

# RESERVE STUDY

## Valley Lo Towers I Condominium Association



**Glenview, Illinois**

**June 12, 2019**



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Valley Lo Towers I Condominium Association  
Glenview, Illinois

Dear Board of Directors of Valley Lo Towers I Condominium Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Reserve Study* of Valley Lo Towers I Condominium Association in Glenview, Illinois and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, June 12, 2019.

This *Reserve Study* exceeds the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a "Level II Reserve Study Update."

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. We look forward to continuing to help Valley Lo Towers I Condominium Association plan for a successful future.

As part of our long-term thinking and everyday commitment to our clients, we are available to answer any questions you may have regarding this study.

Respectfully submitted on August 22, 2019 by

*Reserve Advisors, Inc.*

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Review by: Alan M. Ebert, RS, PRA, Director of Quality Assurance



<sup>1</sup> RS (Reserve Specialist) is the reserve provider professional designation of the Community Associations Institute (CAI) representing America's more than 300,000 condominium, cooperative and homeowners associations.

<sup>2</sup> PRA (Professional Reserve Analyst) is the professional designation of the Association of Professional Reserve Analysts. Learn more about APRA at <http://www.apra-usa.com>.



Long-term thinking. Everyday commitment.

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## 1. RESERVE STUDY EXECUTIVE SUMMARY

**Client:** Valley Lo Towers I Condominium Association (Valley Lo Towers I)

**Location:** Glenview, Illinois

**Reference:** 96452

**Property Basics:** Valley Lo Towers I Condominium Association is an apartment style development consisting of 118 units in two five-story buildings. The buildings were built in 1983.

**Reserve Components Identified:** 58 Reserve Components and 20 *Shared Amenities* Reserve Components.

**Inspection Date:** June 12, 2019. We conducted previous inspections in 1996, 2000, 2003 and 2006.

**Funding Goal:** The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes this threshold funding year in 2028 due to replacement of the elevator cylinders.

**Cash Flow Method:** We use the Cash Flow Method to compute the Reserve Funding Plan. This method offsets future variable Reserve Expenditures with existing and future stable levels of reserve funding. Our application of this method also considers:

- Current and future local costs of replacement
- 2.1% anticipated annual rate of return on invested reserves
- 2.1% future Inflation Rate for estimating Future Replacement Costs

**Sources for Local Costs of Replacement:** Our proprietary database, historical costs and published sources, i.e., R.S. Means, Incorporated.

**Cash Status of Reserve Fund:**

- \$993,651 as of June 30, 2019
- 2019 budgeted Reserve Contributions of \$140,032

**Project Prioritization:** We note anticipated Reserve Expenditures for the next 30 years in the **Reserve Expenditures** tables and include a **Five-Year Outlook** table following the **Reserve Funding Plan** in Section 3. We recommend the Association prioritize the following projects in the next five years based on the conditions identified:

- Paint finish applications to the balcony railings and siding to limit deterioration and maintain a uniformly clean and consistent appearance of the buildings
- Partial sealant replacement in conjunction with paint finish applications to limit water infiltration
- Application of a waterproof coating at the balconies due to noted water infiltration
- Partial replacement of metal pan staircases due to noted deterioration

**Recommended Reserve Funding:** We recommend the following in order to achieve a stable and equitable Funding Plan:

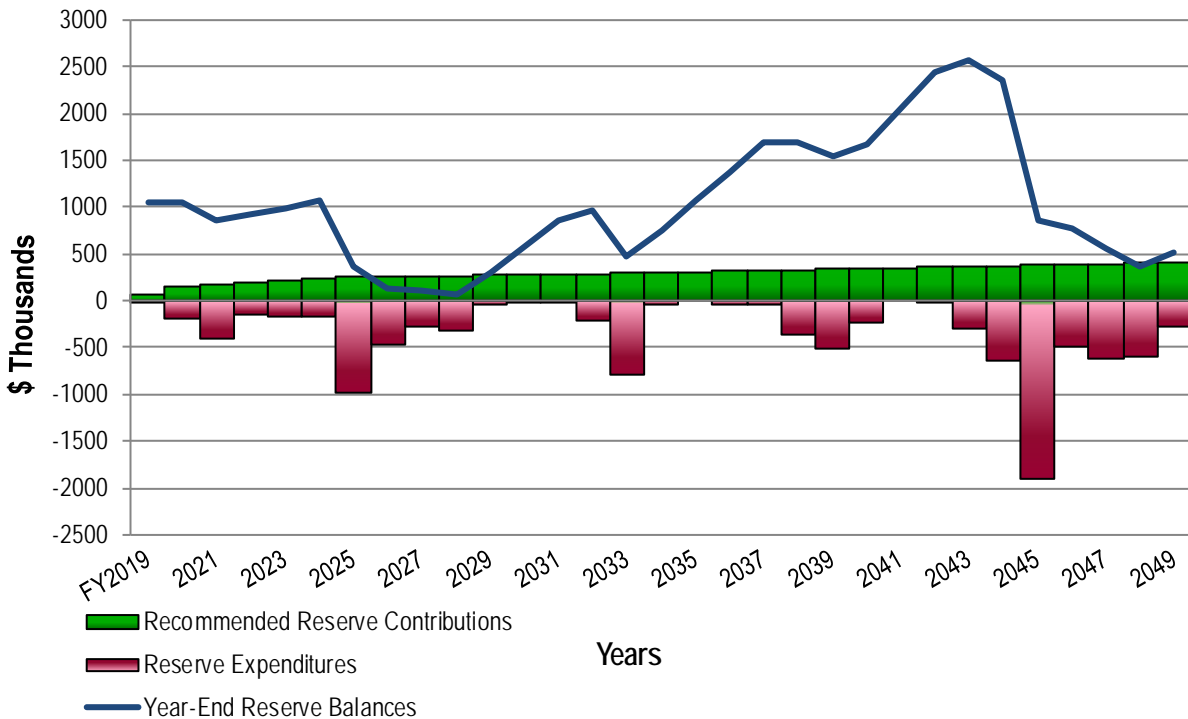
- Phased increases of approximately \$20,800 from 2020 through 2024
- Inflationary increases through 2049, the limit of this study's Cash Flow Analysis



- Initial adjustment in Reserve Contributions of \$20,768 represents an average monthly increase of \$14.67 per unit owner and about a three percent (3.1%) adjustment in the 2019 total Operating Budget of \$667,267.

**Valley Lo Towers I**  
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2020	160,800	1,046,972	2030	276,400	575,221	2040	340,300	1,676,265
2021	181,600	847,439	2031	282,200	858,070	2041	347,400	2,062,514
2022	202,400	926,933	2032	288,100	962,078	2042	354,700	2,442,412
2023	223,200	995,150	2033	294,200	472,582	2043	362,100	2,566,159
2024	244,000	1,080,607	2034	300,400	754,454	2044	369,700	2,345,706
2025	249,100	354,148	2035	306,700	1,080,218	2045	377,500	857,674
2026	254,300	135,319	2036	313,100	1,376,395	2046	385,400	772,734
2027	259,600	110,532	2037	319,700	1,694,424	2047	393,500	556,782
2028	265,100	66,150	2038	326,400	1,684,475	2048	401,800	362,981
2029	270,700	306,252	2039	333,300	1,543,613	2049	410,200	513,483



Management and the Board inform us the Association is partially responsible for the shared amenities which include the clubhouse, pool and tennis court. At the request of Management and the Board, we include a separate set of expenditures relating to the shared amenities.

**Cash Status of Shared Amenities Reserve Fund:**

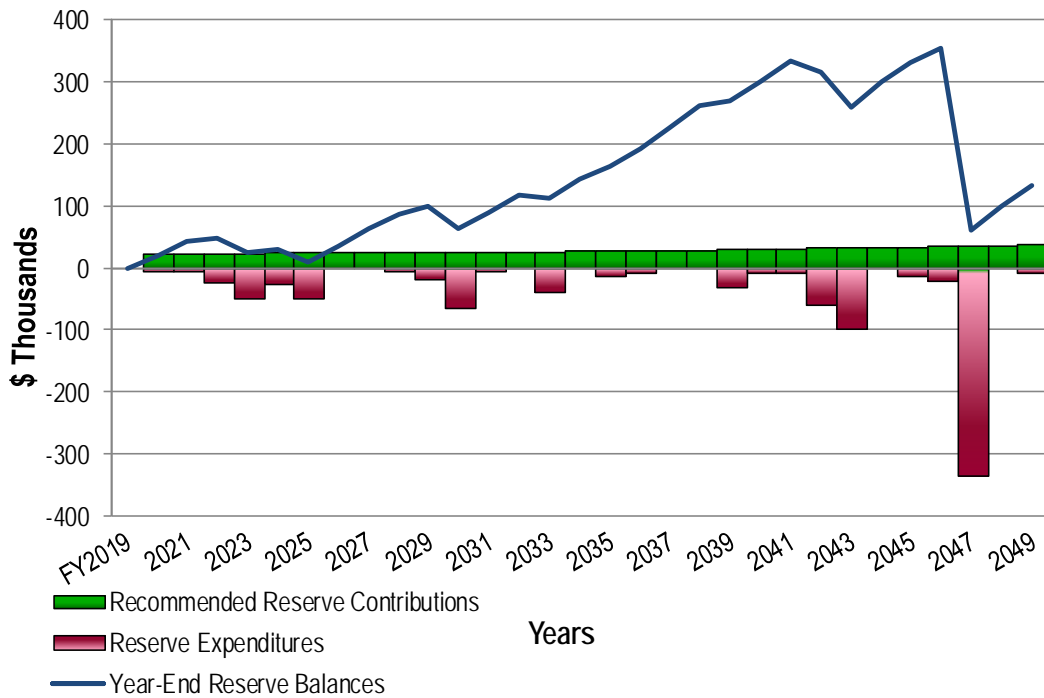
- The Association does not control the reserve account associated with the shared amenities. For informational purposes, we include a zero dollar balance (\$0)
- 2019 budgeted Reserve Contributions of \$33,108



**Recommended Shared Amenity Reserve Funding:** We recommend the following in order to achieve a stable and equitable Funding Plan:

- Decrease to \$24,000 in 2020
- Inflationary increases from 2020 through 2025
- Stable contributions of \$26,500 from 2026 through 2031
- Inflationary increases through 2049, the limit of this study's Cash Flow Analysis
- 2020 Reserve Contribution of \$24,000 is equivalent to an average monthly contribution of \$16.95 per unit owner.

Year	Contributions (\$)	Reserve Balances (\$)	Year	Contributions (\$)	Reserve Balances (\$)	Year	Contributions (\$)	Reserve Balances (\$)
2020	24,000	20,511	2030	26,500	64,073	2040	32,000	300,438
2021	24,500	41,401	2031	26,500	88,487	2041	32,700	334,092
2022	25,000	46,461	2032	27,100	117,730	2042	33,400	315,014
2023	25,500	25,681	2033	27,700	111,414	2043	34,100	259,384
2024	26,000	28,651	2034	28,300	142,351	2044	34,800	299,996
2025	26,500	8,971	2035	28,900	163,685	2045	35,500	329,686
2026	26,500	35,938	2036	29,500	191,062	2046	36,200	352,415
2027	26,500	63,471	2037	30,100	225,490	2047	37,000	60,037
2028	26,500	86,974	2038	30,700	261,248	2048	37,800	99,495
2029	26,500	98,926	2039	31,300	268,140	2049	38,600	132,899





## 2. RESERVE STUDY REPORT

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Reserve Study* of

### Valley Lo Towers I Condominium Association

#### Glenview, Illinois

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, June 12, 2019. We conducted previous inspections in 1996, 2000, 2003 and 2006.

We present our findings and recommendations in the following report sections and spreadsheets:

- **Identification of Property** - Segregates all property into several areas of responsibility for repair or replacement
- **Reserve Expenditures** - Identifies reserve components and related quantities, useful lives, remaining useful lives and future reserve expenditures during the next 30 years
- **Reserve Funding Plan** - Presents the recommended Reserve Contributions and year-end Reserve Balances for the next 30 years
- **Five-Year Outlook** - Identifies reserve components and anticipated reserve expenditures during the first five years
- **Reserve Component Detail** - Describes the reserve components, includes photographic documentation of the condition of various property elements, describes our recommendations for repairs or replacement, and includes detailed solutions and procedures for replacements for the benefit of current and future board members
- **Methodology** - Lists the national standards, methods and procedures used to develop the Reserve Study
- **Definitions** - Contains definitions of terms used in the Reserve Study, consistent with national standards
- **Professional Service Conditions** - Describes Assumptions and Professional Service Conditions
- **Credentials and Resources**

## IDENTIFICATION OF PROPERTY



Our investigation includes Reserve Components or property elements as set forth in your Declaration. The Expenditure tables in Section 3 list the elements contained in this study. Our analysis begins by segregating the property elements into several areas of responsibility for repair and replacement.

Our process of identification helps assure that future boards and the management team understand whether reserves, the operating budget or Unit Owners fund certain replacements and assists in preparation of the annual budget. We derive these segregated classes of property from our review of the information provided by the Association and through conversations with Management and the Board. These classes of property include:

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Unit Owners
- Property Maintained by Others

We advise the Board conduct an annual review of these classes of property to confirm its policy concerning the manner of funding, i.e., from reserves or the operating budget. The Reserve Study identifies Reserve Components as set forth in your Declaration or which were identified as part of your request for proposed services. Reserve Components are defined by CAI as property elements with:

- Valley Lo Towers I responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

Long-Lived Property Elements may not have predictable Remaining Useful Lives or their replacement may occur beyond the 30-year scope of the study. The operating budget should fund infrequent repairs. Funding untimely or unexpected replacements from reserves will necessitate increases to Reserve Contributions. Periodic updates of this Reserve Study will help determine the merits of adjusting the Reserve Funding



Plan. We identify the following Long-Lived Property Elements as excluded from reserve funding at this time.

- Electrical Systems, Common
- Foundations
- Mailboxes (2015)
- Pipes, Subsurface Utilities
- Roofs, Coping, Metal
- Structural Frames

The operating budget provides money for the repair and replacement of certain Reserve Components. The Association may develop independent criteria for use of operating and reserve funds. For purposes of calculating appropriate Reserve Contributions, we identify the following list of Operating Budget Funded Repairs and Replacements:

- General Maintenance to the Common Elements
- Expenditures less than \$4,500 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Clubhouse, Masonry Repairs (Shared with Apartments)
- Doors, Interior and Miscellaneous Exterior (We assume replacement as needed in lieu of an aggregate replacement of all doors as a single event.)
- Duct Cleaning
- Exercise Equipment, Strength Training Equipment, Dumbbells and Benches
- Expansion Tanks
- Fences, Front Elevations
- Fire Extinguishers
- Floor Coverings, Vinyl Tile
- Furnishings, Hospitality Room
- Landscape, Maintenance
- Light Fixtures, Emergency and Exit (Replaced as-needed per Management and the Board)
- Light Fixtures, Recessed
- Light Fixtures, Sconces, Lobbies
- Light Fixtures, Stairwells (We assume replacement as needed in lieu of an aggregate replacement of all light fixtures as a single event.)
- Motors
- Paint Finishes, Touch Up
- Pipes, Common, Interim Repairs and Waste Rodding
- Railings, Main Entrances
- Retaining Walls, Concrete, Inspections and Repairs



**Concrete retaining wall at east end of 2000 building**



**Wall cracks**

- Retaining Walls, Stone and Masonry



**Stone retaining wall**



**Masonry retaining wall at west end of property**

- Security System (Abandoned)
- Signage, Entrance Monument
- Staff and Storage Areas
- Sump Pumps and Pumps Less than Five-HP (horsepower)



### **Sump pumps**

- Unit Heaters, Stairwells, Entrances and Mechanical Rooms
- Trash Chute Rooms, Finishes
- Valves, Small Diameter (We assume replacement as needed in lieu of an aggregate replacement of all small diameter valves as a single event.)
- Other Repairs normally funded through the Operating Budget

Certain items have been designated as the responsibility of the unit owners to repair or replace at their cost. Property Maintained by Unit Owners, including items billed back to Unit Owners, relates to unit:

- Electrical Systems (Including Circuit Protection Panels)
- Heating, Ventilating and Air Conditioning (HVAC) Units
- Interiors
- Light Fixtures, Balconies
- Pipes (Within Units)
- Windows and Doors

Certain items have been designated as the responsibility of others to repair or replace. Property Maintained by Others relates to:

- Access Drive and Parking Areas, East of 2000 Building (Valley Low Towers II Apartments)
- Clubhouse (Shared with Valley Low Towers II Apartments)
- Pool (Shared with Valley Low Towers II Apartments)
- Sidewalks, Adjacent to Chestnut Avenue (Municipality)
- Tennis Court (Shared with Valley Low Towers II Apartments)

### **3. RESERVE EXPENDITURES and FUNDING PLAN**

The tables following this introduction present:

#### **Reserve Expenditures**

- Line item numbers
- Total quantities
- Quantities replaced per phase (in a single year)
- Reserve component inventory
- Estimated first year of event (i.e., replacement, application, etc.)
- Life analysis showing
  - useful life
  - remaining useful life
- 2019 local cost of replacement
  - Per unit
  - Per phase
  - Replacement of total quantity
- Total future costs of replacement anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

#### **Reserve Funding Plan**

- Reserves at the beginning of each year
- Total recommended reserve contributions
- Estimated interest earned from invested reserves
- Anticipated expenditures by year
- Anticipated reserves at year end

#### **Five-Year Outlook**

- Line item numbers
- Reserve component inventory of only the expenditures anticipated to occur within the first five years
- Schedule of estimated future costs for each reserve component anticipated to occur within the first five years

The purpose of a Reserve Study is to provide an opinion of reasonable annual Reserve Contributions. Prediction of exact timing and costs of minor Reserve Expenditures typically will not significantly affect the 30-year cash flow analysis. Adjustments to the times and/or costs of expenditures may not always result in an adjustment in the recommended Reserve Contributions.

Financial statements prepared by your association, by you or others might rely in part on information contained in this section. For your convenience, we have provided an electronic data file containing the tables of ***Reserve Expenditures*** and ***Reserve Funding Plan***.

## RESERVE EXPENDITURES

Valley Lo Towers I  
Condominium Association  
Glenview, Illinois

**Explanatory Notes:**

- 1) **2.1%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) **FY2019** is Fiscal Year beginning January 1, 2019 and ending December 31, 2019.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024	6 2025	7 2026	8 2027	9 2028	10 2029	11 2030	12 2031	13 2032	14 2033	15 2034	
						Useful	Remaining	Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)																	
<b>Exterior Building Elements</b>																												
1.015	2	2 Each		Awnings, Canvas	2025	to 15	6	3,500.00	7,000	7,000	18,319							7,930										
1.060	13,550	13,550 Square Feet		Balconies, Concrete, Repairs and Waterproof Coating Applications	2021	8 to 12	2	18.00	243,900	243,900	999,196		254,251													326,266		
1.100	4,670	4,670 Linear Feet		Balconies, Railings, Wood/Metal, Paint Finishes and Capital Repairs (Incl. Siding)	2020	6 to 8	1	22.50	105,075	105,075	522,430	107,282							121,529						137,668			
1.105	4,670	4,670 Linear Feet		Balconies, Railings, Wood/Metal, Replacement	2044	to 35	25	70.00	326,900	326,900	549,615																	
1.180	2	2 Each		Doors, Main Entrances	2033	45 to 55	14	7,800.00	15,600	15,600	20,868															20,868		
1.260	136	136 Each		Light Fixtures	2026	to 25	7	90.00	12,240	12,240	35,609								14,157									
1.280	80	80 Squares		Roofs, Asphalt Shingles (Mansard)	2021	to 25	2	800.00	64,000	64,000	178,886		66,716															
1.500	46,550	46,550 Square Feet		Roofs, Modified Bitumen (Includes Parapet Walls)	2025	15 to 20	6	15.00	698,250	698,250	1,989,596							790,980										
1.540	12,800	4,267 Linear Feet		Sealants, Windows, Doors and Control Joints, Phased	2020	to 20	1 to 13	8.00	34,133	102,400	227,097	34,850							39,478						44,721			
1.590	19,150	9,575 Square Feet		Soffit and Fascia, Aluminum, Phased	2021	to 40	2 to 14	8.00	76,600	153,200	182,319		79,851												102,468			
1.600	4	1 Each		Staircases, Concrete, Phased (2019 is Budgeted)	2019	to 65+	0 to 30	8,000.00	8,000	32,000	44,874	7,980									9,848							
1.601	10	2 Each		Staircases, Metal Pan, Phased	2022	to 55	3 to 19	6,600.00	13,200	66,000	83,526			14,049					15,267			16,590					18,029	
1.820	69,900	69,900 Square Feet		Walls, Masonry, Inspections and Repairs	2026	8 to 12	7	1.30	90,870	90,870	239,968									105,100								
1.855	920	920 Square Feet		Walls, Siding, Plywood	2026	to 35	7	9.00	8,280	8,280	9,577									9,577								
1.980	730	730 Square Feet		Windows, Wood Frames, Common	2026	to 40	7	52.00	37,960	37,960	43,904									43,904								
<b>Interior Building Elements</b>																												
2.100	4	4 Each		Elevator Cab Finishes	2039	to 25	20	15,500.00	62,000	62,000	93,952																	
2.155	3	1 Allowance		Exercise Equipment, Cardiovascular, Phased	2022	to 10	3 to 9	5,100.00	5,100	15,300	73,021			5,428				5,777		6,149			6,545				6,966	
2.180	1	1 Allowance		Exercise Room, Rubber Floor	2024	to 10	5	4,600.00	4,600	4,600	19,121					5,104											6,283	
2.200	1,930	1,930 Square Yards		Floor Coverings, Carpet, Hallways	2027	8 to 12	8	60.00	115,800	115,800	312,224									136,746								
2.240	170	170 Square Yards		Floor Coverings, Tile, Lobbies	2039	to 25	20	175.00	29,750	29,750	45,082																	
2.450	1	1 Allowance		Furnishings, Lobbies	2039	to 25	20	9,500.00	9,500	9,500	14,396																	
2.800	68,100	68,100 Square Feet		Paint Finishes, Hallways	2027	8 to 12	8	0.90	61,290	61,290	165,252									72,376								
2.820	1	1 Allowance		Paint Finishes, Stairwells (Includes Railings)	2039	15 to 20	20	30,500.00	30,500	30,500	46,218																	
2.900	2	2 Each		Rest Rooms, Renovation	2039	to 25	20	3,600.00	7,200	7,200	10,911																	
<b>Building Services Elements</b>																												
3.060	4	4 Each		Air Handling Units, Rooftop Heating and Cooling Units, Hallways, 20-tons	2025	15 to 20	6	41,000.00	164,000	164,000	467,303								185,780									
3.070	2	1 Each		Air Handling and Condensing Units, Split Systems, Exercise and Hospitality, Phased	2022	15 to 20	3 to 12	6,000.00	6,000	12,000	23,762			6,386									7,699					
3.160	4	4 Each		Boilers, Domestic Hot Water, 500-MBH	2023	15 to 20	4	17,000.00	68,000	68,000	185,870				73,894													
3.320	4	4 Each		Elevators, Hydraulic, Controls	2047	to 30	28	78,000.00	312,000	312,000	558,310																	
3.330	4	4 Each		Elevators, Hydraulic, Cylinders	2028	to 45	9	62,000.00	248,000	248,000	299,008									299,008								
3.340	4	4 Each		Elevators, Hydraulic, Pumps	2040	to 35	21	25,000.00	100,000	100,000	154,718																	
3.470	2	2 Each		Intercom Panels	2022	15 to 20	3	3,700.00	7,400	7,400	19,811			7,876														
3.555	1	1 Allowance		Life Safety Systems, Control Panels	2024	to 15	5	11,000.00	11,000	11,000	28,874								12,205									
3.560	2	2 Each		Life Safety Systems, Emergency Devices	2024	to 25	5	65,500.00	131,000	131,000	389,713								145,345									
3.605	118	12 Units		Pipes, Domestic Water, Waste and Vent, Partial	2048	to 80+	29 to 30+	7,900.00	93,220	932,200	170,316																	
3.770	1	1 Each		Pump, Fire Suppression, 30-HP (Includes Controller)	2033	to 50	14	48,500.00	48,500	48,500	64,879															64,879		

## RESERVE EXPENDITURES

Valley Lo Towers I  
Condominium Association  
Glenview, Illinois

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				16 2035	17 2036	18 2037	19 2038	20 2039	21 2040	22 2041	23 2042	24 2043	25 2044	26 2045	27 2046	28 2047	29 2048	30 2049
						Useful	Remaining	Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)															
<b>Exterior Building Elements</b>																										
1.015	2	2 Each		Awnings, Canvas	2025	to 15	6	3,500.00	7,000	7,000	18,319				10,389											
1.060	13,550	13,550 Square Feet		Balconies, Concrete, Repairs and Waterproof Coating Applications	2021	8 to 12	2	18.00	243,900	243,900	999,196										418,679					
1.100	4,670	4,670 Linear Feet		Balconies, Railings, Wood/Metal, Paint Finishes and Capital Repairs (Incl. Siding)	2020	6 to 8	1	22.50	105,075	105,075	522,430				155,951											
1.105	4,670	4,670 Linear Feet		Balconies, Railings, Wood/Metal, Replacement	2044	to 35	25	70.00	326,900	326,900	549,615										549,615					
1.180	2	2 Each		Doors, Main Entrances	2033	45 to 55	14	7,800.00	15,600	15,600	20,868															
1.260	136	136 Each		Light Fixtures	2026	to 25	7	90.00	12,240	12,240	35,609												21,452			
1.280	80	80 Squares		Roofs, Asphalt Shingles (Mansard)	2021	to 25	2	800.00	64,000	64,000	178,886												112,170			
1.500	46,550	46,550 Square Feet		Roofs, Modified Bitumen (Includes Parapet Walls)	2025	15 to 20	6	15.00	698,250	698,250	1,989,596											1,198,616				
1.540	12,800	4,267 Linear Feet		Sealants, Windows, Doors and Control Joints, Phased	2020	to 20	1 to 13	8.00	34,133	102,400	227,097				50,660						57,388					
1.590	19,150	9,575 Square Feet		Soffit and Fascia, Aluminum, Phased	2021	to 40	2 to 14	8.00	76,600	153,200	182,319															
1.600	4	1 Each		Staircases, Concrete, Phased (2019 is Budgeted)	2019	to 65+	0 to 30	8,000.00	8,000	32,000	44,874					12,123									14,923	
1.601	10	2 Each		Staircases, Metal Pan, Phased	2022	to 55	3 to 19	6,600.00	13,200	66,000	83,526				19,591											
1.820	69,900	69,900 Square Feet		Walls, Masonry, Inspections and Repairs	2026	8 to 12	7	1.30	90,870	90,870	239,968															
1.855	920	920 Square Feet		Walls, Siding, Plywood	2026	to 35	7	9.00	8,280	8,280	9,577															
1.980	730	730 Square Feet		Windows, Wood Frames, Common	2026	to 40	7	52.00	37,960	37,960	43,904															
<b>Interior Building Elements</b>																										
2.100	4	4 Each		Elevator Cab Finishes	2039	to 25	20	15,500.00	62,000	62,000	93,952					93,952										
2.155	3	1 Allowance		Exercise Equipment, Cardiovascular, Phased	2022	to 10	3 to 9	5,100.00	5,100	15,300	73,021			7,414		7,891			8,398			8,939			9,514	
2.180	1	1 Allowance		Exercise Room, Rubber Floor	2024	to 10	5	4,600.00	4,600	4,600	19,121										7,734					
2.200	1,930	1,930 Square Yards		Floor Coverings, Carpet, Hallways	2027	8 to 12	8	60.00	115,800	115,800	312,224					175,478										
2.240	170	170 Square Yards		Floor Coverings, Tile, Lobbies	2039	to 25	20	175.00	29,750	29,750	45,082					45,082										
2.450	1	1 Allowance		Furnishings, Lobbies	2039	to 25	20	9,500.00	9,500	9,500	14,396															14,396
2.800	68,100	68,100 Square Feet		Paint Finishes, Hallways	2027	8 to 12	8	0.90	61,290	61,290	165,252															92,876
2.820	1	1 Allowance		Paint Finishes, Stairwells (Includes Railings)	2039	15 to 20	20	30,500.00	30,500	30,500	46,218															46,218
2.900	2	2 Each		Rest Rooms, Renovation	2039	to 25	20	3,600.00	7,200	7,200	10,911					10,911										
<b>Building Services Elements</b>																										
3.060	4	4 Each		Air Handling Units, Rooftop Heating and Cooling Units, Hallways, 20-tons	2025	15 to 20	6	41,000.00	164,000	164,000	467,303															281,523
3.070	2	1 Each		Air Handling and Condensing Units, Split Systems, Exercise and Hospitality, Phased	2022	15 to 20	3 to 12	6,000.00	6,000	12,000	23,762								9,677							
3.160	4	4 Each		Boilers, Domestic Hot Water, 500-MBH	2023	15 to 20	4	17,000.00	68,000	68,000	185,870										111,976					
3.320	4	4 Each		Elevators, Hydraulic, Controls	2047	to 30	28	78,000.00	312,000	312,000	558,310															558,310
3.330	4	4 Each		Elevators, Hydraulic, Cylinders	2028	to 45	9	62,000.00	248,000	248,000	299,008															
3.340	4	4 Each		Elevators, Hydraulic, Pumps	2040	to 35	21	25,000.00	100,000	100,000	154,718						154,718									
3.470	2	2 Each		Intercom Panels	2022	15 to 20	3	3,700.00	7,400	7,400	19,811															11,935
3.555	1	1 Allowance		Life Safety Systems, Control Panels	2024	to 15	5	11,000.00	11,000	11,000	28,874						16,669									
3.560	2	2 Each		Life Safety Systems, Emergency Devices	2024	to 25	5	65,500.00	131,000	131,000	389,713															244,368
3.605	118	12 Units		Pipes, Domestic Water, Waste and Vent, Partial	2048	to 80+	29 to 30+	7,900.00	93,220	932,200	170,316															170,316
3.770	1	1 Each		Pump, Fire Suppression, 30-HP (Includes Controller)	2033	to 50	14	48,500.00	48,500	48,500	64,879															

## RESERVE EXPENDITURES

Valley Lo Towers I  
Condominium Association  
Glenview, Illinois

**Explanatory Notes:**

- 1) **2.1%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) **FY2019** is Fiscal Year beginning January 1, 2019 and ending December 31, 2019.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024	6 2025	7 2026	8 2027	9 2028	10 2029	11 2030	12 2031	13 2032	14 2033	15 2034	
						Useful	Remaining	Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)																	
<b>Property Site Elements</b>																												
3.860	2	2 Each		Storage Tanks, Domestic Hot Water	2023	15 to 20	4	4,000.00	8,000	8,000	21,867					8,693												
3.880	2	2 Each		Trash Chutes and Doors	2048	to 65	29	17,000.00	34,000	34,000	62,119																	
3.920	7	7 Each		Valves, Large Diameter	2033	to 50	14	4,000.00	28,000	28,000	37,456																37,456	
4.020	6,250	6,250 Square Yards		Asphalt Pavement, Crack Repair, Patch and Seal Coat	2020	3 to 5	1	1.70	10,625	10,625	85,987	10,848				11,788											13,921	
4.040	5,150	5,150 Square Yards		Asphalt Pavement, Access Drives and Parking Areas, Mill and Overlay	2026	15 to 20	7	17.00	87,550	87,550	101,260								101,260									
4.045	5,150	5,150 Square Yards		Asphalt Pavement, Access Drives and Parking Areas, Total Replacement	2046	15 to 20	27	33.50	172,525	172,525	302,376																	
4.046	1,100	1,100 Square Yards		Asphalt Pavement, Fire Lane, Total Replacement	2022	to 25	3	33.00	36,300	36,300	103,592				38,635													
4.110	3,200	320 Linear Feet		Concrete Curbs and Gutters, Partial	2026	to 65	7 to 30+	44.00	14,080	140,800	61,009								16,285									
4.140	7,300	365 Square Feet		Concrete Sidewalks, Partial	2020	to 65	1 to 30+	14.00	5,110	102,200	56,851	5,217				5,670				6,161						6,695		
4.360	1	1 Each		Gazebo	2023	to 25	4	14,500.00	14,500	14,500	42,249				15,757													
4.500	1	1 Allowance		Landscape, Partial Replacements	2020	to 20	1	35,000.00	35,000	35,000	89,151	35,000																
4.560	23	23 Each		Light Poles and Fixtures, Front Elevations	2027	to 35	8	2,500.00	57,500	57,500	67,901									67,901								
4.561	14	14 Each		Light Poles and Fixtures, Rear Elevations	2027	to 25	8	600.00	8,400	8,400	9,919									9,919								
4.620	560	560 Square Feet		Pavers, Masonry	2026	15 to 20	7	18.00	10,080	10,080	29,325								11,658									
4.760	250	250 Square Feet		Retaining Walls, Timber (Includes Stairs)	2023	15 to 20	4	38.00	9,500	9,500	10,323					10,323												
<b>Garage Elements</b>																												
7.360	38,100	1,270 Square Feet		Concrete, On-grade (Including Drain Repairs), Partial	2033	to 90	14 to 30+	13.50	17,145	514,350	54,259																22,935	
7.400	4	4 Each		Doors and Operators	2022	8 to 15	3	4,500.00	18,000	18,000	45,324				19,158													
7.460	1	1 Allowance		Exhaust System (Fans and Louvers)	2023	to 35	4	61,000.00	61,000	61,000	66,288					66,288												
7.500	38,100	38,100 Square Feet		Fire Suppression Systems	2043	to 60	24	2.50	95,250	95,250	156,849																	
7.600	80	80 Each		Light Fixtures	2029	to 30	10	250.00	20,000	20,000	24,620										24,620							
7.660	56,500	56,500 Square Feet		Paint Finishes	2033	to 15	14	0.60	33,900	33,900	107,284																45,348	
7.800	38,100	38,100 Square Feet		Traffic Coating	2033	10 to 15	14	3.50	133,350	133,350	422,018																178,383	
7.900	18	18 Each		Unit Heaters	2022	to 35	3	2,600.00	46,800	46,800	49,811				49,811													
		1 Allowance		2019 Reserve Expenditures	2019	N/A	0	8,897	8,897	8,897	8,897	8,897																
<b>Anticipated Expenditures, By Year</b>																												
										\$10,305,260	16,877	193,197	400,818	141,343	174,955	180,112	990,467	478,215	286,942	311,318	34,468	16,590	14,244	203,005	798,603	31,278		



## RESERVE FUNDING PLAN

CASH FLOW ANALYSIS  
Valley Lo Towers I  
Condominium Association  
Glenview, Illinois

Individual Reserve Budgets & Cash Flows for the Next 30 Years

	FY2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Reserves at Beginning of Year (Note 1)	993,651	1,057,502	1,046,972	847,439	926,933	995,150	1,080,607	354,148	135,319	110,532	66,150	306,252	575,221	858,070	962,078	472,582
Total Recommended Reserve Contributions (Note 2)	70,016	160,800	181,600	202,400	223,200	244,000	249,100	254,300	259,600	265,100	270,700	276,400	282,200	288,100	294,200	300,400
Plus Estimated Interest Earned, During Year (Note 3)	10,712	21,867	19,685	18,437	19,972	21,569	14,908	5,086	2,555	1,836	3,870	9,159	14,893	18,913	14,907	12,750
Less Anticipated Expenditures, By Year	(16,877)	(193,197)	(400,818)	(141,343)	(174,955)	(180,112)	(990,467)	(478,215)	(286,942)	(311,318)	(34,468)	(16,590)	(14,244)	(203,005)	(798,603)	(31,278)
Anticipated Reserves at Year End	<u>\$1,057,502</u>	<u>\$1,046,972</u>	<u>\$847,439</u>	<u>\$926,933</u>	<u>\$995,150</u>	<u>\$1,080,607</u>	<u>\$354,148</u>	<u>\$135,319</u>	<u>\$110,532</u>	<u>\$66,150</u>	<u>\$306,252</u>	<u>\$575,221</u>	<u>\$858,070</u>	<u>\$962,078</u>	<u>\$472,582</u>	<u>\$754,454</u>

(NOTE 5)

(continued)

Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued

	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
Reserves at Beginning of Year	754,454	1,080,218	1,376,395	1,694,424	1,684,475	1,543,613	1,676,265	2,062,514	2,442,412	2,566,159	2,345,706	857,674	772,734	556,782	362,981
Total Recommended Reserve Contributions	306,700	313,100	319,700	326,400	333,300	340,300	347,400	354,700	362,100	369,700	377,500	385,400	393,500	401,800	410,200
Plus Estimated Interest Earned, During Year	19,064	25,526	31,909	35,110	33,543	33,457	38,849	46,810	52,044	51,039	33,286	16,941	13,815	9,557	9,107
Less Anticipated Expenditures, By Year	0	(42,449)	(33,580)	(371,459)	(507,705)	(241,105)	0	(21,612)	(290,397)	(641,192)	(1,898,818)	(487,281)	(623,267)	(605,158)	(268,805)
Anticipated Reserves at Year End	<u>\$1,080,218</u>	<u>\$1,376,395</u>	<u>\$1,694,424</u>	<u>\$1,684,475</u>	<u>\$1,543,613</u>	<u>\$1,676,265</u>	<u>\$2,062,514</u>	<u>\$2,442,412</u>	<u>\$2,566,159</u>	<u>\$2,345,706</u>	<u>\$857,674</u>	<u>\$772,734</u>	<u>\$556,782</u>	<u>\$362,981</u>	<u>\$513,483</u>

(NOTE 4)

**Explanatory Notes:**

- 1) Year 2019 starting reserves are as of June 30, 2019; FY2019 starts January 1, 2019 and ends December 31, 2019.
- 2) Reserve Contributions for 2019 are the remaining budgeted 6 months; 2020 is the first year of recommended contributions.
- 3) 2.1% is the estimated annual rate of return on invested reserves; 2019 is a partial year of interest earned.
- 4) Accumulated year 2049 ending reserves consider the need to fund for balcony and masonry repairs shortly after 2049, and the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Year (reserve balance at critical point).

**FIVE-YEAR OUTLOOK****Valley Lo Towers I  
Condominium Association  
Glenview, Illinois**

Line Item	Reserve Component Inventory	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024
<b><u>Exterior Building Elements</u></b>							
1.060	Balconies, Concrete, Repairs and Waterproof Coating Applications			254,251			
1.100	Balconies, Railings, Wood/Metal, Paint Finishes and Capital Repairs (Incl. Siding)		107,282				
1.280	Roofs, Asphalt Shingles (Mansard)			66,716			
1.540	Sealants, Windows, Doors and Control Joints, Phased		34,850				
1.590	Soffit and Fascia, Aluminum, Phased			79,851			
1.600	Staircases, Concrete, Phased (2019 is Budgeted)	7,980					
1.601	Staircases, Metal Pan, Phased					14,049	
<b><u>Interior Building Elements</u></b>							
2.155	Exercise Equipment, Cardiovascular, Phased				5,428		
2.180	Exercise Room, Rubber Floor						5,104
<b><u>Building Services Elements</u></b>							
3.070	Air Handling and Condensing Units, Split Systems, Exercise and Hospitality, Phased				6,386		
3.160	Boilers, Domestic Hot Water, 500-MBH					73,894	
3.470	Intercom Panels				7,876		
3.555	Life Safety Systems, Control Panels						12,205
3.560	Life Safety Systems, Emergency Devices						145,345
3.860	Storage Tanks, Domestic Hot Water					8,693	
<b><u>Property Site Elements</u></b>							
4.020	Asphalt Pavement, Crack Repair, Patch and Seal Coat		10,848				11,788
4.046	Asphalt Pavement, Fire Lane, Total Replacement				38,635		
4.140	Concrete Sidewalks, Partial		5,217				5,670
4.360	Gazebo					15,757	
4.500	Landscape, Partial Replacements		35,000				
4.760	Retaining Walls, Timber (Includes Stairs)					10,323	
<b><u>Garage Elements</u></b>							
7.400	Doors and Operators				19,158		
7.460	Exhaust System (Fans and Louvers)					66,288	

## FIVE-YEAR OUTLOOK

**Valley Lo Towers I  
Condominium Association**  
Glenview, Illinois

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Line Item	Reserve Component Inventory	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024
7.900	Unit Heaters				49,811		
2019 Reserve Expenditures		8,897					
Anticipated Expenditures, By Year		16,877	193,197	400,818	141,343	174,955	180,112



**Shared Amenities**  
**RESERVE EXPENDITURES**

Valley Lo Towers I  
Condominium Association  
Glenview, Illinois

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Unit Cost, \$	Percentage Ownership	Costs, \$																
						Useful	Remaining			Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	16 2035	17 2036	18 2037	19 2038	20 2039	21 2040	22 2041	23 2042	24 2043	25 2044	26 2045	27 2046	28 2047	29 2048
<b>Property Site Elements</b>																										
4.830	790	790	Square Yards	Tennis Court, Color Coat	2020	4 to 6	1	9.00	51%	3,626	3,626	25,151	5,057			5,610							6,225			
4.840	360	360	Linear Feet	Tennis Court, Fence	2025	to 25	6	44.00	51%	8,078	8,078	9,151														
4.850	4	4	Each	Tennis Court, Light Poles and Fixtures	2025	to 35	6	3,800.00	51%	7,752	7,752	8,781														
4.860	790	790	Square Yards	Tennis Court, Surface Replacement	2025	to 25	6	44.50	51%	17,929	17,929	20,310														
<b>Clubhouse Elements</b>																										
5.450	3	1	Each	HVAC Equipment, Split Systems and RTU, Phased	2023	15 to 20	4 to 6	7,000.00	51%	3,570	10,710	29,530				5,639		5,879				6,128				
5.500	1	1	Allowance	Interior, Renovation, Office/Lounge/Kitchen, Complete	2042	to 25	23	49,500.00	51%	25,245	25,245	40,716					40,716									
5.510	1	1	Allowance	Interior, Renovation, Office/Lounge/Kitchen, Partial	2030	8 to 12	11	11,000.00	51%	5,610	5,610	7,051														
5.515	2	2	Each	Interior, Renovation, Rest Rooms	2022	to 25	3	11,500.00	51%	11,730	11,730	33,044											20,559			
5.600	10	10	Squares	Roofs, Asphalt Shingles, Mansard	2024	15 to 20	5	470.00	51%	2,397	2,397	6,606										3,947				
5.601	2,000	2,000	Square Feet	Roofs, Flat	2024	15 to 20	5	15.00	51%	15,300	15,300	42,170										25,195				
5.800	770	770	Square Feet	Windows, Atrium	2030	45 to 55	11	75.00	51%	29,453	29,453	37,017														
5.801	250	83	Square Feet	Windows and Doors, Remaining, Phased	2022	to 40	3 to 9	89.00	51%	3,782	11,348	12,871														
<b>Pool Elements</b>																										
6.200	9,700	9,700	Square Feet	Concrete Deck, Textured Coating, Partial Replacements and Repairs	2023	8 to 12	4	5.50	51%	27,209	27,209	110,769										44,805				
6.300	1,870	1,870	Square Feet	Cover, Vinyl	2023	6 to 8	4	3.00	51%	2,861	2,861	16,236			4,336							5,120				
6.400	300	300	Linear Feet	Fences, Steel	2023	to 35	4	63.00	51%	9,639	9,639	26,348										15,873				
6.500	1	1	Allowance	Furniture	2030	to 12	11	22,500.00	51%	11,475	11,475	32,929						18,507								
6.600	2	1	Allowance	Mechanical Equipment, Phased	2021	to 15	2 to 3	8,000.00	51%	4,080	8,160	27,704	5,689	5,809									7,611			
6.800	1,500	1,500	Square Feet	Pool Finish, Plaster	2029	8 to 12	10	17.50	51%	13,388	13,388	36,767				20,287										
6.801	190	190	Linear Feet	Pool Finish, Tile	2039	15 to 25	20	36.00	51%	3,488	3,488	5,286			5,286											
6.900	1,500	1,500	Square Feet	Structure and Deck, Total Replacement	2047	to 65	28	240.00	51%	183,600	183,600	328,544											328,544			
<b>Anticipated Expenditures, By Year</b>											<b>\$856,981</b>	10,746	5,809	0	0	29,909	5,610	5,639	59,223	95,699	0	12,353	20,559	333,664	0	7,611

# RESERVE FUNDING PLAN

## Shared Amenities

### CASH FLOW ANALYSIS

#### Valley Lo Towers I

#### Condominium Association

Glenview, Illinois

#### Individual Reserve Budgets & Cash Flows for the Next 30 Years

	FY2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Reserves at Beginning of Year (Note 1)	N/A	0	20,511	41,401	46,461	25,681	28,651	8,971	35,938	63,471	86,974	98,926	64,073	88,487	117,730	111,414
Total Recommended Reserve Contributions (Note 2)	N/A	24,000	24,500	25,000	25,500	26,000	26,500	26,500	26,500	26,500	26,500	26,500	26,500	27,100	27,700	28,300
Plus Estimated Interest Earned, During Year (Note 3)	N/A	213	643	913	750	565	391	467	1,033	1,563	1,932	1,694	1,585	2,143	2,381	2,637
Less Anticipated Expenditures, By Year	N/A	(3,702)	(4,253)	(20,853)	(47,030)	(23,595)	(46,571)	0	0	(4,560)	(16,480)	(63,047)	(3,671)	0	(36,397)	0
Anticipated Reserves at Year End	\$0	\$20,511	\$41,401	\$46,461	\$25,681	\$28,651	\$8,971	\$35,938	\$63,471	\$86,974	\$98,926	\$64,073	\$88,487	\$117,730	\$111,414	\$142,351

(NOTE 5)

(continued)

#### Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued

	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
Reserves at Beginning of Year	142,351	163,685	191,062	225,490	261,248	268,140	300,438	334,092	315,014	259,384	299,996	329,686	352,415	60,037	99,495
Total Recommended Reserve Contributions	28,900	29,500	30,100	30,700	31,300	32,000	32,700	33,400	34,100	34,800	35,500	36,200	37,000	37,800	38,600
Plus Estimated Interest Earned, During Year	3,180	3,686	4,328	5,058	5,501	5,908	6,593	6,745	5,969	5,812	6,543	7,088	4,286	1,658	2,415
Less Anticipated Expenditures, By Year	(10,746)	(5,809)	0	0	(29,909)	(5,610)	(5,639)	(59,223)	(95,699)	0	(12,353)	(20,559)	(333,664)	0	(7,611)
Anticipated Reserves at Year End	\$163,685	\$191,062	\$225,490	\$261,248	\$268,140	\$300,438	\$334,092	\$315,014	\$259,384	\$299,996	\$329,686	\$352,415	\$60,037	\$99,495	\$132,899

(NOTE 5)

(NOTE 4)

#### Explanatory Notes:

- 1) Year 2019 starting reserves are as of June 30, 2019; FY2019 starts January 1, 2019 and ends December 31, 2019.
- 2) Reserve Contributions for 2019 are the remaining budgeted 6 months; 2020 is the first year of recommended contributions.
- 3) 2.1% is the estimated annual rate of return on invested reserves; 2019 is a partial year of interest earned.
- 4) Accumulated year 2049 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

**Shared Amenities**  
**FIVE-YEAR OUTLOOK**

**Valley Lo Towers I**  
**Condominium Association**  
Glenview, Illinois

Line Item	Reserve Component Inventory	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024
<b><u>Property Site Elements</u></b>							
4.830	Tennis Court, Color Coat		3,702				
<b><u>Clubhouse Elements</u></b>							
5.450	HVAC Equipment, Split Systems and RTU, Phased					3,879	3,961
5.515	Interior, Renovation, Rest Rooms				12,485		
5.600	Roofs, Asphalt Shingles, Mansard						2,659
5.601	Roofs, Flat						16,975
5.801	Windows and Doors, Remaining, Phased				4,026		
<b><u>Pool Elements</u></b>							
6.200	Concrete Deck, Textured Coating, Partial Replacements and Repairs					29,567	
6.300	Cover, Vinyl					3,109	
6.400	Fences, Steel					10,475	
6.600	Mechanical Equipment, Phased			4,253	4,342		
<b>Anticipated Expenditures, By Year</b>		0	3,702	4,253	20,853	47,030	23,595

## 4. RESERVE COMPONENT DETAIL

The Reserve Component Detail of this *Reserve Study* includes enhanced solutions and procedures for select significant components. This section describes the Reserve Components, documents specific problems and condition assessments, and may include detailed solutions and procedures for necessary capital repairs and replacements for the benefit of current and future board members. We advise the Board use this information to help define the scope and procedures for repair or replacement when soliciting bids or proposals from contractors. *However, the Report in whole or part is not and should not be used as a design specification or design engineering service.*

### Exterior Building Elements



Front elevation



Rear elevation



Side elevation

## Awnings

---

**Line Item:** 1.020

**Quantity:** Two canvas awnings with metal frames above the main entrances

**History:** Reportedly replaced within the last 5- to 10-years

**Condition:** Good overall without significant deterioration evident



Awning



Evidence of water infiltration between canopy and building

**Useful Life:** Up to 15 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Balconies, Concrete

---

**Line Item:** 1.060

**Quantity:** 118 concrete balconies comprising approximately 13,550 square feet of horizontal surface area.

**History:** The balconies lack a waterproof coating. The Association reports a minimal history of balcony repairs.

**Condition:** We note systematic evidence of water infiltration at the soffits at the undersides of the balconies and periodic evidence of water infiltration between the balcony and building intersection. Due to the non-invasive nature of our inspection, we are unable to determine the exact composition of the balconies. Based on our visual inspection, experience with similar construction and knowledge of replacement/capital

repair projects of this type, we surmise the balconies comprise a concrete surface atop a metal structure and soffit at the undersides.



**Balcony overview**



**Balcony crack**



**Evidence of water infiltration between balcony and wall**



**Evidence of water infiltration**

**Useful Life:** Capital repairs including a close-up visual inspection, patching of delaminated concrete, routing and filling of cracked concrete, and waterproof coating applications every 8- to 12-years.

**Component Detail Notes:** A waterproof coating application minimizes storm water penetration into the concrete and therefore minimizes future concrete deterioration. *Failure to maintain a waterproof coating on the balconies will result in increased concrete repairs and replacements as the balconies age.* Capital repairs may also include replacement of the caulked joint between the balcony and the building, and repair or replacement of the metal railings and railing fastener attachments as needed.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost includes the following activities per event:

- Partial depth replacement of up to one percent (1%) of the concrete
- Crack repairs as necessary
- Repairs to the railings as necessary
- Replacement of perimeter sealants as needed
- Application of a waterproof coating (Urethane based elastomeric)

## **Balconies, Railings, Wood/Metal**

---

**Line Items:** 1.100 and 1.105

**Quantity:** Approximately 4,670 linear feet of wood railings with metal frames at the balconies

**History:** The majority of the wood was reportedly replaced in approximately 2008 and 2009. The timing of the last full paint finish application is unknown.

**Conditions:** The railings are in good overall condition and the railing finishes are in fair to poor condition. We note systematic finish deterioration, rust and evidence of water infiltration. We also note the use of horizontal pickets. This configuration promotes climbing and is potentially dangerous.



**Rust and evidence of water infiltration**



**Rust and evidence of water infiltration**



**Post rust**



**Finish deterioration at metal support**



**Finish deterioration**



**Rust and evidence of water infiltration**

**Useful Life:** Railings of this type have a useful life of up to 35 years with the benefit of periodic maintenance. Periodic maintenance should include applications of a protective paint finish and partial replacement of deteriorated wood every six- to eight-years.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We exclude the cost for paint finish applications to unit window and door frames as unit owners are responsible for maintenance of their windows and doors. Our cost includes the following events:

- Paint finish applications to the railings, siding and lintels
- Replacement up to five percent (5%) of the wood (The exact amount of material in need of replacement will depend on the actual future conditions and desired appearance. We recommend replacement wherever holes, cracks and deterioration impair the ability of the material to prevent water infiltration.)
- We include partial replacement of the sealants on a separate line item “**Sealants, Windows, Doors and Control Joints**”

## Doors, Main Entrances

---

**Line Item:** 1.180

**Quantity:** Two aluminum frame storefront style doors with windows at the main entrances to the buildings

**History:** Original

**Condition:** Good overall with no significant deterioration evident or reported operational issues



**Entrance door and windows**

**Useful Life:** 45- to 55-years

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost excludes the interior windows and doors as we do not anticipate the need for their replacement within the next 30 years.

## Light Fixtures

---

**Line Item:** 1.260

**Quantity:** 136 exterior wall mounted metal light fixtures accent the balconies and the front and rear common entries.

**History:** Original with isolated replacements conducted by individual unit owners

**Condition:** Satisfactory overall with isolated finish deterioration evident



**Typical light fixture**



**Alternate light fixture**

**Useful Life:** Up to 25 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include replacement in conjunction with paint finish applications to limit the disruption to unit owners.

## **Roofs, Asphalt Shingles (Mansard)**

---

**Line Item:** 1.280

**Quantity:** Approximately 80 squares<sup>1</sup>

**History:** Date to 1993

**Condition:** Fair to poor overall with loose, missing and lifted shingles evident from our visual inspection from the ground. Management and the Board do not report leaks associated with the mansard roofs.

<sup>1</sup> We quantify the roof area in squares where one square is equal to 100 square feet of surface area.



**Shingle lift**



**Granular loss**



**Shingle damage**



**Missing and loose shingles**



**Missing and loose shingles**



**Evidence of water accumulation at metal coping**

***Useful Life:*** Up to 25 years

**Component Detail Notes:** Certain characteristics of condition govern the times of replacement. Replacement of an asphalt shingle roof becomes necessary when there are multiple or recurring leaks and when the shingles begin to cup, curl and lift. These conditions are indications that the asphalt shingle roof is near the end of its useful life. Even if the shingles are largely watertight, the infiltration of water in one area can lead to permanent damage to the underlying roof sheathing. This type of deterioration requires replacement of saturated sections of sheathing and greatly increases the cost of roof replacement. Roof leaks may occur from interrelated roof system components, i.e., flashings. Therefore, the warranty period, if any, on the asphalt shingles, may exceed the useful life of the roof system.

Warranties are an indication of product quality and are not a product guarantee. Asphalt shingle product warranties vary from 20- to 50-years and beyond. However, the scope is usually limited to only the material cost of the shingles as caused by manufacturing defects. Warranties may cover defects such as thermal splitting, granule loss, cupping, and curling. Labor cost is rarely included in the remedy so if roof materials fail, the labor to tear off and install new shingles is extra. Other limitations of warranties are exclusions for "incidental and consequential" damages resulting from age, hurricanes, hail storms, ice dams, severe winds, tornadoes, earthquakes, etc. There are some warranties which offer no dollar limit for replacement at an additional cost (effectively an insurance policy) but again these warranties also have limits and may not cover all damages other than a product defect. We recommend a review of the manufacturers' warranties as part of the evaluation of competing proposals to replace a roof system. This evaluation should identify the current costs of remedy if the roof were to fail in the near future. A comparison of the costs of remedy to the total replacement cost will assist in judging the merits of the warranties.

Contractors use one of two methods for replacement of sloped roofs, either an overlayment or a tear-off. Overlayment is the application of new shingles over an existing roof. However, there are many disadvantages to overlayment including hidden defects of the underlying roof system, absorption of more heat resulting in accelerated deterioration of the new and old shingles, and an uneven visual appearance. Therefore, we recommend only the tear-off method of replacement. The tear-off method of replacement includes removal of the existing shingles, flashings if required and underlayments.

Shingles installed on steep pitched roofs, such as the mansard roofs found at Valley Lo Towers I, typically require the use of additional roofing sealant. This roofing sealant, as recommended by the manufacturer, is applied to the back of the shingles prior to installation and ensures that the shingles properly seal to the underlying roofing. The Association should verify the contractor follows the manufacturer's instructions for installing shingles on steep pitched roofs.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for replacement includes an allowance for partial replacement of the metal coping as necessary.

## Roofs, Modified Bitumen

---

**Line Item:** 1.500

**Quantity:** 46,550 square feet

**History:** Replaced in 2005; the Association should conduct an inspection of the roofs semiannually and fund these inspections through the operating budget.

**Condition:** Good to fair overall with isolated membrane deflection, gaps at penetration sealant, water accumulation and granular loss at the roof access point evident. Management and the Board report proper drainage and a limited history of leaks. A recent leak was attributed to the supports for the air conditioning units.



**Roof overview**



**Gap at penetration sealant**



**Membrane deflection at parapet wall**



**Membrane deflection**



**Water accumulation**

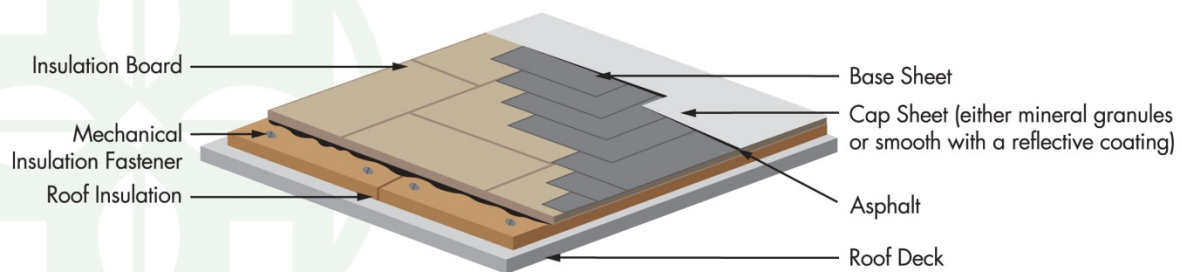


**Granular loss near roof access**

**Useful Life:** 15- to 20-years

**Component Detail Notes:** Modified bitumen roofing systems are composed of factory manufactured sheets of polymer-modified bitumen with polyester and/or fiberglass reinforcements. The bitumen adds a waterproof characteristic to the system and the reinforcements add strength and puncture resistance. These factory assembled roofing systems offer the advantages of a built-up roofing system through a less labor intensive installation. The following detail depicts a typical modified bitumen roof although it may not reflect the actual configuration at Valley Lo Towers I:

## MODIFIED BITUMEN ROOF DETAIL



Contractors can install a new modified bitumen roof in one of two ways: *tear-off* or an *overlay*. An overlay is the application of a new roof membrane over an existing roof. This method, although initially more economical, often covers up problems with the deck, flashing and saturated insulation. The tear-off method of replacement includes removal of the existing roofing, flashings and insulation, and installation of a new roofing system.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for replacement includes an allowance for repairs to the metal coping atop the mansard roofs as needed.

## Sealants, Windows, Doors and Control Joints

---

**Line Item:** 1.540

**Quantity:** Approximately 12,800 linear feet of exterior sealants or *caulk*<sup>2</sup> at the windows, doors and control joints<sup>3</sup>

**History:** Partial replacements conducted in conjunction with paint finish applications

**Condition:** Vary in condition from good to poor with periodic deterioration, and cohesive and adhesion failure evident



**Cohesive failure**



**Sealant deterioration**

<sup>2</sup> The terms sealant and caulk are used interchangeably throughout this text and throughout the industry.

<sup>3</sup> A control joint is a formed or sawed groove in a wall system that allows for thermal expansion and contraction of the building materials without damage.



**Sealant deterioration**



**Adhesion failure**

**Useful Life:** Up to 20 years

**Component Detail Notes:** The rate of deterioration of the sealants is not uniform due to the different exposures to sunlight and weather. The Association should anticipate gradual dispersed deterioration as the sealants age.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend Valley Lo Towers I replace up to thirty-three percent (33.3%), or 4,267 linear feet of joint sealant in conjunction with paint finish applications.

## **Soffit and Fascia, Aluminum**

---

**Line Item:** 1.590

**Quantity:** Approximately 19,150 square feet at the balcony undersides and below the mansard roofs

**History:** Original

**Condition:** Vary in condition from good to poor. We note systematic evidence of water infiltration from the concrete balconies and discoloration and deterioration of the soffits.



**Evidence of water infiltration**



**Evidence of water infiltration**



**Evidence of water infiltration**



**Evidence of water infiltration**

**Useful Life:** Up to 40 years

**Component Detail Notes:** Consideration of appearance largely governs the decision to replace the aluminum soffits and fascia, in whole or partially, prior to the end of their useful life. Maintenance and partial replacements of the soffits and fascia may extend the useful life. Normal deterioration mainly relates to fading of the exterior finish from exposure to sunlight, weathering and air pollutants. The lack of replacement pieces matching the color and profile of the existing soffits and fascia may result in the need for a premature replacement.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include replacement of up to fifty percent (50%) of the soffits in conjunction with near term replacement of the mansard roofs and waterproof coating applications at the balconies.

## Staircases

---

**Line Items:** 1.600 and 1.601

**Quantity:** Four sets of concrete stairs at the front elevations and 10 sets of metal pan stairs with concrete treads and landings at the front and rear elevations

**History and Condition:** The west concrete staircase at the 2020 building is in poor condition and planned for replacement in 2019 (\$7,980). The remaining concrete staircases are in good to fair condition. The metal pan staircases are in fair to poor condition. We note concrete cracks, finish deterioration and rust at the metal pan staircases.



**Cracks and rust from reinforcement bars**



**Water accumulation**



**Metal pan staircase and landing**



**Concrete crack**



**Concrete crack and spall**



**Finish deterioration and rust**



**Concrete cracks and rust**



**Finish deterioration and rust**

**Useful Life:** Up to and sometimes beyond 65 years for the concrete staircases although interim deterioration of areas is common. The useful life of the metal pan staircases is up to 55 years.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for replacement of the concrete staircases is based on information provided by the Association. Management and the Board inform us the buildings are ADA compliant with use of the garages. However, the front and rear common entrances are not ADA compliant. Management and the Board inform us at the time of replacement of the metal pan staircases, the Association will likely install at least one ramp per building to make each building ADA compliant. Our cost includes replacement of two staircases with ramps and replacement of the remaining staircases in like kind.

## Walls, Masonry

---

**Line Item:** 1.820

**Quantity:** Approximately 69,900 square feet of the exterior walls

**History:** Repairs last conducted in approximately 2010

**Condition:** Good overall with the following evident:

- Minimal previous repairs evident
- Efflorescence is visible but isolated to below balconies
- Lintel paint finish in good condition with isolated finish deterioration
- Isolated masonry cracks and delamination evident
- Mortar deterioration is isolated
- Mortar joints are tooled
- Weeps at lintels are visible



**Mortar crack at lintel**



**Masonry crack**



**Delamination**



**Finish deterioration at lintel**



**Exposed shelf angle**

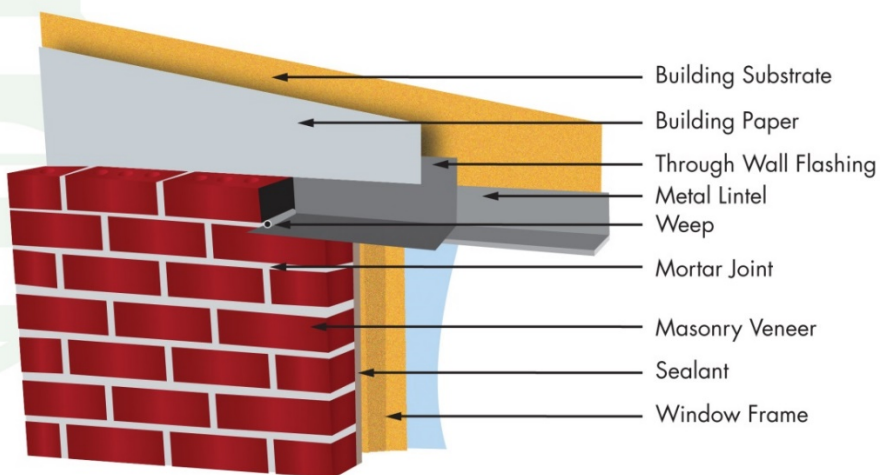


**Evidence of prior repairs**

**Useful Life:** We advise a complete inspection of the masonry and related masonry repairs every 8- to 12-years to forestall deterioration.

**Component Detail Notes:** We recommend an inspection, repair and replacement of the steel lintels. Lintels are structural supports or beams above windows and doors. Fatigued lintels also allow the direct penetration of storm water into the wall assembly. These inspections should locate areas of rust on the lintels and cracks or other structural damage to the walls around lintels. The contractor should remove any areas of rust, prime and paint these lintels. Paint protects and maximizes the remaining useful life of the lintels and therefore the exterior wall systems. Structural damage can eventually lead to costly replacements of lintels and surrounding wall systems. The following diagram details a typical metal lintel and weep system and may not reflect the actual configuration at Valley Lo Towers I:

### MASONRY WALL, METAL LINTEL AND WEEP SYSTEM DETAIL



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**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost includes the following activities:

- Complete inspection of the masonry
- Repointing of up to three percent (3%) of the masonry
- Replacement of a limited amount of the masonry
- Replacement/flashing installation at up to one percent (1%) of the metal lintels
- Replacement of up to one percent (1%) of the concrete sills

## Walls, Siding, Plywood

---

**Line Item:** 1.855

**Quantity:** Approximately 900 square feet of the exterior walls

**History:** Original

**Condition:** Fair overall with isolated damage evident



**Siding damage**



**Deflection and damage**

**Useful Life:** Up to 35 years. However, failure to conduct paint applications and repairs in a timely manner will reduce the remaining useful life of the siding.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include replacement in conjunction with the next paint finish application. We recommend Valley Lo Towers I consider fiber cement siding as a replacement material. Fiber cement siding requires less frequent paint finish applications.

## Windows, Wood Frames, Common

---

**Line Item:** 1.980

**Quantity:** 730 square feet at the exercise room, hospitality room and private stairwells

**History:** Original

**Condition:** Fair overall with isolated frame deterioration evident



**Common windows at private stairwells**



**Frame deterioration**

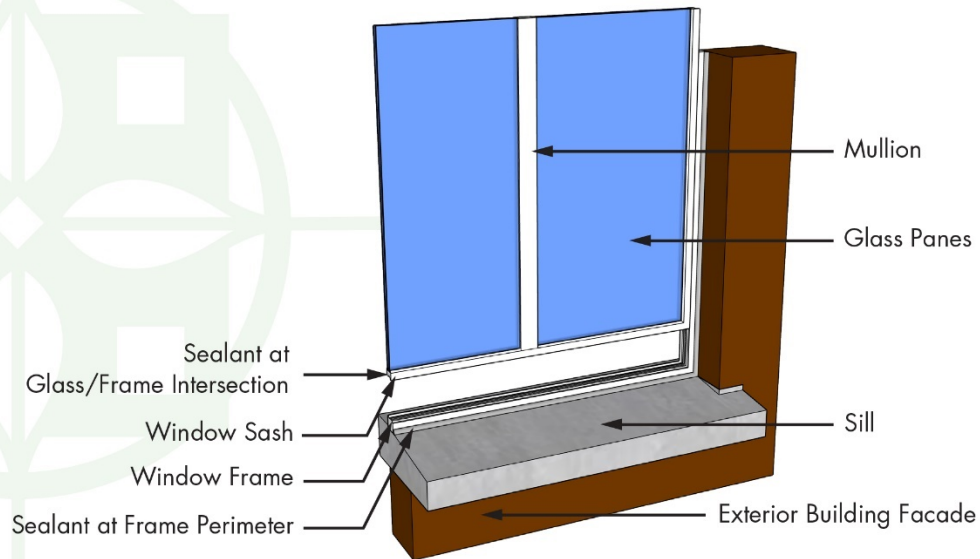
**Useful Life:** Up to 40 years

**Component Detail Notes:** Construction includes the following:

- Wood frames
- Dual pane glass
- Casement windows with screens

The following schematic depicts the typical components of a window system although it may not reflect the actual configuration at Valley Lo Towers I:

## WINDOW DETAIL



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**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Interior Building Elements

### Elevator Cab Finishes

---

**Line Item:** 2.100

**Quantity:** Four elevators

**History:** Replaced in conjunction with elevator modernization in 2017

**Condition:** Good overall



**Cab finishes**

**Useful Life:** Up to 25 years

**Component Detail Notes:** The elevator cab finishes consist of:

- Carpet floor coverings
- Laminate wall coverings
- Acrylic ceiling finishes

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include subsequent replacement in conjunction with replacement of other interior finishes. We recommend the Association funds interim replacement of the carpet floor coverings through the operating budget.

## **Exercise Equipment, Cardiovascular Equipment**

---

**Line Item:** 2.155

**Quantity:** The exercise room contains the following types of cardiovascular aerobic training equipment:

- Elliptical
- Stationary cycle
- Television
- Treadmills

**History:** The Association renovated the exercise room with the interior hallway renovation project and the age of the equipment varies. The Association replaced the stationary cycle in 2019.

**Conditions:** Reported satisfactory overall



**Exercise equipment**

**Useful Life:** The useful life of cardiovascular equipment is up to 10 years.

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend Valley Lo Towers I anticipate replacement of up to thirty-three percent (33%) of the cardiovascular equipment per event.

## **Exercise Room, Rubber Floor**

---

**Line Item:** 2.180

**History:** Replaced in 2014 in conjunction with the hallway renovation project

**Condition:** Good overall

**Useful Life:** Renovation up to every 10 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## **Floor Coverings, Carpet, Hallways**

---

**Line Item:** 2.200

**Quantity:** Approximately 1,930 square yards at the hallways and hospitality room (Contractor measurements will vary from the actual floor area due to standard roll lengths, patterns and installation waste.)

**History:** Replaced from 2014 to 2015

**Condition:** Good overall with isolated fray and stains evident



**Hallway overview**



**Carpet fray**



**Carpet stain**

**Useful Life:** 8- to 12-years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## **Floor Coverings, Tile, Lobbies**

---

**Line Item:** 2.240

**Quantity:** 170 square yards at the lobbies

**History:** Replaced in conjunction with the hallway renovation project from 2014 to 2015

**Condition:** Good overall with isolated grout discoloration



**Lobby tile**



**Grout discoloration**

**Useful Life:** Up to 25 years although replacement of tile is often based on discretionary redecorating prior to the tile reaching the end of its useful life.

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include replacement in conjunction with subsequent replacement of the carpet. The Association should fund regrouting of the tiles through the operating budget if necessary.

## **Furnishings, Lobbies**

---

**Line Item:** 2.450

**History:** Replaced in conjunction with the hallway renovation project from 2014 to 2015

**Condition:** Good overall

**Useful Life:** Varies significantly up to 20 years

**Component Detail Notes:** Furnishings in the lobbies include but are not limited to the following elements:

- Benches
- Chairs
- Tables

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association fund replacement of the hospitality room furnishings through the operating budget.

## Paint Finishes, Hallways

---

**Line Item:** 2.800

**Quantity:** Approximately 68,100 square feet on the walls and ceilings at the hallways, lobbies, exercise room and hospitality room

**History:** Last painted in conjunction with the hallway renovation project from 2014 to 2015

**Condition:** Good overall with isolated damage and scuffs evident, mainly at corners



**Corner damage**



**Corner scuffs**

**Useful Life:** 8- to 12-years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include paint finish applications in conjunction with replacement of the carpet.

## Paint Finishes, Stairwells

---

**Line Item:** 2.820

**Quantity:** Four common stairwells and 12 private stairwells

**History:** Last painted in 2018

**Conditions:** Good overall



**Stairwell**

**Useful Life:** 15- to 20-years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based on information provided by the Association.

## **Rest Rooms**

---

**Line Item:** 2.900

**Quantity:** Two common rest rooms located adjacent to the exercise and hospitality rooms

**History:** Renovated in coordination with the hallway renovation project from 2014 to 2015

**Condition:** Good overall



**Rest room**

**Useful Life:** Renovation up to 25 years

**Component Detail Notes:** Components include:

- Tile floor coverings
- Paint finishes
- Light fixtures
- Plumbing fixtures

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Building Services Elements

### Air Handling Units, Rooftop Heating and Cooling Units

**Line Item:** 3.060

**Quantity:** Four Carrier rooftop air handling units for the hallways

**History:** Manufactured in 2005

**Condition:** Reported satisfactory without operational deficiencies



**Rooftop heating and cooling unit**

**Useful Life:** 15- to 20-years

**Component Detail Notes:** The units have the following characteristics:

- Electric heating capacity of approximately 32- to 80-kW
- Cooling capacity of 20-tons
- R-22 refrigerant

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Quarterly:
  - Inspect belts for alignment, tension and condition
  - Clean/replace filter and screen cleaning as needed
  - Inspect/clean coils, blowers and motors
  - Check refrigerant pressure and oil levels
  - Clean drainage and inspect drain pans
  - Check/adjust controls
- Semi-annually:
  - Lubricate motor bearings
- Annually:
  - Replace belts

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include replacement in conjunction with replacement of the roofs.

## **Air Handling and Condensing Units, Split Systems**

---

**Line Item:** 3.070

**Quantity:** Two split systems to serve the exercise and hospitality rooms

**History:** The exercise room split system was manufactured in 2011 and the hospitality room system dates to 2002.

**Condition:** Reported satisfactory without operational deficiencies

**Useful Life:** 15- to 20-years

**Component Detail Notes:** A split system air conditioner consists of an outside condensing unit, an interior evaporator coil, refrigerant lines and an interior furnace. The condensing units have a cooling capacity of three-tons and the interior furnaces have a heating capacity of 42-MBH (thousand British Thermal Units per hour).

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age,

operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Lubricate motors and bearings
  - Change or clean air filters as needed
  - Inspect condenser base and piping insulation
  - Inspect base pan, coil, cabinet and clear obstructions as necessary
- Annually:
  - Clean coils and drain pans, clean fan assembly, check refrigerant charge, inspect fan drive system and controls
  - Inspect and clean accessible ductwork as needed
  - Clean debris from inside cabinet, inspect condenser compressor and associated tubing for damage

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The condensing unit may require replacement prior to replacement of the related interior forced air unit. For purposes of this Reserve Study, we assume coordination of replacement of the interior forced air unit, evaporator coil, refrigerant lines and exterior condensing unit.

## **Boilers, Domestic Hot Water**

---

**Line Item:** 3.160

**Quantity:** Four *Lochinvar* gas-fired boilers with an input capacity of 500-MBH each to generate domestic hot water

**History:** Manufactured from 2003 to 2004

**Condition:** Reported satisfactory without operational deficiencies



**Boilers**

**Useful Life:** 15- to 20-years

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Weekly:
  - Inspect for leaking water around boilers
  - Check temperature readings
  - Verify vent is unobstructed
  - Conduct boiler blowdown to minimize corrosion and remove suspended solids in system
  - Clean pilot and burner assemblies
- Monthly:
  - Check water and pressure levels
  - Check controls and switches for proper operating
  - Check and inspect condensate drain
  - Check all gaskets for tight sealing
- Annually:
  - Conduct full inspection of burners and flues
  - Clean and inspect tubes to reduce scaling
  - Inspect any pressure relief valves
  - Inspect electrical terminals and controls

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost includes an allowance for replacement of controls.

## **Elevators, Hydraulic**

---

**Line Items:** 3.320 through 3.340

**Quantity:** Four hydraulic passenger elevators

**History:** The elevators were modernized in 2017. The modernization project included replacement of the controls, door operators and push buttons. The power units are approximately 13 years of age and the cylinders are original.

**Condition:** Reported satisfactory and service interruptions are reportedly infrequent.



**Power unit and controls**

**Useful Life:** Controls have a useful life of up to 30 years. Pumps have a useful life up to 35 years and cylinders have a useful life of up to 45 years.

**Component Detail Notes:** Major components in a hydraulic elevator system include the pump, controls, cylinder, fluid reservoir and a valve between the cylinder and reservoir. Once activated by the elevator controls, the pump forces hydraulic fluid from the reservoir into the cylinder. The piston within the cylinder rises lifting the elevator cab. The elevator cab lowers at a controlled rate when the controls open the valve.

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Ongoing:
  - Maintain a maintenance contract with a qualified professional for the elevator(s) and follow the manufacturer's specific recommended maintenance plan adhering to local, state, and/or federal inspection guidelines
- As-needed:
  - Keep an accurate log of all repairs and inspection dates
  - Inspect and adjust misaligned door operators
  - Check for oil leaks or stains near the pump housing and confirm oil levels are adequate
  - Clear and remove any items located in the elevator machine room(s) not associated with the elevator components (These rooms should never be used for storage)
  - Lubricate the hydraulic cylinders
  - Inspect electrical components for signs of overheating or failure
  - Inspect spring buffers in elevator pit for signs of corrosion or loose attachments

- Ensure air temperature and humidity of machine/pump housing room meets the designated specified range for proper operation
- Ensure all call buttons are in working condition
- Check elevator cabs for leveling accuracy to prevent tripping hazards

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Intercom Panels

---

**Line Item:** 3.470

**Quantity:** Two each

**History:** Date to 2001

**Condition:** Reported satisfactory



**Intercom panel**

**Useful Life:** 15- to 20-years

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Monthly:
  - Inspect panel for damage and ensure the panel is mounted securely, tighten or replace any loose or damaged fasteners.

- Inspect panel for proper operation of buttons, displays, microphone and speaker.
- Annually:
  - Check power connections, and if applicable, functionality of battery power supply systems

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Life Safety Systems

---

**Line Items:** 3.555 and 3.560

**Quantity:** The life safety systems at Valley Lo Towers I include the following components:

- Audio/visual fixtures
- *Notifier* control panels
- Detectors
- Emergency light fixtures
- Exit light fixtures
- Pull stations
- Wiring

**History:** The system and panels date to 1999. The Association replaces emergency and exit light fixtures as needed.

**Conditions:** Reported satisfactory with a periodic false alarm originating in the garage



**Control panel**

**Useful Life:** Up to 25 years for the devices and up to 15 years for the control panels

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. In accordance with *NFPA 72* (National Fire Alarm and Signaling Code) we also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the age of the components, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Inspect and test all components and devices, including, but not limited to, control panels, annunciators, detectors, audio/visual fixtures, signal transmitters and magnetic door holders
  - Test backup batteries
- As-needed:
  - Ensure clear line of access to components such as pull stations
  - Ensure detectors are properly positioned and clean of debris

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Changes in technology or building codes may make a replacement desirable prior to the end of the functional life. Our estimate of future cost considers only that amount necessary to duplicate the same functionality. Local codes or ordinances at the actual time of replacement may require a betterment as compared to the existing system. A betterment could result in a higher, but at this time unknown, cost of replacement.

## Pipes

---

**Line Items:** 3.600 and 3.605

**Quantity:** The Association is responsible for maintenance and replacement of the piping systems arranged in vertical and horizontal segments. These pipes comprise the following:

- Domestic cold water
- Domestic hot water supply and return
- Vent plumbing fixtures
- Sanitary waste disposal

We estimate 300 total riser sections between the two buildings and that each unit shares domestic water plumbing pipes for both the kitchen and bathroom with the adjacent unit.

**History and Condition:**

- Domestic Water, Supply and Return – Original and reported in satisfactory condition

- Sanitary Waste Disposal and Vent – Original and reported in satisfactory condition with the exception of drainage pipes in the garage which were recently replaced with PVC



**Domestic water pipes**

**Component Detail Notes:** The exact locations and conditions of the pipes were not ascertained due to the nature of their location and the non-invasive nature of our inspection. We comment on the respective quantities and conditions of the piping systems in the following sections of this narrative.

**Domestic Water** - Copper piping is the predominant type of pipe used in new construction for domestic water piping. With low mineral content in the water, the useful life of copper domestic water pipes is up to and sometimes beyond 80 years. However, there is recent evidence that copper piping prematurely develops pinhole leaks. Studies have shown that changes in water treatment practices, recently required in response to U.S. Environmental Protection Agency regulations, are dramatically increasing the risk of pitting corrosion in many geographic locations. Utility companies are implementing higher chloride levels to prevent outbreaks of waterborne disease. These higher chloride levels can accelerate corrosion of copper pipes and indeterminately reduce their useful life.

In the event that numerous pinhole leaks develop or occur throughout the system of pipes, Valley Lo Towers I should also consider “in-place” pipe restoration technology. This process includes drying, sandblasting away interior pipe occlusions and applying an epoxy lining to the interior surfaces of the pipes. Future updates of this study will consider the possibility of the pipe restoration process in lieu of pipe replacement at Valley Lo Towers I. Restoration technology can extend the useful life of a pipe system thus avoiding a system pipe replacement.

**Sanitary Waste Disposal and Vent** - The black steel pipes typically deteriorate from the inside out as a result of sewer gases, condensation and rust.

**Valves** - The piping systems include various valves. Identification of a typical useful life and remaining useful life for individual valves is difficult. Associations typically replace valves on an as needed basis in our experience.

**Pipes, Remaining** – We anticipate a useful life of up to and sometimes beyond 100 years for the gas supply lines. Therefore, we do not foresee the need to budget for replacement of these pipes within the 30-year scope of this study. Future updates of this study will revisit the need to include partial replacement of these pipes.

**Preventative Maintenance Notes:** The required preventative maintenance may vary in frequency and scope based on the building's age and demands of the piping systems. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Quarterly:
  - Inspect all visible piping for corrosion and leaks, including common areas or areas immediately surrounding pipes such as insulation, ceiling tiles or the floor for moisture, water accumulation, mold or mildew
- Annually:
  - Verify system pressure is sufficient
  - Check accessible valves for proper operation
  - Test backflow prevention devices
  - Inspect and obtain certification for pressure relief valves
  - Test drain line flow rates
  - Mechanically or chemically clean sewer lines as needed
  - Establish regulations for common area and unit interior temperature to avoid freezing pipes
  - Exterior faucets and water lines should be drained each fall

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost assumes replacement of all pipes located within each wall opening, associated branch piping, fittings and minimal interior finishes. However, the cost does not include temporary housing for affected residents, pipes within the units or significant interior finishes.

The Association budgets an amount in the annual operating budget for minor pipe repairs and replacements. We recommend the Association continue to fund interim pipe replacements, prior to more aggregate replacements identified in the following paragraphs, from the operating budget. We also recommend the Association contract for an invasive investigation of the condition of the piping system prior to beginning more aggregate replacements, funded through the operating budget.

We include expenditures to replace the pipes at 12 units beginning by 2048 followed by an increasing rate of replacement as the pipes age. Our estimate provides funds to replace approximately ten percent (10%) of the pipes during the next 30 years.

An invasive analysis of the piping systems will provide various replacement options. Replacement of the systems as an aggregate event will likely require the use of special assessments or loans to fund the replacements.

Although it is likely that the times of replacement and extent of repair costs may vary from the budgetary allowance, Valley Lo Towers I could budget sufficient reserves for the beginning of these pipe replacements and have the opportunity to adjust its future reserves up or down to meet any changes to these budgetary estimates. Updates of this Reserve Study would incorporate changes to budgetary costs through a continued historical analysis of the rate of deterioration and actual pipe replacements to budget sufficient reserves.

We recommend the Association budget for replacement of the following items through the operating budget:

- Replacement of valves on an as-needed basis
- Minor pipe repairs and replacements
- invasive investigation of the condition of the piping system prior to beginning more aggregate replacements
- Rodding of waste pipes

## **Pump, Fire Suppression**

---

**Line Item:** 3.770

**Quantity:** One 30-HP fire suppression pump

**History:** Original and tested as directed

**Condition:** Reported satisfactory without operational deficiencies



**Fire suppression system pump**

**Useful Life:** Up to 50 years

**Component Detail Notes:** Prior to replacement, the Association should schedule periodic inspections to maintain its correct operation in the event of an emergency. Valley Lo Towers I should also anticipate, as normal maintenance, interim repairs and component replacements to maximize its remaining useful life.

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. In accordance with *NFPA 25* (National Fire Protection Systems Code), we also recommend the Association maintain a maintenance contract with a qualified professional. The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. Valuable motor information to note in a preventative maintenance plan or schedule includes age of unit and last time of repair, horsepower and rpm (revolutions per minute), bearing type and conditions surrounding motor/pump. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Weekly:
  - Check/adjust controls
  - Check/adjust pressure levels
  - Check for leaks
  - Conduct churn tests
- Quarterly:
  - Inspect/clean motors
  - Inspect mountings and connections for proper alignment, torque and condition
  - Inspect/replace pump packing as needed, consider replacement with mechanical seals
  - Check for appropriate oil levels
- Semi-annually:
  - Lubricate pumps, motors and motor bearings
- Annually:
  - Inspect belts for wear and/or replace belts
  - Clean filters if present
  - Assess proper internal component performance and replace damaged or malfunction components as necessary, and tighten fittings
  - Assess temperature and vibration performance of motors in accordance with the intended design

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our estimate of cost includes replacement of the pump, motor, and motor controller.

## Storage Tanks, Domestic Hot Water

---

**Line Item:** 3.860

**Quantity:** Two insulated storage tanks

**History:** Manufactured in 2003 and 2004

**Condition:** Reported satisfactory



Storage tank

**Useful Life:** 15- to 20-years

**Preventative Maintenance Notes:** The required preventative maintenance may vary in frequency and scope based on the unit's age, operational condition, or changes in technology. We note the following select recommended preventative maintenance activities to conduct on an annual basis to maximize the remaining useful life:

- Inspect for leakage and corrosion
- Inspect and repair/replace valves including any pressure relief valves

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include replacement in conjunction with the boilers.

## Trash Chute and Doors

---

**Line Item:** 3.880

**Quantity:** Two trash chutes

**History:** Original

**Condition:** Reported satisfactory



**Trash chute**

**Useful Life:** Up to 65 years

**Component Detail Notes:** Damaged doors or poor door operation will result in a decreased useful life. The Association should fund interim repairs and partial replacements of the doors through the operating budget.

**Preventative Maintenance Notes:** We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Weekly:
  - Clean doors and latches
  - In accordance with *NFPA 82* and fire code, ensure all trash chute doors self-latch and self-close
- Monthly:
  - Check operation of discharge door
  - Inspect fusible link and replace if necessary
  - If applicable, inspect, reinforce and/or replace discharge elbow
- Quarterly:
  - If applicable, check vent cap for damage and tighten fasteners
- Semi-annually:
  - Lubricate and/or replace doors, hinges and latches
  - Clear obstructions, clean and scrape trash chute and doors. The frequency of this activity may vary based upon occupancy and usage rates. This activity may also be based upon limitation of unwanted odors, prevention of harmful bacteria, pest infiltration and debris removal to further prevent fire hazards.

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Valves, Large Diameter

---

**Line Item:** 3.920

**Quantity:** Seven large diameter valves near the fire suppression system pump and in the garages

**History:** Original

**Condition:** Reported satisfactory



**Large diameter valve**

**Useful Life:** Up to and sometimes beyond 50 years

**Preventative Maintenance Notes:** We recommend the Association obtain and adhere to the manufacturer's recommended maintenance plan. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Monthly:
  - Inspect the valves (if valve is readily accessible)
    - Confirm tightness of connections/fasteners
    - Confirm lack of leaks
- Semi-annually:
  - Clean the valves (including the valve stem) (if valve is readily accessible)
  - Open/close the valves to ensure operation (if valve is readily accessible)
- Annually:
  - Remove, clean and repair select valves as needed (including replacement of components as needed) (frequency and feasibility of rebuilds will vary greatly) (if valve is readily accessible)

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer



**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include replacement in conjunction with replacement of the fire suppression pump.

## Property Site Elements

### Asphalt Pavement, Crack Repair, Patch and Seal Coat

---

**Line Item:** 4.020

**Quantity:** Approximately 6,250 square yards

**History:** The Association painted the parking lines in 2017 but the timing of the last seal coat application is unknown.

**Condition:** Fair overall with areas in need of patching evident

**Useful Life:** Three- to five-years

**Component Detail Notes:** Proposals for seal coat applications should include crack repairs and patching. The contractor should only apply seal coat applications after repairs are completed. A seal coat does not bridge or close cracks, therefore, unrepaired cracks render the seal coat applications useless.

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost includes an allowance for crack repairs and patching of up to two percent (2%) of the pavement.

### Asphalt Pavement, Repaving

---

**Line Items:** 4.040 through 4.046

**Quantity:** Approximately 5,150 square yards of access drive and parking areas and 1,100 square yards of fire lane

**History:** The age of the pavement is unknown. The Association conducted repaving at the access drives and parking areas in 2006 although the full scope is unknown.

**Condition:** Good to fair overall with areas of alligator cracking, settlement and longitudinal cracks evident



**Pavement overview**



**Settlement near west garage of the 2020 building**



**Alligator cracks near catch basin**



**Pavement deterioration near the east garage of the 2000 building**



**Longitudinal cracks**



**Alligator cracks**



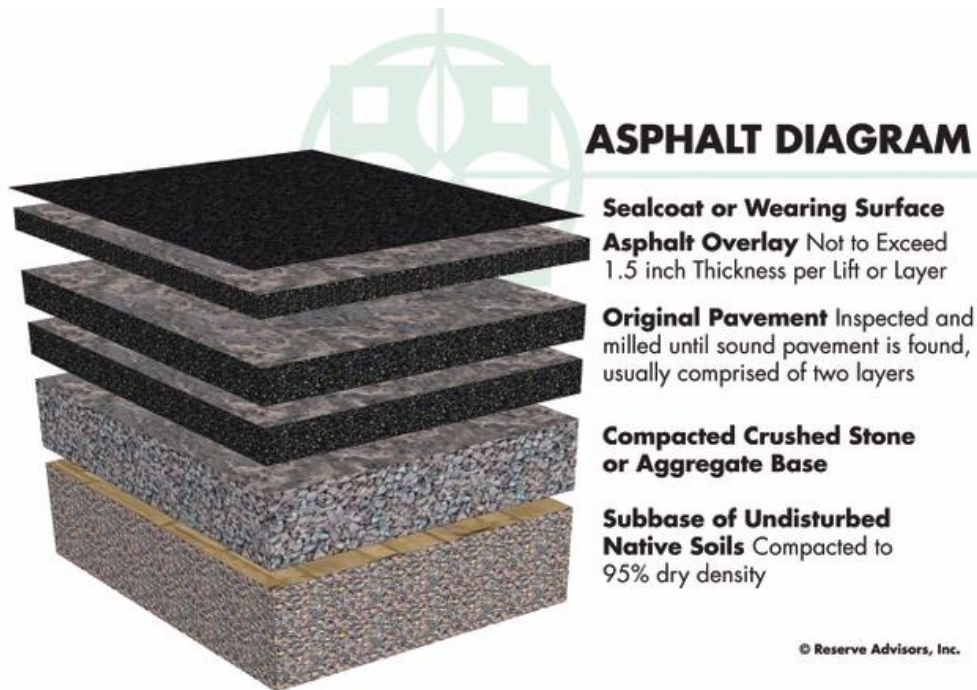
**Fire lane overview (note significant cracking)**



**Water accumulation at west end of fire lane**

**Useful Life:** 15- to 20-years for the access drive and parking areas and up to 25 years for the fire lane with the benefit of timely crack repairs and patching

**Component Detail Notes:** The initial installation of asphalt uses at least two lifts, or two separate applications of asphalt, over the base course. The first lift is the binder course. The second lift is the wearing course. The wearing course comprises a finer aggregate for a smoother more watertight finish. The following diagram depicts the typical components although it may not reflect the actual configuration at Valley Lo Towers I:



The manner of repaving is either a mill and overlay or total replacement. A mill and overlay is a method of repaving where cracked, worn and failed pavement is mechanically removed or milled until sound pavement is found. A new layer of asphalt

is overlaid atop the remaining base course of pavement. Total replacement includes the removal of all existing asphalt down to the base course of aggregate and native soil followed by the application of two or more new lifts of asphalt. We recommend mill and overlayment on asphalt pavement that exhibits normal deterioration and wear. We recommend total replacement of asphalt pavement that exhibits severe deterioration, inadequate drainage, pavement that has been overlaid multiple times in the past or where the configuration makes overlayment not possible. Based on the apparent visual condition and configuration of the asphalt pavement, we recommend the mill and overlay method for initial repaving of the access drive and parking areas and the total replacement method for fire lane repaving and subsequent access drive and parking area repaving at Valley Lo Towers I.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for milling and overlayment includes area patching of up to ten percent (10%). Our cost for access drive and parking area repaving includes an allowance for an inspection and capital repairs to the catch basins.

## Concrete Curbs and Gutters

---

**Line Item:** 4.110

**Quantity:** Approximately 3,200 linear feet

**Condition:** Good to fair overall with periodic cracks and settlement evident



**Curb crack and settlement**



**Curb crack**

**Useful Life:** Up to 65 years although interim deterioration of areas is common

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We estimate that up to 960 linear feet of curbs and

gutters, or thirty percent (30%) of the total, will require replacement during the next 30 years.

## Concrete Sidewalks

---

**Line Item:** 4.140

**Quantity:** Approximately 7,300 square feet, of which approximately twenty percent (20%) includes an exposed aggregate finish

**Condition:** Fair overall with periodic cracks and settlement evident. We note continuous settlement at the curb and sidewalk intersection. The Association has a contract in place to mudjack these areas of settlement. Although likely to fix the settlement in the near term, mudjacking is likely only a temporary solution if the underlying base is insufficient or the base continues to settle.



**Sidewalk settlement**



**Sidewalk cracks**



**Sidewalk settlement**



**Trip hazard**



**Cracks**



**Crack at exposed aggregate sidewalk**

**Useful Life:** Up to 65 years although interim deterioration of areas is common

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include the cost for mudjacking on the last line item “**2019 Reserve Expenditures**”. We estimate that up to 2,920 square feet of concrete sidewalks, or forty percent (40%) of the total, will require replacement during the next 30 years.

## **Gazebo**

---

**Line Item:** 4.360

**Quantity:** One each

**History:** The gazebo dates to 1993. The Association refurbished the lattice in 2019 and partially replaces wood shingles as needed.

**Condition:** Fair overall with shingle lift and split, and deck board deterioration evident



**Gazebo**



**Shingle lift and split**



**Deck board overview**

**Useful Life:** Up to 25 years with periodic maintenance

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association budget for paint applications and repairs through the operating budget.

## **Landscape**

---

**Line Item:** 4.500

**Component Detail Notes:** The Association contains a large quantity of trees, shrubbery and other landscape elements. Replacement of these elements is an ongoing need. Many associations budget for these replacements as normal maintenance. Other associations fund ongoing replacements from reserves. Large amounts of landscape may need replacement due to disease, drought or other forces of nature. If the cost of removal and replacement is substantial, funding from reserves is

logical. The Association may also desire to periodically update the appearance of the community through major improvements to the landscape.

**Useful Life:** At the request of Management and the Board, we include a landscape allowance for partial replacements every 20 years.

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include the Association's budgeted cost from 2019 in 2020 as the Association is unlikely to conduct the project in 2019.

## Light Poles and Fixtures

---

**Line Items:** 4.560 and 4.561

**Quantity:** 23 metal poles with light fixtures at the front elevations and 14 metal poles with light fixtures at the rear elevations

**History:** Original

**Condition:** Good to fair overall



**Light pole and fixtures**



**Light pole lean**

**Useful Life:** Up to 35 years for the front elevation light poles and fixtures and up to 25 years for the rear elevation light poles and fixtures

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Pavers, Masonry

---

**Line Item:** 4.620

**Quantity:** 560 square feet at the entrance to the property

**History:** Age is unknown

**Condition:** Good overall with no significant deterioration evident



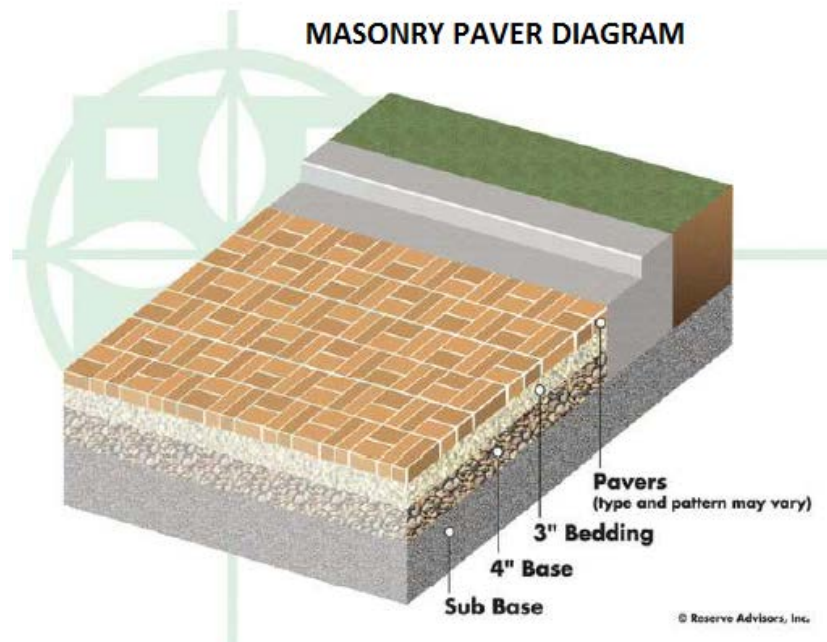
**Paver overview**



**Pavers in good condition**

**Useful Life:** 15- to 20-years

**Component Detail Notes:** The following diagram depicts the typical components of a masonry paver system although it may not reflect the actual configuration at Valley Lo Towers I:



**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include replacement in conjunction with repaving. We suggest the Association conduct interim resetting and replacement of minor areas of pavers as normal maintenance, funded from the operating budget.

## Retaining Walls, Timber

---

**Line Item:** 4.760

**Quantity:** Approximately 250 square feet

**History:** Original

**Condition:** Fair overall with wall lean, paint finish deterioration and wood deterioration evident



Retaining wall overview



Slight wall lean



Wall overview

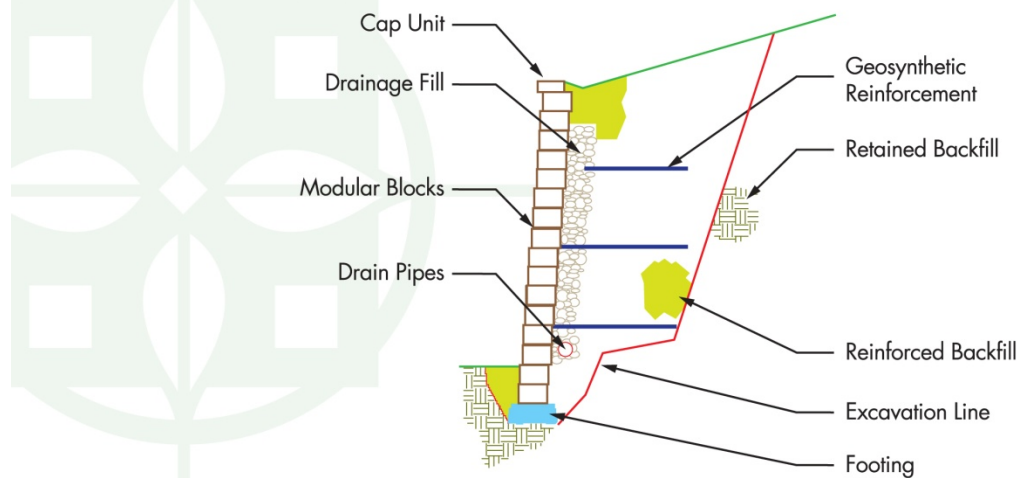


Wall lean

**Useful Life:** 15- to 20-years

**Component Detail Notes:** We advise Valley Lo Towers I replace with a modular, interlocking dry-set masonry retaining wall system. The cost of dry-set masonry retaining walls is similar to the cost of timber walls. However, dry-set masonry retaining walls offer a longer useful life of up to 35 years and lower total maintenance costs. The following schematic depicts the typical components of a retaining wall system although it may not reflect the actual configuration at Valley Lo Towers I:

### MASONRY RETAINING WALL DETAIL



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**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Garage Elements

### Concrete, On-grade

---

**Line Item:** 7.360

**Quantity:** Approximately 38,100 square feet of on-grade concrete in the garages

**Condition:** Good overall with no significant deterioration evident



Garage overview

**Useful Life:** Up to 90 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Expenditures assume:

- Complete inspection of the floor
- Selective cut out and replacement of up to three percent (3.3%), or 1,270 square feet, of the on-grade concrete
- Crack repairs as needed

### Doors and Operators

---

**Line Item:** 7.400

**Quantity:** Four metal overhead sectional garage doors with *Liftmaster* operators

**History:** The operators vary in age from 2000 (1), 2008 (2) to 2012 (1). The Association has replaced door panels as need and the ages of the garage doors vary.

**Condition:** Reported satisfactory, with panel deflection noted



**Panel deflection**

**Useful Life:** 8- to 15-years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The Association should fund interim replacements of components through the operating budget.

## **Exhaust System**

---

**Line Item:** 7.460

**Quantity:** Eight exhaust fans and eight louvers

**History:** Original

**Condition:** Reported satisfactory



**Louver**

**Useful Life:** Up to 35 years

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We regard interim repairs or partial replacements of components as normal maintenance.

## Fire Suppression Systems

---

**Line Item:** 7.500

**Quantity:** Approximately 38,100 square feet of garage area

**History:** Original

**Condition:** Reported satisfactory



**Sprinkler head**

**Useful Life:** Up to 60 years

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Light Fixtures

---

**Line Item:** 7.600

**Quantity:** 80 light fixtures

**History:** Original fixtures with LED bulbs

**Condition:** Reported satisfactory



**Light fixture**

**Useful Life:** Up to 30 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## **Paint Finishes**

---

**Line Item:** 7.660

**Quantity:** Approximately 56,500 square feet on the surfaces

**History:** The Association conducted a garage restoration project in 2018 which included paint finish applications to the walls and ceilings.

**Condition:** Good overall

**Useful Life:** Up to 15 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include similar garage restoration events every 15 years. Our cost is based on information provided by the Association.

## **Traffic Coating**

---

**Line Item:** 7.800

**Quantity:** Approximately 38,100 square feet of on-grade concrete

**History:** As mentioned previously, the Association conducted a garage restoration project in 2018 which included installation of a three-coat epoxy traffic coating.

**Condition:** Good overall with no significant deterioration evident. However we note isolated finish deterioration, vehicle fluid stains and minimal use of aggregate resulting in a slipper surface if wet.



**Vehicle fluid stains**



**Finish deterioration**

**Useful Life:** Every 10- to 15-years

**Component Detail Notes:** In our experience, active periodic maintenance and protection with a traffic coating on concrete results in a longer useful life, safer operation and a lower overall life cycle costs.

Salts and moisture-driven chemical reactions are detrimental to the integrity of a concrete garage floor. Road salts deposited as snow melts from vehicles or chlorides and moisture contained in ambient air penetrate the concrete surface. The dissolved chlorides and moisture then migrate to the imbedded reinforcing steel through pores in the concrete or directly through cracks. Once they reach the steel, salts and moisture cause expansive corrosion, ultimately causing the concrete to expand and “pop” or spall. Left unrepaired, additional chlorides and moisture will continue to infiltrate the concrete, eventually causing structural failure. This type of deterioration is progressive and costly to repair. The utilization of a traffic coating atop the concrete minimizes the infiltration of salts and moisture into the concrete thereby minimizing future capital repairs.

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost is based on information provided by the Association and assumes:

- Complete inspection of the garage concrete and concrete repairs as described in the previous narrative “Concrete, On-grade”
- Removal of the existing coating and preparation of the concrete surface

- Application of a urethane base coat, intermediate aggregate coating and top coat to the elevated floors
- Parking and directional line striping as needed

## Unit Heaters

---

**Line Item:** 7.900

**Quantity:** 18 TPI Corporation electric unit heaters

**History:** Original

**Condition:** Reported satisfactory without operational issues



Unit heater

**Useful Life:** Up to 35 years

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## 2019 Reserve Expenditures

---

**Line Item:** Last

**Component Detail Notes:** Valley Lo Towers I will expend \$8,897 in reserve expenditures in 2019. These expenditures relate to the following:

- \$6,422: Mudjacking
- \$2,475: Reserve study (remaining payment)

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## SHARED AMENITIES

The Association shares responsibility for the clubhouse, pool and tennis courts with the apartment complex. The Association is responsible for fifty-one percent (51%) of the expenditures related to shared amenities and our costs are reflective of this percentage.

### Property Site Elements

#### Tennis Court, Color Coat

---

**Line Item:** 4.830

**Quantity:** 790 square yards comprising one tennis court

**History:** Age of the last color coat application is unknown

**Condition:** Fair to poor overall with discoloration and cracks evident



Discoloration and court crack

**Useful Life:** Four- to six-years

**Component Detail Notes:** Prior to the application of the color coat, the Association should require the contractor to rout and fill all cracks with hot emulsion. This deters water infiltration and further deterioration of the asphalt playing surface.

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Tennis Court, Fence

---

**Line Item:** 4.840

**Quantity:** 360 linear feet

**History:** Unknown

**Condition:** Good to fair overall with isolated chain link deflection evident



Fence overview



Chain link deflection

**Useful Life:** Up to 25 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We include replacement in conjunction with replacement of the playing surface.

## Tennis Court, Light Poles and Fixtures

---

**Line Item:** 4.850

**Quantity:** Four each

**History:** Age unknown

**Condition:** Satisfactory overall



**Light pole and fixtures**

**Useful Life:** Up to 35 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## **Tennis Court, Surface**

---

**Line Item:** 4.860

**Quantity:** 790 square yards of asphalt comprising one tennis court

**History:** Age unknown

**Condition:** Fair overall with discoloration, court cracks and settlement evident



**Court overview**



**Water accumulation**

**Useful Life:** Up to 25 years

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Clubhouse Elements



Front elevation



Side and rear elevation

## HVAC Equipment

---

**Line Item:** 5.450

**Quantity:** Two split systems with 3-ton and 3.5-ton cooling capacity and one rooftop heating and cooling unit

**History:** The split systems date to 2005. We were unable to access the roof and therefore unable to determine the age or capacity of the rooftop unit.

**Condition:** Reported satisfactory



Condensing units



Furnaces

**Useful Life:** 15- to 20-years

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Due to the unlikely nature of failure at one time, we include a phased replacement.

## **Interior Renovations, Office/Lounge/Kitchen**

---

**Line Items:** 5.500 and 5.510

**History:** The Association last partially renovated the clubhouse interior in 2018.

**Condition:** Good overall



**Office area**



**Main room**



**Kitchen**

**Useful Life:** Complete interior renovation every 25 years and partial renovations 8- to 12-years

**Component Detail Notes:** The clubhouse interior includes:

- Laminate floor coverings
- Paint finishes on the walls and ceilings
- Plumbing fixtures
- Light fixtures including exit and emergency lights
- Kitchen cabinets and countertops
- Furnishings including sofas, tables, chairs and bureaus
- Various appliances including a stove, refrigerator and microwave

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. The complete renovation should include replacement of all the interior components listed above and the partial renovations should include the following:

- Application of paint finish to all surfaces
- Replacement of up to fifty percent (50%) of the appliances and furnishings

## **Interior Renovation, Rest Rooms**

---

**Line Item:** 5.515

**Quantity:** Two rest rooms

**History:** The age of the components is unknown.

**Condition:** Fair overall and the finishes appear dated



**Rest room**

**Useful Life:** Renovation every 25 years

**Component Detail Notes:** Components include:

- Tile floor coverings
- Paint finishes
- Light fixtures
- Plumbing fixtures

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Roofs, Mansard and Flat

---

**Line Items:** 5.600 and 5.601

**Quantity:** 10 squares of asphalt shingle mansard roofs and 2,000 square feet of flat roofs

**History:** Replaced in 2005

**Condition:** Good condition



**Mansard roof overview**

**Useful Life:** 15- to 20-years

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Windows and Doors

---

**Line Item:** 5.800 and 5.801

**Quantity:** 770 square feet of atrium windows and 250 square feet of windows and doors

**History:** Ages unknown

**Condition:** Fair overall condition with missing sealant and frame deterioration evident



**Windows and door**



**Atrium windows**



**Frame deterioration**



**Missing sealant at atrium windows**

**Useful Life:** 45- to 55-years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Pool Elements



Pool and deck overview

### Concrete Deck

---

**Line Item:** 6.200

**Quantity:** 9,700 square feet

**History:** The timing of the last coating application is unknown.

**Condition:** Good condition with isolated cracks, settlement and coating deterioration evident



Deck crack



Settlement, sealant adhesion failure and potential trip hazard



**Coating deterioration**

**Useful Life:** The useful life of a concrete pool deck is up to 60 years or more with timely repairs. We recommend the Association conduct inspections, partial replacements and repairs to the deck every 8- to 12-years.

**Component Detail Notes:** We recommend the Association budget for the following:

- Selective cut out and replacements of up to ten percent (10%) of concrete
- Crack repairs as needed
- Mortar joint repairs
- Caulk replacement
- Coating replacement

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## **Cover, Vinyl**

---

**Line Item:** 6.300

**Quantity:** 1,870 square feet

**History:** Age unknown

**Condition:** We were unable to verify the condition of the cover due to the pool being open for the season.

**Useful Life:** Six- to eight-years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Fences, Steel

---

**Line Item:** 6.400

**Quantity:** 300 linear feet

**History:** Original

**Condition:** Fair overall condition with finish deterioration and picket deflection evident



**Fence overview**



**Finish deterioration and rust**

**Useful Life:** Up to 35 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Furniture

---

**Line Item:** 6.500

**Quantity:**

- Chairs (38)
- Lounges (16)
- Tables (16)
- Ladders and life safety equipment

**History:** Replaced in 2018

**Condition:** Good overall



**Pool furniture**

**Useful Life:** Up to 12 years

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend interim re-strapping, refinishing, cushion replacements, reupholstering and other repairs to the furniture as normal maintenance to maximize its useful life.

## **Mechanical Equipment**

---

**Line Item:** 6.600

**Quantity:**

- Automatic chlorinator
- Controls
- Filters
- Heater
- Interconnected pipe, fittings and valves
- Pump

**History:** The heater was manufactured in 2005. The age of the remaining equipment varies.

**Condition:** Reported satisfactory



**Mechanical equipment**

**Useful Life:** Up to 15 years

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Failure of the pool mechanical equipment as a single event is unlikely. Therefore, we include replacement of up to fifty percent (50%) of the equipment per event. We consider interim replacement of motors and minor repairs as normal maintenance.

## **Pool Finishes, Plaster and Tile**

---

**Line Items:** 6.800 and 6.801

**Quantity:** 1,500 square feet of plaster based on the horizontal surface area and approximately 190 linear feet of tile

**History:** The plaster finish and tile were replaced in 2019.

**Condition:** Good overall



**Pool**

**Useful Life:** 8- to 12-years for the plaster and 15- to 25-years for the tile

**Component Detail Notes:** Removal and replacement provides the opportunity to inspect the pool structure and to allow for partial repairs of the underlying concrete surfaces as needed. To maintain the integrity of the pool structure, we recommend the Association budget for the following:

- Removal and replacement of the plaster finish
- Partial replacements of the scuppers and coping as needed
- Replacement of tiles as needed
- Replacement of joint sealants as needed
- Concrete structure repairs as needed

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. We recommend the Association budget for full tile replacement every other plaster replacement event.

## **Structure and Deck**

---

**Line Item:** 6.900

**Quantity:** 1,500 square feet of horizontal surface area

**History:** Original

**Conditions:** Visually appears in good condition. The concrete floors and walls have a plaster finish. This finish makes it difficult to thoroughly inspect the concrete structure during a noninvasive visual inspection.

**Useful Life:** Up to 65 years

**Component Detail Notes:** The need to replace a pool structure depends on the condition of the concrete structure, the condition of the embedded or concealed water circulation piping, possible long term uneven settlement of the structure, and the increasing cost of repair and maintenance. Deterioration of any one of these component systems could result in complete replacement of the pool. For example, deferral of a deteriorated piping system could result in settlement and cracks in the pool structure. This mode of failure is more common as the system ages and deterioration of the piping system goes undetected. For reserve budgeting purposes, we recommend Valley Lo Towers I plan to replace the following components:

- Concrete deck
- Pool structure
- Subsurface piping

**Priority/Criticality:** Defer only upon opinion of independent professional or engineer

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3.

## Reserve Study Update

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. Many variables change after the study is conducted that may result in significant overfunding or underfunding the reserve account. Variables that may affect the Reserve Funding Plan include, but are not limited to:

- Deferred or accelerated capital projects based on Board discretion
- Changes in the interest rates on reserve investments
- Changes in the *local* construction inflation rate
- Additions and deletions to the Reserve Component Inventory
- The presence or absence of maintenance programs
- Unusually mild or extreme weather conditions
- Technological advancements

Periodic updates incorporate these variable changes since the last Reserve Study or Update. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. Budgeting for an Update demonstrates the Board's objective to continue fulfilling its fiduciary responsibility to maintain the commonly owned property and to fund reserves appropriately.

## 5.METHODOLOGY

Reserves for replacement are the amounts of money required for future expenditures to repair or replace Reserve Components that wear out before the entire facility or project wears out. Reserving funds for future repair or replacement of the Reserve Components is also one of the most reliable ways of protecting the value of the property's infrastructure and marketability.

Valley Lo Towers I can fund capital repairs and replacements in any combination of the following:

1. Increases in the operating budget during years when the shortages occur
2. Loans using borrowed capital for major replacement projects
3. Level monthly reserve assessments annually adjusted upward for inflation to increase reserves to fund the expected major future expenditures
4. Special assessments

We do not advocate special assessments or loans unless near term circumstances dictate otherwise. Although loans provide a gradual method of funding a replacement, the costs are higher than if the Association were to accumulate reserves ahead of the actual replacement. Interest earnings on reserves also accumulate in this process of saving or reserving for future replacements, thereby defraying the amount of gradual reserve collections. We advocate the third method of *Level Monthly Reserve Assessments* with relatively minor annual adjustments. The method ensures that Unit Owners pay their "fair share" of the weathering and aging of the commonly owned property each year. Level reserve assessments preserve the property and enhance the resale value of the homes.

This Reserve Study is in compliance with and exceeds the National standards<sup>1</sup> set forth by the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Level II Reserve Study Update." These standards require a Reserve Component to have a "predictable remaining Useful Life." Estimating Remaining Useful Lives and Reserve Expenditures beyond 30 years is often indeterminate. Long-Lived Property Elements are necessarily excluded from this analysis. We considered the following factors in our analysis:

- The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan
- Local<sup>2</sup> costs of material, equipment and labor
- Current and future costs of replacement for the Reserve Components
- Costs of demolition as part of the cost of replacement
- Local economic conditions and a historical perspective to arrive at our estimate of long term future inflation for construction costs in Glenview,

<sup>1</sup> Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".

<sup>2</sup> See Credentials for additional information on our use of published sources of cost data.

Illinois at an annual inflation rate<sup>3</sup>. Isolated or regional markets of greater construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

- The past and current maintenance practices of Valley Lo Towers I and their effects on remaining useful lives
- Financial information provided by the Association pertaining to the cash status of the reserve fund and budgeted reserve contribution
- The anticipated effects of appreciation of the reserves over time in accord with a return or yield on investment of your cash equivalent assets. (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).
- The Funding Plan excludes necessary operating budget expenditures. It is our understanding that future operating budgets will provide for the ongoing normal maintenance of Reserve Components.

Updates to this Reserve Study will continue to monitor historical facts and trends concerning the external market conditions.

<sup>3</sup> Derived from Marshall & Swift, historical costs and the Bureau of Labor Statistics.



## 6. CREDENTIALS

### HISTORY AND DEPTH OF SERVICE

**Founded in 1991**, Reserve Advisors, Inc. is the leading provider of reserve studies, insurance appraisals, developer turnover transition studies, expert witness services, and other engineering consulting services. Clients include community associations, resort properties, hotels, clubs, non-profit organizations, apartment building owners, religious and educational institutions, and office/commercial building owners in 48 states, Canada and throughout the world.

The **architectural engineering consulting firm** was formed to take a leadership role in helping fiduciaries, boards, and property managers manage their property like a business with a long range master plan known as a Reserve Study.

Reserve Advisors employs the **largest staff of Reserve Specialists** with bachelor's degrees in engineering dedicated to Reserve Study services. Our principals are founders of Community Associations Institute's (CAI) Reserve Committee that developed national standards for reserve study providers. One of our principals is a Past President of the Association of Professional Reserve Analysts (APRA). Our vast experience with a variety of building types and ages, on-site examination and historical analyses are keys to determining accurate remaining useful life estimates of building components.

**No Conflict of Interest** - As consulting specialists, our **independent opinion** eliminates any real or perceived conflict of interest because we do not conduct or manage capital projects.

### TOTAL STAFF INVOLVEMENT

Several staff members participate in each assignment. The responsible advisor involves the staff through a Team Review, exclusive to Reserve Advisors, and by utilizing the experience of other staff members, each of whom has served hundreds of clients. We conduct Team Reviews, an internal quality assurance review of each assignment, including: the inspection; building component costing; lifing; and technical report phases of the assignment. Due to our extensive experience with building components, we do not have a need to utilize subcontractors.

### OUR GOAL

To help our clients fulfill their fiduciary responsibilities to maintain property in good condition.

### VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

Reserve Advisors has conducted reserve studies for a multitude of different communities and building types. We've analyzed thousands of buildings, from as small as a 3,500-square foot day care center to the 2,600,000-square foot 98-story Trump International Hotel and Tower in Chicago. We also routinely inspect buildings with various types of mechanical systems such as simple electric heat, to complex systems with air handlers, chillers, boilers, elevators, and life safety and security systems.

We're familiar with all types of building exteriors as well. Our well versed staff regularly identifies optimal repair and replacement solutions for such building exterior surfaces such as adobe, brick, stone, concrete, stucco, EIFS, wood products, stained glass and aluminum siding, and window wall systems.

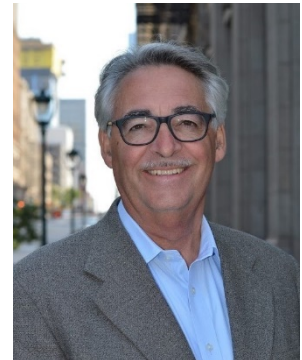
### OLD TO NEW

Reserve Advisors experience includes ornate and vintage buildings as well as modern structures. Our specialists are no strangers to older buildings. We're accustomed to addressing the unique challenges posed by buildings that date to the 1800's. We recognize and consider the methods of construction employed into our analysis. We recommend appropriate replacement programs that apply cost effective technologies while maintaining a building's character and appeal.

**QUALIFICATIONS**  
**THEODORE J. SALGADO**  
**Principal Owner**

**CURRENT CLIENT SERVICES**

Theodore J. Salgado is a co-founder of Reserve Advisors, Inc., which is dedicated to serving community associations, city and country clubs, religious organizations, educational facilities, and public and private entities throughout the United States. He is responsible for the production, management, review, and quality assurance of all reserve studies, property inspection services and consulting services for a nationwide portfolio of more than 6,000 clients. Under his direction, the firm conducts reserve study services for community associations, apartment complexes, churches, hotels, resorts, office towers and vintage architecturally ornate buildings.



**PRIOR RELEVANT EXPERIENCE**

Before founding Reserve Advisors with John P. Poehlmann in 1991, Mr. Salgado, a professional engineer registered in the State of Wisconsin, served clients for over 15 years through American Appraisal Associates, the world's largest full service valuation firm. Mr. Salgado conducted facilities analyses of hospitals, steel mills and various other large manufacturing and petrochemical facilities and casinos.

He has served clients throughout the United States and in foreign countries, and frequently acted as project manager on complex valuation, and federal and state tax planning assignments. His valuation studies led to negotiated settlements on property tax disputes between municipalities and property owners.

Mr. Salgado has authored articles on the topic of reserve studies and facilities maintenance. He also co-authored Reserves, an educational videotape produced by Reserve Advisors on the subject of Reserve Studies and maintaining appropriate reserves. Mr. Salgado has also written in-house computer applications manuals and taught techniques relating to valuation studies.

**EXPERT WITNESS**

Mr. Salgado has testified successfully before the Butler County Board of Tax Revisions in Ohio. His depositions in pretrial discovery proceedings relating to reserve studies of Crestview Estates Condominium Association in Wauconda, Illinois, Rivers Point Row Property Owners Association, Inc. in Charleston, South Carolina and the North Shore Club Associations in South Bend, Indiana have successfully assisted the parties in arriving at out of court settlements.

**EDUCATION** - Milwaukee School of Engineering - B.S. Architectural Engineering

**PROFESSIONAL AFFILIATIONS/DESIGNATIONS**

American Association of Cost Engineers - Past President, Wisconsin Section  
Association of Construction Inspectors - Certified Construction Inspector  
Association of Professional Reserve Analysts - Past President & Professional Reserve Analyst (PRA)  
Community Associations Institute - Member and Volunteer Leader of multiple chapters  
Concordia Seminary, St. Louis - Member, National Steering Committee  
Milwaukee School of Engineering - Member, Corporation Board  
Professional Engineer, Wisconsin (1982) and North Carolina (2014)

Ted continually maintains his professional skills through American Society of Civil Engineers, ASHRAE, Association of Construction Inspectors, and continuing education to maintain his professional engineer licenses.

**JOHN P. POEHLMANN, RS**  
**Principal**

John P. Poehlmann is a co-founder of Reserve Advisors, Inc. He is responsible for the finance, accounting, marketing, and overall administration of Reserve Advisors, Inc. He also regularly participates in internal Quality Control Team Reviews of Reserve Study reports.

Mr. Poehlmann directs corporate marketing, including business development, advertising, press releases, conference and trade show exhibiting, and electronic marketing campaigns. He frequently speaks throughout the country at seminars and workshops on the benefits of future planning and budgeting for capital repairs and replacements of building components and other assets.



**PRIOR RELEVANT EXPERIENCE**

Mr. Poehlmann served on the national Board of Trustees of Community Associations Institute. An international organization, Community Associations Institute (CAI) is a nonprofit 501(c)(3) trade association created in 1973 to provide education and resources to America's 335,000 residential condominium, cooperative and homeowner associations and related professionals and service providers.

He is a founding member of the Institute's Reserve Committee. The Reserve Committee developed national standards and the Reserve Specialist (RS) Designation Program for Reserve Study providers. Mr. Poehlmann has authored numerous articles on the topic of Reserve Studies, including Reserve Studies for the First Time Buyer, Minimizing Board Liability, Sound Association Planning Parallels Business Concepts, and Why Have a Professional Reserve Study. He is also a contributing author in Condo/HOA Primer, a book published for the purpose of sharing a wide background of industry knowledge to help boards in making informed decisions about their communities.

**INDUSTRY SERVICE AWARDS**

CAI Wisconsin Chapter Award  
CAI National Rising Star Award  
CAI Michigan Chapter Award

**EDUCATION**

University of Wisconsin-Milwaukee - Master of Science Management  
University of Wisconsin - Bachelor of Business Administration

**PROFESSIONAL AFFILIATIONS**

**Community Associations Institute (CAI)** - Founding member of Reserve Committee; former member of National Board of Trustees; Reserve Specialist (RS) designation; Member of multiple chapters

**Association of Condominium, Townhouse, & Homeowners Associations (ACTHA)** – member

**CHRISTOPHER C. DEWALL, P.E., PRA, RS**  
**Director of Product Development**  
**Great Lakes Regional Engineering Manager**

**CURRENT CLIENT SERVICES**

Christopher C. DeWall, a Professional Engineer, is a Director and Engineering Manager for Reserve Advisors. Mr. DeWall has been with Reserve Advisors since 2008 and is responsible for the inspection and analysis of the property's current condition, recommending engineering solutions to prolong the lives of building components, forecasting capital expenditures for the repair and/or replacement of the property components, and technical report preparation on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services and the preparation of Reserve Study Reports for high and midrise buildings, country clubs, and townhomes and homeowner associations. Christopher DeWall often serves as Quality Assurance Reviewer for all types of developments to ensure our reports maintain the level of quality which is expected of our firm.



The following is a partial list of clients served by Christopher DeWall demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

**North Bank Condominium Home Owners Association** is the definition of old meets new in two conjoined buildings in the arena district of Columbus, Ohio. A 20-story tower of wall-to-ceiling windows was built in 2006 next to the historic A&P grocery warehouse originally constructed in 1926. This unique combination of 103 units provides the option of a converted warehouse style loft or a high-rise apartment with stunning views of the Columbus skyline.

**Riverwalk Plaza Condominium Association** consists of two converted warehouse buildings from the late 1800s in the Third Ward of Milwaukee, Wisconsin. The Association houses 75 loft style units with exposed Cream City brick and is situated directly on the Milwaukee River.

**Carillon Adult Master Association** is a planned unit development of 2,100+ homes between 16 separate associations in Plainfield, Illinois. This active adult community includes a 32,000-square foot clubhouse complete with wood shop, ceramics room, exercise room, indoor pool and theater. Additional amenities include two outdoor pools, bocce and shuffleboard courts, and tennis/pickle ball courts nestled amongst a private 27-hole golf course.

**Prairie Park at Wheeling Condominium Association** is a midrise community of 240 units in four buildings located in Wheeling, Illinois. The property includes an elaborate waterfall at the entrance to the community and a clubhouse with indoor pool for year round entertainment.

**Belfair Property Owners Association** is a private golf community situated on the Belfair Plantation five miles from Hilton Head Island. Magnificent oak trees over one hundred years old line the entrance to this property that dates back to the plantation built in 1811. The community amenities include a recently expanded clubhouse, two 18-hole golf courses, pool and exercise buildings and a state-of-the-art 29-acre practice facility. Belfair offers freshwater lakes, saltwater marshes and South Carolina wildlife.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Mr. DeWall attended the University of Wisconsin in Madison, Wisconsin where he attained his Bachelor of Science degree in Mechanical Engineering. At the University of Wisconsin, Mr. DeWall helped design and fabricate a wheelchair with a seat capable of raising and lowering to and from the ground. Mr. DeWall is also the proud owner of a patent for a trigger lock on a pressure washer gun he developed while interning at Briggs and Stratton Power Products.

**EDUCATION**

University of Wisconsin - B.S. Mechanical Engineering

**PROFESSIONAL AFFILIATIONS**

*Professional Engineer (P.E.) - Wisconsin 2016*

*Professional Reserve Analyst (PRA) - Association of Professional Reserve Analysts*

*Reserve Specialist (RS) - Community Associations Institute*

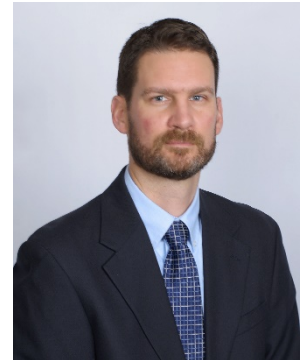


**ALAN M. EBERT, P.E., PRA, RS**  
**Director of Quality Assurance**

**CURRENT CLIENT SERVICES**

Alan M. Ebert, a Professional Engineer, is the Director of Quality Assurance for Reserve Advisors. Mr. Ebert is responsible for the management, review and quality assurance of reserve studies. In this role, he assumes the responsibility of stringent report review analysis to assure report accuracy and the best solution for Reserve Advisors' clients.

Mr. Ebert has been involved with thousands of Reserve Study assignments. The following is a partial list of clients served by Alan Ebert demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.



**Brownsville Winter Haven** Located in Brownsville, Texas, this unique homeowners association contains 525 units. The Association maintains three pools and pool houses, a community and management office, landscape and maintenance equipment, and nine irrigation canals with associated infrastructure.

**Rosemont Condominiums** This unique condominium is located in Alexandria, Virginia and dates to the 1940's. The two mid-rise buildings utilize decorative stone and brick masonry. The development features common interior spaces, multi-level wood balconies and common asphalt parking areas.

**Stillwater Homeowners Association** Located in Naperville, Illinois, Stillwater Homeowners Association maintains four tennis courts, an Olympic sized pool and an upscale ballroom with commercial-grade kitchen. The community also maintains three storm water retention ponds and a detention basin.

**Birchfield Community Services Association** This extensive Association comprises seven separate parcels which include 505 townhome and single family homes. This Community Services Association is located in Mt. Laurel, New Jersey. Three lakes, a pool, a clubhouse and management office, wood carports, aluminum siding, and asphalt shingle roofs are a few of the elements maintained by the Association.

**Oakridge Manor Condominium Association** Located in Londonderry, New Hampshire, this Association includes 104 units at 13 buildings. In addition to extensive roads and parking areas, the Association maintains a large septic system and significant concrete retaining walls.

**Memorial Lofts Homeowners Association** This upscale high rise is located in Houston, Texas. The 20 luxury units include large balconies and decorative interior hallways. The 10-story building utilizes a painted stucco facade and TPO roof, while an on-grade garage serves residents and guests.

**PRIOR RELEVANT EXPERIENCE**

Mr. Ebert earned his Bachelor of Science degree in Geological Engineering from the University of Wisconsin-Madison. His relevant course work includes foundations, retaining walls, and slope stability. Before joining Reserve Advisors, Mr. Ebert was an oilfield engineer and tested and evaluated hundreds of oil and gas wells throughout North America.

**EDUCATION**

University of Wisconsin-Madison - B.S. Geological Engineering

**PROFESSIONAL AFFILIATIONS/DESIGNATIONS**

*Professional Engineering License* – Wisconsin, North Carolina, Illinois, Colorado

*Reserve Specialist (RS)* - Community Associations Institute

*Professional Reserve Analyst (PRA)* - Association of Professional Reserve Analysts



## RESOURCES

Reserve Advisors, Inc. utilizes numerous resources of national and local data to conduct its Professional Services. A concise list of several of these resources follows:

**Association of Construction Inspectors**, (ACI) the largest professional organization for those involved in construction inspection and construction project management. ACI is also the leading association providing standards, guidelines, regulations, education, training, and professional recognition in a field that has quickly become important procedure for both residential and commercial construction, found on the web at [www.iami.org](http://www.iami.org). Several advisors and a Principal of Reserve Advisors, Inc. hold Senior Memberships with ACI.

**American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.**, (ASHRAE) the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., devoted to the arts and sciences of heating, ventilation, air conditioning and refrigeration; recognized as the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines, found on the web at [www.ashrae.org](http://www.ashrae.org). Reserve Advisors, Inc. actively participates in its local chapter and holds individual memberships.

**Community Associations Institute**, (CAI) America's leading advocate for responsible communities noted as the only national organization dedicated to fostering vibrant, responsive, competent community associations. Their mission is to assist community associations in promoting harmony, community, and responsible leadership.

**Marshall & Swift / Boeckh**, (MS/B) the worldwide provider of building cost data, co-sourcing solutions, and estimating technology for the property and casualty insurance industry found on the web at [www.marshallswift.com](http://www.marshallswift.com).

**R.S. Means CostWorks**, North America's leading supplier of construction cost information. As a member of the Construction Market Data Group, Means provides accurate and up-to-date cost information that helps owners, developers, architects, engineers, contractors and others to carefully and precisely project and control the cost of both new building construction and renovation projects found on the web at [www.rsmeans.com](http://www.rsmeans.com).

Reserve Advisors, Inc., library of numerous periodicals relating to reserve studies, condition analyses, chapter community associations, and historical costs from thousands of capital repair and replacement projects, and product literature from manufacturers of building products and building systems.

## 7. DEFINITIONS

Definitions are derived from the standards set forth by the Community Associations Institute (CAI) representing America's 305,000 condominium and homeowners associations and cooperatives, and the Association of Professional Reserve Analysts, setting the standards of care for reserve study practitioners.

**Cash Flow Method** - A method of calculating Reserve Contributions 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 Method** - A method of developing a Reserve Funding Plan with the total contribution is based on the sum of the contributions for individual components.

**Current Cost of Replacement** - That amount required today derived from the quantity of a *Reserve Component* and its unit cost to replace or repair a Reserve Component using the most current technology and construction materials, duplicating the productive utility of the existing property at current *local* market prices for *materials, labor* and manufactured equipment, contractors' overhead, profit and fees, but without provisions for building permits, overtime, bonuses for labor or premiums for material and equipment. We include removal and disposal costs where applicable.

**Fully Funded Balance** - The Reserve balance that is in direct proportion to the fraction of life "used up" of the current Repair or Replacement cost similar to Total Accrued Depreciation.

**Funding Goal (Threshold)** - The stated purpose of this Reserve Study is to determine the adequate, not excessive, minimal threshold reserve balances.

**Future Cost of Replacement** - *Reserve Expenditure* derived from the inflated current cost of replacement or current cost of replacement as defined above, with consideration given to the effects of inflation on local market rates for materials, labor and equipment.

**Long-Lived Property Component** - Property component of Valley Lo Towers I responsibility not likely to require capital repair or replacement during the next 30 years with an unpredictable remaining Useful Life beyond the next 30 years.

**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.

**Remaining Useful Life** - The estimated remaining functional or useful time in years of a *Reserve Component* based on its age, condition and maintenance.

**Reserve Component** - Property elements with: 1) Valley Lo Towers I responsibility; 2) limited Useful Life expectancies; 3) predictable Remaining Useful Life expectancies; and 4) a replacement cost above a minimum threshold.

**Reserve Component Inventory** - Line Items in *Reserve Expenditures* that identify a *Reserve Component*.

**Reserve Contribution** - An amount of money set aside or *Reserve Assessment* contributed to a *Reserve Fund* for future *Reserve Expenditures* to repair or replace *Reserve Components*.

**Reserve Expenditure** - Future Cost of Replacement of a Reserve Component.

**Reserve Fund Status** - The accumulated amount of reserves in dollars at a given point in time, i.e., at year end.

**Reserve Funding Plan** - The portion of the Reserve Study identifying the *Cash Flow Analysis* and containing the recommended Reserve Contributions and projected annual expenditures, interest earned and reserve balances.

**Reserve Study** - A budget planning tool that identifies the current status of the reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures.

**Useful Life** - The anticipated total time in years that a *Reserve Component* is expected to serve its intended function in its present application or installation.



## 8. PROFESSIONAL SERVICE CONDITIONS

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

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

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

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

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

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

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

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

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