

# Circle C Homeowners Association

Inspected: March 8, 2023 • Austin, TX  
Revised: April 19, 2023

RESERVE STUDY



Long-term thinking. Everyday commitment.

Circle C Homeowners Association  
Austin, Texas

Dear Board of Directors of Circle C Homeowners Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Reserve Study* of Circle C Homeowners Association in Austin, Texas and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, March 8, 2023.

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 Circle C Homeowners 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 April 19, 2023 by

*Reserve Advisors, LLC*

Visual Inspection and Report by: Casey M. Lewis, RS<sup>1</sup>

Review by: Nicole L. Lowery, RS, PRA<sup>2</sup>, Associate 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>.





## Table of Contents

<b>1. RESERVE STUDY EXECUTIVE SUMMARY .....</b>	<b>1.1</b>
<b>2. RESERVE STUDY REPORT .....</b>	<b>2.1</b>
<b>3. RESERVE EXPENDITURES and FUNDING PLAN.....</b>	<b>3.1</b>
<b>4. RESERVE COMPONENT DETAIL.....</b>	<b>4.1</b>
Exterior Building Elements.....	4.1
Deck, Composite .....	4.1
Roofs, Metal .....	4.2
Roofs, Thermoplastic.....	4.4
Walls, Paint Finishes .....	4.6
Walls, Masonry .....	4.6
Windows and Doors .....	4.8
Interior Building Elements.....	4.8
Interior Renovations, Community Center.....	4.8
Interior Renovations, Swim Center.....	4.10
Rest Rooms.....	4.11
Building Services Elements .....	4.13
Air Handling Units, Rooftop/Packaged Heating and Cooling Units.....	4.13
Air Handling and Condensing Units, Split Systems .....	4.14
Security Systems.....	4.14
Property Site Elements .....	4.15
Asphalt Pavement, Repaving .....	4.15
Fences, Steel.....	4.18
Fences, Wood .....	4.19
Irrigation System, Replacement.....	4.20
Landscape, Circle C North .....	4.22
Lift Station .....	4.22
Light Poles and Fixtures .....	4.23
Light Fixtures, Bollard, Landscape and Miscellaneous.....	4.25
Mailbox Stations .....	4.25
Pipes, Pool Backwash, Swim Center.....	4.27
Playground Equipment .....	4.27
Pumps, Submersible, Drainage Area .....	4.29

Shade Structures.....	4.30
Signage .....	4.31
Vehicles.....	4.32
Pool Elements.....	4.33
Artificial Turf.....	4.33
Deck, Composite, Swim Center.....	4.33
Concrete Decks.....	4.34
Cover, Vinyl.....	4.37
Fences, Steel.....	4.38
Mechanical Equipment.....	4.40
Pool Finishes, Plaster and Tile.....	4.41
Shade Structures.....	4.45
Starting Blocks.....	4.46
Structure and Deck, Swim Center.....	4.46
Water Feature, Splash Pads.....	4.47
Water Slide, Fiberglass.....	4.48
Reserve Study Update.....	4.50
<b>5. METHODOLOGY .....</b>	<b>5.1</b>
<b>6. CREDENTIALS .....</b>	<b>6.1</b>
<b>7. DEFINITIONS.....</b>	<b>7.1</b>
<b>8. PROFESSIONAL SERVICE CONDITIONS .....</b>	<b>8.1</b>



# 1. RESERVE STUDY EXECUTIVE SUMMARY

**Client:** Circle C Homeowners Association (Circle C)

**Location:** Austin, Texas

**Reference:** 172223

**Property Basics:** Circle C Homeowners Association is responsible for the common elements shared by 5,464 single family homes. The community was built from 1988 to 2018.

**Reserve Components Identified:** 86 Reserve Components.

**Inspection Date:** March 8, 2023. We conducted the original inspection on May 29, 2018.

**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 these threshold funding years in 2025 due to the partial replacements of the irrigation system and in 2049 due to the replacement of the Swim Center pool structure and deck.

**Methodology:** 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
- 2.0% anticipated annual rate of return on invested reserves
- 3.5% 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.

**Unaudited Cash Status of Reserve Fund:**

- \$1,479,146 as of December 31, 2022
- The Association did not budget Reserve Contributions in 2023.

**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:

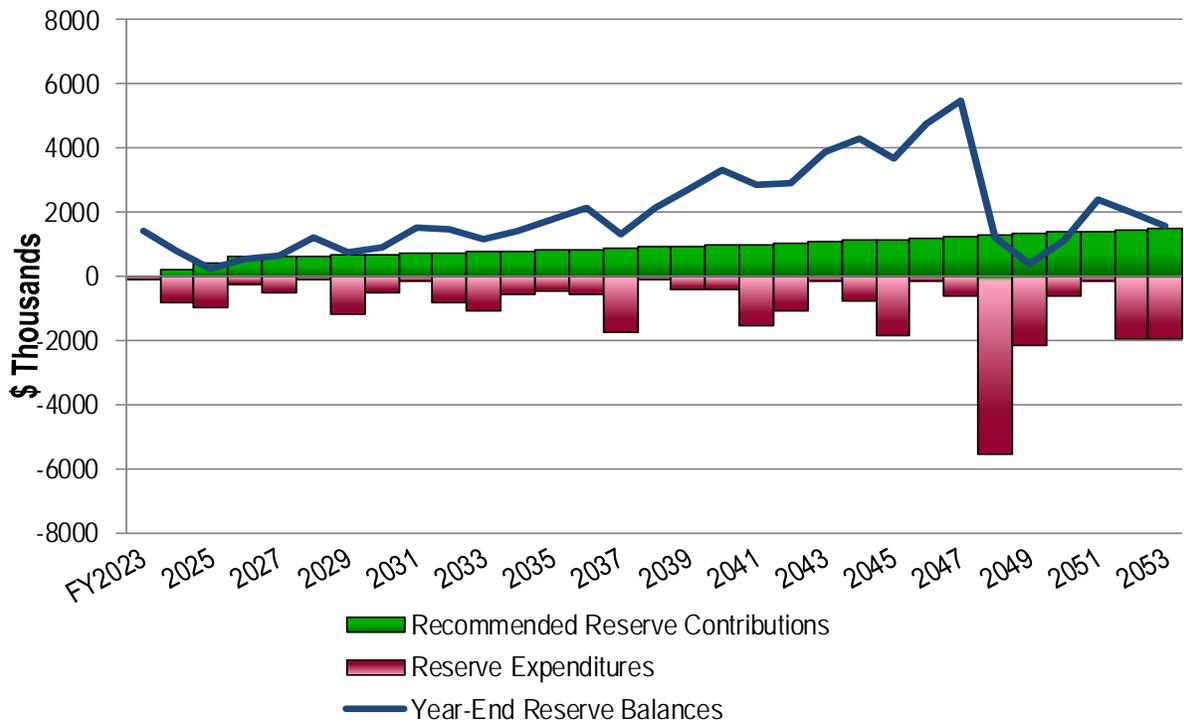
- Pool replastering due to noted deterioration and reported leaks at the Avana pool
- Repaving at the Swim Center due to frequent cracks and deterioration

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

- Phased increases of \$199,000 from 2024 through 2026
- Inflationary increases thereafter through 2053, the limit of this study's Cash Flow Analysis
- Initial adjustment in Reserve Contributions of \$199,000 represents an average monthly increase of \$3.04 per homeowner and about a four percent (3.9%) adjustment in the 2023 total Operating Budget of \$5,156,050.

**Circle C**  
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2024	199,000	784,052	2034	786,200	1,398,900	2044	1,109,000	4,304,177
2025	398,000	209,777	2035	813,700	1,794,745	2045	1,147,800	3,653,295
2026	597,000	541,359	2036	842,200	2,122,140	2046	1,188,000	4,747,999
2027	617,900	646,243	2037	871,700	1,286,143	2047	1,229,600	5,453,499
2028	639,500	1,217,260	2038	902,200	2,137,704	2048	1,272,600	1,223,263
2029	661,900	733,366	2039	933,800	2,714,984	2049	1,317,100	382,833
2030	685,100	901,566	2040	966,500	3,323,927	2050	1,363,200	1,124,402
2031	709,100	1,493,135	2041	1,000,300	2,844,711	2051	1,410,900	2,407,837
2032	733,900	1,449,678	2042	1,035,300	2,880,140	2052	1,460,300	1,958,403
2033	759,600	1,176,376	2043	1,071,500	3,869,713	2053	1,511,400	1,571,786





## 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

### Circle C Homeowners Association

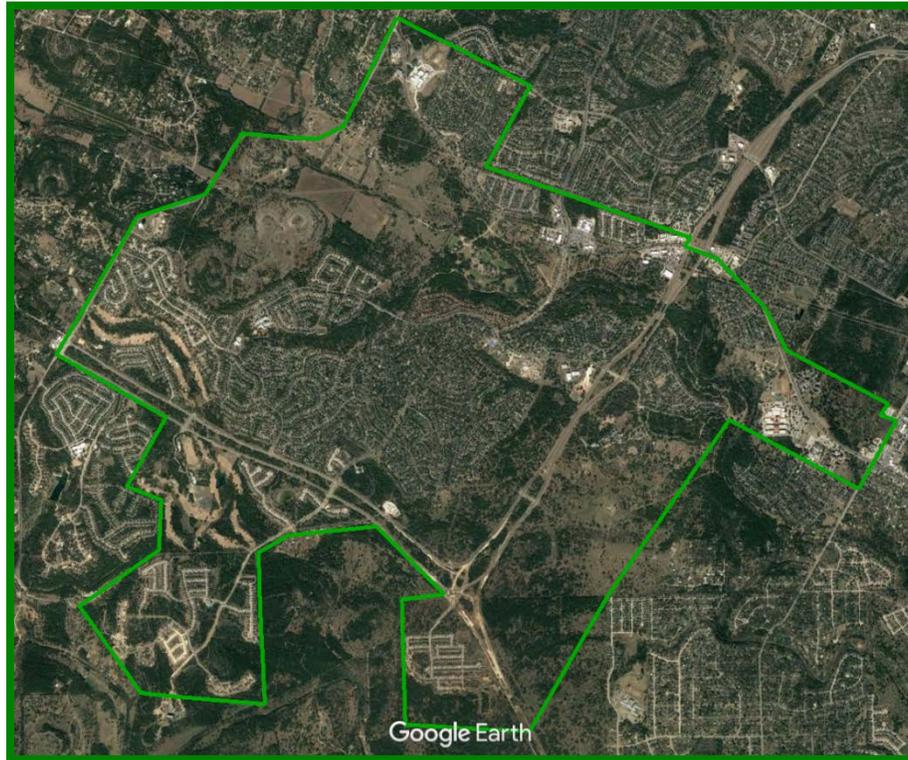
### Austin, Texas

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, March 8, 2023. We conducted the original inspection on May 29, 2018.

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 Homeowners 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. These classes of property include:

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Homeowners
- 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:

- Circle C responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

**Long-Lived Property Elements** – These 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 the 30-year Reserve Expenditures at this time:

- Electrical Systems, Common
- Foundations, Common
- Pipes, Interior Building, Common
- Pipes, Subsurface Utilities
- Pool Structures, Avana, Community Center and Grey Rock
- Structural Frames, Common
- Windows and Doors, Avana and Grey Rock

**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 \$12,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Awning, Community Center
- Basketball Court Renovations
- Concrete Flatwork
- Drainage Areas, Community Center
- Interior Renovations, Maintenance Building
- Landscape, Maintenance
- Landscape, Replacement
- Landscape, Tree Pruning
- Lane Lines, Swim Center
- Lifeguard Room, Community Center, Renovations
- Outdoor Shower, Community Center
- Paint Finishes, Touch Up
- Plaster Finishes, Splash Pads, Interim
- Pool Furniture, Per Management
- Pumps, Pools
- Retaining Walls
- Signage, Street and Traffic, Per Management

- Site Furniture
- Thru-wall Heating, Ventilating and Air Conditioning (HVAC) Units
- Valves, Small Diameter, Irrigation (We assume replacement as needed in lieu of an aggregate replacement of all small diameter valves as a single event.)
- Water Heaters
- Webbing, Splash Pad, Community Center
- Other Repairs normally funded through the Operating Budget

**Homeowners' Responsibility** - Items designated as the responsibility of the homeowners to repair or replace at their cost. Property Maintained by Homeowners, including items billed back to Homeowners, relates to unit:

- Fences and Perimeter Walls Adjacent to Lots
- Homes and Lots

**Others' Responsibility** - Items designated as the responsibility of others to repair or replace. Property Maintained by Others relates to:

- Asphalt Pavement Street System (Municipality)
- Café Equipment (Leased)
- Ponds and Drainage Areas (Excluding at the Community Center) (Municipality)

### **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
- 2023 local cost of replacement
  - Per unit
  - Per phase
  - Replacement of total quantity
- Percentage of future expenditures 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

**Circle C  
Homeowners Association  
Austin, Texas**

**Explanatory Notes:**

- 1) **3.5%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) **FY2023** is Fiscal Year beginning January 1, 2023 and ending December 31, 2023.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028	6 2029	7 2030	8 2031	9 2032	10 2033	11 2034	12 2035	13 2036	14 2037	15 2038	
						Useful	Remaining	Unit (2023)	Per Phase (2023)	Total (2023)																		
<b>Exterior Building Elements</b>																												
1.153	1,150	1,150	Square Feet	Deck, Composite, Community Center	2034	20 to 25	11	22.00	25,300	25,300	0.1%																36,937	
1.460	30	30	Squares	Roofs, Metal, Avana	2044	to 30	21	1,100.00	33,000	33,000	0.2%																	
1.462	20	20	Squares	Roofs, Metal, Grey Rock	2047	to 30	24	1,100.00	22,000	22,000	0.2%																	
1.463	10	10	Squares	Roofs, Metal, Swim Center, Lifeguard & Café	2026	to 30	3	1,500.00	15,000	15,000	0.1%				16,631													
1.464	20	20	Squares	Roofs, Metal, Swim Center, Rest Rooms	2052	to 30	29	1,350.00	27,000	27,000	0.2%																	
1.531	12,120	12,120	Square Feet	Roofs, Thermoplastic, Community Center	2030	15 to 20	7	11.00	133,320	133,320	1.7%							169,620										
1.533	1,820	1,820	Square Feet	Roofs, Thermoplastic, Swim Center, Mechanical & Maintenance	2026	15 to 20	3	12.00	21,840	21,840	0.2%				24,214													
1.760	1	1	Allowance	Walls, Paint Finishes	2024	8 to 10	1	30,000.00	30,000	30,000	0.7%		31,050								40,887							
1.800	11,820	11,820	Square Feet	Walls, Masonry, Inspections and Repairs	2024	8 to 12	1	1.30	15,366	15,366	0.3%		15,904								20,942							
1.981	2,050	2,050	Square Feet	Windows and Doors, Community Center	2052	to 40	29	75.00	153,750	153,750	1.4%																	
1.983	330	330	Square Feet	Windows and Doors, Swim Center	2032	to 40	9	45.00	14,850	14,850	0.1%										20,239							
<b>Interior Building Elements</b>																												
2.501	1	1	Allowance	Interior, Renovation, Complete, Community Center	2035	to 20	12	182,000.00	182,000	182,000	0.9%																275,014	
2.503	1	1	Allowance	Interior, Renovation, Complete, Swim Center	2035	to 20	12	37,000.00	37,000	37,000	0.2%																55,910	
2.511	1	1	Each	Interior, Renovation, Partial, Community Center	2025	to 10	2	54,000.00	54,000	54,000	0.6%			57,846														
2.513	1	1	Each	Interior, Renovation, Partial, Swim Center	2025	to 10	2	18,000.00	18,000	18,000	0.2%			19,282														
2.900	2	2	Each	Rest Rooms, Pool Area, Renovation, Avana	2034	to 20	11	12,500.00	25,000	25,000	0.1%															36,499		
2.901	2	2	Each	Rest Rooms, Pool Area, Renovation, Community Center	2032	to 20	9	14,000.00	28,000	28,000	0.4%										38,161							
2.902	2	2	Each	Rest Rooms, Pool Area, Renovation, Grey Rock	2037	to 20	14	11,000.00	22,000	22,000	0.1%															35,611		
2.903	2	2	Each	Rest Rooms, Pool Area, Renovation, Swim Center (2024 for Flooring)	2024	to 20	1	26,000.00	52,000	52,000	0.7%		12,000						66,159									
<b>Building Services Elements</b>																												
3.061	1	1	Each	Air Handling Unit, Rooftop Heating and Cooling Unit, 5-tons, Community Center	2032	15 to 20	9	15,000.00	15,000	15,000	0.2%										20,443							
3.062	1	1	Each	Air Handling Unit, Rooftop Heating and Cooling Unit, Swim Center	2026	15 to 20	3	12,000.00	12,000	12,000	0.1%				13,305													
3.063	1	1	Each	Air Handling Unit, Packaged Cooling Unit, 2-tons, Swim Center	2043	15 to 20	20	10,500.00	10,500	10,500	0.1%																	
3.071	5	5	Each	Air Handling and Condensing Units, Split Systems, Community Center	2030	15 to 20	7	9,500.00	47,500	47,500	0.6%										60,433							
3.820	10	1	Allowance	Security Systems, Phased	2024	to 15	1 to 10	11,000.00	11,000	110,000	2.0%		11,385	11,783	12,196	12,623	13,065	13,522	13,995	14,485	14,992	15,517	16,060	16,622	17,204	17,806	18,429	
<b>Property Site Elements</b>																												
4.020	10,900	5,450	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat, Phased (Quantities Vary by Event)	2026	3 to 6	3 to 4	1.70	9,265	18,530	0.4%				10,272					12,200	6,314					7,499	15,522	
4.040	7,550	3,775	Square Yards	Asphalt Pavement, Remaining, Mill and Overlay, Phased	2032	15 to 20	9 to 14	20.00	75,500	151,000	1.5%									102,899						122,211		
4.041	3,350	3,350	Square Yards	Asphalt Pavement, Swim Center, Mill and Overlay	2025	15 to 20	2	20.00	67,000	67,000	0.7%			71,772														
4.245	2,780	927	Linear Feet	Fence, Steel, Phased	2030	to 35	7 to 27	52.00	48,187	144,560	0.9%									61,307								
4.285	1,820	910	Linear Feet	Fence, Wood, Phased	2025	15 to 20	2 to 10	38.00	34,580	69,160	0.9%			37,043							48,779							
4.420	4,100,000	410,000	Square Feet	Irrigation System, Partial (2023 Budgeted)	2023	to 40+	0 to 30+	1.50	615,000	6,150,000	30.8%	75,000		658,803				755,992			867,518					995,497		
4.500	1	1	Allowance	Landscape, Partial Replacements, Circle C north	2024	N/A	1	250,000.00	250,000	250,000	0.9%		258,750															
4.540	1	1	Allowance	Lift Station, Pumps and Controls, Community Center (2023 Budgeted)	2023	to 10	0	16,100.00	16,100	16,100	0.3%	16,100									22,711							
4.550	1	1	Each	Lift Station, Rebuild	2042	to 30	19	40,000.00	40,000	40,000	0.3%																	
4.560	17	17	Each	Light Poles and Fixtures	2037	to 25	14	5,000.00	85,000	85,000	0.5%															137,589		
4.562	70	70	Each	Light Fixtures, Bollards	2029	to 25	6	900.00	63,000	63,000	0.3%							77,443										
4.564	400	100	Each	Light Fixtures, Landscape and Miscellaneous, Phased	2026	to 25	3 to 18	300.00	30,000	120,000	0.9%				33,262					39,504						46,919		
4.600	39	7	Each	Mailbox Kiosks, Capital Repairs (Roofs and Masonry Repairs), Phased	2026	to 30	3 to 28	2,000.00	13,000	78,000	0.5%				14,413					17,119						20,331		
4.601	12	12	Each	Mailbox Stations, Replacement, Recently Replaced	2041	to 25	18	2,200.00	26,400	26,400	0.2%																	

## RESERVE EXPENDITURES

### Circle C Homeowners Association Austin, Texas

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	16 2039	17 2040	18 2041	19 2042	20 2043	21 2044	22 2045	23 2046	24 2047	25 2048	26 2049	27 2050	28 2051	29 2052	30 2053	
						Useful	Remaining	Unit (2023)	Per Phase (2023)	Total (2023)																	
<b>Exterior Building Elements</b>																											
1.153	1,150	1,150	Square Feet	Deck, Composite, Community Center	2034	20 to 25	11	22.00	25,300	25,300	0.1%																
1.460	30	30	Squares	Roofs, Metal, Avana	2044	to 30	21	1,100.00	33,000	33,000	0.2%						67,961										
1.462	20	20	Squares	Roofs, Metal, Grey Rock	2047	to 30	24	1,100.00	22,000	22,000	0.2%								50,233								
1.463	10	10	Squares	Roofs, Metal, Swim Center, Lifeguard & Café	2026	to 30	3	1,500.00	15,000	15,000	0.1%																
1.464	20	20	Squares	Roofs, Metal, Swim Center, Rest Rooms	2052	to 30	29	1,350.00	27,000	27,000	0.2%															73,221	
1.531	12,120	12,120	Square Feet	Roofs, Thermoplastic, Community Center	2030	15 to 20	7	11.00	133,320	133,320	1.7%											315,068					
1.533	1,820	1,820	Square Feet	Roofs, Thermoplastic, Swim Center, Mechanical & Maintenance	2026	15 to 20	3	12.00	21,840	21,840	0.2%							44,978									
1.760	1	1	Allowance	Walls, Paint Finishes	2024	8 to 10	1	30,000.00	30,000	30,000	0.7%		53,840													70,897	
1.800	11,820	11,820	Square Feet	Walls, Masonry, Inspections and Repairs	2024	8 to 12	1	1.30	15,366	15,366	0.3%		27,577													36,314	
1.981	2,050	2,050	Square Feet	Windows and Doors, Community Center	2052	to 40	29	75.00	153,750	153,750	1.4%															416,951	
1.983	330	330	Square Feet	Windows and Doors, Swim Center	2032	to 40	9	45.00	14,850	14,850	0.1%																
<b>Interior Building Elements</b>																											
2.501	1	1	Allowance	Interior, Renovation, Complete, Community Center	2035	to 20	12	182,000.00	182,000	182,000	0.9%																
2.503	1	1	Allowance	Interior, Renovation, Complete, Swim Center	2035	to 20	12	37,000.00	37,000	37,000	0.2%																
2.511	1	1	Each	Interior, Renovation, Partial, Community Center	2025	to 10	2	54,000.00	54,000	54,000	0.6%								115,102								
2.513	1	1	Each	Interior, Renovation, Partial, Swim Center	2025	to 10	2	18,000.00	18,000	18,000	0.2%								38,367								
2.900	2	2	Each	Rest Rooms, Pool Area, Renovation, Avana	2034	to 20	11	12,500.00	25,000	25,000	0.1%																
2.901	2	2	Each	Rest Rooms, Pool Area, Renovation, Community Center	2032	to 20	9	14,000.00	28,000	28,000	0.4%															75,933	
2.902	2	2	Each	Rest Rooms, Pool Area, Renovation, Grey Rock	2037	to 20	14	11,000.00	22,000	22,000	0.1%																
2.903	2	2	Each	Rest Rooms, Pool Area, Renovation, Swim Center (2024 for Flooring)	2024	to 20	1	26,000.00	52,000	52,000	0.7%															131,641	
<b>Building Services Elements</b>																											
3.061	1	1	Each	Air Handling Unit, Rooftop Heating and Cooling Unit, 5-tons, Community Center	2032	15 to 20	9	15,000.00	15,000	15,000	0.2%															40,678	
3.062	1	1	Each	Air Handling Unit, Rooftop Heating and Cooling Unit, Swim Center	2026	15 to 20	3	12,000.00	12,000	12,000	0.1%								26,473								
3.063	1	1	Each	Air Handling Unit, Packaged Cooling Unit, 2-tons, Swim Center	2043	15 to 20	20	10,500.00	10,500	10,500	0.1%						20,893										
3.071	5	5	Each	Air Handling and Condensing Units, Split Systems, Community Center	2030	15 to 20	7	9,500.00	47,500	47,500	0.6%															112,254	
3.820	10	1	Allowance	Security Systems, Phased	2024	to 15	1 to 10	11,000.00	11,000	110,000	2.0%	19,074	19,741	20,432	21,148	21,888	22,654	23,447	24,267	25,117	25,996	26,906	27,847	28,822	29,831	30,875	
<b>Property Site Elements</b>																											
4.020	10,900	5,450	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat, Phased (Quantities Vary by Event)	2026	3 to 6	3 to 4	1.70	9,265	18,530	0.4%						18,435									22,662	23,455
4.040	7,550	3,775	Square Yards	Asphalt Pavement, Remaining, Mill and Overlay, Phased	2032	15 to 20	9 to 14	20.00	75,500	151,000	1.5%															204,747	
4.041	3,350	3,350	Square Yards	Asphalt Pavement, Swim Center, Mill and Overlay	2025	15 to 20	2	20.00	67,000	67,000	0.7%								142,811								
4.245	2,780	927	Linear Feet	Fence, Steel, Phased	2030	to 35	7 to 27	52.00	48,187	144,560	0.9%		86,480													121,988	
4.285	1,820	910	Linear Feet	Fence, Wood, Phased	2025	15 to 20	2 to 10	38.00	34,580	69,160	0.9%								73,708							97,059	
4.420	4,100,000	410,000	Square Feet	Irrigation System, Partial (2023 Budgeted)	2023	to 40+	0 to 30+	1.50	615,000	6,150,000	30.8%			1,142,356				1,310,880				1,504,265				1,726,178	
4.500	1	1	Allowance	Landscape, Partial Replacements, Circle C north	2024	N/A	1	250,000.00	250,000	250,000	0.9%																
4.540	1	1	Allowance	Lift Station, Pumps and Controls, Community Center (2023 Budgeted)	2023	to 10	0	16,100.00	16,100	16,100	0.3%															45,189	
4.550	1	1	Each	Lift Station, Rebuild	2042	to 30	19	40,000.00	40,000	40,000	0.3%				76,900												
4.560	17	17	Each	Light Poles and Fixtures	2037	to 25	14	5,000.00	85,000	85,000	0.5%																
4.562	70	70	Each	Light Fixtures, Bollards	2029	to 25	6	900.00	63,000	63,000	0.3%																
4.564	400	100	Each	Light Fixtures, Landscape and Miscellaneous, Phased	2026	to 25	3 to 18	300.00	30,000	120,000	0.9%						55,725								78,605		
4.600	39	7	Each	Mailbox Kiosks, Capital Repairs (Roofs and Masonry Repairs), Phased	2026	to 30	3 to 28	2,000.00	13,000	78,000	0.5%						24,147			28,679					34,062		
4.601	12	12	Each	Mailbox Stations, Replacement, Recently Replaced	2041	to 25	18	2,200.00	26,400	26,400	0.2%						49,038										

## RESERVE EXPENDITURES

### Circle C Homeowners Association Austin, Texas

**Explanatory Notes:**

- 1) **3.5%** is the estimated Inflation Rate for estimating Future Replacement Costs.
- 2) **FY2023** is Fiscal Year beginning January 1, 2023 and ending December 31, 2023.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028	6 2029	7 2030	8 2031	9 2032	10 2033	11 2034	12 2035	13 2036	14 2037	15 2038
						Useful	Remaining	Unit (2023)	Per Phase (2023)	Total (2023)																	
4.602	328	66	Each	Mailbox Stations, Replacement, Remaining, Phased	2024	to 25	1 to 21	2,200.00	144,320	721,600	4.9%	149,371					177,406					210,703					
4.605	1	1	Allowance	Pipes, Pool Backwash, Swim Center	2027	N/A	4	40,000.00	40,000	40,000	0.2%				45,901												
4.660	1	1	Allowance	Playground Equipment, Avana	2034	15 to 20	11	15,000.00	15,000	15,000	0.1%											21,900					
4.662	1	1	Allowance	Playground Equipment, Grey Rock	2037	15 to 20	14	18,000.00	18,000	18,000	0.1%															29,137	
4.663	1	1	Allowance	Playground Equipment, Park Place	2032	15 to 20	9	21,000.00	21,000	21,000	0.3%										28,621						
4.664	1	1	Allowance	Playground Equipment, Swim Center	2029	15 to 20	6	65,000.00	65,000	65,000	0.8%							79,902									
4.665	1	1	Allowance	Playground Equipment, Wildflower Park	2027	15 to 20	4	99,000.00	99,000	99,000	1.2%					113,605											
4.666	1	1	Allowance	Playground Equipment, Vintage Place Park	2025	15 to 20	2	35,000.00	35,000	35,000	0.4%		37,493														
4.699	1	1	Allowance	Pumps, Submersible, Drainage Area, Community Center (Incl. Controller)	2027	15 to 20	4	18,000.00	18,000	18,000	0.2%					20,655											
4.701	3	3	Each	Shade Structures, Avana, Grey Rock, and Park Place	2040	15 to 20	17	28,000.00	84,000	84,000	0.5%																
4.702	2	2	Each	Shade Structures, Wildflower and Vintage Place Parks	2027	15 to 20	4	16,000.00	32,000	32,000	0.4%					36,721											
4.800	1	1	Allowance	Signage, Renovation, Entrance Monuments	2030	15 to 20	7	40,000.00	40,000	40,000	0.5%							50,891									
4.901	2	2	Each	Vehicles	2033	10 to 20	10	33,000.00	66,000	66,000	0.8%											93,100					
<b>Pool Elements</b>																											
6.103	1,400	1,400	Square Feet	Artificial Turf, Swim Center	2028	to 10	5	13.00	18,200	18,200	0.3%						21,616										30,491
6.104	820	820	Square Feet	Deck, Composite, Swim Center	2034	20 to 25	11	22.00	18,040	18,040	0.1%												26,338				
6.200	6,340	6,340	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs, Avana	2024	8 to 12	1	1.40	8,876	8,876	0.1%	9,187											12,959				
6.201	8,840	8,840	Square Feet	Concrete Deck, Textured Coating, Partial Replacements and Repairs, Community Center	2032	8 to 12	9	7.50	66,300	66,300	1.4%										90,360						
6.202	4,190	4,190	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs, Grey Rock	2027	8 to 12	4	1.60	6,704	6,704	0.1%					7,693										10,852	
6.203	12,920	12,920	Square Feet	Concrete and Paver Deck, Inspections, Partial Replacements and Repairs, Swim Center	2032	8 to 12	9	5.30	68,476	68,476	1.4%										93,326						
6.300	12,460	2,077	Square Feet	Cover, Vinyl, Swim Center, Phased (2023 Budgeted)	2023	6 to 8	0 to 5	3.85	7,995	47,971	1.5%	8,000	8,275	8,565	8,864	9,175	9,496	9,828	10,172	10,528	10,897	11,278	11,673	12,081	12,504	12,942	13,395
6.400	420	420	Linear Feet	Fence, Steel, Avana	2044	to 35	21	63.00	26,460	26,460	0.2%																
6.401	840	840	Linear Feet	Fences and Railings, Steel, Community Center	2042	to 35	19	56.00	47,040	47,040	0.3%																
6.402	390	390	Linear Feet	Fence, Steel, Grey Rock	2047	to 35	24	63.00	24,570	24,570	0.2%																
6.403	1,410	470	Linear Feet	Fences, Steel, Swim Center, Phased	2027	to 35	4 to 14	63.00	29,610	88,830	0.5%					33,978					40,355						
6.601	1	1	Allowance	Mechanical Equipment, Filters, Community Center	2027	to 15	4	55,000.00	55,000	55,000	0.6%					63,114											
6.603	1	1	Allowance	Mechanical Equipment, Filters, Swim Center	2024	to 15	1	70,000.00	70,000	70,000	0.7%	72,450															
6.604	1	1	Allowance	Mechanical Equipment, Heaters, Swim Center	2030	to 20	7	79,000.00	79,000	79,000	1.0%							100,510									
6.609	4	1	Allowance	Mechanical Equipment, Remaining, Phased	2025	to 15	2 to 11	36,000.00	36,000	144,000	2.2%			38,564			42,757			47,405			52,559			58,273	
6.800	4,490	4,490	Square Feet	Pool Finish, Plaster, Avana	2024	8 to 12	1	16.00	71,840	71,840	1.1%	74,354											104,884				
6.801	490	490	Linear Feet	Pool Finish, Tile and Coping, Avana	2034	15 to 25	11	82.00	40,180	40,180	0.2%												58,662				
6.802	6,610	6,610	Square Feet	Pool Finish, Plaster, Community Center	2032	8 to 12	9	16.00	105,760	105,760	2.2%										144,140						
6.803	680	680	Linear Feet	Pool Finish, Tile and Coping, Community Center	2032	15 to 25	9	82.00	55,760	55,760	0.8%										75,995						
6.804	2,390	2,390	Square Feet	Pool Finish, Plaster, Grey Rock	2025	8 to 12	2	16.00	38,240	38,240	0.6%			40,964										57,783			
6.805	210	210	Linear Feet	Pool Finish, Tile and Coping, Grey Rock	2035	15 to 25	12	82.00	17,220	17,220	0.1%												26,021				
6.806	13,980	13,980	Square Feet	Pool Finish, Plaster, Swim Center	2024	8 to 12	1	14.00	195,720	195,720	1.7%	202,570														306,097	
6.807	2,750	2,750	Linear Feet	Pool Finish, Tile, Swim Center (Incl. Lane Lines)	2036	15 to 25	13	35.00	96,250	96,250	0.5%														150,531		
6.870	3	3	Each	Shade Structures, Avana	2029	to 15	6	6,500.00	19,500	19,500	0.2%							23,970									
6.871	9	9	Each	Shade Structure, Community Center	2027	to 15	4	7,000.00	63,000	63,000	0.7%					72,294											
6.872	3	3	Each	Shade Structure, Grey Rock	2032	to 15	9	6,500.00	19,500	19,500	0.2%										26,576						
6.873	9	9	Each	Shade Structure, Swim Center (Incl. Playground)	2026	to 15	3	11,000.00	99,000	99,000	1.0%				109,763												
6.899	8	8	Each	Starting Blocks, Swim Center	2027	to 10	4	3,500.00	28,000	28,000	0.5%					32,131										45,323	
6.903	13,980	13,980	Square Feet	Structure and Deck, Total Replacement, Swim Center	2048	to 60	25	145.00	2,027,100	2,027,100	16.3%																
6.960	1	1	Allowance	Water Feature, Splash Pad, Avana, Replacement	2029	to 15	6	18,000.00	18,000	18,000	0.2%							22,127									

## RESERVE EXPENDITURES

### Circle C Homeowners Association Austin, Texas

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	16 2039	17 2040	18 2041	19 2042	20 2043	21 2044	22 2045	23 2046	24 2047	25 2048	26 2049	27 2050	28 2051	29 2052	30 2053		
						Useful	Remaining	Unit (2023)	Per Phase (2023)	Total (2023)																		
4.602	328	66	Each	Mailbox Stations, Replacement, Remaining, Phased	2024	to 25	1 to 21	2,200.00	144,320	721,600	4.9%	250,249					297,217										353,001	
4.605	1	1	Allowance	Pipes, Pool Backwash, Swim Center	2027	N/A	4	40,000.00	40,000	40,000	0.2%																	
4.660	1	1	Allowance	Playground Equipment, Avana	2034	15 to 20	11	15,000.00	15,000	15,000	0.1%																	
4.662	1	1	Allowance	Playground Equipment, Grey Rock	2037	15 to 20	14	18,000.00	18,000	18,000	0.1%																	
4.663	1	1	Allowance	Playground Equipment, Park Place	2032	15 to 20	9	21,000.00	21,000	21,000	0.3%																56,949	
4.664	1	1	Allowance	Playground Equipment, Swim Center	2029	15 to 20	6	65,000.00	65,000	65,000	0.8%																158,987	
4.665	1	1	Allowance	Playground Equipment, Wildflower Park	2027	15 to 20	4	99,000.00	99,000	99,000	1.2%										226,050							
4.666	1	1	Allowance	Playground Equipment, Vintage Place Park	2025	15 to 20	2	35,000.00	35,000	35,000	0.4%							74,603										
4.699	1	1	Allowance	Pumps, Submersible, Drainage Area, Community Center (Incl. Controller)	2027	15 to 20	4	18,000.00	18,000	18,000	0.2%																	
4.701	3	3	Each	Shade Structures, Avana, Grey Rock, and Park Place	2040	15 to 20	17	28,000.00	84,000	84,000	0.5%		150,753			34,605												
4.702	2	2	Each	Shade Structures, Wildflower and Vintage Place Parks	2027	15 to 20	4	16,000.00	32,000	32,000	0.4%										73,067							
4.800	1	1	Allowance	Signage, Renovation, Entrance Monuments	2030	15 to 20	7	40,000.00	40,000	40,000	0.5%																101,263	
4.901	2	2	Each	Vehicles	2033	10 to 20	10	33,000.00	66,000	66,000	0.8%																155,974	
<b>Pool Elements</b>																												
6.103	1,400	1,400	Square Feet	Artificial Turf, Swim Center	2028	to 10	5	13.00	18,200	18,200	0.3%																43,011	
6.104	820	820	Square Feet	Deck, Composite, Swim Center	2034	20 to 25	11	22.00	18,040	18,040	0.1%																	
6.200	6,340	6,340	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs, Avana	2024	8 to 12	1	1.40	8,876	8,876	0.1%																18,280	
6.201	8,840	8,840	Square Feet	Concrete Deck, Textured Coating, Partial Replacements and Repairs, Community Center	2032	8 to 12	9	7.50	66,300	66,300	1.4%					127,462											179,798	
6.202	4,190	4,190	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs, Grey Rock	2027	8 to 12	4	1.60	6,704	6,704	0.1%																15,307	
6.203	12,920	12,920	Square Feet	Concrete and Paver Deck, Inspections, Partial Replacements and Repairs, Swim Center	2032	8 to 12	9	5.30	68,476	68,476	1.4%					131,645											185,699	
6.300	12,460	2,077	Square Feet	Cover, Vinyl, Swim Center, Phased (2023 Budgeted)	2023	6 to 8	0 to 5	3.85	7,995	47,971	1.5%	13,864	14,349	14,851	15,371	15,909	16,466	17,042	17,638	18,256	18,895	19,556	20,240	20,949	21,682	22,441		
6.400	420	420	Linear Feet	Fence, Steel, Avana	2044	to 35	21	63.00	26,460	26,460	0.2%																54,493	
6.401	840	840	Linear Feet	Fences and Railings, Steel, Community Center	2042	to 35	19	56.00	47,040	47,040	0.3%					90,434												
6.402	390	390	Linear Feet	Fence, Steel, Grey Rock	2047	to 35	24	63.00	24,570	24,570	0.2%																56,101	
6.403	1,410	470	Linear Feet	Fences, Steel, Swim Center, Phased	2027	to 35	4 to 14	63.00	29,610	88,830	0.5%																80,299	
6.601	1	1	Allowance	Mechanical Equipment, Filters, Community Center	2027	to 15	4	55,000.00	55,000	55,000	0.6%					105,738												
6.603	1	1	Allowance	Mechanical Equipment, Filters, Swim Center	2024	to 15	1	70,000.00	70,000	70,000	0.7%	121,379																
6.604	1	1	Allowance	Mechanical Equipment, Heaters, Swim Center	2030	to 20	7	79,000.00	79,000	79,000	1.0%																199,994	
6.609	4	1	Allowance	Mechanical Equipment, Remaining, Phased	2025	to 15	2 to 11	36,000.00	36,000	144,000	2.2%		64,608			71,632				79,420							88,055	97,628
6.800	4,490	4,490	Square Feet	Pool Finish, Plaster, Avana	2024	8 to 12	1	16.00	71,840	71,840	1.1%																147,950	
6.801	490	490	Linear Feet	Pool Finish, Tile and Coping, Avana	2034	15 to 25	11	82.00	40,180	40,180	0.2%																	
6.802	6,610	6,610	Square Feet	Pool Finish, Plaster, Community Center	2032	8 to 12	9	16.00	105,760	105,760	2.2%					203,324											286,808	
6.803	680	680	Linear Feet	Pool Finish, Tile and Coping, Community Center	2032	15 to 25	9	82.00	55,760	55,760	0.8%																151,214	
6.804	2,390	2,390	Square Feet	Pool Finish, Plaster, Grey Rock	2025	8 to 12	2	16.00	38,240	38,240	0.6%																81,509	
6.805	210	210	Linear Feet	Pool Finish, Tile and Coping, Grey Rock	2035	15 to 25	12	82.00	17,220	17,220	0.1%																	
6.806	13,980	13,980	Square Feet	Pool Finish, Plaster, Swim Center	2024	8 to 12	1	14.00	195,720	195,720	1.7%																	
6.807	2,750	2,750	Linear Feet	Pool Finish, Tile, Swim Center (Incl. Lane Lines)	2036	15 to 25	13	35.00	96,250	96,250	0.5%																	
6.870	3	3	Each	Shade Structures, Avana	2029	to 15	6	6,500.00	19,500	19,500	0.2%																40,159	
6.871	9	9	Each	Shade Structure, Community Center	2027	to 15	4	7,000.00	63,000	63,000	0.7%					121,118												
6.872	3	3	Each	Shade Structure, Grey Rock	2032	to 15	9	6,500.00	19,500	19,500	0.2%																44,525	
6.873	9	9	Each	Shade Structure, Swim Center (Incl. Playground)	2026	to 15	3	11,000.00	99,000	99,000	1.0%					183,891												
6.899	8	8	Each	Starting Blocks, Swim Center	2027	to 10	4	3,500.00	28,000	28,000	0.5%																63,933	
6.903	13,980	13,980	Square Feet	Structure and Deck, Total Replacement, Swim Center	2048	to 60	25	145.00	2,027,100	2,027,100	16.3%																4,790,534	
6.960	1	1	Allowance	Water Feature, Splash Pad, Avana, Replacement	2029	to 15	6	18,000.00	18,000	18,000	0.2%																37,070	



## RESERVE EXPENDITURES

**Circle C  
Homeowners Association  
Austin, Texas**

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$			Percentage of Future Expenditures	16 2039	17 2040	18 2041	19 2042	20 2043	21 2044	22 2045	23 2046	24 2047	25 2048	26 2049	27 2050	28 2051	29 2052	30 2053	
						Useful	Remaining	Unit (2023)	Per Phase (2023)	Total (2023)																	
6.961	1	1	Allowance	Water Feature, Splash Pad, Community Center, Replacement	2027	to 15	4	48,000.00	48,000	48,000	0.5%				92,280												
6.963	1	1	Allowance	Water Feature, Splash Pad, Swim Center, Capital Repairs	2029	to 3	6	4,000.00	4,000	4,000	0.2%					8,238			9,133			10,126				11,227	
6.694	1	1	Allowance	Water Feature, Splash Pad, Swim Center, Replacement	2026	to 15	3	27,000.00	27,000	27,000	0.3%			50,152													
6.975	1	1	Allowance	Water Slide, Fiberglass, Refinishing, Community Center	2027	to 5	4	19,000.00	19,000	19,000	0.6%				36,528				43,383						51,526		
6.980	1	1	Allowance	Water Slide, Fiberglass, Replacement, Community Center	2037	to 25	14	166,000.00	166,000	166,000	0.9%																
<b>Anticipated Expenditures, By Year (\$29,363,754 over 30 years)</b>												404,566	417,348	1,540,592	1,056,553	148,757	755,466	1,877,469	176,477	625,105	5,568,943	2,173,432	636,554	162,438	1,952,964	1,932,969	

## RESERVE FUNDING PLAN

### CASH FLOW ANALYSIS

Circle C

Homeowners Association

Austin, Texas

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Reserves at Beginning of Year	(Note 1)	1,479,146	1,408,638	784,052	209,777	541,359	646,243	1,217,260	733,366	901,566	1,493,135	1,449,678	1,176,376	1,398,900	1,794,745	2,122,140	1,286,143
Total Recommended Reserve Contributions	(Note 2)	0	199,000	398,000	597,000	617,900	639,500	661,900	685,100	709,100	733,900	759,600	786,200	813,700	842,200	871,700	902,200
Estimated Interest Earned, During Year	(Note 3)	28,592	21,710	9,840	7,437	11,758	18,451	19,313	16,187	23,710	29,137	26,001	25,498	31,620	38,781	33,745	33,899
Anticipated Expenditures, By Year		(99,100)	(845,296)	(982,115)	(272,855)	(524,774)	(86,934)	(1,165,107)	(533,087)	(141,241)	(806,494)	(1,058,903)	(589,174)	(449,475)	(553,586)	(1,741,443)	(84,538)
Anticipated Reserves at Year End		<u>\$1,408,638</u>	<u>\$784,052</u>	<u>\$209,777</u>	<u>\$541,359</u>	<u>\$646,243</u>	<u>\$1,217,260</u>	<u>\$733,366</u>	<u>\$901,566</u>	<u>\$1,493,135</u>	<u>\$1,449,678</u>	<u>\$1,176,376</u>	<u>\$1,398,900</u>	<u>\$1,794,745</u>	<u>\$2,122,140</u>	<u>\$1,286,143</u>	<u>\$2,137,704</u>

(NOTE 5)

(continued)

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

		2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053
Reserves at Beginning of Year		2,137,704	2,714,984	3,323,927	2,844,711	2,880,140	3,869,713	4,304,177	3,653,295	4,747,999	5,453,499	1,223,263	382,833	1,124,402	2,407,837	1,958,403
Total Recommended Reserve Contributions		933,800	966,500	1,000,300	1,035,300	1,071,500	1,109,000	1,147,800	1,188,000	1,229,600	1,272,600	1,317,100	1,363,200	1,410,900	1,460,300	1,511,400
Estimated Interest Earned, During Year		48,046	59,791	61,076	56,682	66,830	80,930	78,787	83,181	101,005	66,107	15,902	14,923	34,973	43,230	34,952
Anticipated Expenditures, By Year		(404,566)	(417,348)	(1,540,592)	(1,056,553)	(148,757)	(755,466)	(1,877,469)	(176,477)	(625,105)	(5,568,943)	(2,173,432)	(636,554)	(162,438)	(1,952,964)	(1,932,969)
Anticipated Reserves at Year End		<u>\$2,714,984</u>	<u>\$3,323,927</u>	<u>\$2,844,711</u>	<u>\$2,880,140</u>	<u>\$3,869,713</u>	<u>\$4,304,177</u>	<u>\$3,653,295</u>	<u>\$4,747,999</u>	<u>\$5,453,499</u>	<u>\$1,223,263</u>	<u>\$382,833</u>	<u>\$1,124,402</u>	<u>\$2,407,837</u>	<u>\$1,958,403</u>	<u>\$1,571,786</u>

(NOTE 5)

(NOTE 4)

#### Explanatory Notes:

- 1) Year 2023 starting reserves are as of December 31, 2022; FY2023 starts January 1, 2023 and ends December 31, 2023.
- 2) The Association did not budget for Reserve Contributions in 2023; 2024 is the first year of recommended contributions.
- 3) 2.0% is the estimated annual rate of return on invested reserves.
- 4) Accumulated year 2053 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

**RESERVE EXPENDITURES****Circle C  
Homeowners Association  
Austin, Texas**

Line Item	Reserve Component Inventory	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028
<b><u>Exterior Building Elements</u></b>							
1.463	Roofs, Metal, Swim Center, Lifeguard & Café				16,631		
1.533	Roofs, Thermoplastic, Swim Center, Mechanical & Maintenance				24,214		
1.760	Walls, Paint Finishes		31,050				
1.800	Walls, Masonry, Inspections and Repairs		15,904				
<b><u>Interior Building Elements</u></b>							
2.511	Interior, Renovation, Partial, Community Center			57,846			
2.513	Interior, Renovation, Partial, Swim Center			19,282			
2.903	Rest Rooms, Pool Area, Renovation, Swim Center (2024 for Flooring)		12,000				
<b><u>Building Services Elements</u></b>							
3.062	Air Handling Unit, Rooftop Heating and Cooling Unit, Swim Center				13,305		
3.820	Security Systems, Phased		11,385	11,783	12,196	12,623	13,065
<b><u>Property Site Elements</u></b>							
4.020	Asphalt Pavement, Crack Repair, Patch and Seal Coat, Phased (Quantities Vary by Event)				10,272		
4.041	Asphalt Pavement, Swim Center, Mill and Overlay			71,772			
4.285	Fence, Wood, Phased			37,043			
4.420	Irrigation System, Partial (2023 Budgeted)	75,000		658,803			
4.500	Landscape, Partial Replacements, Circle C north		258,750				
4.540	Lift Station, Pumps and Controls, Community Center (2023 Budgeted)	16,100					
4.564	Light Fixtures, Landscape and Miscellaneous, Phased				33,262		
4.600	Mailbox Kiosks, Capital Repairs (Roofs and Masonry Repairs), Phased				14,413		
4.602	Mailbox Stations, Replacement, Remaining, Phased		149,371				
4.605	Pipes, Pool Backwash, Swim Center					45,901	
4.665	Playground Equipment, Wildflower Park					113,605	
4.666	Playground Equipment, Vintage Place Park			37,493			
4.699	Pumps, Submersible, Drainage Area, Community Center (Incl. Controller)					20,655	
4.702	Shade Structures, Wildflower and Vintage Place Parks					36,721	
<b><u>Pool Elements</u></b>							
6.103	Artificial Turf, Swim Center						21,616
6.200	Concrete Deck, Inspections, Partial Replacements and Repairs, Avana		9,187				
6.202	Concrete Deck, Inspections, Partial Replacements and Repairs, Grey Rock					7,693	
6.300	Cover, Vinyl, Swim Center, Phased (2023 Budgeted)	8,000	8,275	8,565	8,864	9,175	9,496
6.403	Fences, Steel, Swim Center, Phased					33,978	

## RESERVE EXPENDITURES

**Circle C  
Homeowners Association  
Austin, Texas**

Line Item	Reserve Component Inventory	RUL = 0 FY2023	1 2024	2 2025	3 2026	4 2027	5 2028
6.601	Mechanical Equipment, Filters, Community Center					63,114	
6.603	Mechanical Equipment, Filters, Swim Center		72,450				
6.609	Mechanical Equipment, Remaining, Phased			38,564			42,757
6.800	Pool Finish, Plaster, Avana		74,354				
6.804	Pool Finish, Plaster, Grey Rock			40,964			
6.806	Pool Finish, Plaster, Swim Center		202,570				
6.871	Shade Structure, Community Center					72,294	
6.873	Shade Structure, Swim Center (Incl. Playground)				109,763		
6.899	Starting Blocks, Swim Center					32,131	
6.961	Water Feature, Splash Pad, Community Center, Replacement					55,081	
6.694	Water Feature, Splash Pad, Swim Center, Replacement				29,935		
6.975	Water Slide, Fiberglass, Refinishing, Community Center					21,803	
<b>Anticipated Expenditures, By Year (\$29,363,754 over 30 years)</b>		99,100	845,296	982,115	272,855	524,774	86,934

## 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

Circle C maintains four amenity areas; Avana, the Community Center, Grey Rock, and the Swim Center. These amenity areas generally date to the follow years: 2014, 2012, 2017 and 1992, respectively

#### Deck, Composite

---

**Line Item:** 1.153

**Quantity:** One composite deck with a wood frame which comprises a total of 1,150 square feet located at the Community Center

**History:** Constructed in 2012

**Condition:** Good overall with typical sags



Composite deck at the Community Center



Composite deck at the Community Center

**Useful Life:** 20- to 25-years

**Component Detail Notes:** The wood components in the composite material will absorb moisture. When dispelled, black mold spots can appear that will require chemical cleaning. However, these spots will reappear resulting in the need for cleaning every other month as needed during humid months. The Association should fund these expenses through the operating budget.

**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.

## Roofs, Metal

---

**Line Items:** 1.460 through 1.464

**Quantity:** 30 squares<sup>1</sup> at Avana, 20 squares at Grey Rock, and 30 squares at the Swim Center

**History:** Original to building construction, excluding the swim center rest rooms which were replaced in 2022.

**Condition:** Good to fair overall with no significant deterioration evident. Management does not report a history of leaks.



**Metal roof at Avana**



**Metal roof at Grey Rock**

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



**Metal roof at the lifeguard room**



**Metal roof at the cafe**



**Swim center rest room with metal roof assembly**

**Useful Life:** Up to 30 years

**Preventative Maintenance Notes:** We recommend the Association maintain a service and inspection contract with a qualified professional and record all documentation of repairs conducted. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Annually:
  - Record any areas of water infiltration, flashing deterioration, damage or loose fasteners
  - Implement repairs as needed if issues are reoccurring
  - Ensure proper ventilation and verify vents are clear of debris and not blocked from attic insulation
  - Clear valleys of debris
  - Periodic cleaning at areas with organic growth

**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 the swim center rest rooms is based on information provided by the Association and includes the gutters and downspouts.

## Roofs, Thermoplastic

---

**Line Items:** 1.531 and 1.533

**Quantity:** 12,120 square feet at the Community Center and 1,820 square feet at the Swim Center mechanical and maintenance buildings.

**History:** Original at the Community Center and an unknown age at the Swim Center; the Association should conduct inspections of the roofs semiannually and fund these inspections through the operating budget.

**Condition:** Reported satisfactory overall. Management and the Board do not report a history of leaks.



**Community center with thermoplastic roof**

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

**Component Detail Notes:** Thermoplastic roofs include the following:

- Polyvinyl chloride (PVC or simply vinyl)
- PVC alloys or compounded thermoplastics
- Thermoplastic olefin (TPO)
- Chlorinated polyethylene (CPE)

The following characteristics define most thermoplastic roofs:

- Attachment to the roof deck is either fully adhered, mechanical or ballasted
- Membranes are commonly white and reinforced with polyester
- Seams are sealed with heat or chemical welding
- Sheet widths range from 6- to 12-feet wide

- Sheets are typically 40- to 100-mils thick
- Single ply (one layer)

Over time, exposure to ultraviolet light, heat and weather degrade the membrane. This degradation results in membrane damage from thermal expansion and contraction, adverse weather and pedestrian traffic. The aging process makes the membrane less pliable and more difficult to maintain. Ponding water on the roof can increase the effects of ultraviolet light on the membrane and contaminants in ponded water can cause the membrane to deteriorate prematurely. Thermoplastic roofs (especially TPO) are relatively new and their long-term performance is not well defined.

Contractors can install a new thermoplastic 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.

The contractor should follow the manufacturer's directions and specifications upon installation of the roof. The contractor should remove the original insulation if saturated or compacted and apply a new layer of insulation per the manufacturer's instructions. The insulation should fit loosely with gaps no greater than ¼ inch. Gaps will cause failure of the membrane later. Mechanical fastening of the insulation is the best manner of installation.

***Preventative Maintenance Notes:*** We recommend the Association maintain a service and inspection contract with a qualified professional and record all documentation of repairs conducted. We note the following select recommended preventative maintenance activities to maximize the remaining useful life:

- Semi-annually:
  - Note drainage issues with water ponding after 48 hours of rainfall event. Verify scuppers and drains are free of debris. Replace damaged or missing drain covers.
  - Inspect perimeter flashing for loose fasteners, deflections, and sealant damage
  - Verify membrane surface is free of ruptures or damage, and areas of extensive blistering or bubbling
  - Remove oil spills or contaminants from mechanical equipment
  - In areas of possible foot traffic, remove any sharp debris or trash and note areas of crushed insulation
  - If frequency of leaks increase or location of water infiltration is unknown, we recommend the consideration of a thermal image inspection

***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.

## Walls, Paint Finishes

---

**Line Item:** 1.760

**Quantity:** The pool houses and clubhouse comprise various painted elements including fiber cement siding, wood and stucco

**History:** Original

**Condition:** Good overall with no visible deterioration evident.



**Stained soffit at the community center**

**Useful Life:** 8- to 10-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 assume the following activities per event:

- Paint finish applications to the fiber cement siding, wood trim and soffits
- Replacement of a limited amount of siding and trim (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.)
- Replacement of sealants as needed

## Walls, Masonry

---

**Line Item:** 1.800

**Quantity:** Approximately 11,150 square feet across the four amenity centers

**History:** Original to construction

**Condition:** Good to fair overall. We note joint sealant deterioration and mortar deterioration, primarily at the swim center mechanical room



**Masonry walls overview**



**Masonry walls overview**



**Masonry walls overview**



**Joint sealant deterioration**



**Rust and mortar deterioration**



**Useful Life:** The Association should anticipate inspection and repairs to the masonry every 8- to 12-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 assume a complete inspection of all the masonry veneer and repairs at up to two percent (2.00%) per event.

## Windows and Doors

---

**Line Item:** 1.981 and 1.983

**Quantity:** 2,050 square feet at the Community Center and 330 square feet at the Swim Center

**History:** Original

**Condition:** Good to fair overall condition

**Useful Life:** Up to 40 years

**Component Detail Notes:** Properly designed window and door assemblies anticipate the penetration of some storm water beyond the gaskets. This infiltrated storm water collects in an internal drainage system and drains, or exits, the frames through weep holes. These weep holes can become clogged with dirt or if a sealant is applied, resulting in trapped storm water. We recommend Circle C periodically verify that weep holes are unobstructed as normal maintenance. However, as window frames, gaskets and sealants deteriorate, leaks into the interior can result. The windows and doors will eventually need replacement or major capital repairs to prevent water infiltration and damage from wind driven rain.

**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

### Interior Renovations, Community Center

---

**Line Items:** 2.501 and 2.511

**History:** Original to construction in 2012.

**Condition:** Good overall



**Kitchen**



**Ceiling stains**



**Meeting room**



**Community Center rest room**



**Community Center overview**

**Useful Life:** Complete interior renovation every 20 years and partial interior renovations every 10 years

**Component Detail Notes:** The Community Center interior comprises approximately 4,500 square feet of finished area which includes:

- Carpet and tile floor coverings
- Paint finishes on a portion of the walls and ceilings
- Wood ceiling finishes
- Acoustical ceiling tiles and grid
- Rest rooms including plumbing fixtures
- Light fixtures including exit and emergency lights
- Kitchen including appliances, cabinets and countertops
- Furnishings

**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.

These partial renovations should include the following:

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

## **Interior Renovations, Swim Center**

---

**Line Items:** 2.503 and 2.513

**History:** Components vary in age. The Association recently renovated the upper level of the lifeguard building.

**Condition:** Fair overall



**Lifeguard room**



**Useful Life:** Complete interior renovation every 20 years and partial interior renovations every 10 years

**Component Detail Notes:** The Swim Center building interiors comprise approximately 1,300 square feet of finished area which includes:

- Carpet floor coverings
- Paint finishes on a portion of the floors, walls and ceilings
- Direct applied ceiling tiles and grid
- Light fixtures including exit and emergency lights
- Cabinets and countertops
- Furnishings

**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.

These partial renovations should include the following:

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

## Rest Rooms

---

**Line Items:** 2.900 through 2.903

**Quantity:** One men's and one women's rest room at each amenity center pool area

**History:** Components are primarily original to building construction. At the Swim Center, the fixtures were replaced in approximately 2014. The Association is planning to replace the flooring in the Swim Center rest rooms in 2024.

**Condition:** Good to fair overall, excluding the Swim Center floors which are reported not to code.



**Grey Rock rest room**



**Swim Center rest room**



**Community Center rest room**



**Avana poolside rest room**



**Swim Center rest room flooring**



**Community Center poolside rest room**

**Useful Life:** Renovation up to every 20 years

**Component Detail Notes:** Components include:

- Painted floor surfaces
- Paver floor surface at the Swim Center
- Carpet floor coverings at the Avana and Grey Rock lifeguard rooms
- 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/Packaged Heating and Cooling Units

**Line Items:** 3.061 through 3.063

**Quantity:** One *Lennox* rooftop air-handling unit for the Community Center, one Carrier packaged cooling unit for the lifeguard building at the Swim Center and one rooftop air-handling unit for the Cafe at the Swim Center

**History:** Installed in 2012 at the Community Center, in 2023 at lifeguard building and an unknown age at the Cafe

**Condition:** Reported satisfactory without operational deficiencies



**2-ton unit at the Swim Center**

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

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

- Cooling capacity of 5-tons at the Community Center and 2-tons at the Swim Center
- R-410A refrigerant

**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 the 2-ton unit is based on information provided by the Association.

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

---

**Line Item:** 3.071

**Quantity:** Five split systems at the Community Center

**History:** Installed in 2012

**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 air-handling unit. Each condensing unit has a cooling capacity of 5-tons. The split systems use R-410A refrigerant.

**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.

## **Security Systems**

---

**Line Item:** 3.820

**Quantity:** Circle C utilizes the following security system components:

- Automated card reading system (3 access points at the Community Center)
- Cameras (13 at Avana, 23 at the Community Center, 12 at Grey Rock and 21 at the Swim Center)
- Multiplexers

- Recorders

**History:** Vary in age

**Condition:** Reported satisfactory

**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. The Association should anticipate replacement of up to ten percent (10%) of the security system components per event.

## Property Site Elements

### Asphalt Pavement, Repaving

---

**Line Items:** 4.020 through 4.041

**Quantity:** Approximately 3,350 square yards at the Swim Center and 7,550 square yards at the remaining three amenity areas

**History:**

- Repaving: Original to construction
- Repairs: Seal coats were applied from 2020 through 2022.

**Condition:** Good to fair overall condition. We note significant alligator cracks at the Swim Center.



Avana parking area



Grey rock parking area



**Swim center parking area**



**Pavement cracks at Swim Center**



**Swim Center parking area overview**



**Pavement cracks at Swim Center**



**Community center parking area**



**Pavement cracks at the Community Center**

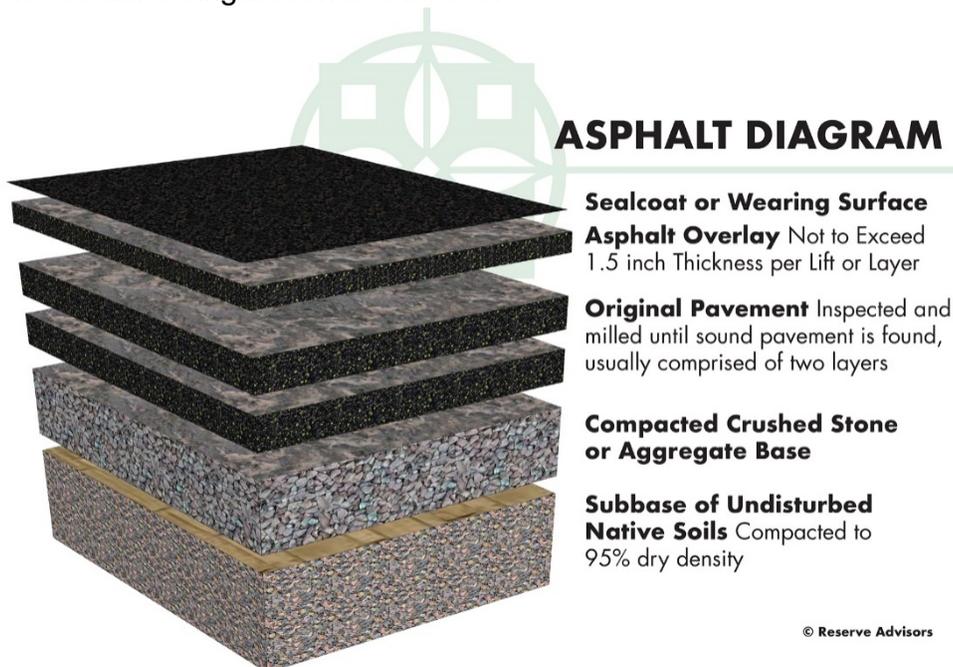


**Community Center parking lot overview**

**Useful Life:** 15- to 20-years with the benefit of crack repair, patch, and seal coat events every three- to six-years

**Component Detail Notes:** Proposals should include mechanically routing and filling all cracks with hot emulsion. Repairs should also include patching at areas exhibiting settlement, potholes, or excessive cracking. 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. These activities minimize the damaging effects of vehicle fluids, maintain a uniform and positive appearance, and maximize the useful life of the pavement.

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 Circle C:



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 of repaving at Circle C.

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

- Annually:
  - Inspect for settlement, large cracks and trip hazards, and ensure proper drainage
  - Repair areas which could cause vehicular damage such as potholes
- As needed:
  - Perform crack repairs and patching

**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 an allowance for crack repairs and patching of up to two percent (2%) of the pavement. Our cost for milling and overlayment includes area patching of up to ten percent (10%).

## **Fences, Steel**

---

**Line Item:** 4.245

**Quantity:** 2,780 linear feet across multiple locations, including the parks, amenity centers, and various locations throughout the community, typically located near a mailbox structure and/or karst. This quantity excludes the fences directly adjacent to the pool areas, as we include those fences on line items in the Pool section below.

**History:** The fences vary in age. The Association has replaced sections of fences as needed, primarily due to vehicle collisions.

**Condition:** The fences are in good to fair overall condition with no significant deterioration evident



**Steel fence**



**Steel fence**

**Useful Life:** Up to 35 years for replacement

**Component Detail Notes:** Steel components at grade and key structural connections are especially prone to failure if not thoroughly maintained. Secure and rust free fasteners and connections will prevent premature deterioration. Preparation of the steel before application of the paint finish is critical to maximize the useful life of the finish.

**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 finish applications through the operating budget.

## **Fences, Wood**

---

**Line Item:** 4.285

**Quantity:** 1,830 linear feet at the Community Center pool mechanical area, near the pond at Back Bay Lane, adjacent to the park near Redmond Road and along Barstow Avenue

**History:** Varies in age

**Condition:** Good to fair overall condition



**Wood fence**



**Wood fence**

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

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

- Annually:
  - Inspect and repair loose sections, finish deterioration and damage
  - Repair leaning sections and clear vegetation from fence areas which could cause damage

**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 anticipate periodic partial replacements due to the non-uniform nature of wood deterioration and fund these activities through the operating budget.

## **Irrigation System, Replacement**

---

**Line Item:** 4.420

**Quantity:** Approximately 4,100,000 square feet, 3,000 valves, 65 controllers with an additional 150 battery node clocks, and a combination of over 10,000 heads and drip areas. Additionally, there are approximately 50 water meter connections with associated backflow preventive devices. The irrigation generally comprises the following areas:

- Amenity areas (4)
- Slaughter Lane
- Escarpment Boulevard
- La Crosse Avenue
- Barstow Avenue
- Spruce Canyon Drive

- Trissino Drive
- Bernia Drive
- Archeleta Boulevard
- Park Place
- Vintage Place Park
- Vinemont Entry
- Sundrop Valley
- Wildflower Park
- Eclipse
- Dahlgreen
- South Bay
- Via Grande
- Muirfield
- Aden Lane Pocket Park
- Redmond Pocket Park

**History:** Varies in age; Two of the largest areas, Escarpment and Slaughter Lane, pre-date 1990. Newer sections, specifically Avana and Grey Rock, are entirely two-wire drip systems. Some areas have been converted to drip systems, while the main line and wiring have not been replaced.

**Condition:** Reported unsatisfactory in numerous capacities, including, but not limited to, aging wiring, aging infrastructure, poor installation workmanship, inadequate water coverage to maintain landscape elements, and increasing frequency of failures and ongoing damage by outside contractors

**Useful Life:** Up to and sometimes beyond 40 years

**Component Detail Notes:** Irrigation systems typically include the following components:

- Electronic controls (timer)
- Impact rotors
- Network of supply pipes
- Pop-up heads
- Drip emitters
- Valves
- Backflow preventers

Circle C should anticipate interim and partial replacements of the system network supply pipes and other components as normal maintenance to maximize the useful life of the irrigation system. The Association should fund these ongoing seasonal repairs through the operating budget.

**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. Based on the varied age of the system, as well as the scope, we depict replacement in a phased manner, consistent with how the Association



has currently approached replacement. However, we recommend the Association budget for these larger, phased replacements on a systematic basis. Our estimated costs only include funds to replicate the systems current capacities, and do not account for replacement or refurbishment of any of the landscape elements. If these landscape elements are planned to be entirely or significantly replaced concurrent with the irrigation replacement, the estimated cost could significantly increase from the stated costs in this study.

## **Landscape, Circle C North**

---

**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, we include an allowance for renovations to Circle C North in 2024 for approximately \$250,000 plus inflation

**Priority/Criticality:** Per Board discretion

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

## **Lift Station**

---

**Line Item:** 4.550

**History:** Installed in 2012; the Association plans to replace the pumps and controls in 2023

**Condition:** Reported unsatisfactory



**Lift station**

**Useful Life:** Up to 10 years for the pumps and controls and up to 30 years for replacement

**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:

- Semi-annually:
  - Inspect and repair bearings, lubricant and shaft seals, and grease motor bearings as needed
  - Test and adjust pump if excessive vibration is evident. Inspect impeller for wear, corrosion or damage.
  - Check amperage draw on motors for functionality
  - Check all float switches for functionality

**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. Rebuilding of the station includes replacement of pumps, motors, guide rails and electrical components including controls. The Association should fund interim repairs and replacements through the operating budget

## **Light Poles and Fixtures**

---

**Line Item:** 4.560

**Quantity:** 17 light poles and fixtures at the four amenity centers

**History:** Vary in age

**Condition:** Good to fair overall



**Light poles and fixtures**



**Light pole and fixture**



**Light poles and fixtures**



**Light pole and fixture**

**Useful Life:** Up to 25 years

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

- As-needed:
  - Inspect and repair broken or dislodged fixtures, and leaning or damaged poles
  - Replaced burned out bulbs as needed

**Priority/Criticality:** Per Board discretion

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

## **Light Fixtures, Bollard, Landscape and Miscellaneous**

---

**Line Items:** 4.562 and 4.654

**Quantity:** Approximately 70 bollard light fixtures along Escarpment Boulevard and 400 landscape and various light fixtures throughout the development.

**History:** Vary in age

**Condition:** Fair overall



**Bollard 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 depict replacement of the landscape and miscellaneous light fixtures in a phased manner.

## **Mailbox Stations**

---

**Line Items:** 4.600 through 4.602

**Quantity:** 39 kiosk with approximately 340 stations

**History:** Varies in age. Approximately 12 mailbox stations have been replaced in recent years.

**Condition:** Good to fair overall condition



**Mailbox kiosk with metal roof**



**Isolated roof damage**



**Mailbox stations**



**Mailbox kiosk with asphalt shingle roof**

**Useful Life:** Up to 25 years for the mailbox stations and up to 30 years for capital repairs

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

- As-needed:
  - Inspect and repair damage, vandalism, and finish deterioration
  - Verify posts are anchored properly

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Interim repairs should be funded through the operating budget. Based on the varied ages and conditions, we depict replacement in a phased manner.

## Pipes, Pool Backwash, Swim Center

---

**Line Item:** 4.605

**History:** Management reports potential permit issues with the current method of backwash discharge that will require tie in to the existing sanity sewer line

**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 is budgetary in nature, and we recommend the Association solicit bids once the scope of this project is further defined to better estimate future costs.

## Playground Equipment

---

**Line Items:** 4.660 through 4.666

**Quantity:** Playground equipment includes the following elements:

- Playsets
- Safety surfaces with border
- Site furniture

**History:** Varies in age

**Condition:** Good to fair overall with periodic deterioration at the older playsets



**Avana playground equipment**



**Grey Rock playground with shade structure**



**Park Place playground equipment overview**



**Swim Center playground equipment**



**Frame rust at Swim Center**



**Equipment at Vintage Place**



**Finish deterioration at Vintage Place**



**Finish deterioration at Vintage Place**



**Safety surface depletion at Vintage Place**



**Wildflower Park playground equipment**

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

**Component Detail Notes:** Safety is the major purpose for maintaining playground equipment. We recommend an annual inspection of the playground equipment to identify and repair as normal maintenance loose connections and fasteners or damaged elements. We suggest the Association learn more about the specific requirements of playground equipment at [PlaygroundSafety.org](http://PlaygroundSafety.org). We recommend the use of a specialist for the design or replacement of the playground equipment environment.

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

- Annually:
  - Inspect and repair loose connections and fasteners or damaged elements
  - Inspect for safety hazards and adequate coverage of ground surface cover

**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 an allowance in the unit cost for replacement of the safety surface and border.

## **Pumps, Submersible, Drainage Area**

---

**Line Item:** 4.699

**Quantity:** 2 submersible 3-HP pumps at the drainage area near the community center

**History:** Exact age unknown

**Condition:** Reported satisfactory



**Submersible pump system**

**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.

## **Shade Structures**

---

**Line Items:** 4.701 and 4.702

**Quantity, History:** Three at Avana, Grey Rock and Park Place Parks added from 2020-2022 and two at Wildflower and Vintage Place Parks installed in 2007

**Condition:** Good overall condition



**Park Place shade structure**

**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. Interim replacement of the canvas should be funded through the operating budget.

## Signage

---

**Line Item:** 4.800

**Quantity:** The property identification signage includes the following elements:

- Light fixtures
- Letters
- Masonry
- Landscape

**History:** Varied ages. The main monument at Escarpment Boulevard and West Slaughter Lane was completely rebuilt from 2021-2022.

**Condition:** Good to fair overall condition



Entrance monument



Entrance monument



Sign lighting

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

**Component Detail Notes:** Community signage contributes to the overall aesthetic appearance of the property to owners and potential buyers. Renovation or replacement of community signs is often predicated upon the desire to "update" the perceived identity of the community rather than for utilitarian concerns. Therefore, the specific times for replacement or renovation are discretionary.

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

- Annually:
  - Inspect and repair damage, vandalism and loose components
  - Verify lighting is working properly
  - Touch-up paint finish applications if applicable

**Priority/Criticality:** Per Board discretion

**Expenditure Detail Notes:** Expenditure timing and costs are depicted in the **Reserve Expenditures** table in Section 3. Our cost for renovation includes repairs to the masonry and replacement of the remaining components listed above.

## Vehicles

---

**Line Item:** 4.901

**Quantity:** Two each

**History:** Replaced in 2017

**Condition:** Reported satisfactory



**Toyota Rav4**



**Toyota Tundra**

**Useful Life:** 10- 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.

## Pool Elements

### Artificial Turf

---

**Line Item:** 6.103

**Quantity:** 1,400 square feet

**History:** Installed in 2018

**Condition:** Good to fair overall condition



Artificial turf

**Useful Life:** 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.

### Deck, Composite, Swim Center

---

**Line Item:** 6.104

**Quantity:** Approximately 820 square feet

**History:** Installed in approximately 2012

**Condition:** Good to fair overall condition



**Deck at Swim Center**

**Useful Life:** 20- 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.

## **Concrete Decks**

---

**Line Items:** 6.200 through 6.203

**Quantity:** 6,340 square feet at Avana, 8,840 square feet at the Community Center, 4,190 square feet at Grey Rock and 12,920 square feet at the Swim Center.

**History:** Installation dates to construction at each amenity area.

**Condition:** Good condition overall. The decks at Avana and Grey Rock are uncoated, the deck at the Community Center primarily is coated, with a limited section that is not, and the Swim Center deck is primarily masonry pavers with a limited amount of uncoated concrete.



**Avana concrete pool deck overview**



**Avana concrete pool deck overview**



**Community Center concrete pool deck overview**



**Community Center concrete pool deck overview**



**Grey Rock concrete pool deck overview**



**Grey Rock concrete pool deck overview**



**Concrete pool deck overview**



**Paver deck at Swim Center**



**Concrete spalls**

**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 decks at Avana, the Community Center and Grey Rock every 8- to 12-years. The masonry pavers at the Swim Center have a useful life of up to 25 years. We recommend the Association coordinate repairs to the concrete deck portion concurrent with resetting and partial replacement of the masonry pavers every 8- to 12-years.

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

- Semi-annually:
  - Inspect and repair large cracks, trip hazards, and possible safety hazards
  - Inspect and repair pool coping for cracks, settlement, heaves or sealant deterioration
  - Repair concrete spalling and conduct coating repairs in areas with delamination
  - Schedule periodic pressure cleanings 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 the following per event:

- Selective cut out and replacements of up to ten percent (10%) of concrete
- Crack repairs as needed
- Mortar joint repairs
- Caulk replacement
- Coating replacement at currently coated locations
- Removal of the pavers with partial resetting and replacement

## Cover, Vinyl

---

**Line Item:** 6.300

**Quantity:** 12,460 square feet over nine sections

**History:** Vary in age

**Condition:** Reported satisfactory



**Pool covers**

**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. We depict replacement in a phased manner.

## Fences, Steel

---

**Line Items:** 6.400 through 6.403

**Quantity:** 420 linear feet at Avana, 840 linear feet at the Community Center (including the handrails), 390 linear feet at Grey Rock and 1,410 at the Swim Center.

**History:** Original to construction at Avana, the Community Center and Grey Rock. The fences at the Swim Center have had significant repairs and partial replacements over recent years.

**Condition:** Good overall condition with isolated areas of rust and damage evident



Avana steel pool fence



Community Center railing



Community Center fence



Grey Rock steel pool fence



**Swim Center steel pool fence**



**Fence rust at Swim Center**



**Swim Center playground fence**

**Useful Life:** Up to 35 years

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

- Annually:
  - Inspect and repair loose fasteners or sections, and damage
  - Repair leaning sections and clear vegetation from fence areas which could cause damage

**Priority/Criticality:** Not recommended to defer

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

## Mechanical Equipment

---

**Line Items:** 6.601 through 6.609

**Quantity:**

- Automatic chlorinators
- Controls
- Filters
- Heaters
- Interconnected pipe, fittings and valves
- Pumps
- Electrical panels
- Ultraviolet systems

**History:** Components vary in age. The Swim Center heaters were replaced in 2020, and Management anticipates subsequent replacement will be by 2030. The Association anticipates replacement of the swim center filters in 2024.

**Condition:** Reported satisfactory



Community Center filters



20 horsepower pumps



Pool mechanical equipment at Swim Center



Swim Center filters



**Swim center pump**



**Swim Center heaters**

**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. Our cost for the Swim Center heaters is based on information provided by the Association. Failure of the pool mechanical equipment as a single event is unlikely. Therefore, we include replacement of up to twenty-five percent (25%) 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 through 6.807

**Quantity:**

- Avana - 4,490 square feet of plaster based on the horizontal surface area and approximately 490 linear feet of tile
- Community Center – 6,610 square feet of plaster based on the horizontal surface area and approximately 680 linear feet of tile
- Grey Rock – 2,390 square feet of plaster based on the horizontal surface area and approximately 210 linear feet of tile
- Swim Center – 13,980 square feet of plaster based on the horizontal surface area and approximately 2,750 linear feet of tile, including the lane lines

**History:** The plaster finish and tile is original at Avana and Grey Rock. The plaster at the Swim Center was replaced in 2014. The Community Center plaster and tile was replaced from 2021 to 2022. The Association plans to replace the plaster at Avana and the Swim Center in 2024.

**Condition:** The plaster is in good condition at the Community Center, the remaining plaster is in fair to poor overall condition. We note cracks at Grey Rock and Avana, and the Association reports and active leak at Avana.



**Avana pool plaster overview**



**Pool cracks at Avana**



**Pool plaster finish with tile perimeter at Avana**



**Community Center pool plaster overview**



**Community Center pool plaster overview**



**Grey Rock pool plaster overview**



**Pool plaster finish with tile perimeter at Grey Rock**



**Plaster cracks at Grey Rock**



**Plaster cracks at Grey Rock**



**Cracks at Grey Rock**



**Swim Center pool plaster overview**



**Plaster deterioration at Swim Center**



**Plaster chips at Swim Center**



**Plaster chips at Swim Center**



**Wading pool at Swim Center**

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

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

- Semi-annually:
  - Inspect and patch areas of significant plaster delamination, coping damage and structure cracks
  - Inspect main drain connection and anti-entrapment covers, pressure test circulation piping and valves
  - Test handrails and safety features for proper operation

**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 and coping replacement every other plaster replacement event. Removal and replacement of the finish provides the opportunity to inspect the pool structures and to allow for partial

repairs of the underlying concrete surfaces as needed. To maintain the integrity of the pool structures, we recommend the Association budget for the following:

- Removal and replacement of the plaster finishes
- 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

## Shade Structures

---

**Line Items:** 6.870 through 6.873

**Quantity:** Three at Avana, nine at the Community Center, three at Grey Rock and nine at the Swim Center, including the playground

**History:** Original at Avana, the Community Center and Grey Rock. At the Swim Center, the playground shade structure was installed in recent years while the remaining structures are an unknown age.

**Condition:** Good overall



Avana shade structure



Swim Center shade structures

**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. Interim canvas replacement should be funded through the operating budget.

## Starting Blocks

---

**Line Item:** 6.899

**Quantity:** Eight each

**History:** Installed in 2017

**Condition:** Good overall



**Starting blocks**

**Useful Life:** 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.

## Structure and Deck, Swim Center

---

**Line Item:** 6.903

**Quantity:** 13,890 square feet of horizontal surface area at the Swim Center

**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 60 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 Circle C plan to replace the following components:

- Concrete and paver 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.

## Water Feature, Splash Pads

---

**Line Items:** 6.960 through 6.964

**Quantity:** Splash pads at Avana, the Community Center and Swim Center

**History:** Original at Avana and the Community Center and varied ages at the Swim Center

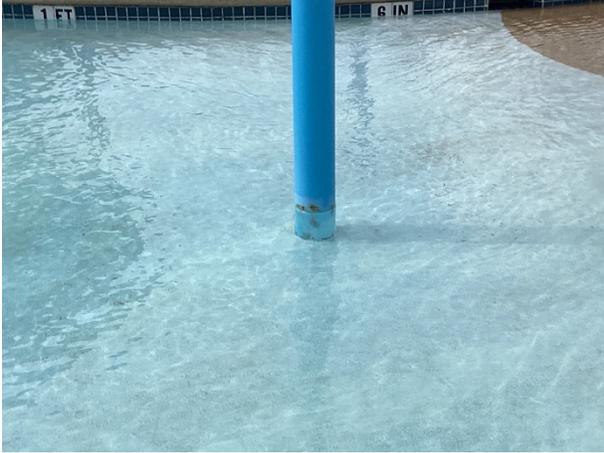
**Conditions:** Reported satisfactory overall, with a desire to upgrade the Swim Center splash pad in the coming years



Avana water features



Swim Center water features



**Minor rust at Swim Center**



**Splash pad at Community Center**



**Water slide at swim center**

**Useful Life:** Capital repairs are likely every three years at the Swim Center with replacement up to every 15 years

**Priority/Criticality:** Not recommended to defer

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

### **Water Slide, Fiberglass**

---

**Line Items:** 6.975 and 6.980

**Quantity:** One slide at the Community Center

**History:** Original to construction

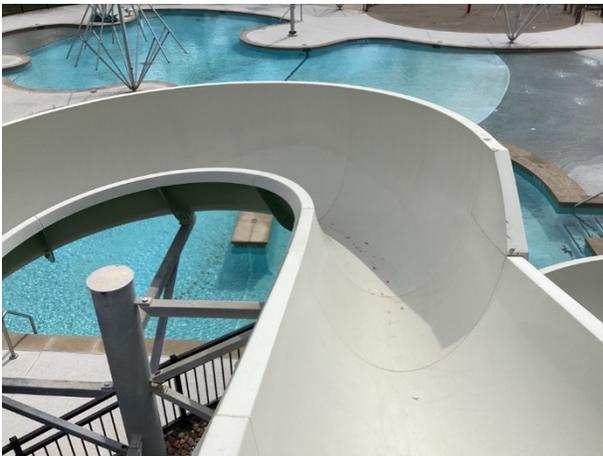
**Conditions:** Good overall with evidence of rust and minor deterioration



**Water slide overview**



**Rusted structure**



**Water slide overview**



**Rusted structure**

**Useful Life:** Replacement at up to 25 years and refinishing every five years

**Component Detail Notes:** Safety is the major purpose for maintaining the water slide. We recommend an annual inspection of the water slide to identify and repair as normal maintenance loose connections and fasteners or damaged elements. We recommend the use of a specialist for the design or replacement of the water slide environment.

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

- Weekly:
  - Inspect and repair loose connections and fasteners or damaged elements. Check handrails for stability.
  - Inspect for safety hazards
- Annually:
  - Drain all lines if applicable
  - Clean with non-abrasive cleaner and wax as needed
  - Reseal joints 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.

## 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.

Circle C 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 Homeowners 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 Austin, Texas at an annual inflation rate<sup>3</sup>. Isolated or regional markets of greater

<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.

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

construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

- The past and current maintenance practices of Circle C 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.

## 6. CREDENTIALS

### HISTORY AND DEPTH OF SERVICE

Founded in 1991, Reserve Advisors 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 founders are also founders of Community Associations Institute's (CAI) Reserve Committee that developed national standards for reserve study providers. One of our founders 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 a 2,600,000-square foot 98-story highrise. 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.

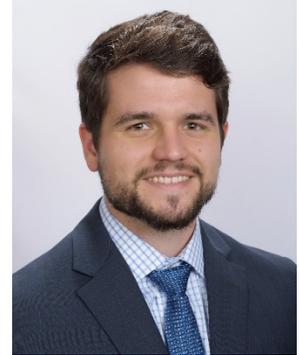
### OLD TO NEW

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.

**CASEY M. LEWIS, RS**  
**Responsible Advisor**

**CURRENT CLIENT SERVICES**

Casey M. Lewis, an engineer, is an advisor for Reserve Advisors. Mr. Lewis is responsible for the inspection and analysis of the condition of clients' property, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services and the preparation of Reserve Study Reports for condominiums, townhomes and homeowners associations.



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

**Bleu Ciel Condominium Association, Inc.** A luxury highrise in Dallas, Texas, Bleu Ceil Condominium comprises a uniquely shaped tower with 136 units. Residents of the Association have access to a swimming pool, plaza deck and multiple interior common areas including a spa, fitness center, wine tasting and storage rooms. The site also includes a garage located at the lower levels of the tower.

**Waterside Estates Homeowners Association, Inc.** This single family home community contains over 1,400 residential homes and is located in Richmond, Texas. Features of this community include swimming pools, water slides, multiple playgrounds, walking trails, panelized masonry perimeter walls, wood fences, and two tennis courts.

**Silver Oaks Condominium Association, Inc.** A townhome community in Cedar Park, Texas containing 82 units in 22 buildings. The townhomes consist of stone masonry, stucco siding and asphalt shingle roofs. The features of this community include private asphalt streets, masonry retaining walls, concrete flatwork, wood balconies and metal fences.

**Hide-A-Way Lake Club** A Homeowners Association located in Hideaway, Texas, containing 1,704 single family homes. Amenities of this community include a 27 hole golf course, multiple lakes, ponds, swimming pools and amenity buildings including a clubhouse, marina and event venue.

**Wintergreen Trail Townhomes** A townhome style community of 51 units in 12 buildings located in The Woodlands, Texas. The townhomes comprise of fiber cement siding, wood trim and asphalt roofs. Features of the property include concrete flatwork and wood fences surrounding the property.

**Camp John Marc** A special needs summer camp in Meridian, Texas that comprises over 100 acres that includes 22 cabins, numerous multipurpose use structures, extensive site infrastructure, maintenance buildings and equipment, animal storage structures and a packaged sewer treatment facility.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Mr. Lewis completed his bachelor's degree in industrial engineering at Texas Tech University. During his summers, he worked in the homebuilding industry where he oversaw and managed the construction of single family homes in the Houston, Texas area. Following the completion of his studies, he worked as an industrial engineer in the space launch industry.

**EDUCATION**

Texas Tech University - B.S. Industrial Engineering

**PROFESSIONAL AFFILIATIONS**

*Reserve Specialist (RS) - CAI*

**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

**NICOLE L. LOWERY, PRA, RS**  
**Associate Director of Quality Assurance**

**CURRENT CLIENT SERVICES**

Nicole L. Lowery, a Civil Engineer, is an Associate Director of Quality Assurance for Reserve Advisors. Ms. Lowery is responsible for the management, review and quality assurance of reserve studies. In this role, she assumes the responsibility of stringent report review analysis to assure report accuracy and the best solution for Reserve Advisors' clients.

Ms. Lowery has been involved with hundreds of Reserve Study assignments. The following is a partial list of clients served by Nicole Lowery demonstrating her breadth of experiential knowledge of community associations in construction and related buildings systems.



**Amelia Surf & Racquet Club** This oceanfront condominium community comprises 156 units in three mid rise buildings. This Fernandina Beach, Florida development contains amenities such as clay tennis courts, two pools and boardwalks.

**Ten Museum Park** This boutique, luxury 50-story high rise building in downtown Miami, Florida consists of 200 condominium units. The amenities comprise six pools including resistance and plunge pools, a full-service spa and a state-of-the-art fitness center. The property also contains a multi-level parking garage.

**3 Chisolm Street Homeowners Association** This historic Charleston, South Carolina community was constructed in 1929 and 1960 and comprises brick and stucco construction with asphalt shingle and modified bitumen roofs. The unique buildings were originally the Murray Vocational School. The buildings were transformed in 2002 to 27 high-end condominiums. The property includes a courtyard and covered parking garage.

**Lakes of Pine Run Condominium Association** This condominium community comprises 112 units in 41 buildings of stucco construction with asphalt shingle roofs. Located in Ormond Beach, Florida, it has a domestic water treatment plant and wastewater treatment plant for the residents of the property.

**Rivertowne on the Wando Homeowners Association** This exclusive river front community is located on the Wando River in Mount Pleasant, South Carolina. This unique Association includes several private docks along the Wando River, a pool and tennis courts for use by its residents.

**Biltmore Estates Homeowners Association** This private gated community is located in Miramar, Florida, just northwest of Miami, Florida and consists of 128 single family homes. The lake front property maintains a pool, a pool house and private streets.

**Bellavista at Miromar Lakes Condominium Association** Located in the residential waterfront resort community of Miromar Lakes Beach & Golf Club in Fort Myers, Florida, this property comprises 60 units in 15 buildings. Amenities include a clubhouse and a pool.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Ms. Lowery was a project manager with Kipcon in New Brunswick, New Jersey and the Washington, D.C. Metro area for eight years, where she was responsible for preparing reserve studies and transition studies for community associations. Ms. Lowery successfully completed the bachelors program in Civil Engineering from West Virginia University in Morgantown, West Virginia.

**EDUCATION**

West Virginia University - B.S. Civil Engineering

**PROFESSIONAL AFFILIATIONS / DESIGNATIONS**

*Reserve Specialist (RS)* - Community Associations Institute

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



## RESOURCES

Reserve Advisors 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).

**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 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' 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 Circle C 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) Circle C 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, LLC ("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 the Report. The inspection is made by employees generally familiar with real estate and building construction. Except to the extent readily apparent to RA, RA cannot and shall not opine on the structural integrity of or other physical defects in the property under any circumstances. Without limitation to the foregoing, RA cannot and shall not opine on, nor is RA responsible for, the property's conformity to specific governmental code requirements for fire, building, earthquake, and/or occupancy.

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 vapor, water, oil, gas, coal, or other subsurface mineral and use rights or such hidden conditions, and RA assumes no responsibility for any such conditions. The Report contains opinions of estimated replacement costs or deferred maintenance expenses and remaining useful lives, which are neither a guarantee of the actual costs or expenses of replacement or deferred maintenance 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.

RA assumes, without independent verification, the accuracy of all data provided to it. Except to the extent resulting from RA's willful misconduct in connection with the performance of its obligations under this agreement, you agree to indemnify, defend, and hold RA and its affiliates, officers, managers, employees, agents, successors and assigns (each, an "RA Party") harmless from and against (and promptly reimburse each RA Party for) any and all losses, claims, actions, demands, judgments, orders, damages, expenses or liabilities, including, without limitation, reasonable attorneys' fees, asserted against or to which any RA Party may become subject in connection with this engagement, including, without limitation, as a result of any false, misleading or incomplete information which RA relied upon that was 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. NOTWITHSTANDING ANY OTHER PROVISION HEREIN TO THE CONTRARY, THE AGGREGATE LIABILITY (IF ANY) OF RA WITH RESPECT TO THIS AGREEMENT AND RA'S OBLIGATIONS HEREUNDER IS LIMITED TO THE AMOUNT OF THE FEES ACTUALLY RECEIVED BY RA FROM YOU FOR THE SERVICES AND REPORT PERFORMED BY RA UNDER THIS AGREEMENT, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE. YOUR REMEDIES SET FORTH HEREIN ARE EXCLUSIVE AND ARE YOUR SOLE REMEDIES FOR ANY FAILURE OF RA TO COMPLY WITH ITS OBLIGATIONS HEREUNDER OR OTHERWISE. RA SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR EXEMPLARY DAMAGES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, ANY LOST PROFITS AND LOST SAVINGS, LOSS OF USE OR INTERRUPTION OF BUSINESS, HOWEVER CAUSED, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE), BREACH OF WARRANTY, STRICT LIABILITY OR OTHERWISE, EVEN IF RA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN NO EVENT WILL RA BE LIABLE FOR THE COST OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES. RA DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES WHATSOEVER, EXPRESS OR IMPLIED OR OF ANY NATURE, WITH REGARD TO THE SERVICES AND THE REPORT, INCLUDING, WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.



**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 will consider any additional information made available to RA within 6 months of issuing the Report and issue a revised Report based on such additional information if a timely request for a revised Report is made by you. 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 the Report is limited to only the purpose stated herein. You acknowledge that RA is the exclusive owner of all intellectual property rights in and relating to the Report. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and that you will be liable for the consequences of any unauthorized use or distribution of the Report. Use or possession of the Report by any unauthorized third party is prohibited. 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 the Report in its entirety to the following third parties: members of your organization (including your directors, officers, tenants and prospective purchasers), your accountants, attorneys, financial institutions and property managers who need to review the information contained herein, and any other third party who has a right to inspect the Report under applicable law. Without the written consent of RA, you shall not disclose the Report to any other third party. By engaging our services, you agree that the Report contains intellectual property developed (and owned solely) by RA and agree that you will not reproduce or distribute the Report ***to any party that conducts reserve studies without the written consent of RA.***

RA will include (and you hereby agree that RA may include) your name in our client lists. RA reserves the right to use (and you hereby agree that RA may 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** - The 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. Unless this agreement is earlier terminated by RA in the event you breach or otherwise fail to comply with your obligations under this agreement, RA's obligations under this agreement shall commence on the date you execute and deliver this agreement and terminate on the date that is 6 months from the date of delivery of the Report by RA. Notwithstanding anything herein to the contrary, each provision that by its context and nature should survive the expiration or early termination of this agreement shall so survive, including, without limitation, any provisions with respect to payment, intellectual property rights, limitations of liability and governing law.

**Miscellaneous** – Neither party shall be liable for any failures or delays in performance due to fire, flood, strike or other labor difficulty, act of God, act of any governmental authority, riot, embargo, fuel or energy shortage, pandemic, wrecks or delays in transportation, or due to any other cause beyond such party's reasonable control; provided, however, that you shall not be relieved from your obligations to make any payment(s) to RA as and when due hereunder. In the event of a delay in performance due to any such cause, the time for completion or date of delivery will be extended by a period of time reasonably necessary to overcome the effect of such delay. You may not assign or otherwise transfer this agreement, in whole or in part, without the prior written consent of RA. RA may freely assign or otherwise transfer this agreement, in whole or in part, without your prior consent. This agreement shall be governed by the laws of the State of Wisconsin without regard to any principles of conflicts of law that would apply the laws of another jurisdiction. Any dispute with respect to this agreement shall be exclusively venued in Milwaukee County Circuit Court or in the United States District Court for the Eastern District of Wisconsin. Each party hereto agrees and hereby waives the right to a trial by jury in any action, proceeding or claim brought by or on behalf of the parties hereto with respect to any matter related to this agreement.