

The Reserve Study Process

With the passage of HB 107, common interest communities are now required to conduct **Reserve Studies** and fund reserves accordingly.

This session will provide a deep dive into the Reserve Study process, including how replacement values of key components are determined and what should be included in funding estimates.



Speakers:

Peter Miller, RS, Miller+Dodson

Alicia Menefee, CMCA, AMS, FirstService Residential



CAI is an international nonprofit membership organization dedicated to building better communities.



With over 47,000 members, CAI has 64 chapters worldwide. CAI provides information, education and resources to the homeowner volunteers who govern communities and the professionals who support them.



CAI members include association board members and other homeowner leaders, community managers, association management firms, and other professionals who provide products and services to community associations.

About the Speakers

Peter B. Miller, RS, EBP, Principal of Miller + Dodson Associates

Peter is widely recognized as one of the leading experts in the field of Reserve Studies and Strategic Reserve Planning for community associations and other not-for-profit membership organizations.

A graduate of the College of Architecture and Urban Studies at Virginia Tech, Peter's experience with Reserve Studies and community associations began during the "condo conversion boom" of the late 1970's and early 1980's.

A 30-year volunteer with the Community Associations Institute, Peter has earned the professional designation of Reserve Specialist (RS) through CAI. Peter is a past-member of CAI's International Board of Trustees. He served on the 1998 *National Reserve Standards Committee* and currently serves as a co-chair of CAI's *Task Force on Reserves, Maintenance, and Building Safety* which produced the revised 2023 National Reserve Study Standards.



About the Speakers

Alicia Menefee, CMCA, AMS, FirstService Residential

Alicia is a Senior Community Manager with FirstService Residential. With a Masters in Teaching from Frostburg State University, Alicia uses her background as an educator to guide volunteers and homeowners through community association living.

Alicia has served the Chesapeake Region Chapter of CAI in a variety of roles, including Chairing the Marketing and Communications Committee, serving on the Newsletter Committee, and most recently, serving on the County Legislative Monitoring Committee. Alicia holds both her CMCA (Certified Manager of Community Associations) and AMS (Association Management Specialist) designations through CAI and was the 2022 recipient of the Chesapeake Chapter's Beacon of Light Award.



“Perhaps the greatest
Duty of the Board of
Directors is to **Protect,
Preserve and Enhance**
the value of the homes
within the community!”

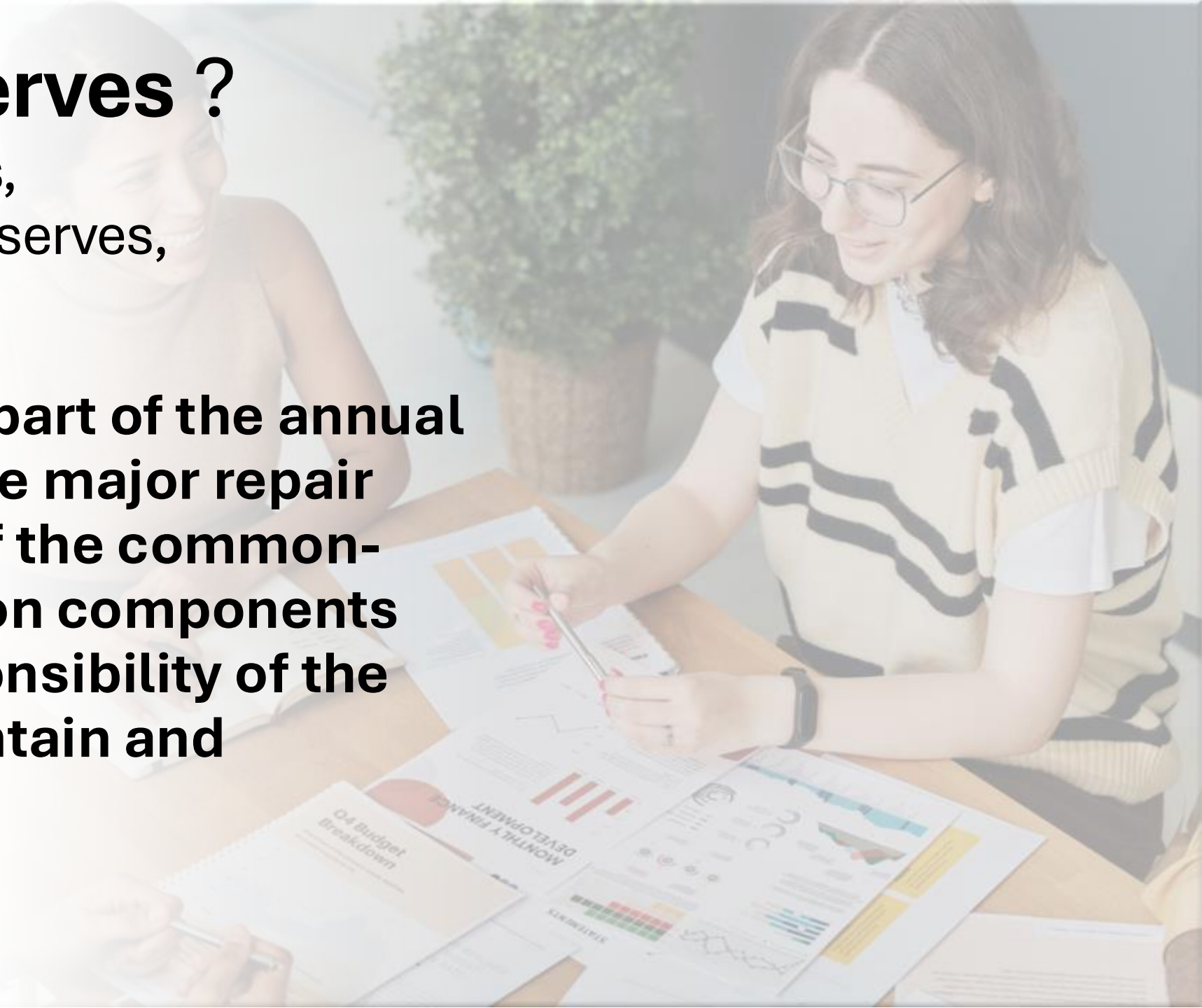
Robert Lyles, Esq.



What are Reserves ?

AKA Capital Reserves,
Replacement Reserves,
Reserve Fund.

Funds set aside as part of the annual budget for the future major repair and replacement of the common- and limited-common components which are the responsibility of the association to maintain and repair/replace.



How Do Reserves Protect, Preserve, & Enhance Property Values?

Ensure

Ensure that funds are available when needed for timely replacements.

Stabilize

Stabilize Normal Assessments, minimize need for special assessments or bank loans.

Provide

Provide for equitable distribution of replacement costs over time.

Legal Requirements Surrounding Reserves

HB107 Requirements

- **All residential condominiums, co-ops, and HOAs with more than \$10k common elements must comply**
- **Study must be updated every 5 years**
- **Association must budget for recommended reserve amount**
- **Reserve Specialist (RS) / Professional Reserve Analyst (PRA) requirements**



Legal Requirements Surrounding Reserves

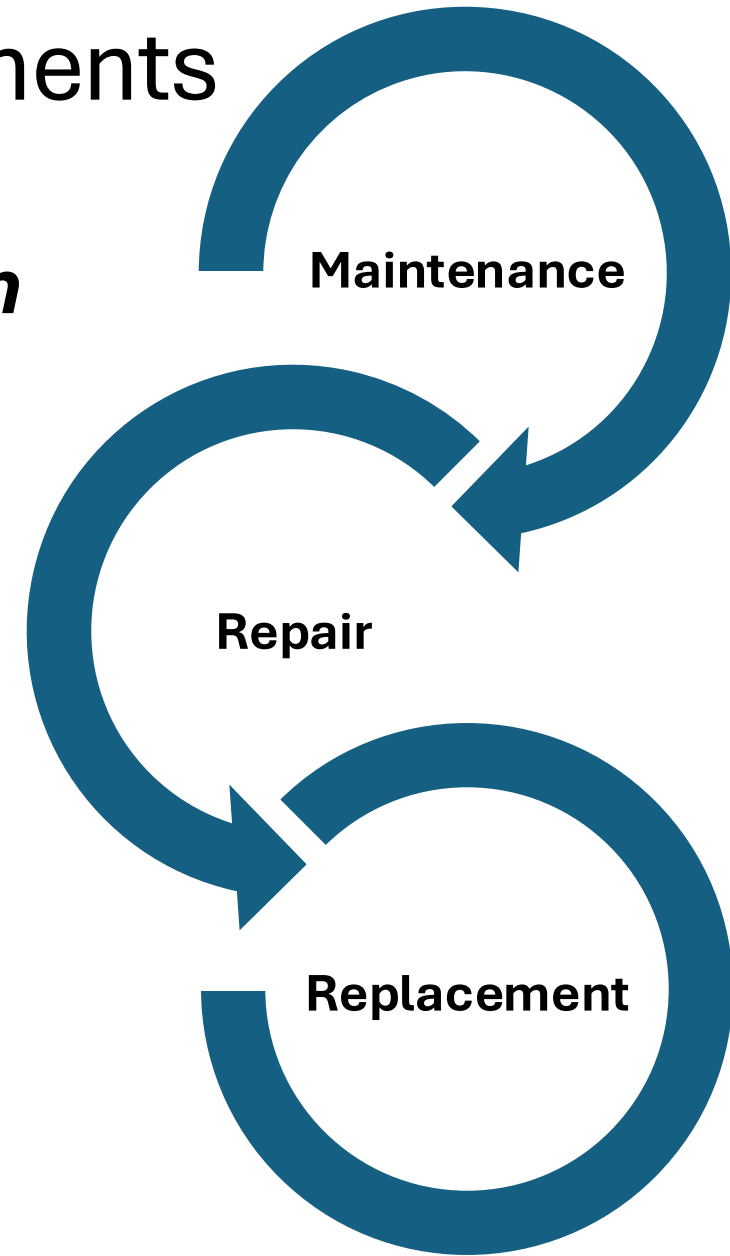
SB63/HB292

- **Effective October 1, 2025**
- **Association must identify type of funding plan**
- **Must place funds into reserve bank account by the end of fiscal year**
- **Creates a request for financial hardship determination**
- **Progress must be reviewed at each Annual Meeting**
- **Study must use itemized list with metrics**
- **Recommended funding must be attained within 5 years**

Legal Review and Understanding Documents

Bylaws, Declaration, Articles of Incorporation
Plats, Plans, As-builts

- **Common Elements**
- **Limited Common Elements**
- **Unit Components**



Types of Studies

1

Level I
Full Study

2

Level II
Update with
Site Visit

3

Level III
Update without
Site Visit

4

Level IV
Preliminary (Not
Constructed
Yet)

Reserve Study Levels

TASKS	Level 1 Full	Level 2 Update w/ Site Visit	Level 3 Update w/o Site Visit	Level 4 Preliminary
Component Inventory	X			X*
Condition Assessment	X	X		
Life & Valuation Estimates	X	X	X	X
Funding Status	X	X	X	X
Funding Plan	X	X	X	X

* Performed from design drawings

YOU HAVE \$500...
FOR LOTTO TICKETS?

YES! ITS PART OF OUR
RESERVE FUNDING PLAN



Understanding Roles



MANAGER

RESERVE
SPECIALIST
/
PROFESSIONAL
RESERVE
ANALYST

BOARD

HOMEOWNER

Lifecycle of a Study



01

Preparing for
the Study

02

Conducting
the Study

03

Interpreting
the Study

04

Implementing
and Updating
the Study

Preparing for the Study

RFP Creation

Bidder Selection

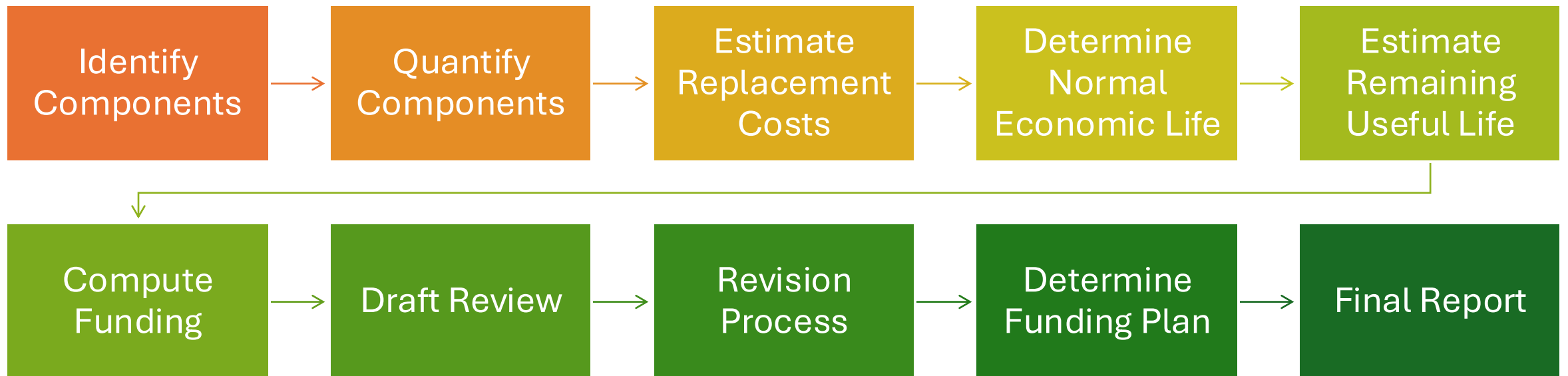
Document Organization

Inclusions and Exclusions

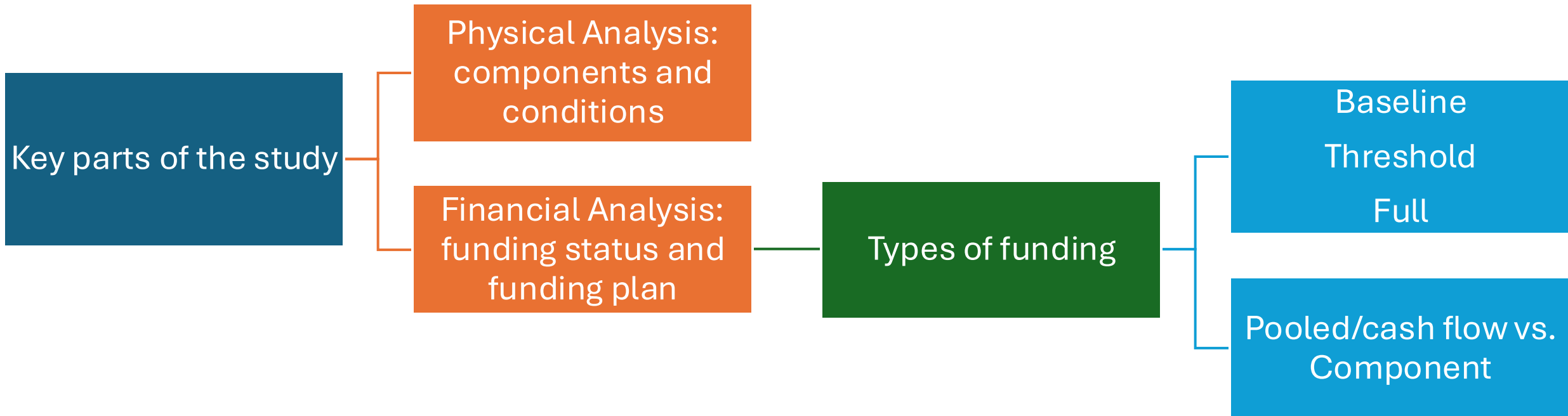
Operating Thresholds

Timing and Scheduling

Conducting the Study



Interpreting the Study



Cash Flow Method

Versus

Component Method

Illustration of the Different Mathematical Models

- **One Project per year, staggered,**
- **Projects repeat every 4 yrs**
- **Cost of \$12,000 per Project**
- **Four Projects:**
 - **Year One - Painting,**
 - **Year Two - Seal Coat,**
 - **Year Three - Plumbing,**
 - **Year Four - Retaining Wall**

(Assume \$Zero Starting Balance) (Assume \$Zero Threshold)

CASH FLOW vs COMPONENT (Pooling vs Full Funding)

CASH FLOW (“Pooling”) METHOD

Treats Reserves as an aggregate “pool” of funds that provides adequate funding in each year.

COMPONENT (“Full Funding”) METHOD

Treats each Reserve Item as a separate “line item” budget.

Cash Flow Calculations

	Year	1st	2 nd	3 rd	4th	Total
COMPONENT	Cost x \$1,000	Annual Contributions				
Painting Year One	\$12	3	3	3	3	
Paving Year Two	\$12	3	3	3	3	
Plumbing Year Three	\$12	3	3	3	3	
Retaining Wall Year Four	\$12	3	3	3	3	
Total Cost	\$48	\$12	\$12	\$12	\$12	\$48

Component Calculations

	Year	1st	2 nd	3 rd	4th	Total
COMPONENT	Cost x \$1,000	Annual Contributions				
Painting Year One	\$12	12	3	3	3	
Paving Year Two	\$12	6	6	3	3	
Plumbing Year Three	\$12	4	4	4	3	
Retaining Wall Year Four	\$12	3	3	3	3	
Total Cost	\$48	\$25	\$16	\$13	\$12	\$66

Understand Inflation - CPI vs PPI

- **Consumer Price Index (CPI)**
 - Food Costs
 - Fuel Costs
 - Electricity Costs
 - Housing Costs (meaning rent)
- **Producer Price Index (PPI)**
 - Manufacturing costs
 - Construction costs

Inflation Considerations



Financial Planning Snapshot

Update as of 12-31-2024

Current Inflation Conditions Impacting Community Associations

Construction Costs vs. Consumer Prices	6 Mth Trend	% Change from Year Ago	5 Year Average	10 Year Average
CPI – Consumer Price Index	Down	3.75%	4.00%	3.23%
PPI – Construction Materials	Flat	-0.72%	7.80%	4.68%
PPI – Construction Labor	Up	1.29%	3.54%	3.23%

Review inflation assumptions in reserve studies, capital budgets, contracts and construction projects. The Producer Price Index may better predict increases than the Consumer Price Index. Note, the information indicated above is reported monthly and/or quarterly by the Federal Reserve your reserve provider may use a blended inflation figure.

Interpreting tl

Content provided by:

Marc Tamres

[Linkedin.com/in/mtamres](https://www.linkedin.com/in/mtamres)

Jared Tunnell

[Linkedin.com/in/jaredtunnell](https://www.linkedin.com/in/jaredtunnell)

Contact us at:

<https://foundation.caonline.org>

foundation@caonline.org

Considerations and Best Practices

- ❖ Consult with your reserve professional to determine if adjustments to your reserve study are warranted due to shifting economic conditions.
- ❖ Inflation erodes the buying power of reserve cash faster than rising interest earned on those reserve funds can increase balances.
- ❖ When inflation is greater than financing rates, exploring a loan can be a wise endeavor to avoid project delays.
- ❖ Compounding effects of rising inflation should motivate acceleration of projects, not delay them.
- ❖ Impact of inflation can vary greatly by industry and location, especially related to labor and materials.
- ❖ Current labor shortage in community association industry has labor costs rising much faster than inflation indices.

For additional best practices please visit <https://foundation.caionline.org/best-practices>

Data Sources: Federal Reserve Inflation Data as of 12/31/2024 from Economic Research Division of St. Louis Federal Reserve Link: <https://fred.stlouisfed.org>. Data is available quarterly in arrears.

Content provided by:

Marc Tamres

Jared Tunnell

[Linkedin.com/in/mtamres](https://www.linkedin.com/in/mtamres)

[Linkedin.com/in/jaredtunnell](https://www.linkedin.com/in/jaredtunnell)

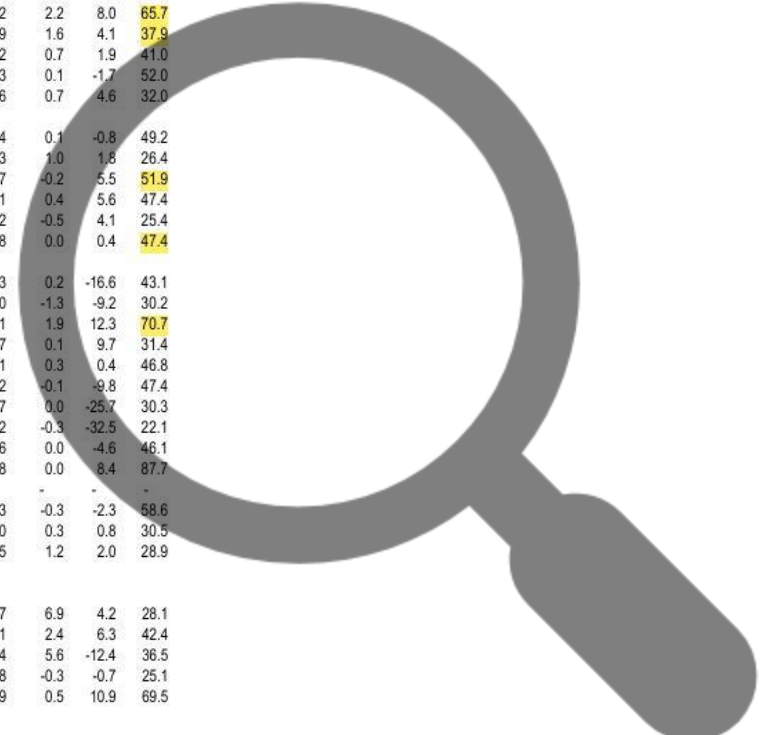
Contact us at:

<https://foundation.caionline.org>

foundation@caionline.org

Percentage Change in Producer Price Indexes (PPIs) and Employment Cost Indexes (ECIs) for Construction, 2019-2024

BLS Series ID	12-month percentage change to December:					to January 2025 since:			BLS Series ID	12-month percentage change to December:					to January 2025 since:		
	2020	2021	2022	2023	2024	12/2024	1/2024	2/2020		2020	2021	2022	2023	2024	12/2024	1/2024	2/2020
Table 1: Changes in consumer, producer & construction prices																	
CUUR0000SA0	Consumer price index (CPI-U)									#2 diesel fuel							
WPUFD4	Producer price index (PPI) for final demand								WPU1394	Paving mixtures and blocks (asphalt)							
WPUFD43	Final demand construction								WPU136	Asphalt felts and coatings							
WPUFD431	Construction for private capital investment								WPU1361	Prepared asphalt & tar roofing & siding products							
WPUFD432	Construction for government								WPU1322	Cement							
WPU80	Construction (partial)								WPU133	Concrete products							
WPU801	New nonresidential building construction								WPU1331	Concrete block and brick							
WPU801101	New warehouse building construction								WPU1332	Concrete pipe							
WPU801102	New school building construction								WPU1333	Ready-mixed concrete							
WPU801103	New office building construction								WPU1334	Precast concrete products							
WPU801104	New industrial building construction								WPU1335	Prestressed concrete products							
WPU801105	New health care building construction								WPU1342	Brick and structural clay tile							
WPU802	Maint & repair of nonres buildings (partial)								WPU0721	Plastic construction products							
Table 2: Changes in PPIs for new, repair & maintenance work by subcontractors																	
PCU23811X23811X	Concrete contractors, nonresidential building work								WPU1311	Flat glass							
PCU23816X23816X	Roofing contractors, nonresidential building work								WPU13710102	Gypsum building materials							
PCU23821X23821X	Electrical contractors, nonresidential building work								WPU1392	Insulation materials							
PCU23822X23822X	Plumbing contractors, nonresidential building work								WPUSI004011	Lumber and plywood							
Table 3: Changes in PPIs for inputs to construction industries, excluding capital investment, labor and imports																	
WPUIP230000	Inputs to construction industries								WPU062101	Architectural coatings							
WPUIP2300001	Inputs to construction industries, goods								WPU1017	Steel mill products							
WPUIP23000012	Inputs to construction industries, energy								WPU101706	Steel pipe and tube							
WPUIP23000013	Inputs to construction industries, goods less foods								WPU102502	Copper and brass mill shapes							
WPUIP2300002	Inputs to construction industries, services								WPU102501	Aluminum mill shapes							
WPUIP231000	Inputs to new construction								WPU1073	Sheet metal products							
WPUIP231200	New nonresidential construction								WPU107405	Fabricated structural metal							
WPUIP231211	Commercial structures								WPU1074051	Fabricated structural metal bar joists & rebar							
WPUIP231212	Healthcare structures								WPU10740514	Fabricated structural metal for non-industrial buildi							
WPUIP231220	Industrial structures								WPU10740553	Fabricated structural metal for bridges							
WPUIP231230	Other nonresidential								WPU107408	Ornamental and architectural metal work							
WPUIP231231	Highways and streets								WPU1076	Fabricated steel plate							
WPUIP231232	Power and communications structures								WPU1079	Prefabricated metal buildings							
WPUIP231233	Educational and vocational structures								WPU112	Construction machinery and equipment							
WPUIP231234	Other misc. nonresidential construction								WPU07120105	Truck & bus (incl. off-the-highway) pneumatic tires							
WPUIP231100	New residential construction								Table 6: Changes in PPIs for unprocessed goods important to construction								
WPUIP231110	Single-family								WPU058102	Asphalt (at refinery)							
WPUIP231120	Multifamily								WPU1321	Construction sand/gravel/crushed stone							
WPUIP232000	Maintenance and repair construction								WPU1012	Iron and steel scrap							
WPUIP232200	Nonresidential maintenance and repair								WPU101212	Stainless and alloy steel scrap							
WPUIP232100	Residential maintenance and repair								WPU102301	Copper base scrap							
Table 4: Changes in PPIs for services important to construction																	
WPU4531	Architectural services								Table 7: Changes in ECIs for total compensation, wages & salaries (through Dec 2024)								
WPU4532	Engineering services								CIU201000000000I	Private industry--total compensation							
WPU3012	Truck transportation of freight								CIU201230000000I	Construction--total compensation							
WPU443	Const. mining & forestry mach & eq rental & leasin								CIU202000000000I	Private industry--wages and salaries							
									CIU202230000000I	Construction--wages and salaries							



BLS Series ID12-month percentage change to December: to January 2025 since:

		<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>12/2024</u>	<u>1/2024</u>	<u>2/2020</u>
Table 1: Changes in consumer, producer & construction prices									
CUUR0000SA0	Consumer price index (CPI-U)	1.4	7.0	6.5	3.4	2.9	0.7	3.0	22.8
WPUFD4	Producer price index (PPI) for final demand	0.8	10.0	6.4	1.1	3.5	0.7	3.5	24.3
WPUFD43	Final demand construction	1.2	12.2	18.5	0.5	1.7	0.4	1.8	37.1
WPUFD431	Construction for private capital investment	1.3	13.4	19.8	0.5	1.5	0.3	1.5	39.7
WPUFD432	Construction for government	0.9	10.1	16.1	0.6	2.2	0.6	2.4	32.4
WPU80	Construction (partial)	0.9	11.6	16.3	0.8	2.0	0.5	2.2	34.3
WPU801	New nonresidential building construction	1.3	12.4	19.4	0.4	1.6	0.3	1.7	38.2
WPU801101	New warehouse building construction	-0.1	20.4	20.9	-1.6	0.7	0.1	0.6	43.7
WPU801102	New school building construction	1.2	9.0	17.9	0.0	2.2	0.6	2.3	32.5
WPU801103	New office building construction	1.2	13.0	20.2	2.3	2.8	0.3	2.9	44.3
WPU801104	New industrial building construction	2.0	13.4	20.5	0.5	0.5	0.4	0.4	40.5
WPU801105	New health care building construction	1.4	11.4	18.0	0.2	0.7	0.3	0.8	33.6
WPU802	Maint & repair of nonres buildings (partial)	-0.2	9.5	7.8	3.3	4.6	1.5	5.9	28.1

BLS Series ID		12-month percentage change to December:					to January 2025 since:		
		2020	2021	2022	2023	2024	12/2024	1/2024	2/2020
Table 5: Changes in PPIs for processed goods important to construction									
WPU057303	#2 diesel fuel	-2.8	54.2	21.1	-18.4	-13.9	3.6	-6.6	57.9
WPU1394	Paving mixtures and blocks (asphalt)	-2.7	8.2	16.2	2.4	2.2	14.8	8.6	36.0
WPU136	Asphalt felts and coatings	2.1	18.1	11.4	2.5	0.9	-0.2	1.0	39.5
WPU1361	Prepared asphalt & tar roofing & siding products	2.5	19.6	11.7	2.6	1.5	-0.2	1.7	43.2
WPU1322	Cement	1.9	4.4	13.0	8.9	4.5	2.0	3.2	40.2
WPU133	Concrete products	2.2	8.6	14.8	6.9	4.0	1.4	3.6	41.6
WPU1331	Concrete block and brick	3.0	5.1	13.8	10.6	3.3	2.1	4.4	42.9
WPU1332	Concrete pipe	2.6	14.9	19.9	5.5	8.2	2.2	8.0	65.7
WPU1333	Ready-mixed concrete	2.2	6.8	13.0	6.9	4.9	1.6	4.1	37.9
WPU1334	Precast concrete products	3.0	12.0	13.1	6.0	2.2	0.7	1.9	41.0
WPU1335	Prestressed concrete products	-1.2	14.7	31.9	4.6	-2.3	0.1	-1.7	52.0
WPU1342	Brick and structural clay tile	3.3	6.1	8.8	5.5	4.6	0.7	4.6	32.0
WPU0721	Plastic construction products	5.4	35.4	8.7	-3.5	-0.4	0.1	-0.8	49.2
WPU1311	Flat glass	3.7	7.4	10.0	2.1	1.3	1.0	1.8	26.4
WPU13710102	Gypsum building materials	4.6	23.0	17.5	-1.9	5.7	-0.2	5.5	51.9
WPU1392	Insulation materials	1.6	16.9	14.9	1.2	7.1	0.4	5.6	47.4
WPUSI004011	Lumber and plywood	37.2	18.1	-19.3	-6.4	5.2	-0.5	4.1	25.4
WPU062101	Architectural coatings	1.9	14.0	26.1	-0.3	0.8	0.0	0.4	47.4
WPU1017	Steel mill products	5.2	128.0	-29.8	-3.3	-12.3	0.2	-16.6	43.1
WPU101706	Steel pipe and tube	1.9	79.8	-7.9	-16.1	-6.0	-1.3	-9.2	30.2
WPU102502	Copper and brass mill shapes	23.6	23.4	-2.3	-1.0	11.1	1.9	12.3	70.7
WPU102501	Aluminum mill shapes	-1.7	29.5	-5.3	-1.9	8.7	0.1	9.7	31.4
WPU1073	Sheet metal products	-0.3	35.5	8.0	0.3	0.1	0.3	0.4	46.8
WPU107405	Fabricated structural metal	-0.5	47.6	7.5	3.5	-9.2	-0.1	-9.8	47.4
WPU1074051	Fabricated structural metal bar joists & rebar	0.5	56.9	3.3	6.4	-24.7	0.0	-25.7	30.3
WPU10740514	Fabricated structural metal for non-industrial building	0.2	61.7	3.5	7.7	-32.2	-0.3	-32.5	22.1
WPU10740553	Fabricated structural metal for bridges	-0.4	41.2	15.3	0.2	-7.6	0.0	-4.6	46.1
WPU107408	Ornamental and architectural metal work	4.8	48.1	10.8	1.2	8.8	0.0	8.4	87.7
WPU1076	Fabricated steel plate	1.8	45.5	1.9	-0.2	-	-	-	-
WPU1079	Prefabricated metal buildings	12.0	41.4	-4.2	7.6	-1.3	-0.3	-2.3	58.6

Fannie Mae / Freddie Mac Funding Requirements



The **new lending guidelines** are intended to make potential condominium and co-op buyers aware of mechanical or structural concerns



Updated questionnaires specifically request dates and descriptions of critical or urgent repairs, copies of recent inspection reports and reserve studies



Fannie and Freddie both require that at least 10% of operating budget goes to Reserves.

Funding Reserves Considerations

Money Markets & CD's

Taxable income considerations

Evergreen Assessments

Loans vs. Special Assessments

Communicating with Residents



Annual review with membership

Reviewed during budget adoption

Kept available for review by membership

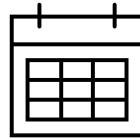
Included in resale package

Item	2025 - Study Year	\$
1	PH 1 Asphalt pavement, mill and overlay	\$158,270
2	PH 1 Asphalt pavement, seal coat	\$16,150
3	PH 1 Asphalt pavement, asphalt speed hump	\$6,000
4	PH 2 Asphalt pavement, mill and overlay	\$104,689
5	PH 2 Asphalt pavement, seal coat	\$10,683
6	PH 2 Asphalt pavement, asphalt speed hump	\$3,000
7	PH 3 Asphalt pavement, mill and overlay	\$126,273
8	PH 3 Asphalt pavement, seal coat	\$12,885
9	PH 1 Concrete, curb and gutter (3% allowance)	\$10,836
10	PH 2 Concrete, curb and gutter (1.5% allowance)	\$5,418
11	PH 3 Concrete, curb and gutter (2% allowance)	\$7,224
22	Retaining wall, PTL (33.3% allowance)	\$11,385
23	Retaining wall, PTL (33.3% allowance)	\$11,385
25	Retaining wall, Wood board (50% allowance)	\$4,582
27	Retaining wall, railroad ties (25% allowance)	\$2,750
28	Retaining wall, railroad ties (25% allowance)	\$2,750
35	Brick columns (25% allowance)	\$11,178
40	Wood timber steps, replace	\$4,700
41	Wood landscape borders (10% allowance)	\$3,080
52	Tree replacement (allowance)	\$8,700
53	Tot lot, MP structure, 2 platforms and 2 slides (small)	\$20,000
55	Tot lot, A-frame swing, 4seat	\$2,800
58	Tot lot, surfacing, wood mulch (3")	\$5,240
59	Bench, aluminum	\$2,400
Total Scheduled Replacements		\$552,377

Forward Planning



Recurring biannual walkthrough



Bring the 3-5 Year Calendar

Questions?



Additional Resources:

www.caionline.org

www.caimdches.org