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RESERVE STU

YOUR GUIDE TO READING AND
UNDERSTANDING THEM

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A reserve study is one of the most important documents assisting a stable and sustainable community association. This document is a financial roadmap for the replacement and repair of common components within an association. Overview information can be gleaned from a quick review. Important details can be obtained by a more careful reading.

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Reserve studies are typically prepared by a Professional Engineer (P.E.) or Reserve Specialist (R.S.). The process entails a site visit to examine/evaluate common components and a financial plan to repair/replace components as they wear. The study report is typically lengthy and detailed.

It needs to be detailed enough to provide information to the trustee boards, accountants, property managers, and attorneys. However, it must also be understandable for homeowners.

RESERVE STUDY KEY ATTRIBUTES

A comprehensive reserve study should provide four key attributes:

1 Reserve Fund Budget
The reserve budget, also described as a funding plan, is a list of the recommended annual contributions to the association reserve fund and annual expenditures to cover reserve components over the course of the 30-year study. Typically, the recommended contribution increases at a rate approximately equal to the anticipated rate of inflation over the course of the study. More than one funding plan option may be presented. Option differences should

be clearly understood by the various association constituencies before being implemented. Funding goals can vary from fully funded (most conservative) to baseline (minimum cash flow to keep the fund above zero) funding. Associations typically target funding somewhere in between these extremes. Currently, there are no specific statutory funding requirements in New England states.

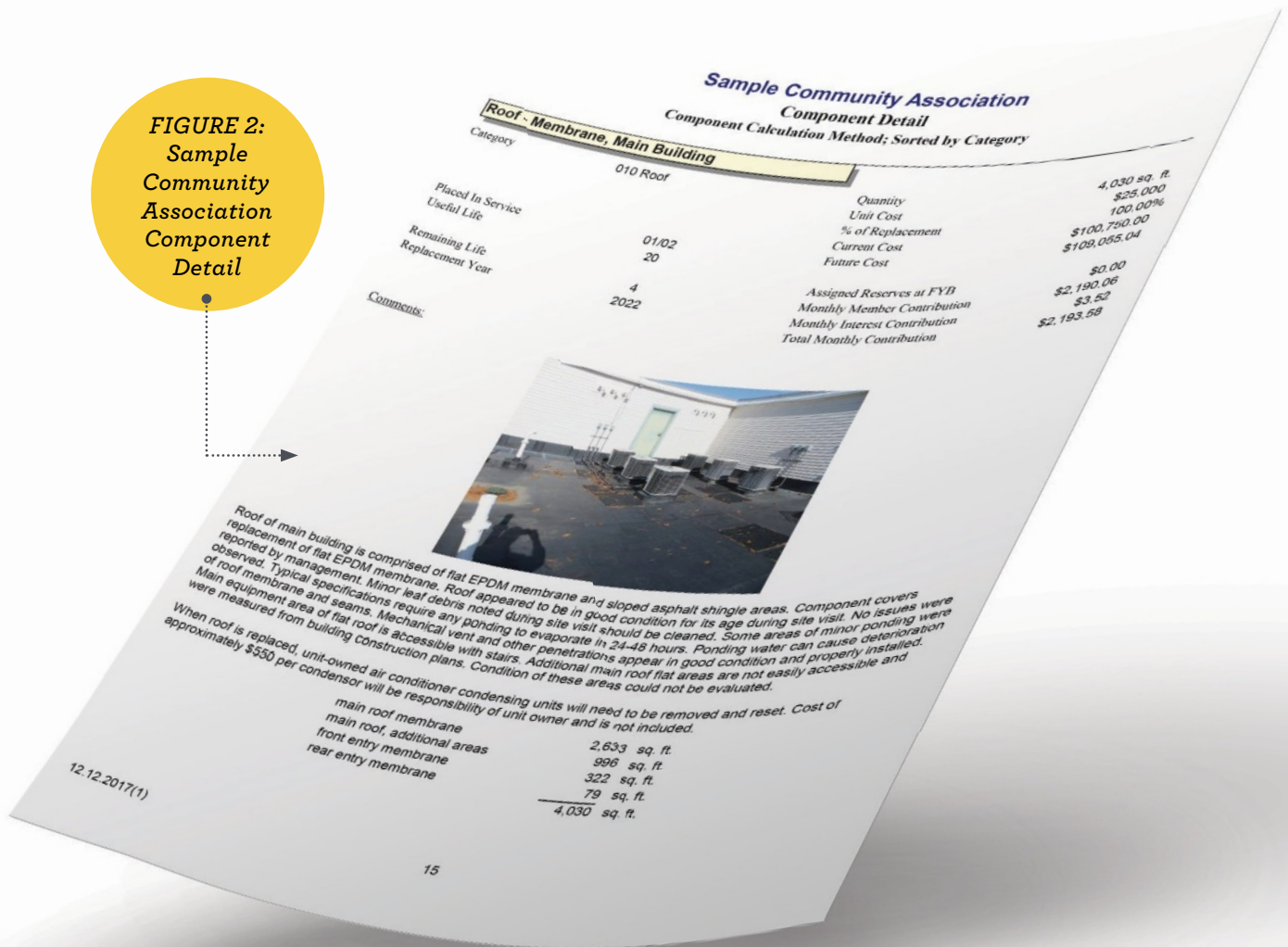
2 Reserve Fund Percent Funded
The reserve fund percent funded is a measure of the health of the association's reserve fund. Expressed as a percentage, it is calculated at the beginning of the fiscal year and is the ratio of the actual reserve balance to the calculated theoretical fully-funded reserve balance. One-hundred-percent funded means the association has a proportionally correct balance to date for common components maintained.

Sample Community Association Projections						Fully Funded Ending Balance	Percent Funded
Directed Cash Flow Calculation Method							
Fiscal Year	Beginning Balance	Member Contribution	Interest Contribution	Expenditures	Ending Balance		
2018	\$82,874	\$52,250	\$356	\$5,250	\$130,330	\$504,145	28%
2019	\$130,330	\$53,295	\$542	\$0	\$184,168	\$552,003	33%
2020	\$184,168	\$54,361	\$563	\$48,431	\$190,861	\$550,589	35%
2021	\$190,861	\$55,448	\$702	\$15,834	\$230,877	\$594,292	40%
2022	\$230,877	\$56,557	\$193	\$0	\$285,885	\$424,248	27%
2023	\$285,885	\$57,688	\$317	\$0	\$322,073	\$450,834	36%
2024	\$122,073	\$58,842	\$732	\$181,438	\$122,073	\$501,695	44%
2025	\$181,438	\$60,019	\$844	\$242,189	\$201,742	\$554,410	48%
2026	\$242,189	\$61,219	\$374	\$0	\$218,171	\$578,197	43%
2027	\$274,903	\$62,444	\$512	\$0	\$221,817	\$456,657	40%
2028	\$140,987	\$63,692	\$739	\$0	\$274,903	\$512,317	61%
2029	\$181,105	\$64,966	\$972	\$29,350	\$196,733	\$140,987	37%
2030	\$246,810	\$66,266	\$1,209	\$196,733	\$24,067	\$181,105	46%
2031	\$314,047	\$67,591	\$557	\$0	\$24,067	\$246,810	55%
2032	\$382,848	\$68,943	\$489	\$0	\$0	\$314,047	61%
2033	\$133,922	\$70,322	\$740	\$0	\$0	\$382,848	37%
2034	\$178,139	\$71,728	\$989	\$2,100	\$178,139	\$314,047	46%
2035	\$250,807	\$73,163	\$1,176	\$21,445	\$133,922	\$382,848	55%
2036	\$322,651	\$74,628	\$1,279	\$58,593	\$250,807	\$178,139	40%
2037	\$377,014	\$76,118	\$1,279	\$0	\$318,205	\$250,807	55%
2038	\$395,778	\$77,641	\$1,554	\$0	\$26,594	\$322,651	61%
2039	\$408,112	\$79,194	\$1,731	\$0	\$0	\$377,014	64%
2040	\$487,723	\$80,771	\$2,023	\$2,100	\$0	\$395,778	69%
2041	\$539,312	\$82,393	\$1,099	\$21,445	\$0	\$408,112	74%
2042	\$623,728	\$84,041	\$1,286	\$58,593	\$0	\$133,922	40%
2043	\$360,040	\$85,722	\$1,447	\$66,585	\$0	\$178,139	48%
2044	\$414,629	\$87,436	\$1,761	\$0	\$318,205	\$322,651	61%
2045	\$481,593	\$89,185	\$2,083	\$0	\$26,594	\$377,014	64%
2046	\$552,539	\$90,969	\$2,256	\$0	\$0	\$395,778	69%
2047	\$645,591	\$92,788		\$0	\$0	\$408,112	74%

FIGURE 1:
Sample Community Association Projections

NOTE: In some cases, the projected Ending Balance may exceed the Fully Funded Ending Balance in years following high Expenditures. This is a result of the provision for contingency in this analysis, which in these projections is never expended. The contingency is continually adjusted according to need and any excess is redistributed among all components included.

FIGURE 2:
Sample
Community
Association
Component
Detail



3 Reserve Study Projections

Projections detail the financial road map for the association over the next 30 years. Per the CAI R.S. standard, the minimum projection period is 20 years. However, 30 years is more typical and most helpful. Projections define the timetable for repairs/replacements. Contributions and expenses over time are listed as shown in Figure 1.

For under-funded associations, a plan to achieve 100 percent funding over 30 years is a typical recommendation. The percentage target can be modified/reduced based on association preferences. For well-funded associations, a plan to remain fiscally healthy will be presented in the projections.

4 Common Component Inventory

The study should include a complete listing of common components the association is responsible for, based on the governing documents. As shown in Figure 2, the following in-

formation should be provided for each component:

- Quantity, typically measured in square feet, or number of individual pieces.
- Placed-in-service date (may be the actual date, if known, or estimated based on current condition).
- Useful life from typical industry standards and experience.
- Remaining life based on site visit evaluation.
- Replacement year anticipated.
- Current and future costs (costs may be based on standard estimating services, analyst experience, and/or discussions with association service contractors).

Analyst's comments to include:

- Description and possibly service contractor responsible for the component.
- Current association experience with component.
- Rationale for increasing or decreasing useful life.

CAI R.S. standards require "a tabular listing of the component inventory, component quantity or identifying descriptions, useful life, remaining useful life, and current replacement cost."

Quantities for each component are essential for accurate reserve study updates every two to three years. These quantities should be measured by the analyst during the site visit. Poor studies will list only a dollar total for a component with no supporting information. In this scenario, it will be difficult to accurately update the component cost in future studies. For example, if the cost of re-roofing increases by \$1 per square foot, and the roofing

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area is listed, a new cost can be easily calculated. However, if the roof component is simply listed as \$500,000, but no quantity is listed, there is no accurate way of checking or updating component pricing without measuring the roof area, since it will not likely be known what unit cost was used to prepare the dollar total. If dollar totals are used, the source should be cited.

RESERVE STUDY LIMITATIONS

When reading the reserve study, it is important to realize its limitations. The study will typically assume that components were installed properly with no construction defects. Components will be assumed operational and well maintained. Exceptions to these assumptions can be added to the study based on site observations and input from community experience. The projections are based on best estimates by the analyst. Discrepancies are inevitable but overall the study will be a good planning tool.

READING THE STUDY

Here's what to look for when either seeking a quick overview or digging into details. A quick scan can yield insights into the health of an association reserve fund, while a more in-depth examination will yield more detailed information useful to specific constituencies.

■ Quick Scan

Each report should include pages to allow a quick scan to check the health

When reading the reserve study, it is important to realize its limitations. The study will typically assume that components were installed properly with no construction defects.

of the association. A table of contents and index allow key information to be efficiently located. Important information for the quick scan should be easy to see on concise pages and not run across several pages.

An executive summary should include:

- Brief description of the community (including the number of units and physical description).
- Study financial assumptions (the most important assumptions are inflation rate and the annual reserve contribution increase).
- Reserve fund financial condition as reflected by percent funded calculation.
- Funding plan.

Charts and graphs should also be provided to illustrate the distribution of cur-

rent funds and the financial projections.

A one-page projection summary (Figure 1) shows the balance of the reserve fund over time, inflows from member funding contributions, and outflows from capital expenditures. With a prudent plan, the percent funded will increase over time to the desired long-term target for the association.

The format of the reserve study report is key to allowing a quick scan. Large spreadsheets on multiple pages are difficult to follow and should be avoided.

■ More Detailed Reading

After the quick scan, which introduces the information in the study and gives the reader an overview of the health of the association, the reader can get a better understanding of the association's roadmap by looking at more detailed sections.

A review of the calculation of percent funded will show lists of components, grouped by category, with individual



Sample Community Association Executive Summary Component Calculation Method

Client Information:

Account Number
Version Number
Analysis Date
Fiscal Year
Number of Units
Phasing

20017
1
12/12/2017
1/1/2018 to 12/31/2018
19
1 of 1

Global Parameters:

Inflation Rate
Annual Contribution Increase
Investment Rate
Taxes on Investments
Contingency

2.00%
2.00%
0.50%
30.00%
3.00%

Community Profile:

Condominium consists of 19 units in a 3-story brick building. The mid-rise building has a parking garage with 14 spaces on the basement level. A trash/recycling and detached garage building is also located on the site. The community is located above the banks of the Sample River. Building was constructed in 2002.
ARS site visit: November 9, 2017

Adequacy of Reserves as of January 1, 2018:

Anticipated Reserve Balance
Fully Funded Reserve Balance
Percent Funded

\$82,973.82
\$463,359.68
17.91%

Recommended Funding for the 2018 Fiscal Year:

Member Contribution
Interest Contribution
Total Contribution

Annual
\$97,086
\$428
\$97,514

Monthly
\$8,090.46
\$35.70
\$8,126.16

Per Unit
Per Month
\$425.81
\$1.88
\$427.69

FIGURE 3:
Sample
Community
Association
Executive
Summary

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lifespans, current costs, and fully funded balances for a 100-percent-funded association.

Managers and accountants needing more detail can refer to the accounting summary that shows how current reserve funds are distributed among reserve components. Graphic charts are helpful for quick understanding.

The listing of annual expenditures is very useful to understand when peaks and valleys in repair/replacement spending occur. The listing of projected annual expenditures can be used by the association to request more detailed inspections of components when the end of their useful life is approaching. The list forms a type of rolling “punch list” of items to review over time and can be considered analogous to the recommended service intervals for a car.

In high spending years, many components are scheduled to be replaced. If a reserve study is updated before these high expense years, the useful life of components that have worn better than

expected may be extended to distribute the spending over several years. Trusted contractors can also evaluate components they are familiar with to help create a plan for replacement over time.

Finally, the component detail list (Figure 2) can be reviewed. Photos are helpful in identifying components for all readers that may not be as familiar with association or construction descriptions. It is very helpful to have all of the information about a component available on one page. A more general photo section at the end of a study is less relevant.

Reviewing the comments of the preparer will shed light on the condition of a component and any special needs or association experience. Any assumptions that have been made regarding placed-

in-service dates, useful life, or remaining life will be described. Quantities and calculation details for cost of components can also be reviewed and verified.

In conclusion, a high-level reader and a detailed reader can both get what they need from a well-constructed reserve study. The quick scan can help the reader understand the general condition of the association relative to reserves, while a detailed reading can yield in-depth information about future cash flows and common component specifics. ■■



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