-	-	-
BUILDING-Cladding-clapboard siding, 3 bldgs, '18-[6]	-	-	-	-
BUILDING-Cladding-clapboard siding, 3 bldgs, '21-[6]	-	255,000	-	-
BUILDING-Cladding-clapboard siding, 4 bldgs, '22-[6]	-	-	340,000	-
BUILDING-Concrete-breezeway and patio slab, 5%-[6]	-	-	-	12,000
BUILDING-Fire Safety-fire alarm panels-[10]	-	-	-	-
BUILDING-Fire Safety-fire sprinkler controls repair fund-[7, 10]	-	-	-	-
BUILDING-Illumination-breezeway lighting	-	-	-	-
BUILDING-Postal-mailbox banks	-	-	-	-
BUILDING-Roof-chimney chase caps, stainless, 80%-[7, 8]	-	55,200	-	-
BUILDING-Roof-gutters and leaders, commercial-[7,8]	-	-	-	-
BUILDING-Roof-shingle roof reconstruction-[8]	-	-	-	-
BUILDING-Windows/Doors-windows + doors, phase i-[6]	-	-	-	-
BUILDING-Windows/Doors-windows + doors, phase ii-[6]	-	-	-	-
BUILDING-Windows/Doors-windows + doors, phase iii-[6]	-	-	-	-
BUILDING-Windows/Doors-windows + doors, phase iv-[6]	-	-	-	-
CLUBHOUSE-Equipment-fitness center equipment-[9]	-	-	-	-
CLUBHOUSE-Equipment-kitchen equipment/appliances-[6]	-	-	-	-
CLUBHOUSE-Flooring-carpeting-[6]	12,000	-	-	-
CLUBHOUSE-Furnishings-furniture replacement-[6]	15,000	-	-	-
CLUBHOUSE-Hvac-heat pump, smaller-[6, 11]	-	-	6,000	-
CLUBHOUSE-Hvac-heat pumps, large-[6, 11]	-	-	-	-
CLUBHOUSE-Interior Finish-racquet ball flooring, hardwood-[7]	-	-	-	-
CLUBHOUSE-Interior Finish-repaint interiors-[6]	-	-	12,500	-
CLUBHOUSE-Interior Finish-restroom refurbishment-[6]	30,000	-	-	-
CLUBHOUSE-Plumbing-water heater, gas, 199 mbh, 100 gal-[6, 11]	3,800	-	-	-
CLUBHOUSE-Pool-pool and spa coping and tiles-[7, 12]	-	-	-	-
CLUBHOUSE-Pool-pool and spa covers-[7]	5,400	-	-	-
CLUBHOUSE-Pool-pool furniture-[6]	-	-	-	8,500
CLUBHOUSE-Pool-pool heater, gas-fired-[6, 11]	-	-	-	-
CLUBHOUSE-Pool-pool/spa filtration/treatment equipment-[13]	-	-	-	-
CLUBHOUSE-Pool-pool and spa shell replaster-[12]	-	15,500	-	-
CLUBHOUSE-Security-controlled card access reader-[7]	-	-	-	-
SITE-Fence-perimeter fence, pvc-[14, 15]	-	-	-	-
SITE-Fence-pool enclosure fence, aluminum-[14]	-	-	24,375	-
SITE-Furnishings-outdoor benches, tables, bbq-[7, 18]	-	6,500	-	-
SITE-Illumination-pole mount site lighting-[14, 23]	-	-	72,000	-
SITE-Pavement-asphalt pavement reconstruction-[16]	-	-	-	-
SITE-Pavement-asphalt pavement seal coat/stripe-[16]	-	-	-	-
SITE-Pavement-concrete compactor slab-[6]	-	-	-	8,000
SITE-Pavement-concrete curb/gutter, 5%-[7, 14, 17]	-	-	-	-
SITE-Picnic Area-timber edging and retaining wall-[7, 18]	-	8,000	-	-
SITE-Plumbing-site drainage/utility repair fund-[6]	5,500	-	-	-
SITE-Retaining Wall-masonry wall repairs, 5%, pool area-[7, 19]	16,400	-	-	-
SITE-Retaining Wall-timber retaining wall allowance-[6, 22]	-	9,000	-	-

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Line Item	2024	2025	2026	2027
	12,000	52,597	334,000	392,300
	\$	\$	\$	\$
BUILDING-Balconies-balcony decking, phase i-[4]	-	-	-	-
BUILDING-Balconies-balcony decking, phase ii-[4]	-	-	-	-
BUILDING-Breezeways-breezeway decking, phase i-[4]	-	-	-	-
BUILDING-Breezeways-breezeway decking, phase ii-[4]	-	-	-	-
BUILDING-Cladding-cement board paneling-[5]	-	-	-	-
BUILDING-Cladding-clapboard siding, 3 bldgs + clubhouse-[6]	-	-	-	-
BUILDING-Cladding-clapboard siding, 3 bldgs, '18-[6]	-	-	-	-
BUILDING-Cladding-clapboard siding, 3 bldgs, '21-[6]	-	-	-	-
BUILDING-Cladding-clapboard siding, 4 bldgs, '22-[6]	-	-	-	-
BUILDING-Concrete-breezeway and patio slab, 5%-[6]	-	-	-	-
BUILDING-Fire Safety-fire alarm panels-[10]	-	-	-	-
BUILDING-Fire Safety-fire sprinkler controls repair fund-[7, 10]	-	-	-	40,000
BUILDING-Illumination-breezeway lighting	-	-	-	-
BUILDING-Postal-mailbox banks	-	-	-	-
BUILDING-Roof-chimney chase caps, stainless, 80%-[7, 8]	-	-	-	-
BUILDING-Roof-gutters and leaders, commercial-[7,8]	-	-	-	-
BUILDING-Roof-shingle roof reconstruction-[8]	-	-	-	-
BUILDING-Windows/Doors-windows + doors, phase i-[6]	-	-	330,000	-
BUILDING-Windows/Doors-windows + doors, phase ii-[6]	-	-	-	330,000
BUILDING-Windows/Doors-windows + doors, phase iii-[6]	-	-	-	-
BUILDING-Windows/Doors-windows + doors, phase iv-[6]	-	-	-	-
CLUBHOUSE-Equipment-fitness center equipment-[9]	-	-	-	-
CLUBHOUSE-Equipment-kitchen equipment/appliances-[6]	-	-	-	-
CLUBHOUSE-Flooring-carpeting-[6]	-	-	-	-
CLUBHOUSE-Furnishings-furniture replacement-[6]	-	-	-	-
CLUBHOUSE-Hvac-heat pump, smaller-[6, 11]	-	-	-	-
CLUBHOUSE-Hvac-heat pumps, large-[6, 11]	-	24,000	-	-
CLUBHOUSE-Interior Finish-racquet ball flooring, hardwood-[7]	-	-	-	12,800
CLUBHOUSE-Interior Finish-repaint interiors-[6]	-	-	-	-
CLUBHOUSE-Interior Finish-restroom refurbishment-[6]	-	-	-	-
CLUBHOUSE-Plumbing-water heater, gas, 199 mbh, 100 gal-[6, 11]	-	-	-	-
CLUBHOUSE-Pool-pool and spa coping and tiles-[7, 12]	-	-	-	-
CLUBHOUSE-Pool-pool and spa covers-[7]	-	-	-	-
CLUBHOUSE-Pool-pool furniture-[6]	-	-	-	-
CLUBHOUSE-Pool-pool heater, gas-fired-[6, 11]	-	-	-	-
CLUBHOUSE-Pool-pool/spa filtration/treatment equipment-[13]	-	-	-	9,500
CLUBHOUSE-Pool-pool and spa shell replaster-[12]	-	-	-	-
CLUBHOUSE-Security-controlled card access reader-[7]	-	-	4,000	-
SITE-Fence-perimeter fence, pvc-[14, 15]	-	-	-	-
SITE-Fence-pool enclosure fence, aluminum-[14]	-	-	-	-
SITE-Furnishings-outdoor benches, tables, bbq-[7, 18]	-	-	-	-
SITE-Illumination-pole mount site lighting-[14, 23]	-	-	-	-
SITE-Pavement-asphalt pavement reconstruction-[16]	-	-	-	-
SITE-Pavement-asphalt pavement seal coat/stripe-[16]	-	23,097	-	-
SITE-Pavement-concrete compactor slab-[6]	-	-	-	-
SITE-Pavement-concrete curb/gutter, 5%-[7, 14, 17]	-	-	-	-
SITE-Picnic Area-timber edging and retaining wall-[7, 18]	-	-	-	-
SITE-Plumbing-site drainage/utility repair fund-[6]	-	5,500	-	-
SITE-Retaining Wall-masonry wall repairs, 5%, pool area-[7, 19]	-	-	-	-
SITE-Retaining Wall-timber retaining wall allowance-[6, 22]	-	-	-	-



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