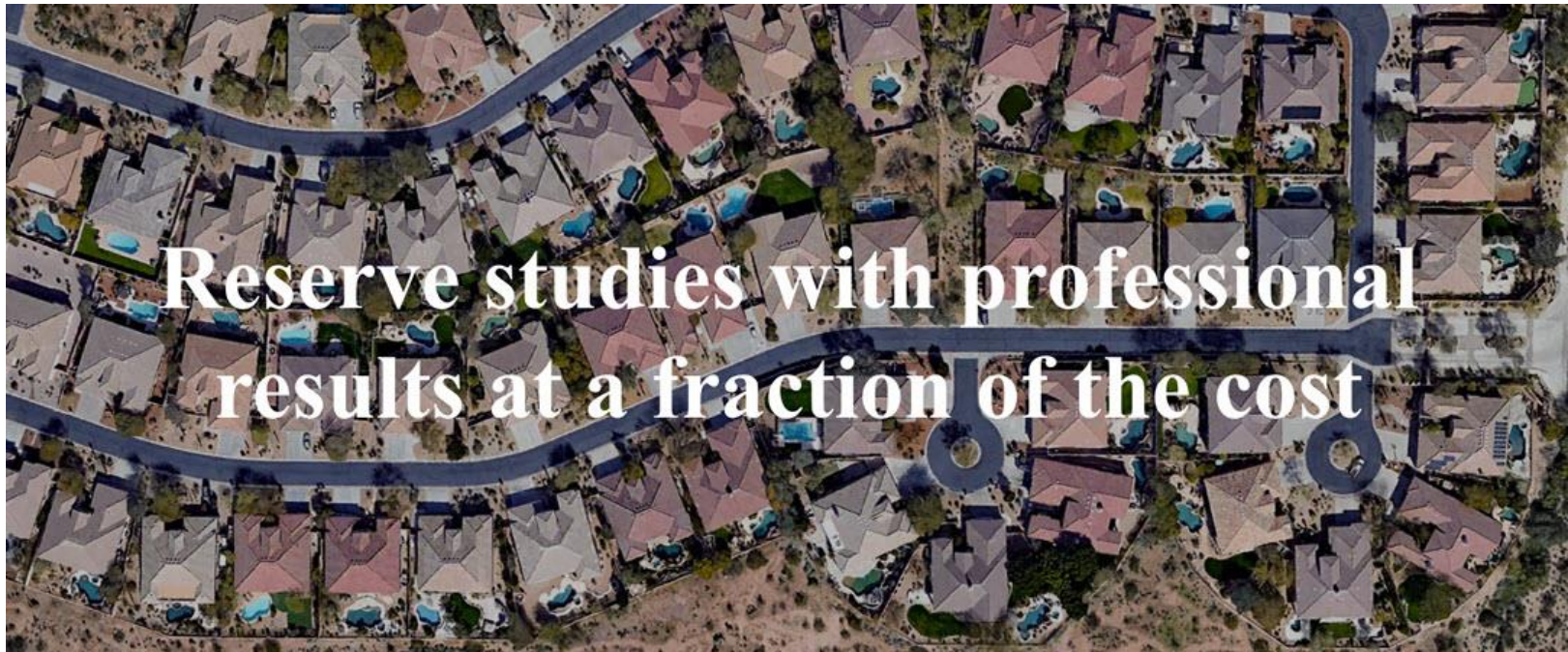


Reserve Funding Analyzer



DIY Physical Analysis and Inventory



Every reserve study has two parts

1. Physical Analysis of the Reserve Components

- Clear identification of each component
- Descriptive information (e.g., quantity, serial number or size)
- The condition of each asset
- Useful life (years)
- Remaining life (years)
- Year placed into service:
 - Year installed or replaced
 - Year last maintained (e.g., road re-sealed)
- Repair or replacement cost estimate

2. Financial Analysis and Funding Plan

- The primary prerequisite is the physical analysis
- But, also requires financial data, such as:
 - Current reserve balance
 - Annual operational expenses
 - Source of income and the ability to adjust the amount of income (e.g., increase annual dues)
 - Financial assumptions such earned interest rate for reserve fund balance and annual inflation rate.



To begin, you need to identify who is responsible for all the Reserve Components

- Your association CC&Rs or documents should clearly define the division of maintenance and replacement responsibilities.
- The actual items in the various categories will vary according to your physical plan and governing documents.
 - Individual maintenance
 - Day-to-day maintenance of common area
 - Non-annual maintenance and replacement of common area
 - Improvements



The physical analysis is the first step of a reserve study

Step One: Physical Analysis

▪ The Physical Analysis

- Information about the physical status and repair/replacement cost
- Consists of:
 - Component Inventory
 - Condition Evaluation
 - Age Adjustment [based on useful life (total) and remaining life of the components]
 - Costs to Replace.



- The Component Inventory should remain relatively "stable" from year to year, while the Condition Evaluation, Age Adjustment and Cost to Replace and Valuation will clearly change from year to year.

Step Two: Financial Analysis & Funding Plan

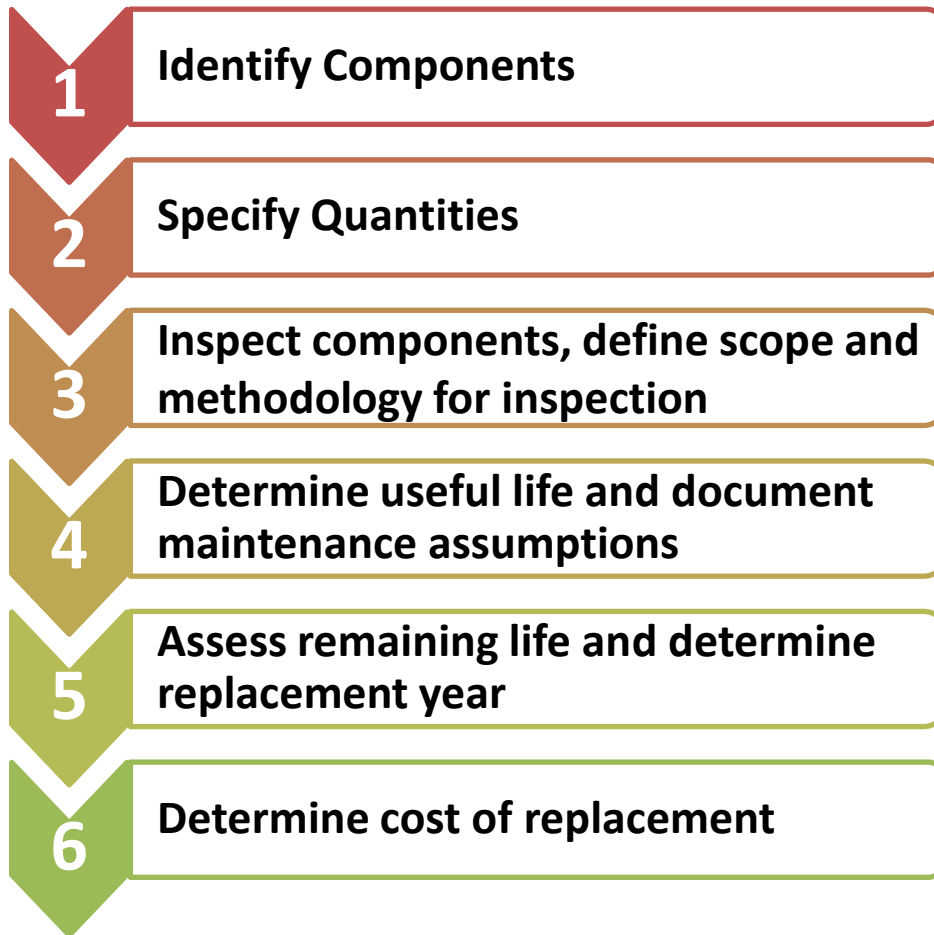
▪ The Financial Analysis is the analysis of the association's Reserve income and expenses. The Financial Analysis is made up:

- Determining the current Reserve Fund strength (measured in cash or as a Percent Funded)
- A recommendation for an appropriate Reserve contribution rate (Funding Plan).



Physical Analysis

Steps in the Physical Analysis Process



Criteria for Components

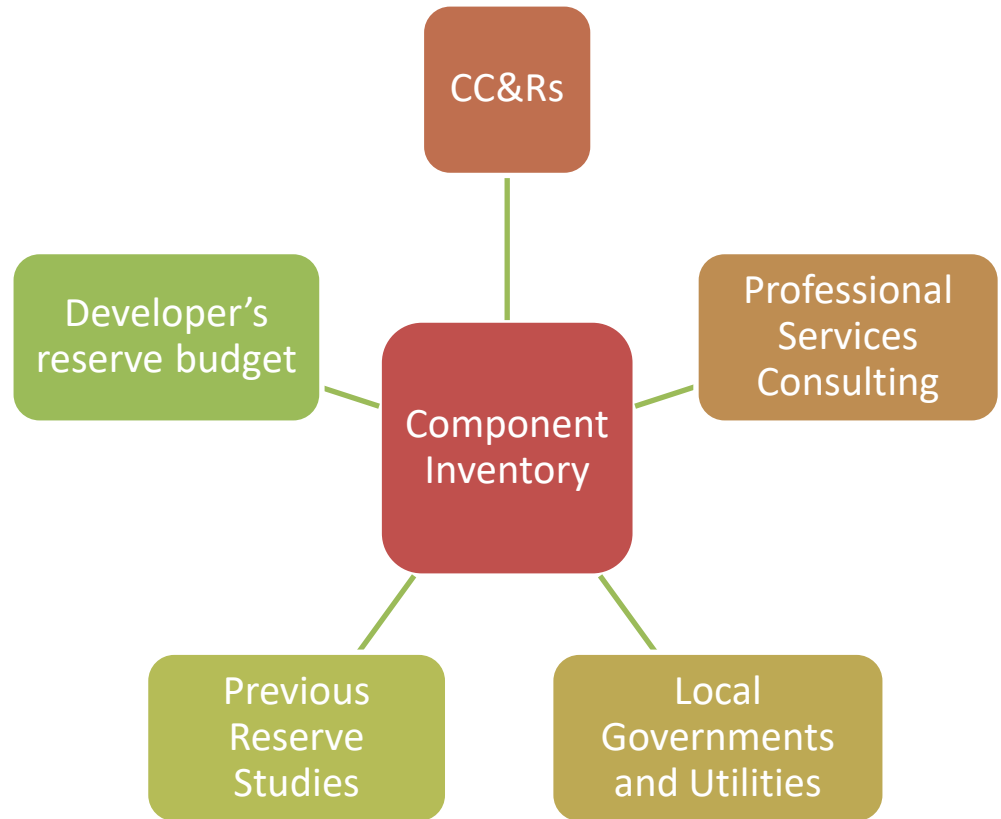
- The item is the responsibility of the association to maintain or replace ... not the responsibility of the individual homeowners
- The item costs over a certain amount to replace (amount to be determined by the board) ... e.g., cost greater than \$1000
- The estimated useful life of the items are predictable and greater than one year



Developing a list of components can be time consuming

When developing the list from scratch, the tasks can be time consuming. But with a rational approach and using resource that are available, you can reduce the time and effort involved.

- Your community documents should describe the common areas of development to help provide a list of components
- In an association, the developers' reserve budget should list components the builder identified while planning the project
- Seek the consul of knowledgeable people, such as service providers
- Use previous reserve study data ... the list of components is not likely to change very much
- Local governments and utilities can often help define common area components by stating where their responsibilities end and that of the association begins.



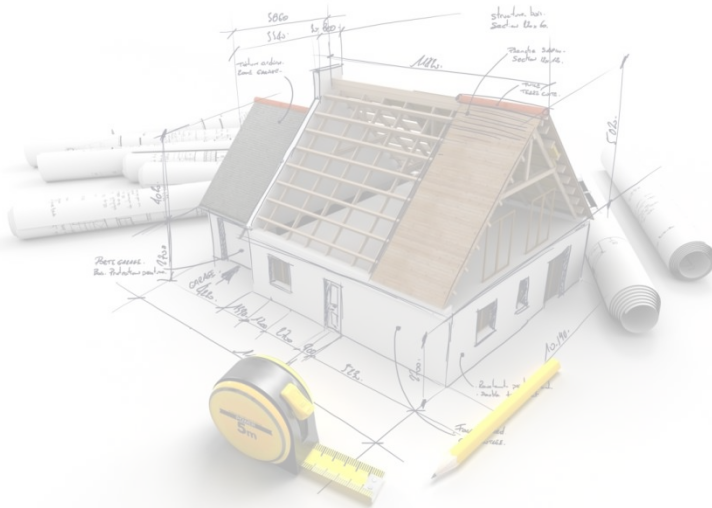
Specify the Quantity and Constituent Parts of Each Component

Units of Measure

- Some components are defined as area or linear dimensions
- Although unusual for reserve components, some items may be defined as a weight
- Other items simply defined as units

Quality and Specifications Examples

- Is the roof a two ply roof?
- Is the asphalt 2 inches thick or four inches?
- What grade of paint is used?
- What is the effect of environmental conditions on the component?
 - East or west facing? North or south?
 - Exposure to sunlight?
 - Humidity and water exposure?
 - Temperature exposure?



Determine Useful Life and Remaining Life

■ Useful Life

- The warranty of the component may provide some guidance
- Refer to published guidelines
- Consult product experts, such as service providers and vendors
- Take into account environmental conditions

■ Remaining Life Factors

- Age of the component
- Current physical condition
- Perform physical inspection
- Consult with product experts
- Past maintenance records
- Preventative maintenance is assumed



Check prior reserve studies for this detail



Determine Cost of Replacement

- **Manufacturer or their representatives**
- **Local licensed contractors and retailers**
- **Include cost of removing existing components**



Create your inventory listing of reserve components for inclusion in the Reserve Funding Analyzer application

Reserve Funding Analyzer v2.0 - Microsoft Excel

File Home Insert Page Layout Formulas Data Review View Developer Add-Ins Acrobat

Calibri 11

Font Alignment Number Styles Cells Editing

1495

Useful Life Table for Common Reserve components

This table is provided as informational only. Data has been derived from Fannie Mae and U.S. Department of Housing and Urban Development and should be used as a guideline only. The estimated useful life data are not sacrosanct. Actual useful life spans can vary due to environmental conditions, quality of construction, actual use and other factors.

Add Marked Items to Inventory Click to Clear Marked Items

Category Class	Category Tier	Component	Frequently Overlooked	Estimated Useful Life	Add to Inventory
Barriers	Earth walls	Bulkhead (barrier) / partition wall / embankment		10	No
Barriers	Fencing	Fencing, chain-link		40	No
Barriers	Fencing	Fencing, concrete Masonry unit		30	No
Barriers	Fencing	Fencing, dumpster enclosure (wood)		12	No
Barriers	Fencing	Fencing, PVC		15	No
Barriers	Fencing	Fencing, PVC (6' height)		25	No
Barriers	Fencing	Fencing, steel or aluminum		20	Yes
Barriers	Fencing	Fencing, tennis court (10' height)-chain link		40	No
Barriers	Fencing	Fencing, wood board (>1"x6")		20	No
Barriers	Fencing	Fencing, wood picket		15	Yes
Barriers	Fencing	Fencing, wood privacy (6' height)		15	No
Barriers	Fencing	Fencing, wrought Iron		60	No
Barriers	Fencing	Fencing, wrought iron (4-6' height and decorative)		60	No
Barriers	Retaining walls	Retaining Walls, heavy block (50-80 lb)		60	No
Barriers	Retaining walls	Retaining walls, 80 lb block type		50	No
Barriers	Retaining walls	Retaining walls, concrete masonry unit with brick face		40	No
Barriers	Retaining walls	Retaining Walls, re-inforced concrete masonry unit		40	No
Barriers	Retaining walls	Retaining walls, timber (railroad tie)		25	No
Barriers	Retaining walls	Retaining Walls, treated timber		25	No
Building / Structures	Attics & Eaves	Roof vents, passive		40	No
Building / Structures	Attics & Eaves	Roof vents, powered		20	No
Building / Structures	Attics & Eaves	Screened gable end or soffit vents		30	No
Building / Structures	Caulking & Sealing	Building wraps & moisture resistant barriers		50	No
Building / Structures	Caulking & Sealing	Concrete/masonry sealants		10	No
Building / Structures	Caulking & Sealing	Paints and stains, exterior		8	Yes
Building / Structures	Caulking & Sealing	Wood waterproofing and sealants		10	No
Building / Structures	Crawl Spaces & Penetrations	Crawl space, (de)pressurization, fans, pumps, radon gas alarms	Freq Overlooked	10	No
Building / Structures	Crawl Spaces & Penetrations	Penetrations, caulking/sealing		15	No
Building / Structures	Crawl Spaces & Penetrations	Crawl space/sealing system		40	No
Building / Structures	Crawl Spaces & Penetrations	Underdrain/ground or underfloor		30	No
Building / Structures	Exterior Doors & Entry Systems	Exterior doors	Freq Overlooked	30	No
Building / Structures	Exterior Doors & Entry Systems	Exterior doors, overhead door		20	No
Building / Structures	Exterior Doors & Entry Systems	Exterior door, aluminum and glass		30	No
Building / Structures	Exterior Doors & Entry Systems	Exterior door, solid wood /metal clad		25	No
Building / Structures	Exterior Doors & Entry Systems	Exterior doors, wood/metal clad		25	No
Building / Structures	Exterior Doors & Entry Systems	Exterior doors including garage doors		25	No
Building / Structures	Exterior Doors & Entry Systems	Sidings		25	No
Building / Structures	Exterior Doors & Entry Systems	Storm/screens		5	No
Building / Structures	Exterior Doors & Entry Systems	Unit entry door, solid wood/metal clad		25	Yes
Building / Structures	Exterior Stairs, Rails, Balconies, Canopies	Balcony/porch, composite decking		50	No
Building / Structures	Exterior Stairs, Rails, Balconies, Canopies	Balcony/porch, steel frame/concrete		40	No
Building / Structures	Exterior Stairs, Rails, Balconies, Canopies	Balcony/porch, wood decking		20	No

You can use the Common Reserve Components Summary sheet to help identify components

By clicking the Add to Inventory fields you can easily add marked items to your

The RFA is a common tool that you can use to create your

Financial Data Reserve Items & Spec Projects Loans Reserve Component Summary Reserve Component Useful Life Reserve Component Maint Sched Community Summary Stats Financial Summary

Ready 85%

An ideal source to help create an inventory list can be found in a prior reserve study

- If you have a prior reserve study, it will list all the component details including:
 - Component description
 - Quantity
 - Useful Life and Remaining Life *(the last year replaced or placed into service can easily be calculated as the difference between the two)*
 - Estimated cost for replacement or maintenance

Table 2: Reserve Component List Detail

# Component	Quantity	Useful Life	Rem. Useful Life	Best Cost	Current Worst Cost
201 Asphalt - Resurface	Approx 35500 Sq Ft	20	5	\$32,000	\$39,000
202 Asphalt - Seal/Repair	Approx 35500 Sq Ft	5	4	\$3,200	\$5,325
403 Mailboxes - Replace	(54) Individual boxes.	15	2	\$2,150	\$2,700
404 Patio Furniture - Replace	(15) Assorted pieces	6	0	\$2,250	\$3,375
505 Wood Separator Fence - Replace	Approx 1165 LF, 6ft high	15	1	\$19,800	\$26,200
701 Garage Door - Replace	(54) 7x16, wood	20	5	\$39,150	\$45,900
702 Utility Door - Replace	(20), 2 Doors/building.	15	14	\$5,000	\$8,500
703 Intercom - Replace	(1) Entraguard - 4	8	2	\$2,450	\$3,000
705 Vehicle Gate Mech. - Replace	(1) Elite Slider unit	8	4	\$2,250	\$2,750
1107 Iron Fence - Repaint	Approx 620 LF, 5ft high	6	0	\$3,100	\$5,550
1112 Masonite Siding - Repaint	Approx 30,000 Sq Ft	8	2	\$22,500	\$33,000
1115 Stucco - Repaint	Approx 24000 Sq Ft	16	2	\$18,000	\$27,000
1116 Wood Surfaces/Trim - Repaint	Approx 14300 Sq Ft	4	2	\$21,600	\$28,350
1202 Pool - Resurface	(1) 19x40, Oblong shape	10	3	\$3,950	\$4,850
1203 Spa - Resurface	(1) 6 ft dia, octagonal	5	3	\$1,250	\$1,750
1207 Pool Filter - Replace	(1) Purex, 60 Sq Ft	10	4	\$850	\$1,050
1207 Spa Filter - Replace	(1) Purex, 48 Sq Ft	10	2	\$800	\$1,000
1208 Pool Heater - Replace	(1) Laars, 400000 BTU	10	2	\$2,000	\$2,500
1208 Spa Heater - Replace	(1) Laars 250000 BTU	10	2	\$1,800	\$2,250
1305 Wood Shingle Roof - Replace	Approx 77900 Sq Ft	20	13	\$331,000	\$428,000
20 Total Funded Components					

Example of Component Details from a reserve study



Once the inventory is developed, transcribe into the Reserve Items sheet in the RFA

Missing Cost Data												Include All	Exclude All
Category	Reserve Component Name	Cost	Year Placed in Service	Est Useful Life (yrs)	Cost Basis	Curr Year Funding	Quantity	Unit of Measure	Remaining Useful Life (yrs)	Next Year of Service	Include in Analysis	Remaining Useful Adj	
Common Exterior	Asphalt - Resurface	\$32,000	2004	20	Current Est		35,500	sq-ft	5	2024	Include		
Common Exterior	Asphalt - Seal/Repair	\$3,200	2018	5	Current Est		35,500	sq-ft	4	2023	Include		
Common Exterior	Mailboxes - Replace	\$2,150	2006	15	Current Est		54	each	2	2021	Include		
Common Exterior	Patio Furniture - Replace	\$2,250	2013	6	Current Est		15	each	0	2019	Include		
Common Exterior	Wood Separator Fence - Replace	\$19,800	2005	15	Current Est		1,165	feet	1	2020	Include		
Common Exterior	Garage Door - Replace	\$39,150	2004	20	Current Est		54	each	5	2024	Include		
Common Exterior	Utility Door - Replace	\$5,000	2018	15	Current Est		2	each	14	2033	Include		
Common Exterior	Intercom - Replace	\$2,450	2013	8	Current Est		1	each	2	2021	Include		
Common Exterior	Vehicle Gate Mech. - Replace	\$2,250	2015	8	Current Est		1	each	4	2023	Include		
Common Exterior	Iron Fence - Repaint	\$3,100	2013	6	Current Est		620	feet	0	2019	Include		
Common Exterior	Masonite Siding - Repaint	\$22,500	2013	8	Current Est		30,000	sq-ft	2	2021	Include		
Common Exterior	Stucco - Repaint	\$18,000						sq-ft	2	2021	Include		
Common Exterior	Wood Surfaces/Trim - Repaint	\$21,000						sq-ft	2	2021	Include		
Common Exterior	Pool - Resurface	\$3,900						each	3	2022	Include		
Common Exterior	Spa - Resurface	\$1,200						each	3	2022	Include		
Common Exterior	Pool Filter - Replace	\$1,000						each	4	2023	Include		
Common Exterior	Spa Filter - Replace	\$1,000						each	4	2021	Include		
Common Exterior	Pool Heater - Replace	\$2,000						each	3	2021	Include		
Common Exterior	Spa Heater - Replace	\$1,800						each	3	2021	Include		
Common Exterior	Wood Shingle Roof - Replace	\$331,000						each	3	2032	Include		
											Exclude		

Financial Data Entry

Community Financial Information

Association Name:

Units:

Current Year:

Current Community Financials

Starting Reserve Bal:

Enter the current year ...

Financial Data Entry

Community Financial Information

Association Name:

Units:

Current Year:

Enter the current year ...

Current Community Financials

Starting Reserve Bal:

Interest on Reserve Balance: Annual percent earnings

Current Annual HOA Dues:

Calculated Dues per Unit: This is calculated field.

Other Current Annual Income:

Other Income Annual Pct Increase:

Current Annual Operational Expenses: Excluding loans.

Current Annual Reserve Contribution: This is calculated field.

Current Loan Payments: Click to Enter Loan Info

Inflation Rate: Es inflation for next

... and the assumed inflation rate

On the Financial Data Entry Sheet, indicate the Current Year and Assumed Inflation Rate

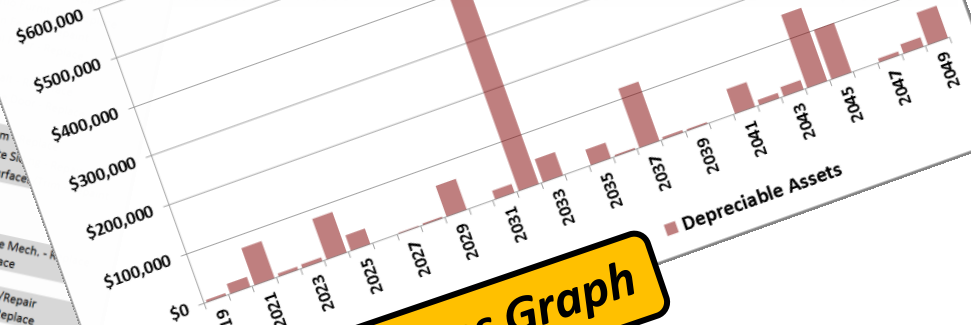


Once transcribed into the RFA, the full funding requirements are instantly created.

Detail Summary

Item #	Category Description	Component Name	Cost Estimate	Last Service Year	Est Useful Life	Cost Based Upon	Quantity	Unit of Measure	Useful Life	Service Year	Future Cost
1	Common Exterior	Asphalt - Resurface	\$32,000	2004	20	Current Est	35,500	sq-ft	5	2024	\$37,097
2	Common Exterior	Asphalt - Seal/Repair	\$3,200	2018	5	Current Est	35,500	sq-ft	4	2023	\$3,602
3	Common Exterior	Mailboxes - Replace	\$2,150	2006	15	Current Est	54	each	2	2021	\$2,281
4	Common Exterior	Patio Furniture - Replace	\$2,250	2013	6	Current Est	15	each	0	2019	\$2,250
5	Common Exterior	Wood Separator Fence - Replace	\$19,800	2005	15	Current Est	1,165	feet	1	2020	\$20,394
6	Common Exterior	Iron Fence - Replace	\$39,150	2004	20	Current Est	54	each	5	2024	\$45,386
7	Common Exterior	Spa Filter - Replace	\$2,500	2018	15	Current Est	2	each	14	2033	\$7,563
8	Common Exterior	Spa Heater - Replace	\$2,500	2018	8	Current Est	1	each	2	2021	\$2,599
9	Common Exterior	Pool - Resurface	\$4,316	2020	15	Current Est	1	each	4	2023	\$2,532
10	Common Exterior	Spa - Resurface	\$1,366	2020	15	Current Est	620	feet	0	2019	\$1,100
11	Common Exterior	Asphalt - Seal/Repair	\$3,602	2023	5	Current Est	30,000	sq-ft	2	2021	\$3,870
12	Common Exterior	Vehicle Gate Mech. - Replace	\$2,532	2023	5	Current Est	24,000	sq-ft	2	2021	\$2,996
13	Common Exterior	Pool Filter - Replace	\$1,182	2023	5	Current Est	14,300	sq-ft	2	2021	\$1,515
14	Common Exterior	Pool Heater - Replace	\$3,702	2023	5	Current Est	1	each	2	2021	\$3,702
15	Common Exterior	Wood Surfaces/Trim - Repaint	\$30,238	2023	5	Current Est	1	each	2	2021	\$30,238
16	Common Exterior	Spa - Resurface	\$29,029	2023	5	Current Est	1	each	2	2021	\$29,029
17	Common Exterior	Asphalt - Seal/Repair	\$3,200	2018	5	Current Est	35,500	sq-ft	4	2023	\$3,602
18	Common Exterior	Mailboxes - Replace	\$2,150	2006	15	Current Est	54	each	2	2021	\$2,281
19	Common Exterior	Patio Furniture - Replace	\$2,250	2013	6	Current Est	15	each	0	2019	\$2,250
20	Common Exterior	Wood Separator Fence - Replace	\$19,800	2005	15	Current Est	1,165	feet	1	2020	\$20,394
21	Common Exterior	Iron Fence - Replace	\$39,150	2004	20	Current Est	54	each	5	2024	\$45,386
22	Common Exterior	Spa Filter - Replace	\$2,500	2018	15	Current Est	2	each	14	2033	\$7,563
23	Common Exterior	Spa Heater - Replace	\$2,500	2018	8	Current Est	1	each	2	2021	\$2,599
24	Common Exterior	Pool - Resurface	\$4,316	2020	15	Current Est	1	each	4	2023	\$2,532
25	Common Exterior	Spa - Resurface	\$1,366	2020	15	Current Est	620	feet	0	2019	\$1,100
26	Common Exterior	Asphalt - Seal/Repair	\$3,602	2023	5	Current Est	30,000	sq-ft	2	2021	\$3,870
27	Common Exterior	Vehicle Gate Mech. - Replace	\$2,532	2023	5	Current Est	24,000	sq-ft	2	2021	\$2,996
28	Common Exterior	Pool Filter - Replace	\$1,182	2023	5	Current Est	14,300	sq-ft	2	2021	\$1,515
29	Common Exterior	Pool Heater - Replace	\$3,702	2023	5	Current Est	1	each	2	2021	\$3,702
30	Common Exterior	Wood Surfaces/Trim - Repaint	\$30,238	2023	5	Current Est	1	each	2	2021	\$30,238
31	Common Exterior	Spa - Resurface	\$29,029	2023	5	Current Est	1	each	2	2021	\$29,029

Annual Reserve Expenditures



Maintenance Schedule

Expenditures Graph



To complete the funding plan, you will need enter the remaining relevant financial data.

[illegible]

- Reserve balance
- Income (e.g. current annual dues)
- Operational expenses

Annual dues increases

Observe financial summary while entering data



For additional information, refer to the Reserve Study HOA website.

- **Introduction to the Reserve Funding Analyzer**
- **Data Entry**
- **Funding Basics**
- **Create the Funding Plan**

