

**FULL RESERVE STUDY  
FUNDING ANALYSIS PLAN  
Level I  
MEADOWWOOD GLEN HOMEOWNER'S  
ASSOCIATION**

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## 1.0 INTRODUCTION

Meadowwood Glen Homeowner's Association, through Don Wilhelm, manager, authorized Criterium – Pfaff Engineers to conduct a Property Evaluation and Reserve Fund Study for the Meadowwood Glen Homeowner's Association. Studies of this nature are important to ensure that a community has sufficient funds for long-term, periodic capital expenditure requirements. Anticipating large expenditures over an extended period of time through a structured analysis and scheduling process assists the Association in meeting financial requirements without increasing the service fees above permitted maximums, borrowing the funds, or levying special financial assessments to the owners.

Typically, a community association has **two broad cash requirements: the general operating reserves and the capital repair and replacement reserves**. In this report, we will focus on those items falling under the capital repair and replacement reserve criteria. We have projected a capital repair and replacement reserve for thirty (30) years. The first ten years are the most reliable. According to Washington State Law, this study should be updated annually.

This report is structured to analyze components of the community for which the Association is responsible and to assess a useful expected life and useful remaining life to those components. The anticipated scheduled repair or replacement of the component and the anticipated expense for the activity are then analyzed in conjunction with the current capital reserves funding program for the community. Funding program recommendations are made with the objective of limiting substantial cash excesses while minimizing financial burdens that can result from significant cash inadequacies.

This report is intended to be used as a tool to determine reserve fund allocation requirements for the community, to manage future Association obligations, and to inform the community of future financial needs in general. The report that follows has been prepared from the perspective of what an owner of this property would benefit from knowing. Some items, beyond those of immediate concern, may be discussed. Therefore, the report should be read in its entirety in order to fully understand all of the information that has been obtained.

## 2.0 EXECUTIVE SUMMARY

This homeowners association serves 96 lots. It is a master-planned, residential development located in Liberty Lake, Washington. Construction began in 1997.

Meadowwood Glen includes as common elements several private streets and associated sidewalks - Maxwell Lane, Winchester Lane, Sharp Lane, Sinto Lane, Boone Lane, and Murray Lane - and two monuments at Country Vista/Sharp Lane and Mission/Murray Lane.

In this section of the report, we will address those issues that, in our opinion, will require immediate repair or replacement. For a more detailed discussion of all of our findings and any other material deficiencies that will require repair or replacement over the term of this study, refer to the appropriate sections of this report.

The roads are in good condition with some preventative maintenance needed. There is transverse and longitudinal cracking at most streets that should be cleaned and sealed in the near term. Sealing the roads should also be planned for in the next few years.

The sidewalks are in fair to good condition with some random sections cracked. A few heaved "bridge" sections currently present tripping hazards and should be re-leveled.

The monument at Country Vista and Sharp Lane has some loose letters that need to be repaired. The Mission and Murray Lane monument is in good condition.

There are currently no regular contributions being made to the capital repair and replacement reserves. Based on our evaluation, **the current level of funding of the reserve for the common areas is not adequate, and a funding increase is recommended.** A more detailed analysis of the reserve funds has been provided in Appendix A.

There are, of course, other capital expenditures to be expected over the next thirty years. Those items that will require attention are discussed in detail in this report and can be found in their appropriate sections.

For your convenience, we have prepared the following summary of the condition of the major systems of the property. Please refer to the appropriate sections of this report for a more detailed discussion of these systems.

## 3.0 PURPOSE & SCOPE

### 3.1 Purpose

The purpose of this study is to perform a reserve fund analysis. It is intended to be used as a tool for the Meadowwood Glen Homeowner's Association in determining the allocation requirements into the reserve fund in order to meet future anticipated capital expenditures for the community.

This report forecasts obligations for the community thirty years into the future. It should be noted that events might occur that could have an effect

### 3.2 Scope

on the underlying component or system useful life assumptions used in this study. Likewise, inevitable market fluctuations can have an impact on component or system replacement and repair costs. **Therefore, a study such as this should be updated often, in order to reflect the most accurate needs and obligations of the community. According to Washington State Law, this study should be updated annually.**

This study has been performed according to the scope as generally defined by Don Wilhelm and Criterium – Pfaff Engineers. The findings and recommendations are based on interviews with the community's management personnel; a review of available documents; and an investigation of the site.

The scope of work meets the requirements presented by the State of Washington. According to the State of Washington, RCW 64.34.380, "...an association shall prepare and update a reserve study..." According to the State, the terminology for this Scope of Work is "Level I: Full reserve study funding analysis and plan".

This study was prepared by a Reserve Study Professional, as defined by State of Washington, RCW 64.34.380.

The guidelines used to determine which physical components within the community are to be included in the component inventory are based on the following general criteria:

1. The component must be a common element, or otherwise noted to be the responsibility of the Association to replace.
2. The component must have an estimated remaining useful life of thirty years or less. As the site ages, additional components may need to be added.
3. The funding for replacement should be from one source only, not funded from another area of the budget or through a maintenance contract.
4. The cost of replacement should be high enough to make it financially unsound to fund it from the operating budget.
5. Components, such as painting, which are considered deferred maintenance, are most appropriately funded from the Operating Budget instead of Reserves.

Our reserve study analysis included evaluating the following association property:

- **Site and Grounds:** In general, the common elements include the entry monuments. We have excluded mailboxes, electrical equipment and lighting, and irrigation systems.
- **Private Streets, Sidewalks and Curbs:** The association maintains several private asphalt paved streets, and concrete sidewalks.

For a complete inventory, please see Appendix B. The common element inventory was obtained from Don Wilhelm and by our inspection of the

site.

This study estimates the funding levels required for maintaining the long term viability of the facility. Our approach involves:

1. Examining association managed equipment, buildings and site facilities.
2. Predicting their remaining service life and, approximating how frequently they will require repair or replacement.
3. Estimating repair or replacement costs (in 2012 dollars) for each capital item.
4. Using data developed in Steps 1, 2 and 3 to project Capital Reserve balances for Years 1 through 30.

The statements in this report are opinions about the present condition of the subject community. They are based on visual evidence available during a diligent investigation of all reasonably accessible areas falling under the responsibility of the Association. We did not remove any surface materials, perform any destructive testing, or move any furnishings. This study is not an exhaustive technical evaluation. Such an evaluation would entail a significantly larger scope than this effort. For additional limitations, see Section 8.0.

### 3.3 Sources of Information

Onsite inspection of the property occurred on the following date:

- 22 March 2012.

The following people were interviewed during our study:

- Don Wilhelm-Manager.

The following documents were made available to us and reviewed:

- Inventory list (provided by Mr. Wilhelm)

We based our cost estimates on some or all of the following:

- R.S. Means
- Our data files on similar projects
- Local contractors

### 3.4 Standards of Reference

For your reference, the following definitions may be helpful:

*Excellent:* Component or system is in "as new" condition, requiring no rehabilitation and should perform in accordance with expected performance.

*Good:* Component or system is sound and performing its function, although it may show signs of normal wear and tear. Some minor rehabilitation work may be required.

*Fair:* Component or system falls into one or more of the following categories: a) Evidence of previous repairs not in compliance with commonly accepted practice, b) Workmanship not in compliance with commonly accepted standards, c) Component or system is obsolete, d) Component or system approaching end of expected performance. Repair or

replacement is required to prevent further deterioration or to prolong expected life.

*Poor:* Component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its expected performance, excessive deferred maintenance, or state of disrepair. Present condition could contribute to or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.

*Adequate:* A component or system is of a capacity that is defined as enough for what is required, sufficient, suitable, and/or conforms to standard construction practices.

All ratings are determined by comparison to other buildings of similar age and construction type. Further, some details of workmanship and materials will be examined more closely in higher quality buildings where such details typically become more relevant.

All directions (left, right, rear, etc.), when used, are taken from the viewpoint of an observer standing in front of a building and facing it.

*Repair/Replacement Reserves* - Non-annual maintenance items that will require significant expenditure over the life of the buildings. Included are items that will reach the end of their estimated useful life during the course of this forecast, or, in the opinion of the investigator, will require attention during that time.

#### 4.0 DESCRIPTION

Meadowood Glen Homeowners Association serves 96 paying units located in Liberty Lake, Washington. The common elements include several private roads with associated sidewalks and two monuments. Construction began in 1997.

Meadowood Glen includes as common elements several private streets and associated sidewalks -Maxwell Lane, Winchester Lane, Sharp Lane, Sinto Lane, Boone Lane, and Murray Lane, and two monuments at Country Vista/Sharp Lane and Mission/Murray Lane.

We have assumed that these were constructed in 1997. We understand that there are 96 paying units in this HOA.

Our study does not include the landscaping, mailboxes, irrigation systems, electrical equipment and lighting which we understand are maintained from the annual budget.

#### 5.0 OBSERVATIONS

The following key observations were made about the current condition of the common elements of the property.

In general for all of the paved roads, preventative maintenance includes crack repair, drainage maintenance, patching of damaged areas and regular sealing. For a residential road, we recommend sealcoating every 7 years. This helps seal small cracks, reduce moisture penetration, and UV sun damage. Both crack sealing and sealcoating provide best results when the

sealants are "squeegeed" into the surface. Proper repair of asphalt cracks includes routing the crack, and pneumatically cleaning it out, then injection of a quality asphalt emulsion sealant into the crack. The roads should be observed and any open cracks or damaged areas should be repaired annually.

Water is the major cause of street deterioration. Water should drain away from the asphalt. Areas with water found to be "ponding" on the streets should be built-up, sloped, or otherwise drained to prevent destabilizing the sub-base.

The 30 foot wide asphalt paved streets are in good condition. Some typical cracking was noted, particularly at the pavement "joints". This can lead to moisture penetration and resulting destabilization of the sub-base and damage to the streets. While it appears that maintenance to the roads has been minimal, no areas of significant damage were observed. We noted slight ponding at Maxwell and Murray. This should be kept under observation. If this is a persistent problem, spot repairs would be indicated.

With good maintenance, paved roads have an expected useful life (EUL) of 25 years. We have planned for crack repair and sealing the roads in year 2 and every 7 years thereafter. An overlay of Sharp, Sinto, and Murray is planned for year 15. To help delay the costs, an overlay of Maxwell, Winchester, and Boone is planned for year 20.

The 6 foot wide concrete sidewalks are in fair to good condition. "Rolled curbs" are provided along the streets and are in good condition. Random areas of the sidewalks have cracked, probably due to poor compaction of the sub-base or heavy equipment loads during construction. Some sections of the sidewalks have concrete "bridges" over drainage outlets. A few areas have uneven joints at the bridges which could lead to tripping and catching bicycle or chair tires. These bridges should be adjusted to eliminate these problems.

Concrete flatwork has a published expected useful life (EUL) of 30 years, however, we believe in this area and this situation, the sidewalks and courts can last indefinitely with regular maintenance. This places the sidewalk replacement outside of the 30 year analysis. We have allowed for spot repairs and replacement of deteriorated sections (5% of the total) in year 5 of the analysis and another 5% in year 20.

The monument at Country Vista and Sharp Lane is constructed of stones with metal lettering set into the stones and includes electrical power and lighting. The stones are in generally good condition. Some of the letters are loose and are in need of repair in the near term. This should be a relatively low cost item from the maintenance budget.

The monument at Mission and Murray Lane consists of an engraved stone set in a bed of gravel and additional stones and includes lighting and electrical power. This is in good condition.



## 6.0 RESERVE FUND ANALYSIS

With regular maintenance, these monuments should last indefinitely. We have allowed for replacing the metal letters in year 10 and every 10 years thereafter.

Using software developed by Criterium Engineers and KPMG Peat Marwick, we have analyzed capital reserves draw-down for the projected capital expenditures to determine the amount needed. **The following is a projected reserve fund analysis for non-annual items as discussed in the report.** This projection takes into consideration a reasonable return on invested moneys and inflation. Please review this thoroughly and let us know of any changes that may be desired.

The intent of this reserve fund projection is to help the Association develop a reserve fund to provide for anticipated repair or replacements of various system components during the next thirty years.

The capital items listed are those that are typically the responsibility of the Association and are derived from documents provided by Don Wilhelm. However, association by-laws vary, and therefore, which components are the responsibility of the owner and which are the responsibility of the Association can vary. The Meadowwood Glen Homeowner's Association should confirm that the items listed should be financed by the reserve fund.

This projection provides the following:

- An input sheet that defines all the criteria used for the financial alternatives, including the assumed inflation rate and rate of return on deposited reserve funds.
- A table that lists anticipated replacement and/or repair items complete with estimated remaining life expectancies, projected costs of replacement and/or repair, a frequency in years of when these items require replacement and/or repair, and a projection based on this frequency.
- A table that represents end of year balances and capital expenditures based on your current funding program and reserve balances, and alternatives to your current program.
- Since none of the Associations have any current funding, increases are recommended in each case.
- The Association should bear in mind that unanticipated expenditures can always arise and maintenance of a significant reserve fund balance can be viewed as a way to avoid special assessments. We suggest and have assumed maintaining a minimum reserve balance of \$5,000.00.

We have considered three alternatives to compare to your current funding program and recommend that the board adopt an alternative that best reflects the objectives of the community. Please keep in mind that there are a myriad of possible alternatives. As advised by Don Wilhelm, we have assumed a 0.4% return on investment and a 2.5% inflation rate. We

have shown three different types of possibilities. In summary they are as follows:

**Current Funding Rate:** No funds are currently being contributed.

- **Alternative 1:** Set the contribution immediately to \$250.00 per unit per year, then increase the contribution to 25% in year 6, year 11, and again in year 16 to \$325.00 per unit per year at year 16. This alternative will maintain the minimum balance.
- **Alternative 2:** Set the contribution amount immediately to \$250.00 per unit per year and increase the contribution 8% in year 3, year 5, and year 7 to \$291.60 per unit per year following year 7. This alternative will maintain the minimum balance.
- **Alternative 3:** Set the contribution amount immediately to \$200.00 per unit per year and levy a special assessment of \$1000.00 per unit in year 5 and another special assessment of \$1000.00 per unit in year 10. This alternative will maintain the minimum balance.

Addendum A lists estimated capital reserves over the analysis period.

With no contributions, the development is underfunded.

In summary, the common elements are in generally good condition and with good maintenance, should provide adequate service throughout their useful lives. It does not appear that the streets have been maintained and maintenance is needed to prevent deterioration. Some sidewalk damage has occurred and we have allowed for some replacement.

**The association needs to begin contributing to the reserve accounts to maintain these common elements.** Three suggested alternatives and contribution levels are provided for each development.

## 7.0 CONCLUSION

## 8.0 LIMITATIONS

The observations described in this study are valid on the date of the investigation and have been made under the conditions noted in the report. We prepared this study for the exclusive use of Meadowwood Glen Homeowner's Association. Criterium – Pfaff Engineers does not intend any other individual or party to rely upon this study without our express written consent. If another individual or party relies on this study, they shall indemnify and hold Criterium – Pfaff Engineers harmless for any damages, losses, or expenses they may incur as a result of its use.

This study is limited to the visual observations made during our inspection. We did not remove surface materials, conduct any destructive or invasive testing, move furnishings or equipment, or undertake any digging or excavation. Accordingly, we cannot comment on the condition of systems that we could not see, such as buried structures and utilities, nor are we responsible for conditions that could not be seen or were not within the scope of our services at the time of the investigation. We did not undertake to completely assess the stability of the roadways or the underlying soil since this effort would require excavation and destructive testing.

Likewise, this is not a seismic assessment.

We did not investigate the following areas:

- Buried utilities or infrastructure
- Concealed structural members or systems

We do not render an opinion on uninvestigated portions of the community.

We did not perform any computations or other engineering analysis as part of this evaluation, nor did we conduct a comprehensive code compliance investigation. This study is not to be considered a warranty of condition, and no warranty is implied. The appendices are an integral part of this report and must be included in any review.

In our Reserve Fund Analysis, we have provided estimated costs. These costs are based on our general knowledge of building systems and the contracting and construction industry. When appropriate, we have relied on standard sources, such as Means Building Construction Cost Data, to develop estimates. However, for items that we have developed costs (e.g.: structural repairs), no standard guide for developing such costs exists. Actual costs can vary significantly, based on the availability of qualified contractors to do the work, as well as many other variables. We cannot be responsible for the specific cost estimates provided.

We have performed no design work as part of this study, nor have we obtained competitive quotations or estimates from contractors as this also is beyond the scope of the project. The actual cost to remedy deficiencies and deferred maintenance items that we have identified may vary significantly from estimates and competitive quotations from contractors.

If you have any questions about this study or the reserve fund analysis, please feel free to contact us. Thank you for the opportunity to be of assistance to you.

Respectfully submitted,

Kenneth Pfaff, P.E.  
Criterium – Pfaff Engineers

**Reserve Fund Worksheet**



Fiscal Years:

Normal: Jan 2012

Partial: Jan 2012 (12 months)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

**Existing Funding Levels**

Beginning Reserve Fund Balance:	\$100	\$100	\$101	(\$45,303)	(\$45,303)	(\$45,303)	(\$54,179)	(\$54,179)	(\$54,179)	(\$54,179)	(\$108,150)	(\$109,206)	(\$109,206)	(\$109,206)	(\$109,206)	(\$109,206)
Revenue:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessments:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Expenditures:	\$0	\$0	\$45,404	\$0	\$0	\$8,876	\$0	\$0	\$0	\$33,971	\$1,056	\$0	\$0	\$0	\$0	\$0
Ending Reserve Balance:	\$100	\$101	(\$45,303)	(\$45,303)	(\$45,303)	(\$54,179)	(\$54,179)	(\$54,179)	(\$54,179)	(\$108,150)	(\$109,206)	(\$109,206)	(\$109,206)	(\$109,206)	(\$109,206)	(\$109,206)

**Alternative 1, Level Funding with Steps**

Average Cap. Expenditure \$21,804

Beginning Reserve Fund Balance:	\$100	\$24,196	\$48,389	\$27,093	\$51,298	\$75,599	\$93,495	\$120,375	\$147,362	\$174,457	\$147,474	\$175,918	\$205,537	\$235,275	\$265,131	\$295,107
Revenue:	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$26,400	\$26,400	\$26,400	\$26,400	\$26,400	\$28,800	\$28,800	\$28,800	\$28,800	\$28,800	\$31,200
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$96	\$193	\$108	\$204	\$301	\$372	\$480	\$587	\$695	\$588	\$701	\$819	\$937	\$1,056	\$1,176	\$352
Capital Expenditures:	\$0	\$0	\$45,404	\$0	\$0	\$8,876	\$0	\$0	\$0	\$53,971	\$1,056	\$0	\$0	\$0	\$0	\$0
Ending Reserve Balance:	\$24,196	\$48,389	\$27,093	\$51,298	\$75,599	\$93,495	\$120,375	\$147,362	\$174,457	\$147,474	\$175,918	\$205,537	\$235,275	\$265,131	\$295,107	\$388,385

**Alternative 2, Escalating Funding at 8% per Year**

Beginning Reserve Fund Balance:	\$100	\$24,196	\$48,389	\$29,021	\$55,161	\$83,487	\$103,015	\$131,532	\$160,164	\$188,910	\$163,585	\$191,284	\$220,155	\$249,141	\$278,243	\$307,462
Revenue:	\$24,000	\$24,000	\$25,920	\$25,920	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$96	\$193	\$116	\$220	\$333	\$410	\$524	\$638	\$753	\$652	\$762	\$877	\$993	\$1,109	\$1,225	\$389
Capital Expenditures:	\$0	\$0	\$45,404	\$0	\$0	\$8,876	\$0	\$0	\$0	\$53,971	\$1,056	\$0	\$0	\$0	\$0	\$0
Ending Reserve Balance:	\$24,196	\$48,389	\$29,021	\$55,161	\$83,487	\$103,015	\$131,532	\$160,164	\$188,910	\$163,585	\$191,284	\$220,155	\$249,141	\$278,243	\$307,462	\$397,370

**Alternative 3, Escalating Funding with Special Assessments**

Beginning Reserve Fund Balance:	\$100	\$19,377	\$38,732	\$12,578	\$31,905	\$147,693	\$158,649	\$178,560	\$198,552	\$218,623	\$280,587	\$299,926	\$320,403	\$340,961	\$361,602	\$382,325
Revenue:	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$77	\$154	\$50	\$127	\$588	\$632	\$711	\$791	\$871	\$735	\$1,195	\$1,277	\$1,358	\$1,441	\$1,523	\$653
Capital Expenditures:	\$0	\$0	\$45,404	\$0	\$0	\$8,876	\$0	\$0	\$0	\$53,971	\$1,056	\$0	\$0	\$0	\$0	\$0
Ending Reserve Balance:	\$19,377	\$38,732	\$12,578	\$31,905	\$147,693	\$158,649	\$178,560	\$198,552	\$218,623	\$280,587	\$299,926	\$320,403	\$340,961	\$361,602	\$382,325	\$479,694

**Reserve Fund Worksheet**

Fiscal Years: 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041  
 Normal: Jan 2012  
 Partial: Jan 2012 (12 months) 17 18 19 20 21 22 23 24 25 26 27 28 29 30

**Existing Funding Levels**

Beginning Reserve Fund Balance:	(\$347,480)	(\$411,634)	(\$411,634)	(\$411,634)	(\$411,634)	(\$577,770)	(\$577,770)	(\$577,770)	(\$577,770)	(\$654,030)	(\$654,030)	(\$654,030)	(\$654,030)	(\$654,030)
Revenue:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessments:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Capital Expenditures:	\$64,154	\$0	\$0	\$0	\$166,136	\$0	\$0	\$76,259	\$0	\$0	\$0	\$0	\$0	\$0
Ending Reserve Balance:	(\$411,634)	(\$411,634)	(\$411,634)	(\$411,634)	(\$577,770)	(\$577,770)	(\$654,030)	(\$654,030)	(\$654,030)	(\$654,030)	(\$654,030)	(\$654,030)	(\$654,030)	(\$654,030)

**Alternative 1, Level Funding w**

Beginning Reserve Fund Balance:	\$88,385	\$55,652	\$87,200	\$118,873	\$150,674	\$15,800	\$47,188	\$78,702	\$33,777	\$65,237	\$96,823	\$128,535	\$160,374	\$192,340
Revenue:	\$31,200	\$31,200	\$31,200	\$31,200	\$31,200	\$31,200	\$31,200	\$31,200	\$31,200	\$31,200	\$31,200	\$31,200	\$31,200	\$31,200
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$222	\$347	\$474	\$600	\$63	\$188	\$314	\$135	\$260	\$386	\$512	\$639	\$766	\$894
Capital Expenditures:	\$64,154	\$0	\$0	\$0	\$166,136	\$0	\$0	\$76,259	\$0	\$0	\$0	\$0	\$0	\$0
Ending Reserve Balance:	\$55,652	\$87,200	\$118,873	\$150,674	\$15,800	\$47,188	\$78,702	\$128,535	\$160,374	\$192,340	\$224,434			

**Alternative 2, Escalating Fund**

Beginning Reserve Fund Balance:	\$97,570	\$61,655	\$90,008	\$118,473	\$147,053	\$8,946	\$37,087	\$65,341	\$17,144	\$45,318	\$73,605	\$102,005	\$130,518	\$159,146
Revenue:	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994	\$27,994
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$246	\$359	\$472	\$586	\$36	\$148	\$260	\$68	\$181	\$293	\$406	\$520	\$634	\$749
Capital Expenditures:	\$64,154	\$0	\$0	\$0	\$166,136	\$0	\$0	\$76,259	\$0	\$0	\$0	\$0	\$0	\$0
Ending Reserve Balance:	\$61,655	\$90,008	\$118,473	\$147,053	\$8,946	\$37,087	\$65,341	\$17,144	\$45,318	\$73,605	\$102,005	\$130,518	\$159,146	\$187,888

**Alternative 3, Escalating Fund**

Beginning Reserve Fund Balance:	\$163,904	\$119,425	\$139,180	\$159,013	\$178,926	\$32,118	\$51,523	\$71,006	\$14,003	\$33,336	\$52,746	\$72,234	\$91,799	\$111,443
Revenue:	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200	\$19,200
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$476	\$555	\$634	\$713	\$128	\$205	\$283	\$56	\$133	\$210	\$288	\$366	\$444	\$523
Capital Expenditures:	\$64,154	\$0	\$0	\$0	\$166,136	\$0	\$0	\$76,259	\$0	\$0	\$0	\$0	\$0	\$0
Ending Reserve Balance:	\$119,425	\$139,180	\$159,013	\$178,926	\$32,118	\$51,523	\$71,006	\$14,003	\$33,336	\$52,746	\$72,234	\$91,799	\$111,443	\$131,166

# Reserve Study Worksheet

## General Information:

1 Organization: **Meadowood Glen Homeowner's Association**  
 2 Address: **Liberty Lake, WA**

3	Number of Units	96
4	Age of Building (in years)	15
5a	Study Period (in years)	30
5b	Normal Fiscal Year starts:	<b>January 1, 2012</b>
5c	Partial Fiscal Year starts:	<b>January 1, 2012</b>
5d	Partial Year Length:	<b>12 months</b>
6	Site Inspection Date	<b>March 22, 2012</b>
7	Reserve Funds at start	<b>\$100</b>
8	Rate of Return on invested Reserve Funds (%)	<b>0.4%</b>
9	Inflation Rate (%)	<b>2.5%</b>

## 10 Current Funding Levels

Existing Funding Levels				
	Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Reserve Fund Contribution.....	\$0	\$0	\$0.00	\$0.00
	Years Out	Total Annual	Per Unit	
Planned Special Assessment.....	0	\$0	\$0	
Balance Computed.....	<b>(\$654,030)</b>			

## 11 Alternative Reserve Fund Contribution

Alternative 1 Level Funding with Steps				
	Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year).....	<b>\$2,000</b>	<b>\$24,000</b>	<b>\$20.83</b>	<b>\$250.00</b>
Monthly Amount, (Last Year).....	<b>\$2,600</b>	<b>\$31,200</b>	<b>\$27.08</b>	<b>\$325.00</b>
Balance Required Final Year.....	\$21,804			
Special Assessments:	Years Out	Total/Year	Per Unit	
First Assessment.....	0	\$0	\$0	
Second Assessment.....	0	\$0	\$0	
Balance Computed.....	<b>\$224,434</b>			

Alternative 2 Escalating Funding at 8% per Year				
	Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year).....	<b>\$2,000</b>	<b>\$24,000</b>	<b>\$20.83</b>	<b>\$250.00</b>
Monthly Amount, (Last Year).....	<b>\$2,333</b>	<b>\$27,994</b>	<b>\$24.30</b>	<b>\$291.60</b>
Balance Required Final Year.....	\$21,804			
Base Escalation %.....	8.00%			
Special Assessments:	Years Out	Total/Year	Per Unit	
First Assessment.....	0	\$0	\$0	
Second Assessment.....	0	\$0	\$0	
Balance Computed.....	<b>\$187,888</b>			

Alternative 3 Escalating Funding with Special Assessments				
	Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
Monthly Amount, (First Year).....	<b>\$1,600</b>	<b>\$19,200</b>	<b>\$16.67</b>	<b>\$200.00</b>
Monthly Amount, (Last Year).....	<b>\$1,600</b>	<b>\$19,200</b>	<b>\$16.67</b>	<b>\$200.00</b>
Balance Required Final Year.....	\$21,804			
Base Escalation %.....	0.00%			
Special Assessments:	Years Out	Total/Year	Per Unit	
First Assessment.....	5	Jan 2016	\$96,000	\$1,000
Second Assessment.....	10	Jan 2021	\$96,000	\$1,000
Balance Computed.....	<b>\$131,166</b>			

# Annual Expense By Year



	Year:	2012	2013	2014	2015	2016	2017	2018	2019
	Year Number:	1	2	3	4	5	6	7	8
<b>Site</b>									
Streets-Repair and Seal		0	0	43,216	0	0	0	0	0
Monument-Letter replacement		0	0	0	0	0	0	0	0
Sidewalks-Spot Repair (5%)		0	0	0	0	0	7,845	0	0
Sharp, Sinto, Murray-Overlay		0	0	0	0	0	0	0	0
Maxwell, Winchester, Boone-Overlay		0	0	0	0	0	0	0	0
<b>Building Exterior</b>									
<b>Building Interior</b>									
<b>Mechanical</b>									
<b>Amenities</b>									
<b>Other</b>									
<b>Total Costs</b>		0	0	43,216	0	0	7,845	0	0
<b>Total Costs Adjusted For 2.5% Inflation</b>		0	0	45,404	0	0	8,876	0	0

# Annual Expense By Year



	Year:	2020	2021	2022	2023	2024	2025	2026	2027
	Year Number:	9	10	11	12	13	14	15	16
<b>Site</b>									
Streets-Repair and Seal		0	43,216	0	0	0	0	0	0
Monument-Letter replacement		0	0	825	0	0	0	0	0
Sidewalks-Spot Repair (5%)		0	0	0	0	0	0	0	0
Sharp, Sinto, Murray-Overlay		0	0	0	0	0	0	0	164,520
Maxwell, Winchester, Boone-Overlay		0	0	0	0	0	0	0	0
<b>Building Exterior</b>									
<b>Building Interior</b>									
<b>Mechanical</b>									
<b>Amenities</b>									
<b>Other</b>									
<b>Total Costs</b>		0	43,216	825	0	0	0	0	164,520
<b>Total Costs Adjusted For 2.5% Inflation</b>		0	53,971	1,056	0	0	0	0	238,274



# Annual Expense By Year



	Year:	2028	2029	2030	2031	2032	2033	2034	2035
	Year Number:	17	18	19	20	21	22	23	24
<b>Site</b>									
Streets-Repair and Seal		43,216	0	0	0	0	0	0	43,216
Monument-Letter replacement		0	0	0	0	825	0	0	0
Sidewalks-Spot Repair (5%)		0	0	0	0	7,845	0	0	0
Sharp, Sinto, Murray-Overlay		0	0	0	0	0	0	0	0
Maxwell, Winchester, Boone-Overlay		0	0	0	0	92,718	0	0	0
<b>Building Exterior</b>									
<b>Building Interior</b>									
<b>Mechanical</b>									
<b>Amenities</b>									
<b>Other</b>									
<b>Total Costs</b>		<b>43,216</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>101,388</b>	<b>0</b>	<b>0</b>	<b>43,216</b>
<b>Total Costs Adjusted For 2.5% Inflation</b>		<b>64,154</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>166,136</b>	<b>0</b>	<b>0</b>	<b>76,259</b>

# Annual Expense By Year



Year:	2036	2037	2038	2039	2040	2041
Year Number:	25	26	27	28	29	30
Site						
Streets-Repair and Seal	0	0	0	0	0	0
Monument-Letter replacement	0	0	0	0	0	0
Sidewalks-Spot Repair (5%)	0	0	0	0	0	0
Sharp, Sinto, Murray-Overlay	0	0	0	0	0	0
Maxwell, Winchester, Boone-Overlay	0	0	0	0	0	0
<b>Building Exterior</b>						
<b>Building Interior</b>						
<b>Mechanical</b>						
<b>Amenities</b>						
<b>Other</b>						
<b>Total Costs</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Costs Adjusted For 2.5% Inflation</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Itemized Worksheet

Capital Item To Be Replaced	Quantity	Unit cost	Reserve Requirement (*)	Beginning Balance	Frequency (yrs)**	Remaining rve Life (yrs)	Funding Required		Full Funding Balance	Information Source
							Monthly	Annual		
<b>Site</b>										
Streets-Repair and Seal	205,790 SF	\$0.21	\$43,215.90	\$25.63	7	2	\$1,799.59	\$21,595.14	\$30,868.50	Local Contractor
Monument-Letter replacement	1 Lot	\$825.00	\$825.00	\$0.00	10	10	\$6.88	\$82.50	\$0.00	RS Means
Sidewalks-Spot Repair (5%)	1,406 SF	\$5.58	\$7,845.48	\$4.34	15	5	\$130.69	\$1,568.23	\$5,230.32	RS Means
Sharp, Sinto, Murray-Overlay	131,616 SF	\$1.25	\$164,520.00	\$54.63	25	15	\$913.70	\$10,964.36	\$65,808.00	Local Contractor
Maxwell, Winchester, Boone-Overlay	74,174 SF	\$1.25	\$92,717.50	\$15.40	25	20	\$386.26	\$4,635.11	\$18,543.50	Local Contractor
<b>Building Exterior</b>										
<b>Building Interior</b>										
<b>Mechanical</b>										
<b>Amenities</b>										
<b>Other</b>										
			<b>Totals</b>	\$309,123.88	\$100.00		\$3,237.11	\$38,845.33	\$120,450.32	
			<b>Total Over Term</b>	\$447,442.06						

\* Costs are typically 10%±

\*\* Reserve study is based on a 30 year projection of non-annual maintenance

# Itemized Graph

Categories	Totals
Site	\$447,442
Building Exterior	\$0
Building Interior	\$0
Mechanical	\$0
Amenities	\$0
Other	\$0
<b>Total</b>	<b>\$447,442</b>

