# **Arlington Place HOA**CAPITAL RESERVE STUDY



Beginning Period: January 1<sup>st</sup>, 2023 Ending: December 31<sup>st</sup>, 2052

Prepared By:



Report Number: 22-14 Site Inspection Date: April 1<sup>st</sup>, 2016 Report Submittal Date: June 7<sup>th</sup>, 2016 Report Revision Date: October 17<sup>th</sup>, 2022



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#### 1.0 Executive Summary

#### 1.1 Overview

Arlington Place Homeowners Association was visited by consultants from YKL Consulting on April 1<sup>st</sup>, 2016. Rich Wells from Total Property Management and the HOA President Paul Ekhert were on-site to instruct YKL personnel as to which assets were to be included as part of the reserve fund. At the time of the site visit a physical assessment of major community components was completed and components were quantified, logged, and photographed. On October 17, 2022, this report was updated using updated financials, maintenance completed, and pricing. Arlington Place Homeowners Association is a 56-unit four-plex townhome development with 14 residential structures, private roads, and common landscaping. The property is bounded by Seven Peaks Blvd on the west and north, Arlington Drive on the east, and 580 North on the south. Arlington Drive is a private road with <sup>3</sup>/<sub>4</sub> width the ownership and responsibility of Arlington Place. The development was built in 3 phases from 1998 to 2002. The age of each unit is approximately 20 years old. The community common area property includes all building exterior maintenance, private road system, and landscaping. Interior maintenance is the responsibility of each homeowner.

#### 1.2 Major Expenditure Milestones

There are many common property elements of Arlington Place Homeowners Association included in the analysis. The large items that are major contributors to the expenditure plan are the asphalt shingle roofing, private roadway maintenance, and deck resurfacing treatments.

The largest of these expenses is roofing replacement. Typical asphalt shingle roofs have about 30 year life spans. The existing roofs were replaced between 2018 and 2022 and should provide another 25 to 30 years of new life. This component is the most expensive to replace, and as such, should be maintained in a manner that ensures the full useful life from the component. The financial model is driven by this expense, as inflated costs will require significant savings available in 2050. Premature wear and failure will add a significant burden to the association finances. In 2018, three buildings had the roofing replaced. The total cost was \$110,247; approximately \$9,200



a unit. This was for a 40-year warranty asphalt shingle roof. By 2022, the remaining buildings also had also been reroofed. The financial model now shows 11 buildings with roofing replacement needed in 2051, and 3 buildings with roofing needed in 2048. (30-year projection to be conservative in the model, instead of 40 years.)

Asphalt private roadway and parking lot maintenance is the second major milestone that drives the financial analysis. We recommend roads receive a 2 inch mill and overlay every 20 years. This is scheduled in to be done 2024 and 2044. In addition, roads should be crack-sealed and slurried every 5 years. This will be done in 2025.

Finally, deck resurfacing is scheduled to be done in 2030 and 2045. New surfacing was recently completed in 2015 at a cost of approximately \$50K. 5 units were replaced in 2019, continuing the current maintenance cycle.

#### 1.3 Capital Reserve Account Savings Recommendations

A savings plan is recommended based on a high estimate of component costs. The current reserve balance as of October 2022 is \$181,790. It is recommended that the HOA budget be modified to include a capital reserve amount of \$96/unit per month charge in January 2023. Starting in 2024 the amount increases at 4% a year through 2052. This strategy allows the community to continue to ramp up required savings prior to 2048 for new roofing. This is an increase of \$14 over the 2019 update report's recommendation of \$82 in 2023, primarily due the rapid rise in inflation and associated costs across the board. An annual percentage increase should be easier to implement and allows a homeowner to budget for fee increases over time. These amounts are dependent on constant savings and inflation rates, and as such a revised study should be completed every three to six years to confirm conditions have not changed significantly. A lower amount was calculated assuming lower replacement costs and inflation. This is shown in Section 5.0, summary and recommendations. If the reserve fund does not meet the minimum expenditures needed, then a situation will arise where special assessments, deferred maintenance, and lower property values are inevitable.



**Table 1.3.1** – Summary of initial conditions, assumptions, and recommendations.

Description	Value
Current Reserve Account Balance	\$181,790
Assumed Earned Interest	0.9%
Assumed Rate of Inflation	3.5%
Recommended Monthly Unit Charge to Reserve Account for 2023	\$96.00
Annual Reserve Account Increase for 2024-2052	4%

#### 2.0 Purpose of Capital Reserve Study

This capital reserve study has been prepared to provide guidance necessary to adequately prepare the homeowners association to meet financial obligations associated with maintenance, repair, and replacement of common area components. Ideally, these financial obligations are met using resources that have been set aside as part of a reserve fund. Following the recommendations of the reserve study will help prevent a financial assessment of unit owners beyond the required association fees. The association board has fiduciary duty to manage and plan for these obligations while also balancing association membership fees and long-term property value. The reserve study helps facilitate this responsibility.

Many states have laws that require HOA's perform reserve studies. Utah Legislative bill SB278, passed March 2010, amended the Condominium Ownership Act (Utah Code 57-8-7.5) and the Community Association Act (Utah Code 57-8a-211) to require the following within the state of Utah:

- Conduct a reserve analysis every six years.
- (2) (a) (i) ... cause a reserve analysis to be conducted no less frequently than every six years ...
- Conduct a reserve analysis before July 1, 2012.
- (2) (a) (ii) .. .if no reserve analysis has been conducted since March 1, 2008, cause a reserve analysis to be conducted before July 1,2012...
- Update a reserve analysis every three years.
- (2) (b) ...update a previously conducted reserve analysis no less frequently than every three years.



The Department of Housing and Urban Development has made reserve studies mandatory for all new condominium conversions applying for FHA insured loans approval. This guideline went into effect September 1, 2011. For condominiums that fail to submit a compliant, recent and accurate reserve study, the development must add a budget reserve line item in its budget equal to 10% of the yearly assessment income. The FHA enforces the 10% budget line item requirement nationally by prohibiting lending in developments that are non-compliant with this requirement.

In addition to the legal requirements, a properly prepared reserve study will benefit the community by aiding property management and boards in making budget and reserve account decisions based on solid analysis and information. It has been found that in-house reserve calculations done by the developer may not accurately reflect any changes that may have taken place during construction. These have generally been found to be inadequate, and have, at times, resulted in untimely assessments of unit owners.

This capital 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 Board should be careful about deviating from reserve study recommendations. A reserve study recommends a funding plan that steers the association away from special assessments. If the board decides to fund reserves less than recommended, the risk of special assessments grows.

If a special assessment is needed due to underfunding, a case could be made that the board did not fulfill its fiduciary duty and be held personally liable. Just as importantly, past owners who have sold will not have paid their fair share. Unless there is a compelling reason to deviate, the board should follow the recommendations of this study.



This reserve study was based on an evaluation of the association's repair and replacement obligations of existing components. Determination of costs and timing of repairs/replacements along with determination of available reserve capital form the base line for projected future costs.

These components are found by means of a physical analysis (Section 3.0) and funding analysis (Section 4.0). The physical analysis consists of a site visit to observe the existing condition of the HOA common components. A list of pertinent components was compiled and assessed according to age and condition, as discussed hereafter. Based on this assessment, it is possible to estimate the replacement costs.

According to the association funding goals, and the existing financial balance, contributions are recommended such that the reserve account can be fully funded. The account is considered "fully funded" when all financial obligations can be met, without forcing an assessment on unit owners.

#### 3.0 Physical Analysis

#### 3.1 Site Visit

Arlington Place Homeowners Association was visited by consultants from YKL Consulting on April 1<sup>st</sup>, 2016. Rich Wells from Total Property Management and the HOA President, Paul Ekhert, were on-site to instruct YKL personnel as to which assets were to be included as part of the reserve fund. On October 17<sup>th</sup>, 2022, this report was updated using current financials, maintenance completed, and pricing. At the time of the site visit a physical assessment of major community components was completed, and components were quantified and logged. Also, photographs depicting the current condition of these items were taken. These photographs are included in Section 10 for reference.

#### 3.2 Component Criteria

The components assessed in this study must meet four general criteria. First, the components must be under the jurisdiction of the association – or common property. Second, the component must meet a minimum cost threshold. Costs required for small, regular maintenance on daily, weekly,

or monthly basis, are assumed to be met with funds set aside for routine property care; the association operating account. The third criterion is that the component must have limited life cycle. This study forecasts expenses over 30 years, thus lifecycles estimated beyond the study period would be excluded. Finally, the component must have predictable life duration. Damage to components associated with settlement, fire, earthquakes, flooding, impact damage, or misuse is not considered predictable nor measurable. Generally a cost for repair of this type of damage (except flooding) is covered by an association insurance policy. Flood damage is usually the responsibility of an individual homeowner's insurance policy.

Typically landscape irrigation systems are never replaced as a whole system but rather maintained as parts break. This item should be accounted for within the annual operating account. There are too many external factors beyond design life that contribute to sprinkler damage to accurately determine a life expectancy (i.e. driving/aerating over heads, sand infiltration, freeze damage, etc.).

Sewer and culinary water lines are typically the responsibility of the local government or utility company. In the event they are private, we will incorporate them into the report only if they have aged significantly. Water and sewer lines have a life expectancy ranging 50 to 100 years and typically are beyond the scope of a reserve study report, which only forecasts 30 years. The only way for a PVC sewer line to fail is by traumatic force or unusual excessive wear; PVC sewer lines in general are very durable and if designed properly will have enough slope on the pipe for sewage to reach a velocity which scours the pipe and prevents sediment build-up. A properly designed and built sewer line will last beyond 100 years. Water lines are slightly different in that they are pressurized. They are prone to infrequent breaks; but in general will last up to 50 years or more. Failures are difficult to predict as the pipe is not observable without excavation, which is beyond the scope of this report. Many failures are due to improper installation, which does not manifest itself for many years.

#### 3.3 Determining Useful Life and Remaining Useful Life of Assets

The projected useful life of a component is determined by manufacturers' recommendations, current age and condition, and our experience with the item. Generally the manufacturer of a product will provide guidelines for its estimated functional duration. In order to provide a



meaningful estimate of remaining useful life of an asset, it is crucial to know its age. Construction of Arlington Place was completed in 2002, with an average unit age of 22 years. Information provided to YKL combined with construction dates allowed us to estimate existing life spans. During the site visit each component was observed and assessed. This assessment provides us with the ability to modify the manufacturers' useful life recommendation to reflect current conditions. Some components may have experienced overuse, requiring a reduction in the useful life, while others may have been underused, allowing an increase in their life. Thus, the actual age of the item may or may not represent its current condition. It is important to recognize the determination of useful life and remaining useful life is subjective.

Where a component necessitates specialized services beyond the expertise of the preparers of this report, including items that are not easily observable, is encountered, the appropriate service provider, familiar with such items, was contacted to supplement this study with accurate and representative information.

#### 3.4 Estimating Replacement Costs of Assets

Determining the replacement cost of assets accurately is accomplished in several ways. The current cost associated with repairing or replacing an asset can be found from local vendors, manufacturers, or contractors. Also, comparisons can be made to other common interest developments of similar size and geographic location. Finally, estimates can be made using resources prepared in collaborative effort by construction industry professionals.

Once the current repair or replacement cost of each asset is finalized, it must be adjusted for future costs. Future costs incorporate inflation, account for some market variability, and represent the anticipated cost of the asset at the end of its useful life when it is scheduled for repair or replacement.



#### 3.5 Maintenance Assumptions

Based on the site visit, the preparers of this report have made every effort to account for the current condition, and projected future condition of the subject components. However, we must assume the components will be properly maintained and cared for as per manufacturer's recommendations.

## 4.0 Funding Analysis

#### 4.1 Funding Goals

Ultimately, the funding goals must be derived by the board elected by the association members. It is likely that full funding of the reserve account will require several years. This report documents the current projected reserve status over the next 30 years, as well as the projected reserve status over the next 30 years for minimum and maximum recommended funding option.

#### 4.2 Capital Reserve Fund Income

Income for the reserve fund is a function of monthly association fees paid by unit owners as well as interest paid on the account balance. The funding analysis was performed using both the present association fee rates, and recommended HOA fee rates, with associated after-tax interest income. The post-tax interest rate used for the analysis was 0.9%. Additionally, a rate of 3.5% was used to account for inflation in the high cost scenario; a rate of 2.5% was used in the low cost scenario. As of October 2022, the capital reserve balance was \$181,790.

#### 4.3 Projected Expenditures and Reserve Fund Needs

Projected expenditures and reserve fund needs are included in Table 4.3.1. Table 4.3.2 tabulates the estimated expenditures per component per life cycle. The total anticipated expenditure per component over the study period has also been included. For components that have multiple recurrences over the study period the component life cycle is multiplied by the anticipated number of recurrences.



Table 4.3.1 – List of components and corresponding data used in the analysis.

Component Name	Useful Life	Year New*	Remaining Life	Low Cost (\$)	High Cost (\$)	Unit	Quantity	Recurrence
Asphalt – 2" Mill & Overlay	20	2004	2	2.50	3.00	sf	57,749	2
Asphalt - Slurry Seal	5	2020	3	0.30	0.40	sf	57,749	6
Concrete - Repair/Replace	5	2022	5	5,000	10,000	ls	1	6
Stucco Repair	5	2018	1	10,000	15,000	Is	1	6
Trim, Door, & Column Painting	8	2015	1	3.50	5.00	sf	6,138	4
Asphalt Shingle Replacement (2018)	30	2018	26	4.25	5.75	sf	21,750	1
Asphalt Shingle Replacement (2021)	30	2021	29	4.25	5.75	sf	79,770	1
Aluminum Gutter Replacement	25	2021	24	5.50	7.50	lf	5,656	1
Decking Surface Replacement	10	2018	6	500.00	750.00	ea	128	3
Exterior Lighting	20	2004	2	80.00	120.00	ea	140	2
Bollard Lighting	20	2004	2	150.00	200.00	ea	22	2
Street Signs	8	2021	7	100.00	150.00	ea	50	3
Tree Trimming	3	2022	3	2,000	2,500	ls	1	9

<sup>\*</sup>Year New does not always indicate true year built, but instead projected aging due to existing conditions. This is estimated in the field by evaluating the existing conditions of a component, then predicting the remaining life span of the component.



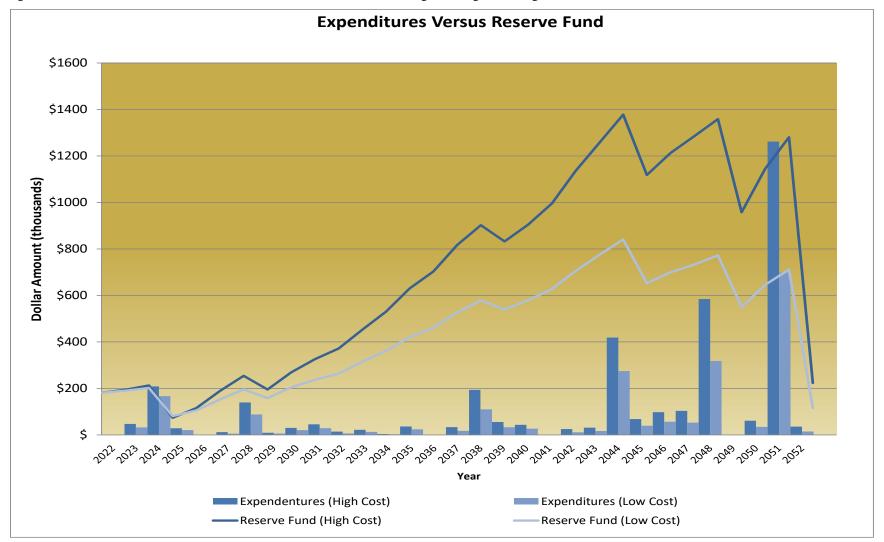
**Table 4.3.2** – Component cost per recurrence in present dollars; the total for the study period in present dollars; includes anticipated expenditure years.

Component Name	Low Cost/Recurrence (\$)	Total Component Low Cost/Study (\$)	High Cost/Recurrence (\$)	Total Component High Cost/Study (\$)	E>	(penditu	ure Year	<b>'</b> S*
Asphalt – 2" Mill & Overlay	144,373	288,745	173,247	346,494	2024	2044		
Asphalt - Slurry Seal	17,325	103,948	23,100	138,598	2025	2030	2035	2040
Concrete - Repair/Replace	5,000	30,000	10,000	60,000	2027	2032	2037	2042
Stucco Repair	10,000	60,000	15,000	90,000	2023	2028	2033	2038
Trim, Door, & Column Painting	21,483	85,932	30,690	122,760	2023	2031	2039	2047
Asphalt Shingle Replacement (2018)	92,438	92,438	125,063	125,063	2048			
Asphalt Shingle Replacement (2021)	339,023	339,023	458,678	458,678	2051			
Aluminum Gutter Replacement	31,108	31,108	42,420	42,420	2046			
Decking Surface Replacement	64,000	192,000	96,000	288,000	2028	2038	2048	
Exterior Lighting	11,200	22,400	16,800	33,600	2024	2044		
Bollard Lighting	3,300	6,600	4,400	8,800	2024	2044		
Street Signs	5,000	15,000	7,500	22,500	2029	2037	2045	
Tree Trimming	2,000	18,000	2,500	22,500	2025	2028	2031	2034

<sup>\*</sup>Slurry Seal, concrete allowance, and stucco allowance should be done on five-year cycles, and will have six occurrences over the 30-year span of this report. Tree trimming will occur on three-year cycles for ten occurrences.



**Figure 4.3.1 -** Graphical representation of expenditures over the thirty year reserve study period. Expenditures vs. reserve fund balance for high and low component costs. The light and dark blue bar columns represent anticipated expenditures based on the lowest cost scenario, and the highest cost scenario. The corresponding light and dark blue lines indicates the reserve fund balance for the low and high funding, according to the allotments recommended in section 5.2





#### 5.0 Summary and Recommendations

#### 5.1 Current Reserve Fund Status

At the time of this report, the balance in the reserve account for Arlington Place Homeowners Association is \$181,790. This is reflected in Figure 5.1.1, which demonstrates the current projected reserve fund versus low and high expenditures, assuming the current contribution of \$61.42 per unit per month. It is important to note that in 2044 the reserve fund will be depleted if only an average of \$61.42 per unit per month is continued to be placed in the reserve fund. Either a large special assessment of several thousand dollars per unit will be required, or the buildings will continue to age without needed maintenance.

The association could float expenses for over 20 years by maintaining a flat fee of \$61.42, however this would set the association up for severe shortages in the future. It is critical that this available time is used to build the reserves over the next 20 years, setting up both the association and future property values to be well maintained. Not doing so would be a breach of fiduciary duty by the board.

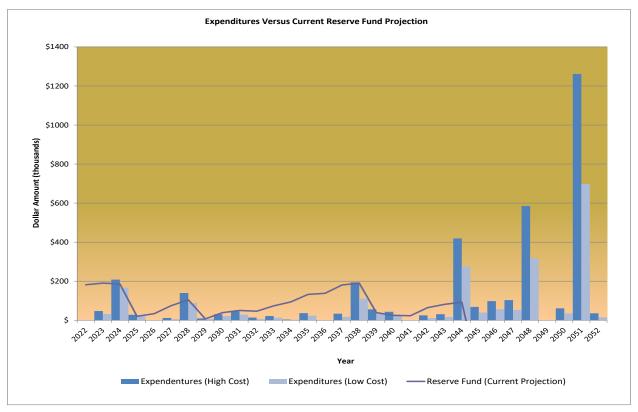


Figure 5.1.1 – Expenditures versus current reserve fund projection.



#### **5.2** Recommended Funding Adjustments

The reserve fund balances shown in Figure 4.3.1 are achieved by adhering to the following recommended monthly unit costs:

Table 5.2.1 – Recommended monthly unit deposit for low and high component replacement and repair costs.

Year	Monthly Unit Cost (low)	Monthly Unit Cost (high)
2023	\$63.00	\$96.00
2024	\$64.89	\$99.84
2025	\$66.84	\$103.83
2026	\$68.84	\$107.99
2027	\$70.91	\$112.31
2028	\$73.03	\$116.80
2029	\$75.23	\$121.47
2030	\$77.48	\$126.33
2031	\$79.81	\$131.38
2032	\$82.20	\$136.64
2033	\$84.67	\$142.10
2034	\$87.21	\$147.79
2035	\$89.82	\$153.70
2036	\$92.52	\$159.85
2037	\$95.29	\$166.24

Year	Monthly Unit Cost (low)	Monthly Unit Cost (high)
2038	\$98.15	\$172.89
2039	\$101.10	\$179.81
2040	\$104.13	\$187.00
2041	\$107.25	\$194.48
2042	\$110.47	\$202.26
2043	\$113.79	\$210.35
2044	\$117.20	\$218.76
2045	\$120.71	\$227.51
2046	\$124.34	\$236.61
2047	\$128.07	\$246.08
2048	\$131.91	\$255.92
2049	\$135.87	\$266.16
2050	\$139.94	\$276.80
2051	\$144.14	\$287.88
2052	\$148.46	\$299.39

Table 5.2.1 tabulates the recommended monthly unit contributions to the reserve fund. The high cost recommendation, and the preferred findings of this report, starts at the rate of \$96.00 per unit monthly for 2023. A 4% increase is added each year thereafter, reaching a monthly unit rate of \$299.39 per unit monthly by 2052. The low cost recommendation starts at \$63.00 per unit monthly for 2023. This amount increases annually at a rate of 3%. It is assumed that this study will be updated at a minimum of every three years to six years, so actual inflation and savings rates can be recalculated, along with a revision of construction costs and repair/replacement dates.



It should be noted that the capital demand on the reserve fund represents the *future dollar* cost. To put this in perspective, a dollar in 1992 is equal to \$2.12 today, or today's dollar equals 47 cents in terms of 1992 currency. Therefore, while the recommended values 20 to 30 years out may seem unreasonably high, it is prudent to keep in mind that the contribution in *present dollar* value is likely close to 47 percent of the tabulated value.

#### **6.0** Statement of Limitations

Every effort has been made to correctly predict component expenses over the analysis period, according to the reliability and accuracy of the information provided by manufactures, vendors, and contractors; however, due to the unique unpredictable nature of the future economic climate, the projected values and recommendations included in this study are strictly estimated representations of the true values. The more distant the year, the lower the probability the values are accurate. The model is sensitive to initial expenses – especially when inflated over 30 years – thus, depending on the economic climate, the recommended required association fees may need to be adjusted up or down.

The more often this report is updated, the better the fund/expense balance is met. In order to provide the greatest balance between meeting the expense demands of the association, and reducing the required monthly association fees, we recommend updating this report every other year. If this is not possible, an update of this report should be done *at least* every 6 years. YKL Consulting will be available to provide updates of this report, upon request, for a reduced fee.

YKL Consulting has relied on Arlington Place Homeowners Association to disclose current pertinent financial status of the association. Assumptions regarding interest earned and inflation have been made according to the current financial trends and rates. Component and material quantities were determined by observation during the site visit by YKL associates, as noted in the photographic inventory. Inspection during the site visit was strictly for budgetary purposes. Intrusive or damaging tests were not performed.



YKL Consulting has no present or prospective interest in the property that is the subject of this reserve study, and has no personal interest or bias with respect to the parties involved. The preparers also have no bias with respect to the property that is the subject in this report or to the parties involved with the contract realizing this assignment.

We appreciate the opportunity to be of service to Arlington Place Homeowners Association. Contact us with questions regarding the content of this report, or regarding other services we provide.

Best Regards,

Shaun H. Young, B.S. P.E.

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Ryan C. Kump, M.E. P.E.

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7.0 **Author Credentials** 

Shaun H. Young BS, P.E.:

Shaun graduated from the University of Utah with a bachelor's degree in Civil Engineering. He

works for a local commercial and residential land development firm since graduation. His main

areas of expertise are in site design, hydraulic analysis, hydrology, traffic analysis, government

entitlements, site development cost estimates, land surveying, and project management. Shaun is

the current past-president for the board of directors for his HOA; which consists of 228 residential

units.

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Ryan C. Kump, MS, P.E.:

A 2005 University of Utah master's degree graduate in Civil Engineering, Ryan has worked as a

professional engineer for over ten years. His in-depth experience with city codes and regulations

gives him insight as to public vs. private property rights and responsibilities. He has managed

multi-million dollar construction projects and understands the costs and needs of infrastructure,

particularly as it applies to roadways and utilities. Ryan has also served as HOA Board President

of The Heights at Quarry Bend community.

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#### 8.0 Appendix A – Terms and Definitions<sup>1</sup>

**Component** – Also referred to as an "Asset." Individual line items in the Reserve Study developed or updated in the physical analysis. These elements form the building blocks for the Reserve Study. Components typically are: 1) Association responsibility, 2) with limited useful life expectancies, 3) have predictable remaining life expectancies, 4) above a minimum threshold cost, and 5) required by local codes.

**Component Full Funding** – When the actual (or projected) cumulative reserve balance for all components is equal to the fully funded balance.

**Component Inventory** – The task of selecting and quantifying reserve components. This task can be accomplished through on-site visual observations, review of association design and organizational documents, a review of established association precedents, and discussion with appropriate association representatives.

**Deficit** – An actual (or projected reserve balance), which is less than the fully funded balance.

**Effective Age** – The difference between useful life and remaining useful life (UL - RUL).

**Financial Analysis** – The portion of the Reserve Study where current status of the reserves (measured as cash or percent funded) and a recommended reserve contribution rate (reserve funding plan) are derived, and the projected reserve income and expenses over time is presented. The financial analysis is one of the two parts of the Reserve Study.

**Fully Funded Balance** – An indicator against which the actual (or projected) reserve balance can be compared. The reserve balance that is in direct proportion to the fraction of life "used up" of the current repair or replacement cost of a reserve component. This number is calculated for each component, and then summed together for an association total. FFB = Current Cost \* Effective Age / Useful Life

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<sup>&</sup>lt;sup>1</sup> Definitions documented by the National Reserve Study Association

**Fund Status** – The status of the reserve fund as compared to an established benchmark, such as percent funded.

**Funding Goals** – Independent of calculation methodology utilized, the following represent the basic categories of funding plan goals:

- *Baseline Funding*: Establishing a reserve-funding goal of keeping the reserve balance above zero.
- *Component Full Funding*: Setting a reserve funding goal of attaining and maintaining cumulative reserves at or near 100% funded.
- *Threshold Funding*: Establishing a reserve funding goal of keeping the reserve balance above a specified dollar or percent funded amount.

**Funding Plan** – An association's plan to provide income to a reserve fund to offset anticipated expenditures from that fund.

#### **Funding Principles** –

- Sufficient funds when required
- Stable contributions through the year
- Evenly distributed contributions over the years
- Fiscally responsible

**Life and Valuation Estimates** – The task of estimating useful life, remaining useful life, and repair or replacement costs for the reserve components.

**Percent Funded** – The ratio, at a particular point in time (typically the beginning of the fiscal year), of the actual (or projected) reserve balance to the ideal fund balance, expressed as a percentage.



**Physical Analysis** – The portion of the Reserve Study where the component evaluation, condition assessment, and life and valuation estimate tasks are performed. This represents one of the two parts of the Reserve Study.

**Remaining Useful Life (RUL)** – Also referred to as "remaining life" (RL). The estimated time, in years, that a reserve component can be expected to continue to serve its intended function. Projects anticipated to occur in the current fiscal year have a "0" remaining useful life.

**Replacement Cost** – The cost of replacing, repairing, or restoring a reserve component to its original functional condition. The current replacement cost would be the cost to replace, repair, or restore the component during that particular year.

Capital Reserve Balance – Actual or projected funds as of a particular point in time (typically the beginning of the fiscal year) that the association has identified for use to defray the future repair or replacement of those major components that the association is obligated to maintain. Also known as "reserves," "reserve accounts," or "cash reserves." In this report the reserve balance is based upon information provided and is not audited.

**Capital Reserve Study** – A budget-planning tool, which identifies the current status of the reserve fund and a stable and equitable funding plan to offset the anticipated future major common area expenditures. The Reserve Study consists of two parts: The Physical Analysis and the Financial Analysis.

**Special Assessment** – An assessment levied on the members of an association in addition to regular assessments. Governing documents or local statutes often regulate special assessments.

**Surplus** – An actual (or projected) reserve balance that is greater than the fully funded balance.

**Useful Life (UL)** – Also known as "life expectancy." The estimated time, in years, that a reserve component can be expected to serve its intended function if properly constructed and maintained in its present application of installation.



# 9.0 Appendix B – Tabulated Inventory

	Category	Componen t Number	Component Name
1	Drive Materials	1001	Asphalt - 2" Overlay
2	Drive Materials	1002	Asphalt - Slurry Seal
3	Drive Materials	1003	Concrete - Repair/Replace
4	Building Exterior	2001	Stucco Repair
5	Building Exterior	2002	Exterior Brick
6	Building Exterior	2003	Building Trim and Column Painting
7	Building Exterior	2004	Architectural Shingles Replacement
8	Building Exterior	2005	Gutter & Downspout Replacement
9	Building Exterior	2006	Patio Wrought Iron Railing Paint
10	Building Exterior	2007	Patio Vinyl Fencing
11	Building Exterior	2008	Window Grates
12	Building Exterior	2009	Decking Surface Replacement
13	Building Exterior	2010	Exterior Lighting
14	Common Development Items	3001	Mail Boxes
15	Common Development Items	3002	Bollard Lighting
16	Common Development Items	3003	Signs
17	Common Development Items	3004	Concrete Retaining Wall
18	Common Development Items	3005	Wrought Iron Railing / Fencing
19	Common Development Items	3006	Landscaping & Irrigation
20	Common Development Items	3007	Water & Sewer Laterals
21	Common Development Items	3008	Tree Trimming



#### 10.0 Appendix C - Photographic Inventory

Component Name: 2" Asphalt Overlay Date of Photograph: Friday, April 1, 2016

Component Number: Drive Materials 1001 Photograph By: Shaun Young



**Component Duration** 

Component Life Expectancy: 20 years
Average Age of Component: 18 years
Remaining Component Life: 2 years



Component Cost

High Replacement Cost: \$ 173,247

Low Replacement Cost: \$ 144,373

Quantity Breakdown						
Street Name		Quantity	Unit			
Arlington Dr (3/4 Width)		14,544	Sq. Ft.			
720 North		18,770	Sq. Ft.			
670 North		9,567	Sq. Ft.			
660 North		6,484	Sq. Ft.			
610 North		8,384	Sq. Ft.			
	Total	57,749	Sq. Ft.			

General Description

The AASHTO Pavement Design Guide recommends asphalt paving receive immediate rehabilitation when signs of alligator cracking or longitudinal cracks wider than ¼ inch are present. An asphalt overlay is recommended every 15 to 20 years. The overlay will add new structure to the road and fix any pot holes or structural defects that may develop over time. Without an overlay, the road base beneath the paving could deteriorate leading to a complete asphalt replacement.



Component Name: Component Number:

Asphalt Slurry & Crack Seal
Drive Materials 1002

Date of Photograph:

Photograph By:

Friday, April 1, 2016

Shaun Young



**Component Duration** 

Component Life Expectancy: 5 years
Average Age of Component: 2 years

Remaining Component Life: \_\_\_\_\_3 \_\_\_\_ years



Component Cost

High Replacement Cost: \$ 23,100

Low Replacement Cost: \$ 17,325

Quantity Breakdown						
Street Name		Quantity	Unit			
Arlington Dr (3/4 Width)		14,544	Sq. Ft.			
720 North		18,770	Sq. Ft.			
670 North		9,567	Sq. Ft.			
660 North		6,484	Sq. Ft.			
610 North		8,384	Sq. Ft.			
	Total	57,749	Sq. Ft.			

## General Description

A crack and slurry seal is recommended every 5 years. Slurry seal will help protect the asphalt from degradation by sealing cracks, preventing water seepage and damage. It also rejuvenates the surface and renews the oils, keeping the asphalt from becoming overly brittle.

There are 3 types of slurry seal. For parking lot applications or areas of low vehicular volumes a Type 1 or Type 2 slurry is recommended. A Type 1 slurry utilizes the smallest aggregate size and is good to fill in crack and voids. Type 2 uses a larger aggregate. The larger aggregate could possibly be loosened by vehicles making turns at lower speeds. Type 3 slurry should not be used in this development as it is intended for roadways with high volumes moving in a straight line.



Component Name:Concrete Repair/ReplaceDate of Photograph:Friday, April 1, 2016Component Number:Drive Materials 1003Photograph By:Shaun Young





#### **Component Duration**

Reoccurring Allowance: 5 years

\_\_\_\_\_\_ years

#### Component Cost

High Replacement Cost: \$10,000 Low Replacement Cost: \$5,000

Quantity Breakdown					
Item	Quantity	Unit			
Concrete Repair	1	Lump Sum			

#### General Description

The American Public Works Association (Utah Chapter) recommends concrete panels to be repaired and or replaced when there are 3 or more cracks that extend the full depth of the slab or if there is spalling that covers more than 25% of the panel. Protruding edges should be ground down to prevent further damage and to prevent any safety hazards. An allowance of \$5-10K is allotted every five years, beginning in 2027, for spot concrete repairs.



Date of Photograph: Component Name: Stucco Repair Friday, April 1, 2016 **Building Exterior 2001** Component Number: Photograph By: Shaun Young





#### Component Duration

Reoccurring Allowance:

Quantity Breakdown					
Item	Quantity	Unit			
	1	Each			

Component Cost

High Replacement Cost: \$ 15,000 \$ 10,000 Low Replacement Cost:

General Description

Many stucco manufacturers do not recommend painting over stucco. Stucco is a breathable material and is water resistant but not water proof. The tar paper beneath the stucco is what provides the water proofing. Painting over stucco prevents the material from breathing and can trap moisture which may lead to mold. It is recommended to repair areas that may lead to further damage to the home or become too unsightly. Due to the long life span of stucco an allowance has been provided to repair damaged panels rather than full replacement. An allowance of \$10-15K is allotted every five years, beginning in 2023, for spot repairs.

Special Notes, Comments, and Considerations



Stucco Repair

Component Name:BrickDate of Photograph:Friday, April 1, 2016Component Number:Building Exterior 2002Photograph By:Shaun Young





#### Component Duration

Component Life Expectancy: N/A years
Average Age of Component: years
Remaining Component Life: years

Quantity Breakdown

Item Quantity Unit

Building Brick

Component Cost

High Replacement Cost: \$ N/A

Low Replacement Cost: \$

#### General Description

Brick is an extremely durable building material that has a design life extending beyond the range of this report.



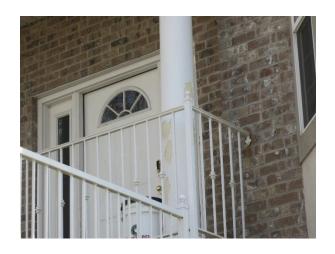
Component Name:
Component Number:

Trim, Door & Column Painting
Building Exterior 2003

Date of Photograph: Photograph By:

Friday, April 1, 2016
Shaun Young





#### Component Duration

Component Life Expectancy: 8 years
Average Age of Component: 7 years
Remaining Component Life: 1 years

Component Cost

High Replacement Cost: \$30,690 Low Replacement Cost: \$21,483

Quantity Breakdown					
Item	Quantity				
Trim and Column Painting	2,170	SF			
Doors	3,968	SF			

# General Description The majority of the homes are constructed from materials that do not required paint. However, some building

that do not required paint. However, some building elements will need to be repainted on an ongoing basis.



Component Name: Shingle Replacement Date of Photograph: Friday, April 1, 2016

Component Number: Building Exterior 2004 Photograph By: Shaun Young



#### **Component Duration**

Component Life Expectancy: 30 years
Age of Component: 4/1 years
Remaining Component Life: 26/29 years

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High Repair Cost: \$583,740 Low Repair Cost: \$431,460

Quantity Breakdown				
Item	Quantity	Unit		
Shingle Replacement (2021)	79,770	Sq. Ft.		
Shingle Replacement (2018)	21,750	Sq. Ft.		

#### General Description

Architectural style asphalt shingles were observed on all buildings throughout the development. Three buildings were replaced in 2018 with a 40-year warranty shingle. The other 11 buildings were reroofed by 2022, with 2021 used as the replacement year. A conservative life span of 30 years was used in the financial modeling for this report.



Component Name: Aluminum Gutter Replacement Date of Photograph: Friday, April 1, 2016

Component Number: Building Exterior 2005 Photograph By: Shaun Young





#### **Component Duration**

Component Life Expectancy: 25 years
Age of Component: 1 years
Remaining Component Life: 24 years

#### **Component Cost**

High Repair Cost: \$42,420 Low Repair Cost: \$31,108

Quantity			
Item	Quantity		
Gutter	3,374	LF	
Downspouts	2,282	LF	

# General Description Aluminum gutters and downspouts were observed on

all buildings throughout the development.



Wrought Iron Railing Component Name: Maintenance

Component Number: Building Exterior 2006

Date of Photograph: Photograph By: Friday, April 1, 2016

Shaun Young





#### **Component Duration**

Component Life Expectancy: N/A year

Age of Component: \_\_\_\_\_ years
Remaining Component Life: years

**Component Cost** 

High Repair Cost: \$ N/A

Low Repair Cost:

\$ N/A \$

## Quantity Breakdown

Item Quantity Unit

Wrought Iron Fencing Maintenance

LF

#### General Description

Wrought Iron is a durable material that has a typical useful life extending beyond the range of this report. The fencing in this development should be routinely inspected for rust and paint chipping. Spot maintenance should be provided to maximize the useful life of this product.



Component Name: Vinyl Patio Railing Date of Photograph: Friday, April 1, 2016

Component Number: Building Exterior 2007 Photograph By: Shaun Young





#### **Component Duration**

Component Life Expectancy: N/A years
Age of Component: years
Remaining Component Life: years

High Repair Cost: \$ N/A
Low Repair Cost: \$ N/A

# Quantity Breakdown

Item Quantity Unit

Vinyl Patio Railing

#### **General Description**

Component Cost

Vinyl fencing is a low maintenance durable material. The design life of vinyl extends beyond the range of this report.

Damaged railing should be replaced immediately to help prevent further damage. Damaged fencing should be expensed from the maintenance/operating budget.



Date of Photograph: Component Name: Window Grates Friday, April 1, 2016 **Building Exterior 2008 Shaun Young Component Number:** Photograph By:





Component Life Expectancy:	N/A	years
Age of Component:		years
Remaining Component Life:		years

**Component Duration** 

Quantity B			
Item	Quantity	Unit	
Window Grates		Each	

**Component Cost** 

High Repair Cost: Low Repair Cost:

The metal window grates are a durable material that has a useful life extending beyond the range of this

**General Description** 

report. Grate should be inspected regularly to identify any safety issues and to provide touch up painting.



Component Name: Component Number: Decking Surface Replacement **Building Exterior 2009** 

Date of Photograph:

Friday, April 1, 2016 Shaun Young

Photograph By:





**Component Duration** 

Component Life Expectancy: 10 years Age of Component: 4 years

Remaining Component Life: 6 years **Component Cost** 

High Repair Cost: \$ 96,000 \$ 64,000

Low Repair Cost:

**General Description** 

Quantity Breakdown				
Item	Quantity	Unit		
Decking Surface Replacement	128	Each		



Component Name: Exterior Lighting Date of Photograph: Friday, April 1, 2016

Component Number: Residential Building 2010 Photograph By: Shaun Young





#### **Component Duration**

Component Life Expectancy: 20 years
Age of Component: 18 years
Remaining Component Life: 2 years

Quantity Breakdown			
Item	Quantity	Unit	
Exterior Lighting	140	Each	

#### **Component Cost**

High Repair Cost: \$ 16,800 Low Repair Cost: \$ 11,200

## General Description

Exterior lights are susceptible to oxidation that can become unsightly after many years and can diminish the lighting output.

Light fixtures that have been damaged should be repaired or replaced and expensed from the maintenance budget.



Component Name:MailboxesDate of Photograph:Friday, April 1, 2016Component Number:Common Development 3001Photograph By:Shaun Young





#### **Component Duration**

Component Life Expectancy: 20 years
Age of Component: 18 years
Remaining Component Life: 2 years

Compo	nent	Cost
-------	------	------

High Replacement Cost: \$ N/A

Low Replacement Cost: \$ N/A

# Quantity BreakdownLocationQuantityUnitPedestal Mailbox Cluster4Each

#### General Description

Aluminum mailbox clusters were observed in this community. The HOA informed YKL Consulting that the boxes are maintained by the post office, so no costs have been added to the financial model for replacement.



Component Name: Bollard Lighting Date of Photograph: Friday, April 1, 2016

Component Number: Common Development 3002 Photograph By: Shaun Young



Component Duration

Component Life Expectancy: 20 years
Age of Component: 18 years

Age of Component	. 10	years
Remaining Component Life	: 2	years



Component Cost

High Replacement Cost: \$ 4,400 Low Replacement Cost: \$ 3,300

Quantity Breakdown			
Item	Quantity	Unit	
Bollard Light	22	Each	

General Description

Bollard lighting was observed throughout the community around the pedestrian paths. A number of the fixtures were observed to be damaged.



Component Name: Street Signs Date of Photograph: Friday, April 1, 2016

Component Number: Common Development 3003 Photograph By: Shaun Young





#### **Component Duration**

Component Life Expectancy: 8 years
Age of Component: 1 years
Remaining Component Life: 7 years

Quantity Breakdown				
	Type	Quantity		
Signs		50	Each	

#### **Component Cost**

High Replacement Cost: \$ 7,500

Low Replacement Cost: \$ 5,000

#### **General Description**

The street signs in this development are the responsibility of the HOA due to the roads being private. Parking and warning signs are also the responsibility of the HOA. Signs should be replaced when faded.

#### Special Notes, Comments, and Considerations

Approximately 40 signs were observed during the walkthrough; however, it is likely some signs were not accounted for. Due to this the number of signs have been estimated at 50.



Date of Photograph: Component Name: **Concrete Retaining Wall** Component Number: Common Development 3004 Photograph By:

Friday, April 1, 2016 Shaun Young





**Component Cost Component Duration** 

Component Life Expectancy: N/A years Age of Component: years

Remaining Component Life: years

**Quantity Breakdown** Type Quantity Units Concrete Retaining Wall Each

High Replacement Cost: Low Replacement Cost:

**General Description** Concrete is a very durable material and when combined

with steel reinforcing will have a useable life beyond the range of this report.



Component Name: Component Number:

Wrought Iron Railing / Fencing
Common Development 3005

Date of Photograph: Photograph By: Friday, April 1, 2016 Shaun Young





#### **Component Duration**

Component Life Expectancy: N/A years
Age of Component: years

Remaining Component Life: years

Component Cost

High Repair Cost: Low Repair Cost:

\$ 18/7

# Quantity Breakdown

Name Quantity Unit
Wrought Iron Railing Each

#### **General Description**

Wrought Iron is a durable material that has a typical useful life extending beyond the range of this report. The fencing in this development should be routinely inspected for rust and paint chipping. Spot maintenance should be provided to maximize the useful life of this product.



Component Name: Landscape & Irrigation Date of Photograph: Friday, April 1, 2016

Component Number: Common Development 3006 Photograph By: Shaun Young





# Component Duration

Component Life Expectancy: N/A years
Age of Component: years
Remaining Component Life: years

Quantity Breakdown

Name Quantity Unit

#### **Component Cost**

High Replacement Cost: \$ N/A
Low Replacement Cost: \$

#### **General Description**

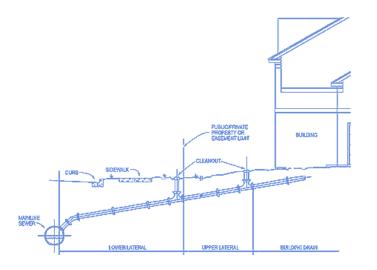
Landscaping and irrigation is typically not included in this report. It's very uncommon to have to replace all the landscaping or irrigation system at one time. A portion of the operating account should be budgeted for sprinkler repairs and isolated landscaping replacement.



Component Name: Component Number:

Sewer & Water Lines
Common Development 3007

Date of Photograph: Photograph By: N/A Shaun Young





Component Duration

Component Life Expectancy: N/A years
Age of Component: years

Remaining Component Life: years

**Component Cost** 

High Repair Cost: \$
Low Repair Cost: \$

Quantity Breakdown

Name Quantity Unit

**General Description** 

Properly installed sewer and water laterals have a life span extending beyond the range of this report. With proper burial depths these laterals can outlast the longevity of the buildings they serve. Replacement of these laterals can be very costly; but as mentioned previously they are designed to last for the design life of the building.

Special Notes, Comments, and Considerations

The above pictures are for representation only and are not from the actual development.



Component Name: Tree Trimming Date of Photograph: Friday, April 1, 2016

Component Number: Common Development 3008 Photograph By: Shaun Young





#### **Component Duration**

Component Life Expectancy: 3 years
Age of Component: 0 years
Remaining Component Life: 3 years

Quantity Breakdown			
Name	Quantity	Unit	
Tree Trimming	1	Each	

#### **Component Cost**

High Replacement Cost: \$ 2,500

Low Replacement Cost: \$ 2,000

General Description

The community currently trims the trees in the development every three years as a reserve fund expense.

