



Mountain High (Roads) HOA

20434 SE Mountain High Dr
Bend, Oregon 97702
December 6, 2019

Prepared by:
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Reserve Study Professionals credentialed by
Community Association Institute (RS) and
Association of Professional Reserve Analysts (PRA)

MOUNTAIN HIGH (ROADS) HOA

Executive Summary

Fiscal Year of Report

January 1, 2020 to December 31, 2020

Number of Lots 252

Parameters

Beginning Balance \$239,685.00

Average Fiscal Year 2020 Required Contribution \$25,600.00

Average Reserve Assessment Required Per Lot \$8.47

Fiscal Year Projected Interest Rate 1.10%

Fiscal Year Inflation Rate 1.8%

Annual Increase To Required Contribution 60%

Actual Contribution in Prior Year \$16,000.00

Lowest Cash Balance Over 30 Years (Threshold) \$42,361.00.00

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**16869 SW 65th Avenue, Suite 366
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Attached herewith is the Reserve Study (physical and financial analysis) for the Association. **Interest from reserve savings accounts must stay in the reserve account(s) and not be used as an offset against annual assessments.**

You are encouraged to thoroughly review this document and its individual reports for conformity to the description of responsibility for the Association's Common Areas and Commonly Maintained Property as those terms are defined in your Declaration of Covenants, Conditions and Restrictions. In addition, please pay close attention to the reserve bank balance estimated to be on hand by your staff. **Any discrepancy in the figure or interest rate can have a significant effect on the Reserve Study and the outcome of the assumptions shown.**

The intention of the Reserve Study is to forecast, as they wear out in future years, the Association's ability to repair, replace, restore or maintain major components with a life expectancy of over one year and an estimated cost of over one thousand dollars. The reports will provide the Association's Board of Directors (Board) the information necessary to make the reserve projection disclosures required by existing statutes, lender's requirements, or the governing documents.

The cost outlined in the Reserve Study is subjective in some areas, therefore we may use costs submitted by the Management or the Board and are for budgetary and planning purposes only. Actual bid costs would depend upon the defined scope of work at the time the repair, replacement or restoration is done, and on actual price levels prevailing at the time the future repair, replacement, or restoration must be done.

The estimates on future repair, replacement and restoration in the Reserve Study will be good faith estimates and projections, based upon the estimated future inflation rate and interest (yield) on the monies set aside which may or may not prove accurate. Consultant submits that the probability that it may project in its Reserve Study, or that the Board could project in its disclosures, future costs or actual future remaining useful lives of components having useful lives extended beyond one year with precision is the functional equivalent of winning the lottery (while it may happen in rare instances by chance, one may not reasonably expect it to happen). As a result, Consultant cannot, and does not, warrant or guaranty its projections. Assumptions on future costs and life expectancy's should be reviewed and adjusted on an annualized basis, as current and future cost projections and life expectancy's become more uncertain.

This Reserve Study is limited to an off-site, on-site or plan take-off physical analysis of the property, and as such did not disturb the major components. Therefore, all Common Areas and Commonly Maintained Property as those terms are defined in the Declaration for which there is no access without defacement are specifically omitted. However, if sufficient historical data including costs were available that would allow a reasonable projection of future expenditures for any unobserved components, e.g., plumbing, utilities, electrical wiring, those components could be included in the Reserve Study and may require an engineer's report.

Since no destructive testing was undertaken, this Reserve Study, as stated above, does not purport to address any latent and/or patent defects, nor does it address any life expectancies that are abnormally short due either to improper design or installation, or to subsequent improper maintenance. It is assumed that all components are to be reasonably maintained for the remainder of their life expectancy.

The seals to the right of the signatures is evidence that the Reserve Study was performed under the guidelines and policies of the Association of Professional Reserve Analysts and the Community Association Institute.

Sincerely,



Tamarra "Tammy" Axton, PRA
Ray Axton, PRA
D. L. "Dan" Huntley, RS



Association of Professional Reserve Analyst-APRA-(PRA)
Community Association Institute-CAI-(RS) Reserve Specialist



EXECUTIVE SUMMARY

At the direction of the Association that recognizes the need for proper reserve planning, we have prepared a Reserve Study (physical and financial analysis) of the Association's Common Areas and Commonly Maintained Property as those terms are defined in the Declaration and submit our findings in this report. The purpose of this Reserve Study is to establish a reasonable yearly reserve contribution necessary to meet future expenditures for major replacements or repairs of the Common Areas and Commonly Maintained Property as those terms may be defined in the Declaration, as amended, and that components have a life expectancy of more than one year and less than thirty years.

All major Common Areas and Commonly Maintained Property as those terms are defined in the Declaration are likely to require capital repair or replacement over the next thirty years. Our analysis considered current and future costs of replacement for the subject Common Areas and Commonly Maintained Property as those terms are defined in the Declaration, the average annual fund balance, interest on invested funds, and anticipated inflation. Based on the investigation and analysis as detailed in the accompanying narrative, the attached *CURRENT ASSESSMENT FUNDING MODEL PROJECTION* report details the average reserve contributions that are recommended to fund the expected capital expenditures of the subject Common Areas and Commonly Maintained Property as those terms are defined in the Declaration over the next thirty years.

We arrived at these recommendations in part by matching the anticipated expenditures noted in the *ANNUAL EXPENDITURE DETAIL* against current fund balances and the annual levels of funding. **Reserve funds would not become depleted within the next thirty years at the levels of funding recommended.**

The *CURRENT ASSESSMENT FUNDING MODEL PROJECTION* enumerates the details regarding recommended annual reserve contributions and projected year-end reserve balances. We recommend, in accordance with state statutes, subsequent yearly off-site updates of this Reserve Study and an on-site physical analysis every five years to confirm that the recommended reserve contributions are appropriate in view of possible changes in the property, components not completed as detailed in the expenditure report, interest rates, inflation rates, costs, and movement of any excess operating funds to the reserve savings accounts as approved by the membership.

It is necessary that regular maintenance of the Common Areas and Commonly Maintained Property as those terms are defined in the Declaration be done to insure maximum useful life and optimum performance of the reserve components. Components of concern include items associated with water intrusion and safety.

The maintenance plan is a cyclical plan that calls for regular maintenance at regular intervals and will list the maintenance activity and the frequency of maintenance as well as a short narrative.

Checklists developed by Reed Construction Data, Inc. can be accessed, photocopied or downloaded from the RS Means web site at www.rsmeans.com/supplement/67346.asp. We strongly urge the Board to use these forms.

NARRATIVE REPORT

The following reports illustrate our recommendations and observations concerning anticipated expenditures, recommended reserve funding and projected fund balances during the next thirty years.

We have not investigated the title to or any liabilities against the property subject to this report.

At the direction of the Association, which recognizes the need for proper reserve planning, we have made a Reserve Study (physical and financial analysis) of this community and submit our findings in this report.

The purpose of this study is to establish a reasonable yearly reserve contribution necessary to meet future expenditures for major replacements or repairs of the Common Areas and Commonly Maintained Property of the Association as those terms are defined in the Declaration as of the beginning of its fiscal year.

Reserves for replacement are estimates of that amount of money that must be put aside to repair or replace major items or building components that will wear out before the entire facility or project wears out.

State law, such as that found in Texas, Nevada, California, Oregon and Washington, clearly establishes the fiduciary duty of “boards” and the necessity for adequate assessments including reserve funds. The legislative intent of these acts is to better protect current owners and future buyers of units in community associations. Reserving funds for future repair or replacement of the shorter-lived building components is also one of the most reliable ways of protecting the future market value of an individual’s investment property from the deleterious effects of special assessments.

For the purposes of this study, the detailed cash flow analysis is limited to those components or elements that are likely to require replacement or major rehabilitation during the next thirty-year period. Replacement of an entire planned development or condominium in 50 to 75 years is not a typical event. Preventive maintenance generally extends the useful life of many components. As such, estimating useful lives beyond thirty years from the date of this study is indeterminate and it is recommended that periodic updates of this study be made to consider actual facts and circumstances regarding extended or diminished component lives, inflation, and appreciation of the reserves.

Our investigation included Common Areas and Commonly Maintained Property as those terms are defined in the Declaration as set forth in your Declaration associated with the property of the Association. Excluded from our consideration was all other property, including land, property owned individually by unit or home owners that is not Commonly Maintained Property, personal property, and intangible assets.

Expenditures relating to the operating budget and apart from reserves are excluded from this reserve analysis. It is our understanding that the operating budget and future operating budgets will provide for the on-going normal maintenance of Common Areas and Commonly Maintained Property as those terms are defined in the Declaration unless specifically identified in the component description on the *DETAIL REPORT BY CATEGORY*.

Our report comprises:

This letter, that sets forth the nature and extent of the investigation, identifies the classes of property considered, and presents the conclusions reached.

An Executive Summary identifies the property, current reserves, recommended reserve funding, and projections concerning reserve funding.

Consideration and Methodology

The purpose of this study is to estimate the amount of yearly reserve contributions necessary to meet future expenditures for major replacements and repairs of the Common Area and Commonly Maintained Property as those terms are defined in the Declaration of the Association without a special assessment. We reviewed the property subject of this investigation and considered the following:

- Local costs of material, equipment and labor combined in the cost factor.
- The current and future costs of replacement or repair for the Common Areas and Commonly Maintained Property as those terms are defined in the Declaration as detailed in the *DETAIL REPORT BY CATEGORY*.
- The cost of removal if required of the worn out components as part of the cost of replacement.
- The anticipated effects of inflation on the amount to be reserved annually.
- The anticipated effects of appreciation of the reserves over time in accord with your average current return or yield on investments. **We were informed all accrued interest on Association investments would be included within the reserve funds.**
- The past and current maintenance practices of your Association and their effects on remaining lives.

We have not considered as part of the reserve contributions the amounts required for yearly maintenance activities.

SUMMARY AND CONCLUSION

This study indicates that based on the anticipated expenditures noted in the ANNUAL EXPENDITURE DETAIL report, the current reserves and annual recommended levels of funding are adequate to avoid future special assessments. Reserves would not become depleted within the next thirty years at current recommended levels of funding.

ASSUMPTIONS, SCOPE, AND LIMITED CONDITIONS

To the best of our knowledge, all data set forth in this report are true and accurate. Although gathered from reliable sources, no guarantee is being made nor liability assumed for the accuracy of any data, opinions, or estimates identified as being furnished by others or ourselves that have been used in formulating this analysis.

No soils analysis or geological studies were ordered or made in conjunction with this report, nor was any water, oil, gas, coal or other subsurface mineral and use rights or conditions investigated.

Any latent defects will not be a part of the Reserve Study. Should we find signs of possible latent defects or problems not within the scope of the Reserve Study, the Association will be notified so that the Association can retain the proper experts. However, the study will not be designed to uncover any possible latent defects, and the absence of any indications to such effect will not be, and should not be construed to be, an indication that there are no defects not so noted, or that we warrant the absence of any such defects.

Substances such as fungi, mold, asbestos, lead paint, urea-formaldehyde foam insulation, termite control substances other chemicals, toxic wastes, radon gas, electro-magnetic radiation or other potentially hazardous materials (on the surface or sub-surface) could, if present, adversely affect the validity of our Reserve Study. Unless otherwise stated in our Reserve Study, the existence of hazardous substances, that may or may not be present on the property, will not be considered nor will there be any inspection for termites. Our opinions are predicated on the assumption that there is no such material on or in the property nor existence of termites. No responsibility is assumed for any such conditions, and you are advised that we are not qualified to detect such substances, quantify the impact, or develop the remedial cost.

The Association needs to review each line item in the reports to be certain corrections are made from information you may possess that we are not aware of. It is assumed in our Reserve Study that no work, or expenditures from the reserve funds will occur for the balance of the fiscal year. If this is not correct, you need to let us know what extra work was done and how much money will be spent.

This physical analysis was made by individuals generally familiar with real estate and building construction and 33 years of experience preparing reserve studies; however, no invasive testing was performed. Our report does not consider electrical wiring, plumbing or utilities that may be the responsibility of the Association. Accordingly, we do not opine on, nor are we responsible for, the structural integrity of the property, including, but not limited to, its conformity to specific governmental code requirements, such as fire, building safety, earthquake, occupancy, land movement and/or slides, or any physical defects that were not readily apparent in our physical analysis. This Reserve Study is not an engineering study.

The cost outlined in the Reserve Study is subjective in some areas; therefore, we may use costs submitted by the Association that are for budgetary and planning purposes only. Actual bid costs would depend upon the defined scope of work at the time the repair, replacement or restoration is done, and on actual price levels prevailing at the time the future repair, replacement or restoration must be done. The estimates on future repair, replacement and restoration in the Reserve Study will be good faith estimates and projections, based upon the estimated future inflation rate and interest (yield) on the monies set aside which may or may not prove accurate. We submit that the probability that the board may project in its Reserve Study or disclosures, future costs or actual future remaining useful lives of components having useful lives extended beyond one year with precision is the functional equivalent of winning the lottery (while it may happen in rare instances by chance, one may not reasonably expect it to happen). As a result, we cannot, and do not, guaranty its projections. Assumptions on future costs and life expectancies should be reviewed and adjusted on an annualized basis, as current future costs projections and life expectancies become more uncertain.

PROFESSIONAL SERVICE CONDITIONS

The services provided by Reserve Studies by RF© were performed in accordance with our professional practice standards. Our compensation is not contingent in any way upon our conclusions. We assume, without independent verification, the accuracy of all data provided to us. We will act as an independent contractor. All files, work papers or documents developed by us during the course of the engagement will remain our property.

Our report is to be used only for the purposes stated herein. Any use or reliance for any other purpose, by you or third parties, is invalid. You may show our report in its entirety to those third parties that need to review the information contained herein. No reference to our name or our report, in whole or in part, in any document you prepare and/or distribute to third parties may be made without our written consent.

Association shall defend, indemnify, and hold harmless Reserve Studies by RF© and its employees and subagents, who were or are a party or are threatened to be made a party to any threatened, pending, or completed actions, suits, or proceedings, whether civil, criminal, administrative, or investigative by reason of the fact that Reserve Studies by RF©, and its employees and subagents, are or were the authorized representatives of the Association, as to any expense, including attorneys' fees, judgments, fines, and amounts paid in settlement actually and reasonably incurred by Reserve Studies by RF© and its employees and subagents, in connection with such action, suit, or proceeding, if Reserve Studies by RF© and its employees and subagents acted in good faith and in a manner Reserve Studies by RF© and its employees and subagents reasonably believed to be in, or not opposed to, the best interest of the Association, and with respect to any criminal action or proceeding, had no reasonable cause to believe their conduct was unlawful.

We have prepared an initial draft of the study and will make one adjustment to the report upon a written request from the Association within 30 days of the date the initial draft of the study is sent to the Board.

We reserve the right to include your Association's name in our client list, but we will maintain the confidentiality of all conversations, documents provided to us, and the contents of our reports, subject to legal or administrative process or proceedings.

These conditions can only be modified by written documents executed by both parties.

Respectfully submitted,

Tamarra "Tammy" Axton, PRA

Ray Axton, PRA

D. L. "Dan" Huntley, RS

Association of Professional Reserve Analyst-APRA-(PRA)
Community Association Institute-CAI-(RS) Reserve Specialist

**Mountain High (Roads) HOA
Category Detail Index**

Asset ID	Description	Replacement	Page
Asphalt			
1001	Asphalt: Overlay-Replace-Common	2025	28
1002	Asphalt: Repair-Common	2020	29
1003	Asphalt: Sealcoat-Common	2020	31
	Total Funded Assets	3	
	Total Unfunded Assets	<u>0</u>	
	Total Assets	3	

**Mountain High (Roads) HOA
Base Line Assessment Funding Model Summary**

Report Date	December 5, 2019
Version	1 (2020) Level III
Budget Year Beginning	January 1, 2020
Budget Year Ending	December 31, 2020
Total Units	252

<i>Report Parameters</i>	
Inflation	1.80%
Interest Rate on Reserve Deposit	1.100%
2020 Beginning Balance	\$239,685

**Base Line Assessment Funding Model Summary
Base Line Funding Time Value of Money With Minimum Balance**

BUSINESS JUDGEMENT RULE

To avoid personal liability for their actions/decisions, directors must perform their fiduciary duties "with such care, including reasonable inquiry, as an ordinarily prudent person in a like position would use under similar circumstances."

NOTE: The Board MUST (under the new statutes) - Changes to ORS 94.595 & 100.175 by Senate Bill 963B in 2009

- (3)(a) The board of directors of the association annually shall conduct a reserve study or review and update of an existing study to determine reserve account requirements. Subject to subsection (8) of this section, after review of the reserve study or reserve study update, the board of directors may, without any action of owners:
 - (A) Adjust the amount of payments as indicated by the study or update; and
 - (B) Provide for other reserve items that the board of directors, in its discretion, may deem appropriate.

**Mountain High (Roads) HOA
Base Line Assessment Funding Model Summary**

(b) The reserve study shall:

(A) Identify all items for which reserves are or will be established;

(B) Include the estimated remaining useful life of each item as of the date of the reserve study; and

(C) Include for each item, as applicable, an estimated cost of maintenance and repair and replacement at the end of the item's useful life.

(8)(a) Except as provided under paragraph (b) of this section, unless the board of directors under subsection (3) of this section determines that the reserve account will be adequately funded for the following year, the board of directors or the owners may not vote to eliminate funding a reserve account required under this section or under the declaration or bylaws.

(b) Following the turnover meeting described in ORS 94.609 & ORS 100.210 on an annual basis, the board of directors, with the approval of all owners, may elect not to fund the reserve account for the following year. (Daniel Zimberoff Attorney-Barker Martin)

- **This reserve study is for budget and planning purposes and identifies the status of the reserve fund and schedules the anticipated major commonly owned item replacements.**

This reserve study will also estimate the expected useful life and remaining useful life of the building and site components or systems, and will provide an estimate replacement or refurbishment cost for those components or systems. Major components or systems may include, but are not limited to, painting, gutters and downspouts, mailboxes, roofing, siding, windows, doors, paving, mechanical equipment, common area furnishings and amenities and other commonly owned systems or items.

- **The scope of work identified within our contract is to provide the association with a Off-Site Level III reserve study which includes:**
 - **Component/System Inventory**
 - **Expected Useful Life and Remaining Useful Life Estimates**
 - **Condition Assessment (based upon on-site visual observations)**

**Mountain High (Roads) HOA
Base Line Assessment Funding Model Summary**

- **Component/System Replacement Schedule and Estimated Pricing**
- **Identify Current Reserve Account Balance**
- **30 Year Funding Plan**

- **How to Use a Reserve Study**

The documents included within the reserve study are intended to be used as guidelines and estimates. It is nearly impossible to know exactly when a building component system will fail; however, an estimation of useful life based on similar product history and professional experience is used to estimate the time of replacement and associated costs. All costs included within this reserve study should be used as budgeting figures. For exact pricing, a qualified, licensed contractor should be contacted to provide a bid for any anticipated replacements.

The replacement schedule lists all known components and systems that are anticipated to "wear out" or fail within 30 years. Items which are anticipated to be replaced or repaired in the current year are not included within the reserve study as those items should already be budgeted for, and scheduled to be replaced or repaired.

On the reserve schedule, review which items are anticipated to fail in the near future, and keep a close eye on them. It is always better to replace items prior to failure to eliminate the opportunity for surrounding components or associated systems to be affected. Be cognizant of items scheduled for replacement or repair within 2-3 years of the current year. Remember, items listed are scheduled based on history and replacement or repair is scheduled as an estimate. Items commonly fail sooner or later than the estimated date.

- **Disclosures**

- **General - The Mountain High HOA and Reserve Studies by RF or its affiliate Western States Subdivision Consulting have no professional or personal involvements with each other, other than the scope of work identified in the reserve study contract. This relationship cannot be perceived as a conflict of interest.**
- **Physical Analysis - On-site observations (if done) were limited to visual observations only. Destructive testing (invasive testing) was not performed. Any items that were not clearly visible at the time of the site observation were not viewed, and therefore were not included in the drafting of this reserve study.**

**Mountain High (Roads) HOA
Base Line Assessment Funding Model Summary**

- **Measurements - Measuring and inventory were identified via a combination of on-site physical measurements, previous reserve study and/or drawing take-offs. Drawing sets (if used) were provided by the property manager or Declarant for our use relating only to the reserve study scope of work.**
- **Completeness – Reserve Studies by RF, in its limited review, has found no material issues which, if not disclosed, would cause a distortion of the Association's situation as this is a budget and planning tool study and not a building assessment or building envelope study.**
- **Reliance on Client Data - Data received from property management, association representatives and/or Declarant is deemed reliable by Reserve Funding. Such data may include financial information, physical deficiencies or physical conditions, quantity of physical assets, or historical issues**
- **Scope - The Reserve Study is a reflection of information provided to the Consultant and assembled for the Association's use, not for the purpose of performing an audit, quality/forensic analysis, or background checks of historical records.**
- **Reserve Balance - The actual or projected (estimated) total presented in this reserve study is based upon information provided or collected and was not audited.**
- **Reserve Projects -Information provided or collected for the purpose of this reserve study will be considered reliable and should not be considered a project audit or quality inspection.**
- **Adjustments to Reserve Study - Should components suggested by Consultant be removed from the reserve study or any life cycles or costs other than current bids, engineering construction standards, or current component history be used in this reserve study the Client accepts full responsibility for the results of the reserve study and is not warranted by Consultant.**
- **Information Provided - Quantity, design and material information included in this report was provided in part by the Association and is subject to course of construction changes.**
- **Limitations on Inventory -The following items, but not limited to, are not included in the**

**Mountain High (Roads) HOA
Base Line Assessment Funding Model Summary**

physical analysis because they have a useful life greater than 30 years. Grading/drainage, foundations/footings, party walls, perimeter walls, beams, girders to the exterior surfaces, sub floors, unfinished floors, concrete stair surfaces, windows, doors, plumbing system, flues (chimneys), exterior doors and door frames, window frames, air delivery or return systems, ducts, chutes, conduits, pipes, plumbing, sanitary sewage and storm drains, wire, telephone, cable, central television system, sprinklers systems and internet lines.

- **Warranty or Guaranty - This reserve study and its recommendations should not be construed in any way to constitute a warranty or guaranty regarding the current or future performance of the components. Components will be replaced as required, not necessarily in their expected replacement year.**
- **Annual Updates - Often times there can be a significant expenditure in those years that exceeds the life of the reserve study. Hence, annual updates should be done to allow adjustments in the reserve contribution each year if required.**
- **Tax Consequences - The tax consequences are not considered in this reserve study due to the uncertainty of all factors affecting net taxable income and the election of the tax form to be filed.**
- **We recommend a building envelope (water intrusion) inspection every twelve years and a roofing inspection every six years (not funded in the reserve).**
- **House Bill 955 (HB 955), in Oregon since 1/1/2006, specifically calls for the provision of a reserve study, reserve study update, maintenance plan and reserve summary. ORS 94.595 states that: "The board of directors of the association annually shall conduct a reserve study, or review and update an existing reserve study to determine the reserve study requirements". In addition, ORS 94.595 (3)(B)(c) and ORS 100.175 (3)(C)(c) further require that a Reserve Study Update be done each year.**
- **House Bill 2665 (Chapter 409, Oregon Laws 2007) revises portions on SB 955 by removing the requirement for a maintenance plan from the reserve study and makes it a separate requirement. Also, after 9/27/2007 HB 2665 no longer requires that owners be provided a reserve summary of the reserve study or any revisions thereto.**
- **Further House Bill 2665 makes windows and unit access doors, except for glazing and screening, general common elements, unless Declaration provides otherwise, (Sec 5).**

**Mountain High (Roads) HOA
Base Line Assessment Funding Model Summary**

- **NOTE: Management or the Board shall notify the reserve study provider if the windows and doors are the responsibility of the Association and if so, will be added to the next update of the reserve study. Management or the Association to provide the count of windows and doors including type and size.**

- **Preparation of a Reserve Study**

Data is collected from many sources to prepare a reserve study and a variety of document reviews, interviews, and site observations are required to adequately fulfill our duties as a reserve provider. The following sources and methods were utilized in preparation of this reserve study document:

- **Property Management Personnel Interviews**
 - **As built Plans and Specifications Document Reviews**
 - **On-site Observations (if applicable)**
 - **In-house company consultations with accredited RS and PRA personnel**
 - **Discussions with Engineering or Architectural Consultants**
 - **RS Means Facilities Maintenance & Repair Cost Data**
 - **Interviewing General Contractor Consultants**
- **A tabular list of commonly owned items has been developed and given a current condition grade, expected useful life, and remaining useful life. A portion of that data will determine in what year it is estimated the component should be replaced.**
 - **Property Information**
 - **Original Starting Date of Reserve Study - Unless otherwise indicated, we have used January 1, 1984 to begin aging the original components in this reserve study.**

**Mountain High (Roads) HOA
Base Line Assessment Funding Model Summary**

- **Number of Units/Lots and Location** - This reserve study is a total of 252 Lots located in Bend, Oregon.
- **Date of Last Reserve Study (if applicable)** - The last on-site physical analysis done by Reserve Studies by RF was completed on August 15, 2017.
- **NOTE: All interest accrued from reserve savings account(s) must remain in the reserve savings account(s) and not used as an off-set for operating expenses.**
- **Funding Required** - A minimum balance of \$42,361.00 has been used over the thirty years of this reserve study with an average monthly reserve assessment of \$8.47 per Lot to be 70% funded within the thirty years of the reserve study.

The industry standards for percent funded are:

0% to 29% - Poor

30% to 69% - Fair

70% to 100% - Good

This association is 28% funded on 12/31/2020 as it relates to being fully funded.

Base Line Funding Model Summary of Calculations

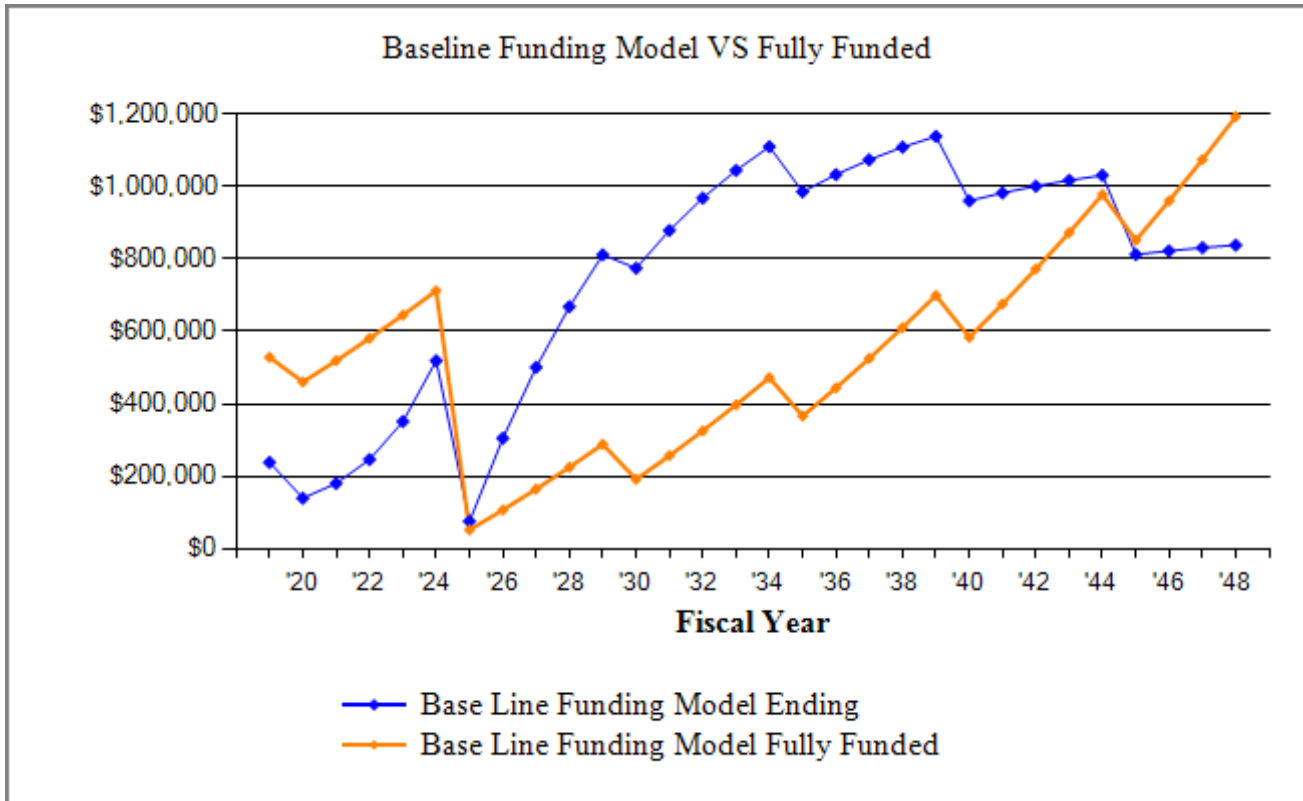
Required Month Contribution	\$2,133.33
<i>\$8.47 per unit monthly</i>	
Average Net Month Interest Earned	<u>\$113.18</u>
Total Month Allocation to Reserves	\$2,246.51
<i>\$8.91 per unit monthly</i>	

**Mountain High (Roads) HOA
Base Assessment Funding Model Projection**

Beginning Balance: \$239,685

Year	Current Cost	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves
2020	661,078	25,600	1,358	130,679	135,964
2021	672,977	40,448	1,745		178,157
2022	685,091	63,908	2,352		244,416
2023	697,423	100,974	3,306		348,696
2024	709,976	159,540	4,809		513,045
2025	722,756	252,072		722,756	42,361
2026	735,765	210,481	1,727		254,569
2027	749,009	175,751	3,865		434,185
2028	762,491	146,752	5,678		586,615
2029	776,216	122,538	7,218		716,371
2030	790,188	102,319	6,805	156,201	669,294
2031	804,411	85,437	7,910		762,640
2032	818,891	71,340	8,858		842,838
2033	833,631	59,569	9,674		912,081
2034	848,636	49,740	10,381		972,202
2035	863,912	41,533	9,109	170,775	852,068
2036	879,462	34,680	9,627		896,375
2037	895,292	28,958	10,083		935,416
2038	911,408	24,180	10,486		970,082
2039	927,813	20,190	10,846		1,001,117
2040	944,514	16,859	9,105	186,708	840,373
2041	961,515	14,077	9,375		863,825
2042	978,822	11,754	9,620		885,199
2043	996,441	9,815	9,845		904,859
2044	1,014,377	8,195	10,053		923,107
2045	1,032,636	6,843	7,990	204,128	733,813
2046	1,051,223	5,714	8,147		747,673
2047	1,070,145	4,771	8,295		760,739
2048	1,089,408	3,984	8,434		773,157
2049	1,109,017	3,327	8,568		785,052

**Mountain High (Roads) HOA
Base Line Funding Model & Fully Funded Comparison Chart**



The Current Assessment Funding Model is based on the current annual assessment, parameters, and reserve fund balance. Because it is calculated using the current annual assessment, it will give the accurate projection of how well the association is funded for the next 30 years of planned reserve expenditures.

Mountain High (Roads) HOA

Bend, Oregon 97702

Component Summary

Description	Future Cost	Useful Life	Remaining Life	Adjustment	Distribution	Required Contribution
Mtn High Common						
Asphalt: Overlay-Replace-Common	579,884	25	5		109,006	1,631.69
Asphalt: Repair-Common	31,105	5	0		31,105	119.40
Asphalt: Sealcoat-Common	<u>99,575</u>	5	0		<u>99,575</u>	<u>382.24</u>
Mtn High Common - Total	\$710,564				\$239,685	\$2,133
Grand Total:	<u>\$710,564</u>				<u>\$239,685</u>	<u>\$2,133</u>

**Mountain High (Roads) HOA
Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2020	
Asphalt: Repair-Common	31,105
Asphalt: Sealcoat-Common	99,575
Total for 2020	\$130,679
<i>No Replacement in 2021</i>	
<i>No Replacement in 2022</i>	
<i>No Replacement in 2023</i>	
<i>No Replacement in 2024</i>	
Replacement Year 2025	
Asphalt: Overlay-Replace-Common	579,884
Asphalt: Repair-Common	34,007
Asphalt: Sealcoat-Common	108,865
Total for 2025	\$722,756
<i>No Replacement in 2026</i>	
<i>No Replacement in 2027</i>	
<i>No Replacement in 2028</i>	
<i>No Replacement in 2029</i>	
Replacement Year 2030	
Asphalt: Repair-Common	37,179
Asphalt: Sealcoat-Common	119,022
Total for 2030	\$156,201
<i>No Replacement in 2031</i>	
<i>No Replacement in 2032</i>	
<i>No Replacement in 2033</i>	
<i>No Replacement in 2034</i>	
Replacement Year 2035	
Asphalt: Repair-Common	40,648
Asphalt: Sealcoat-Common	130,127
Total for 2035	\$170,775
<i>No Replacement in 2036</i>	
<i>No Replacement in 2037</i>	
<i>No Replacement in 2038</i>	

**Mountain High (Roads) HOA
Annual Expenditure Detail**

Description	Expenditures
<i>No Replacement in 2039</i>	
Replacement Year 2040	
Asphalt: Repair-Common	44,441
Asphalt: Sealcoat-Common	142,267
Total for 2040	\$186,708
<i>No Replacement in 2041</i>	
<i>No Replacement in 2042</i>	
<i>No Replacement in 2043</i>	
<i>No Replacement in 2044</i>	
Replacement Year 2045	
Asphalt: Repair-Common	48,587
Asphalt: Sealcoat-Common	155,541
Total for 2045	\$204,128
<i>No Replacement in 2046</i>	
<i>No Replacement in 2047</i>	
<i>No Replacement in 2048</i>	
<i>No Replacement in 2049</i>	

**Mountain High (Roads) HOA
Annual Expenditure Detail**

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Asphalt: Overlay-Replace-Common						579,884				
Asphalt: Repair-Common	31,105					34,007				
Asphalt: Sealcoat-Common	99,575					108,865				
Year Total:	130,679					722,756				

**Mountain High (Roads) HOA
Annual Expenditure Detail**

Description	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Asphalt: Overlay-Replace-Common										
Asphalt: Repair-Common	37,179					40,648				
Asphalt: Sealcoat-Common	119,022					130,127				
Year Total:	156,201					170,775				

**Mountain High (Roads) HOA
Annual Expenditure Detail**

Description	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
Asphalt: Overlay-Replace-Common										
Asphalt: Repair-Common	44,441					48,587				
Asphalt: Sealcoat-Common	142,267					155,541				
Year Total:	186,708					204,128				

**Mountain High (Roads) HOA
Detail Report by Alphabetically**

Asphalt: Overlay-Replace-Common		250,188 SF	@ \$2.12
Asset ID	1001	Asset Cost	\$530,398.56
Group	Mtn High Common	Percent Replacement	100%
Category	Asphalt	Future Cost	\$579,884.13
Placed in Service	January 2000	Assigned Reserves	\$109,005.51
Useful Life	25		
Replacement Year	2025	Monthly Assessment	\$1,631.69
Remaining Life	5	Interest Contribution	\$110.18
		Reserve Allocation	\$1,741.87



Remarks:

This item is the asphalt overlay of the common area streets and pool parking lot. It is estimated it will take a 1 1/2" to 2" overlay including grinding as needed.

The common road way is SE Mountain High Drive; SW Mountain High Drive, and Mountain High Loop.

If applicable, the useful life of this component is predicated on the assumption the component was properly installed or applied.

The cost and useful life assumptions are based on accepted industry estimates as established by RS Means, Craftsman, Marshall Swift, The National Construction Estimator, National Repair and Remodel Estimator, Dodge Cost Manual, McGraw Hill Professional, assorted independent contractors, various specialists, assorted vendors catalogues, actual quotations or historical costs, Consultant's own experience in like components or as provided by the Client.

The Association should obtain a bid to confirm this estimate.

These costs do not take into consideration any changes to the building code.

Note: This is a provision for an anticipated expense. Should the Association find that the cost of this item is greater or less than the amount provided for herein, this reserve study should be updated to reflect the actual component cost.

**Mountain High (Roads) HOA
Detail Report by Alphabetically**

Asphalt: Repair-Common

		250,188 SF	@ \$4.97
Asset ID	1002	Asset Cost	\$31,104.62
Group	Mtn High Common	Percent Replacement	2.5%
Category	Asphalt	Future Cost	\$31,104.62
Placed in Service	January 2015	Assigned Reserves	\$31,104.62
Useful Life	5		
Replacement Year	2020	Monthly Assessment	\$119.40
Remaining Life	0	Interest Contribution	\$0.71
		Reserve Allocation	\$120.12



Remarks:

This item is an allowance for the repairs of the common area streets and pool parking lot.

The common area streets contain: SE Mountain High Drive; SW Mountain High Drive, and Mountain High Loop.

In 2017, the Association spent \$5,491.00 in repairs.

If applicable, the useful life of this component is predicated on the assumption the component was properly installed or applied.

The cost and useful life assumptions are based on accepted industry estimates as established by RS Means, Craftsman, Marshall Swift, The National Construction Estimator, National Repair and Remodel Estimator, Dodge Cost Manual, McGraw Hill Professional, assorted independent contractors, various specialists, assorted vendors catalogues, actual quotations or historical costs, Consultant's own experience in like components or as provided by the Client.

The Association should obtain a bid to confirm this estimate.

These costs do not take into consideration any changes to the building code.

Note: This is a provision for an anticipated expense. Should the Association find that the cost of this item is greater or less than the amount provided for herein, this reserve study

**Mountain High (Roads) HOA
Detail Report by Alphabetically**

Asphalt: Repair-Common continued...

should be updated to reflect the actual component cost.

**Mountain High (Roads) HOA
Detail Report by Alphabetically**

Asphalt: Sealcoat-Common		250,188 SF	@ \$0.40
Asset ID	1003	Asset Cost	\$99,574.82
Group	Mtn High Common	Percent Replacement	100%
Category	Asphalt	Future Cost	\$99,574.82
Placed in Service	January 2015	Assigned Reserves	\$99,574.82
Useful Life	5		
Replacement Year	2020	Monthly Assessment	\$382.24
Remaining Life	0	Interest Contribution	\$2.29
		Reserve Allocation	\$384.53



Remarks:

This item is the sealcoating of the common area streets and pool parking lot.

The common road way is SE Mountain High Drive; SW Mountain High Drive, and Mountain High Loop.

If applicable, the useful life of this component is predicated on the assumption the component was properly installed or applied.

The cost and useful life assumptions are based on accepted industry estimates as established by RS Means, Craftsman, Marshall Swift, The National Construction Estimator, National Repair and Remodel Estimator, Dodge Cost Manual, McGraw Hill Professional, assorted independent contractors, various specialists, assorted vendors catalogues, actual quotations or historical costs, Consultant's own experience in like components or as provided by the Client.

The Association should obtain a bid to confirm this estimate.

These costs do not take into consideration any changes to the building code.

Note: This is a provision for an anticipated expense. Should the Association find that the cost of this item is greater or less than the amount provided for herein, this reserve study should be updated to reflect the actual component cost.

**ASSOCIATION RESOLUTION FOR REVENUE RULING 70-604 ELECTION
EXCESS INCOME APPLIED TO THE FOLLOWING YEAR'S ASSESSMENTS**

**RESOLUTION MUST BE VOTED ON BY THE MEMBERSHIP
AT THE ANNUAL MEETING IF FILING AS A 1120 STANDARD CORPORATION**

ANNUAL RESOLUTION OF THE (Association)_____

**RE: EXCESS INCOME APPLIED TO THE FOLLOWING YEAR'S
ASSESSMENTS REVENUE RULING 70-604**

**WHEREAS, The (Association)_____ is a (State)
_____ corporation duly organized and existing under the laws of the State of
(State) _____;**

and

**WHEREAS, The members desire that the corporation shall act in full accordance with the
rulings and regulations of the Internal Revenue Service;**

and

**NOW, THEREFORE, the members hereby adopt the following resolution by and on behalf
of the (Association) _____:**

**RESOLVED, that any excess of membership income over membership expenses for the
year ending _____ 20__ shall be applied against the subsequent tax
year member assessment as provided by IRS Revenue Ruling 70-604.**

**This resolution was voted on and made a part of the minutes of the annual meeting of
(Association) _____.**

**BY: _____
President**

**ATTESTED: _____
Secretary**

Form compliant with IRS Ruling 70-604

FUNDING GOALS AND FUNDING PLANS

EXPLANATION OF FUNDING GOALS

In a **Full Reserve Study**, the reserve provider conducts a component inventory, a condition assessment (based upon on-site visual observations), and life and valuation estimates to determine both a “fund status” and “funding plan”.

In an **Update with site inspection**, the reserve provider conducts a component inventory (verification only, not quantification unless new components have been added to the inventory), a condition assessment (based upon on-site visual observations), and life and valuation estimates to determine both the “fund status and “funding plan.”

In an **Update without site inspection**, the reserve provider conducts life and valuation estimates to determine the “fund status” and “funding plan.”

EXPLANATION OF FUNDING PLANS

Baseline Funding Model. The goal of this funding method is to keep the reserve cash balance above zero. This means that while each individual component may not be fully funded, the reserve balance overall does not drop below zero during the projected period. An association using this funding method must understand that even a minor reduction in a component’s remaining useful life can result in a deficit in the reserve cash balance.
Greatest risk to Client for a special assessment

Threshold Funding Model. This method is based upon the cash flow funding concept. The minimum reserve cash balance in threshold funding, however, is set at a predetermined dollar amount (other than \$0) and Client must select a dollar amount. **Lesser risk to Client for a special assessment**

Full Funding Model (Proportional Funding)---Given that the basis of funding for reserves is to distribute the costs of the replacements over the lives of the components in question, it follows that the ideal level of reserves will be proportionately related to those lives and costs. If an association has a component with an expected estimated useful life of ten years, it will set aside approximately one-tenth of the replacement cost each year. At the end of three years, one will expect three-tenths of the replacement cost to have accumulated, and if so, that component will be “fully-funded.” This model is important in that it is a measure of the adequacy of an association’s reserves at any one point of time, and is independent of any particular method which may have been used for past funding or may be under consideration for future funding. This formula represents a snapshot in time and is based upon current replacement cost, independent of future inflationary or investment factors:

Fully Funded Reserves = **Age divided by Useful Life the results multiplied by Current Replacement Cost**

When an association’s total accumulated reserves for all components meet this criterion, its reserves are considered “fully-funded.” **Least risk to Client for a special assessment.**

Mountain High (Roads) HOA

Maintenance Plan

The current maintenance plan prepared by Reserve Studies by RF is attached as an addendum to this reserve study by separate document. The reserve study and the maintenance plan should be filed together as one document.

Each year, during the update process whether Level II or Level III, the maintenance plan should be updated and revised as required.

The maintenance plan should be used as a guide for the timing of maintenance procedures and the forms attached to the maintenance plan used in order to have an on-going record of maintenance done.

This maintenance plan may be the original maintenance plan done (Level 1) or an update of a previous maintenance plan.

If component materials have been changed or substituted the Client should notify Reserve Studies by RF so that changes can be taken into consideration during the preparation of the reserve study.

**Mountain High (Roads) HOA
Member Summary Report**

Description	Date In Service	Replacement Year	Current Cost	Useful Life	Adjustment	Remaining	Future Cost	Quantity	Unit Cost
Asphalt: Overlay-Replace-Common	2000	2025	530,399	25	0	5	579,884	250188 @	2.12
Asphalt: Repair-Common	2015	2020	31,105	5	0	0	31,105	250188 @	4.97
Asphalt: Sealcoat-Common	2015	2020	99,575	5	0	0	99,575	250188 @	0.40

Important Information About Your Reserve Study

Important Information

This document has been provided pursuant to an agreement containing restrictions on its use. No part of this document may be copied or distributed, in any form or by any means, nor disclosed to third parties without the expressed written permission of Reserve Studies by RF©. The client shall have the right to reproduce and distribute copies of this report, or the information contained within, as may be required for compliance with all applicable regulations.

This reserve analysis study and the parameters under which it has been completed are based upon information provided to us in part by representatives of the association, its contractors, assorted vendors, specialist and independent contractors, the Community Association Institute, Association of Professional Reserve Analyst and various construction pricing and scheduling manuals including, but not limited to: Marshall & Swift Valuation Service, RS Means Facilities Maintenance & Repair Cost Data, RS Means Repair & Remodeling Cost Data, National Construction Estimator, National Repair & Remodel Estimator, Dodge Cost Manual and McGraw-Hill Professional. Additionally, costs are obtained from numerous vendor catalogues, actual quotations or historical costs, and our own experience in the field of property management and Reserve Study preparation.

It has been assumed, unless otherwise noted in this report, that all assets have been designed and constructed properly and that each estimated useful life will approximate that of the norm per industry standards and/or manufacturer's specifications. In some cases, estimates may have been used on assets, which have an indeterminable but potential liability to the association. The decision for the inclusion of these as well as all assets considered is left to the client.

We recommend that your reserve analysis study be updated on an annual basis due to fluctuating interest rates, inflationary changes, and the unpredictable nature of the lives of many of the assets under consideration (our contract provides that we shall update the Reserve Study annually). All of the information collected during our physical analysis of the association and computations made subsequently in preparing this reserve analysis study are retained in our computer files. Therefore, annual updates may be completed quickly and inexpensively each year.

Reserve Studies by RF© would like to thank you for using our services. We invite you to call us at any time, should you have questions, comments or need assistance. In addition, any of the parameters and estimates used in this study may be changed at your request, after which we will provide a revised study. Client shall accept all responsibility and liability for changes made and the results thereof. Consultant does not warranty the results of the revised study.

This reserve analysis study is provided as an aid for planning purposes and not as an accounting tool. Since it deals with events yet to take place, there is no assurance that the results enumerated within it will, in fact, occur as described.

Introduction

Preparing the annual budget and overseeing the association's finances are perhaps the most important responsibilities of board members. The annual operating and reserve budgets reflect the planning and goals of the association and set the level and quality of service for all of the association's activities.

Funding Options

When a major repair or replacement is required in a community, an association has essentially four options available to address the expenditure:

The first, and only logical means that the Board of Directors has to ensure its ability to maintain the assets for which it is obligated, is by **assessing an adequate level of reserves** as part of the regular membership assessment, thereby distributing the cost of the replacements uniformly over the entire membership. The community is not only comprised of present members, but also future members. Any decision by the Board of Directors to adopt a calculation method or funding plan which would disproportionately burden future members in order to make up for past reserve deficits, would be a breach of its fiduciary responsibility to those future members. Unlike individuals determining their own course of action, the board is responsible to the “community” as a whole.

Whereas, if the association was setting aside reserves for this purpose, using the vehicle of the regularly assessed membership dues, it would have had the full term of the life of the roof, for example, to accumulate the necessary monies. Additionally, those contributions would have been evenly distributed over the entire membership and would have earned interest as part of that contribution.

The second option is for the association to **acquire a loan** from a lending institution in order to effect the required repairs. In many cases, banks will lend to an association using “future homeowner assessments” as collateral for the loan. With this method, the current board is pledging the future assets of an association. They are also incurring the additional expense of interest fees along with the original principal amount. In the case of a \$150,000 roofing replacement, the association may be required to pay back the loan over a three to five year period, with interest.

The third option, too often used, is simply to **defer the required repair or replacement**. This option, which is not recommended, can create an environment of declining property values due to expanding lists of deferred maintenance items and the association’s financial inability to keep pace with the normal aging process of the common area components. This, in turn, can have a seriously negative impact on sellers in the association by making it difficult, or even impossible, for potential buyers to obtain financing from lenders. Increasingly, lending institutions are requesting copies of the association’s most recent Reserve Study before granting loans, either for the association itself, a prospective purchaser, or for an individual within such an association.

The fourth option is to pass a “**special assessment**” to the membership in an amount required to cover the expenditure. When a special assessment is passed, the association has the authority and responsibility to collect the assessments, even by means of foreclosure, if necessary. However, an association considering a special assessment cannot guarantee that an assessment, when needed, will be passed. Consequently, the association cannot guarantee its ability to perform the required repairs or replacements to those major components for which it is obligated when the need arises. Additionally, while relatively new communities require very little in the way of major “reserve” expenditures, associations reaching 12 to 15 years of age and older, find many components reaching the end of their effective useful lives. These required expenditures, all accruing at the same time, could be devastating to an association’s overall budget.

Types of Reserve Studies

Most reserve studies fit into one of three categories:

Full Reserve Study;

Update with site inspection; and

Update without site inspection.

In a **Full Reserve Study**, the reserve provider conducts a component inventory, a condition assessment (based upon on-site visual observations), and life and valuation estimates to determine both a “fund status” and “funding plan”.

In an **Update with site inspection**, the reserve provider conducts a component inventory (verification only, not quantification unless new components have been added to the inventory), a condition assessment (based upon on-site visual observations), and life and valuation estimates to determine both the “fund status and “funding plan.”

In an **Update without site inspection**, the reserve provider conducts life and valuation estimates to determine the “fund status” and “funding plan.”

The Reserve Study: A Physical and a Financial Analysis

There are two components of a Reserve Study: a physical analysis and a financial analysis.

Physical Analysis

During the physical analysis, a Reserve Study provider evaluates information regarding the physical status and repair/replacement cost of the association’s major common area components. To do so, the provider conducts a component inventory, a condition assessment, and life and valuation estimates.

Developing a Component List

The budget process begins with full inventory of all the major components for which the association is responsible. The determination of whether an expense should be labeled as operational, reserve, or excluded altogether is sometimes subjective. Since this labeling may have a major impact on the financial plans of the association, subjective determinations should be minimized. We suggest the following considerations when labeling an expense.

Operational Expenses

Occur at least annually, no matter how large the expense, and can be effectively budgeted each year. They are characterized as being reasonably predictable, both in terms of frequency and cost. Operational expenses include all minor expenses, which would not otherwise adversely affect an operational budget from one year to the next. Examples of *some operational expenses* include:

Utilities:	Administrative:	Services:	Repair Expenses:
Electrical/Lights	Supplies	Landscape	Operating Contingency
Water/Irrigation	Bank Service Charges	Reserve Study Costs	
	Insurance		

These are major expenses that occur other than annually, and which must be budgeted in advance in order to ensure the availability of the necessary funds in time for their use. Reserve expenses are reasonably predictable both in terms of frequency and cost. However, they may include significant assets that have an indeterminable but potential liability that may be demonstrated as a likely occurrence. They are expenses that, when incurred, would have a significant effect on the smooth operation of the budgetary process from one year to the next, if they were not reserved in advance. Examples of some reserve expenses include:

Asphalt Seal Coating	Painting-Mail Box Structures
Asphalt Overlays	Lighting Replacement
Asphalt Repair or Replacement	Underground Utilities
Masonry Repair	Concrete Curbs, Sidewalks, Aprons, and Parking Pads
Fencing Repair and Replacement	Insurance Deductible

Budgeting is Normally Excluded for:

Repairs or replacements of assets which are deemed to have an estimated useful life equal to or exceeding the estimated useful life of the facility or community itself, or exceeding the legal life of the community as defined in an association's governing documents. Examples include the complete replacement of masonry walls and concrete. Also excluded are insignificant expenses that may be covered either by an operating or reserve contingency, or otherwise in a general maintenance fund. Expenses that are necessitated by acts of nature, accidents, or other occurrences that are more properly insured, rather than reserved, are also excluded.

Financial Analysis

The financial analysis assesses the association's reserve balance or "fund status" (measured in cash or as percent fully funded) to determine a recommendation for the appropriate reserve contribution rate in the future, known as the "funding plan."

Preparing the Reserve Study

Once the reserve assets have been identified and quantified, their respective replacement costs, useful lives, and remaining lives must be assigned so that a funding schedule can be constructed. Replacement costs and useful lives can be found in published manuals such as construction estimators, appraisal handbooks, and valuation guides. Remaining lives are calculated from the useful lives and ages of assets and adjusted according to conditions such as design, manufactured quality, usage, exposure to the elements, and maintenance history.

By following the recommendations of an effective Reserve Study, the association should avoid any major shortfalls. However, to remain accurate, the report should be updated on an annual basis to reflect such changes as shifts in economic parameters, additions of phases or assets, or expenditures of reserve funds. The association can assist in simplifying the reserve analysis update process by keeping accurate records of these changes throughout the year.

Funding Methods

From the simplest to the most complex, reserve analysis providers use many different computational processes to calculate reserve requirements. However, there are two basic processes identified as industry standards: the cash flow method and the component method.

The cash flow method develops a reserve-funding plan 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 actual anticipated schedule of reserve expenses until the desired funding goal is achieved. This method sets up a “window” in which all future anticipated replacement costs are computed, based upon the individual lives of the components under consideration. The Reserve Studies by RF© Threshold and the Reserve Studies by RF© Current Assessment funding models are based upon the cash flow method.

The component method develops a reserve-funding plan where the total contribution is based upon the sum of contributions for individual components. The component method is the more conservative of the two funding options, and assures that the association will achieve and maintain an ideal level of reserve over time. This method also allows for computations on individual components in the analysis. The Reserve Studies by RF© Component Funding model is based upon the component methodology.

Funding Strategies

Once an association has established its funding goals, the association can select an appropriate funding plan. There are four basic strategies from which most associations select. It is recommended that associations consult professionals to determine the best strategy or combination of plans that best suit the association's need. Additionally, associations should consult with their financial advisor to determine the tax implications of selecting a particular plan. Further, consultation with the American Institute of Certified Public Accountants (AICPA) for their reporting requirements is advisable. The four funding plans and descriptions of each are detailed below. Associations will have to update their reserve studies more or less frequently depending on the funding strategy they select.

Full Funding---Given that the basis of funding for reserves is to distribute the costs of the replacements over the lives of the components in question, it follows that the ideal level of reserves would be proportionately related to those lives and costs. If an association has a component with an expected estimated useful life of ten years, it would set aside approximately one-tenth of the replacement cost each year. At the end of three years, one would expect three-tenths of the replacement cost to have accumulated, and if so, that component would be "fully-funded." This model is important in that it is a measure of the adequacy of an association's reserves at any one point of time, and is independent of any particular method which may have been used for past funding or may be under consideration for future funding. This formula represents a snapshot in time and is based upon current replacement cost, independent of future inflationary or investment factors:

Fully Funded Reserves = **Age** divided by **Useful Life** the results multiplied by **Current Replacement Cost**

When an association's total accumulated reserves for all components meet this criterion, its reserves are considered "fully-funded."

The Reserve Studies by RF© **Threshold Funding Model (Minimum Funding)**. The goal of this funding method is to keep the reserve cash balance above zero. This means that while each individual component may not be fully funded, the reserve balance overall does not drop below zero during the projected period. An association using this funding method must understand that even a minor reduction in a component's remaining useful life can result in a deficit in the reserve cash balance.

The Reserve Studies by RF © **Threshold Funding Model**. This method is based upon the cash flow funding concept. The minimum reserve cash balance in threshold funding, however, is set at a predetermined dollar amount (other than \$0).

The Reserve Studies by RF © **Current Assessment Funding Model**. This method is also based upon the cash flow funding concept. The initial reserve assessment is set at the association's current fiscal year funding level and a 30-year projection is calculated to illustrate the adequacy of the current funding over time.

The Reserve Studies by RF © **Component Funding Model**. This is a straight-line funding model. It distributes the cash reserves to individual reserve components and then calculates what the reserve assessment and interest contribution (minus taxes) should be, again by each reserve component. The current annual assessment is then determined by summing all the individual component assessments, hence the name “Component Funding Model”. This is the most conservative funding model. It leads to or maintains the fully funded reserve position. The following details this calculation process.

Distribution of Reserves

Component Funding Model Distribution of Accumulated Reserves

The “Distribution of Accumulated Reserves Report” is a “Component Funding Model” calculation. This distribution **does not** apply to the cash flow funding models.

When calculating reserves based upon the component methodology, a beginning reserve balance must be allocated for each of the individual components considered in the analysis, before the individual calculations can be completed. When this distribution is not available, or of sufficient detail, the following method is suggested for allocating reserves:

The first step the program performs in this process is subtracting, from the total accumulated reserves, any amounts for assets that have predetermined (fixed) reserve balances. The user can “fix” the accumulated reserve balance within the program on the individual asset’s detail page. If, by error, these amounts total more than the amount of funds available, then the remaining assets are adjusted accordingly. A provision for a contingency reserve is then deducted by the determined percentage used, and if there are sufficient remaining funds available.

The second step is to identify the ideal level of reserves for each asset. As indicated in the prior section, this is accomplished by evaluating the component’s age proportionate to its estimated useful life and current replacement cost. Again, the equation used is as follows:

Fully Funded Reserves = (Age/Useful Life) x Current Replacement Cost

The Reserve Studies by RF® software program performs the above calculations to the actual month the component was placed-in-service. The program projects that the accumulation of necessary reserves for repairs or replacements will be available on the first day of the fiscal year in which they are scheduled to occur.

The next step the program performs is to arrange all of the assets used in the study in ascending order by remaining life, and alphabetically within each grouping of remaining life items. These assets are then assigned their respective ideal level of reserves until the amount of funds available is depleted, or until all assets are appropriately funded. If any assets are assigned a zero remaining life (scheduled for replacement in the current fiscal year), then the amount assigned equals the current replacement cost and funding begins for the next cycle of replacement. If there are insufficient funds available to accomplish this, then the software automatically adjusts the zero remaining life items to one year, and that asset assumes its new grouping position alphabetically in the final printed report.

If, at the completion of this task, there are additional moneys that have not been distributed, the remaining reserves are then assigned, in ascending order, to a level equal to, but not exceeding, the current replacement cost for each component. If there are sufficient moneys available to fund all assets at their current replacement cost levels, then any excess funds are designated as such and are not factored into any of the report computations. If, at the end of this assignment process there are designated excess funds, they can be used to offset the annual contribution requirements recommended, or used in any other manner the client may desire.

Assigning the reserves in this manner defers the make-up period for any under-funding over the longest remaining life of all assets under consideration, thereby minimizing the impact of any deficiency. For example, if the report indicates an under funding of \$50,000, this under-funding will be assigned to components with the longest remaining lives in order to give more time to “replenish” the account. If the \$50,000 under-funding were to be assigned to short remaining life items, the impact would be felt immediately.

If the reserves are under-funded, the annually contribution requirements, as outlined in this report, can be expected to be higher than normal. In future years, as individual assets are replaced, the funding requirements will return to their normal levels. In the case of a large deficiency, a special assessment may be considered. The program can easily generate revised reports outlining how the annual contributions would be affected by such an adjustment, or by any other changes that may be under consideration.

Funding Reserves

Three assessment and contribution figures are provided in the report, the “Annual Reserve Assessment Required”, the “Average Net Annual Interest Earned” contribution and the “Total Annual Allocation to Reserves.” The association should allocate the “Annual Reserve Assessment Required” amount to reserves each month when the interest earned on the reserves is left in the reserve accounts as part of the contribution. Any interest earned on reserve deposits, must be left in the reserve account and only amounts set aside for taxes should be removed .

The second alternative is to allocate the "Total Annual Allocation" to reserves (this is the member assessment plus the anticipated interest earned for the fiscal year. This method assumes that all interest earned will be assigned directly as operating income. This allocation takes into consideration the anticipated interest earned on accumulated reserves regardless of whether or not it is actually earned. When taxes are paid, the amount due will be taken directly from the association's operating accounts as the reserve accounts are allocating only those moneys net of taxes.

Users' Guide to your Reserve Analysis Study

Part II of your RF© Report contains the reserve analysis study for your association. There are seven types of reports in the study as described below.

Report Summaries

The Report Summary for all funding models lists all of the parameters that were used in calculating the report as well as the summary of your reserve analysis study.

Index Reports

The **Distribution of Accumulated Reserves** report lists all assets in remaining life order. It also identifies the ideal level of reserves that should have accumulated for the association as well as the actual reserves available. This information is valid only for the "Component Funding Model" calculation.

The **Component Listing/Summary** lists all assets by category (i.e. roofing, painting, lighting, etc.) together with their remaining life, current cost, annual reserve contribution, and net annual allocation.

Detail Reports

The Detail Report itemizes each asset and lists all measurements, current and future costs, and calculations for that asset. Provisions for percentage replacements, salvage values, and one-time replacements can also be utilized. These reports can be sorted by category or group.

The numerical listings for each asset are enhanced by extensive narrative detailing factors such as design, manufactured quality, usage, exposure to elements and maintenance history.

The Reserve Studies by RF© Detail Index is an alphabetical listing of all assets, together with the page number of the asset's detail report, the projected replacement year, and the asset number.

Projections

Thirty-year projections add to the usefulness of your reserve analysis study.

Definitions

Report I.D.

Includes the Report Date (example: June 19, 2006), Account Number (example: 9773), and Version (example: 1.0). Please use this information (displayed on the summary page) when referencing your report.

Budget Year Beginning/Ending

The budgetary year for which the report is prepared. For associations with fiscal years ending December 31st, the annual contribution figures indicated are for the 12-month period beginning 1/1/20xx and ending 12/31/20xx.

Number of Units and/or Phases

If applicable, the number of units and/or phases included in this version of the report.

Inflation

This figure (information taken from "Inflationdata.com" and averaged over 5 years is used to approximate the future cost to repair or replace each component in the report. The current cost for each component is compounded on an annual basis by the number of remaining years to replacement, and the total is used in calculating the annual reserve contribution that will be necessary to accumulate the required funds in time for replacement.

Annual Assessment Increase

This represents the percentage rate at which the association will increase its assessment to reserves at the end of each year. For example, in order to accumulate \$10,000 in 10 years, you could set aside \$1,000 per year. As an alternative, you could set aside \$795 the first year and increase that amount by 5% each year until the year of replacement. In either case you arrive at the same amount. The idea is that you start setting aside a lower amount and increase that number each year in accordance with the planned percentage. Ideally this figure should be equal to the rate of inflation. It can, however, be used to aide those associations that have not set aside appropriate reserves in the past, by making the initial year's allocation less formidable.

Investment Yield Before Taxes

The average interest rate anticipated by the association based upon its current investment practices.

Taxes on Interest Yield

The estimated percentage of interest income that will be set aside to pay income taxes on the interest earned.

Projected Reserve Balance

The anticipated reserve balance on the first day of the fiscal year for which this report has been prepared. This is based upon information provided and not audited.

Percent Fully Funded

The ratio, at the beginning of the fiscal year, of the actual (or projected) reserve balance to the calculated fully funded balance, expressed as a percentage.

Phase Increment Detail and/or Age

Comments regarding aging of the components on the basis of construction date or date of acceptance by the association.

Annual Assessment

The assessment to reserves required by the association each annual.

Interest Contribution (After Taxes)

The interest that should be earned on the reserves, net of taxes, based upon their beginning reserve balance and annual contributions for one year. This figure is averaged for budgeting purposes.

Total Annual Allocation

The sum of the annual assessment and interest contribution figures.

Group and Category

The report may be prepared and sorted either by group (location, building, phase, etc.) or by category (roofing, painting, etc.). The standard report printing format is by category.

Percentage of Replacement or Repairs

In some cases, an asset may not be replaced in its entirety or the cost may be shared with a second party. Examples are budgeting for a percentage of replacement of streets over a period of time, or sharing the expense to replace a common wall with a neighboring party.

Placed-In-Service Date

The month and year that the asset was placed-in-service. This may be the construction date, the first escrow closure date in a given phase, or the date of the last servicing or replacement.

Estimated Useful Life

The estimated useful life of an asset based upon industry standards, manufacturer specifications, visual inspection, location, usage, association standards and prior history. All of these factors are taken into consideration when tailoring the estimated useful life to the particular asset. For example, the carpeting in a hallway or elevator (a heavy traffic area) will not have the same life as the identical carpeting in a seldom-used meeting room or office.

Adjustment to Useful Life

Once the useful life is determined, it may be adjusted, up or down, by this separate figure for the current cycle of replacement. This will allow for a current period adjustment without affecting the estimated replacement cycles for future replacements.

Estimated Remaining Life

This calculation is completed internally based upon the report's fiscal year date and the date the asset was placed-in-service.

Replacement Year

The year that the asset is scheduled to be replaced. The appropriate funds will be available by the first day of the fiscal year for which replacement is anticipated.

Annual Fixed Reserves

An optional figure which, if used, will override the normal process of allocating reserves to each asset.

Fixed Assessment

An optional figure which, if used, will override all calculations and set the assessment at this amount. This assessment can be set for monthly, quarterly or annually as necessary.

Salvage Value

The salvage value of the asset at the time of replacement, if applicable.

One-Time Replacement

Notation if the asset is to be replaced on a one-time basis.

Current Replacement Cost

The estimated replacement cost effective at the beginning of the fiscal year for which the report is being prepared.

Future Replacement Cost

The estimated cost to repair or replace the asset at the end of its estimated useful life based upon the current replacement cost and inflation.

Component Inventory

The task of selecting and qualifying reserve components. This task can be accomplished through on-site visual, review of association design and organizational documents, a review of established association precedents, and discussion with appropriate association representative(s).

A Multi-Purpose Tool

Your Reserve Studies by RF © Report is an important part of your association's budgetary process. Following its recommendations should ensure the association's smooth budgetary transitions from one fiscal year to the next, and either decrease or eliminate the need for "special assessments".

In addition, your Reserve Studies by RF© Reserve Study serves a variety of useful purposes:

- Following the recommendations of a Reserve Study performed by a professional consultant can protect the Board of Directors in a community from personal liability concerning reserve components and reserve funding.
- A reserve analysis study is required by your accountant during the preparation of the association's annual audit.
- The Reserve Studies by RF© Reserve Study is often requested by lending institutions during the process of loan applications, both for the community and, in many cases, the individual owners.
- Your Reserve Studies by RF© Report is also a detailed inventory of the association's major assets and serves as a management tool for scheduling, coordinating and planning future repairs and replacements.
- Your Reserve Studies by RF© Report is a tool that can assist the Board in fulfilling its legal and fiduciary obligations for maintaining the community in a state of good repair. If a community is operating on a special assessment basis, it cannot guarantee that an assessment, when needed, will be passed. Therefore, it cannot guarantee its ability to perform the required repairs or replacements to those major components for which the association is obligated.
- Since the Reserve Studies by RF© reserve analysis study includes measurements and cost estimates of the client's assets, the detail reports may be used to evaluate the accuracy and price of contractor bids when assets are due to be repaired or replaced.
- The Reserve Studies by RF© Reserve Study is an annual disclosure to the membership concerning the financial condition of the association, and may be used as a "consumers' guide" by prospective purchasers.
- The Reserve Studies by RF© Owners' Summary meets the disclosure requirements of the Texas Timeshare Act.
- Your Reserve Studies by RF© Report provides a record of the time, cost, and quantities of past reserve replacements. At times the association's management company and board of directors are transitory which may result in the loss of these important records.