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Via e-mail: svendfilby@gmail.com

March 8, 2023

Gilford Yacht Club, Board of Trustees
Attn: Svend Filby, Secretary

Property: **GILFORD YACHT CLUB CONDOMINIUM ASSOCIATION**
1996 Lake Road, Gilford, NH 03249

Service: 22-019-NH - FULL RESERVE STUDY

Attachment: FINAL

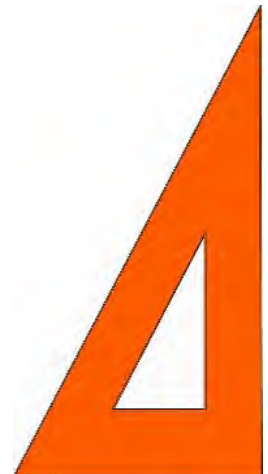
Dear Mr. Filby, and members of the Board,

As requested, Criterium-Bennett Engineers has completed a Full Reserve Study for the Gilford Yacht Club Condominium Association.

We appreciate your careful review of our draft submittal, and have made changes as discussed and directed. Attached hereto, please find our final report for the Board's consideration and use.

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

We observed the property on June 6, 2022 and our findings and recommendations are principally based on observations made during that on-site visual inspection.



We have reviewed available documentation as identified in Section 3.3 of this report and provide this brief summary for your use.

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

In summary, given the reported \$76,800 starting balance of the Capital Reserve Fund on January 1, 2023, the current ongoing annual rate of contribution \$25,600, and an anticipated average rate of return on investment of 1.0% per year, our financial analysis indicates that the Association's current funding will prove insufficient to meet future needs.

The 30-year total of projected capital expenditure (CapEx) budgets, (current dollar cost estimates inflated at 3.0% annually), is \$1,636,020. Because of draw-downs to pay for these CapEx expenses, projected year-end fund balances fall to deficit levels in Year 16 (2038), and accumulated deficits would equal \$766,467 by the end of the 30-year planning period in 2052.

In this report, we suggest minimum threshold fund balances to be maintained and provide two alternate funding plan(s) for the Board's consideration. We look forward to working with you to develop a satisfactory plan for adoption.

Typically, our final report published for review by the Association's general membership would include only the projections of the current funding plan and the adopted plan. However, we will also include some or all of the preliminary alternates as the Board directs.

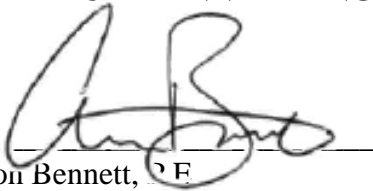
As a result of our on-site inspections and other investigations, we find the common components of your community to be in good general condition and maintained. However, we did observe some deficiencies and some deferred repairs which are noted in the report.

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

If you have any questions or would like to discuss next steps, then please contact Aaron Bennett, P.E. at 603-610-2446 or by email at info@criterium-bennett.com.

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

CRITERIUM-BENNETT ENGINEERS



Aaron Bennett, P.E.
Principal Engineer, Owner



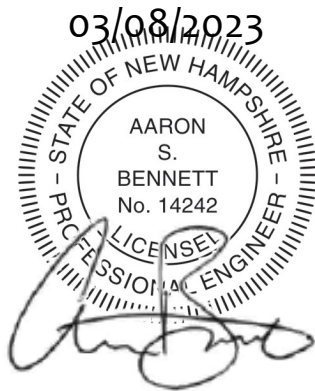
FULL RESERVE STUDY
GILFORD YACHT CLUB CONDOMINIUM ASSOCIATION
1996 LAKE ROAD
GILFORD, NH

Prepared for:
BOARD OF TRUSTEES

Prepared by:



P.O. BOX 1117
PORTSMOUTH, NEW HAMPSHIRE 03802
603-610-2446



Site Inspection Date: June 6, 2022
Final Report Submitted Date: March 8, 2023

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APPENDICES

A: FINANCIAL EXHIBITS

- Initial Capital Reserve Funding Information
- Common Component Inventory and Capital Expenditure Planning
- Reserve Study Worksheet - Itemized Graph
- Current Level of Contributions to Capital Reserves
- Alternative Funding Plan No. 1
- Alternative Funding Plan No. 2
- Summary of Reserve Ending Balances

B: GRAPHIC EXHIBITS

- Site Plan (Registry of Deeds)
- Site Map (by others)
- Google Earth Aerial Image

C: PHOTOGRAPHS

D: REFERENCE DOCUMENTS

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

E: PROJECT TEAM QUALIFICATIONS

1.0 INTRODUCTION

Following authorization by the Association's Board, your Secretary (Svend Filby) has requested Criterium-Bennett Engineers to conduct a Full Reserve Study of your 64 unit residential community located at 1996 Lake Road in Gilford, NH.

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

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

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

Criterium-Bennett Engineers' Aaron Bennett, P.E., performed this study. He visited the site on June 6, 2022. This report is principally based on our visual inspection(s) of the property on that date. He prepared this confidential report and the attached financial analysis and presents it to the Board for their review and use.

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

2.0 EXECUTIVE SUMMARY

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

We observed some deficiencies and some deferred repairs which are noted herein.

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

We have formed an opinion of the remaining useful life of each component. We have estimated the current cost of required capital expenditures for their repair or replacement. We have projected annual capital budgets over a 30-year planning period.

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

In the summary, the 30-year total of projected capital expenditure (CapEx) budgets, (current dollar cost estimates inflated at 3.0% annually), is \$1,636,020.

The Board has provided us with information on the Association's Capital Reserve Fund and the current funding plan. Our initial financial analysis was based on the data supplied.

Given the reported \$76,800 starting balance of the Capital Reserve Fund on January 1, 2023, the current ongoing annual rate of contribution \$25,600, and an anticipated average rate of return on investment of 1.0% per year, our financial analysis indicates that the Association's current funding will prove insufficient to meet future needs.

Because of draw-downs to pay for these CapEx expenses, projected year-end fund balances fall to deficit levels in Year 16 (2038), and accumulated deficits would equal \$766,467 by the end of the 30-year planning period in 2052.

In this report, we suggest minimum threshold fund balances to be maintained and provide two alternate funding plan(s) for the Board's consideration. We look forward to working with you to develop a satisfactory plan for adoption.

3.0 PURPOSE & SCOPE

3.1 OBJECTIVES

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3.2 LEVEL OF SERVICE

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

1. Full Reserve Study, with site visit
2. Reserve Study Update, with site visit
3. Reserve Study Update, without site visit

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

Our current study is a Level I Full Reserve Study.

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

- Our investigation and evaluation of the property is performed by experienced professional engineers
- After preparing and submitting our Common Component Inventory and Capital Expenditure Plan to the Board for review, we meet with them to engage in an iterative review process toward developing a financial plan more responsive to the needs of the Association.

3.3 SOURCES OF INFORMATION

The following people were interviewed during our study:

Board members:

- Svend Filby, Secretary
- Dave Johnson, Club Manager

The following documents were obtained, or provided to us, and reviewed:

- Site Development Plans
- Declarations

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

4.0 PHYSICAL ANALYSIS

4.1 PROPERTY DESCRIPTION

Please refer to Appendix C for captioned photographs and site plan.

Gilford Yacht Club is a 64-unit yacht club located on Winnepesaukee Lake, on a 7.0 acre site in Gilford, NH.

The site is generally flat with approximately 2,000 feet of gravel driveway providing access to the parking areas, clubhouse, boat slips, and bath house.

Roof and surface storm water runoff from all buildings on the property either sheetflow toward the water or infiltrate at grade through lawn/gravel surfaces. Overall, storm drainage appears to be performing reasonably well.

A clubhouse building near the front entrance provides a meeting place for Association members, as well as laundry and bathroom facilities. Across from the clubhouse is an enclosed shed, and fenced-in shelter-both utilized for facilities management storage. A bathhouse is located at the far, northeast end of the lot and provides shower, laundry, and toilet facilities.

Boat slips each have potable water and electrical hookups. A dockside pump is available for removal of graywater and sewer from holding tanks on water vessels. Water is serviced from an on-site driven well with equipment located in the clubhouse. Sewer is managed via an on-site holding tank which discharges into to the municipal system. Documents indicate a leachfield is present behind the clubhouse, but no further information on this system was available.

The entire property is essentially common to the Association, aside from parking spaces which are considered limited common elements.

4.2 COMMON COMPONENTS

Please refer to Appendix A for the Common Component Inventory.

Association-responsible common components include:

- Gravel drive
- Concrete walkways and retaining walls
- Sanitary sewers and sewage pump station
- Landscaping
- Club house
- Mechanical, electrical & plumbing systems
- Fences & guard rails
- Site lighting
- Signage
- Unit foundations
- Unit structures - wood-framed super structures & demising walls
- Unit roofing - Asphalt shingles and metal sheets
- Unit siding & trim – various materials

- Pier
- Dock slips
- Mobile boat lift

*It appears that the underground water, electrical services & pad-mount transformers and on-property low-voltage telephone & broadband cabling are owned and maintained by the utility carriers. This should be verified. Although no capital expenditures for these systems are anticipated over the 30-years considered by this reserve study, it may be important to include repair or replacement of any association-responsible utility infrastructure in a future reserve study update.

Individual Unit Owners are responsible for maintenance & repairs of their own storage containers

4.3 CONDITION ASSESSMENT

4.3.1 Site Improvements

Description & Observations

The gravel driveway was in good condition at the time of our visit. This is expected to require annual maintenance and periodic repair of potholes. We do not include this maintenance and repair work as part of a reserve fund study.

Roof and surface storm water runoff from three buildings either sheetflow to the water or infiltrate into the ground. Overall, storm drainage appears to be performing reasonably.

Inland boat slips on this property utilizes a cast-in-place concrete seawall to allow deeper water where boats can be tied up. The seawall consists of approximately 1,100 linear feet of continuous footing and stem wall. A 4" cast-in-place concrete walkway caps the top of the wall and is approximately 6 feet wide throughout. The thickness of the stem wall could not be observed, and the footing was only visible in a few locations between slips 14-28. Where the footing was visible, we measured the stem wall to have a height 4'-6". In a few locations, these exposed footings were undermined, possibly as a result of turbulence from boat props.

Aside from a few locations to be discussed below, the walls appeared to be in generally fair condition. From an economic perspective however, they are currently 40+ years old and exposed to extreme conditions which consistently test their performance. Without destructive efforts, we cannot know how the seawall was constructed and rely solely on those conditions we can observe. An example of a condition we could not directly review are the steel tie-back rods noted at slip 51. Although no significant problems were observed at the surface, we cannot know the existence or extent of corrosion behind.

Of what we could observe of the seawalls, we notate below:

Condition 1 - A vertical, triangular shaped crack (larger at the top than bottom) with weathered edges was observed through the stemwall and footing of the seawall at slip 22. This suggests differential settlement has been occurring in this area for some time. We do not expect this condition to be a significant concern over the next 10-12 years, but would anticipate maintenance at the surface to correct minor settlement or expanded cracking at the walkway.

Condition 2 - A vertical crack found at slip 34 presents a more concerning condition where overturning (tipping) of the wall is occurring for a distance of approximately 25 feet to where the concrete walkway ends. The concern is that the movement appears to still be active. To the east side of slip 35, new wood decking was reportedly installed 5-6 years ago and is in contact with the out-of-plumb portion of the seawall. Planking boards of this deck which are in contact with the seawall have lifted and become trip hazards, likely as a result of an active overturning condition.

Condition 3 - The seawall and concrete slabs at the end of slip 01 are in poor condition. Plywood appears to have been installed on the water side of the stemwall in an effort to retain portions of concrete which are deteriorating and falling away. As this is the only location where a drainage pipe penetrates the wall, it is probable that retained material around the pipe has migrated through the headwall (a process referred to as "piping"), creating voids which has allowed settlement of the slab above, and the wall itself.

Over the short term, we budget for efforts to stabilize 45 feet of seawall at slip 01 (Condition 3 above), and 25 feet of seawall behind slips 34 and 35 (Condition 2 above).

We recommend budgeting now in anticipation of installing a new seawall system once the existing has exceeded 50-60 years of in-service use. Instead of replacing the walls in-kind, you may wish to explore other options such as steel or fiberglass sheet piles. With these installations, we would recommend removal of the existing concrete walls once the piles are in place. After that, helical tie-backs are installed in the retained area behind the seawall and would be integrated into a continuous reinforced concrete bulkhead placed atop the sheet piles. After backfilling behind the sheetpiles, a walkway could then be installed.

Each pair of boat slips share a Midwest™ utility pedestal for electrical hookup, whereas each slip has its own potable water hookup with spigot and hose hanger on a wood post. The electrical pedestals at slips 51-62 are likely original to the beginning of the Association (1979). The pedestals for slips 1-36 appear newer but all should be considered for replacement during the seawall work. At the time of replacement, you may consider replacing them with units which also supply water, thus eliminating the need to step over hoses when using the walkway. We coordinate this work with budgets to replace the seawall.

After renovations to the bathhouse, we recommend improvements to the site components around the building which include: patio pavers and concrete flatwork which have differentially settled, and handrails which are splintering and in poor condition. We suggest a budget for this work in 2024.

We also recommend maintenance efforts over the next 10-12 years to enhance shoreline protections at slip 36, slip 50 and along the west side of the building. At the west side of the building, a wood plank retaining wall is used to retain the shoreline, and is overturning. Slip 36 has dock supports founded on a concrete shore protection element that appears to be sliding away from shore and pushing/damaging the embedded wood piles. Slip 50 utilizes concrete docks similar to those used at slips 4-35 and are not securely founded and unlevel. Permanent improvements are expected to be delayed until such time as these areas can be included as part of the replacement seawall program described above. We therefore include their budget as part of that work.

The dock with slips 37-49 is in relatively good condition. As maintenance, we suggest the wood posts and piers be capped with a fiberglass material to protect the end grains from weather, preventing premature rot and deterioration. The surface planking receives very little relief from UV rays and moisture and should be expected to have a reduced life without proper maintenance. We recommend a

marine grade waterproofing be applied every 5 years. A product you may consider is SealOnce Marine Premium Wood Sealer which is designed for docks, and decks near open water. An end grain sealer should also be considered to prevent end splitting and deterioration from fungus growth. (\$3,000 every 5 years - \$2,000 materials and \$1,000 labor - 2 laborers for one day)

With proper maintenance, we expect the dock components to have an estimated useful life of 25 years prior to re-planking. We budget for this work in 2045.

Site Common Components & Required Capital Expenditures

Appendix A contains an inventory of all site improvements which are considered common components, and a detailed schedule of projected Capital Expenditure (CapEx) budgets for these items in 2023 dollars. Below is a short list of the more notable expenses incurred over the duration of the study:

Signs - Clubhouse Entrance	\$ 3,500
Seawall Replacement Phase 1 (Slips 1-35)	\$ 290,000
Seawall Replacement Phase 2 (Slips 51-1)	\$ 255,000
Seawall Construction Slips 36, 50 & along bathhouse	\$ 80,000
Site - chainlink fence	\$ 9,000
Site - vinyl privacy fence	\$ 10,500
Utility pedestal replacement allowance	\$ 16,200
Bathhouse site improvements	\$ 4,500
Wood sealant application for pier	\$ 36,000
Replank pier & allowance for repairs at that time	\$ 24,000
Finger dock replacement allowance	\$ 80,000
Arborist allowance	\$ 20,000
Area lighting	\$ 6,000

4.3.2 Building Structure and Exterior

Description & Observations

The clubhouse foundation is constructed of cast-in-place reinforced concrete, whereas the bathhouse is founded on wood piles. The storage building and shelter are founded on concrete piers.

The clubhouse is relatively new and in good condition. We noted a few locations where vinyl siding requires minor repair but expect this type of damage to be performed under the operations and maintenance budget. Replacement of siding would fall outside the term of this report, but we do budget for replacement of the architectural shingles on a 25 year cycle.

The vinyl privacy fence to the west of the building is in fair condition. Its posts are not well secured and the subsequent movement created by wind has loosened fasteners and other connections. We budget for replacement of this fence in 5 years.

The storage building is in fair condition. The asphalt shingles covering its shed roof appear in good condition, but the siding is in need of repairs. We budget to alternate between re-shingling the roof and



making repairs to siding on a 10 year basis, starting in 2023. Unused funds may also be used to make periodic repairs to the building and replace hardware.

The storage shelter is in good condition, but we did note some deterioration of framing in at least one corner. We recommend this be rectified through your operations and maintenance budget and that more vigilance be made in maintenance to further increase the life of the structure. The metal roof is in good condition and we anticipate it have a greater life expectancy than the framework.

We understand the Association wishes to make significant updates and improvements to the bathhouse either in 2023. At present, the exterior is in fair condition and the interior finishes and fixtures are dated and in most cases in fair to poor condition. Water from the shower and toilets have affected the subfloor, which in turn has affected the performance of the flooring in these areas. We suspect there will be replacement of some subfloor during renovation. Per your anticipated scope of work, we provide a budget based on our opinion of cost to replace siding, roofing, exterior trim, interior finishes, windows & doors. The opinion of cost also includes installation of partition walls and interior finishes, new plumbing, electrical and replacement of fixtures.

The rubber membrane roof of the dockhouse is in good to fair condition. We budget for its replacement in 2039. With the added reflective UV exposure, we also anticipate replacement of vinyl siding on this building after 20 years of service. We budget for this work in 2033.

Building Structure and Exterior Common Components & Required Capital Expenditures

Appendix A contains an inventory of all building structure and exterior improvements which are considered common components, and a detailed schedule of projected Capital Expenditure (CapEx) budgets for these items in 2023 dollars. Below is a short list of the more notable expenses incurred over the duration of the study:

Clubhouse - roof shingle replacement	\$ 8,800
Clubhouse - siding replacement	\$ 11,000
Bathhouse - 2023 renovations	\$ 65,000
Bathhouse - roof shingle replacement	\$ 4,500
Dockhouse - roof membrane - 60 mil	\$ 3,200
Dockhouse - vinyl siding	\$ 3,000
Storage Building Roof and Siding	\$ 10,500

4.3.3 Building Interior

Description & Observations

Interior finishes in the clubhouse consist of painted gypsum walls, linoleum floors in the meeting areas and ceramic tiles in the bathrooms - all of which appeared in good condition.

The clubhouse interiors are finished with good quality materials and fixtures, all of which appear to be in satisfactory condition. We were unable to review the HVAC equipment in the ceiling, and thus it may be difficult to easily service or replace this equipment.

In the clubhouse we provide a modest budget for updates to doors, windows, bath fixtures, and flooring on a 20 year cycle, beginning in 2043.

The bath house is anticipated to be renovated in 2023. Replacement budgets for the installed components should be included in future reserve studies.

Building Interior Common Components & Required Capital Expenditures

Appendix A contains an inventory of all building interior improvements which are considered common components, and a detailed schedule of projected Capital Expenditure (CapEx) budgets for these items in 2023 dollars. Below is a short list of the more notable expenses incurred over the duration of the study:

Clubhouse - Flooring, Interior Doors, Lights, Bath Fixtures	\$ 15,000
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4.3.4 Mechanical

Description & Observations

This section of the report does not address components beyond the water spigots or receptacles in the utility pedestals found at the slips.

A dockside pump is available to members for removal of gray water and sewer from boats having holding tanks. Another holding tank with pump controls is also located to the south of the clubhouse. We believe the dockside pump discharges here where it is then pumped into the municipal sewer system which has a right of way through the property. Although we have no detail information on the overall sewer system on the property, we provide a modest budget to replace at least the pump and controls for both the dockside system and clubhouse within the next 10 years, and every 12 years thereafter.

A driven well with pump is located at the right side of the entrance. No information on the capacity of this system was provided. The pressure tank, pump controller, and filtration equipment for this system are located in the clubhouse utility room. We provide a budget to replace the pressure tank, various fittings and well pump and its controller on a 20 year cycle.

A Navien brand, on-demand, LP fired, domestic water heater is located in the utility room. This unit looks in good condition and we provide a budget for its replacement in 20 years.

An LP fired, air handling unit is located in the attic of the clubhouse. We did not review this system directly, but with the relatively newer renovations of the building, we anticipate it to have a remaining useful life of 25 years and budget for its replacement accordingly.

The coin operated washer/dryer in the clubhouse and bathhouse are Association responsibility. We assume the funds generated from their use will pay for their replacement.

The serial number of the 40 gal Bradford White™ gas-fired water heater in the bathhouse suggests the unit was manufactured in 2000. These types of units have an estimated useful life of 15-20 years. We budget for its replacement during renovations of the building, and on a 15 year basis thereafter.

Mechanical Common Components & Required Capital Expenditures

Appendix A contains an inventory of all mechanical improvements which are considered common components, and a detailed schedule of projected Capital Expenditure (CapEx) budgets for these items in 2023 dollars. Below is a short list of the more notable expenses incurred over the duration of the study:

Clubhouse - furnace air handler in attic	\$	6,000
Clubhouse - on-demand water heater	\$	1,500
Well pump	\$	7,000
Domestic water system components	\$	10,000
Dockside sewer pump	\$	5,000
Bathhouse - 40 gal water heater	\$	2,400
Clubhouse - fire alarm system update	\$	2,500

4.3.5 Amenities

Description & Observations

We are unaware of any Association responsible amenities in this community.

4.3.6 Other

Description & Observations

The boat crane allows members to annually take their boats out in the fall and put them in the water in the spring. This unit appears older and if not already, replacement parts will become more difficult to obtain. As this service is a vital function of the club, we suggest that the Association budget to replace this crane in 15 years.

CAI generally recommends updates to reserve studies on a 5 year cycle. The Board will want to at least review this study at that time and determine:

- if there have been any unplanned capital expenses which have drawn from the fund;
- if adequate record keeping of capital work is lacking;
- volatility of inflation over that past period;
- past or expected volatility of material and labor costs; and,
- if current Declarations require a frequency in conducting Reserve Studies.

Based on the components and nature of this Association, we have budgeted for this study to be updated every seven years, but you may choose to do them more frequently if you can answer in the affirmative to any, or all of the above questions.

Common Components & Required Capital Expenditures

Appendix A contains an inventory of all other improvements which are considered common components, and a detailed schedule of projected Capital Expenditure (CapEx) budgets for these items in 2023 dollars. Below is a short list of the more notable expenses incurred over the duration of the study:

Reserve Study Update 7 yrs \$ 10,000

4.4 CURRENT DEFICIENCIES

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

- Overturning and deterioration for portions of seawall - monitor and replace as needed
- Bathhouse interior flooring in poor condition

Correction of items not listed here generally represent expenses under \$1,000 and should be covered by normal operations & maintenance budgets. We have not made any allowance for these "de minimis" items in the capital expenditure budget projection.

4.5 LIFE & VALUATION

4.5.1 Opinions of Useful Life

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

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

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

- $RUL = EUL - Age$

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

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

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

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

- Defer work for components observed to be in unusually good condition.

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

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

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

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

We use the following documentation to guide our considerations:

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

4.5.2 Cost Estimating

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

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

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

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

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

We use the following publications to guide our considerations:

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

Annual aggregated capital expenditure budgets have been calculated for all years during the study period

by inflating the annual tallies of current dollar cost estimates, and compounding for inflation at 3.0% per year, a figure requested by the Board.

It should be noted that according to the US Department of Labor (Bureau of Labor Statistics) the the average annual values of both consumer and construction cost increases since the US Bureau of Labor Statistics started publishing data approximately 90 years ago is close to 3.10% and inflation rates have averaged 2.50% over the last 30 years.

It should also be noted that several well known publications predict the rate of inflation to average below 2.00% for the next 10 years, but of course it is impossible to accurately predict inflation fluctuation and we generally recommend 3.00% as a conservative figure.

5.0 FINANCIAL ANALYSIS

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

5.1 CAPITAL EXPENDITURE PROJECTION

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

For detailed information on projected capital expenditures, please refer to the Appendix A. tables titled “Common Component Inventory & Capital Expenditure (CapEx) Planning” and “Annual Capital Expenditures 30-Year Budget Projection.”

In summary, the 30-year total of projected capital expenditure (CapEx) budgets, (current dollar cost estimates inflated at 3.0% annually,) is \$1,636,020. The Board did not identify other planned new amenities or other improvements to the property which will require any capital expenditures by the Trust over the 30-year study period.

Please note that we have assumed that the cost of minor repair & replacement work valued at less than \$1,000 will be covered by normal Operations & Maintenance budgets. Such “de minimis” costs may be for one-time work on a single item, or aggregated repairs of a type of component over a year.

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

5.2 CURRENT FUNDING

5.2.1 Board-Provided Information

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

Our initial financial analysis was based on the data supplied.

- Fiscal Year Starting Date: January 1, 2023
- For Designated Year: 2023
- Starting Fund Balance: \$76,800
- On Date: January 1, 2023
- Current Annual Rate of Contribution: \$25,600
- Planned Increases: none
- Planned Special Assessments: none
- Projected Average Return on Investment: 1.0%
- Projected Rate of inflation: 3.0%

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

5.2.2 Current Funding Plan Projection

Our initial analysis was a projection of the Association's current rate of contribution forward over 30 years with no increases.

For detailed data, please refer to the Appendix A. tables and graphs titled “Capital Reserve Fund - 30-Year Cash flow Projection - Current Funding Plan”

Given the reported \$76,800 starting balance of the Capital Reserve Fund on January 1, 2023, the current ongoing annual rate of contribution \$25,600, and an anticipated average rate of return on investment of 1.0% per year, our financial analysis indicates that the Association's current funding will prove insufficient to meet future needs.

Because of draw-downs to pay for these CapEx expenses, projected year-end fund balances fall to deficit levels in Year 16 (2038), and accumulated deficits would equal \$766,467 by the end of the 30-year planning period in 2052.

5.3 ALTERNATE FUNDING PLANS

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

We have prepared two alternate funding plan(s) for the Board's consideration:

- Alternate Funding Plan One: A 5.5% annual increase in reserve funding, starting in 2024, would result in a positive balance (exceeding the recommended threshold) at the end of 30 years. However, anticipated work causes the reserve balance to become negative twice within that timeframe. To perform work during those periods would require the Association to either acquire a loan or collect special assessments. Total unit monthly rates of contributions grow from \$33.33 in Year 1 to \$53.97 in Year 10, \$92.19 in Year 20 and \$157.47 in Year 30.
- Alternate Funding Plan Two: This plan incorporates 15.0% annual increases in reserve funding during Years 2-4, 10% annual increases in Years 5-7, 5% annual increases in Years 8-13, and 2% annual increases for the remainder of the study. This plan would result in positive year-end balances throughout the 30-year planning period. Total unit monthly rates of contributions grow from \$33.33 in Year 1 to \$78.11 in Year 10, \$103.87 in Year 20 and \$126.62 in Year 30.

5.4 FUNDING METHODOLOGIES (Background Information)

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

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

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

- Fiscally Responsible
- Maintains Property Values

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

Some of the more common methods are outlined below

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

5.4.1 Statutory Funding

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

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

5.4.2 Covenantal Funding

The legal documents which originally establish this association may set forth guidelines for its reserve funding. However, we were not provided with the Master Deed for the Gilford Yacht Club, and are not aware of any stipulations for specific long-term funding criteria.

5.4.3 Cash Flow Based Funding

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

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

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

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

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

Baseline Funding

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

Threshold Funding

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

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

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

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

5.4.4 Component Based

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

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

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

Full Funding

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

If the Association's cash flow projection indicates that their capital reserve fund balance will be equal to or greater than that ideal value at the beginning of any given year, then, by Community Association Institute (CAI) definition, the Association is said to be "fully funded" in that year.

In Criterium's opinion, when an association is "fully funded" per the CAI definition, then, very often, an Association is holding more cash reserves than absolutely necessary for prudent management of their financial obligations.

Percent Fully Funded

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

This metric is used to indicate whether an Association is:

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

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

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

5.4.5 Special Assessments

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

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

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

Although it is unusual, if the individual Unit Owners who form an Association all have sufficient means, the membership may prefer to manage their own investments and contribute to capital expenses only on the basis of annual special assessments.

5.4.6 Borrowing

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

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

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

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

6.0 LIMITATIONS

Criterion-Bennett Engineers shall perform duties to at least the professional standards consistent with a licensed, Professional Engineer, but does not guarantee or warrant that all adverse conditions concerning the property can be or will be discovered and included in the report. The photographs are an integral part of this report and must be included in any review.

This study is limited to the visual observations made during our inspection. We did not undertake any excavation, conduct any destructive or invasive testing, remove surface materials or finishes, or displace furnishings or equipment. The observations described in this study are valid on the dates of the investigation.

Accordingly, we cannot comment on the condition of systems that we could not see, such as buried structures and utilities, nor are we responsible for conditions that could not be seen or were not within the scope of our services at the time of inspection.

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

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

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

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

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

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

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

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

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

Criterion-Bennett Engineers prepared this confidential report for the review and use of the Board of the Association. We do not intend any other individual or party to rely upon this study

without our express written consent. If another individual or party relies on this study, they shall indemnify, defend and hold Criterion-Bennett Engineers, its subsidiaries, affiliates, officers, Directors, members, shareholders, partners, agents, employees and such other parties in interest specified by Criterion-Bennett Engineers harmless for any damages, losses, or expenses they may incur as a result of its use. Any use or reliance of the report by an individual or party other than Gilford Yacht Club shall constitute acceptance of these terms and conditions.

7.0 CONCLUSION

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

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

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

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

We are unaware of any other involvement or business relationship between Criterion-Bennett Engineers and the Developer, or the Association, or individual Unit Owners, or members of the Board, or any other entities which constitutes any conflict of interest.

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


If you have any further questions or would like to direct additional, follow-up services then please contact Aaron Bennett, P.E. at 603-610-2446 or via email at info@criterion-bennett.com

Criterion-Bennett Engineers appreciates this opportunity to assist the Board in support of the association's facility and financial planning.

Thank you.

Respectfully submitted,

CRITERIUM-BENNETT ENGINEERS



Aaron Bennett, P.E.
Principal Engineer, Owner

APPENDIX A: FINANCIAL EXHIBITS

Reserve Fund Study



Reserve Study for Client:

Board of Directors
Gilford Yacht Club
 1996 Lake Shore Road
 Gilford, NH, 03249

Primary Contact:

c/o **Svend Filby** Secretary
 603-996-1060
svendfilby@gmail.com

Association Information, Agreed Planning Assumptions and Current Reserve Funding Data**Property-Specific Notes****Association Information:**

Number of units
 Is this property mixed-use?
 Are all Units assessed at the same rate?
 Next fiscal year starts:
 Next fiscal year is designated as

64
 No
 Yes
 January 1, 2023
 2023

Construction History

Initial building construction
 If building(s) had a prior use, the year of condo conversion
 If phased construction, the year the last Unit was completed
 Significant renovation

Not applicable
 Not applicable
 Not applicable

Year	Age
1979	44

Study Information & Planning Assumptions:

Study period, duration in years
 Study period starts

30
 January 1, 2023

Rate of return on investment % (ROI) applied to reserve fund balances
 Annual inflation rate (%) applied to future expenditure annual budgets

1.0%
 3.0%

Current Funding Levels:

Current total monthly fee per unit (revenue)
 Current portion of total monthly fee per unit toward reserves
 Percentage - reserve savings of overall revenue
 Current portion of total monthly fee per unit toward O&M

\$ 133.33
 \$ 33.33
 25.0%
 \$ 100.00

Current Association monthly revenue from all fees
 Current Association monthly reserve contribution (regular savings)

\$ 8,533.33
 \$ 2,133.33

Average monthly reserve contribution per unit
 Current annual reserve contribution (savings)
 Average annual reserve contribution per unit

\$ 33.33
 \$ 25,599.96
 \$ 400.00

Estimated starting reserve fund balance

January 1, 2023

\$ 76,800.00

Current Planned Special Assessments

Not applicable
 Not applicable
 Not applicable

Dollars	Year
\$ -	
\$ -	
\$ -	

Gilford Yacht Club



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Current Reserve Items and Expenditure Planning

Association Age (yrs) 44	Year Study Begins 2023
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Category	Planning Notes Scope of Work Budget & Scheduling	Quantity		Unit Cost	Reserve Expenditure Current (Year 1) Dollars	Useful Life, Years		Year Work Begins
		Count	Unit			EUL = Expected or Frequency	RUL = Remaining or Next Expense	

Site Improvements

Signs - Clubhouse Entrance		1	EA	\$ 3,500.00	\$ 3,500	30	20	2043
Seawall Replacement Phase 1 (Slips 1-35)	including cap & walkway	580	LF	\$ 500.00	\$ 290,000	75	15	2038
Seawall Replacement Phase 2 (Slips 51-1)		510	LF	\$ 500.00	\$ 255,000	75	20	2043
Seawall Construction Slips 36, 50 & along bathhouse		160	LF	\$ 500.00	\$ 80,000	75	15	2038
Site - chainlink fence		300	LF	\$ 30.00	\$ 9,000	35	29	2052
Site - vinyl privacy fence	next to clubhouse and along North PL	300	LF	\$ 35.00	\$ 10,500	25	25	2048
Utility pedestal replacement allowance	during seawall work	27	EA	\$ 600.00	\$ 16,200	35	20	2043
Bathhouse site improvements		1	LS	\$ 4,500.00	\$ 4,500	0	1	2024
Wood sealant application for pier		1	LS	\$ 6,000.00	\$ 6,000	5	0	2023
Replank pier & allowance for repairs at that time		3,000	SF	\$ 8.00	\$ 24,000	25	22	2045
Finger dock replacement allowance	replace two docks every 3 years	2	EA	\$ 4,000.00	\$ 8,000	3	1	2024
Arborist allowance		1	LS	\$ 5,000.00	\$ 5,000	7	7	2030
Area lighting	pole mounted fixtures to LED	8	EA	\$ 750.00	\$ 6,000	5	25	2048

Buildings - Envelope

Clubhouse - roof shingle replacement		1	LS	\$ 8,800.00	\$ 8,800	25	16	2039
Clubhouse - siding replacement	pro-rated	1	LS	\$ 11,000.00	\$ 11,000	40	29	2052
Bathhouse - 2023 renovations		1	LS	\$ 65,000.00	\$ 65,000	0	0	2023
Bathhouse - roof shingle replacement		1	LS	\$ 4,500.00	\$ 4,500	25	25	2048
Dockhouse - roof membrane - 60 mil		1	LS	\$ 3,200.00	\$ 3,200	35	16	2039
Dockhouse - vinyl siding		1	LS	\$ 3,000.00	\$ 3,000	25	10	2033
Storage Building Roof and Siding	Alternate Roof & Siding Work	1	LS	\$ 3,500.00	\$ 3,500	10	0	2023

Mechanical, Electrical & Plumbing Systems

Clubhouse - furnace air handler in attic		1	EA	\$ 6,000.00	\$ 6,000	35	25	2048
Clubhouse - on-demand water heater		1	EA	\$ 1,500.00	\$ 1,500	25	16	2039
Well pump		1	LS	\$ 3,500.00	\$ 3,500	16	10	2033
Domestic water system components		1	LS	\$ 5,000.00	\$ 5,000	10	10	2033
Dockside sewer pump		1	EA	\$ 2,500.00	\$ 2,500	12	10	2033
Bathhouse - 40 gal water heater	next replaced with renovation	1	EA	\$ 1,200.00	\$ 1,200	12	13	2036

Fire Protection & Life Safety

Clubhouse - fire alarm system update		1	LS	\$ 2,500.00	\$ 2,500	20	17	2040
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Interior Finishes, Doors, Windows & Fixtures

Clubhouse - Flooring, Interior Doors, Lights, Bath Fixtures	updates	1	LS	\$ 15,000.00	\$ 15,000	20	20	2043
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Services

Reserve Study Update 7 yrs		1	LS	\$ 2,500.00	\$ 2,500	7	7	2030
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Gilford Yacht Club

Annual Reserve Expenditure Budget Projection



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Category	Study Year Number & Fiscal Year									
	1 2023	2 2024	3 2025	4 2026	5 2027	6 2028	7 2029	8 2030	9 2031	10 2032
Site Improvements										
Signs - Clubhouse Entrance	0	0	0	0	0	0	0	0	0	0
Seawall Replacement Phase 1 (Slips 1-35)	0	0	0	0	0	0	0	0	0	0
Seawall Replacement Phase 2 (Slips 51-1)	0	0	0	0	0	0	0	0	0	0
Seawall Construction Slips 36, 50 & along bathhouse	0	0	0	0	0	0	0	0	0	0
Site - chainlink fence	0	0	0	0	0	0	0	0	0	0
Site - vinyl privacy fence	0	0	0	0	0	0	0	0	0	0
Utility pedestal replacement allowance	0	0	0	0	0	0	0	0	0	0
Bathhouse site improvements	0	4,500	0	0	0	0	0	0	0	0
Wood sealant application for pier	6,000	0	0	0	0	6,000	0	0	0	0
Replank pier & allowance for repairs at that time	0	0	0	0	0	0	0	0	0	0
Finger dock replacement allowance	0	8,000	0	0	8,000	0	0	8,000	0	0
Arborist allowance	0	0	0	0	0	0	0	5,000	0	0
Area lighting	0	0	0	0	0	0	0	0	0	0
Buildings - Envelope										
Clubhouse - roof shingle replacement	0	0	0	0	0	0	0	0	0	0
Clubhouse - siding replacement	0	0	0	0	0	0	0	0	0	0
Bathhouse - 2023 renovations	65,000	0	0	0	0	0	0	0	0	0
Bathhouse - roof shingle replacement	0	0	0	0	0	0	0	0	0	0
Dockhouse - roof membrane - 60 mil	0	0	0	0	0	0	0	0	0	0
Dockhouse - vinyl siding	0	0	0	0	0	0	0	0	0	0
Storage Building Roof and Siding	3,500	0	0	0	0	0	0	0	0	0
Mechanical, Electrical & Plumbing Systems										
Clubhouse - furnace air handler in attic	0	0	0	0	0	0	0	0	0	0
Clubhouse - on-demand water heater	0	0	0	0	0	0	0	0	0	0
Well pump	0	0	0	0	0	0	0	0	0	0
Domestic water system components	0	0	0	0	0	0	0	0	0	0
Dockside sewer pump	0	0	0	0	0	0	0	0	0	0
Bathhouse - 40 gal water heater	0	0	0	0	0	0	0	0	0	0
Fire Protection & Life Safety										
Clubhouse - fire alarm system update	0	0	0	0	0	0	0	0	0	0
Interior Finishes, Doors, Windows & Fixtures										
Clubhouse - Flooring, Interior Doors, Lights, Bath Fixtures	0	0	0	0	0	0	0	0	0	0
Services										
Reserve Study Update 7 yrs	0	0	0	0	0	0	0	2,500	0	0

Current Dollar Annual Total =	74,500	12,500	0	0	8,000	6,000	0	15,500	0	0
Future Dollar Annual Total, adjusted for inflation =	74,500	12,875	0	0	9,004	6,956	0	19,063	0	0

Gilford Yacht Club

Annual Reserve Expenditure Budget Project



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Category	Study Year Number & Fiscal Year									
	11 2033	12 2034	13 2035	14 2036	15 2037	16 2038	17 2039	18 2040	19 2041	20 2042

Site Improvements

Signs - Clubhouse Entrance	0	0	0	0	0	0	0	0	0	0
Seawall Replacement Phase 1 (Slips 1-35)	0	0	0	0	0	290,000	0	0	0	0
Seawall Replacement Phase 2 (Slips 51-1)	0	0	0	0	0	0	0	0	0	0
Seawall Construction Slips 36, 50 & along bathhouse	0	0	0	0	0	80,000	0	0	0	0
Site - chainlink fence	0	0	0	0	0	0	0	0	0	0
Site - vinyl privacy fence	0	0	0	0	0	0	0	0	0	0
Utility pedestal replacement allowance	0	0	0	0	0	0	0	0	0	0
Bathhouse site improvements	0	0	0	0	0	0	0	0	0	0
Wood sealant application for pier	6,000	0	0	0	0	6,000	0	0	0	0
Replank pier & allowance for repairs at that time	0	0	0	0	0	0	0	0	0	0
Finger dock replacement allowance	8,000	0	0	8,000	0	0	8,000	0	0	8,000
Arborist allowance	0	0	0	0	5,000	0	0	0	0	0
Area lighting	0	0	0	0	0	0	0	0	0	0

Buildings - Envelope

Clubhouse - roof shingle replacement	0	0	0	0	0	0	8,800	0	0	0
Clubhouse - siding replacement	0	0	0	0	0	0	0	0	0	0
Bathhouse - 2023 renovations	0	0	0	0	0	0	0	0	0	0
Bathhouse - roof shingle replacement	0	0	0	0	0	0	0	0	0	0
Dockhouse - roof membrane - 60 mil	0	0	0	0	0	0	3,200	0	0	0
Dockhouse - vinyl siding	3,000	0	0	0	0	0	0	0	0	0
Storage Building Roof and Siding	3,500	0	0	0	0	0	0	0	0	0

Mechanical, Electrical & Plumbing Systems

Clubhouse - furnace air handler in attic	0	0	0	0	0	0	0	0	0	0
Clubhouse - on-demand water heater	0	0	0	0	0	0	1,500	0	0	0
Well pump	3,500	0	0	0	0	0	0	0	0	0
Domestic water system components	5,000	0	0	0	0	0	0	0	0	0
Dockside sewer pump	2,500	0	0	0	0	0	0	0	0	0
Bathhouse - 40 gal water heater	0	0	0	1,200	0	0	0	0	0	0

Fire Protection & Life Safety

Clubhouse - fire alarm system update	0	0	0	0	0	0	0	2,500	0	0
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Interior Finishes, Doors, Windows & Fixtures

Clubhouse - Flooring, Interior Doors, Lights, Bath Fixtures	0	0	0	0	0	0	0	0	0	0
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Services

Reserve Study Update 7 yrs	0	0	0	0	2,500	0	0	0	0	0
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Current Dollar Annual Total =	31,500	0	0	9,200	7,500	376,000	21,500	2,500	0	8,000
Future Dollar Annual Total, adjusted for inflation =	42,333	0	0	13,511	11,344	585,796	34,501	4,132	0	14,028

Gilford Yacht Club

Annual Reserve Expenditure Budget Project



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Category	Study Year Number & Fiscal Year									
	21 2043	22 2044	23 2045	24 2046	25 2047	26 2048	27 2049	28 2050	29 2051	30 2052

Site Improvements

Signs - Clubhouse Entrance	3,500	0	0	0	0	0	0	0	0	0
Seawall Replacement Phase 1 (Slips 1-35)	0	0	0	0	0	0	0	0	0	0
Seawall Replacement Phase 2 (Slips 51-1)	255,000	0	0	0	0	0	0	0	0	0
Seawall Construction Slips 36, 50 & along bathhouse	0	0	0	0	0	0	0	0	0	0
Site - chainlink fence	0	0	0	0	0	0	0	0	0	9,000
Site - vinyl privacy fence	0	0	0	0	0	10,500	0	0	0	0
Utility pedestal replacement allowance	16,200	0	0	0	0	0	0	0	0	0
Bathhouse site improvements	0	0	0	0	0	0	0	0	0	0
Wood sealant application for pier	6,000	0	0	0	0	6,000	0	0	0	0
Replank pier & allowance for repairs at that time	0	0	24,000	0	0	0	0	0	0	0
Finger dock replacement allowance	0	0	8,000	0	0	8,000	0	0	8,000	0
Arborist allowance	0	5,000	0	0	0	0	0	0	5,000	0
Area lighting	0	0	0	0	0	6,000	0	0	0	0

Buildings - Envelope

Clubhouse - roof shingle replacement	0	0	0	0	0	0	0	0	0	0
Clubhouse - siding replacement	0	0	0	0	0	0	0	0	0	11,000
Bathhouse - 2023 renovations	0	0	0	0	0	0	0	0	0	0
Bathhouse - roof shingle replacement	0	0	0	0	0	4,500	0	0	0	0
Dockhouse - roof membrane - 60 mil	0	0	0	0	0	0	0	0	0	0
Dockhouse - vinyl siding	0	0	0	0	0	0	0	0	0	0
Storage Building Roof and Siding	3,500	0	0	0	0	0	0	0	0	0

Mechanical, Electrical & Plumbing Systems

Clubhouse - furnace air handler in attic	0	0	0	0	0	6,000	0	0	0	0
Clubhouse - on-demand water heater	0	0	0	0	0	0	0	0	0	0
Well pump	0	0	0	0	0	0	3,500	0	0	0
Domestic water system components	5,000	0	0	0	0	0	0	0	0	0
Dockside sewer pump	0	0	2,500	0	0	0	0	0	0	0
Bathhouse - 40 gal water heater	0	0	0	0	0	1,200	0	0	0	0

Fire Protection & Life Safety

Clubhouse - fire alarm system update	0	0	0	0	0	0	0	0	0	0
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Interior Finishes, Doors, Windows & Fixtures

Clubhouse - Flooring, Interior Doors, Lights, Bath Fixtures	15,000	0	0	0	0	0	0	0	0	0
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Services

Reserve Study Update 7 yrs	0	2,500	0	0	0	0	0	0	2,500	0
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Current Dollar Annual Total =	304,200	7,500	34,500	0	0	42,200	3,500	0	15,500	20,000
Future Dollar Annual Total, adjusted for inflation =	549,419	13,952	66,106	0	0	88,357	7,548	0	35,463	47,131

Gilford Yacht Club

Cash-Flow Projection at the Current Funding Level, unchanged throughout Study Period

Year No.	Fiscal Year	Beginning Reserve Fund Balance	Current Fee Revenue (Savings)	Currently Planned Special Assessments	Investment Earnings	Projected Reserve Expenditures	Ending Reserve Fund Balance		Suggested Minimum Threshold
							> Threshold	< Threshold	
							Deficit		
1	2023	\$ 76,800	\$ 25,600	\$ -	\$ 279	\$ 74,500	\$ 28,179	\$ 100,010	
2	2024	\$ 28,179	\$ 25,600	\$ -	\$ 409	\$ 12,875	\$ 41,313	\$ 103,010	
3	2025	\$ 41,313	\$ 25,600	\$ -	\$ 669	\$ -	\$ 67,582	\$ 106,101	
4	2026	\$ 67,582	\$ 25,600	\$ -	\$ 932	\$ -	\$ 94,114	\$ 109,284	
5	2027	\$ 94,114	\$ 25,600	\$ -	\$ 1,107	\$ 9,004	\$ 111,817	\$ 112,562	
6	2028	\$ 111,817	\$ 25,600	\$ -	\$ 1,305	\$ 6,956	\$ 131,766	\$ 115,939	
7	2029	\$ 131,766	\$ 25,600	\$ -	\$ 1,574	\$ -	\$ 158,939	\$ 119,417	
8	2030	\$ 158,939	\$ 25,600	\$ -	\$ 1,655	\$ 19,063	\$ 167,131	\$ 123,000	
9	2031	\$ 167,131	\$ 25,600	\$ -	\$ 1,927	\$ -	\$ 194,658	\$ 126,690	
10	2032	\$ 194,658	\$ 25,600	\$ -	\$ 2,203	\$ -	\$ 222,461	\$ 130,490	
11	2033	\$ 222,461	\$ 25,600	\$ -	\$ 2,057	\$ 42,333	\$ 207,785	\$ 134,405	
12	2034	\$ 207,785	\$ 25,600	\$ -	\$ 2,334	\$ -	\$ 235,719	\$ 138,437	
13	2035	\$ 235,719	\$ 25,600	\$ -	\$ 2,613	\$ -	\$ 263,932	\$ 142,590	
14	2036	\$ 263,932	\$ 25,600	\$ -	\$ 2,760	\$ 13,511	\$ 278,781	\$ 146,868	
15	2037	\$ 278,781	\$ 25,600	\$ -	\$ 2,930	\$ 11,344	\$ 295,967	\$ 151,274	
16	2038	\$ 295,967	\$ 25,600	\$ -	\$ -	\$ 585,796	\$ (264,229)	\$ 155,812	
17	2039	\$ (264,229)	\$ 25,600	\$ -	\$ -	\$ 34,501	\$ (273,130)	\$ 160,487	
18	2040	\$ (273,130)	\$ 25,600	\$ -	\$ -	\$ 4,132	\$ (251,662)	\$ 165,301	
19	2041	\$ (251,662)	\$ 25,600	\$ -	\$ -	\$ -	\$ (226,062)	\$ 170,260	
20	2042	\$ (226,062)	\$ 25,600	\$ -	\$ -	\$ 14,028	\$ (214,490)	\$ 175,368	
21	2043	\$ (214,490)	\$ 25,600	\$ -	\$ -	\$ 549,419	\$ (738,309)	\$ 180,629	
22	2044	\$ (738,309)	\$ 25,600	\$ -	\$ -	\$ 13,952	\$ (726,661)	\$ 186,048	
23	2045	\$ (726,661)	\$ 25,600	\$ -	\$ -	\$ 66,106	\$ (767,167)	\$ 191,630	
24	2046	\$ (767,167)	\$ 25,600	\$ -	\$ -	\$ -	\$ (741,567)	\$ 197,378	
25	2047	\$ (741,567)	\$ 25,600	\$ -	\$ -	\$ -	\$ (715,967)	\$ 203,300	
26	2048	\$ (715,967)	\$ 25,600	\$ -	\$ -	\$ 88,357	\$ (778,725)	\$ 209,399	
27	2049	\$ (778,725)	\$ 25,600	\$ -	\$ -	\$ 7,548	\$ (760,673)	\$ 215,681	
28	2050	\$ (760,673)	\$ 25,600	\$ -	\$ -	\$ -	\$ (735,073)	\$ 222,151	
29	2051	\$ (735,073)	\$ 25,600	\$ -	\$ -	\$ 35,463	\$ (744,936)	\$ 228,816	
30	2052	\$ (744,936)	\$ 25,600	\$ -	\$ -	\$ 47,131	\$ (766,467)	\$ 235,680	

30-Year Total of Revenues = \$ 792,753 | \$ 1,636,020 = 30-Year Total of Expenses

All year-end balances, revenues & expenditures above in future dollars



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Gilford Yacht Club
Alternative Funding Plan No. One

incremental annual percentage increases
Includes no additional special assessments



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29 increases varying from 5.5% to 5.5% throughout the 30 year study.

Results in an increase in monthly contributions from the current \$33.33/Unit in Year 1, to \$157.47/Unit in Year 30.
 This equals a \$49.65 average annual increase per Unit (\$4.14/month) over the 30 year study.

Year No.	Fiscal Year	Beginning Reserve Fund Balance	Proposed Fee Revenue (Savings)	Proposed Monthly Reserve Fee per Unit	% Increase Prior Year	Investment Earnings	Projected Reserve Expenditures	Ending Reserve Fund Balance		Suggested Minimum Threshold
								> Threshold	< Threshold	
1	2023	\$ 76,800	\$ 25,600	\$ 33.33	0.00%	\$ 279	\$ 74,500	\$ 28,179	\$ 100,010	
2	2024	\$ 28,179	\$ 27,008	\$ 35.17	5.50%	\$ 423	\$ 12,875	\$ 42,735	\$ 103,010	
3	2025	\$ 42,735	\$ 28,493	\$ 37.10	5.50%	\$ 712	\$ -	\$ 71,941	\$ 106,101	
4	2026	\$ 71,941	\$ 30,061	\$ 39.14	5.50%	\$ 1,020	\$ -	\$ 103,021	\$ 109,284	
5	2027	\$ 103,021	\$ 31,714	\$ 41.29	5.50%	\$ 1,257	\$ 9,004	\$ 126,988	\$ 112,562	
6	2028	\$ 126,988	\$ 33,458	\$ 43.57	5.50%	\$ 1,535	\$ 6,956	\$ 155,026	\$ 115,939	
7	2029	\$ 155,026	\$ 35,298	\$ 45.96	5.50%	\$ 1,903	\$ -	\$ 192,227	\$ 119,417	
8	2030	\$ 192,227	\$ 37,240	\$ 48.49	5.50%	\$ 2,104	\$ 19,063	\$ 212,508	\$ 123,000	
9	2031	\$ 212,508	\$ 39,288	\$ 51.16	5.50%	\$ 2,518	\$ -	\$ 254,314	\$ 126,690	
10	2032	\$ 254,314	\$ 41,449	\$ 53.97	5.50%	\$ 2,958	\$ -	\$ 298,720	\$ 130,490	
11	2033	\$ 298,720	\$ 43,728	\$ 56.94	5.50%	\$ 3,001	\$ 42,333	\$ 303,117	\$ 134,405	
12	2034	\$ 303,117	\$ 46,133	\$ 60.07	5.50%	\$ 3,493	\$ -	\$ 352,743	\$ 138,437	
13	2035	\$ 352,743	\$ 48,671	\$ 63.37	5.50%	\$ 4,014	\$ -	\$ 405,427	\$ 142,590	
14	2036	\$ 405,427	\$ 51,348	\$ 66.86	5.50%	\$ 4,433	\$ 13,511	\$ 447,697	\$ 146,868	
15	2037	\$ 447,697	\$ 54,172	\$ 70.54	5.50%	\$ 4,905	\$ 11,344	\$ 495,430	\$ 151,274	
16	2038	\$ 495,430	\$ 57,151	\$ 74.42	5.50%	\$ -	\$ 585,796	\$ (33,214)	\$ 155,812	
17	2039	\$ (33,214)	\$ 60,295	\$ 78.51	5.50%	\$ -	\$ 34,501	\$ (7,421)	\$ 160,487	
18	2040	\$ (7,421)	\$ 63,611	\$ 82.83	5.50%	\$ 521	\$ 4,132	\$ 52,578	\$ 165,301	
19	2041	\$ 52,578	\$ 67,109	\$ 87.38	5.50%	\$ 1,197	\$ -	\$ 120,885	\$ 170,260	
20	2042	\$ 120,885	\$ 70,800	\$ 92.19	5.50%	\$ 1,777	\$ 14,028	\$ 179,434	\$ 175,368	
21	2043	\$ 179,434	\$ 74,694	\$ 97.26	5.50%	\$ -	\$ 549,419	\$ (295,291)	\$ 180,629	
22	2044	\$ (295,291)	\$ 78,803	\$ 102.61	5.50%	\$ -	\$ 13,952	\$ (230,441)	\$ 186,048	
23	2045	\$ (230,441)	\$ 83,137	\$ 108.25	5.50%	\$ -	\$ 66,106	\$ (213,409)	\$ 191,630	
24	2046	\$ (213,409)	\$ 87,709	\$ 114.20	5.50%	\$ -	\$ -	\$ (125,700)	\$ 197,378	
25	2047	\$ (125,700)	\$ 92,533	\$ 120.49	5.50%	\$ -	\$ -	\$ (33,167)	\$ 203,300	
26	2048	\$ (33,167)	\$ 97,623	\$ 127.11	5.50%	\$ -	\$ 88,357	\$ (23,901)	\$ 209,399	
27	2049	\$ (23,901)	\$ 102,992	\$ 134.10	5.50%	\$ 715	\$ 7,548	\$ 72,258	\$ 215,681	
28	2050	\$ 72,258	\$ 108,656	\$ 141.48	5.50%	\$ 1,809	\$ -	\$ 182,724	\$ 222,151	
29	2051	\$ 182,724	\$ 114,633	\$ 149.26	5.50%	\$ 2,619	\$ 35,463	\$ 264,512	\$ 228,816	
30	2052	\$ 264,512	\$ 120,937	\$ 157.47	5.50%	\$ 3,383	\$ 47,131	\$ 341,702	\$ 235,680	

30-Year Total of Revenues = \$ 1,900,921 \$ 1,636,020 = 30-Year Total of Expenses

All year-end balances, revenues & expenditures above in future dollars

Gilford Yacht Club
Alternative Funding Plan No. Two

incremental annual percentage increases
Includes no additional special assessments



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29 increases varying from 2% to 15% throughout the 30 year study.

Results in an increase in monthly contributions from the current \$33.33/Unit in Year 1, to \$126.62/Unit in Year 30.
 This equals a \$37.31 average annual increase per Unit (\$3.11/month) over the 30 year study.

Year No.	Fiscal Year	Beginning Reserve Fund Balance	Proposed Fee Revenue (Savings)	Proposed Monthly Reserve Fee per Unit	% Increase Prior Year	Investment Earnings	Projected Reserve Expenditures	Ending Reserve Fund Balance		Suggested Minimum Threshold
								> Threshold	< Threshold	
1	2023	\$ 76,800	\$ 25,600	\$ 33.33	0.00%	\$ 279	\$ 74,500	\$ 28,179	\$ 100,010	
2	2024	\$ 28,179	\$ 29,440	\$ 38.33	15.00%	\$ 447	\$ 12,875	\$ 45,191	\$ 103,010	
3	2025	\$ 45,191	\$ 33,856	\$ 44.08	15.00%	\$ 790	\$ -	\$ 79,838	\$ 106,101	
4	2026	\$ 79,838	\$ 38,934	\$ 50.70	15.00%	\$ 1,188	\$ -	\$ 119,960	\$ 109,284	
5	2027	\$ 119,960	\$ 42,828	\$ 55.77	10.00%	\$ 1,538	\$ 9,004	\$ 155,321	\$ 112,562	
6	2028	\$ 155,321	\$ 47,111	\$ 61.34	10.00%	\$ 1,955	\$ 6,956	\$ 197,431	\$ 115,939	
7	2029	\$ 197,431	\$ 51,822	\$ 67.48	10.00%	\$ 2,493	\$ -	\$ 251,745	\$ 119,417	
8	2030	\$ 251,745	\$ 54,413	\$ 70.85	5.00%	\$ 2,871	\$ 19,063	\$ 289,966	\$ 123,000	
9	2031	\$ 289,966	\$ 57,133	\$ 74.39	5.00%	\$ 3,471	\$ -	\$ 350,570	\$ 126,690	
10	2032	\$ 350,570	\$ 59,990	\$ 78.11	5.00%	\$ 4,106	\$ -	\$ 414,666	\$ 130,490	
11	2033	\$ 414,666	\$ 62,989	\$ 82.02	5.00%	\$ 4,353	\$ 42,333	\$ 439,675	\$ 134,405	
12	2034	\$ 439,675	\$ 66,139	\$ 86.12	5.00%	\$ 5,058	\$ -	\$ 510,872	\$ 138,437	
13	2035	\$ 510,872	\$ 69,446	\$ 90.42	5.00%	\$ 5,803	\$ -	\$ 586,121	\$ 142,590	
14	2036	\$ 586,121	\$ 70,835	\$ 92.23	2.00%	\$ 6,434	\$ 13,511	\$ 649,880	\$ 146,868	
15	2037	\$ 649,880	\$ 72,252	\$ 94.08	2.00%	\$ 7,108	\$ 11,344	\$ 717,895	\$ 151,274	
16	2038	\$ 717,895	\$ 73,697	\$ 95.96	2.00%	\$ 2,058	\$ 585,796	\$ 207,854	\$ 155,812	
17	2039	\$ 207,854	\$ 75,170	\$ 97.88	2.00%	\$ 2,485	\$ 34,501	\$ 251,008	\$ 160,487	
18	2040	\$ 251,008	\$ 76,674	\$ 99.84	2.00%	\$ 3,236	\$ 4,132	\$ 326,786	\$ 165,301	
19	2041	\$ 326,786	\$ 78,207	\$ 101.83	2.00%	\$ 4,050	\$ -	\$ 409,043	\$ 170,260	
20	2042	\$ 409,043	\$ 79,772	\$ 103.87	2.00%	\$ 4,748	\$ 14,028	\$ 479,534	\$ 175,368	
21	2043	\$ 479,534	\$ 81,367	\$ 105.95	2.00%	\$ 115	\$ 549,419	\$ 11,597	\$ 180,629	
22	2044	\$ 11,597	\$ 82,994	\$ 108.07	2.00%	\$ 806	\$ 13,952	\$ 81,445	\$ 186,048	
23	2045	\$ 81,445	\$ 84,654	\$ 110.23	2.00%	\$ 1,000	\$ 66,106	\$ 100,994	\$ 191,630	
24	2046	\$ 100,994	\$ 86,347	\$ 112.43	2.00%	\$ 1,873	\$ -	\$ 189,215	\$ 197,378	
25	2047	\$ 189,215	\$ 88,074	\$ 114.68	2.00%	\$ 2,773	\$ -	\$ 280,062	\$ 203,300	
26	2048	\$ 280,062	\$ 89,836	\$ 116.97	2.00%	\$ 2,815	\$ 88,357	\$ 284,355	\$ 209,399	
27	2049	\$ 284,355	\$ 91,632	\$ 119.31	2.00%	\$ 3,684	\$ 7,548	\$ 372,124	\$ 215,681	
28	2050	\$ 372,124	\$ 93,465	\$ 121.70	2.00%	\$ 4,656	\$ -	\$ 470,245	\$ 222,151	
29	2051	\$ 470,245	\$ 95,334	\$ 124.13	2.00%	\$ 5,301	\$ 35,463	\$ 535,418	\$ 228,816	
30	2052	\$ 535,418	\$ 97,241	\$ 126.62	2.00%	\$ 5,855	\$ 47,131	\$ 591,383	\$ 235,680	

30-Year Total of Revenues = \$ 2,150,602 \$ 1,636,020 = 30-Year Total of Expenses

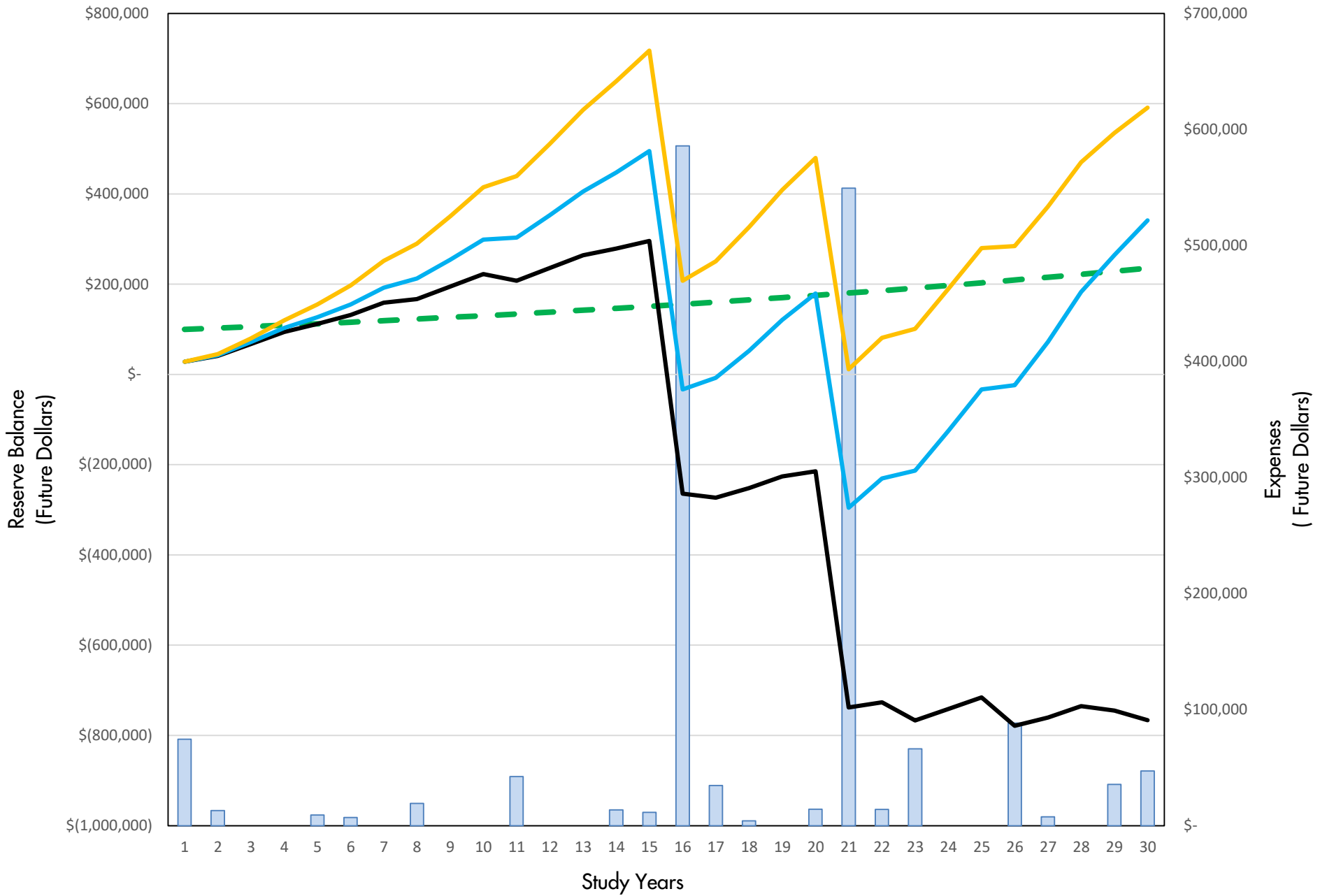
All year-end balances, revenues & expenditures above in future dollars

Gilford Yacht Club

30-Year Cash-Flow Projections - Summary Graph

Year No.	Fiscal Year	Projected Reserve Expenditures	Suggested Minimum Threshold	Year-End Reserve Fund Balances		
				Comparison of Funding Plans		
				Current	Alt One Increment %	Alt Two Increment %
1	2023	\$ 74,500	\$ 100,010	\$ 28,179	\$ 28,179	\$ 28,179
2	2024	\$ 12,875	\$ 103,010	\$ 41,313	\$ 42,735	\$ 45,191
3	2025	\$ -	\$ 106,101	\$ 67,582	\$ 71,941	\$ 79,838
4	2026	\$ -	\$ 109,284	\$ 94,114	\$ 103,021	\$ 119,960
5	2027	\$ 9,004	\$ 112,562	\$ 111,817	\$ 126,988	\$ 155,321
6	2028	\$ 6,956	\$ 115,939	\$ 131,766	\$ 155,026	\$ 197,431
7	2029	\$ -	\$ 119,417	\$ 158,939	\$ 192,227	\$ 251,745
8	2030	\$ 19,063	\$ 123,000	\$ 167,131	\$ 212,508	\$ 289,966
9	2031	\$ -	\$ 126,690	\$ 194,658	\$ 254,314	\$ 350,570
10	2032	\$ -	\$ 130,490	\$ 222,461	\$ 298,720	\$ 414,666
11	2033	\$ 42,333	\$ 134,405	\$ 207,785	\$ 303,117	\$ 439,675
12	2034	\$ -	\$ 138,437	\$ 235,719	\$ 352,743	\$ 510,872
13	2035	\$ -	\$ 142,590	\$ 263,932	\$ 405,427	\$ 586,121
14	2036	\$ 13,511	\$ 146,868	\$ 278,781	\$ 447,697	\$ 649,880
15	2037	\$ 11,344	\$ 151,274	\$ 295,967	\$ 495,430	\$ 717,895
16	2038	\$ 585,796	\$ 155,812	\$ (264,229)	\$ (33,214)	\$ 207,854
17	2039	\$ 34,501	\$ 160,487	\$ (273,130)	\$ (7,421)	\$ 251,008
18	2040	\$ 4,132	\$ 165,301	\$ (251,662)	\$ 52,578	\$ 326,786
19	2041	\$ -	\$ 170,260	\$ (226,062)	\$ 120,885	\$ 409,043
20	2042	\$ 14,028	\$ 175,368	\$ (214,490)	\$ 179,434	\$ 479,534
21	2043	\$ 549,419	\$ 180,629	\$ (738,309)	\$ (295,291)	\$ 11,597
22	2044	\$ 13,952	\$ 186,048	\$ (726,661)	\$ (230,441)	\$ 81,445
23	2045	\$ 66,106	\$ 191,630	\$ (767,167)	\$ (213,409)	\$ 100,994
24	2046	\$ -	\$ 197,378	\$ (741,567)	\$ (125,700)	\$ 189,215
25	2047	\$ -	\$ 203,300	\$ (715,967)	\$ (33,167)	\$ 280,062
26	2048	\$ 88,357	\$ 209,399	\$ (778,725)	\$ (23,901)	\$ 284,355
27	2049	\$ 7,548	\$ 215,681	\$ (760,673)	\$ 72,258	\$ 372,124
28	2050	\$ -	\$ 222,151	\$ (735,073)	\$ 182,724	\$ 470,245
29	2051	\$ 35,463	\$ 228,816	\$ (744,936)	\$ 264,512	\$ 535,418
30	2052	\$ 47,131	\$ 235,680	\$ (766,467)	\$ 341,702	\$ 591,383

All expenditure and year-end balances above in future dollars



Expenditures

Threshold

Current

Alt One

Yellow Line



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Gilford Yacht Club

Reserve Expenditure Budget Projection Summary

Annual Budget	Year No.	Fiscal Year	Component with most significant expense during given year <i>(does not represent full Annual Expenditure)</i>	Current Dollars	Future Dollars
	1	2023	Bathroom - 2023 renovations	\$ 74,500	\$ 74,500
	2	2024	Finger dock replacement allowance	\$ 12,500	\$ 12,875
	3	2025		\$ -	\$ -
	4	2026		\$ -	\$ -
	5	2027	Finger dock replacement allowance	\$ 8,000	\$ 9,004
	6	2028	Wood sealant application for pier	\$ 6,000	\$ 6,956
	7	2029		\$ -	\$ -
	8	2030	Finger dock replacement allowance	\$ 15,500	\$ 19,063
	9	2031		\$ -	\$ -
	10	2032		\$ -	\$ -
	11	2033	Finger dock replacement allowance	\$ 31,500	\$ 42,333
	12	2034		\$ -	\$ -
	13	2035		\$ -	\$ -
	14	2036	Finger dock replacement allowance	\$ 9,200	\$ 13,511
	15	2037	Arborist allowance	\$ 7,500	\$ 11,344
	16	2038	Seawall Replacement Phase 1 (Slips 1-35)	\$ 376,000	\$ 585,796
	17	2039	Clubhouse - roof shingle replacement	\$ 21,500	\$ 34,501
	18	2040	Clubhouse - fire alarm system update	\$ 2,500	\$ 4,132
	19	2041		\$ -	\$ -
	20	2042	Finger dock replacement allowance	\$ 8,000	\$ 14,028
	21	2043	Seawall Replacement Phase 2 (Slips 51-1)	\$ 304,200	\$ 549,419
	22	2044	Arborist allowance	\$ 7,500	\$ 13,952
	23	2045	Replank pier & allowance for repairs at that time	\$ 34,500	\$ 66,106
	24	2046		\$ -	\$ -
	25	2047		\$ -	\$ -
	26	2048	Site - vinyl privacy fence	\$ 42,200	\$ 88,357
	27	2049	Well pump	\$ 3,500	\$ 7,548
	28	2050		\$ -	\$ -
	29	2051	Finger dock replacement allowance	\$ 15,500	\$ 35,463
	30	2052	Clubhouse - siding replacement	\$ 20,000	\$ 47,131

Gilford Yacht Club
Reserve Expenditure Budget Projection Summary

Totals, Averages & Expense per Unit

	Current Dollars	Future Dollars
30-Year Total =	\$ 1,000,100	\$ 1,636,020
30-Year Total per Unit =	\$ 15,627	\$ 25,563
Annual Average =	\$ 33,337	\$ 54,534
Annual Average per Unit =	\$ 521	\$ 852
Monthly Average =	\$ 2,778	\$ 4,544
Monthly Average per Unit =	\$ 43.41	\$ 71.01

Reserve Fund Balance - Minimum Threshold Value

Multiplier
 3

Suggest setting the initial Year 1 value at three times
 the Annual Average Budget in Current Dollars = \$ 100,010
 Future threshold values in Years 2-30 are projected ahead with
 compounding inflation. Resulting Year 30 value = \$ 235,680

APPENDIX B: GRAPHIC EXHIBITS



Wildwood Road Ext
 Gilford, NH 03249
 603-293-8257

SMITH COVE
 LAKE WINNIPESAUKEE



N. H. ROUTE 11

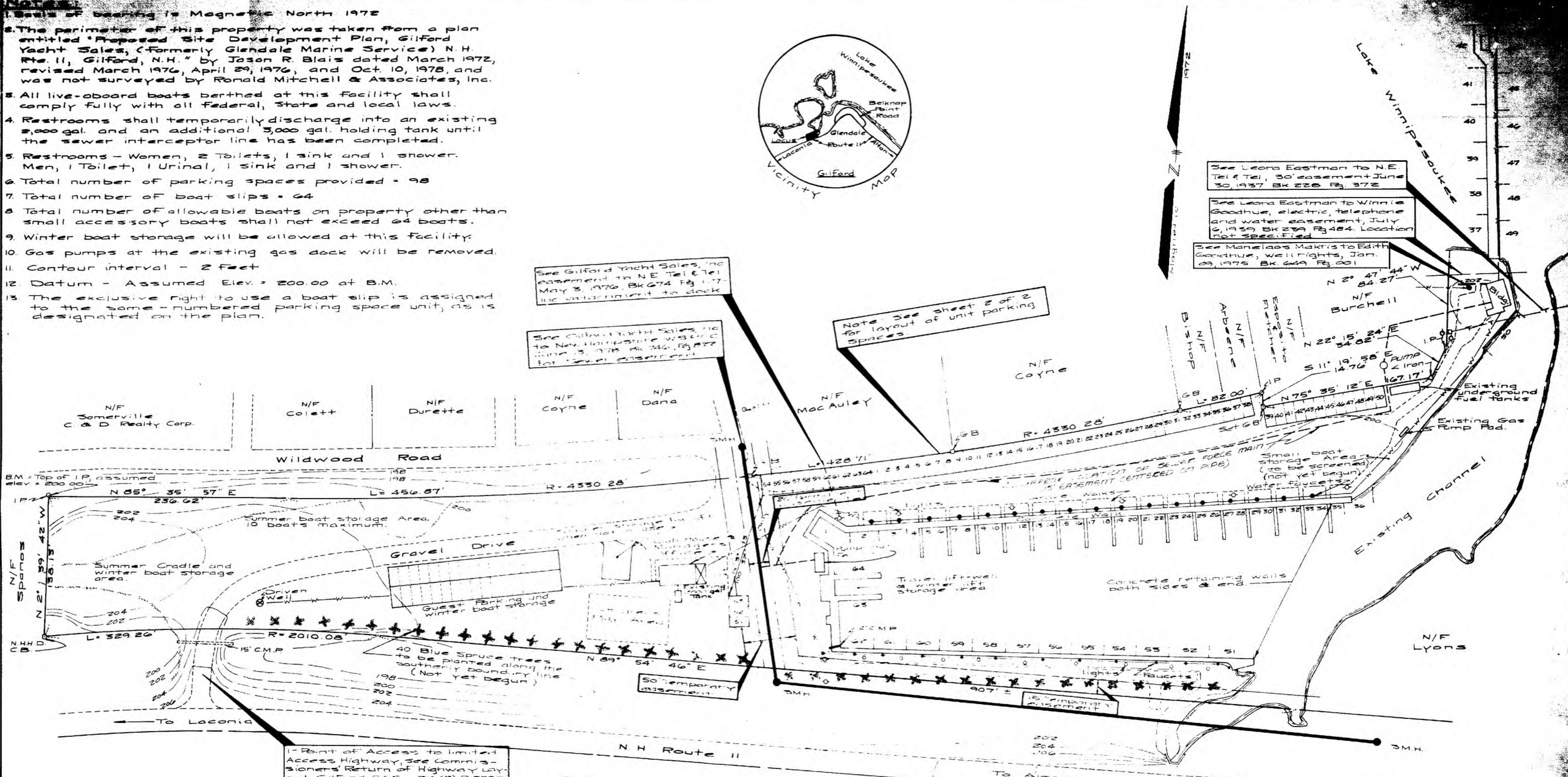
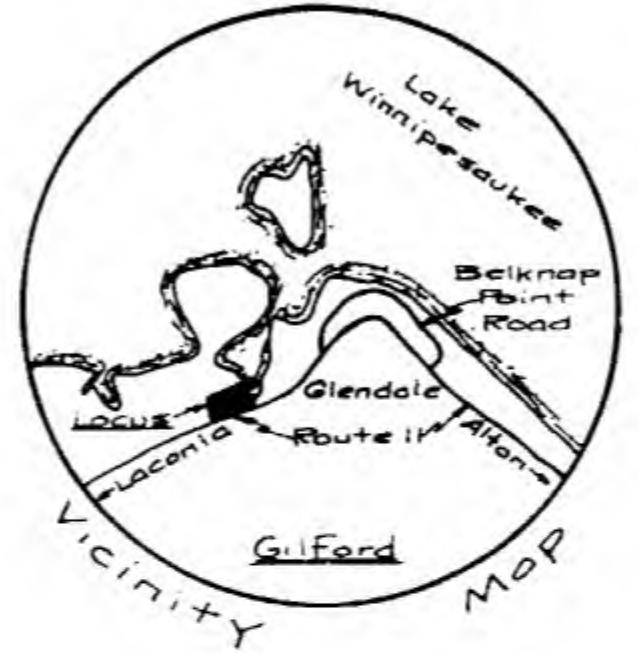
THIS MAP IS A GRAPHICAL REPRESENTATION OF THE GILFORD YACHT CLUB AND IS NOT INTENDED FOR OFFICIAL USE.

Gilford Yacht Club



300 ft

- Notes:**
1. Basis of bearing is Magnetic North 1972
 2. The perimeter of this property was taken from a plan entitled "Proposed Site Development Plan, Gilford Yacht Sales, (formerly Glendale Marine Service) N. H. Rte. 11, Gilford, N.H." by Jason R. Blais dated March 1972, revised March 1976, April 29, 1976, and Oct. 10, 1978, and was not surveyed by Ronald Mitchell & Associates, Inc.
 3. All live-aboard boats berthed at this facility shall comply fully with all Federal, State and local laws.
 4. Restrooms shall temporarily discharge into an existing 2,000 gal. and an additional 3,000 gal. holding tank until the sewer interceptor line has been completed.
 5. Restrooms - Women, 2 Toilets, 1 sink and 1 shower. Men, 1 Toilet, 1 Urinal, 1 sink and 1 shower.
 6. Total number of parking spaces provided = 98
 7. Total number of boat slips = 64
 8. Total number of allowable boats on property other than small accessory boats shall not exceed 64 boats.
 9. Winter boat storage will be allowed at this facility.
 10. Gas pumps at the existing gas dock will be removed.
 11. Contour interval - 2 feet
 12. Datum - Assumed Elev. = 200.00 at B.M.
 13. The exclusive right to use a boat slip is assigned to the same-numbered parking space unit, as is designated on the plan.



Certification
 In compliance with R.S.A. 356-B:20, I hereby certify that this plan is true and accurate in representation of the completed, not yet completed, and not yet begun units, and common areas as shown.

Signed Warren M. Plummer
 Registered Land Surveyor

Site Plan
 For
 Gilford Yacht Club
 North of N.H. Route 11
 Gilford, Belknap County, N.H.

Scale
 0 25 50 100 150 Feet

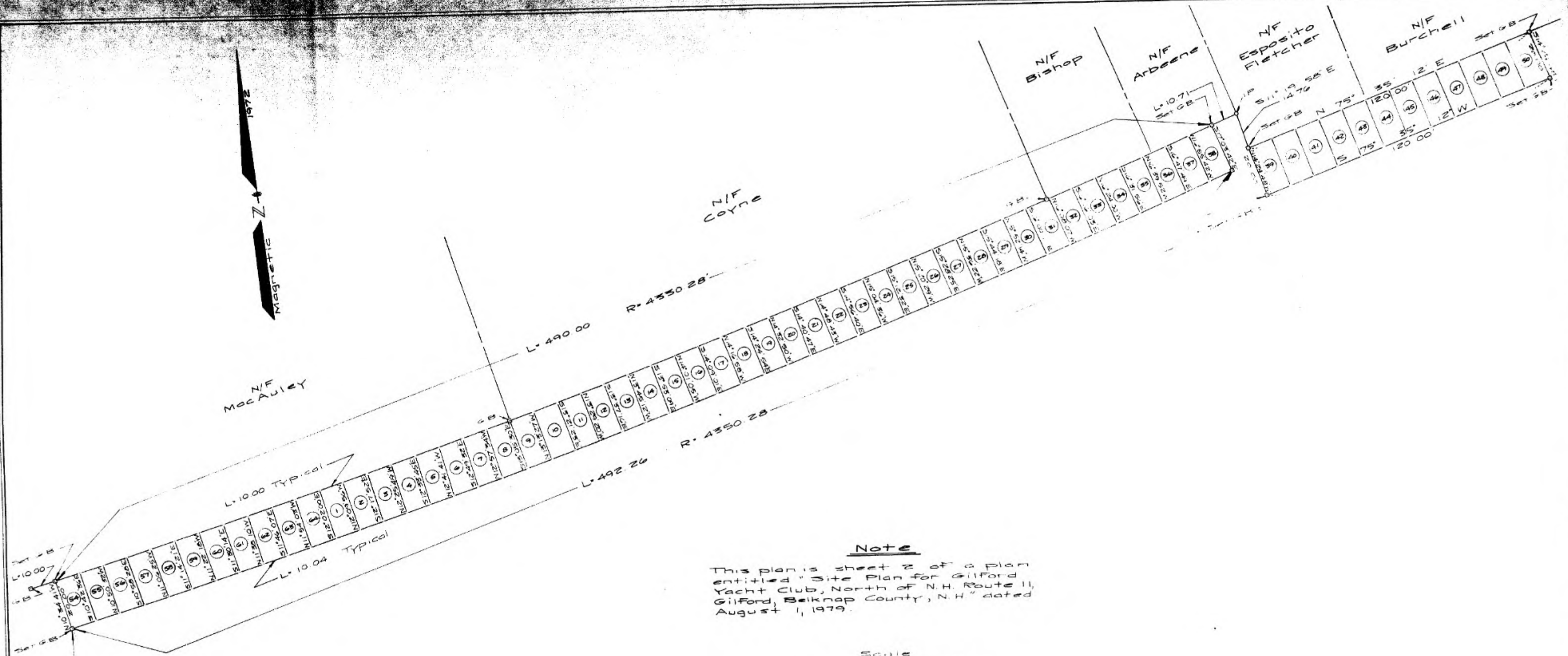
APPROVED BY THE
 GILFORD PLANNING BOARD
 (N September 22, 1983)
 CERTIFIED BY
Walter J. Collier

RECEIVED
 Book 104, Page 4142
 1983 SEP 28 AM 9:45
 Overton Under
 REGISTRAR OF DEEDS
 BELKNAP COUNTY
 Registrar



FINAL PLAN

Ronald M. Mitchell &
 Associates, Inc.
 Elwell Building Pl.
 Gilford, New Hampshire
 August 1, 1983
 REVISED AUGUST



Note
 This plan is sheet 2 of a plan entitled "Site Plan for Gilford Yacht Club, North of N.H. Route 11, Gilford, Belknap County, N.H." dated August 1, 1979.



Certification
 In compliance with RSA 556-B:20, II, I hereby certify that this plan is true and accurate in representation of the completed, not yet completed, and not yet begun units, and common areas as shown.

Signed Warren M. Plummer
 Registered Land Surveyor

Book 85, Page 546
 1980 SEP 16 PM #01
Warren M. Plummer
 Registrar

Sept. 15, 1980
Jerry A. Howard



Ronald M. Mitchell
 &
 Associates, Inc.
 Elwell Building Rte. 11
 Gilford, New Hampshire
 August 1, 1979

APPENDIX C: PHOTOGRAPHS

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
entrance sign

Photo Number
1



Description:
gravel drive

Photo Number
2

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
shed & storage

Photo Number
3



Description:
shed & storage

Photo Number
4

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
shed
deterioration of
siding at rear

Photo Number
5



Description:
chainlink fence
along north
property line

Photo Number
6

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
clubhouse

Photo Number
7



Description:
clubhouse
fence

Photo Number
8

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

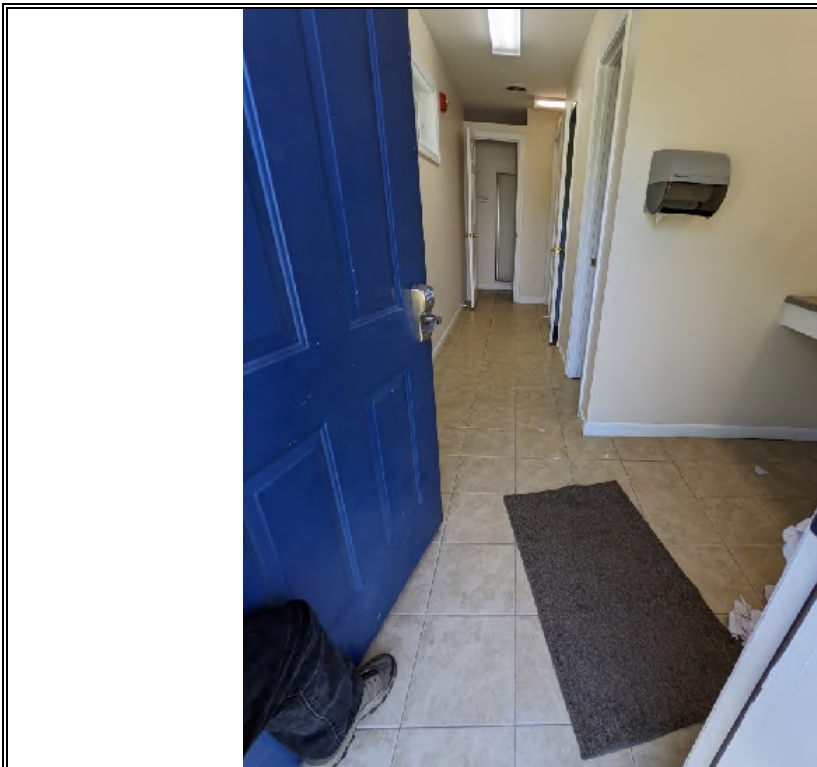
Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
clubhouse
meeting room

Photo Number
9



Description:
clubhouse
typical bathroom

Photo Number
10

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
clubhouse
fire alarm system

Photo Number
11



Description:
clubhouse
water heater

Photo Number
12

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
clubhouse
well pump
controller, pressure
tank and filtration
system

Photo Number
13



Description:
wellhead

Photo Number
14

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
bathhouse

Photo Number
15



Description:
bathhouse

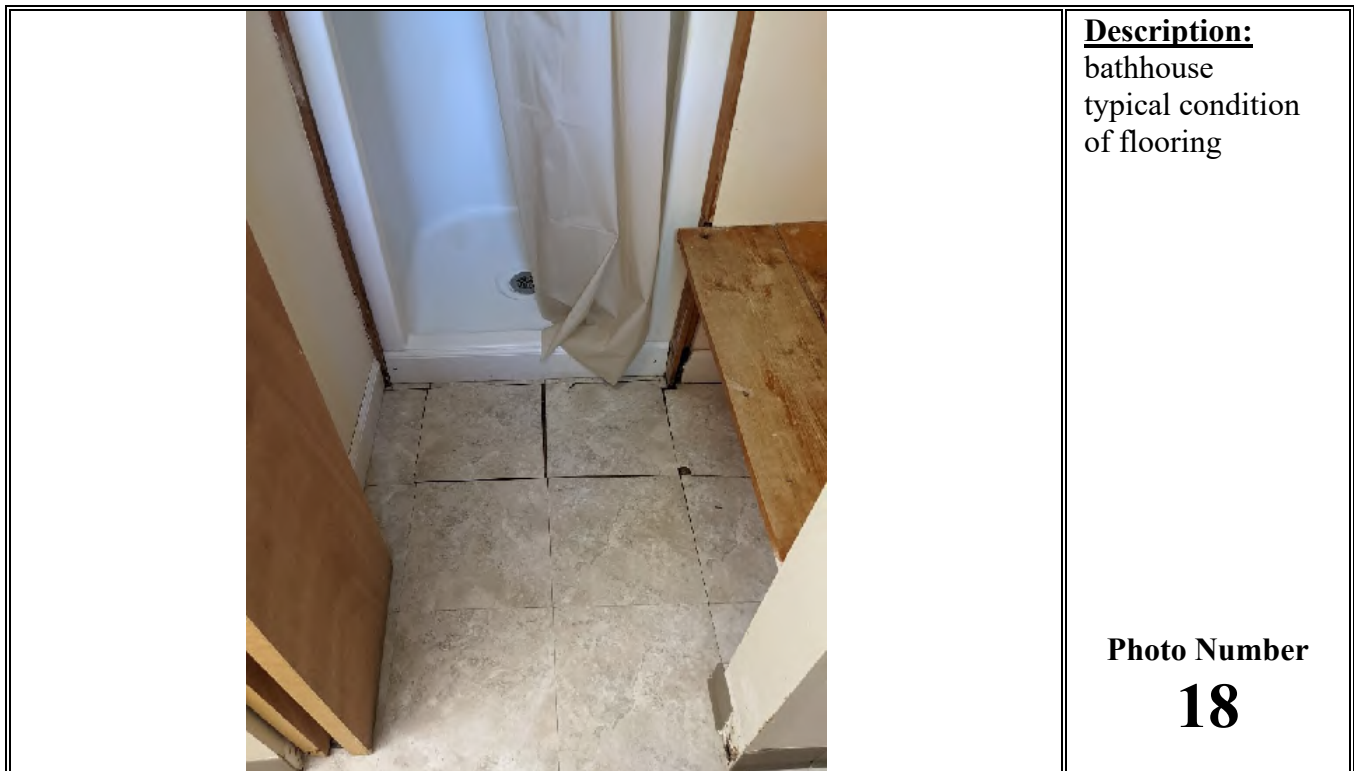
Photo Number
16

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
dock

Photo Number
19



Description:
dockhouse

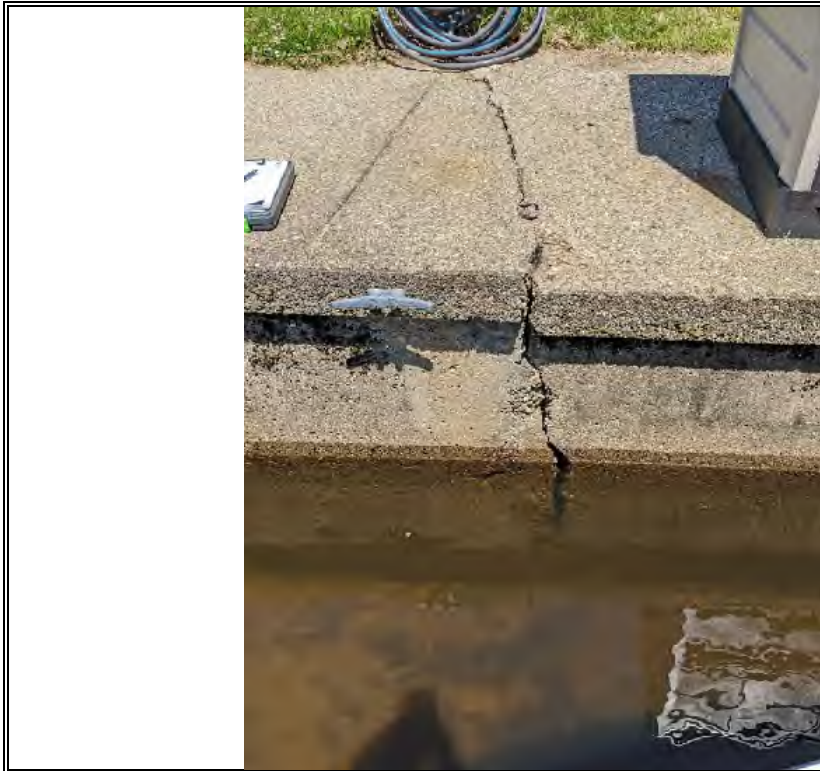
Photo Number
20

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
seawall
Condition 1

Photo Number
21



Description:
seawall
Condition 2

Photo Number
22

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
seawall
Condition 3

Photo Number
23



Description:
seawall
Condition 3

Photo Number
24

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
seawall
Condition 2

Photo Number
25



Description:
slip 36

Photo Number
26

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
slip 36

Photo Number
27



Description:
slip 50

Photo Number
28

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
slip 50

Photo Number
29



Description:
wood seawall next
to bathhouse

Photo Number
30

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
wood seawall next
to bathhouse

Photo Number
31



Description:
seawall
Condition 3

Photo Number
32

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
wood dock at slip
3/4

Photo Number
33



Description:
typical concrete
dock with pile
supports

Photo Number
34

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

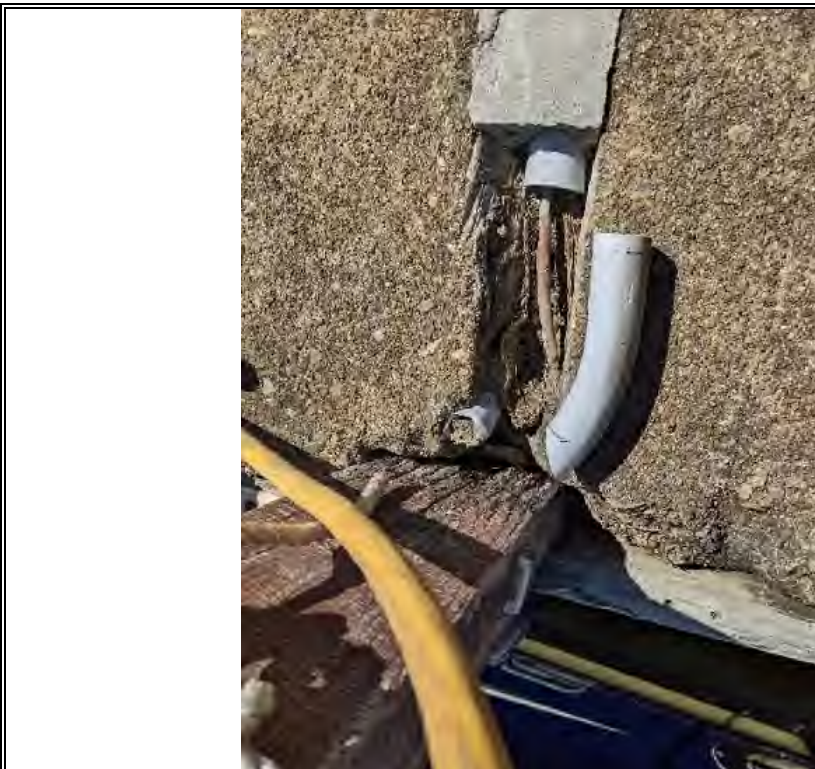
Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
typical utility
hookups at each
slip

Photo Number
35



Description:
apparent
abandoned wiring
found at
construction joints
of walkway
between slips 54 &
60

Photo Number
36

Location:
Gilford Yacht Club
Gilford, NH

Photo Taken by:
Aaron Bennett, P.E.

Date:
June 6, 2022

CBE Project: 22-019-NH



Description:
25 ton boat crane

Photo Number
37



Description:
typical coin-op
washer/dryer

Photo Number
38

APPENDIX D: REFERENCE DOCUMENTS

Reserve Fund Study





National Reserve Study Standards

11/2014

Table of Contents

Reserve Study General Information 1

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Terms and Definitions 2

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Reserve Study Required Disclosures 6

Reserve Specialist (RS) Code of Ethics Appendix 1

General Information

Reserve Study

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

Physical Analysis

- Component Inventory
- Condition Assessment
- Life and Valuation Estimates

Financial Analysis

- Fund Status
- Funding Plan



Levels of Service

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

I. Full: A Reserve Study in which the following five Reserve Study tasks are performed:

- Component Inventory
- Condition Assessment (based upon on-site visual observations)
- Life and Valuation Estimates
- Fund Status
- Funding Plan

II. Update, With-Site-Visit/On-Site Review: A Reserve Study update in which the following five Reserve Study tasks are performed:

- Component Inventory (verification only, not quantification)
- Condition Assessment (based on on-site visual observations)
- Life and Valuation Estimates
- Fund Status
- Funding Plan

III. Update, No-Site-Visit/Off Site Review: A Reserve Study update with no on-site visual observations in which the following three Reserve Study tasks are performed:

- Life and Valuation Estimates
- Fund Status
- Funding Plan

Terms and Definitions

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

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

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

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

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

CURRENT REPLACEMENT COST: See "Replacement Cost."

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

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

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

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

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

$$\text{FFB} = \text{Current Cost} \times \text{Effective Age} / \text{Useful Life}$$

or

$$\text{FFB} = (\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) + [(\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) / (1 + \text{Interest Rate})^{\text{Remaining Life}}] - [(\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) / (1 + \text{Inflation Rate})^{\text{Remaining Life}}]$$

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

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

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

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

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

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

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

FUNDING PRINCIPLES:

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

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

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

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

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

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

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

RESERVE PROVIDER: An individual that Prepares Reserve Studies.

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

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

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

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

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

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

Reserve Study Required Contents

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

PAGE	CONTENTS
_____	1. A summary of the association's number of units.
_____	2. Association physical description (legal or physical narrative).
_____	3. General statement or opinion describing the association's current reserve fund status (good/fair/poor, adequate or inadequate. Percent Funded, etc.).
_____	4. General statement describing the methods and objectives utilized in computing or evaluating the association's Reserve Fund status (Percent Funded or otherwise).
_____	5. Fiscal Year (start and end) for which the Reserve Study is prepared.
_____	6. A projection of starting reserve cash balance (as-of above start date).
_____	7. A general statement describing the development or computation of the association's starting Reserve Fund balance.
_____	8. Recommended reserve contributions (minimum of 20 years).
_____	9. Projected reserve expenses (minimum 20 years).
_____	10. Projected ending reserve fund balance (minimum of 20 years).
_____	11. A tabular listing of the components in the Reserve Study.
_____	12. A tabular listing of the component quantities or identifying descriptions.
_____	13. A tabular listing showing each component's Useful Life.
_____	14. A tabular listing showing each component's Remaining Useful Life, where RUL- 0 = initial year.
_____	15. A tabular listing showing each component's Current Replacement Cost.
_____	16. A general statement describing the Methods (cash flow, component, etc.) and Goals (Full Funding, Threshold Funding, Baseline Funding) of the Funding Plan, using National Standard terminology.
_____	17. Identification of the source(s) utilized to obtain component repair or replacement cost estimates.
_____	18. A clear description of which one of the three Reserve Study "Levels of Service" (i.e: Full, Update With-Site-Visit, Update No-Site-Visit) was performed.
_____	19. A clear statement of assumption used for Interest and inflation (whether zero or otherwise).

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

Reserve Study Required Disclosures

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

PAGE	DISCLOSURE
_____	1. General: Description of other involvement(s) with the association, which could result in actual or perceived conflicts of interest.
_____	2. Physical Analysis: Description of how through the on-site observations were performed: representative sampling vs. all common areas, destructive testing or not, field measurements vs. drawing take-offs, etc.
_____	3. Personnel Credentials: State or organizational licenses or credentials carried by the individual responsible for Reserve Study preparation or oversight.
_____	4. Completeness: Material issues which, if not disclosed, would cause a distortion of the association's situation.
_____	5. Reliance on Client Data: Information provided by the official representative of the association regarding financial, physical, quantity, or historical issues will be deemed reliable by the consultant.
_____	6. Scope: The Reserve Study will be a reflection of information provided to the consultant and assembled for the association's use, not for the purpose of performing an audit, quality/forensic analysis, or background checks of historical records.
_____	7. Reserve Balance: The actual or projected total presented in the Reserve Study is based upon information provided and not audited.
_____	8. Reserve Projects: Information provided about reserve projects will be considered reliable. Any on-site inspection should not be considered a project audit or quality inspection.

APPENDIX 1:

Reserve Specialist Code of Ethics

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

The Reserve Specialist Shall:

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

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

Draft Revision April 2008

**TERMS OF REFERENCE
RESERVE STUDY**

<i>Association</i>	The unit owners' association. May be referred to with different terminology in legal covenants of incorporation.
<i>Board</i>	Elected officers of the Association with fiduciary responsibility for the community's common holdings. May be referred to with different terminology in legal covenants of incorporation.
<i>Owner</i>	Individual Unit owner, a Member or the Association
<i>Property Manager</i>	Professional organization through which the Board delegates responsibilities for operations and maintenance of the community.
<i>Excellent</i>	Component or system is in "as new" condition, requiring no rehabilitation and should perform in accordance with expected performance.
<i>Good</i>	Component or system is sound and performing its function, although it may show signs of normal wear and tear. Some minor rehabilitation work may be required.
<i>Fair</i>	Component or system falls into one or more of the following categories: a)Workmanship not in compliance with commonly accepted standards, b)Evidence of previous repairs not in compliance with commonly accepted practice, c)Component or system is obsolete, d)Component or system approaching end of expected performance. Repair or replacement is required to prevent further deterioration or to prolong expected life.
<i>Poor</i>	Component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its expected performance, excessive deferred maintenance, or state of disrepair. Present condition could contribute to or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.
<i>Adequate</i>	A component or system is stable, has capacity to function as required, is sufficient for its service, is suitable for operation, and/or conforms to standard construction practices.
<i>Basis of Comparison</i>	Ratings are determined by comparison to other buildings of similar age and construction type.
<i>Left, Right, Front, Rear</i>	Directions are taken from the viewpoint of an observer standing at the property frontage and facing it. Or, for a building within a campus setting, the viewpoint of an observer standing in front of the principal entrance and facing it.
<i>Current deficiency Immediate expense</i>	We will note any observed or reported physical condition which requires immediate action to correct an existing or potential safety hazard, an enforceable building code violation, or the poor or deteriorated condition of a critical element or system. Also, to address any conditions which, if left "as is", would likely result in the failure of a critical element or system. Such items will be noted in our report even if they do not require a capital expenditure.
<i>Short-term capital expenditures</i>	Correction of physical deficiencies including deferred maintenance, which may not warrant immediate attention, but require repairs or replacements which should be undertaken on a priority basis, taking precedence over preventive maintenance work within a one-year time frame. Included are physical deficiencies resulting from improper design, faulty installation, and/or substandard quality of original systems or materials. Components or systems that have exceeded their expected useful life and require repair or replacement within a one-year time frame are also included. Observed minor issues which would typically be addressed as normal operations & maintenance work may not be noted in the report.
<i>Long-term capital expenditures</i>	Non-routine repairs, replacements or planned improvements that will require significant expenditure during the study period.. Included are items that will reach the end of their estimated useful life or which, in the opinion of the engineer, will require such expense during that time. If saving for longer-term expenditures is desired, then allowances or contingencies for such items may also be included. Observed minor issues which would typically be addressed as normal operations & maintenance work may not be noted in the report.
<i>Expected Useful Life (EUL)</i>	As components age, they wear and deteriorate at varying rates, depending on their service and exposure. Although it is an inexact science, various financial underwriters, data services and trade organizations publish guidance regarding the EULs of typical building materials and operating systems. For short-lived components, their EUL is used as the frequency between periodic repairs or replacements. Some systems' economic life may be shortened because improved equipment or materials has become available which is less costly to operate or maintain.
<i>Remaining Useful Life (RUL)</i>	The simple equation for determining remaining useful life before repair or replacement is: $EUL - Age = RUL$ <p>However, based on our evaluation of a component and our professional judgment, we may assign a shorter or longer RUL to actual items being considered.</p>

**BUILDING SYSTEMS AND COMPONENTS
COMMON ABBREVIATIONS AND ACRONYMS**

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

APPENDIX E: PROJECT TEAM QUALIFICATIONS

Aaron Bennett, P.E.
 Owner



Aaron Bennett practices within the Construction Engineering discipline with a Civil Engineering licensure.

Mr. Bennett has over 16 years of experience in engineering-related services, which include:

- residential and commercial building inspections
- forensic investigations
- civil/site design packages
- specifications for bidding and construction
- construction layouts
- construction site visits to inspect plan / specification compliance and to direct contractors as necessary
- managing RFI's (request for information)
- reviewing shop drawings for approval
- segmental retaining wall designs

EDUCATION AND PROFESSIONAL AFFILIATION

University of Southern Maine, Undergraduate Studies – 1995
 Tennessee Technology Center, Detail Drafting Certification Program – 1998
 University of Maine, College of Civil Engineering - 2008
 Licensed Professional Engineer:
 State of Maine, No. 15032
 State of New Hampshire, No. 14242
 State of Massachusetts, No. 53966
 National Society of Professional Engineers

WHY I DO WHAT I DO

I feel fortunate to have a career with everchanging projects and clients that keep the work interesting. Although the goal is to always provide quality inspections and reports, real success means I've conveyed the information to my client in a way that is meaningful and has value - that makes it satisfying.

WHY CRITERIUM ENGINEERS

Criterion Engineers is widely recognized as a leading provider of investigative engineering services. Its corporate office and extensive engineering network of affiliates throughout the country is a second-to-none resource.

PROJECT HIGHLIGHTS

Commercial and Industrial Project Experience

- **Connecticut Natural Gas** – Rocky Hill LNG, Connecticut (\$21.1 million Vaporization and Liquefaction Rebuild)
- **Piedmont Natural Gas** – Nashville LNG, Tennessee (\$17.5 million Vaporization, Pump and Tank Foundation Rebuild)
- **National Grid** – Ludlow LNG, Massachusetts (\$2.5 million Pretreatment Rebuild)

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