SUPERIOR RESERVE

ENGINEERING & CONSULTING

888-688-4560
www.superiorreserve.com

Full Reserve Study

Mill Valley North Association, Inc.



Marysville, Ohio

March 4, 2021

Reference Number: 210011

Mill Valley North Association, Inc.

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Reserve Component List

	Engineering Data Section	Replacement Year (red font if in 5 years or less)	Age	Useful Life (years)	Remaining Useful Life (years)	Replacement Cost without Inflation	% Included (blue font if less than 100%)	$ Included	Number of Phases	Cost per Phase	Flexibility
Exterior Building Components											
Painting - Siding and Trim	2.431	2024	2014	10	3	$4,200	100%	$4,200	1	$4,200	firm
Roof - Shingles, Gutters and Downspouts (1)	2.441	2039	2014	25	18	$9,000	100%	$9,000	1	$9,000	firm
Roof - Metal Panels	2.451	2054	2014	40	33	$8,000	100%	$8,000	1	$8,000	firm
Windows and Doors	2.981	2049	2014	35	28	$14,000	100%	$14,000	1	$14,000	deferrable
Interior Building Components											
Rest Room Renovation	3.701	2034	2014	20	13	$45,000	100%	$45,000	1	$45,000	deferrable
Building System Components											
Security System	4.701	2026	2014	12	5	$4,000	100%	$4,000	1	$4,000	discretionary
Site Components											
Concrete Curbs (20% with repaving parking areas)	6.121	2039	2014	25	18	$23,000	20%	$4,600	1	$4,600	deferrable
Concrete Sidewalks	6.181	2054	2014	40	33	$19,000	100%	$19,000	1	$19,000	deferrable
False Well - Creekview Drive South Pond	-	2022	original	N/A	1	$5,800	100%	$5,800	1	$5,800	firm
Fences - Vinyl	6.281	2028	original	25	7	$89,300	100%	$89,300	1	$89,300	deferrable
Irrigation System Pumps	-	2028	original	25	7	$18,000	100%	$18,000	1	$18,000	deferrable
Irrigation System (1)	6.521	2043	original	40	22	$247,000	100%	$247,000	2	$123,500	discretionary
Landscape (5% every 5 years)	6.541	2024	varies	5	3	$120,000	5%	$6,000	1	$6,000	discretionary
Monument Renovation (1)	6.631	2028	original	25	7	$3,400	100%	$3,400	1	$3,400	deferrable
Pavement - Crack Repair, Patch and Stripe (1)	6.641	2022	2014	4	1	$3,100	100%	$3,100	1	$3,100	firm
Pavement Replacement - Parking Areas	6.661	2039	2014	25	18	$83,000	100%	$83,000	1	$83,000	deferrable
Playground Equipment (1)	6.761	2039	2014	25	18	$25,000	100%	$25,000	1	$25,000	deferrable
Pond Aerators	6.781	2022	original	15	1	$5,000	100%	$5,000	1	$5,000	deferrable
Pond Restoration (1)	6.781	2033	original	30	12	$147,000	100%	$147,000	1	$147,000	deferrable
Basketball Court - Surface Replacement	6.981	2039	2014	25	18	$15,700	100%	$15,700	1	$15,700	discretionary
Well Pumps	6.991	2028	original	25	7	$15,000	100%	$15,000	1	$15,000	firm
Pool Components											
Pool Deck Renovation	8.101	2026	2014	12	5	$8,300	100%	$8,300	1	$8,300	deferrable
Pool Fence	8.201	2044	2014	30	23	$13,800	100%	$13,800	1	$13,800	deferrable
Pool Renovation	8.301	2026	2014	12	5	$61,900	100%	$61,900	1	$61,900	deferrable
Pool Furniture	8.401	2024	2014	10	3	$63,200	100%	$63,200	1	$63,200	deferrable
Pool Equipment - Pumps (1)	8.501	2029	2014	15	8	$8,200	100%	$8,200	1	$8,200	deferrable
Pool Equipment - Water Treatment Equipment	8.501	2029	2014	15	8	$2,000	100%	$2,000	1	$2,000	deferrable
Pool Equipment - Filters	8.501	2029	2014	15	8	$2,900	100%	$2,900	1	$2,900	deferrable
Pool Equipment - Electrical and Plumbing (1)	8.501	2044	2014	30	23	$31,200	100%	$31,200	1	$31,200	deferrable

(1) See Property Engineering Review Page 1.201

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Mill Valley North Association, Inc.

Property and Service Summary

Location:	Marysville, Ohio
Property type:	planned unit development
Number of units:	751
Year of construction:	construction began in 2003, and the pool, pool house and adjacent infrastructure was built in 2014
Date of inspection:	March 4, 2021
Type of service:	reserve study
Level of service:	Full Study
Length of analysis:	30 years
2021 budgeted reserve contribution:	$25,000
2022 recommended reserve contribution:	$32,400 = increase of $7,400 ($0.82 per home per month)
Features:	pool, pool house, ponds, monuments, fences
Upcoming projects:	painting clubhouse exterior, pavement maintenance, pond aerators


parking area at pool house


pond



monument


pool

Property Engineering Review

During our inspection of your property, we identify the following repairs and improvements that the property should consider:

Actionable recommendations - near term actions on these items will minimize future costs and maintain the comfort and security (See "Pages with Engineering Data" for more information where applicable):

The property should conduct periodic inspections of the playground per the manufacturer's recommendation, log each inspection and react to those conditions as necessary to minimize hazards and liability. The following website provides guidelines for these inspections: https://www.cpsc.gov/safety-education/safety-guides/playgrounds/public-playground-safety-checklist.

Mulch provides a safety cushion under playground equipment. Low mulch levels present a safety concern and potential increased liability issue. For safety reasons, augment the mulch at the playground in the near term to a thickness of 12 inches and fund this expense through the operating budget.

The pool equipment room does not have an exhaust fan. Proper ventilation is important where pool chemicals are stored. The lack of ventilation increases health hazards for the pool operator, increases the potential of a fire from toxic vapors and causes accelerated deterioration of metal components in the room. Deterioration of metal components in the room is evident. The property should install ventilation that complies with ASHRAE standards.

Green ideas - Opportunities for energy efficiency and best practices for sustainability. Acting on these recommendations will provide significant cost savings (See "Pages with Engineering Data" for more information where applicable):

For water conservation, the property could consider replacing the existing irrigation system rain sensors with smart controllers that utilize weather-based scheduling, suspend irrigation during rain, measure instantaneous rainfall data, determine effective rainfall, calculate a net replacement value and provide zone-specific water calculations.

Rather than raking leaves in the fall and hauling them to the landfill, the property should mulch the leaves and allow them to decompose into the ground. The majority of the leaves will decompose during the fall and winter. Once the leaf particles settle in, microbes and worms begin to recycle the debris (the application of nitrogen-rich fertilizer can help speed up the decomposition process). Whatever remains in the spring can be cleaned up and either used in planting beds or removed from the site. Mulching leaves will eliminate costs associated with hauling the leaves off the property and ease the burden placed on landfills. Mulching leaves will minimize weed control and nutrient application costs. Mulching leaves recycles a natural resource and provides a richer soil at no cost. The following website

provides additional information:
https://www.canr.msu.edu/news/smart_gardeners_mulch_fallen_leaves_into_lawn_to_save_money.

The property could consider the installation of solar lights to illuminate the monuments. The following website provides solar lights for monuments: http://www.lightinguup.com/EmberLED.

The property has not seal coated the asphalt pavement and we agree with this practice. It is our professional opinion that seal coating asphalt pavement does not extend the useful life of the pavement. Seal coats do not add structural strength to the pavement. Seal coating is also a source of environmental contamination. If the property decides to seal coat for aesthetic reasons, avoid the use of coal tar based pavement seal coats as they pollute waterways. Instead, consider a slurry coat of asphaltic emulsion to provide a sacrificial wearing surface to the pavement. Also, if the property chooses to seal coat, we recommend applying the seal coat in the spring rather than the fall. Snow removal equipment wears the seal coat. Application in the spring will provide the maximum visual enjoyment from a fresh seal coat.

The pool pumps operate at a constant speed. When replacement comes due, replace the pumps with variable speed drives to minimize operational costs, provide a constant pressure and maximize the useful life of the pumps. Preventing too high flow rates will also ensure proper filtration and minimize damage to filters.

Engineering solutions - reference this information for proper scope of work and best outcome on upcoming projects (See "Pages with Engineering Data" for more information where applicable):

Kick-out flashing is missing where the roof terminates at the gutters adjacent to siding. Water flowing at the roof to wall intersections can bypass the gutters, penetrate the walls and increase the potential for water infiltration. Water damage is evident at these locations. Kick-out flashing should be installed at these locations, integrated with the shingles and step flashing.

Landscape replacement timing is discretionary. Annual operating budgets should include funds for mowing, trimming, flowers and replacement of a limited amount of dead landscape. We include an allowance for periodic partial replacements of landscape to include replacement of overgrown bushes or trees as the property sees necessary. Overgrown bushes and trees can cause damage to adjacent components. Although unpredictable, this allowance could also be used for any landscape that has died from drought, disease, etc.

We observed unrepaired cracks at the pool house parking area. The property should repair all cracks and patch potholes in the pavement to prevent water infiltration. This will minimize deterioration to the pavement and underlying base.

We observed that the north pond at Creekview Drive drains into the south pond through the landscape. If this drainage path is the intended design of the ponds, we recommend the installation of stone rip rap

or a concrete gutter to prevent erosion. Otherwise, the property should repair this condition to prevent drainage and erosion.

Implementation of these repairs and improvements could increase the useful life of the components, minimize operating costs and provide guidance at the time of component replacement.

Reserve Study Overview

This reserve study is a *physical and financial analysis* of your property that determines what components of your property will eventually require either major repairs or restoration, or complete replacement. Large, one-time contributions (special assessments) for these projects can be eliminated with development of a *reserve* through relatively smaller annual contributions. The physical analysis determines the existing quantities, conditions, useful lives and costs of the components. The financial analysis determines the existing financial situation of your property and the reserves necessary to offset the future expenses.

Reserve Component

Components in this reserve study meet the following requirements:

- responsibility of the property
- limited useful life expectancy
- predictable *remaining* useful life expectancy
- above a minimum threshold cost

Components that do not fulfill the above requirements are not included in this study.

30 Year Analysis

The analysis for this reserve study encompasses the next 30 years. The components of the property age each year. Those who enjoy the use of each component are financially responsible for what they enjoyed. This length of an analysis is necessary to analyze the aging of nearly all the major components of the property. The expectation is not that the current Owners, Board of Directors and/or Management will be present at the property in 30 years. Rather, the future analysis aids in determining the most accurate *current* contribution for the aging components.

Funding Method

The funding method of this reserve study utilizes the *cash flow method*. With the cash flow method, contributions to the reserve fund are designed to offset variable annual expenditures. We experiment with different contribution scenarios until an ideal scenario is discovered to offset reserve expenditures. All expenses and contributions are *pooled* together. Our experience indicates that the cash flow method typically results in lower overall contributions than the *component method*, which typically segregates funds.

Funding Goal

The funding goal of this reserve study is to maintain a reserve balance above a minimum *threshold* during the years of major expenditures. We assume a contingency reserve balance of not less than

approximately ten percent (10%) of the expenditures in the **threshold funding year** (The year the reserve balance is at its lowest point. See Funding Plan Page 1.401 for the identification of this year). The property can determine if they prefer a higher or lower contingency.

The ideal situation is when the threshold funding year is in the last year of the analysis. This provides the maximum amount of time that the property can save up for major expenses. A critical situation is when the threshold funding year is in the first few years of the analysis. This situation requires major initial reserve contributions to offset near term expenditures.

Funding

This reserve study assumes an ideal situation where all future costs are offset by annual contributions to the reserve fund. *We understand that this is not always possible.* Our experience suggests that major projects are funded through multiple means such as partially through the reserve fund and partial through either additional assessments or bank loans. The specific funding of the projects is determined by the property at the time of the event (this is not something we can forecast). The goal of the property should be to follow the recommended funding plan outlined in this reserve study. If the recommended reserve contributions are not feasible as determined by the Board of Director's judgment, this reserve study should then be used, at a minimum, to justify the need for an *increase* over the *current* reserve fund contribution.

Flexibility

The time of replacement for each component involves a varying degree of deduction. To help understand the criticality of each replacement time, we provide the following replacement flexibility guide:

firm - Replacement time has little, if any, flexibility. Deferring the replacement time would have an adverse effect on the property.
deferrable - Replacement time has limited flexibility. Continually deferring the replacement time would eventually have an adverse effect on the property and raise aesthetic concerns.
discretionary - Replacement time has flexibility. Continually deferring the replacement time would either raise aesthetic concerns or the component does not affect the functionality of the property. The replacement costs for certain discretionary expenses can vary greatly as they are subject to improvements and expansions as desired by the property.

Reserve Study Requirements

Property Declarations occasionally define reserve study requirements. The state legislature may also define reserve study requirements. The following is a link to state reserve study requirements (the property should be aware more recent or pending legislation may exist since the date of this report):

http://codes.ohio.gov/orc/5311

It is our intention that this reserve study complies with these requirements. The property should consult with their attorney on discrepancies between reserve study requirements. Contact us for any revision necessary to the reserve study to fulfill these requirements.

Cost estimates

We obtain the cost estimates for replacements from the following sources:

- published sources (*RS Means* based on standard union labor rate)
- historical costs
- proprietary information

Our estimates are not guarantees of actual replacement costs. We base our estimates on our calculation of expected market rate for your specific location and specific situation. Multiple contractor bids will result in multiple cost estimates. *Multiple* contractor estimates will inevitably vary from our *single* estimate. The property should verify the scope of work in the contractor's estimate is similar to what is noted on the Engineering Data page (Engineering Data pages are all the data pages subsequent to "Limiting Conditions", Page 1.701). Common reasons for cost discrepancies include varying scopes of work and improvements over the existing components. Technological improvements also cause cost discrepancies - what may have been current technology at the time of the study could be obsolete at the time of replacement. If the property receives an estimate that is higher than the estimate in this reserve study for the same scope of work, the property should use this study as a tool to negotiate a lower cost. If the property receives an estimate that is lower than the estimate in this reserve study for the same scope of work - the estimate is below the expected market rate.

Long Lived Components

There exists components at the property that will not require replacement during the 30 year analysis. Although these long lived components will eventually require replacement, they do not fall within the scope of the analysis. Periodic updates of the study will eventually include their replacement. Frequent updates of the study will ensure the property has up to 30 years to plan for their eventual replacement. The following is a list of ***common*** long lived components for the property:

- electrical systems
- fiber cement siding, soffit, fascia and trim

- foundations
- pipes within the building walls and subsurface
- pool structure and deck
- structural frames
- well casings

Operating Budget

The operating budget provides funds necessary for the daily operation of the property. In general, the operating budget includes expenses that repeat from year to year, such as administrative expenses and cleaning. All the property components require maintenance. *This reserve study does not include maintenance costs that would traditionally fall under an operating budget.* We assume the property will fund normal annual maintenance through the operating budget. We also assume that the property will fund replacement of components below an estimated minimum threshold cost of

$3,000

through the operating budget. The following is a list of components that we assume the property will fund through the operating budget:

- basketball equipment
- electric heaters
- landscape annual maintenance
- mulch at playground
- recessed light fixtures
- water heater

The items in the list above have a minimal (if any) impact on our recommended reserve fund contribution. If the property chooses to fund these expenses through reserves, updates of this reserve study would account for these expenses.

Responsibility of Others

We were informed that the following components within the property are the responsibility of others:

- individual homes and lots
- light poles and fixtures

Additional Assessments

The objective of properly planned operating budgets and reserve contributions is to avoid additional assessments. However, additional assessments are necessary for unplanned costs such as code change requirements, unobservable conditions, property improvements, etc. We *do not* recommend the property fund these expenses through reserves. The property should consult with an attorney to determine if the property Bylaws have a provision for these types of expenses.

Definitions and Supporting Information

Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) are national organizations that provide requirements for reserve studies. The property should refer to these organizations for reserve study definitions and supporting information. The following are links to these organizations:

http://www.caionline.org

http://www.apra-usa.com/

Reserve Fund Status

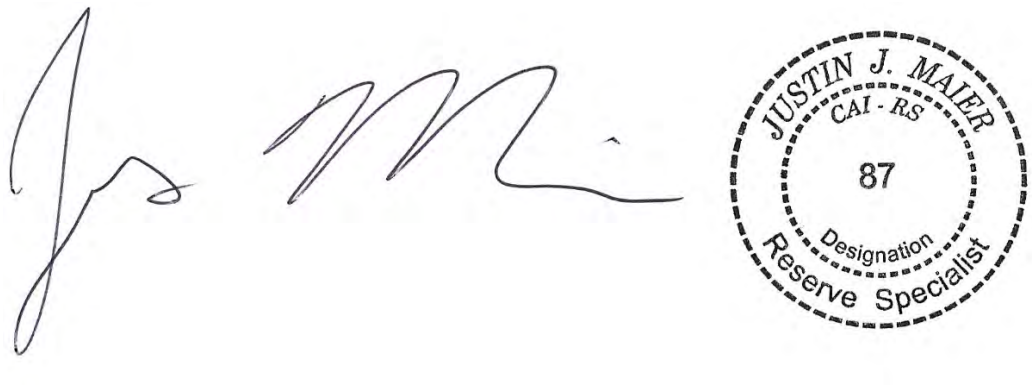
If the property were to fund all expenditures identified in this study through reserves, an increase in the reserve contributions is necessary. See Funding Plan Page 1.401 for our recommended reserve funding plan.

Updates

The reserve study is a static snap shot in time based on the date of the inspection. However, costs, inflation rates, interest rates and weather conditions are dynamic in that they are always changing. This necessitates periodic *updates* of the reserve study. An update is less costly than the original reserve study since there is less labor involved in gathering information on your property. We suggest updating the reserve study every three to six years. Factors that can determine when an update should occur are an upcoming major project, completion of a major project, major change to the property, known change

in the interest and/or inflation rates compared to the last reserve study, etc. Please contact us for a reserve study update proposal when necessary.

Sincerely,



Justin J. Maier, RS
Partner
Superior Reserve Engineering & Consulting
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Report submitted on: March 15, 2021

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Recommended Reserve Funding Plan

Mill Valley North Association, Inc.

Year	Inflated expenditures (2.9% annual)	Recommended reserve contributions	Ending reserve balance	Average $ per home per month (751 homes)**	$ increase per month from previous year	% increase from previous year
2021*	$0	$25,000	$67,154	$2.77	-	-
2022	($14,303)	$32,400	$86,774	$3.60	$0.82	29.6%
2023	$0	$39,800	$128,707	$4.42	$0.82	22.8%
2024	($79,973)	$47,200	$98,181	$5.24	$0.82	18.6%
2025	$0	$54,600	$155,291	$6.06	$0.82	15.7%
2026	($89,178)	$62,000	$130,947	$6.88	$0.82	13.6%
2027	$0	$63,800	$198,004	$7.08	$0.20	2.9%
2028	($153,548)	$65,700	$113,238	$7.29	$0.21	3.0%
2029	($24,008)	$67,600	$159,531	$7.50	$0.21	2.9%
2030	($4,010)	$69,600	$228,969	$7.72	$0.22	3.0%
2031	$0	$71,600	$305,864	$7.94	$0.22	2.9%
2032	$0	$73,700	$386,418	$8.18	$0.23	2.9%
2033	($207,158)	$75,800	$261,475	$8.41	$0.23	2.8%
2034	($176,188)	$78,000	$167,535	$8.66	$0.24	2.9%
2035	$0	$80,300	$251,989	$8.91	$0.26	2.9%
2036	$0	$82,600	$340,455	$9.17	$0.26	2.9%
2037	($7,900)	$85,000	$425,135	$9.43	$0.27	2.9%
2038	($120,633)	$87,500	$400,173	$9.71	$0.28	2.9%
2039	($239,730)	$90,000	$256,949	$9.99	$0.28	2.9%
2040	$0	$92,600	$355,614	$10.28	$0.29	2.9%
2041	$0	$95,300	$458,979	$10.57	$0.30	2.9%
2042	($5,650)	$98,100	$561,532	$10.89	$0.31	2.9%
2043	($231,636)	$100,900	$440,720	$11.20	$0.31	2.9%
***2044	($492,146)	$103,800	**$57,305**	$11.52	$0.32	2.9%
2045	$0	$103,800	$163,289	$11.52	$0.00	0.0%
2046	($6,335)	$103,800	$264,994	$11.52	$0.00	0.0%
2047	$0	$103,800	$375,132	$11.52	$0.00	0.0%
2048	$0	$103,800	$487,473	$11.52	$0.00	0.0%
2049	($44,531)	$103,800	$557,084	$11.52	$0.00	0.0%
2050	($177,103)	$103,800	$494,190	$11.52	$0.00	0.0%
2051	$0	$103,800	$608,912	$11.52	$0.00	0.0%

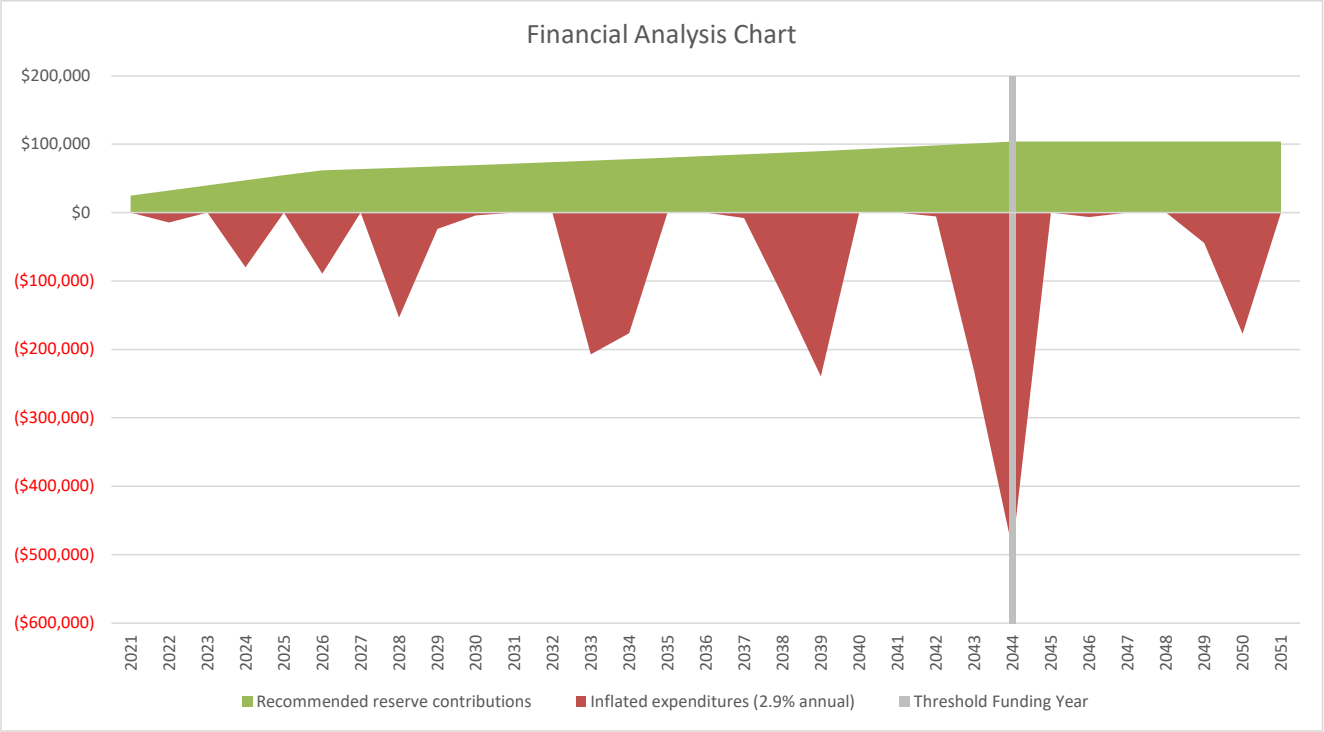
* reserve contributions are budgeted

**The costs in this column represent an AVERAGE $ only and is only intended to put the $ into perspective.

***2044 is the THRESHOLD FUNDING YEAR (the year the reserve balance is at its lowest point)

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Mill Valley North Association, Inc.



30 Year Expenditure Summary

These summary pages depict the INFLATED reserve expenses during the next 30 years. The costs on these pages SHOULD NOT be compared to current bid costs as these costs are inflated.

Mill Valley North Association, Inc.

Fiscal year	2021	2022	2023	2024	2025	2026	2027	2028
Construction inflation rate	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Compounded construction inflation	100.0%	102.9%	105.9%	109.0%	112.1%	115.4%	118.7%	122.2%
Beginning balance (January 1, 2021)	$41,936	$67,154	$86,774	$128,707	$98,181	$155,291	$130,947	$198,004
Inflated expenditures (2.9% annual)	$0	($14,303)	$0	($79,973)	$0	($89,178)	$0	($153,548)
Recommended reserve contributions	$25,000	$32,400	$39,800	$47,200	$54,600	$62,000	$63,800	$65,700
Estimated interest earned (2.0% PROJECTED yield rate)	$218	$1,524	$2,133	$2,246	$2,510	$2,834	$3,257	$3,082
Ending reserve balance	$67,154	$86,774	$128,707	$98,181	$155,291	$130,947	$198,004	$113,238

Reserve Component List

Exterior Building Components								
Painting - Siding and Trim				4,576				
Roof - Shingles, Gutters and Downspouts (1)								
Roof - Metal Panels								
Windows and Doors								
Interior Building Components								
Rest Room Renovation								
Building System Components								
Security System						4,615		
Site Components								
Concrete Curbs (20% with repaving parking areas)								
Concrete Sidewalks								
False Well - Creekview Drive South Pond		5,968						
Fences - Vinyl								109,084
Irrigation System Pumps								21,988
Irrigation System (1)								
Landscape (5% every 5 years)				6,537				
Monument Renovation (1)								4,153
Pavement - Crack Repair, Patch and Stripe (1)		3,190				3,576		
Pavement Replacement - Parking Areas								
Playground Equipment (1)								
Pond Aerators		5,145						
Pond Restoration (1)								
Basketball Court - Surface Replacement								
Well Pumps								18,323
Pool Components								
Pool Deck Renovation						9,575		
Pool Fence								
Pool Renovation						71,411		
Pool Furniture				68,859				
Pool Equipment - Pumps (1)								
Pool Equipment - Water Treatment Equipment								
Pool Equipment - Filters								
Pool Equipment - Electrical and Plumbing (1)								

Costs plus Inflation

(1) See Property Engineering Review Page 1.201

30 Year Expenditure Summary

These summary pages depict the INFLATED reserve expenses during the next 30 years. The costs on these pages SHOULD NOT be compared to current bid costs as these costs are inflated.

Mill Valley North Association, Inc.

Fiscal year	2029	2030	2031	2032	2033	2034	2035	2036
Construction inflation rate	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Compounded construction inflation	125.7%	129.3%	133.1%	137.0%	140.9%	145.0%	149.2%	153.5%
Beginning balance (January 1, 2021)	$113,238	$159,531	$228,969	$305,864	$386,418	$261,475	$167,535	$251,989
Inflated expenditures (2.9% annual)	($24,008)	($4,010)	$0	$0	($207,158)	($176,188)	$0	$0
Recommended reserve contributions	$67,600	$69,600	$71,600	$73,700	$75,800	$78,000	$80,300	$82,600
Estimated interest earned (2.0% PROJECTED yield rate)	$2,701	$3,847	$5,295	$6,854	$6,415	$4,248	$4,154	$5,866
Ending reserve balance	$159,531	$228,969	$305,864	$386,418	$261,475	$167,535	$251,989	$340,455

Reserve Component List

Exterior Building Components								
Painting - Siding and Trim						6,090		
Roof - Shingles, Gutters and Downspouts (1)								
Roof - Metal Panels								
Windows and Doors								
Interior Building Components								
Rest Room Renovation						65,255		
Building System Components								
Security System								
Site Components								
Concrete Curbs (20% with repaving parking areas)								
Concrete Sidewalks								
False Well - Creekview Drive South Pond								
Fences - Vinyl								
Irrigation System Pumps								
Irrigation System (1)								
Landscape (5% every 5 years)	7,542					8,701		
Monument Renovation (1)								
Pavement - Crack Repair, Patch and Stripe (1)		4,010				4,495		
Pavement Replacement - Parking Areas								
Playground Equipment (1)								
Pond Aerators								
Pond Restoration (1)					207,158			
Basketball Court - Surface Replacement								
Well Pumps								
Pool Components								
Pool Deck Renovation								
Pool Fence								
Pool Renovation								
Pool Furniture						91,647		
Pool Equipment - Pumps (1)	10,307							
Pool Equipment - Water Treatment Equipment	2,514							
Pool Equipment - Filters	3,645							
Pool Equipment - Electrical and Plumbing (1)								

Costs plus Inflation

(1) See Property Engineering Review Page 1.201

30 Year Expenditure Summary

These summary pages depict the INFLATED reserve expenses during the next 30 years. The costs on these pages SHOULD NOT be compared to current bid costs as these costs are inflated.

Mill Valley North Association, Inc.								threshold funding year
Fiscal year	2037	2038	2039	2040	2041	2042	2043	2044
Construction inflation rate	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Compounded construction inflation	158.0%	162.6%	167.3%	172.1%	177.1%	182.3%	187.6%	193.0%
Beginning balance (January 1, 2021)	$340,455	$425,135	$400,173	$256,949	$355,614	$458,979	$561,532	$440,720
Inflated expenditures (2.9% annual)	($7,900)	($120,633)	($239,730)	$0	$0	($5,650)	($231,636)	($492,146)
Recommended reserve contributions	$85,000	$87,500	$90,000	$92,600	$95,300	$98,100	$100,900	$103,800
Estimated interest earned (2.0% PROJECTED yield rate)	$7,580	$8,171	$6,506	$6,065	$8,065	$10,104	$9,923	$4,931
Ending reserve balance	$425,135	$400,173	$256,949	$355,614	$458,979	$561,532	$440,720	$57,305

Reserve Component List

Exterior Building Components								
Painting - Siding and Trim								8,106
Roof - Shingles, Gutters and Downspouts (1)			15,056					
Roof - Metal Panels								
Windows and Doors								
Interior Building Components								
Rest Room Renovation								
Building System Components								
Security System		6,503						
Site Components								
Concrete Curbs (20% with repaving parking areas)			7,695					
Concrete Sidewalks								
False Well - Creekview Drive South Pond								
Fences - Vinyl								
Irrigation System Pumps								
Irrigation System (1)							231,636	238,353
Landscape (5% every 5 years)			10,038					11,580
Monument Renovation (1)								
Pavement - Crack Repair, Patch and Stripe (1)						5,650		
Pavement Replacement - Parking Areas			138,853					
Playground Equipment (1)			41,823					
Pond Aerators	7,900							
Pond Restoration (1)								
Basketball Court - Surface Replacement			26,265					
Well Pumps								
Pool Components								
Pool Deck Renovation		13,494						
Pool Fence								26,634
Pool Renovation		100,636						
Pool Furniture								121,975
Pool Equipment - Pumps (1)								15,826
Pool Equipment - Water Treatment Equipment								3,860
Pool Equipment - Filters								5,597
Pool Equipment - Electrical and Plumbing (1)								60,215

Costs plus Inflation

(1) See Property Engineering Review Page 1.201

30 Year Expenditure Summary

These summary pages depict the INFLATED reserve expenses during the next 30 years. The costs on these pages SHOULD NOT be compared to current bid costs as these costs are inflated.

Mill Valley North Association, Inc.

Fiscal year	2045	2046	2047	2048	2049	2050	2051
Construction inflation rate	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%	2.9%
Compounded construction inflation	198.6%	204.4%	210.3%	216.4%	222.7%	229.1%	235.8%
Beginning balance (January 1, 2021)	$57,305	$163,289	$264,994	$375,132	$487,473	$557,084	$494,190
Inflated expenditures (2.9% annual)	$0	($6,335)	$0	$0	($44,531)	($177,103)	$0
Recommended reserve contributions	$103,800	$103,800	$103,800	$103,800	$103,800	$103,800	$103,800
Estimated interest earned (2.0% PROJECTED yield rate)	$2,184	$4,240	$6,338	$8,541	$10,342	$10,409	$10,922
Ending reserve balance	$163,289	$264,994	$375,132	$487,473	$557,084	$494,190	$608,912

Reserve Component List

Exterior Building Components							
Painting - Siding and Trim							
Roof - Shingles, Gutters and Downspouts (1)							
Roof - Metal Panels							
Windows and Doors					31,172		
Interior Building Components							
Rest Room Renovation							
Building System Components							
Security System						9,164	
Site Components							
Concrete Curbs (20% with repaving parking areas)							
Concrete Sidewalks							
False Well - Creekview Drive South Pond							
Fences - Vinyl							
Irrigation System Pumps							
Irrigation System (1)							
Landscape (5% every 5 years)					13,359		
Monument Renovation (1)							
Pavement - Crack Repair, Patch and Stripe (1)		6,335				7,102	
Pavement Replacement - Parking Areas							
Playground Equipment (1)							
Pond Aerators							
Pond Restoration (1)							
Basketball Court - Surface Replacement							
Well Pumps							
Pool Components							
Pool Deck Renovation						19,016	
Pool Fence							
Pool Renovation						141,820	
Pool Furniture							
Pool Equipment - Pumps (1)							
Pool Equipment - Water Treatment Equipment							
Pool Equipment - Filters							
Pool Equipment - Electrical and Plumbing (1)							

Costs plus Inflation

(1) See Property Engineering Review Page 1.201

SUPERIOR RESERVE
ENGINEERING & CONSULTING

1.404.2021

2021

Hybrid Reserve Expenditures and Funding Plan

January 1, 2021 through December 31, 2021

Year of forecast:	0
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2021:	100.0%
Unaudited, provided, beginning reserve balance as of January 1, 2021:	$41,936
Budgeted reserve contribution: +	$25,000
Estimated interest earned (0.4% yield rate): +	$218
Total contributions: =	$25,218

Mill Valley North Association, Inc.

2021 Expenditures	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$67,154

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2022

Hybrid Reserve Expenditures and Funding Plan

January 1, 2022 through December 31, 2022

Year of forecast:	1
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2022:	102.9%
Beginning reserve balance:	$67,154
Recommended reserve contribution: +	$32,400
Estimated interest earned (2.0% PROJECTED yield rate): +	$1,524
Total contributions: =	$33,924

Mill Valley North Association, Inc.

2022 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
False Well - Creekview Drive South Pond	1	firm	-	($5,968)
Pavement - Crack Repair, Patch and Stripe (1)	1	firm	6.641	($3,190)
Pond Aerators	1	deferrable	6.781	($5,145)
Total expenditures:				($14,303)
			Ending reserve balance:	$86,774

SUPERIOR RESERVE
ENGINEERING & CONSULTING

1.404.2023

2023

Hybrid Reserve Expenditures and Funding Plan

January 1, 2023 through December 31, 2023

Year of forecast:	2
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2023:	105.9%
Beginning reserve balance:	$86,774
Recommended reserve contribution: +	$39,800
Estimated interest earned (2.0% PROJECTED yield rate): +	$2,133
Total contributions: =	$41,933

Mill Valley North Association, Inc.

2023 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$128,707

SUPERIOR RESERVE
ENGINEERING & CONSULTING

1.404.2024

2024

Hybrid Reserve Expenditures and Funding Plan

January 1, 2024 through December 31, 2024

Year of forecast:	3
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2024:	109.0%
Beginning reserve balance:	$128,707
Recommended reserve contribution: +	$47,200
Estimated interest earned (2.0% PROJECTED yield rate): +	$2,246
Total contributions: =	$49,446

Mill Valley North Association, Inc.

2024 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Painting - Siding and Trim	1	firm	2.431	($4,576)
Landscape (5% every 5 years)	1	discretionary	6.541	($6,537)
Pool Furniture	1	deferrable	8.401	($68,859)
Total expenditures:				($79,973)
			Ending reserve balance:	$98,181

SUPERIOR RESERVE
ENGINEERING & CONSULTING

1.404.2025

2025

Hybrid Reserve Expenditures and Funding Plan

January 1, 2025 through December 31, 2025

Year of forecast:	4
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2025:	112.1%
Beginning reserve balance:	$98,181
Recommended reserve contribution: +	$54,600
Estimated interest earned (2.0% PROJECTED yield rate): +	$2,510
Total contributions: =	$57,110

Mill Valley North Association, Inc.

2025 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$155,291

SUPERIOR RESERVE
ENGINEERING & CONSULTING

1.404.2026

2026

Hybrid Reserve Expenditures and Funding Plan

January 1, 2026 through December 31, 2026

Year of forecast:	5
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2026:	115.4%
Beginning reserve balance:	$155,291
Recommended reserve contribution: +	$62,000
Estimated interest earned (2.0% PROJECTED yield rate): +	$2,834
Total contributions: =	$64,834

Mill Valley North Association, Inc.

2026 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Security System	1	discretionary	4.701	($4,615)
Pavement - Crack Repair, Patch and Stripe (1)	1	firm	6.641	($3,576)
Pool Deck Renovation	1	deferrable	8.101	($9,575)
Pool Renovation	1	deferrable	8.301	($71,411)
Total expenditures:				($89,178)
			Ending reserve balance:	$130,947

SUPERIOR RESERVE
ENGINEERING & CONSULTING

1.404.2027

2027

Hybrid Reserve Expenditures and Funding Plan

January 1, 2027 through December 31, 2027

Year of forecast:	6
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2027:	118.7%
Beginning reserve balance:	$130,947
Recommended reserve contribution: +	$63,800
Estimated interest earned (2.0% PROJECTED yield rate): +	$3,257
Total contributions: =	$67,057

Mill Valley North Association, Inc.

2027 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$198,004

SUPERIOR RESERVE
ENGINEERING & CONSULTING

1.404.2028

2028

Hybrid Reserve Expenditures and Funding Plan

January 1, 2028 through December 31, 2028

Year of forecast:	7
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2028:	122.2%
Beginning reserve balance:	$198,004
Recommended reserve contribution: +	$65,700
Estimated interest earned (2.0% PROJECTED yield rate): +	$3,082
Total contributions: =	$68,782

Mill Valley North Association, Inc.

2028 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Fences - Vinyl	1	deferrable	6.281	($109,084)
Irrigation System Pumps	1	deferrable	-	($21,988)
Monument Renovation (1)	1	deferrable	6.631	($4,153)
Well Pumps	1	firm	6.991	($18,323)
Total expenditures:				($153,548)
			Ending reserve balance:	$113,238

SUPERIOR RESERVE
ENGINEERING & CONSULTING

1.404.2029

2029

Hybrid Reserve Expenditures and Funding Plan

January 1, 2029 through December 31, 2029

Year of forecast:	8
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2029:	125.7%
Beginning reserve balance:	$113,238
Recommended reserve contribution: +	$67,600
Estimated interest earned (2.0% PROJECTED yield rate): +	$2,701
Total contributions: =	$70,301

Mill Valley North Association, Inc.

2029 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Landscape (5% every 5 years)	1	discretionary	6.541	($7,542)
Pool Equipment - Pumps (1)	1	deferrable	8.501	($10,307)
Pool Equipment - Water Treatment Equipment	1	deferrable	8.501	($2,514)
Pool Equipment - Filters	1	deferrable	8.501	($3,645)
Total expenditures:				($24,008)
			Ending reserve balance:	$159,531

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2030

Hybrid Reserve Expenditures and Funding Plan

January 1, 2030 through December 31, 2030

Year of forecast:	9
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2030:	129.3%
Beginning reserve balance:	$159,531
Recommended reserve contribution: +	$69,600
Estimated interest earned (2.0% PROJECTED yield rate): +	$3,847
Total contributions: =	$73,447

Mill Valley North Association, Inc.

2030 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Pavement - Crack Repair, Patch and Stripe (1)	1	firm	6.641	($4,010)
Total expenditures:				($4,010)
			Ending reserve balance:	$228,969

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2031

Hybrid Reserve Expenditures and Funding Plan

January 1, 2031 through December 31, 2031

Year of forecast:	10
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2031:	133.1%
Beginning reserve balance:	$228,969
Recommended reserve contribution: +	$71,600
Estimated interest earned (2.0% PROJECTED yield rate): +	$5,295
Total contributions: =	$76,895

Mill Valley North Association, Inc.

2031 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$305,864

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2032

Hybrid Reserve Expenditures and Funding Plan

January 1, 2032 through December 31, 2032

Year of forecast:	11
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2032:	137.0%
Beginning reserve balance:	$305,864
Recommended reserve contribution: +	$73,700
Estimated interest earned (2.0% PROJECTED yield rate): +	$6,854
Total contributions: =	$80,554

Mill Valley North Association, Inc.

2032 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$386,418

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2033

Hybrid Reserve Expenditures and Funding Plan

January 1, 2033 through December 31, 2033

Year of forecast:	12
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2033:	140.9%
Beginning reserve balance:	$386,418
Recommended reserve contribution: +	$75,800
Estimated interest earned (2.0% PROJECTED yield rate): +	$6,415
Total contributions: =	$82,215

Mill Valley North Association, Inc.

2033 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Pond Restoration (1)	1	deferrable	6.781	($207,158)
Total expenditures:				($207,158)
			Ending reserve balance:	$261,475

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2034

Hybrid Reserve Expenditures and Funding Plan

January 1, 2034 through December 31, 2034

Year of forecast:	13
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2034:	145.0%
Beginning reserve balance:	$261,475
Recommended reserve contribution: +	$78,000
Estimated interest earned (2.0% PROJECTED yield rate): +	$4,248
Total contributions: =	$82,248

Mill Valley North Association, Inc.

2034 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Painting - Siding and Trim	1	firm	2.431	($6,090)
Rest Room Renovation	1	deferrable	3.701	($65,255)
Landscape (5% every 5 years)	1	discretionary	6.541	($8,701)
Pavement - Crack Repair, Patch and Stripe (1)	1	firm	6.641	($4,495)
Pool Furniture	1	deferrable	8.401	($91,647)
Total expenditures:				($176,188)
			Ending reserve balance:	$167,535

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2035

Hybrid Reserve Expenditures and Funding Plan

January 1, 2035 through December 31, 2035

Year of forecast:	14
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2035:	149.2%
Beginning reserve balance:	$167,535
Recommended reserve contribution: +	$80,300
Estimated interest earned (2.0% PROJECTED yield rate): +	$4,154
Total contributions: =	$84,454

Mill Valley North Association, Inc.

2035 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$251,989

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2036

Hybrid Reserve Expenditures and Funding Plan

January 1, 2036 through December 31, 2036

Year of forecast:	15
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2036:	153.5%
Beginning reserve balance:	$251,989
Recommended reserve contribution: +	$82,600
Estimated interest earned (2.0% PROJECTED yield rate): +	$5,866
Total contributions: =	$88,466

Mill Valley North Association, Inc.

2036 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$340,455

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2037

Hybrid Reserve Expenditures and Funding Plan

January 1, 2037 through December 31, 2037

Year of forecast:	16
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2037:	158.0%
Beginning reserve balance:	$340,455
Recommended reserve contribution: +	$85,000
Estimated interest earned (2.0% PROJECTED yield rate): +	$7,580
Total contributions: =	$92,580

Mill Valley North Association, Inc.

2037 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Pond Aerators	1	deferrable	6.781	($7,900)
Total expenditures:				($7,900)
			Ending reserve balance:	$425,135

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2038

Hybrid Reserve Expenditures and Funding Plan

January 1, 2038 through December 31, 2038

Year of forecast:	17
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2038:	162.6%
Beginning reserve balance:	$425,135
Recommended reserve contribution: +	$87,500
Estimated interest earned (2.0% PROJECTED yield rate): +	$8,171
Total contributions: =	$95,671

Mill Valley North Association, Inc.

2038 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Security System	1	discretionary	4.701	($6,503)
Pool Deck Renovation	1	deferrable	8.101	($13,494)
Pool Renovation	1	deferrable	8.301	($100,636)
Total expenditures:				($120,633)
			Ending reserve balance:	$400,173

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2039

Hybrid Reserve Expenditures and Funding Plan

January 1, 2039 through December 31, 2039

Year of forecast:	18
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2039:	167.3%
Beginning reserve balance:	$400,173
Recommended reserve contribution: +	$90,000
Estimated interest earned (2.0% PROJECTED yield rate): +	$6,506
Total contributions: =	$96,506

Mill Valley North Association, Inc.

2039 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Roof - Shingles, Gutters and Downspouts (1)	1	firm	2.441	($15,056)
Concrete Curbs (20% with repaving parking areas)	1	deferrable	6.121	($7,695)
Landscape (5% every 5 years)	1	discretionary	6.541	($10,038)
Pavement Replacement - Parking Areas	1	deferrable	6.661	($138,853)
Playground Equipment (1)	1	deferrable	6.761	($41,823)
Basketball Court - Surface Replacement	1	discretionary	6.981	($26,265)
Total expenditures:				($239,730)
			Ending reserve balance:	$256,949

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2040

Hybrid Reserve Expenditures and Funding Plan

January 1, 2040 through December 31, 2040

Year of forecast:	19
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2040:	172.1%
Beginning reserve balance:	$256,949
Recommended reserve contribution: +	$92,600
Estimated interest earned (2.0% PROJECTED yield rate): +	$6,065
Total contributions: =	$98,665

Mill Valley North Association, Inc.

2040 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$355,614

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2041

Hybrid Reserve Expenditures and Funding Plan

January 1, 2041 through December 31, 2041

Year of forecast:	20
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2041:	177.1%
Beginning reserve balance:	$355,614
Recommended reserve contribution: +	$95,300
Estimated interest earned (2.0% PROJECTED yield rate): +	$8,065
Total contributions: =	$103,365

Mill Valley North Association, Inc.

2041 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$458,979

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2042

Hybrid Reserve Expenditures and Funding Plan

January 1, 2042 through December 31, 2042

Year of forecast:	21
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2042:	182.3%
Beginning reserve balance:	$458,979
Recommended reserve contribution: +	$98,100
Estimated interest earned (2.0% PROJECTED yield rate): +	$10,104
Total contributions: =	$108,204

Mill Valley North Association, Inc.

2042 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Pavement - Crack Repair, Patch and Stripe (1)	1	firm	6.641	($5,650)
Total expenditures:				($5,650)
			Ending reserve balance:	$561,532

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2043

Hybrid Reserve Expenditures and Funding Plan

January 1, 2043 through December 31, 2043

Year of forecast:	22
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2043:	187.6%
Beginning reserve balance:	$561,532
Recommended reserve contribution: +	$100,900
Estimated interest earned (2.0% PROJECTED yield rate): +	$9,923
Total contributions: =	$110,823

Mill Valley North Association, Inc.

2043 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Irrigation System (1)	2	discretionary	6.521	($231,636)
Total expenditures:				($231,636)
			Ending reserve balance:	$440,720

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2044 (Threshold)

Hybrid Reserve Expenditures and Funding Plan

January 1, 2044 through December 31, 2044

Year of forecast:	23
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2044 (Threshold):	193.0%
Beginning reserve balance:	$440,720
Recommended reserve contribution: +	$103,800
Estimated interest earned (2.0% PROJECTED yield rate): +	$4,931
Total contributions: =	$108,731

Mill Valley North Association, Inc.

2044 Expenditures (inflated)

	Number of phases	Flexibility	Engineering Data Section	
Painting - Siding and Trim	1	firm	2.431	($8,106)
Irrigation System (1)	2	discretionary	6.521	($238,353)
Landscape (5% every 5 years)	1	discretionary	6.541	($11,580)
Pool Fence	1	deferrable	8.201	($26,634)
Pool Furniture	1	deferrable	8.401	($121,975)
Pool Equipment - Pumps (1)	1	deferrable	8.501	($15,826)
Pool Equipment - Water Treatment Equipment	1	deferrable	8.501	($3,860)
Pool Equipment - Filters	1	deferrable	8.501	($5,597)
Pool Equipment - Electrical and Plumbing (1)	1	deferrable	8.501	($60,215)
Total expenditures:				($492,146)
			Ending reserve balance:	$57,305

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2045

Hybrid Reserve Expenditures and Funding Plan

January 1, 2045 through December 31, 2045

Year of forecast:	24
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2045:	198.6%
Beginning reserve balance:	$57,305
Recommended reserve contribution: +	$103,800
Estimated interest earned (2.0% PROJECTED yield rate): +	$2,184
Total contributions: =	$105,984

Mill Valley North Association, Inc.

2045 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$163,289

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2046

Hybrid Reserve Expenditures and Funding Plan

January 1, 2046 through December 31, 2046

Year of forecast:	25
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2046:	204.4%
Beginning reserve balance:	$163,289
Recommended reserve contribution: +	$103,800
Estimated interest earned (2.0% PROJECTED yield rate): +	$4,240
Total contributions: =	$108,040

Mill Valley North Association, Inc.

2046 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Pavement - Crack Repair, Patch and Stripe (1)	1	firm	6.641	($6,335)
Total expenditures:				($6,335)
			Ending reserve balance:	$264,994

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2047

Hybrid Reserve Expenditures and Funding Plan

January 1, 2047 through December 31, 2047

Year of forecast:	26
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2047:	210.3%
Beginning reserve balance:	$264,994
Recommended reserve contribution: +	$103,800
Estimated interest earned (2.0% PROJECTED yield rate): +	$6,338
Total contributions: =	$110,138

Mill Valley North Association, Inc.

2047 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$375,132

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2048

Hybrid Reserve Expenditures and Funding Plan

January 1, 2048 through December 31, 2048

Year of forecast:	27
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2048:	216.4%
Beginning reserve balance:	$375,132
Recommended reserve contribution: +	$103,800
Estimated interest earned (2.0% PROJECTED yield rate): +	$8,541
Total contributions: =	$112,341

Mill Valley North Association, Inc.

2048 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$487,473

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2049

Hybrid Reserve Expenditures and Funding Plan

January 1, 2049 through December 31, 2049

Year of forecast:	28
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2049:	222.7%
Beginning reserve balance:	$487,473
Recommended reserve contribution: +	$103,800
Estimated interest earned (2.0% PROJECTED yield rate): +	$10,342
Total contributions: =	$114,142

Mill Valley North Association, Inc.

2049 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Windows and Doors	1	deferrable	2.981	($31,172)
Landscape (5% every 5 years)	1	discretionary	6.541	($13,359)
Total expenditures:				($44,531)
			Ending reserve balance:	$557,084

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2050

Hybrid Reserve Expenditures and Funding Plan

January 1, 2050 through December 31, 2050

Year of forecast:	29
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2050:	229.1%
Beginning reserve balance:	$557,084
Recommended reserve contribution: +	$103,800
Estimated interest earned (2.0% PROJECTED yield rate): +	$10,409
Total contributions: =	$114,209

Mill Valley North Association, Inc.

2050 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Security System	1	discretionary	4.701	($9,164)
Pavement - Crack Repair, Patch and Stripe (1)	1	firm	6.641	($7,102)
Pool Deck Renovation	1	deferrable	8.101	($19,016)
Pool Renovation	1	deferrable	8.301	($141,820)
Total expenditures:				($177,103)
			Ending reserve balance:	$494,190

SUPERIOR RESERVE
ENGINEERING & CONSULTING

2051

Hybrid Reserve Expenditures and Funding Plan

January 1, 2051 through December 31, 2051

Year of forecast:	30
Annual CONSTRUCTION inflation rate:	2.9%
Compounded CONSTRUCTION inflation in 2051:	235.8%
Beginning reserve balance:	$494,190
Recommended reserve contribution: +	$103,800
Estimated interest earned (2.0% PROJECTED yield rate): +	$10,922
Total contributions: =	$114,722

Mill Valley North Association, Inc.

2051 Expenditures (inflated)	Number of phases	Flexibility	Engineering Data Section	
Total expenditures:				$0
			Ending reserve balance:	$608,912

Mill Valley North Association, Inc.
2021 Budget
REVISED & CORRECTED

BORROR

	2021 Budget	
DUES REVENUE	566 Pool Pass / 185 No Pool	
Assessment: $350 / $95		
Dues Assessment		215,675
Less: Reserve Funding		(25,000)
Less: Bad Debt Expense		(4,500)
TOTAL DUES REVENUE		186,175
OTHER REVENUE		
Late Fee Income		1,750
TOTAL OTHER INCOME		1,750
TOTAL REVENUE		187,925
OPERATING EXPENSES		
Electricity		4,000
Water & Sewer		7,000
Garbage And Trash Removal		2,500
Grounds Contract		34,800
Plant And Tree Replacements		7,500
Pond Maintenance		3,145
Irrigation - Well Maintenance		2,375
Miscellaneous Maintenance Expenses		13,000
Telephone And Internet		1,750
Security Systems		2,500
Grounds Maintenance		3,000
Swimming Pool Maintenance		58,000
Swimming Pool Building Maintenance		3,000
Miscellaneous Operating Expenses		6,037
TOTAL OPERATING EXPENSES		148,607
Accounting Services		175
Legal Expense		3,000
Insurance Expense		3,000
Real Estate Taxes		10,000
Administrative Expenses		2,000
Management Fee		13,518
Postage And Delivery Expense		3,500
Office Supplies		1,000
Collections And Late Notices Expense		3,125
TOTAL MANAGEMENT EXPENSES		39,318
TOTAL OPERATING & MANAGEMENT EXPENSES		187,925
NET OPERATING INCOME (LOSS)		-

Mill Valley North Association (c110.mvn) Page 1

Balance Sheet

Period = Dec 2020
Book = Accrual ; Tree = hoa bs

	Current Balance
ASSETS	
Cash - Operating	348,509.41
Replacement Reserve	41,935.50
Total Cash	390,444.91
Accounts Receivable - Residents	32,954.68
Total Accounts Receivable	32,954.68
Prepaid Insurance	3,267.00
TOTAL ASSETS	426,666.59
LIABILITIES AND EQUITY	
Accounts Payable - Operations	875.00
Due To Borror	1,533.19
Prepaid Revenue	7,837.60
Accrued Property Taxes	2,802.65
TOTAL LIABILITIES	13,048.44
Replacement Reserve Equity	163,352.57
Retained Earnings	250,265.58
TOTAL EQUITY	413,618.15
TOTAL LIABILITIES AND EQUITY	426,666.59

Summary of Qualifications

Justin J. Maier, P.E., RS

Partner



Services

Justin J. Maier is a partner and co-founder of Superior Reserve Engineering and Consulting. Justin J. Maier provides *expert* reserve and transition studies, and property engineering reviews. Properties that have benefited from his experience include townhome associations, condominium associations, planned unit developments, marinas, resorts, hotels, churches and country clubs. These properties vary from complex high rise buildings to vintage buildings of historical significance. He has provided these services to *more than* 2,100 properties throughout the United States and worldwide.

Prior Experience

Prior to co-founding Superior Reserve with Nik J. Clark, Mr. Maier had conducted reserve and transition studies with Reserve Advisors for 14 years. During this time, he was the Director of Product Development where he oversaw the development, improvement and production efficiency of reserve and transition studies for the firm. He was the leading producer of reserve and transition studies. Mr. Maier was instrumental in improving the quality of reports both in content, clarity and appearance. Reserve Advisors experienced tremendous success based on the standard of reserve and transition study quality that he implemented.

Mr. Maier was a structural engineer for Wausau Window and Wall Systems. There he analyzed stresses in horizontal and vertical components of aluminum frame curtain wall window systems in projects throughout the United States for both wind pressure and suction loads. He was involved in field work to correct improperly installed system components.

Mr. Maier was an Assistant Engineer for Crest Consulting Engineers. His services required on-site field investigation of architectural and structural failures, analysis of the preexisting design and conditions, and determination of the design shortfalls or owner modifications that caused the failures. He designed remedial repairs, produced cost estimates for the repairs, prepared the specifications and oversaw the implementation of the repairs.

Expert Witness

Through the expert witness of Mr. Maier, the Villages at Cumberland Trail in Columbus, Ohio and The Retreat Homeowners Association in Indianapolis, Indiana were able to successfully negotiate a settlement for their construction defects.

Education

Milwaukee School of Engineering (MSOE) - Bachelors of Science in Architectural Engineering

Professional Affiliations

Professional Engineer (P.E.) - licenses held in WI, IL, OH, NY, TX, DC, VA, MD, MI, MN, PA
Reserve Specialist (RS) - credential awarded by Community Association's Institute (CAI)
Certified Pool / Spa Operator - issued by the National Swimming Pool Foundation

Terms, Conditions and Limitations

1) Superior Reserve Engineering & Consulting (SREC) will perform a visual inspection of the property. While due diligence will be exercised during the onsite inspection, we make no representations regarding latent or hidden defects not observable from a visual inspection. We do not conduct invasive or destructive testing nor provide an exhaustive review of building code compliance. Material testing, core sampling, performance testing of building or site elements and equipment is not part of the scope of work.
2) Our opinions of estimated costs and remaining useful lives are not a guarantee of the actual costs of replacement, a warranty of the common elements or other property elements, or a guarantee of remaining useful lives.
3) SREC may rely on information provided to us, by the client named in this contract, in our report. We assume information provided to us by the client to be correct and assume no liability for the accuracy of information provided to us by the client. You agree to indemnify and hold us harmless against and from any and all losses, claims, actions, damages, expenses or liabilities, including reasonable attorneys' fees, to which we may become subject in connection with this engagement, because of any false, misleading or incomplete information which we have relied upon as supplied by you or others under your direction, or which may result from any improper use or reliance on the report by you or third parties under your control or direction.
4) Our Reserve Study Report in whole or part is not and cannot be used as a design specification, design engineering services or an appraisal.
5) Substances such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials could, if present, adversely affect the validity of this study. Unless otherwise stated in this report, the existence of hazardous substance, that may or may not be present on or in the property, was not considered. Our opinions are predicated on the assumption that there are no hazardous materials on or in the property. We assume no responsibility for any such conditions. We are not qualified to detect such substances, quantify the impact, or develop the remedial cost.
6) In the event of errors in our report, SREC's liability is limited to the cost of this study.

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Painting - Siding and Trim

Materials to paint:	fiber cement siding, soffit, fascia and trim
Color scheme:	two tone
Overall condition:	fair
Specific condition:	scuffs, color face, isolated deterioration and repairs
Current total cost:	**$4,200**
Cost per home:	$6
Assumptions:	two coats (primer for bare areas and paint)
Operating expenses:	touch up painting
Components to paint:	fiber cement siding horizontal and vertical trim fiber cement soffit and fascia window and door trim doors
Components to replace:	fiber cement siding (1%) horizontal and vertical trim (1%) fiber cement soffit and fascia (1%) window and door trim (1%) caulk at windows and doors (50%)



painted surfaces



paint scuffs



color fade



paint repairs

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Roof - Shingles, Gutters and Downspouts

Roof composition:
laminated architectural asphalt shingles
Boston style ridge shingles
enclosed half weaved valleys
metal drip edge (note 1)
ridge and box vents (adequate)
rubber and plastic flashing at vent pipes
unsealed nail heads (potential leaks)
self adhering underlayment at gutter edge


roof with laminated architectural asphalt shingles

Overall condition: good

Specific condition: minor weathering

Quantity in squares(note 2): 20

Cost ($/square): $460

Current total cost: **$9,000**

Cost per home: $12

Operating expenses: semi annual inspections and repairs

Anticipated expenses:
total removal of existing roofing (note 3)
sheathing replacement contingency (5%)
metal drip edge at roof perimeters
lead boot flashing at waste pipes
#15 felt underlayment
self adhering underlayment at roof edges
Class A 240-260 pounds/square shingles
rooftop ventilation
bathroom vents discharge through roofs
replace gutters and downspouts (300 l.f.)


metal drip edge and rake


weathered shingles

Engineering solutions: Kick-out flashing is missing where the roof terminates at the gutters adjacent to siding. Water flowing at the roof to wall intersections can bypass the gutters, penetrate the walls and increase the potential for water infiltration. Water damage is evident at these locations. Kick-out flashing should be installed at these locations, integrated with the shingles and step flashing.


siding deterioration due to missing kick-out flashing

(note 1) Metal flashing at the perimeter of the roof that directs water away from the structure. The absence of this roofing component increases the likelihood of water infiltration.

(note 2) One square equals 100 square feet.

(note 3) Benefits of total replacement (rather than overlay/shingle over) include: 1) replacement of deteriorated sheathing, and proper flashing at penetrations and roof perimeters 2) ensuring the new shingles will lay properly 3) ensuring the useful life of the new shingles will not be diminished due to continued deterioration of underlying shingles 4) cost of removal will not be deferred to future budgets.

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Roof - Metal Panels

Material:	metal panels
Overall condition:	good
Specific condition:	minor rust
Roof pitch (average):	4:12
Quantity (each):	3
Current total cost:	**$8,000**
Cost per home:	$11
Operating expenses:	semi annual inspections and repairs
Anticipated expenses:	total removal of existing roofing metal drip edge at roof perimeters underlayment 1-3/4" standing seams, 10" wide, 24 gauge rooftop ventilation


roof with metal panels


metal roofing


minor rust


minor rust

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Windows and Doors

Characteristics:	vinyl window frames dual pane glass fixed windows no screens decorative muntins hinged doors
Overall condition:	good to fair
Specific condition:	normal weathering
Quantity (square feet):	200
Quantity (each):	12
Cost ($/square foot):	$70
Average cost ($/each):	$1,200
Current total cost:	**$14,000**
Cost per home:	$19
Operating expenses:	replacement of hardware, clearing of weep holes



vinyl frame, dual pane glass, fixed window with decorative muntins



pool house window



interior side of window



hinged door

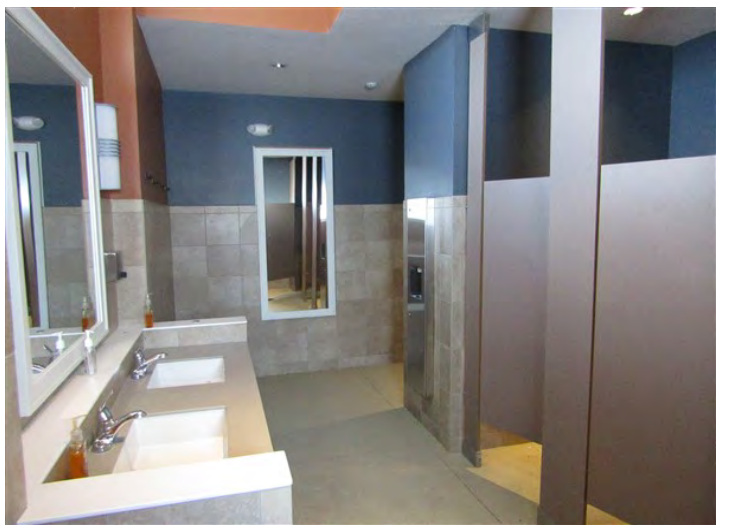
SUPERIOR RESERVE
ENGINEERING & CONSULTING

Rest Room Renovation

Rest rooms (each):	3
Area (square feet):	520
Overall condition:	good to fair
Specific condition:	cracks in drywall joints and paint deterioration
Cost per square foot:	$87
Current total cost:	**$45,000**
Cost per home:	$60
Operating expenses:	interim replacements, painting
Anticipated expenses:	tile (120 square yards) paint (1,400 square feet) lighting (including exterior) toilets (5 each) composite partitions (5 each) sinks and faucets (5 each) drinking fountains (2 each) urinals (2 each) exhaust fans mirrors electric and plumbing allowance baby changing stations benches exit and emergency lights



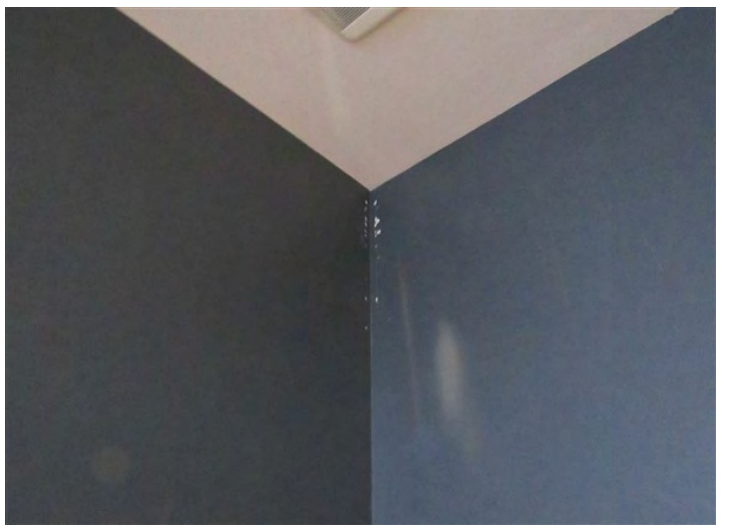
rest room



rest room



cracks in drywall joints



paint deterioration

Security System

Operational condition: satisfactory

Current total cost: **$4,000**

Cost per home: $5

Operating expenses: interim replacements

Assumptions: The replacement cost includes only that amount necessary to recreate the same functionality of the existing system. The cost is only to swap older components for new components and assumes reuse of the existing wiring. Security system electronics rapidly change. An adequate system by today's standard may be antiquated in a few years. It is possible that the existing system will be expanded in the future; however, the scope of the expansion is indeterminate and therefore the expansion cost above the current replacement cost is not a budgetable item. In addition, the increased cost for an improvement and more functional system (above what currently exists) is most appropriately born by future residents after the installation/improvement who will enjoy enhanced functionality. Future reserve study updates can capture and appropriately adjust reserve recommendations so residents who enjoy enhanced functionality will bear the cost of the enhancement (while prior homeowners had contributed appropriately for the consumption of useful life and replacement of the prior system).



card reader access point



camera

Types of devices: cameras (1)

card reader system (1 access point)

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Curbs

Material:	concrete
Size (inches):	18
Overall condition:	good
Specific condition:	isolated and minor damage
Locations:	lining the parking areas and playground
Quantity (linear feet):	1,300
Cost ($/linear foot):	$18
Current total cost (note 1):	**$23,000**
Coordinate with:	repaving parking areas
Assumptions:	3,500 psi replacement concrete


concrete curbs


overview of curb


concrete curb


isolated and minor damage

(note 1) Concrete curbs have a useful life of up to 60 years. Replacement of all the curbs during a single event is unlikely. Instead, we assume periodic replacements of limited quantities.

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Sidewalks

Material:	concrete
Finish:	plain
Overall condition:	good
Specific condition:	no visible deterioration
Locations:	pool house
Length (linear feet):	300
Quantity (square feet):	1,900
Cost ($/square foot):	$10.40
Current total cost:	**$19,000**
Assumptions:	4-inch thick, 3,000 psi replacement concrete with 6x6 - W1.4xW1.4 steel reinforcing mesh
Operating expenses:	marking of trip hazards, interim replacements of deteriorated sections, slab jacking (pumping grout under sections to lift them)



concrete sidewalks



overview of sidewalk



concrete sidewalk



sidewalk overview

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Fences - Vinyl

Material:	vinyl
Locations:	along Creekview Drive and Highway 31
Overall condition:	fair
Specific condition:	weathering and loose rails
Quantity (linear feet):	2,100
Cost ($/linear foot):	$43
Current total cost:	**$89,300**
Cost per home:	$119
Replacement cost includes:	remove existing fences new vinyl fence



vinyl fence parallel with streets



overview of fence



vinyl fence



loose rails

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Irrigation System

Locations served:	pool, Creekview Drive, and between Triple Crown Way and Highway 31
Operational condition:	satisfactory
Specific condition:	no known deficiencies
Water source:	ponds and municipality
Control panel location:	pool equipment room
Control panel manufacturer:	*Hunter*
Irrigated acreage:	5.7
Area (square feet):	247,000
Number of zones:	3
Cost ($/square foot):	$1.00
Current total cost:	**$247,000**
Cost per home:	$329
Operating expenses:	interim component and small section replacements
Anticipated costs:	pipes heads valves control panels rain sensors


irrigation system head


control panel


irrigation system head

Green ideas: For water conservation, the property could consider replacing the existing irrigation system rain sensors with smart controllers that utilize weather-based scheduling, suspend irrigation during rain, measure instantaneous rainfall data, determine effective rainfall, calculate a net replacement value and provide zone-specific water calculations.


rain sensor

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Landscape

Locations served: pool, pool house parking, Creekview Drive, and between Triple Crown Way and Highway 31

Landscaped acreage: 7.5

Estimated cost (note 1): **$120,000**

Cost per home: $160

Operating expenses: mowing, trimming, flowers, sod, mulch, etc.

Assumptions: We base our tree replacement cost on removal of the existing tree and replacement with a balled and burlapped tree, 8'-10' in height, 1" caliper.

Components:
trees
bushes
repairs to catch basins in landscape areas


landscape


landscape

Green ideas: Rather than raking leaves in the fall and hauling them to the landfill, the property should mulch the leaves and allow them to decompose into the ground. The majority of the leaves will decompose during the fall and winter. Once the leaf particles settle in, microbes and worms begin to recycle the debris (the application of nitrogen-rich fertilizer can help speed up the decomposition process). Whatever remains in the spring can be cleaned up and either used in planting beds or removed from the site. Mulching leaves will eliminate costs associated with hauling the leaves off the property and ease the burden placed on landfills. Mulching leaves will minimize weed control and nutrient application costs. Mulching leaves recycles a natural resource and provides a richer soil at no cost. The following website provides additional information:
https://www.canr.msu.edu/news/smart_gardeners_mulch_fallen_leaves_into_lawn_to_save_money.


landscape at pool house

Engineering solutions: Landscape replacement timing is discretionary. Annual operating budgets should include funds for mowing, trimming, flowers and replacement of a limited amount of dead landscape. We include an allowance for periodic partial replacements of landscape to include replacement of overgrown bushes or trees as the property sees necessary. Overgrown bushes and trees can cause damage to adjacent components. Although unpredictable, this allowance could also be used for any landscape that has died from drought, disease, etc.


landscape along 31

(note 1) Replacement of all the landscape in a single event is unlikely. Instead, we include an allowance for periodic partial replacements.

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Monument Renovation

Material: masonry

Locations: main entrance and pool house

Overall condition: good to fair

Specific condition: efflorescence at pool house masonry and mortar deterioration

Current total cost: **$3,400**

Cost per home: $5

Anticipated costs: masonry repairs (including pool house)
lighting

Green ideas: The property could consider the installation of solar lights to illuminate the monuments. The following website provides solar lights for monuments: http://www.lightinguup.com/EmberLED.



masonry monument


masonry monument


mortar deterioration


lighting

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Pavement - Crack Repair, Patch and Stripe

Locations: parking areas, basketball court

Overall condition: good to fair

Specific condition: cracks and isolated poor drainage

Quantity (square yards): 2,900

Total cost ($/square yard): $1.10

Current total cost: **$3,100**

Total cost per home: $4

Assumptions: repair all open cracks (1/8 to 1 inch wide) and patch deteriorated pavement to minimize water penetration

Anticipated costs:
crack repair
patch (1%)
stripe parking areas
repairs to catch basins (3 each)

Green ideas: The property has not seal coated the asphalt pavement and we agree with this practice. It is our professional opinion that seal coating asphalt pavement does not extend the useful life of the pavement. Seal coats do not add structural strength to the pavement. Seal coating is also a source of environmental contamination. If the property decides to seal coat for aesthetic reasons, avoid the use of coal tar based pavement seal coats as they pollute waterways. Instead, consider a slurry coat of asphaltic emulsion to provide a sacrificial wearing surface to the pavement. Also, if the property chooses to seal coat, we recommend applying the seal coat in the spring rather than the fall. Snow removal equipment wears the seal coat. Application in the spring will provide the maximum visual enjoyment from a fresh seal coat.

Engineering solutions: We observed unrepaired cracks at the pool house parking area. The property should repair all cracks and patch potholes in the pavement to prevent water infiltration. This will minimize deterioration to the pavement and underlying base.


cracks in pavement


pavement overview


overview of pavement


pavement cracks

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Pavement Replacement - Parking Areas

Material:	asphalt
Location:	parking areas
Overall condition:	good to fair
Specific condition:	cracks and isolated poor drainage
Typical traffic type:	residential vehicles
Quantity (square yards):	2,600
Quantity of catch basins:	3
Square yards of pavement per catch basin:	900 (reasonable amount of pavement per drain)
Repaving method:	replacement
Cost ($/square yard):	$32
Current total cost:	**$83,000**
Cost per home:	$111
Coordinate with:	partial replacements of concrete curbs
Anticipated costs:	remove pavement, regrade & augment base install 3 inches of new pavement repairs to catch basins (3 each) stripe parking areas



asphalt pavement at parking areas



cracks in pavement



cracks near catch basin



poor drainage

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Playground Equipment

Playground quantity (each): 1

Materials: metal and plastic

Manufacturer: *GameTime*

Play surface condition: surface needs augmentation (fund this expense through the operating budget)

Overall condition: good to fair

Specific condition: low mulch level

Current total cost: **$25,000**

Cost per home: $33

Operating expenses: play surface maintenance

Equipment included:
decks
steps
activity panels
slide with tunnel
slides
ladders
swings

Actionable recommendations: The property should conduct periodic inspections of the playground per the manufacturer's recommendation, log each inspection and react to those conditions as necessary to minimize hazards and liability. The following website provides guidelines for these inspections: https://www.cpsc.gov/safety-education/safety-guides/playgrounds/public-playground-safety-checklist.

Actionable recommendations: Mulch provides a safety cushion under playground equipment. Low mulch levels present a safety concern and potential increased liability issue. For safety reasons, augment the mulch at the playground in the near term to a thickness of 12 inches and fund this expense through the operating budget.


playground equipment


overview of equipment


low mulch level


low mulch level

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Pond Restoration

Quantity of ponds (each):	3
Locations:	Silverspur Lane and Creekview Drive (north and south ponds)
Quantity of aerators (each):	2
Perimeter (linear feet):	3,000
Acreage:	3.0
Overall condition:	fair
Specific condition:	erosion and debris accumulation
Cost per aerator:	$2,500
Total aerator cost:	**$5,000**
Restoration cost:	**$147,000**
Restoration cost per home:	$196
Restoration expenses:	sediment removal (10%) shoreline repairs (15%) structure repairs (5 each)

Engineering solutions: We observed that the north pond at Creekview Drive drains into the south pond through the landscape. If this drainage path is the intended design of the ponds, we recommend the installation of stone rip rap or a concrete gutter to prevent erosion. Otherwise, the property should repair this condition to prevent drainage and erosion.


pond at Silverspur Lane


pond erosion


shoreline erosion


significant erosion



south Creekview drive pond



debris accumulation in pond



shoreline erosion



erosion at shoreline



north Creekview drive pond



shoreline erosion



erosion of shoreline



water drains from north pond to south

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Basketball Court

Number of courts (each):	1
Surface material:	asphalt
Play area (square yards):	300
Overall condition:	good to fair
Specific condition:	minor cracks
Surface cost:	**$15,700**
Cost per home:	$21
Operating expenses:	basketball equipment


asphalt court


asphalt pavement


cracks in pavement

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Well Pumps

Purpose of water from well:	supply water to north and south Creekview Drive ponds
Overall condition:	satisfactory
Specific condition:	no known deficiencies
Quantity (each):	2
Cost ($/each):	$7,500
Current total cost:	**$15,000**
Cost per home:	$20
Operating expenses:	interim repairs
Assumptions:	well casing will not require replacement during the next 30 years



well casing

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Pool Deck Renovation

Deck material:	concrete
Deck pitch:	away from pool (proper)
Overall condition:	good to fair
Specific condition:	cracks in concrete at pool house and cracks in caulk
Deck area (square feet):	8,300
Current total cost:	**$8,300**
Cost per home:	$11
Operating expenses:	interim repairs, marking of trip hazards
Anticipated expenses:	replacement of deck (2%) deck crack repairs caulk deck joints


concrete pool deck


pool deck


cracked concrete at pool house


cracks in caulk

SUPERIOR RESERVE
ENGINEERING & CONSULTING

Pool Fence

Material:	prefinished aluminum
Location:	pool
Fence profile:	vertical picket
Fence height (inches):	65 inches (satisfies the 48 inch minimum height code requirement)
Picket spacing (inches):	3 (satisfies 4 inch maximum spacing code requirement)
Overall condition:	good
Specific condition:	minor dents
Quantity (linear feet):	500
Cost ($/linear foot):	$28
Current total cost:	**$13,800**
Cost per home:	$18
Operating expenses:	touch-up painting
Replacement cost includes:	remove existing fence prefinished aluminum



vertical picket aluminum fence at pool


pool fence


overview of fence


pool fence

SUPERIOR RESERVE
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Pool Renovation

Wall finish type:	stainless steel
Floor finish type:	plaster
Horizontal surface area (square feet):	4,800
Capacity (gallons):	94,000
Pool purpose:	recreation
Minimum depth (feet):	0 feet 0 inches (complies with industry standard)
Maximum depth (feet):	5 feet 2 inches (complies with industry standard)
Surface water removal type:	gutters
Overall condition:	good
Specific condition:	no visible deterioration
Cost ($/square foot):	$13
Current total cost:	**$61,900**
Cost per home:	$82
Operating expenses:	interim repairs
Anticipated expenses:	repair stainless steel install new plaster gutter repairs


pool overview


pool finish


finished floor and stainless steel walls


pool finish

SUPERIOR RESERVE
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Pool Furniture

Overall condition: fair

Specific condition: wear and weathering

Current total cost: **$63,200**

Cost per home: $84

Furniture includes:
metal frame lounges
metal frame tables
metal frame chairs
umbrellas
trash receptacles
lifeguard chairs


pool furniture


lifeguard chair


wear at pool furniture


weathering of tables

SUPERIOR RESERVE
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Pool Equipment

Filter pressure (psi):	0 (winterized)
Backwash site glass:	exists (ideal)
Overall condition:	satisfactory
Specific condition:	no known deficiencies
Current total cost:	**$44,300**
Cost per home:	$59
Operating expenses:	interim pump rebuilding, filter media replacement
Equipment:	pumps less than 5 HP (2) pump 5 HP or greater (1) water treatment equipment filters (2) electrical panel (1) piping and major valves (14)

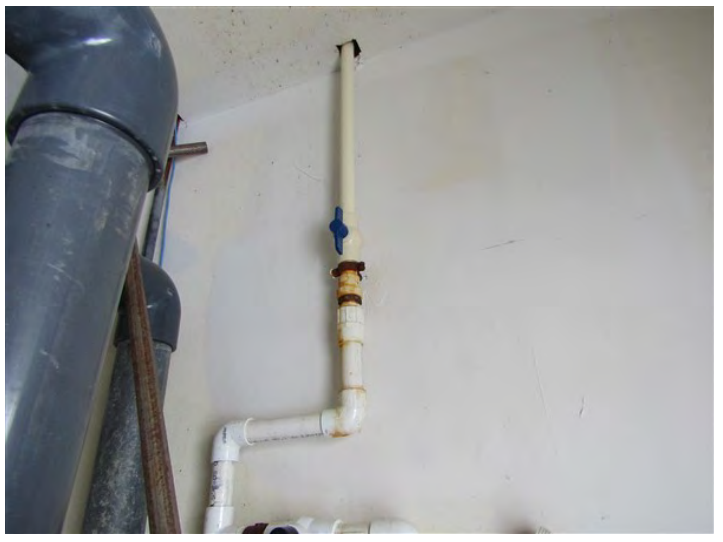

filters


pump

Actionable recommendations: The pool equipment room does not have an exhaust fan. Proper ventilation is important where pool chemicals are stored. The lack of ventilation increases health hazards for the pool operator, increases the potential of a fire from toxic vapors and causes accelerated deterioration of metal components in the room. Deterioration of metal components in the room is evident. The property should install ventilation that complies with ASHRAE standards.

Green ideas: The pool pumps operate at a constant speed. When replacement comes due, replace the pumps with variable speed drives to minimize operational costs, provide a constant pressure and maximize the useful life of the pumps. Preventing too high flow rates will also ensure proper filtration and minimize damage to filters.


rust at electric panel


rust at metal portions of piping