

**FULL RESERVE STUDY  
FUNDING ANALYSIS PLAN  
Level I  
ESTATES at MEADOWWOOD III  
HOMEOWNER'S ASSOCIATION**

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## 1.0 INTRODUCTION

Meadowwood Estates III Homeowner's Association, through Don Wilhelm-Manager, authorized Criterium – Pfaff Engineers to conduct a Property Evaluation and Reserve Fund Study for the Meadowwood Estates III 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. Unless doing so would impose an unreasonable hardship, Washington State Law states that the association should update the reserve study annually. At least every three years, an updated reserve study must be prepared and based upon a visual site inspection conducted by a reserve study professional.

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

The Estates at Meadowwood III Homeowners Association serves 76 homes. It is a residential development located in Liberty Lake, WA. We understand that the development was constructed in 2002.

Estates at Meadowwood III includes as common elements asphalt paved streets, vinyl and iron fencing, concrete sidewalks, an entry monument and gates, and drainage swales. We were shown these items by Mr. Don Wilhelm, the manager of the association.

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. Continue with regular maintenance.

The sidewalks and curbs are in good condition overall. There are some broken sections at the intersection of Mission and King James Lane and at the upper end of the common sidewalk near the "Y" of King James Lane and Dunbarton Oaks Lane. These should be repaired in the near future.

The fences are in generally good condition with a few damaged areas in the vinyl fencing.

The entry monuments and gates are in good condition at this time.

The storm drain system appears to be adequate, although some grates in the swales along the streets are nearly blocked with gravel. The gravel should be cleaned away and a means to hold back the gravel should be installed to help prevent local flooding and gravel entry to the system. The catch basins should be inspected and cleaned if necessary.

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.

## 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 Estates at Meadowwood III 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

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. Unless doing so would impose an unreasonable hardship, the association should update the reserve study annually. At least every three years, an updated reserve study must be prepared and based upon a visual site inspection conducted by a reserve study professional.

### 3.2 Scope

This study has been performed according to the scope as generally defined by the association manager 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 64.38.065, “Unless doing so would impose an unreasonable hardship, an association with significant assets shall prepare and update a reserve study, in accordance with the association’s governing documents and this chapter. The initial reserve study must be based upon a visual site inspection conducted by a reserve study professional.” 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 64.38.310. The information provided by this study meets or exceeds the requirements of State of Washington, RCW 64.38.070.

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:** Vinyl fences are provided from the property

boundary along Mission Ave. and south along Terrace Lane. Two sections of the fence are decorative stone and iron. An entry monument and entry and exit gates and operators are provided at the entry to the development. The storm water system includes grated catch basins in and along the streets. Drainage pipes from the streets feed catch basins in the drainage swales at the base of the slope.

- **Private Streets, Sidewalks and Curbs:** The association maintains private asphalt paved streets. The streets include Lancashire Lane, King James Lane, Dunbarton Oaks Lane, and Terrace Lane. The roads have rolled concrete curbs and standard concrete curbs. The concrete sidewalks extend along Mission Ave. and along the entry up to the first homes.
- For a complete inventory, please see Appendix B. The common element inventory was obtained from discussion with Don Wilhelm and directors of the association.

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 2013 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:

- 4 April 2013.

The following people were interviewed during our study:

- Don Wilhelm-Manager
- Association representatives

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

- R.S. Means
- Our data files on similar projects
- Local contractors
- Distance measurements were obtained from the manager and using Google Earth.

### 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

This homeowners association serves 76 homes. It is a residential development located in Liberty Lake, Washington. We understand that the development was constructed in 2002.

Estates at Meadowwood III includes as common elements three streets, common sidewalks, vinyl and iron fences, an entry monument and gates as well as a storm drain system. The asphalt paved streets are Terrace Lane, King James Lane, Lancashire Lane, and Dunbarton Oaks Lane and include concrete rolled curbs on one side and standard curbs on the other. The

vinyl fencing and concrete sidewalk begin at the boundary on the south side of Mission Ave. The sidewalk continues up to the entry and beyond to the first homes where it becomes the individual owner's responsibility. The fence continues south along the west side of Terrace Lane. The fence includes a section of iron and stone along Mission and another near the intersection of Mission and King James Lane. An entry monument is provided at the intersection of Mission and King James Lane. A keypad controlled entry and an automated exit gate are provided at the main entry/exit on King James Lane set on decorative stone columns. Common elements also include an extensive drainage system with drainage grates over catch basins in the roads and swales. The catch basins collect runoff, allowing sediment to settle and feed underground drainage pipes that apparently lead down to the lower infiltration swales.

## 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 asphalt surfaces, preventative maintenance includes crack repair, drainage maintenance, patching of damaged areas and regular sealing. For a residential road, annual crack repair, and sealcoating every 5 to 7 years is recommended. 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 injecting 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. Any areas with water found to be "ponding" on the streets should be built-up, sloped, or otherwise drained to prevent destabilizing the sub-base which results in cracking of the asphalt.

According to previous bids, the roads cover approximately 23,100 square yards. The asphalt paved streets are in good condition, above average for their age. Some typical cracking was noted which has been sealed. We understand that these are being sealed on a yearly basis. No areas of significant damage were observed to the streets.

We understand that the roads were sealed last year. We have planned for sealing the roads in year 5, and every 5 years thereafter.

With good maintenance, paved roads have a published expected useful life (EUL) of 25 years. An asphalt overlay of the streets is planned for year 16 and for this reason we have excluded the sealing in year 15. It has been our experience that with good maintenance, many residential roads can provide longer lives and you may find that the overlay can be delayed.

We have based our asphalt repair estimates on current local estimates and those published by RS Means. With asphalt pricing based on oil prices and extremely volatile, these estimates may vary widely from the actual cost at the time of the work.



There are estimated to be approximately 723 feet of common sidewalks. From our site inspection, the 6 foot wide concrete sidewalks are in generally good condition with the exception of 5 broken up sections at the upper end near the "Y" with King James and Dunbarton Oaks Lanes. A few other areas with some typical cracking were noted near the main entry.

Concrete flatwork has a published expected useful life (EUL) of 30 years, however, we believe in this area and this situation; the sidewalks can last indefinitely with regular maintenance. This places their replacement outside of the 30 year analysis. We have allowed for replacement of the broken up sections in year 2 and replacement of a similar amount of damaged or deteriorated sections in year 17 of the analysis.

Common area fencing includes approximately 730 feet of vinyl fencing along the streets indicated above. A 20 foot vinyl gate is included along Terrace Lane. The vinyl fencing is 5 feet tall and in good condition overall. One damaged plank was observed along Mission. Replacement of these damaged panels is not included in this analysis and is assumed to be funded from the operating budget. The decorative iron and stone sections are approximately 35 feet long and 50 feet long and are in good condition.

Vinyl fencing has an expected life of 30 years. We have planned for its replacement in year 21 of this analysis. The iron and stone sections should last indefinitely with good maintenance. We understand that they were painted last year. We have included repainting in year 6 and every 7 years thereafter.

The entrance monument is a stone structure with painted lettering and in good condition. The gate monuments are stone columns set on concrete footings. They are in good condition. With regular inspections and maintenance, these monuments should last indefinitely.

The gates are in good condition. They were also repainted last year. We have planned for repainting in year 6 and every 7 years thereafter. Replacement of the hinge bearings may be needed over the years. This cost is assumed to be taken from the operating budget.

The gate operators, and touch pad controls are in good condition with an expected life of 15 years. We were told that they were replaced in 2009 and we have planned for replacement of both operators and the controller in years 12 and 27 of the analysis.

The accent and monument lighting is assumed to be maintained from the operating budget.

With much of the storm water drainage system underground, little was visible. The systems have an expected life of 50+ years, which places them outside the analysis period.

Three drainage grates were found in the gravel swales along the roads. These are partially to fully plugged with gravel and gravel appears to be

entering the catch basins below through the grates. The gravel should be cleaned away and restrained with a barrier or curb this summer. The approximately 12 storm drain grates located in the streets are in good condition. All grates should be inspected annually and the catch basins vacuumed of debris as needed. With regular maintenance, these should provide service beyond the analysis period although some can become damaged. To account for this, we have allowed for replacement of 3 grates in year 16.

The grates cover drainage catch basins that discharge to plastic drainage pipes. The pipes connect the catch basins and appear to continue underground to the catch basins in the lower swales.

We understand that some of the lower elevation homes recently experienced flooding due to an overflow or backup in the lower swales. We understand there is concern that the swales may be filling with accumulated sediment. With this system, we believe that sediment and debris should normally be trapped in the catch basins rather than being flushed onto the sod. Occasional vacuuming or hand cleaning of the catch basins will help keep the debris in the “trap” from overflowing into the drains. We believe it would be unusual for excessive sediment to accumulate on the swale surface unless there has been unusual erosion. Sod may be accumulating and “thatching” may help remove some of the vegetative matter and improve infiltration. Monitoring the swale depth over time would also be an indicator of sediment build-up. This could easily be done by inserting a “cup” into the soil (such as a golf cup) and measuring from the bottom of the cup to the top of the sod periodically. If excessive build-up is found, the sod and some soil may need to be removed and reseeded. It should also be noted that it is especially important that the grates and drains be kept open and clear during the winter, since runoff cannot infiltrate the frozen ground and must drain through the drainage system.

The catch basins should be inspected annually to determine if they need to be cleaned. We have budgeted for cleaning all of the catch basins in years 3, 13, and 23. We have also attached recommendations for maintenance of drainage systems.

Our study does not include the landscaping, irrigation systems, and electrical equipment which we assume to be maintained from the operating budget.

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 as directed by your board. 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

## 6.0 RESERVE FUND ANALYSIS

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 your manager and board. 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 Estates at Meadowwood III 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.
- 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 \$10,000.00.

As required by Washington State RCW 64.38.070, the interest rate used in the analysis is 0.15% and inflation rate is 3.0% based on the information provided on the input sheet. We have included three baseline alternatives to your current funding program as well as the RCW mandated full funding plan and recommend that the Association adopt an alternative that best reflects the objectives of the community. Please keep in mind that there are a myriad of possible alternatives. In summary they are as follows:

**Current Funding Rate:** According to the information we received, the Association reserve fund has a \$10,000.00 balance at the time of the analysis with no contributions or special assessments being made at this time. The association is currently 10.2% funded.

- **Baseline Funding Plan Alternative 1:** Set the contribution to \$300.00 per unit per year on January 1, 2013, and increase it by \$45.00 per unit per year in year 8. This alternative will maintain the minimum balance.
- **Baseline Funding Plan Alternative 2:** Set the contribution amount \$300.00 per unit per year on January 1, 2013. Increase the contribution 12% in year 7 to \$336.00 per unit per year. This

alternative will maintain the minimum balance.

- **Baseling Funding Plan Alternative 3:** Set the contribution amount on January 1, 2013 to \$250.00 per unit per year. Levy a special assessment of \$1,300.00 per unit in year 15. This alternative will maintain the minimum balance.
- **Full Funding Plan:** To achieve a full funding plan, the association would need to raise \$98,419 initially to achieve a full funding balance. Then begin with a contribution of \$200.00 per unit per year beginning in year 1 and increasing to \$290.00 per unit per year in year 7 throughout the balance of the period. This will maintain a fully funded balance.

Addendum A lists estimated capital reserves over the analysis period.

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.

**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.

Per the State of Washington, RCW 64.38.070, the following disclosure has been included herein:

*“This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair, or replacement of a reserve component.”*

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 Estates at Meadowwood III 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

## 7.0 CONCLUSION

## 8.0 LIMITATIONS

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
- Inside (homeowner's side) of fences

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.  
Criterion – Pfaff Engineers

**Appendix A: RESERVE FUND PROJECTIONS**

**Appendix B: PROJECT INVENTORY**

**Appendix C: PROJECT PHOTOGRAPHS**



**Appendix D: PROFESSIONAL QUALIFICATIONS**