

## Reserve Studies: Component Method vs. Cash Flow Analysis

The responsibilities of a community association are threefold: to serve as a business, a government and a community. As a business, the community needs a business plan for the maintenance and replacement of its assets. A professional Reserve Study is a continuous blueprint for the future of the community. Professional Reserve Studies have two parts: a *physical analysis* and a *financial analysis*. The physical analysis will identify the common elements, their useful lives, remaining useful lives, future replacement costs and times of future repairs and/or replacements. The financial analysis determines a minimum and stable level of funding to accommodate the future expenditures.

As most Condominium Managers and experienced Board Members already know, the Florida Statutes require associations to establish reserves for capital expenditures and deferred maintenance including roofing, painting, paving and any other item for which the deferred maintenance expense or replacement cost exceeds \$10,000. Knowing this, every Association in Florida should have some money set aside for future expenditures. The question community association Board's have to ask is: Is it enough? If not, the association will likely face special assessments or worse – further deterioration of the property elements and higher overall eventual costs of replacements because the funds were not available and the Board waited too long to act.

There are two primary methods used by professionals to conduct the financial analysis portion of a Reserve Study. Historically, State requirements have caused Associations to use the Component Method which develops a funding plan using the sum of the contributions for individual reserve components. This allowed Associations to easily segregate the funds and contributions for their individual reserve accounts (Roofs, Painting, Paving, etc.). However, recent changes in the Florida Administrative Code allow Associations to group their reserve assets together. This allows associations to use the cash flow or “pooled” method of funding reserves. The use of the Cash Flow Method typically results in lower overall reserve funding requirements than the Component Method. The following examples depict the two methods of calculating reserve funding requirements:

**Component Method** (The Physical and Financial Analysis are both shown in the table below):

Reserve Component Inventory	Life Analysis		2009 Cost of Replacement	12/31/09	12/31/09	2010
	Useful	Remaining		Reserve Balance	Residual Balance	Required Contribution
Roofs, Asphalt Shingles	to 17	7	\$435,000	\$87,430	\$347,570	\$49,653
Painting, Stucco	to 6	2	\$120,420	\$66,124	\$54,296	\$27,148
Paving, Asphalt Pavement	to 20	10	\$156,250	\$14,257	\$141,993	\$14,199
<b>Total</b>				<b>\$167,811</b>		<b>\$91,000</b>

According to this analysis, the required contribution for the three line items is \$91,000. Note the lack of consideration of construction inflation or interest earned in this example. Obviously, the roof is not going to cost the same seven years from now as it would today. Likewise, the Association should invest their savings in conservative money market accounts or CD's to take advantage of interest on their reserves.

## Cash Flow Method

### Physical Analysis:

Reserve Component Inventory	Life Analysis,		2009 Cost of Replacement	Future Costs of Replacement (Including Inflation)										
	Useful	Remaining		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Roofs, Asphalt Shingles	to 17	7	\$435,000								572,430			
Painting, Stucco	to 6	2	\$120,420		130,246							164,803		
Paving, Asphalt Pavement	to 20	10	\$156,250											231,288
<b>Anticipated Expenditures, By Year</b>				\$0	\$0	\$130,246	\$0	\$0	\$0	\$0	\$572,430	\$164,803	\$0	\$231,288

### Financial Analysis:

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Reserves at Beginning of Year	\$97,491	167,811	246,943	199,246	285,552	378,472	478,373	585,636	116,881	48,827	149,924
Plus Recommended Reserve Contributions	65,000	71,000	73,800	76,800	79,900	83,100	86,400	89,900	93,500	97,200	101,100
Plus Estimated Interest Earned, During Yea	5,320	8,132	8,749	9,506	13,020	16,801	20,863	13,775	3,249	3,897	3,393
Less Anticipated Expenditures, By Year	0	0	(130,246)	0	0	0	0	(572,430)	(164,803)	0	(231,288)
<b>Anticipated Reserves at Year End</b>	<u>167,811</u>	<u>246,943</u>	<u>199,246</u>	<u>285,552</u>	<u>378,472</u>	<u>478,373</u>	<u>585,636</u>	<u>116,881</u>	<u>48,827</u>	<u>149,924</u>	<u>23,129</u>

In the Cash Flow Method Financial Analysis, the “Anticipated Expenditures” (numbers in parentheses) are derived from the sum of all expenditures in any given year using the same data from the component method. The major difference is the addition of construction inflation and interest earned in this analysis. This example assumes 4% construction inflation and 4% interest.

In the Cash Flow Method, all reserves at the end of 2009 (\$167,811) are pooled into one account. Reserve contributions are adjusted for the next fiscal year, or 2010, and afterwards increase by a nominal inflationary amount. The benefit of these nominal increases each year is that present and future owners are treated fairly and equitably. Note that the total 2010 Recommended Reserve Contribution for the same community is \$71,000 using the cash flow method. This savings of \$20,000 is immediate and dramatic in this example using only three items and a 10 year analysis.

A simple explanation of this difference is that the component method never results in a year end reserve balance approaching a reasonable but sufficient threshold when multiple components exist. Only the cash flow method allows for this provision of considering the actual need for cash in a reasonable amount in one or more threshold funding years when cash reserves are at their lowest point. In the above example, 2019 is considered a Threshold Funding Year when reserve balance reaches a critical low point of just over \$23,000.

Another benefit of the Cash Flow Method of Reserve Analysis is that it gives associations the flexibility to make minor adjustments to the plan without having to worry about funding shortfalls. Having an adequate threshold of reserves means that if one or more of the expenditures are slightly higher than anticipated (i.e. Increased paving costs due to accelerated inflation in petroleum products), the Association has a cushion to use and avoid having to special assess the owners or borrow money from another reserve account.

Regardless of the method of financial analysis that a Board chooses to use, the Reserve Study is an essential tool to fulfill their fiduciary responsibilities, protect current owners from unexpected special assessments and to send a positive signal to prospective buyers and their lenders. The professional Reserve Study will reduce claims of financial mismanagement because the Board sought the advice of independent Reserve Study experts. Demonstration of sound fiscal management with a professional Reserve Study will provide the owners with a high comfort level that their investment in their property is being management properly. An independent professional Reserve Study just makes good business sense.

Matthew Kuisle P.E. RS, (Reserve Specialist and Professional Engineer) is the Director of Florida Client Services for Reserve Advisors, Inc. Founded in 1991, Reserve Advisors, Inc. is the leading provider of reserve studies, serving community associations and other entities in over 40 states and Canada. For more information on this subject, contact Matt at (800) 980-9881 or [matt@reserveadvisors.com](mailto:matt@reserveadvisors.com).