

# **Reserve Study Level II**

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**Prepared for Grand Firs HOA**

**2016 Fiscal Year**



Prepared by CEDCORE, LLC

Version 1

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## Executive Summary

Report Details			
<b>Association Name:</b>	Grand Firs HOA		
<b>Location:</b>	Graham, WA	<b>Number of Units:</b>	402
<b>Level of Service:</b>	Level II	<b>Site Visit Date:</b>	11/18/2015
<b>Report Period:</b>	FY 2016	<b>Projection Period:</b>	2016 - 2045
<b>Reserve Account Snap Shot      January 1, 2016</b>			
Projected Reserve Balance:			\$203,000.00
Fully Funded Reserve Balance:			\$953,779.52
Percent Funded:			21 %
Reserve Surplus or (-) Deficit Per Unit:			(\$1,867.61)
Current Monthly Reserve Fund Contribution:			\$1,000
Interest Rate			1.00 %
Inflation Rate			3.00 %
<b>2016 Reserve Contribution Requirements (based on the above position)</b>			
Full Funding	Monthly Reserve Contribution:		\$8,900.00
	Monthly Reserve Contribution Per Unit (Average):		\$22.14
	Special Assessment Required for this Plan:		\$0.00
Baseline Funding	Monthly Reserve Contribution:		\$6,870.00
	Monthly Reserve Contribution Per Unit (Average):		\$17.09
	Special Assessment Required for this Plan:		\$0.00

Based upon the budget and maintenance practices of the association we have used a funding threshold of \$4,000.00. Expenses below \$4,000.00 are not funded within this report and best treated as a maintenance expense. We have included comments within the Component Analysis Section of this report.

Table 1 - Component List

Component	Quantity	Current Cost	UL	RUL
Asphalt Repair	1 Allowance	\$50,000	15	14
Asphalt: Resurface	650,000 Square Feet	\$1,625,000	40	29
Fence, Chainlink: Replace	2,050 Linear Feet	\$43,050	35	25
Fence, Metal: Repair/Replace	230 Linear Feet	\$17,250	30	20
Fence, Split Rail: Replace	7,500 Linear Feet	\$112,500	15	5
Fence, Wood: Replace	18,000 Linear Feet	\$504,000	20	10
Fence: Repair	1 Allowance	\$10,000	10	0
Gate Operator: Replace	4 Each	\$13,400	15	5
Gate: Repair/Replace	4 Each	\$18,000	35	25
Irrigation System: Repair/Replace	1 Allowance	\$4,000	5	4
Lights: Pole, Replace	90 Each	\$170,000	30	20
Mailbox Cluster: Replace	28 Clusters	\$43,400	20	10
Picnic Assets: Replace	22 Each	\$16,500	20	10
Recreation Equipment: Replace	1 Allowance	\$28,500	20	5
Recreation Equipment: Replace	1 Allowance	\$28,500	20	12
Retention Pond: Clean/Refurbish	3 Each	\$15,000	10	3
Telephone Entry / Intercom: Replace	2 Each	\$5,630	15	5
Total Current Costs		\$2,704,730		
Total Funded Components			17	

Components without a UL are one-time expenses, not expecting to reoccur at this time. It is important to note that actual costs may vary significantly based on scope of work, actual conditions, hidden deterioration, vendor selection, etc. This component list is for budget planning purposes only.

## Financial Analysis

We have created the financial projections and recommendations based on the component list in Table One and a projected reserve fund balance \$203,000.00. For your Association to be 100% funded there should be \$953,779.52 in your reserve account(s). Therefore, your Association is projected to be 21.00% funded.

We recommend the Full Funding, which requires a monthly reserve contribution of \$8,900.00 with a 5.00 % increase in contributions each year for the next 30 years.

Currently the Association has monthly reserve contributions of \$1,000.00 and are Not projected to be sufficient over the next 30 years. The Baseline monthly reserve contribution requires \$6,870.00, with a 5.00 % increase in contributions each year for the next 30 years. The baseline funding plan is the lowest contribution amount calculated to prevent the Reserve Fund from dropping below a zero balance.

Figure 1 - Reserve Fund Ending Balance vs Fully Funded Balance

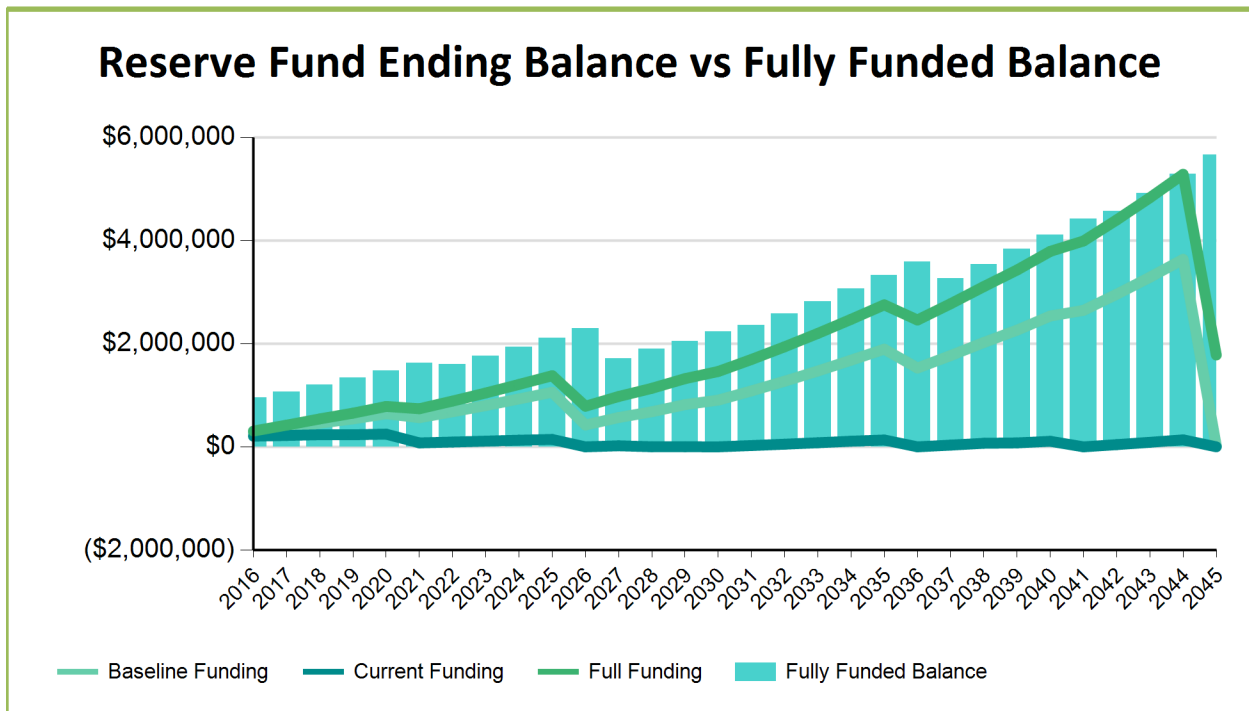


Figure 2 - Reserve Fund Ending Balance vs Reserve Expenses

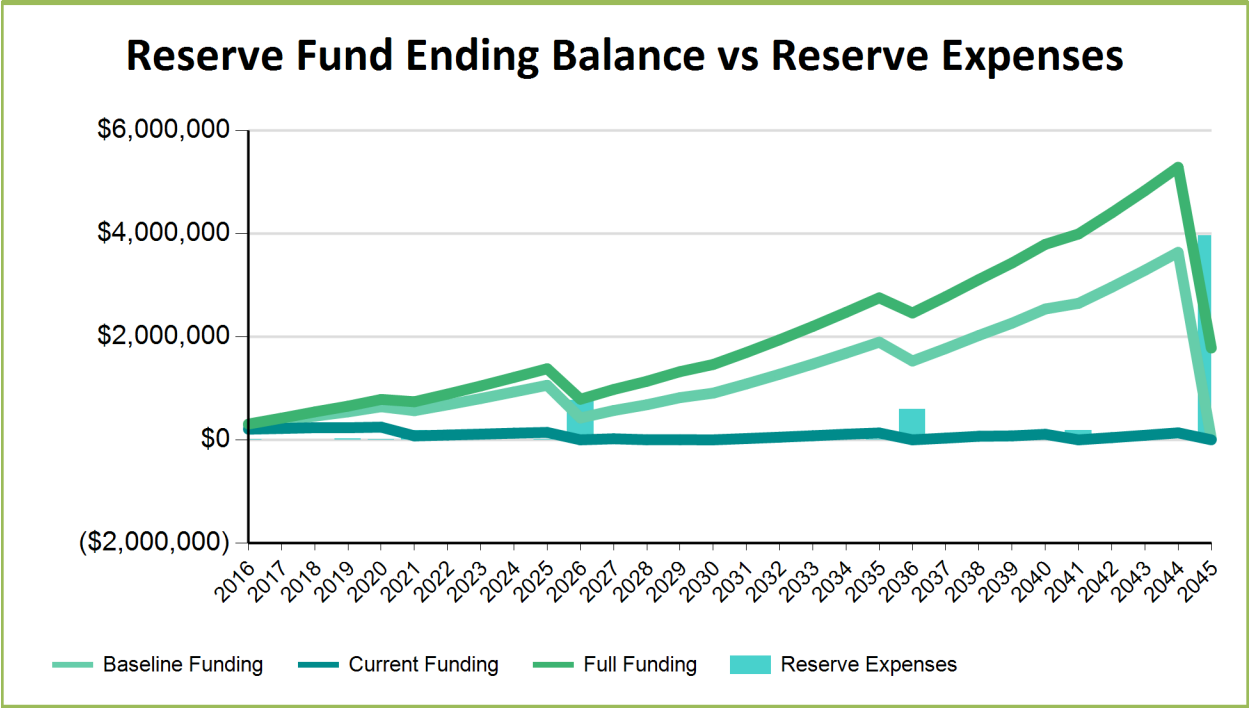


Figure 3 - Percent Funded Comparison

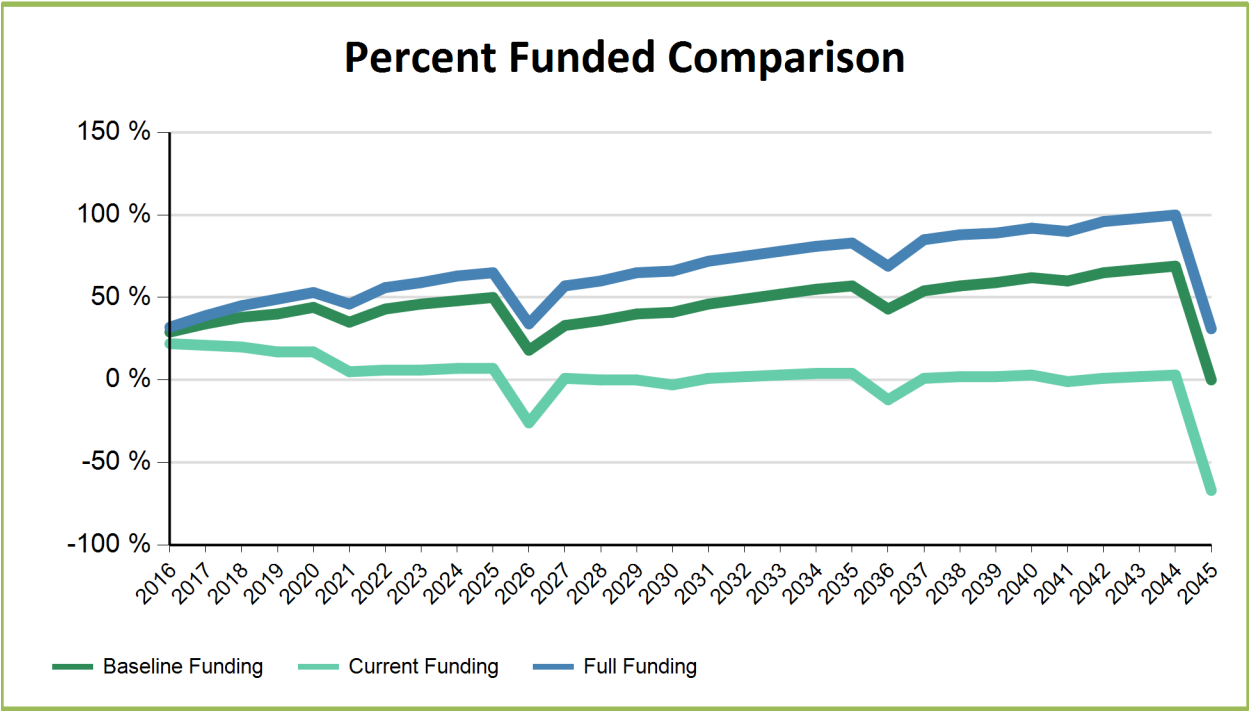
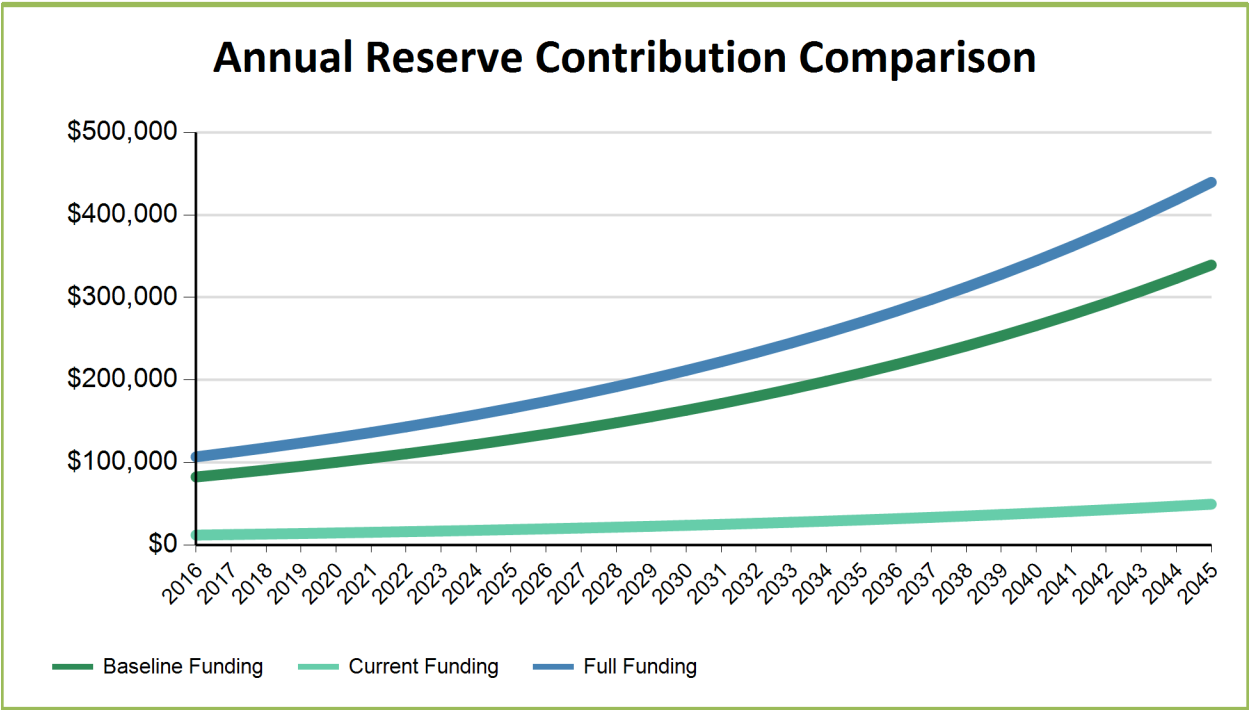


Figure 4 – Reserve Contribution Comparison



### 30 Year Reserve Fund Projection (Current Funding)

Current Funding Plan								
Year	Start Balance	Annual Reserve Contribution	Special Assessments	Additional Assessments Necessary Per Unit /Per Year	Interest Income	Reserve Expenses	Fully Funded Balance	Percent Funded
2016	\$203,000.00	\$12,000.00	\$0.00		\$1,393.00	\$10,000.00	\$953,779.52	21.64 %
2017	\$206,393.00	\$12,600.00	\$0.00		\$1,488.85	\$0.00	\$1,070,002.61	20.61 %
2018	\$220,482.00	\$13,230.00	\$0.00		\$1,589.68	\$0.00	\$1,202,949.66	19.56 %
2019	\$235,302.00	\$13,891.50	\$0.00		\$1,581.00	\$16,391.00	\$1,342,910.55	17.45 %
2020	\$234,384.00	\$14,586.08	\$0.00		\$1,660.23	\$4,502.00	\$1,473,303.80	16.71 %
2021	\$246,128.00	\$15,315.38	\$0.00		\$477.87	\$185,518.00	\$1,623,064.02	4.71 %
2022	\$76,403.00	\$16,081.15	\$0.00		\$591.11	\$0.00	\$1,594,175.92	5.84 %
2023	\$93,075.00	\$16,885.21	\$0.00		\$710.62	\$0.00	\$1,758,910.49	6.29 %
2024	\$110,671.00	\$17,729.47	\$0.00		\$836.75	\$0.00	\$1,932,094.38	6.69 %
2025	\$129,237.00	\$18,615.94	\$0.00		\$933.28	\$5,219.00	\$2,114,086.29	6.79 %
2026	\$143,567.00	\$19,546.74	\$0.00	\$1,512.84	\$0.00	\$771,274.00	\$2,299,883.12	-26.44 %
2027	\$0.00	\$20,524.07	\$0.00		\$71.83	\$0.00	\$1,706,050.22	1.21 %
2028	\$20,596.00	\$21,550.28	\$0.00		\$0.00	\$40,634.00	\$1,892,761.69	0.08 %
2029	\$1,512.00	\$22,627.79	\$0.00		\$0.00	\$22,028.00	\$2,047,287.11	0.10 %
2030	\$2,112.00	\$23,759.18	\$0.00	\$138.83	\$0.00	\$81,679.00	\$2,229,800.57	-2.50 %
2031	\$0.00	\$24,947.14	\$0.00		\$87.31	\$0.00	\$2,360,661.53	1.06 %
2032	\$25,034.00	\$26,194.50	\$0.00		\$266.92	\$0.00	\$2,584,021.50	1.99 %
2033	\$51,495.00	\$27,504.22	\$0.00		\$456.73	\$0.00	\$2,818,658.46	2.82 %
2034	\$79,456.00	\$28,879.43	\$0.00		\$657.27	\$0.00	\$3,065,048.00	3.56 %
2035	\$108,992.00	\$30,323.40	\$0.00		\$819.98	\$7,014.00	\$3,323,684.11	4.01 %
2036	\$133,121.00	\$31,839.57	\$0.00	\$1,066.80	\$0.00	\$593,813.00	\$3,587,855.45	-11.95 %
2037	\$0.00	\$33,431.55	\$0.00		\$117.01	\$0.00	\$3,260,699.24	1.03 %
2038	\$33,549.00	\$35,103.13	\$0.00		\$357.70	\$0.00	\$3,540,661.10	1.95 %
2039	\$69,010.00	\$36,858.29	\$0.00		\$404.85	\$29,604.00	\$3,834,486.05	2.00 %
2040	\$76,669.00	\$38,701.20	\$0.00		\$615.22	\$8,131.00	\$4,112,261.94	2.62 %
2041	\$107,854.00	\$40,636.26	\$0.00	\$97.03	\$0.00	\$187,498.00	\$4,426,284.92	-0.88 %
2042	\$0.00	\$42,668.07	\$0.00		\$149.34	\$0.00	\$4,570,951.88	0.94 %
2043	\$42,817.00	\$44,801.48	\$0.00		\$456.52	\$0.00	\$4,919,231.60	1.79 %
2044	\$88,075.00	\$47,041.55	\$0.00		\$781.17	\$0.00	\$5,284,294.30	2.57 %
2045	\$135,898.00	\$49,393.63	\$0.00	\$9,381.54	\$0.00	\$3,956,673.00	\$5,666,833.41	-66.55 %



### 30 Year Reserve Fund Projection (Full Funding)

Full Funding Plan							
Year	Start Balance	Annual Reserve Contribution	Special Assessments	Interest Income	Reserve Expenses	Fully Funded Balance	Percent Funded
2016	\$207,617.00	\$106,800.00	\$0.00	\$1,757.12	\$10,000.00	\$953,779.52	32.10 %
2017	\$306,174.00	\$112,140.00	\$0.00	\$2,535.71	\$0.00	\$1,070,002.61	39.33 %
2018	\$420,850.00	\$117,747.00	\$0.00	\$3,358.06	\$0.00	\$1,202,949.66	45.05 %
2019	\$541,955.00	\$123,634.35	\$0.00	\$4,111.67	\$16,391.00	\$1,342,910.55	48.65 %
2020	\$653,310.00	\$129,816.07	\$0.00	\$4,996.01	\$4,502.00	\$1,473,303.80	53.19 %
2021	\$783,620.00	\$136,306.87	\$0.00	\$4,663.79	\$185,518.00	\$1,623,064.02	45.54 %
2022	\$739,073.00	\$143,122.21	\$0.00	\$5,674.44	\$0.00	\$1,594,175.92	55.69 %
2023	\$887,869.00	\$150,278.33	\$0.00	\$6,741.06	\$0.00	\$1,758,910.49	59.41 %
2024	\$1,044,888.00	\$157,792.24	\$0.00	\$7,866.49	\$0.00	\$1,932,094.38	62.65 %
2025	\$1,210,546.00	\$165,681.85	\$0.00	\$9,017.18	\$5,219.00	\$2,114,086.29	65.28 %
2026	\$1,380,026.00	\$173,965.95	\$0.00	\$4,870.14	\$771,274.00	\$2,299,883.12	34.24 %
2027	\$787,588.00	\$182,664.24	\$0.00	\$6,152.44	\$0.00	\$1,706,050.22	57.23 %
2028	\$976,404.00	\$191,797.46	\$0.00	\$7,221.68	\$40,634.00	\$1,892,761.69	59.95 %
2029	\$1,134,789.00	\$201,387.33	\$0.00	\$8,494.18	\$22,028.00	\$2,047,287.11	64.60 %
2030	\$1,322,642.00	\$211,456.69	\$0.00	\$9,426.84	\$81,679.00	\$2,229,800.57	65.56 %
2031	\$1,461,847.00	\$222,029.53	\$0.00	\$11,010.03	\$0.00	\$2,360,661.53	71.80 %
2032	\$1,694,887.00	\$233,131.01	\$0.00	\$12,680.17	\$0.00	\$2,584,021.50	75.10 %
2033	\$1,940,698.00	\$244,787.56	\$0.00	\$14,441.64	\$0.00	\$2,818,658.46	78.05 %
2034	\$2,199,928.00	\$257,026.93	\$0.00	\$16,299.09	\$0.00	\$3,065,048.00	80.69 %
2035	\$2,473,254.00	\$269,878.28	\$0.00	\$18,208.25	\$7,014.00	\$3,323,684.11	82.87 %
2036	\$2,754,326.00	\$283,372.19	\$0.00	\$16,115.39	\$593,813.00	\$3,587,855.45	68.56 %
2037	\$2,460,000.00	\$297,540.80	\$0.00	\$18,261.39	\$0.00	\$3,260,699.24	85.13 %
2038	\$2,775,802.00	\$312,417.84	\$0.00	\$20,524.08	\$0.00	\$3,540,661.10	87.80 %
2039	\$3,108,744.00	\$328,038.74	\$0.00	\$22,702.12	\$29,604.00	\$3,834,486.05	89.45 %
2040	\$3,429,881.00	\$344,440.67	\$0.00	\$25,157.79	\$8,131.00	\$4,112,261.94	92.20 %
2041	\$3,791,349.00	\$361,662.71	\$0.00	\$26,492.78	\$187,498.00	\$4,426,284.92	90.19 %
2042	\$3,992,007.00	\$379,745.84	\$0.00	\$29,273.16	\$0.00	\$4,570,951.88	96.28 %
2043	\$4,401,026.00	\$398,733.14	\$0.00	\$32,202.75	\$0.00	\$4,919,231.60	98.23 %
2044	\$4,831,962.00	\$418,669.79	\$0.00	\$35,289.08	\$0.00	\$5,284,294.30	100.03 %
2045	\$5,285,921.00	\$439,603.28	\$0.00	\$10,843.35	\$3,956,673.00	\$5,666,833.41	31.41 %

## 30 Year Reserve Fund Projection (Baseline Funding)

Baseline Funding Plan							
Year	Start Balance	Annual Reserve Contribution	Special Assessments	Interest Income	Reserve Expenses	Fully Funded Balance	Percent Funded
2016	\$203,000.00	\$82,440.00	\$0.00	\$1,639.54	\$10,000.00	\$953,779.52	29.05 %
2017	\$277,080.00	\$86,562.00	\$0.00	\$2,242.53	\$0.00	\$1,070,002.61	34.19 %
2018	\$365,885.00	\$90,890.10	\$0.00	\$2,879.31	\$0.00	\$1,202,949.66	38.21 %
2019	\$459,654.00	\$95,434.61	\$0.00	\$3,436.86	\$16,391.00	\$1,342,910.55	40.37 %
2020	\$542,135.00	\$100,206.34	\$0.00	\$4,114.15	\$4,502.00	\$1,473,303.80	43.57 %
2021	\$641,953.00	\$105,216.65	\$0.00	\$3,563.30	\$185,518.00	\$1,623,064.02	34.82 %
2022	\$565,215.00	\$110,477.48	\$0.00	\$4,343.18	\$0.00	\$1,594,175.92	42.66 %
2023	\$680,035.00	\$116,001.36	\$0.00	\$5,166.25	\$0.00	\$1,758,910.49	45.55 %
2024	\$801,202.00	\$121,801.43	\$0.00	\$6,034.72	\$0.00	\$1,932,094.38	48.08 %
2025	\$929,038.00	\$127,891.50	\$0.00	\$6,914.35	\$5,219.00	\$2,114,086.29	50.07 %
2026	\$1,058,624.00	\$134,286.07	\$0.00	\$2,481.45	\$771,274.00	\$2,299,883.12	18.44 %
2027	\$424,117.00	\$141,000.38	\$0.00	\$3,462.32	\$0.00	\$1,706,050.22	33.33 %
2028	\$568,579.00	\$148,050.40	\$0.00	\$4,213.79	\$40,634.00	\$1,892,761.69	35.94 %
2029	\$680,209.00	\$155,452.92	\$0.00	\$5,151.35	\$22,028.00	\$2,047,287.11	39.99 %
2030	\$818,785.00	\$163,225.56	\$0.00	\$5,731.03	\$81,679.00	\$2,229,800.57	40.63 %
2031	\$906,063.00	\$171,386.84	\$0.00	\$6,942.29	\$0.00	\$2,360,661.53	45.94 %
2032	\$1,084,392.00	\$179,956.18	\$0.00	\$8,220.59	\$0.00	\$2,584,021.50	49.25 %
2033	\$1,272,569.00	\$188,953.99	\$0.00	\$9,569.32	\$0.00	\$2,818,658.46	52.19 %
2034	\$1,471,092.00	\$198,401.69	\$0.00	\$10,992.05	\$0.00	\$3,065,048.00	54.83 %
2035	\$1,680,486.00	\$208,321.77	\$0.00	\$12,443.43	\$7,014.00	\$3,323,684.11	56.99 %
2036	\$1,894,237.00	\$218,737.86	\$0.00	\$9,868.55	\$593,813.00	\$3,587,855.45	42.62 %
2037	\$1,529,031.00	\$229,674.76	\$0.00	\$11,507.08	\$0.00	\$3,260,699.24	54.29 %
2038	\$1,770,213.00	\$241,158.49	\$0.00	\$13,235.55	\$0.00	\$3,540,661.10	57.18 %
2039	\$2,024,607.00	\$253,216.42	\$0.00	\$14,851.28	\$29,604.00	\$3,834,486.05	59.02 %
2040	\$2,263,070.00	\$265,877.24	\$0.00	\$16,715.14	\$8,131.00	\$4,112,261.94	61.71 %
2041	\$2,537,531.00	\$279,171.10	\$0.00	\$17,427.33	\$187,498.00	\$4,426,284.92	59.79 %
2042	\$2,646,631.00	\$293,129.66	\$0.00	\$19,552.37	\$0.00	\$4,570,951.88	64.74 %
2043	\$2,959,313.00	\$307,786.14	\$0.00	\$21,792.44	\$0.00	\$4,919,231.60	66.86 %
2044	\$3,288,891.00	\$323,175.45	\$0.00	\$24,153.35	\$0.00	\$5,284,294.30	68.81 %
2045	\$3,636,219.00	\$339,334.22	\$0.00	\$0.00	\$3,956,673.00	\$5,666,833.41	0.33 %

## Funding Plan Cash Flow Projections

Full Funding Plan					
Year	2016	2017	2018	2019	2020
<b>Percent Funded</b>	32.10 %	39.33 %	45.05 %	48.65 %	53.19 %
Fully Funded Balance	\$953,779.52	\$1,070,002.61	\$1,202,949.66	\$1,342,910.55	\$1,473,303.80
Beginning Balance	\$207,617.00	\$306,174.00	\$420,850.00	\$541,955.00	\$653,310.00
Annual Contributions	\$106,800.00	\$112,140.00	\$117,747.00	\$123,634.35	\$129,816.07
Interest Earnings	\$1,757.12	\$2,535.71	\$3,358.06	\$4,111.67	\$4,996.01
Special Assessment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Reserve Expenses	\$10,000.00	\$0.00	\$0.00	\$16,391.00	\$4,502.00
Ending Balance	\$306,174.00	\$420,850.00	\$541,955.00	\$653,310.00	\$783,620.00

Expenses by Component & Year					
Components	2016	2017	2018	2019	2020
Asphalt Repair	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Asphalt: Resurface	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Chainlink: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Metal: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Split Rail: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Wood: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence: Repair	\$10,000.00	\$0.00	\$0.00	\$0.00	\$0.00
Gate Operator: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Gate: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Irrigation System: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$4,502.04
Lights: Pole, Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Mailbox Cluster: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Picnic Assets: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recreation Equipment: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recreation Equipment: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Retention Pond: Clean/Refurbish	\$0.00	\$0.00	\$0.00	\$16,390.91	\$0.00
Telephone Entry / Intercom: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Full Funding Plan					
Year	2021	2022	2023	2024	2025
<b>Percent Funded</b>	45.54 %	55.69 %	59.41 %	62.65 %	65.28 %
Fully Funded Balance	\$1,623,064.02	\$1,594,175.92	\$1,758,910.49	\$1,932,094.38	\$2,114,086.29
Beginning Balance	\$783,620.00	\$739,073.00	\$887,869.00	\$1,044,888.00	\$1,210,546.00
Annual Contributions	\$136,306.87	\$143,122.21	\$150,278.33	\$157,792.24	\$165,681.85
Interest Earnings	\$4,663.79	\$5,674.44	\$6,741.06	\$7,866.49	\$9,017.18
Special Assessment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Reserve Expenses	\$185,518.00	\$0.00	\$0.00	\$0.00	\$5,219.00
Ending Balance	\$739,073.00	\$887,869.00	\$1,044,888.00	\$1,210,546.00	\$1,380,026.00

Expenses by Component & Year					
Components	2021	2022	2023	2024	2025
Asphalt Repair	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Asphalt: Resurface	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Chainlink: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Metal: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Split Rail: Replace	\$130,418.33	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Wood: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence: Repair	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Gate Operator: Replace	\$15,534.27	\$0.00	\$0.00	\$0.00	\$0.00
Gate: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Irrigation System: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$5,219.09
Lights: Pole, Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Mailbox Cluster: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Picnic Assets: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recreation Equipment: Replace	\$33,039.31	\$0.00	\$0.00	\$0.00	\$0.00
Recreation Equipment: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Retention Pond: Clean/Refurbish	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Telephone Entry / Intercom: Replace	\$6,526.71	\$0.00	\$0.00	\$0.00	\$0.00

Full Funding Plan					
Year	2026	2027	2028	2029	2030
<b>Percent Funded</b>	34.24 %	57.23 %	59.95 %	64.60 %	65.56 %
Fully Funded Balance	\$2,299,883.12	\$1,706,050.22	\$1,892,761.69	\$2,047,287.11	\$2,229,800.57
Beginning Balance	\$1,380,026.00	\$787,588.00	\$976,404.00	\$1,134,789.00	\$1,322,642.00
Annual Contributions	\$173,965.95	\$182,664.24	\$191,797.46	\$201,387.33	\$211,456.69
Interest Earnings	\$4,870.14	\$6,152.44	\$7,221.68	\$8,494.18	\$9,426.84
Special Assessment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Reserve Expenses	\$771,274.00	\$0.00	\$40,634.00	\$22,028.00	\$81,679.00
Ending Balance	\$787,588.00	\$976,404.00	\$1,134,789.00	\$1,322,642.00	\$1,461,847.00

Expenses by Component & Year					
Components	2026	2027	2028	2029	2030
Asphalt Repair	\$0.00	\$0.00	\$0.00	\$0.00	\$75,629.49
Asphalt: Resurface	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Chainlink: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Metal: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Split Rail: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Wood: Replace	\$677,333.86	\$0.00	\$0.00	\$0.00	\$0.00
Fence: Repair	\$13,439.16	\$0.00	\$0.00	\$0.00	\$0.00
Gate Operator: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Gate: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Irrigation System: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$6,050.36
Lights: Pole, Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Mailbox Cluster: Replace	\$58,325.97	\$0.00	\$0.00	\$0.00	\$0.00
Picnic Assets: Replace	\$22,174.62	\$0.00	\$0.00	\$0.00	\$0.00
Recreation Equipment: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recreation Equipment: Replace	\$0.00	\$0.00	\$40,634.19	\$0.00	\$0.00
Retention Pond: Clean/Refurbish	\$0.00	\$0.00	\$0.00	\$22,028.01	\$0.00
Telephone Entry / Intercom: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Full Funding Plan					
Year	2031	2032	2033	2034	2035
<b>Percent Funded</b>	71.80 %	75.10 %	78.05 %	80.69 %	82.87 %
Fully Funded Balance	\$2,360,661.53	\$2,584,021.50	\$2,818,658.46	\$3,065,048.00	\$3,323,684.11
Beginning Balance	\$1,461,847.00	\$1,694,887.00	\$1,940,698.00	\$2,199,928.00	\$2,473,254.00
Annual Contributions	\$222,029.53	\$233,131.01	\$244,787.56	\$257,026.93	\$269,878.28
Interest Earnings	\$11,010.03	\$12,680.17	\$14,441.64	\$16,299.09	\$18,208.25
Special Assessment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Reserve Expenses	\$0.00	\$0.00	\$0.00	\$0.00	\$7,014.00
Ending Balance	\$1,694,887.00	\$1,940,698.00	\$2,199,928.00	\$2,473,254.00	\$2,754,326.00

Expenses by Component & Year					
Components	2031	2032	2033	2034	2035
Asphalt Repair	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Asphalt: Resurface	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Chainlink: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Metal: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Split Rail: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Wood: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence: Repair	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Gate Operator: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Gate: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Irrigation System: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$7,014.02
Lights: Pole, Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Mailbox Cluster: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Picnic Assets: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recreation Equipment: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recreation Equipment: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Retention Pond: Clean/Refurbish	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Telephone Entry / Intercom: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Full Funding Plan					
Year	2036	2037	2038	2039	2040
<b>Percent Funded</b>	68.56	85.13	87.80	89.45	92.20
Fully Funded Balance	\$3,587,855.45 %	\$3,260,699.24 %	\$3,540,661.10 %	\$3,834,486.05 %	\$4,112,261.94 %
Beginning Balance	\$2,754,326.00	\$2,460,000.00	\$2,775,802.00	\$3,108,744.00	\$3,429,881.00
Annual Contributions	\$283,372.19	\$297,540.80	\$312,417.84	\$328,038.74	\$344,440.67
Interest Earnings	\$16,115.39	\$18,261.39	\$20,524.08	\$22,702.12	\$25,157.79
Special Assessment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Reserve Expenses	\$593,813.00	\$0.00	\$0.00	\$29,604.00	\$8,131.00
Ending Balance	\$2,460,000.00	\$2,775,802.00	\$3,108,744.00	\$3,429,881.00	\$3,791,349.00

Expenses by Component & Year					
Components	2036	2037	2038	2039	2040
Asphalt Repair	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Asphalt: Resurface	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Chainlink: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Metal: Repair/Replace	\$31,155.42	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Split Rail: Replace	\$203,187.51	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Wood: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence: Repair	\$18,061.11	\$0.00	\$0.00	\$0.00	\$0.00
Gate Operator: Replace	\$24,201.89	\$0.00	\$0.00	\$0.00	\$0.00
Gate: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Irrigation System: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$8,131.18
Lights: Pole, Replace	\$307,038.91	\$0.00	\$0.00	\$0.00	\$0.00
Mailbox Cluster: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Picnic Assets: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recreation Equipment: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recreation Equipment: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Retention Pond: Clean/Refurbish	\$0.00	\$0.00	\$0.00	\$29,603.80	\$0.00
Telephone Entry / Intercom: Replace	\$10,168.41	\$0.00	\$0.00	\$0.00	\$0.00

Full Funding Plan					
Year	2041	2042	2043	2044	2045
<b>Percent Funded</b>	90.19	96.28	98.23	100.03	31.41
Fully Funded Balance	\$4,426,284.92 %	\$4,570,951.88 %	\$4,919,231.60 %	\$5,284,294.30 %	\$5,666,833.41 %
Beginning Balance	\$3,791,349.00	\$3,992,007.00	\$4,401,026.00	\$4,831,962.00	\$5,285,921.00
Annual Contributions	\$361,662.71	\$379,745.84	\$398,733.14	\$418,669.79	\$439,603.28
Interest Earnings	\$26,492.78	\$29,273.16	\$32,202.75	\$35,289.08	\$10,843.35
Special Assessment	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Reserve Expenses	\$187,498.00	\$0.00	\$0.00	\$0.00	\$3,956,673.00
Ending Balance	\$3,992,007.00	\$4,401,026.00	\$4,831,962.00	\$5,285,921.00	\$1,779,694.00

Expenses by Component & Year					
Components	2041	2042	2043	2044	2045
Asphalt Repair	\$0.00	\$0.00	\$0.00	\$0.00	\$117,828.28
Asphalt: Resurface	\$0.00	\$0.00	\$0.00	\$0.00	\$3,829,418.95
Fence, Chainlink: Replace	\$90,137.14	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Metal: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Split Rail: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence, Wood: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fence: Repair	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Gate Operator: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Gate: Repair/Replace	\$37,688.00	\$0.00	\$0.00	\$0.00	\$0.00
Irrigation System: Repair/Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$9,426.26
Lights: Pole, Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Mailbox Cluster: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Picnic Assets: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recreation Equipment: Replace	\$59,672.67	\$0.00	\$0.00	\$0.00	\$0.00
Recreation Equipment: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Retention Pond: Clean/Refurbish	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Telephone Entry / Intercom: Replace	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00



## Physical Analysis

We completed a site visit as part of this reserve study on 11/18/2015. Table 2 below shows all the components considered for funding and explains the basis of the funding decision.

**Table 2: Component Funding Basis**

Component	Condition	Funding Basis
Asphalt Repair	Fair	Funded for repair
Asphalt: Resurface	Functional	Funded based on the typical life expectancy
Concrete	Good	Unfunded, no predictable expectation of expense
Drainage/Sewer	Functional	Unfunded, no predictable expectation of expense
Entry Monument	Good	Unfunded, no predictable expectation of expense
Fence, Chainlink: Replace	Fair	Funded based on the typical life expectancy
Fence, Metal: Repair/Replace	Good	Funded based on the typical life expectancy
Fence, Split Rail: Replace	Older	Funded based on current condition
Fence, Wood: Replace	Fair	Funded based on the typical life expectancy
Fence: Repair	Poor	Funded for repair
Gate Operator: Replace	Functional	Funded based on the typical life expectancy
Gate: Repair/Replace	Good	Funded based on the typical life expectancy
Irrigation System: Repair/Replace	Assorted Condition	Funded for repair
Light Landscaping: Replace	Fair	Unfunded operating expense
Lights: Pole, Replace	Good	Funded based on the typical life expectancy
Mailbox Cluster: Replace	Good	Funded based on the typical life expectancy
Picnic Assets: Replace	Fair	Funded based on the typical life expectancy
Recreation Equipment: Replace	Assorted Condition	Funded based on current condition
Recreation Equipment: Replace	Assorted Condition	Funded based on current condition
Retention Pond: Clean/Refurbish	Assorted Condition	Funded for repair
Signage: Replace	Good	Unfunded operating expense
Telephone Entry / Intercom: Replace	Functional	Funded based on the typical life expectancy

Table 3: Component Metrics

Component	FFB	% FFB	Annual Cost	% Annual Cost
Asphalt Repair	\$3,333.33	0.35%	\$3,333.33	3.51%
Asphalt: Resurface	\$446,875.00	46.85%	\$40,625.00	42.74%
Fence, Chainlink: Replace	\$12,300.00	1.29%	\$1,230.00	1.29%
Fence, Metal: Repair/Replace	\$5,750.00	0.60%	\$575.00	0.60%
Fence, Split Rail: Replace	\$75,000.00	7.86%	\$7,500.00	7.89%
Fence, Wood: Replace	\$252,000.00	26.42%	\$25,200.00	26.51%
Fence: Repair	\$10,000.00	1.05%	\$1,000.00	1.05%
Gate Operator: Replace	\$8,933.33	0.94%	\$893.33	0.94%
Gate: Repair/Replace	\$5,142.86	0.54%	\$514.29	0.54%
Irrigation System: Repair/Replace	\$800.00	0.08%	\$800.00	0.84%
Lights: Pole, Replace	\$56,666.67	5.94%	\$5,666.67	5.96%
Mailbox Cluster: Replace	\$21,700.00	2.28%	\$2,170.00	2.28%
Picnic Assets: Replace	\$8,250.00	0.86%	\$825.00	0.87%
Recreation Equipment: Replace	\$21,375.00	2.24%	\$1,425.00	1.50%
Recreation Equipment: Replace	\$11,400.00	1.20%	\$1,425.00	1.50%
Retention Pond: Clean/Refurbish	\$10,500.00	1.10%	\$1,500.00	1.58%
Telephone Entry / Intercom: Replace	\$3,753.33	0.39%	\$375.33	0.39%
Current Fully Funded Balance		\$953,779.52	\$95,057.95 Per Year	
Current Reserve Fund Deficit/Surplus		(\$750,779.52)	\$7,921.50 Per Month	

This table shows metric information regarding the influence each component has on the fully funded balance and contribution requirements.

## Component Details

### Site/Grounds - Asphalt Repair

Quantity: 1 Allowance

UL: 15

RUL: 14

Current Cost: \$50,000.00

Condition: Fair

Funding Basis: Funded for repair



This component includes funding for cycles of repair. This will maximize the life of the asphalt and extend the timeframe of when an overlay is required.

### Site/Grounds - Asphalt: Resurface

Quantity: 650000 Square Feet

UL: 40

Condition: Functional

RUL: 29

Funding Basis: Funded based on the  
typical life expectancy

Current Cost: \$1,625,000.00

Generally fair condition of asphalt, with no unusual cracking, waviness or deterioration noted. We recommend regular cycles of repair and seal coat to maximize the life of the asphalt. We understand there are no desires to fund for sealing. Reserve funding recommended for eventual overlay.

### Site/Grounds - Concrete

Current Cost:

Condition: Good

Funding Basis: Unfunded, no predictable expectation  
of expense



Generally fair condition with no widespread concerns. Complete any repairs as needed utilizing the operating budget. We recommend regular pressure washing to minimize slip and fall hazards and appearance. No expectation of large scale expenses at this time, therefore, no reserve funding.

### Site/Grounds - Drainage/Sewer

Current Cost:

Condition: Functional

Funding Basis: Unfunded, no predictable expectation  
of expense



No reported problems or history of drainage concerns. We suggest regular cleaning and inspection take place to ensure that Association drainage/storm drainage system is functioning properly. No funding at this time, update as needed in future reserve studies.

**Site/Grounds - Entry Monument**

Current Cost:

Condition: Good

Funding Basis: Unfunded, no predictable expectation of expense



Good condition with no concerns identified during the site visit. Sturdy construction and materials. No expectation of total replacement, no reserve funding.

**Site/Grounds - Fence, Chainlink: Replace**

Quantity: 2050 Linear Feet

UL: 35

RUL: 25

Current Cost: \$43,050.00

Condition: Fair

Funding Basis: Funded based on the typical life expectancy



Good condition of the black vinyl chain link fencing. The life expectancy of these units are approximately 30-35 years. Reserve funding recommended.

**Site/Grounds - Fence, Metal: Repair/Replace**

Quantity: 230 Linear Feet

UL: 30

RUL: 20

Current Cost: \$17,250.00

Condition: Good

Funding Basis: Funded based on the typical life expectancy



Fair condition with no reported or observed rust noted during our limited scope visual inspection. Clean and repaint as needed for appearance.

**Site/Grounds - Fence, Split Rail: Replace**

Quantity: 7500 Linear Feet

UL: 15

RUL: 5

Current Cost: \$112,500.00

Condition: Older

Funding Basis: Funded based on current condition



Generally fair condition of wood fencing with no unusual deterioration, however, several areas of missing, damaged or removed rails. We suggest inspecting regularly and repairing as needed.

#### Site/Grounds - Fence, Wood: Replace

Quantity: 18000 Linear Feet

UL: 20

RUL: 10

Current Cost: \$504,000.00

Condition: Fair

Funding Basis: Funded based on the typical life expectancy



Assorted condition of wood fencing with areas of repair needed. Remove any contact with the ground and overgrowth to minimize advanced deterioration. Reserve funding recommended for eventual total replacement.

#### Site/Grounds - Fence: Repair

Quantity: 1 Allowance

UL: 10

Condition: Poor

RUL: 0

Funding Basis: Funded for repair

Current Cost: \$10,000.00

This component includes funding for areas of repair required. Adjust funding allowance based on actual cost history.

#### Mechanical & Equipment - Gate Operator: Replace

Quantity: 4 Each

UL: 15

RUL: 5

Current Cost: \$13,400.00

Condition: Functional

Funding Basis: Funded based on the typical life expectancy



Fair functional condition with no concerns at this time. We recommend working with a qualified vendor to develop and establish an operating and maintenance plan. Reserve funding recommended for cycles of replacement.

#### Site/Grounds - Gate: Repair/Replace



Quantity: 4 Each

UL: 35

RUL: 25

Current Cost: \$18,000.00

Condition: Good

Funding Basis: Funded based on the typical life expectancy



Generally fair condition with no significant dents and damage. These units can last an extended period of time if not damaged or abused. We recommend regular maintenance and lubrication as needed.

## Site/Grounds - Irrigation System: Repair/Replace

Quantity: 1 Allowance

UL: 5

RUL: 4

Current Cost: \$4,000.00

Condition: Assorted Condition

Funding Basis: Funded for repair



We suggest including irrigation maintenance within the Association's annual landscape budget/contract, such as select sprinkler head replacements. As the community and irrigation lines age, local areas of line replacement may be needed and generally is not covered by the landscape contract. At this time there is no expectation of total line replacement, however, we have included an allowance for partial repair/replacement every few years. As these expenses occur and trends are developed update the reserve funding as needed.

## Site/Grounds - Light Landscaping: Replace

Quantity: 38 Each

Condition: Fair

Funding Basis: Unfunded operating expense

Assumed to be in functional condition. Repair and replace as needed utilizing the operating budget. Best to treat as a maintenance expense. No expectation of total simultaneous replacement.

## Site/Grounds - Lights: Pole, Replace

Quantity: 90 Each

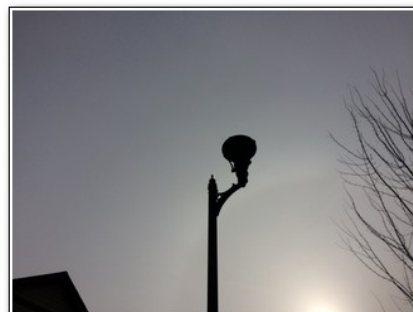
UL: 30

RUL: 20

Current Cost: \$170,000.00

Condition: Good

Funding Basis: Funded based on the typical life expectancy



Good condition with no unusual deterioration or instability observed. No history of concern. Repair as needed from the operating budget. Best to plan for total replacement for appearance and functionality.

## Site/Grounds - Mailbox Cluster: Replace

Quantity: 28 Clusters

UL: 20

RUL: 10

Current Cost: \$43,400.00

Condition: Good

Funding Basis: Funded based on the typical life expectancy



Fair condition of mailboxes with no unusual damage observed. Clean as needed to maintain appearance. We suggest planning for eventual replacement of the mailboxes to ensure functionality and community aesthetics.

## Site/Grounds - Picnic Assets: Replace

Quantity: 22 Each

UL: 20

RUL: 10

Current Cost: \$16,500.00

Condition: Fair

Funding Basis: Funded based on the typical life expectancy



Good to fair condition, with no damage or significant deterioration noted. Reserve funding provided for replacement.

## Recreation - Recreation Equipment: Replace

Quantity: 1 Allowance

UL: 20

RUL: 5

Current Cost: \$28,500.00

Condition: Assorted Condition

Funding Basis: Funded based on current condition



Generally fair functional condition with no structural instability or unusual deterioration noted during our inspection. However, aging apparent and one inoperable item observed. Inspect regularly and refurbish fall zones and repair as needed utilizing the operating budget. Reserve funding recommended for partial replacement.

## Recreation - Recreation Equipment: Replace

Quantity: 1 Allowance

UL: 20

RUL: 12

Current Cost: \$28,500.00

Condition: Assorted Condition

Funding Basis: Funded based on current condition



This component includes funding for remaining equipment.

## Site/Grounds - Retention Pond: Clean/Refurbish

Quantity: 3 Each

UL: 10

RUL: 3

Current Cost: \$15,000.00

Condition: Assorted Condition

Funding Basis: Funded for repair



At this time we strongly recommend working with a qualified engineer or stormwater official to develop a operations and maintenance plan. With regular proactive maintenance there is little expectation of large expenses. However, if not maintained may include removing sediment, rebuilding the retention pond, clearing clogged inlets/outlets, correcting inadequate erosion control, etc.

## Site/Grounds - Signage: Replace

Quantity: 77 Each

Current Cost:

Condition: Good

Funding Basis: Unfunded operating expense



Functional condition at this time. Best to plan for replacement as needed utilizing the operating budget. No expectation of widespread replacement at one time. No reserve funding required.

## Mechanical & Equipment - Telephone Entry / Intercom: Replace



Quantity: 2 Each

UL: 15

RUL: 5

Current Cost: \$5,630.00

Condition: Functional

Funding Basis: Funded based on the typical life expectancy



Reportedly in operation condition with no history of problems or concerns. Reserve funding recommended for replacement at approximately the 12-15 year mark of life.

## How to Read Your Reserve Study

This reserve study is an important planning tool that contains long-term common area replacement and financial recommendations for your Association. In order to accomplish this, we provide you with critical information that should be considered when evaluating the current health of your reserve fund, future maintenance, repair and replacement expenses and reserve contribution rates to include within the regular unit owner assessments. With the use of this reserve study your Association will be better prepared for present and future expenses.

We have worked to identify your common area assets, called **components**, which have maintenance or replacement expenses that can be anticipated. Our recommendations should help to minimize deferred maintenance and special assessments, as well as maximize your property value.

Having properly funded reserves enables the Association to keep the common area assets in good condition. When potential buyers consider which association to purchase a home in, the overall condition of the association and reserve fund may be considered. Having good financials, maintenance, and curb appeal, all work together to increase your property value.

We know that your needs are different from the needs of others. Therefore, we have created this report specifically for your Association. When possible, we have had discussions with the Association Board of Directors, vendors and professional management to provide recommendations that will help you meet your Association's goals and objectives.

## About Reserve Studies

By definition a reserve study is a budget planning tool. It identifies the current status of the reserve fund with a stable and equitable funding plan, to offset the anticipated future major common area expenditures. Plainly, a reserve study is a long term plan that indicates how much money needs to be set aside to pay for future expenses. The reserve study consists of two parts: the physical analysis and financial analysis.

The **physical analysis** identifies which components are appropriate for reserve funding and the current physical condition assessment of each asset; then indicates the life expectancy or useful life of the component as well as the life remaining or remaining useful life of each component. The physical analysis is concluded with the current cost to replace each component. The physical analysis information is used within the financial analysis. Therefore, it generally contains many recommendations and justifications regarding component repair, maintenance and replacement recommendations as well as cost and life cycles.

The **financial analysis** includes two results. First, it reveals the health of the reserve fund. This is completed by determining the current status of the reserve fund known as percent funded. The second result is the reserve contribution recommendation. Using the information contained within the physical analysis, the future expected expenses are analyzed and reviewed. Then multi-year funding plans are developed to meet various funding goals. The reserve contributions required to meet the funding goal desired is then presented and recommended to the Association.

## Reserve Study Levels

- **Level I:** Full Reserve Study Funding Analysis and Plan. This is the most labor intensive reserve study, as it includes both a physical and financial analysis. The component inventory list and current component condition assessments with life and valuation estimates are determined from an on-site visual inspection. This information is used to conduct the financial analysis, which includes the current fund status and a recommended funding plan. A "Full Reserve Study" is recommended when a previous reserve study is not available, a substantial time has elapsed since the last study (7-10

years), or there are concerns with an existing reserve study's component inventory or measurements.

- **Level II:** Update with Visual Site Inspection. This report updates both the physical analysis and financial analysis of an existing report. An on-site visual inspection is conducted to verify and/or make adjustments to the existing component list, condition assessments, useful life and component valuation estimates. The financial analysis is also updated, including the current fund status and recommended funding plan. A level II report is recommended at least every three years, before and after major projects and as required by state law.
- **Level III:** Update with No Visual Site Inspection. This report updates the financial analysis of an existing reserve study only. No on-site visual inspection is completed. An existing fund status and funding plan is updated using research conducted with board members, vendors, association managers and information contained within a prior reserve study. A level III report is recommended to review, adjust and verify that the existing funding plan is accurate and suitable for current economic conditions. A level III report is recommended at least annually.

## Percent Funded

Percent funded is a way to measure the strength of the reserve fund. The Community Associations Institute (CAI) defines "Percent Funded" as "the ratio, at a particular point of time, of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage." The **fully funded balance** is the total accrued depreciation or deterioration of the component(s). This balance is the cost of how much life has been used up. The fully funded balance is then used as an indicator against which the actual (or projected) reserve fund balance can be compared; known as percent funded.

For example, if an association were to replace interior carpeting in 10 years at an expense of \$10,000; then each year the cost of deterioration is 1/10th of the replacement cost. Therefore, each year \$1,000 of cost is accrued. In year 2, the fully funded balance would be \$2,000. In year 5, the cost of existing deterioration is \$5,000, and so on. To determine the percent funded, the FFB is compared to the reserve fund balance. To continue the above example, the association has \$2,000 in their reserve fund in year 2. The total accrued deterioration or FFB is \$2,000, therefore they are 100% funded. The association has saved 100% of the accrued deterioration or fully funded balance. If they have set aside only \$1,000, the association is 50% funded, having saved 50% of the existing deterioration or cost.

## Using Percent Funded to Measure Strength

- **0-30% Funded is a "weak" status.** There is a lack of funds reserved toward the amount of accrued deterioration. Whenever an association has a weak status there is an increased possibility of requiring special assessments, loans or deferred maintenance.
- **31-69% Funded is a "fair" status.** There is a decreased chance of requiring special assessments or deferred maintenance, however, cash flow problems may very easily arise.
- **70-100% Funded is a "strong" status.** Associations in this range generally have financial stability. There are generally no cash flow issues, special assessments or deferred maintenance necessary.
- **100% Funded is known as "ideal."** The reserve fund balance equals the fully funded balance. This is "ideal" because funds are reserved as components are used. It is thought to be the most fair for members because they pay as they go, or they pay their share.

## Use Caution When Using Percent Funded

Percent funded is a ratio and therefore does not convey the urgency that is often times required. There are two aspects that need to be considered when evaluating the urgency of the current situation, the time remaining before an expense is scheduled to occur, as well as the cost of the expense.

The first aspect that percent funded does not consider is the time remaining before the expense is to occur. Use the same carpet replacement example (\$10,000 carpet expense to be saved over 10 years). If, in year 5 they have only saved \$2,500 they are 50% funded (remember the total accrued deterioration or FFB would be \$5,000). To have the capital required to complete the project as scheduled in year 10 for \$10,000, they would need to save \$1,500 each year for the next 5 years.

Changing the time frames, if in year 10 they have set aside \$5,000, they would still be 50% funded (having saved 50% of the total accrued deterioration of \$10,000). However, they now need to attain \$5,000 of the required \$10,000 expense immediately rather than over a period of time.

These examples show that the percent funded ratio lacks the urgency that each association may have in attaining the rest of the financing.

Percent funded also does not consider the cost of the expense. Using the same 10 year cycle, changing the cost of the required expense from \$10,000 to a \$30,000 paint project, in year 5 the association is 50% funded by having set aside \$15,000. In this case, they must save \$3,000 each year, not \$1,500. If in year 10, they are 50% funded, they would need to save \$15,000 not \$5,000. Notice how the percent funded is the same, but the amount needed to meet the financial obligation is very different.

Percent funded is a very useful ratio, however, it must be placed in context. Remember to evaluate not only the percent funded but also the cash balance and size of the upcoming expenditures as well.

## Reserve Funding Plans & Goals

To determine the contribution rate to the reserve fund, the association needs to determine their reserve fund goal. This may be based on a number of objectives and analysis' corresponding to the reserve fund. There are three different funding goals associations may choose based on their risk tolerance:

- **Baseline Funding Goal** – This sets the reserve contribution amount as low as possible without the reserve fund dropping below a zero balance. This is the most risky method with the least contributed to the reserve fund. If an expense arrives early, or unexpected, there is a significant chance of needing a special assessment or loan.
- **Threshold Funding Goal** - The goal of Threshold Funding is to set the reserve contribution amount to meet a specified goal. Common goals to achieve and maintain are 70 Percent Funded, to maintain a cash-balance of 15% of the prior year's expenses, or to maintain a minimum cash-balance of the prior year's reserve contribution amount.
- **Full Funding Goal** – Sets the goal at being fully funded. This plan sets the reserve contribution amount to achieve a fully funded balance. Fully funded is achieved when the percent funded is 100%. It requires the largest contribution to the reserve fund of the three goals, but is also the least risky.

## Reserve Contributions

There are three ways to contribute to your Reserve Account:

- **Regular Contributions:** If adequate regular contributions are not established the reserve fund will eventually be underfunded. An underfunded reserve account leads to deferred maintenance and potentially extensive repair. As already mentioned, the effects of deferred maintenance and extensive repair are significantly more than routine or preventative maintenance. Additionally, it is the most fair and equitable to the association members. If reserve contributions are not set properly, whether too high or low, the individuals who use the asset will not be paying for it. If the contributions are set too high, current owners are paying for what future owners should pay for.

Likewise, when contributions are set too low, future owners will pay for what current owners should have paid for. Having properly set reserve contributions is the most fair for everyone involved.

- **Special Assessments:** If the reserve fund is underfunded at the time an expense is required, the association is forced to hold a special assessment. Most often, this occurs when deferred maintenance catches up and the association is forced to deal with it. It is better to have a small monthly increase now rather than a very large and unexpected increase later.
- **Loans:** If the association members do not have the finances to contribute to a special assessment or the required repairs are too extensive and costly for a special assessment, a loan may be required. This not only requires a monthly increase in dues, but members are then paying for past as well as future expenses, rather than just future expenses. The future still needs to be anticipated and saved for.

## Reserve Components

The components of a reserve study have significant impact on the accuracy of the report. If items are improperly included or excluded from the reserve study, then the projected expenses and subsequent required reserve contributions will likewise be affected. Before a component is included within the reserve study, it is evaluated and qualified using a nationally recognized four-part test:

- **Common Area:** The component must be association responsibility; limited common areas may be included.
- **Limited Useful Life:** The life of the component must be limited.
- **Predictable Life:** The limited life must be predictable.
- **Minimum Threshold Cost:** Generally greater than 1% of the annual operating budget or \$1,000 whichever is greater.

Repairs or replacements of components that are predicted to have an estimated remaining useful life exceeding this 30-year report period are generally not included. Items that are below the minimum threshold cost, or reoccur annually are generally included within the annual operating budget. Expenses that are necessitated by acts of nature, accidents or other occurrences that are more properly insured for, rather than reserved for, are also excluded.

## Maintaining Components

There are three ways to manage capital reserve expenses:

- **Preventative Maintenance:** This is the most effective way to extend the useful life of components and save money in the long run, as it is a proactive maintaining of components. The cost of maintaining the condition and quality of a component is much less than repair or replacing the component to bring it back to a usable condition and may also prolong the life expectancy of an asset.
- **Deferred Maintenance:** This is deferring routine maintenance rather than completing maintenance as recommended. A common household example of this is deferring the oil changes in a vehicle. Deferred maintenance is likely the first indication of, and results in, having inadequate reserve funds. While in the short run the association is contributing less money, the effects of deferring maintenance and the costs associated with it are far greater than the cost of preventative maintenance.
- **Extensive Repair or Replacement:** This is when a component needs to have significant repair(s) completed or even replacement prior than anticipated. While not always, this is generally a result of deferred maintenance. The cost of significant repair or advanced replacement is not only expensive, it also decreases association morale through poor association management, poor curb appeal and out of commission assets.

## Implementing Your Reserve Study

- **Step 1 - Understand:** The board of directors has the responsibility to lead the association, therefore, the first step is for the board to hold a meeting. This meeting should discuss the results of the reserve study in order for the Board to better understand the current position of the association and the upcoming reserve requirements of the association.
- **Step 2 - Plan:** The board should then create a plan to determine how best to manage the association's common area assets and financial position. Using this reserve study as a guide, the board should make the adjustments required to meet the needs of the association and its members. This includes setting the reserve contribution amount.
- **Step 3 - Communicate:** After the board has determined the best course of action, the plan needs to be communicated to the association members. This can be accomplished through the distribution of the results of this reserve study and/or through association meetings. This allows them to ask questions and understand the direction the association will be heading.
- **Step 4 - Update and Adjust:** Reserve studies are a one-year document, and need to be updated and adjusted annually. We recommend additional collaboration with specialized professionals to provide the expertise and adjustments to this reserve study. Additionally, we recommend the board review and make minor adjustments of this plan before and after reserve projects throughout the year.

## Supplemental Report Information

### Definitions

**COMPONENT:** The individual line items in the Reserve Study developed or updated in the Physical Analysis. These elements form the building blocks for the Reserve Study. Components are defined as being:

1. Association responsibility
2. Having a limited Useful Life expectancy
3. Predictable Remaining Useful Life expectancies
4. Above a minimum threshold cost
5. As required by law

**DEFICIT/SURPLUS:** The Reserve Balance less the Fully Funded Balance.

**FULLY FUNDED BALANCE (FFB):** Equivalent to Total Accrued Depreciation. This represents the deteriorated or used portion of the component. This is calculated for each component, then summed together for a total FFB.  
$$\text{FFB} = \text{Current Cost} \times \text{Effective Age} / \text{Useful Life}$$

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

**PROJECTED RESERVE BALANCE:** The anticipated reserve balance on the first day of the fiscal year for which this report has been prepared. This is based upon information provided and not audited.

**REMAINING USEFUL LIFE (RUL):** The estimated time, in years, that a reserve component can be expected to continue to serve its intended function.

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

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

Table 4 - RCW Required Information &amp; Location

RCW Required Information	Report Location
(a) A reserve component list, including any reserve component that would cost more than one percent of the annual budget of the association, not including the reserve account, for major maintenance, repair, or replacement. If one of these reserve components is not included in the reserve study, the study should provide commentary explaining the basis for its exclusion. The study must also include quantities and estimates for the useful life of each reserve component, remaining useful life of each reserve component, and current major maintenance, repair, or replacement cost for each reserve component;	Table 1 Table 4
(b) The date of the study and a statement that the study meets the requirements of this section;	Disclosure Page
(c) The level of reserve study performed;	Cover Page
(d) The association's reserve account balance;	Executive Summary
(e) The percentage of the fully funded balance that the reserve account is funded;	Executive Summary Financial Summary
(f) Special assessments already implemented or planned;	Executive Summary Financial Summary
(g) Interest and inflation assumptions;	Executive Summary Financial Summary
(h) Current reserve account contribution rate;	Executive Summary Financial Summary
(i) Recommended reserve account contribution rate; a contribution rate for a full funding plan to achieve one hundred percent fully funded reserves by the end of the thirty-year study period, a baseline funding plan to maintain the reserve balance above zero throughout the thirty-year study period without special assessments, and a contribution rate recommended by the reserve study professional;	Executive Summary Financial Summary
(j) Projected reserve account balance for thirty years and a funding plan to pay for projected costs from those reserves without reliance on future unplanned special assessments;	Spread Sheet of Reserve Expenses
(k) Whether the reserve study was prepared with the assistance of a reserve study professional.	Executive Summary
(3) A reserve study shall include the following disclosure: "This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair, or replacement of a reserve component."	Disclosure Page



## Reserve Study Disclosure

This document is the sole opinion of CEDCORE, LLC and has been provided pursuant to an agreement containing restrictions on its use. No part of this document may be copied or distributed, in any form or by any means, nor disclosed to third parties without the expressed written permission of CEDCORE. The client shall have the right to reproduce and distribute copies of this report, or the information contained within, as may be required for compliance with all applicable regulations.

This reserve study and the parameters under which it has been completed are based upon information provided to us in part by representatives of the association, its contractors, assorted vendors, specialists and independent contractors. The site visit is a limited scope visual observation of the surface condition of identified and exposed components. Hidden systems including but not limited to mechanical, electrical, structural, plumbing, storm water, sewer, water supply, foundations, etc. are beyond the scope of a reserve study. No destructive testing was undertaken, nor does this study purport to address any latent and/or patent defects or life expectancies which are abnormally short due to either improper design and/or installation or due to subsequent improper maintenance. It is assumed that all components are to be reasonably maintained for the remainder of their life expectancy.

Various construction pricing and scheduling manuals may be used as well as costs and life expectancies obtained from numerous vendors, vendor catalogues, actual quotations or historical costs, and our own experience in the field of Reserve Study preparation.

It has been assumed, unless otherwise noted in this report, that all assets have been designed and constructed properly and that each estimated Useful Life will approximate that of the norm per industry standards and/or manufacturer's specifications. In some cases, estimates may have been used on assets, which have an indeterminable but potential liability to the association. The decision for the inclusion of these as well as all assets considered is left to the client.

We recommend that your Reserve Study be updated on an annual basis due to fluctuating interest rates, inflationary changes, and the unpredictable nature of the useful life and cost of many of the assets under consideration.

This Reserve Study is provided as an aid for planning purposes and not as an accounting tool. Since it deals with events yet to take place, there is no assurance that the results enumerated within it will, in fact, occur as described. Additionally, other unanticipated expenses may arise that are not included within this reserve study. This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair, or replacement of a reserve component.

This Reserve Study was prepared by or under the direct supervision of a Reserve Specialist following National Reserve Study Standards and complies with RCW 64.34.382 and 64.38.070. This Reserve Study needs to be updated annually as well as when any new material information is obtained.





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