CRITERIUM® KESSLER ENGINEERS

CRITERIUM-KESSLER ENGINEERS
Independently Owned and Operated
14539 W. Indian School Road, Suite #880
Goodyear, Arizona 85395
TEL 480 218-1969

February 6, 2019

Branton Turner, CMCA®
Community Manager, Royal Ranch
Vision Community Management
16625 S. Desert Foothills Parkway
Phoenix, Arizona 85048
Turner@WeareVision.com

PROPERTY: ROYAL RANCH HOMEOWNERS ASSOCIATION
SURPRISE, ARIZONA

SERVICE: FULL PROPERTY EVALUATION AND RESERVE FUND ANALYSIS

ATTACHMENT: 18-0186 – REPORT

Dear Mr. Turner and the Royal Ranch Homeowners Association Board of Directors:

As requested by Mr. Branton Turner, Royal Ranch Community Manager, on your behalf, Criterium-Kessler Engineers has completed a Full Reserve Study for the Royal Ranch Homeowner's Association (HOA). We submit the attached final report for the Board's consideration and use.

This Reserve Study has been performed in general accordance with Community Association Institute (CAI) National Reserve Study Standards. However, Criterium-Kessler's scope of service has exceeded CAI's guidelines with regard to our engineering evaluation of the property's condition, identification of current deficiencies, and consideration of appropriate capital expenditures for recommended repairs, replacements, and improvements.

We observed the property Monday, January 14, 2019 (accompanied by Mr. Turner, Community Manager). Our findings and recommendations are principally based on observations made during our on-site visual inspection performed by:

- ✓ Clark Maxwell – Engineering Field Technician
- ✓ Kelly Kessler – Engineering Field Technician

During that site visit, we met with Mr. Branton Turner, Community Manager, and visited the Royal Ranch HOA areas of Association responsibility.

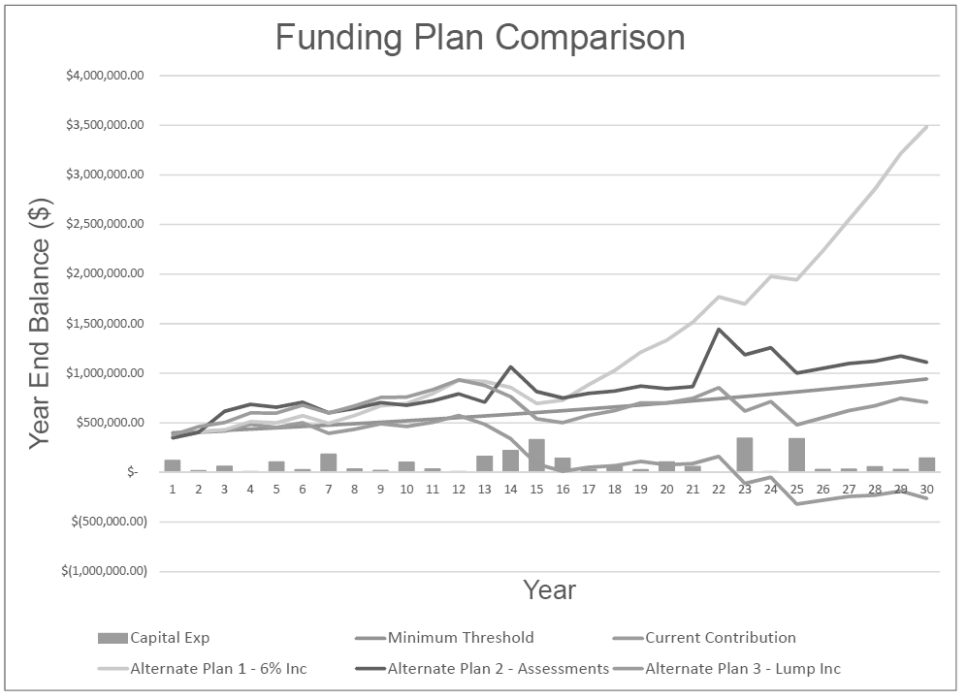
We have reviewed the Associations' Declarations, plat maps, available financial records, real estate information, prior reserve study, and other public mapping resources. Original design and construction drawings and maintenance records were not provided to Criterium-Kessler Engineers for review. The report should be reviewed in its entirety, including its Appendices, which contain the financial analysis, captioned photographs, and reference documents.

As a result of our on-site inspections and other investigations, we find the common components of your community to be in generally good condition and well-maintained. However, we did observe a few deficiencies and deferred repairs, which are noted in the report.

In summary, given the projected starting balance of the Capital Reserve Fund estimated at $395,978 on January 1, 2019, if the current annual rate of contribution to reserves at $70,856 were carried forward unchanged throughout the 30-year planning period, our evaluation of facility needs and financial analysis indicates that the Association's current funding will prove insufficient to meet future needs.

The 30-year total of projected capital expenditure (CapEx) budgets, (current dollar cost estimates inflated at 3% annually), is $2,858,467. Because of drawdowns to pay for these CapEx expenses, projected year-end balances would fall into deficit values in Year 23 (2041), and would reach a theoretical accumulated deficit of approximately ($263,119) at the end of the planning period in Year 30 (2048).

Typically, our final report published for review by the Board includes projections of the current funding plan and the adopted plan. However, we will also include some or all the preliminary alternates as the Board directs. In this final report we have suggested minimum threshold fund balances to be maintained and three (3) alternate funding plans for the Board's consideration.



In reviewing the engineering assumptions, cost estimates and projected fund values herein, please understand that their accuracy diminishes greatly beyond Year 5. Long range facility maintenance projections are intended only to indicate the likely pattern of capital expenditures and to guide financial planning. Criterium-Kessler Engineers agrees with CAI's recommendation that reserve studies should be updated regularly to allow periodic adjustment of facility plans and funding strategies.

If you have any questions or would like to discuss further services, please contact us at 480-218-1969.

Criterium-Kessler Engineers appreciates this opportunity to assist Board in support of the Association's facility and financial planning. Thank you.

Thank you for your confidence in Criterium-Kessler Engineers.

Respectfully Submitted,

Dan Kessler
President
Criterium-Kessler Engineers

FULL PROPERTY EVALUATION AND RESERVE FUND ANALYSIS

Royal Ranch Homeowners Association
Surprise, Arizona

Prepared for:
Royal Ranch Homeowner's Association Board of Directors

Requested by:
Branton Turner, CMCA®
Community Manager
Vision Community Management
16625 S. Desert Foothills Parkway
Phoenix, AZ 85048

Prepared by:

14539 W. Indian School Road, Suite #880
Goodyear, Arizona 85395
(480) 218-1969
www.criterium-kessler.com

Site Inspection Date(s): January 14, 2019
Draft Submittal: February 6, 2019

Project Number: 18-0186

Table of Contents

1.0 INTRODUCTION

Following authorization by the Royal Ranch Homeowners Association (HOA) Board of Directors, Mr. Branton Turner, CMCA® Community Manager, requested Criterium-Kessler Engineers to conduct a full Reserve Study of your 1,129 single-family residential community located in Surprise, Arizona.

This report must be reviewed in its entirety to understand our findings and their limitations. The Appendices are an integral part of this report and must be included in any review. Please refer to Appendix D for definitions of common terms of reference used herein.

We have conducted the study in general accordance with the National Reserve Study Standards published by the Community Association Institute (CAI). Please refer to Appendix D which contains a copy of the CAI standards.

This study was conducted by licensed Professional Engineers and other qualified staff working under the responsible charge of a CAI-certified Reserve Specialist, H. Alan Mooney, P.E.(ME). Please refer to Appendix F for the qualifications of the project team.

We observed the property on Monday, January 14, 2019. Our findings and recommendations are principally based on observations made during our on-site visual inspection performed by:

- ✓ Clark Maxwell – Engineering Field Technician (EFT)
- ✓ Kelly Kessler – Engineering Field Technician (EFT)

During that site visit, we met with Mr. Branton Turner, CMCA® Community Manager, and visited the Royal Ranch HOA areas of Association responsibility.

Mr. Maxwell and Jim Herman (EFT) prepared this report and the attached financial analysis. Mr. Dan Kessler reviewed the findings, and presents this confidential report for the Board's review and use.

We have reviewed the Associations' Declarations, plat maps, available financial records, real estate information, prior reserve study, and other public mapping resources. Original design and construction drawings and maintenance records were not provided to Criterium-Kessler Engineers for review. The report should be reviewed in its entirety, including its Appendices, which contain the financial analysis, captioned photographs, and reference documents.

In reviewing the engineering assumptions, cost estimates and projected fund values herein, please understand that their accuracy diminishes greatly beyond Year 5. Long-range facility maintenance projections are intended only to indicate the likely pattern of capital expenditures and to guide financial planning. Criterium-Kessler Engineers agrees with CAI's recommendation that reserve studies should be updated regularly to allow periodic adjustment of facility plans and funding strategies.

For example, given typical service lives, our 30-year cash flow analysis has not anticipated contributions to reserves to offset savings for these longer-term expenses:

- ✓ Metal Component Replacement i.e. – Ramada Rooftop Material, Guardrail Replacement
- ✓ Building Infrastructure – Ramada Framing or Block
- ✓ Pole Mount Lighting – Concrete pole and mounting hardware replacement
- ✓ Concrete flatwork replacement

However, if the Association updates their reserve study periodically, and continues to use a 30-year planning horizon, then all these eventual capital expenditures (CapEx) will be anticipated well before they become pressing needs.

2.0 EXECUTIVE SUMMARY

In summary, our on-site inspections and other investigations found the common components of the property to be in generally good condition and well-maintained.

We observed a few deficiencies and deferred repairs which are noted within the report.

We have identified an inventory of Association-responsible common components that are likely to require periodic repair or replacement or other recurrent capital investment.

We have formed an opinion of the remaining useful life of each component. We have estimated the current cost of required capital expenditures for their repair or replacement. We have projected annual capital budgets over a 30-year planning period.

We have also interviewed the Board to learn of any planned facility improvements that will require capital expenditures.

In the summary, the 30-year total of projected capital expenditure (CapEx) budgets, (current dollar cost estimates inflated at 3% annually), is $2,858,467.

The Board has provided us with information on the Association's Capital Reserve Fund and the current funding plan. Our initial financial analysis was based on the data supplied.

Given the projected starting balance of the Capital Reserve Fund estimated at $395,978 on January 1, 2019, the current annual rate of contribution to reserves at $70,856, and an anticipated average rate of return on investment (ROI) of 1% per year, our financial analysis indicates that the Association's current funding will prove insufficient to meet future needs.

Because of draw-downs to pay for projected CapEx expenses, projected year-end fund balances are ($263,119) by the end of the 30-year planning period in 2048.

In this report, we have recommended minimum threshold fund balances be maintained and have included alternate funding plans as discussed with the Board.

3.0 PURPOSE AND SCOPE

3.1 Objectives

The purpose of this reserve study is to determine a capital needs plan for the Association, to evaluate the current rate of contribution to the capital reserve fund, and, if required, to suggest alternate funding strategies.

This report is intended for use as a tool by the Association's Board of Director's for considering and managing future financial obligations, for determining appropriate capital reserve fund allocations, and for informing the individual Owners of the Association's required capital expenditures and the resulting financial plan.

For purposes of financial planning, Association-responsibility expenses are typically divided into two categories:

- ✓ Operation and maintenance (O&M) of commonly held elements of real property and other assets. These O&M expenses usually include taxes, insurance, property management costs and other service fees.

- ✓ Capital expenditures for major periodic repairs and replacement of commonly-held elements.

Normal, recurring O&M costs are typically paid by the individual owners through periodic assessments or service fees equal to their share of the annual budget, which is estimated based on cost projections of either actual or average levels of expense.

Some additional contingency amount may be included in annual O&M budgets to result in a year-end surplus which is carried forward year-to-year to cover variations in annual costs or any uninsured losses. This carry-over is often referred to as an operating reserve.

These O&M costs, their funding and operating reserves are not typically considered by a reserve study.

Studies of this nature are important to ensure that a community will have sufficient funds for the long-term, periodic capital expenditure requirements. This helps preserve the value of the community and the units within it.

Anticipating significant expenditures over an extended period will assist the Association in determining appropriate levels of present and ongoing contribution to a capital reserve fund which will result in adequate balances to cover these expenses as they arise without any need for borrowing or special assessments.

Of course, borrowing or special assessments may be part some capital plans. However, our study will not consider these sources of revenue unless directed. We caution our clients to check state regulations, which may limit or preclude these options.
Our capital expenditure forecast is more reliable over its first few years than in later years. History demonstrates that, as time progresses, property conditions and management strategies will change. As a result, planned scopes of work may be altered or deferred. Actual cost in the marketplace will vary from estimates.

Actual rates of inflation and returns on investment will vary from projections. For the purposes of this study an inflation rate of 3% is used. This figure is in line with the historical average of 2.5% inflation over the last thirty years and accounts for the increasing cost of construction. The Mortenson Construction Cost Index continues to experience a significant index rate increase (2.5 - 3.5% per quarter in the first half of 2018), and there is no indication that the balance of the year will dramatically shift downward from this level.

For these reasons, we concur with Community Association Institute guidelines and recommend that this reserve study be updated every three to five years. As of late, many associations choose to perform a yearly update; this allows them to remain current and focused despite frequent Management or Board turnovers.

3.2 Level of Service

The Community Association Institute (CAI) identifies three levels of service for Reserve Studies:

I. Full Reserve Study, with site visit
II. Reserve Study Update, with site visit
III. Reserve Study Update, without site visit

All may be appropriate for a community, depending on the condition of the facility and the phase of their planning cycle. The CAI National Reserve Study Standard in Appendix D contains more detail on these levels of service and the scope of study of each of them.

Our current study is Level I Full Reserve Study.

Criterium-Kessler's actual scope of service is enhanced and exceeds the CAI standard in several principal ways:

- ✓ Our investigation and evaluation of the property is performed by, or overseen by experienced professional engineers.

- ✓ After preparing and submitting our initial analysis, we engage in an iterative review process with the Board of Directors, toward developing a financial plan more responsive to the needs of the Association.

3.3 Sources of Information

Community Manger on behalf of the Board of Directors:

- ✓ Mr. Branton Turner, CMCA®

The following documents were provided to us and reviewed:

DOCUMENT TYPE	DOCUMENT DESCRIPTION	EXHIBIT ATTACHED	STATUS
ASSOCIATION BUDGETS & FINANCIAL DATA	- CKE Document – Reserve Study Checklist	Yes	Reviewed
	- Royal Ranch HOA 2017 Draft Budget	Yes	Reviewed
	- Royal Ranch HOA 2018 Draft Budget	Yes	Reviewed
	- Royal Ranch HOA 2019 Draft Budget	Yes	Reviewed
	- Royal Ranch HOA Balance Sheet Comparison As of 12/31/2017	Yes	Reviewed
SITE PLANS / PLAT MAPS	- Final Re-Plats of Royal Ranch Unit 1 Parcel 1, Unit 1 Parcel 2, Unit 1 Parcel 3 & Unit 1 Parcel 4 (2002)	Yes	Reviewed
PRIOR REPORTS & PROPOSALS	- Royal Ranch Reserve Study Update "With Site-Visit" – Association Reserves (09/14/2015)	No	Reviewed
CC&R'S & GOVERNING DOCUMENTS	- Declaration of Covenants, Conditions and Restrictions for Royal Ranch (2002)	No	Reviewed

TABLE 1 – DOCUMENTS REVIEWED

4.0 PHYSICAL ANALYSIS

4.1 Property Description

Please refer to Appendix C for captioned photographs for selected assets throughout the community.

Royal Ranch is a 1,129 unit (single-family home) residential community located on a 38.5-acre site in Surprise, Arizona. It is our understanding that Fulton Ranch Homes Corporation developed the community and began construction in 2002. The Association was also incorporated in May of 2002.

4.2 Common Components

Please refer to Appendix A for the Common Component Inventory.

Association-responsible common components include:

- ✓ Monument Signs
- ✓ Perimeter Block Walls
- ✓ Landscape, Irrigation & Drainage
- ✓ Park Equipment
- ✓ Mailbox Kiosks

4.3 Condition Assessment

4.3.1 Common Areas

Descriptions & Observations

The network of perimeter block walls throughout the property are in generally good condition. Perimeter and interior block walls were reportedly painted in 2018. Deterioration was observed at various interior walls; Mr. Turner indicated that painting of homeowner walls (interior walls – homeowner responsibility) facing public areas is an Association responsibility, and is included in the wall painting line item.

Irrigation equipment located throughout the property appeared in generally good condition including controllers, backflow prevention devices and fertigation system. Irrigation controllers were reportedly replaced in 2017. Irrigation (and fertigation) systems were not tested as part of the site evaluation; no reports of excessive maintenance or failures were reported to Criterium-Kessler Engineers.

It was reported that Ramada light fixtures were replaced in 2018 and monument sign light fixtures were replaced in 2017 and are in generally good condition. Street pole mount lighting is the responsibility of the local electric utility.

Monument signs, kiosk mailbox stations, ramada rooftops, and basketball backboards are original to the community and are in generally good condition.

Landscape granite is in generally good condition. The community is planning a phased replacement of the granite in Years 1 through 6, which has been captured in this analysis.

Drywells are maintained bi-annually, and the Board has requested the drywell contingency/ partial replacement line item be removed in this study.

Except as noted in Section 4.4 Current Deficiencies, the Common Area assets are in generally good condition

Common Components & Required Expenditures

Appendix A contains an inventory of all site improvements which are common components, and a detailed schedule of projected Capital Expenditure (CapEx) budgets for these items:

- ✓ Concrete Flatwork – Unscheduled Repair or Replace Budget – Scheduled at 3 Year intervals in Years 3, 6, 9, 12, 15, 18, 21, 24, 27 & 30
- ✓ Monument & Ramada Light Fixtures – Replace – Scheduled at 15 Year intervals in Years 13 & 28
- ✓ Mailbox Kiosks – Refurbish/ Paint - Scheduled at 10 Year intervals in Years 5 & 25 (Manual delete Year 15 for scheduled replacement)
- ✓ Mailbox Kiosks - Replace - Scheduled at 20 Year intervals in Year 14
- ✓ Perimeter Block Walls – Partial Replace or Refurbish Budget – Scheduled at 5 Year intervals in Years 3, 8, 13, 18, 23 & 28
- ✓ Perimeter Block Walls – Paint – Scheduled at 8 Year intervals in Years 7, 15 & 23
- ✓ Monument Signs – Refurbish – Scheduled at 10 Year intervals in Years 5 & 25 (Manual delete Year 15 for scheduled replacement)
- ✓ Monument Signs – Replace – Scheduled at 20 Year intervals in Year 16
- ✓ Backflow Prevention Device – Replace - % Scheduled at 5 Year intervals in Years 1, 6, 11, 16, 21 & 26

- ✓ Irrigation Controller – Replace - % Scheduled at 3 Year intervals in Years 8, 11, 14, 17, 20, 23, 26 & 29

- ✓ Landscape Granite – Replenish – Scheduled at 15 Year intervals (% dispersed over 6 Years each) in Years 1 - 6, 15 - 20 & 30

- ✓ Fertigation System – Replace – Scheduled at 12 Year intervals in Years 8 & 20

- ✓ Exterior Metal - Paint – Scheduled at 8 Year intervals in Years 7, 15 & 23

- ✓ Tree Removal & Replacement – Scheduled at 2 Year Intervals in Years 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27 & 29

4.3.2 Playgrounds

Descriptions & Observations

The playground equipment and park furniture are in generally good condition. Playground equipment repair is reportedly expensed from the O&M budget.

Shade nets are in fair condition. It has been reported that the community plans to replace one of the four shade nets present, in 2019. We have budgeted for staggered replacement for the remaining shade nets.

Two basketball courts are present, one with surfacing. The surfaced court was reportedly last resurface in 2015 and is in generally good condition.

Playground pole mount light fixtures are reportedly original to the site and were in poor to fair condition. It has been reported that the community plans to upgrade these fixtures in 2019 and we have scheduled the budget accordingly.

Playground turf is reportedly original to the site. Deterioration was observed as well as patching in numerous places.

Playground sand is reportedly refreshed from the O&M budget and is not included in this analysis.

Except as noted in Section 4.4 Current Deficiencies, the Playground assets are in generally good condition.

Common Components & Required Capital Expenditures

Appendix A contains an inventory of all site improvements which are common components, and a detailed schedule of projected Capital Expenditure (CapEx) budgets for these items:

- ✓ Pole Mount Light Fixtures – Replace – Scheduled at 30 Year intervals in Year 1

- ✓ Bike Racks – Replace – Scheduled at 30 Year intervals in Year 15
- ✓ Park Furniture – Replace – Scheduled at 12 Year intervals in Years 1, 13 & 25
- ✓ Playground Equipment – % Replace – Scheduled at 5 Year intervals in Years 5, 10, 15, 20, 25 & 30
- ✓ Playground Turf – Replace – Scheduled at 12 Year intervals % in Years 1 - 3, then Years 13 & 25
- ✓ Shade Screens - Replace – % Scheduled at 2 Year intervals in Years 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27 & 29
- ✓ Basketball Court - Resurface – Scheduled at 5 Year intervals in Years 1, 6, 11, 16, 21 & 26
- ✓ Basketball Backboards – Replace – Scheduled at 18 Year intervals in Years 3 & 21
- ✓ Ramada Roofs – Replace – Scheduled at 25 Year intervals in Year 10

4.4 Current Deficiencies

Based on the Board of Director's list of concerns and our own observations:

- ✓ Spalling and deterioration observed slightly above grade at interior block walls. The walls in reference are owned by the homeowner's, however, painting of the outward facing panels are the responsibility of the Association. The spalling and deterioration is causing the paint to flake. This was observed at various locations throughout the community, an example may be viewed on N. La Cometa, across from the park.
- ✓ Shade nets are aged and faded.
- ✓ Playground pole mount light fixtures are aged, several were observed in a state of disrepair.
- ✓ Playground turf is aged, torn, worn and patched in several areas.

4.5 Life and Valuation

4.5.1 Opinions of Useful Life

Simply stated, for components that require periodic capital expenditures (CapEx) for their repairs or replacement, the frequency of work equals the typical; industry accepted expected useful life (EUL) for the type of feature:

Component's Frequency of CapEx = Component's EUL

And, the remaining useful life (RUL) of a component before the next capital expenditure for its repair or replacement is equal to the difference between its EUL and its age:

RUL = EUL – Age

Of course, the condition and rate of deterioration of actual site improvements and building elements rarely conform to such simple analysis. Often, a property's history and available documentation does not provide any record of a particular component's actual age.

In our experience, the effective age and actual RUL of an installed item vary greatly from its actual age and calculated RUL. These variances depend on the quality of its original materials and workmanship, level of service, climatic exposure, and ongoing maintenance. As part of Criterium-Kessler Engineer's work on this reserve study, we have determined our opinion of the effective age, EUL and RUL of each common component based on our evaluation of its existing condition and considering those factors.

As a result, in preparing the CapEx schedule for reserve studies, we often:

- ✓ Accelerate the schedule of work for components found to be in poorer condition than expected for their age.

- ✓ Defer work for components observed to be in unusually good condition.

Capital repair and replacement work for some components is often spread over many years. This may be done because not all on-site installations of a particular type of component age or deteriorate at the same rate. Or, work may be scheduled in phases to limit disruption or ease cash flow.

For these reasons, when it seems appropriate we will spread some budgets over multiple years. However, it is beyond the scope of this reserve study to prioritize the need for work between a number of buildings or installed locations or to closely specify or breakdown phased work packages.

In summary, we have based our opinion of the remaining service life and expected frequency and schedule of repair for each common component on some or all of the following:

- ✓ Actual or assumed age
- ✓ Observed existing condition
- ✓ Association's or Community Manager's maintenance history and plan
- ✓ Our experience with actual performance of such components under similar service and exposure
- ✓ Our experience managing the repairs and replacements of such components

We use the following documentation to guide our considerations:

- ✓ Fannie Mae - Expected Useful Life Tables
- ✓ National Association of Home Builders - Life Expectancy of Components
- ✓ Marshall & Swift Valuation Service –Expected Life Expectancies

4.5.2 Cost Estimating

In developing our estimate of capital expenditure for most common components, we have estimated a quantity of each item and a unit cost for its repair or replacement. In some cases, it is more appropriate to estimate a lump sum cost for a required work package.

Unless directed to take a different approach, we assume that contract labor will perform the work and apply appropriate installer's mark-ups on supplied material and equipment. When required or requested, our estimated costs include demolition and disposal of existing materials, and protection of other portions of the property.

When appropriate for large capital projects, we will also include soft costs for design and project management, and typical general contractor's cost for general conditions, supervision, overhead and profit.

We have based our opinion of unit and lump sum costs on some or all of the following:

- ✓ Records of previous maintenance expenses
- ✓ Previously solicited Vendor quotations or Contractor proposals
- ✓ Provided capital budgets developed by others
- ✓ Our project files on repairs and replacements at other properties

We use the following publications to guide our considerations:

- ✓ On-Line RS Means - Construction Cost Data
- ✓ Marshall & Swift Valuation Service – Facility Cost Index

Annual aggregated capital expenditure budgets have been calculated for all years during the study period by inflating the annual tallies of current dollar cost estimates, and compounding for inflation at 3% per year.

Of course, it is impossible to accurately predict inflation fluctuation. Three percent is close to the average annual values of both consumer and construction cost increases since the U.S. Bureau of Labor Statistics started publishing data approximately 85 years ago.

5.0 FINANCIAL ANALYSIS

We have projected capital reserve expenditures over the next thirty years and analyzed funding options to satisfy those expenditures. The projections are based on anticipated repair or replacement schedules and estimated costs as discussed in the report. The projections also take into consideration 1% return on invested moneys and 3% inflation. These values are based on information provided to us by the Association. Pease note that actual values and rates may vary significantly.

Please refer to Appendix A, which contains tables and graphs illustrating the findings discussed below and includes the following:

- ✓ **Reserve Summary Data:** Defines all the criteria used for financial calculations, including the assumed inflation rate and rate of return on deposited reserve funds. Also includes is a summary of proposed funding plans and the alternate funding plan.

- ✓ **Common Component Inventory:** Replacement and/or repair components that match the report. The table lists estimated unit costs as well as the actual estimated useful lives and remaining useful lies for each component.

- ✓ **Capital Expenditure (CapEx) Planning:** Replacement and/or repair components that match the report. The table lists calculated costs as well as the calculated values estimated useful lives and remaining useful lies for each component, as well as planning notes specific to each asset.

- ✓ **Annual Capital Expenditures – 30 – Year Budget Projection:** Costs for component replacement and/or repair items broken down by year based on projections of estimated and remaining lives.

- ✓ **Summary of Funding Plan Balances for Each Alternative:** A table of yearly balances for each funding plan (if more than one) and annual reserve expenditures. Also included is a combined graph illustrating end of year balances for all funding plans over the 30-year study period.

5.1 Capital Expenditure Projection

Based on our investigations and estimates described in Section 4 of this report, we have identified likely capital expenditures throughout the study period. The components identified are those understood to be the responsibility of the Association. **The Association should review the listed components in Appendix A to confirm that they will be financed with the reserve fund.** Please let us know of any changes that need to be made.

For detailed information on projected capital expenditures, please refer to the Appendix A. tables titled “Common Component Inventory & Capital Expenditure (CapEx) Planning” and “Annual Capital Expenditures – 30-Year Budget Projection.”

The Board did not identify other planned new amenities or other improvements to the property which will require any capital expenditures by the Association over the 30-year study period.

Please note that we have assumed that the cost of routine, annually occurring minor repair & replacement work (typically valued at less than $1,000) will be covered by the normal Operations & Maintenance budget. Such minimal costs may be for one-time work on a single item, or aggregated repairs of a type of component over a year.

Usually we do not include any reserve expenditures for repair of casualty damage by vehicle impact, severe storm action, etc. It is assumed that such expenses would be defrayed by proceeds of insurance claims. At the request of the Board, we have included a tree replacement contingency budget line item.

Projections are based on a fiscal year running from January 1 to December 31. In summary, we calculate capital reserve expenditures (CapEx) expenditures over the next thirty years of approximately $2,858,467 total (in current dollars indexed annually for inflation).

5.2 Current Funding

5.2.1 Board-Provided Information

Our analysis and calculations are based upon the following starting data provided by the Board:

Study Period / Fiscal Year Starting Date:	January 1, 2019
For Designated Fiscal Year:	2019
Starting Reserve Fund Balance (Equal to projected 2018 Year End balance):	$395,978
On Date (Projected):	January 1, 2019
Current Rate of Designated Contribution:	$5,905 Overall per month $70,856 Overall per year
Planned Reserve Increases:	None formally adopted
Planned Special Assessments:	None
Planned Average Return on Investment:	1% per year
Projected Rate of Inflation:	3% per year

Table: 5.2-1 Provided Starting Data

Financial data, records of past expenses, and cost estimates provided by others have been taken in good faith and at face value. No audit or other verification has been performed.

5.2.2 Current Funding Plan Projection

The Capital Reserve Fund beginning balance for January 1, 2019 is directly from the 2019 Draft Budget. Our initial analysis was a projection of the Association's *current* annual fund contribution rate of $70,856 annually carried forward over 30 years, with no increases.

Given the projected $395,978, starting balance of the Capital Reserve Fund on January 1, 2019, a recommended minimum fund threshold of $400,000 (50% of the annual O&M budget for 2019) and utilizing the data in Table 5.2.1 above, our cash flow projection indicates that the Association's current funding of $70,856 per year, if carried forward unchanged, is **inadequate** **to cover anticipated capital expenditures (CapEx).**

A minimum funding balance of ($318,589) is projected to occur during Year 25 (2043).

Because of drawdowns to pay for projected Capital Expenditures, projected year-end balances would fall to deficit levels at the end of 2041 (Year 23). Accumulated deficits would equal ($263,119) by year-end 2048 (Year 30).

To correct the inadequate funding for projected Capital Expenditures, we have developed and provided three alternative funding approaches below (Section 5.3: Alternate Funding Plans). These approaches were not coordinated with the Board of Directors.

For detailed data, please refer to Appendix A tables and graphs titled "Capital Reserve Fund – Cash Flow Projection – Current Funding Plan.

5.3 Alternate Funding Plans

In this final report, we suggested that the Board consider maintaining a minimum threshold fund balance of $400,000, which is equal to 50% of the annual O&M budget for 2019.

Since the current funding profile is in inadequate, Criterium-Kessler Engineers has prepared three alternate funding plans for the Board's consideration that would result in positive year-end balances throughout the planning period. Alternative Funding Plan 3 is recommended with a Reserve Update before Year 5 (2022) to re-evaluate threshold balance recommendation.

- Alternate Funding Plan 1 - Recurring annual increase in the rate of contribution equal to the 6% (Years 1 – 30), with no lump sum increase and no special assessments.

This plan (Alternate Funding Plan 1) results in positive year-end balances throughout the planning period, but dips below the fund balance threshold in 2019 (Year 1) and 2020 (Year 2). Overall funding is sufficient to meet the needs of the community throughout the planning period.

- Alternate Funding Plan 2 – Special assessments in Years 3, 14 & 22:

    - Year 3 (2021) $200,000 Special Assessment
    - Year 14 (2032) $500,000 Special Assessment
    - Year 22 (2040) $500,000 Special Assessment

This plan (Alternate Funding Plan 3) results in positive year-end balances throughout the planning period, but dips below the fund balance threshold in 2019 (Year 1) and 2020 (Year 2). Overall funding is sufficient to meet the needs of the community throughout the planning period.

- Alternate Funding Plan 3 – Forty percent (40%) lump sum increase in the rate of contribution in 2019 (Year 1), with no recurring annual increase and no special assessments.

This plan (Alternate Funding Plan 3) results in positive year-end balances throughout the planning period, but dips below the fund balance threshold in 2019 (Year 1) and after 2033 (Year 15). Overall funding is sufficient to meet the needs of the community throughout the planning period. A Reserve Update before Year 5 (2022) to re-evaluate threshold balance recommendation. This is the recommended funding plan.

5.4 Funding Methodologies

The approach to funding methodologies continues to be a subject of much discussion and can create confusion for those responsible for long-term strategic planning for a community.

Appendix E provides general information related to Funding Methodologies and is not specific to your Association or Community. They are included to provide a framework for consideration of the study, and to explain our approach to the funding analysis.

We also recommend that the Board review the Community Association Institute (CAI) National Reserve Study Standards attached in Appendix D.

The Community Association Institute (CAI) recognizes several funding methodologies, all of which may be used to satisfy these principles:

- ✓ Sufficient Funds When Required
- ✓ Maintains Property Values
- ✓ Stable Contribution Rate over the Years
- ✓ Evenly Distributed Contributions over the Years
- ✓ Fiscally Responsible

Some of the more common methods are outlined below.

For this reserve study, Criterium-Kessler Engineers has utilized a cash flow based funding approach as described below:

5.4.1 Cash Flow Based Funding

Criterium Engineer's recommended approach to reserve planning utilizes a cash flow model.

A cash flow based funding plan is prepared so that contributions to capital reserves are selected to be sufficient to offset future variable annual capital expenditures.

Our engineering evaluation and planning yields a projected annual capital expenditure (CapEx) budget schedule over the planning period. This CapEx plan and the Association's current rate of contribution to reserves is entered into our computer model.

The model allows us to determine whether the Association's current rate of contribution will prove sufficient to meet capital obligations over the planning period.

If the Association's current rate of contribution is not sufficient, our model allows us to develop alternate contribution strategies for the Association's consideration.

Baseline Funding

The goal of baseline funding is to maintain positive year-end balances throughout the planning period.

Threshold Funding

One strategy to ensure there will be sufficient funds available to cover unplanned emergencies is to maintain prudent minimum threshold reserve balances. In the face of unusual and uninsured expenses, this may eliminate the need for either making a special assessment or borrowing money.

Often, the initial threshold is established as some multiple of the average annual CapEx budget, and then inflated ahead at the selected rate of inflation.

Maintaining significant threshold balances has the additional benefit of allowing the Association to generate greater returns on investments and thereby reduce the rate of Owners' contribution to reserves.

Of course, the benefits of establishing larger threshold balance values must be weighed against Unit Owners' preference to control their own funds.

In any event, the goal of threshold funding is to ensure that year-end capital reserve fund balances will not fall below some minimum value.

This threshold value may be an arbitrary, prudent dollar amount based on our experience, or, it may be calculated as some multiple of the annual average CapEx amount over the study period.

Consideration should be given to increasing the threshold balance value over the study period to reflect historic rates of inflation.

In this case, we selected a $400,000 threshold (indexed for inflation at 3% annually) over the planning period.

5.4.2 Special Assessments

The goal of nearly all reserve studies is to establish a regular, periodic rate of contribution to reserves which ensures there will be sufficient funds when required.

However, sometimes it is necessary to boost the reserve balance quickly, before there is adequate time to accumulate funds through regular savings. In those cases, assuming the Unit Owners' personal finances can support it, it is expeditious to assess a lump sum special payment.

Special assessments are often tied to, or ear-marked for, some particular capital expenditure. This may be a periodic but unusually high expense such as re-paving or re-roofing. Or, it may be to collect funds to pay for some desired new amenity, such as a new tennis court or an elevator.

Although it is unusual, if the individual Unit Owners who form an Association all have sufficient means, the membership may prefer to manage their own investments and contribute to capital expenses only on the basis of annual special assessments.

6.0 LIMITATIONS

The information in this study is not to be considered a warranty of condition, quality, compliance or cost. No warranty is implied.

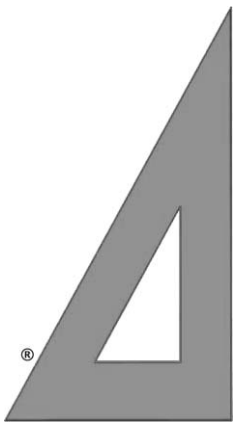
Financial data, records of past expenses, and cost estimates provided by others have been taken in good faith and at face value. No audit or other verification has been performed.

The observations described in this study are valid on the dates of the investigation and have been made under the conditions noted in the report.

This study is limited to the visual observations made during our inspection. We did not undertake any excavation, conduct any destructive or invasive testing, remove surface materials or finishes, or displace furnishings or equipment.

Except as specifically noted or photographed, we did not observe or inspect the following areas and items:

- ✓ Buried foundations, utility services and infrastructure
- ✓ Locked or inaccessible or confined spaces
- ✓ Building and roof structural elements and members
- ✓ Attics and other concealed spaces



- ✓ Interior of mechanical enclosures and equipment
- ✓ Systems and equipment that was not operating was not tested
- ✓ Individual Owner's improvements
- ✓ Individual owner units (interior / exterior) and lots

The following assets were not tested during our evaluation:

- ✓ Information Technology assets
- ✓ Electronic and Audio-Video assets
- ✓ Vehicle assets
- ✓ Equipment and Fixture assets

In the absence of other information such as records from construction or previous inspections, or indirect evidence of concealed conditions, we cannot form any conclusions about unobserved portions of the facility.

However, our opinion regarding concealed portions of the property and their condition are based on our experience with other similar facilities.

In some cases, we inspected only a representative sample of site improvements and building spaces, components, systems or equipment. We cannot be responsible for unobserved aberrations.

We did not perform any computations or other engineering analysis as part of this study, nor did we conduct a comprehensive code compliance investigation.

We did not undertake to completely assess the structural stability of the buildings or the underlying foundations and soils. Similarly, we performed no seismic assessment.

We did not undertake a comprehensive environmental assessment of the facility, nor perform any sampling or testing for hazardous materials.

Capital budgets are opinions of likely expense based on rough cost estimates. We have not obtained competitive quotations or estimates from contractors. Actual costs can vary significantly, based on the eventually determined scope of work, availability of materials and qualified contractors, and many other variables. We cannot be responsible for variances.

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.

Criterium-Kessler Engineers prepared this confidential report for the review and use of Royal Ranch Homeowner's Association Board of Directors. We do 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, defend and hold Criterium Kessler Engineers, its subsidiaries, affiliates, officers, directors, members, shareholders, partners, agents, employees and such other parties in interest specified by Criterium-Kessler Engineers harmless for any damages, losses, or expenses they may incur as a result of its use. Any use or reliance of the report by an individual or party other than Royal Ranch Homeowner's Association Board of Directors shall constitute acceptance of these terms and conditions.

Criterium-Kessler Engineers does not offer financial counseling services. Although reasonable rates of inflation and return on investment must be assumed to calculate projected balances, no one can accurately predict actual economic performance. Although reserve fund management and investment may be discussed during the course of the study, we do not purport to hold any special qualifications in this area.

We recommend that the Royal Ranch Homeowner's Association Board of Directors also seek other professional guidance before finalizing their current capital reserve fund planning. Depending on issues, which may arise, an appropriate team of consultants to aid decision-making might include the property manager, accountant, financial counselor, insurance agent and attorney.

7.0 CONCLUSION

Criterium-Kessler Engineers appreciates this opportunity to assist Royal Ranch Homeowner's Association and the Board in support of the Association's facility and financial planning. We are pleased to present this final report for the Board's consideration and use.

To the best of our ability, we have attempted to work in the best interest of the Association and to aid the Board toward fulfillment of their fiduciary responsibilities and obligations to the individual homeowners who comprise the association's membership.

In our professional opinion, and within the limitations disclosed elsewhere herein, all information contained herein is reliable and appropriate to guide the Board's deliberations and decision-making.

We recommend that the Board seek other appropriate professional guidance before finalizing their current reserve planning. Depending on issues which may arise, consultants who could aid the Association's decision-making might include their community manager, certified public accountant, financial counselor, and/or attorney.

Criterium-Kessler Engineers' work for this study has been carried out in strict accordance with the Code of Ethics of the National Society of Professional Engineers (NSPE) and the Community Association Institute (CAI). We consider our report confidential to the Board, and will not share its content with anyone but the Royal Ranch Homeowner's Association Board of Directors without their knowledge and release.

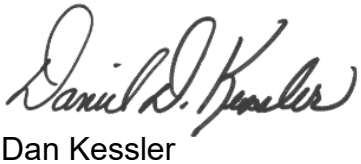
We are unaware of any other involvement or business relationship between Criterium-Kessler Engineers and the Developer, or individual Unit Owners, or members of the Board, or your Property Manager or any other Vendors or Contractors that constitutes any conflict of interest.

We look forward to meeting with the Board and learning more about your views on revenue & expense planning. It is our intent that the final edition of the report will set forth an alternative funding strategy which reflects the Board's adopted plan or their recommendation to the wider membership.

Please contact us at (480) 218-1969 to discuss any immediate questions or comments.

Thank you.

Respectfully submitted,



Dan Kessler
President
Criterium-Kessler Engineers

APPENDICES

A – Financial Exhibits
- Common Component Inventory (Assets of Association Responsibility)
- Capital Expenditure (CapEx) Planning (Budgeted Expense Plan by Asset)
- Annual Capital Expenditures (30-Year Budget Projection by Year)
- Funding Plan Comparison (Graph of Current & Alternates)
- 30-Year Projection of the Current Funding Plan
- 30-Year Projection of the Alternate Funding Plans

B – Graphic Exhibits
- Aerial Images
- Maps / Other Relevant Graphics

C – Photographs

D – Reference Documents
- Client Provided Documents
- CAI Nation Reserve Study Standards
- Definitions of Other Terms & References used in the report
- Definitions of Building Systems – Common Abbreviations and Acronyms

E – Funding Methodologies

F – Project Team Qualifications

APPENDIX A

FINANCIAL EXHIBITS

Data Provided		
Number of Units		1129
Age of Building (in years)		17
Fiscal Year starts:		1/1/2019
Reserve Funds at start	$	395,978
Rate of Return on Reserve Funds (%)		1%
Inflation Rate (%)		3%
Initial Minimum Threshold	$	400,000

Current Funding Plan - Contribution Details		
Per Unit/Month	$	5.23
Per Unit/Year	$	62.76
Total/Month	$	5,904.67
Total Annual	$	70,856.04

Current Funding Plan - Review Values		
Cap Exp Total Expenditures	$	2,858,467
Average CapEx Annual	$	95,282
Deficit/ Surplus - End of Planning Period Year 30	$	(263,119)

Contribution Details - Funding Plan - Best Alternate 3 - Lump Sum Increase		
Per Unit/Month - Year 1	$	7.32
Per Unit/Year - Year 1	$	87.86
Total/Month - Year 1	$	8,266.54
Total Annual - Year 1	$	99,198.46
Per Unit/Month - Year 30	$	7.32
Per Unit/Year - Year 30	$	87.86
Total/Month - Year 30	$	8,266.54
Total Annual - Year 30	$	99,198.46

Funding Plan - Best Alternate 3 - Lump Sum Increase - Review Values		
Cap Exp Total Expenditures	$	2,858,467
Average CapEx Annual	$	95,282
Deficit/ Surplus - End of Planning Period Year 30	$	3,486,796

*Values Rounded to Nearest $00.00

Capital Item	Actual Quantity	Units	Unit Cost	Actual EUL	Actual RUL
COMMON AREA					
Concrete Flatwork - Unscheduled Repair or Replace Budget	Varies by Type	Square Feet	Varies	50+	33
Monument & Ramada Light Fixtures - Replace	Varies by Type	Each	Varies	15	13/14
Mailbox Kiosks - Refurbish/ Paint	78	Each	250	10	6
Mailbox Kiosks - Replace	78	Each	1,900	20	6
Perimeter Block Walls - Partial Replace or Refurbish Budget	126,000	Square Feet	18	50+	33+
Perimeter Block Walls - Paint	126,000	Square Feet	1	8	7
Monument Signs - Refurbish	6	Each	1,500	10	5
Monument Signs - Replace	6	Each	12,178	20	15
Backflow Prevention Device - Replace	6	Each	2,500	15	-
Irrigation Controllers - Replace	17	Each	1,500	12	10
Landscape Granite - Replenish	3,780	Ton	65	Varies	Varies
Fertigation System - Replace	1	System	2,000	12	8
Exterior Metal Surfaces - Paint	1	Allowance	17,500	8	4
Tree Removal & Replacement Budget	1	Allowance	5,000	Varies	Varies
PLAYGROUNDS					
Pole Mount Light Fixtures - Replace	39	Each	900	30	15
Bike Racks - Replace	16	Each	150	30	15
Park Furniture - Replace	60	Each	Varies by Type	12	(3)
Playground Equipment - Replace	16	Each	Varies by Type	20	5
Playground Turf - Replace	1,600	Square Feet	21	12	6
Shade Screens - Replace	4	Each	5,516	10	Varies
Basketball Court - Resurface	1	Each	7,100	5	1
Basketball Backboards - Replace	6	Each	850	18	3
Ramada Roofs - Replace	4,400	Square Feet	10	25	10

Capital Item	Calc Quantity	Units	Unit Cost	Calc EUL	Calc RUL	Planning Notes
COMMON AREA						
Concrete Flatwork - Unsch	1	Allowance	5,000	3	3	Budget assigned for unscheduled repair or replace of concrete flatwork including: park sidewalks, basketball court, landscape edging, and drainage ways.
Monument & Ramada Ligh	1	Allowance	3,500	15	13	Budget for monument & ramada light fixture replacement - includes fixtures and transformers only. Ramada light fixtures reported replaced in 2018; monument light fixtures reported replaced in 2017.
Mailbox Kiosks - Refurbish	78	Each	250	10	5	Line item added; manual delete in YR15 for full replace.
Mailbox Kiosks - Replace	78	Each	1,900	20	14	$1310 X 1.45 install and disposal, source - Online comparison / RSMeans. Reportedly installed in 2004; quantity approximated. Manually adjust RUL from 15YR to 14YR for minimizing high CapEx in YR15.
Perimeter Block Walls - Pa	1,260	Square Fe	18	5	3	Budget adjusted to 1% of total block wall ($14 sq/ft *1.3 disposal/removal) on a 5YR cycle; Budget data source RS Means; quantity approximated; reportedly installed in 2004.
Perimeter Block Walls - Pa	126,000	Square Fe	1	8	7	Budget source: client historic expense data for 2018, prior repaint in 2010. Note concurrently scheduled exterior paint line items.
Monument Signs - Refurbi	6	Each	1,500	10	5	Manual delete in YR15 for full replace. Budget data source: CKE experience.
Monument Signs - Replace	6	Each	12,178	20	16	Line item added; RUL adjusted to align with Monument Signs - Refurbish line item. Budget data source: CKE experience; reportedly installed in 2004. Manually adjust RUL from 15YR to 16YR for minimizing high CapEx in YR15.

Capital Item	Calc Quantity	Units	Unit Cost	Calc EUL	Calc RUL	Planning Notes
Backflow Prevention Devic	2	Each	2,500	5	1	Budget allocated for 1/3 of total replacement on a 5YR cycle, for 100% replacement over 15YR. Reportedly installed in 2004.
Irrigation Controllers - Rep	1	Allowance	2,763	3	8	$1,500 includes install and removal (Rainbird), source - community manager verbal interview. Budget for 25% of total replacement on a 3YR cycle, for 100% replacement over 12YR. Reportedly replaced in 2017.
Landscape Granite - Reple	630	Ton	65	15	15	Budget source: CKE experience/ RS Means. Community manager indicated 100% planned refresh/ replacement during Years 1-6. Budget allocated for 1/6 of total replacement in each Years 1 - 6, RUL set to 15YR (repeat 1/6 of total replacement over 6YR cycle).
Fertigation System - Repla	1	System	2,000	12	8	Budget assigned for $1,000 per acre, for an approximated total of 2 acres of fertigated land.
Exterior Metal Surfaces - F	1	Allowance	17,500	8	7	Budget includes painting of exterior metal assets including: backflow prevention cages, steel railings, basketball/ light poles, ramada stanchions, and other outdoor furniture. Last completed 2018. Note concurrently scheduled exterior paint line items.
Tree Removal & Replacem	1	Allowance	5,000	2	1	Line item added per board request; generally tree replacement in expensed from O&M. Budger added as a contingency for unexpected excess replacment due to high storm activity in the area.
PLAYGROUNDS						

Capital Item	Calc Quantity	Units	Unit Cost	Calc EUL	Calc RUL	Planning Notes
Pole Mount Light Fixtures -	39	Each	900	30	1	Reportedly installed in 2004; budget includes fixtures and install only - does not include concrete poles or mounting brakets. RUL adusted based upon deteriorated condition observed; reported planned solar upgrade in 2019.
Bike Racks - Replace	16	Each	150	30	15	Reportedly installed in 2004.
Park Furniture - Replace	1	Allowance	45,000	12	1	Reportedly installed in 2004. Includes various park furniture assets including: (22) park benches, (11) trash receptacles, (15) tables, and (12) BBQ grills.
Playground Equipment - R	1	Allowance	50,000	5	5	Includes various playground equipment assets including: (1) backstop, (2) swing sets, (1) zip line, (8) spring mates, and (4) playstructures. Reportedly installed in 2004. Adjusted for 25% total replacement in 5YR cylces, for 100% replacement in 20 YR.
Playground Turf - Replace	1,600	Square Fe	21	12	1	Source: Dave Bang Associates Park & Playground Equipment, similar product. RUL adjusted based upon deteriorated condition; replace 1/3 of total each in Years 1, 2 &3, revert to 12YR RUL.
Shade Screens - Replace	1	Each	5,516	2	1	Quantity approximated, for total 5,700SF . Budget data source: Client provided for planned replacement of one shade in 2019. Budget assigned for partial (20% of total) shade screens on a 2YR cycle (for total replacement over 10YR cycle). Reportedly installed in 2011.
Basketball Court - Resurfa	1	Each	7,100	5	1	Reported last resurface completed in 2015.

Capital Item	Calc Quantity	Units	Unit Cost	Calc EUL	Calc RUL	Planning Notes
Basketball Backboards - R	6	Each	850	18	3	Budget includes backboard; mounting brackets and pole are not included. Budget data source: CKE experience/ RS Means. Reportedly installed in 2004.
Ramada Roofs - Replace	2,900	Square Fe	10	25	10	Quantity approximated, for total 4,400SF (10 rooftops). Tile replacement EUL generally exceeds planning period. Budget includes partial tile replacement with 100% underlayment replaced.

TOTAL ANNUAL CAPEX >>	$120,741	$18,025	$63,958	$6,825	$107,013
Asset	**Year 1 2019**	**Year 2 2020**	**Year 3 2021**	**Year 4 2022**	**Year 5 2023**
COMMON AREA	-	-	-	-	-
Concrete Flatwork - Unscheduled Repair or Replac	-	-	5,305	-	-
Monument & Ramada Light Fixtures - Replace	-	-	-	-	-
Mailbox Kiosks - Refurbish/ Paint	-	-	-	-	21,947
Mailbox Kiosks - Replace	-	-	-	-	-
Perimeter Block Walls - Partial Replace or Refurbis	-	-	24,061	-	-
Perimeter Block Walls - Paint	-	-	-	-	-
Monument Signs - Refurbish	-	-	-	-	10,130
Monument Signs - Replace	-	-	-	-	-
Backflow Prevention Device - Replace	5,000	-	-	-	-
Irrigation Controllers - Replace	-	-	-	-	-
Landscape Granite - Replenish	6,825	6,825	6,825	6,825	6,825
Fertigation System - Replace	-	-	-	-	-
Exterior Metal Surfaces - Paint	-	-	-	-	-
Tree Removal & Replacement Budget	5,000	-	5,305	-	5,628
PLAYGROUNDS	-	-	-	-	-
Pole Mount Light Fixtures - Replace	35,100	-	-	-	-
Bike Racks - Replace	-	-	-	-	-
Park Furniture - Replace	45,000	-	-	-	-
Playground Equipment - Replace	-	-	-	-	56,275
Playground Turf - Replace	11,200	11,200	11,200	-	-
Shade Screens - Replace	5,516	-	5,852	-	6,208
Basketball Court - Resurface	7,100	-	-	-	-
Basketball Backboards - Replace	-	-	5,411	-	-
Ramada Roofs - Replace	-	-	-	-	-

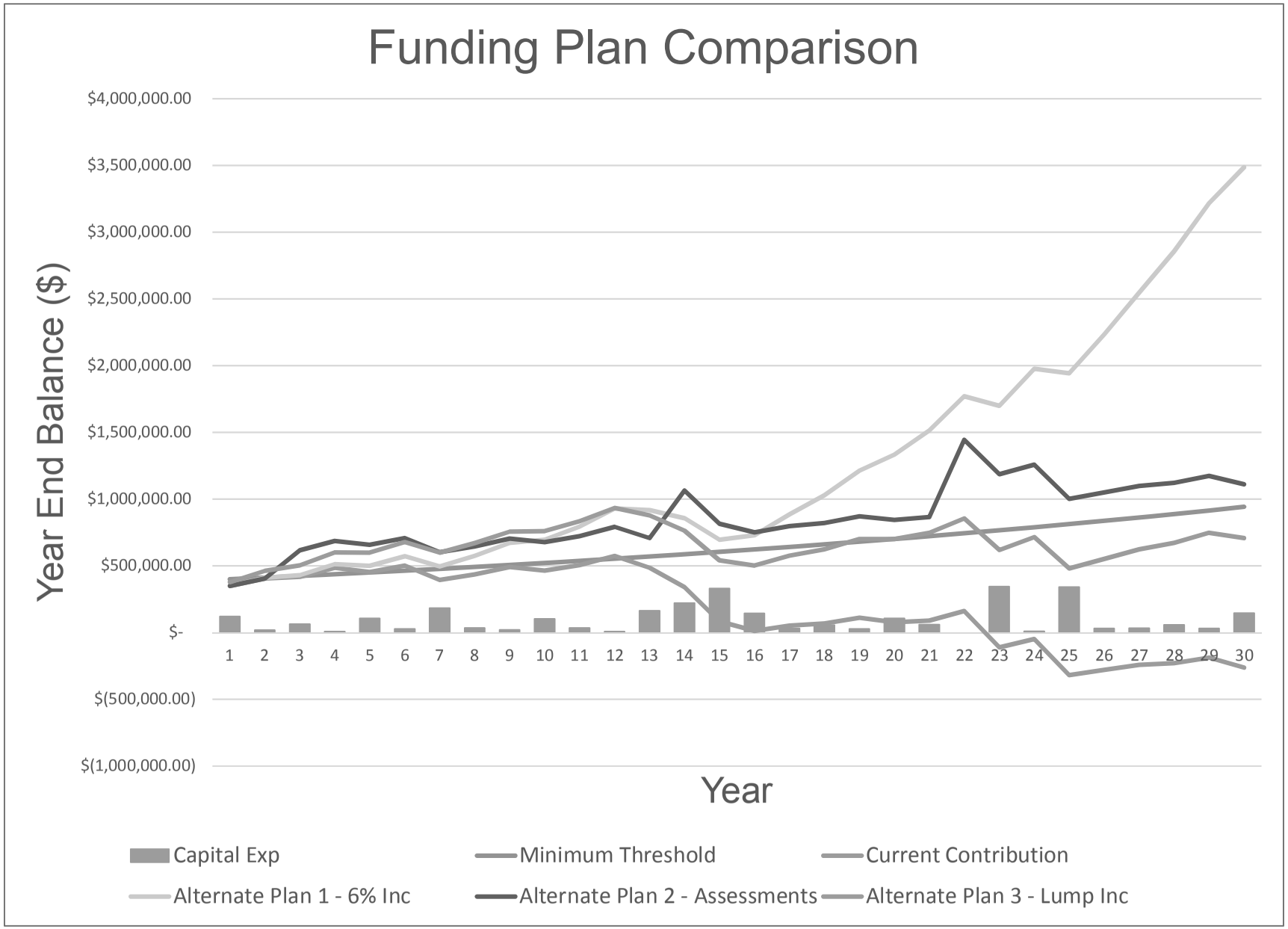
TOTAL ANNUAL CAPEX >>	$26,649	$183,903	$33,751	$19,655	$103,077
Asset	**Year 6 2024**	**Year 7 2025**	**Year 8 2026**	**Year 9 2027**	**Year 10 2028**
COMMON AREA	-	-	-	-	-
Concrete Flatwork - Unscheduled Repair or Replac	5,796	-	-	6,334	-
Monument & Ramada Light Fixtures - Replace	-	-	-	-	-
Mailbox Kiosks - Refurbish/ Paint	-	-	-	-	-
Mailbox Kiosks - Replace	-	-	-	-	-
Perimeter Block Walls - Partial Replace or Refurbis	-	-	27,894	-	-
Perimeter Block Walls - Paint	-	150,451	-	-	-
Monument Signs - Refurbish	-	-	-	-	-
Monument Signs - Replace	-	-	-	-	-
Backflow Prevention Device - Replace	5,796	-	-	-	-
Irrigation Controllers - Replace	-	-	3,398	-	-
Landscape Granite - Replenish	6,825	-	-	-	-
Fertigation System - Replace	-	-	2,460	-	-
Exterior Metal Surfaces - Paint	-	20,896	-	-	-
Tree Removal & Replacement Budget	-	5,970	-	6,334	-
PLAYGROUNDS	-	-	-	-	-
Pole Mount Light Fixtures - Replace	-	-	-	-	-
Bike Racks - Replace	-	-	-	-	-
Park Furniture - Replace	-	-	-	-	-
Playground Equipment - Replace	-	-	-	-	65,239
Playground Turf - Replace	-	-	-	-	-
Shade Screens - Replace	-	6,586	-	6,988	-
Basketball Court - Resurface	8,231	-	-	-	-
Basketball Backboards - Replace	-	-	-	-	-
Ramada Roofs - Replace	-	-	-	-	37,838

TOTAL ANNUAL CAPEX >>	$34,107	$6,921	$164,385	$221,694	$330,109
Asset	**Year 11 2029**	**Year 12 2030**	**Year 13 2031**	**Year 14 2032**	**Year 15 2033**
COMMON AREA	-	-	-	-	-
Concrete Flatwork - Unscheduled Repair or Replac	-	6,921	-	-	7,563
Monument & Ramada Light Fixtures - Replace	-	-	4,990	-	-
Mailbox Kiosks - Refurbish/ Paint	-	-	-	-	-
Mailbox Kiosks - Replace	-	-	-	217,637	-
Perimeter Block Walls - Partial Replace or Refurbis	-	-	32,336	-	-
Perimeter Block Walls - Paint	-	-	-	-	190,586
Monument Signs - Refurbish	-	-	-	-	-
Monument Signs - Replace	-	-	-	-	-
Backflow Prevention Device - Replace	6,720	-	-	-	-
Irrigation Controllers - Replace	3,713	-	-	4,058	-
Landscape Granite - Replenish	-	-	-	-	10,323
Fertigation System - Replace	-	-	-	-	-
Exterior Metal Surfaces - Paint	-	-	-	-	26,470
Tree Removal & Replacement Budget	6,720	-	7,129	-	7,563
PLAYGROUNDS	-	-	-	-	-
Pole Mount Light Fixtures - Replace	-	-	-	-	-
Bike Racks - Replace	-	-	-	-	3,630
Park Furniture - Replace	-	-	64,159	-	-
Playground Equipment - Replace	-	-	-	-	75,629
Playground Turf - Replace	-	-	47,906	-	-
Shade Screens - Replace	7,413	-	7,864	-	8,343
Basketball Court - Resurface	9,542	-	-	-	-
Basketball Backboards - Replace	-	-	-	-	-
Ramada Roofs - Replace	-	-	-	-	-

TOTAL ANNUAL CAPEX >>	$143,012	$31,632	$56,074	$28,226	$106,351
Asset	**Year 16 2034**	**Year 17 2035**	**Year 18 2036**	**Year 19 2037**	**Year 20 2038**
COMMON AREA	-	-	-	-	-
Concrete Flatwork - Unscheduled Repair or Replac	-	-	8,264	-	-
Monument & Ramada Light Fixtures - Replace	-	-	-	-	-
Mailbox Kiosks - Refurbish/ Paint	-	-	-	-	-
Mailbox Kiosks - Replace	-	-	-	-	-
Perimeter Block Walls - Partial Replace or Refurbis	-	-	37,487	-	-
Perimeter Block Walls - Paint	-	-	-	-	-
Monument Signs - Refurbish	-	-	-	-	-
Monument Signs - Replace	113,838	-	-	-	-
Backflow Prevention Device - Replace	7,790	-	-	-	-
Irrigation Controllers - Replace	-	4,434	-	-	4,845
Landscape Granite - Replenish	10,323	10,323	10,323	10,323	10,323
Fertigation System - Replace	-	-	-	-	3,507
Exterior Metal Surfaces - Paint	-	-	-	-	-
Tree Removal & Replacement Budget	-	8,024	-	8,512	-
PLAYGROUNDS	-	-	-	-	-
Pole Mount Light Fixtures - Replace	-	-	-	-	-
Bike Racks - Replace	-	-	-	-	-
Park Furniture - Replace	-	-	-	-	-
Playground Equipment - Replace	-	-	-	-	87,675
Playground Turf - Replace	-	-	-	-	-
Shade Screens - Replace	-	8,852	-	9,391	-
Basketball Court - Resurface	11,062	-	-	-	-
Basketball Backboards - Replace	-	-	-	-	-
Ramada Roofs - Replace	-	-	-	-	-

TOTAL ANNUAL CAPEX >>	$59,089	$0	$343,862	$9,868	$340,729
Asset	**Year 21 2039**	**Year 22 2040**	**Year 23 2041**	**Year 24 2042**	**Year 25 2043**
COMMON AREA	-	-	-	-	-
Concrete Flatwork - Unscheduled Repair or Replac	9,031	-	-	9,868	-
Monument & Ramada Light Fixtures - Replace	-	-	-	-	-
Mailbox Kiosks - Refurbish/ Paint	-	-	-	-	39,639
Mailbox Kiosks - Replace	-	-	-	-	-
Perimeter Block Walls - Partial Replace or Refurbis	-	-	43,457	-	-
Perimeter Block Walls - Paint	-	-	241,429	-	-
Monument Signs - Refurbish	-	-	-	-	18,295
Monument Signs - Replace	-	-	-	-	-
Backflow Prevention Device - Replace	9,031	-	-	-	-
Irrigation Controllers - Replace	-	-	5,294	-	-
Landscape Granite - Replenish	-	-	-	-	-
Fertigation System - Replace	-	-	-	-	-
Exterior Metal Surfaces - Paint	-	-	33,532	-	-
Tree Removal & Replacement Budget	9,031	-	9,581	-	10,164
PLAYGROUNDS	-	-	-	-	-
Pole Mount Light Fixtures - Replace	-	-	-	-	-
Bike Racks - Replace	-	-	-	-	-
Park Furniture - Replace	-	-	-	-	91,476
Playground Equipment - Replace	-	-	-	-	101,640
Playground Turf - Replace	-	-	-	-	68,302
Shade Screens - Replace	9,963	-	10,569	-	11,213
Basketball Court - Resurface	12,823	-	-	-	-
Basketball Backboards - Replace	9,211	-	-	-	-
Ramada Roofs - Replace	-	-	-	-	-

TOTAL ANNUAL CAPEX >>	$31,120	$33,462	$58,153	$30,381	$145,694
Asset	**Year 26 2044**	**Year 27 2045**	**Year 28 2046**	**Year 29 2047**	**Year 30 2048**
COMMON AREA	-	-	-	-	-
Concrete Flatwork - Unscheduled Repair or Replac	-	10,783	-	-	11,783
Monument & Ramada Light Fixtures - Replace	-	-	7,775	-	-
Mailbox Kiosks - Refurbish/ Paint	-	-	-	-	-
Mailbox Kiosks - Replace	-	-	-	-	-
Perimeter Block Walls - Partial Replace or Refurbis	-	-	50,379	-	-
Perimeter Block Walls - Paint	-	-	-	-	-
Monument Signs - Refurbish	-	-	-	-	-
Monument Signs - Replace	-	-	-	-	-
Backflow Prevention Device - Replace	10,469	-	-	-	-
Irrigation Controllers - Replace	5,785	-	-	6,322	-
Landscape Granite - Replenish	-	-	-	-	16,083
Fertigation System - Replace	-	-	-	-	-
Exterior Metal Surfaces - Paint	-	-	-	-	-
Tree Removal & Replacement Budget	-	10,783	-	11,440	-
PLAYGROUNDS	-	-	-	-	-
Pole Mount Light Fixtures - Replace	-	-	-	-	-
Bike Racks - Replace	-	-	-	-	-
Park Furniture - Replace	-	-	-	-	-
Playground Equipment - Replace	-	-	-	-	117,828
Playground Turf - Replace	-	-	-	-	-
Shade Screens - Replace	-	11,896	-	12,620	-
Basketball Court - Resurface	14,866	-	-	-	-
Basketball Backboards - Replace	-	-	-	-	-
Ramada Roofs - Replace	-	-	-	-	-


Funding Plan Comparison
$4,000,000.00
$3,500,000.00
$3,000,000.00
$2,500,000.00
$2,000,000.00
$1,500,000.00
$1,000,000.00
$500,000.00
$-
$(500,000.00)
$(1,000,000.00)
Year End Balance ($)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Year
Capital Exp
Minimum Threshold
Current Contribution
Alternate Plan 1 - 6% Inc
Alternate Plan 2 - Assessments
Alternate Plan 3 - Lump Inc

Contribution Details

	Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
First Year	$ 5,905	$ 70,856	$ 5.23	$ 62.76
Last Year	$ 5,905	$ 70,856	$ 5.23	$ 62.76

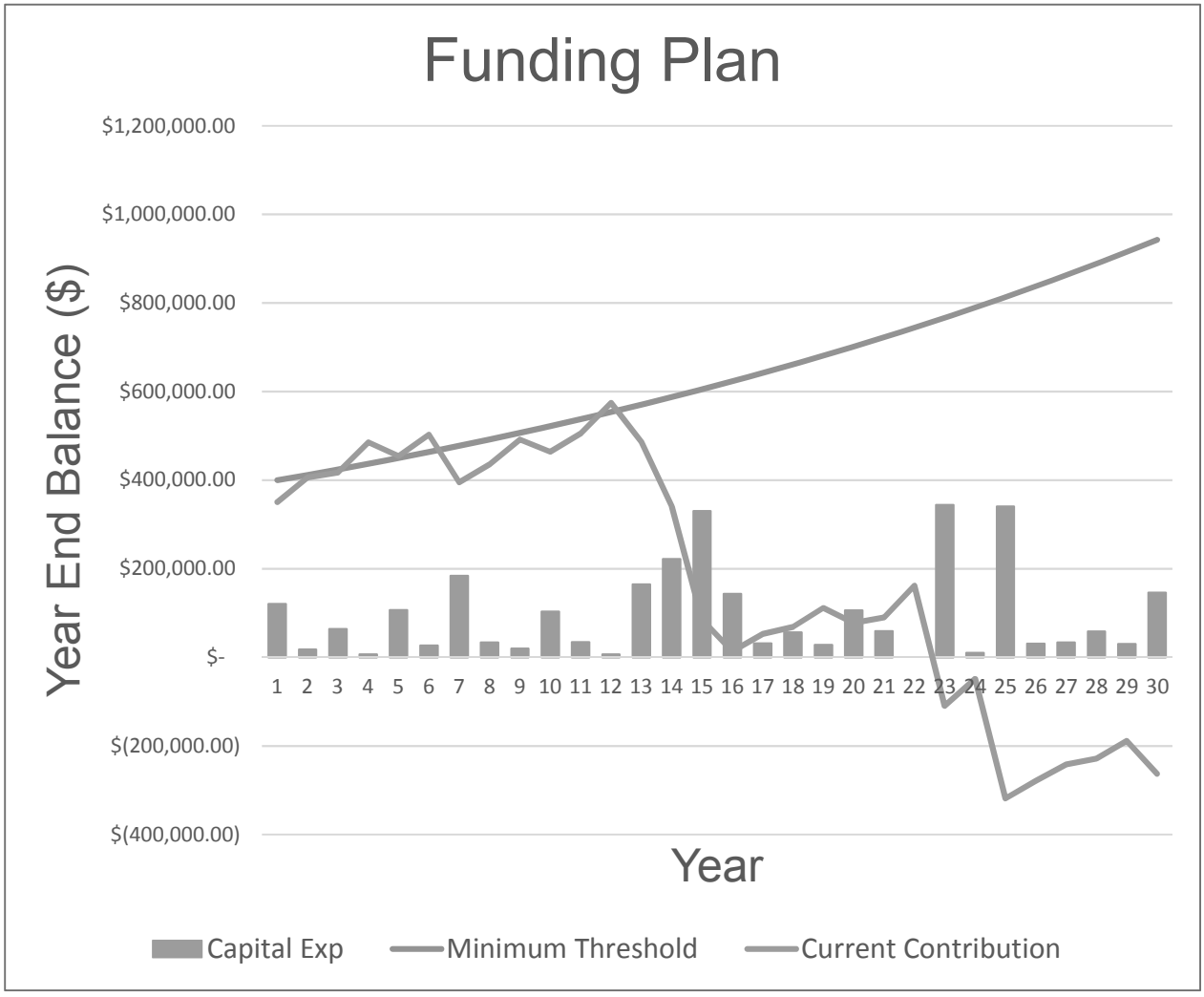
Number of Units	1129
Fiscal Year starts:	01/01/19
Reserve Funds at start	$ 395,978
Rate of Return (%)	1.00%
Inflation Rate (%)	3.00%
Initial Minimum Threshold	$ 400,000

Special Assessments		
Year	Total/Year	Per Unit
		$ -
		$ -
		$ -

SUMMARY

No change to contribution

No Special Assessments



Capital Reserve Fund – Current Funding Plan
No Change to Contribution

Year	Fiscal Year	Beginning Reserve Balance	Revenue	Special Assessment	Investment Earnings	Capital Expenditure	Ending Reserve Balance	Minimum Threshold
2019	1	395,978	70,856	-	3,960	120,741	350,053	400,000
2020	2	350,053	70,856	-	3,501	18,025	406,384	412,000
2021	3	406,384	70,856	-	4,064	63,958	417,347	424,360
2022	4	417,347	70,856	-	4,173	6,825	485,551	437,091
2023	5	485,551	70,856	-	4,856	107,013	454,249	450,204
2024	6	454,249	70,856	-	4,542	26,649	502,999	463,710
2025	7	502,999	70,856	-	5,030	183,903	394,982	477,621
2026	8	394,982	70,856	-	3,950	33,751	436,037	491,950
2027	9	436,037	70,856	-	4,360	19,655	491,598	506,708
2028	10	491,598	70,856	-	4,916	103,077	464,293	521,909
2029	11	464,293	70,856	-	4,643	34,107	505,684	537,567
2030	12	505,684	70,856	-	5,057	6,921	574,676	553,694
2031	13	574,676	70,856	-	5,747	164,385	486,894	570,304
2032	14	486,894	70,856	-	4,869	221,694	340,925	587,413
2033	15	340,925	70,856	-	3,409	330,109	85,081	605,036
2034	16	85,081	70,856	-	851	143,012	13,776	623,187
2035	17	13,776	70,856	-	138	31,632	53,138	641,883
2036	18	53,138	70,856	-	531	56,074	68,451	661,139
2037	19	68,451	70,856	-	685	28,226	111,765	680,973
2038	20	111,765	70,856	-	1,118	106,351	77,388	701,402
2039	21	77,388	70,856	-	774	59,089	89,930	722,444
2040	22	89,930	70,856	-	899	-	161,685	744,118
2041	23	161,685	70,856	-	1,617	343,862	(109,704)	766,441
2042	24	(109,704)	70,856	-	-	9,868	(48,716)	789,435
2043	25	(48,716)	70,856	-	-	340,729	(318,589)	813,118
2044	26	(318,589)	70,856	-	-	31,120	(278,853)	837,511
2045	27	(278,853)	70,856	-	-	33,462	(241,458)	862,637
2046	28	(241,458)	70,856	-	-	58,153	(228,756)	888,516
2047	29	(228,756)	70,856	-	-	30,381	(188,281)	915,171
2048	30	(188,281)	70,856	-	-	145,694	(263,119)	942,626

Contribution Details

	Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
First Year	$ 5,905	$ 70,856	$ 5.23	$ 62.76
Last Year	$ 31,994	$ 383,926	$ 28.34	$ 340.06

Number of Units	1129
Fiscal Year starts:	01/01/19
Reserve Funds at start	$ 395,978
Rate of Return (%)	1.00%
Inflation Rate (%)	3.00%
Initial Minimum Threshold	$ 400,000

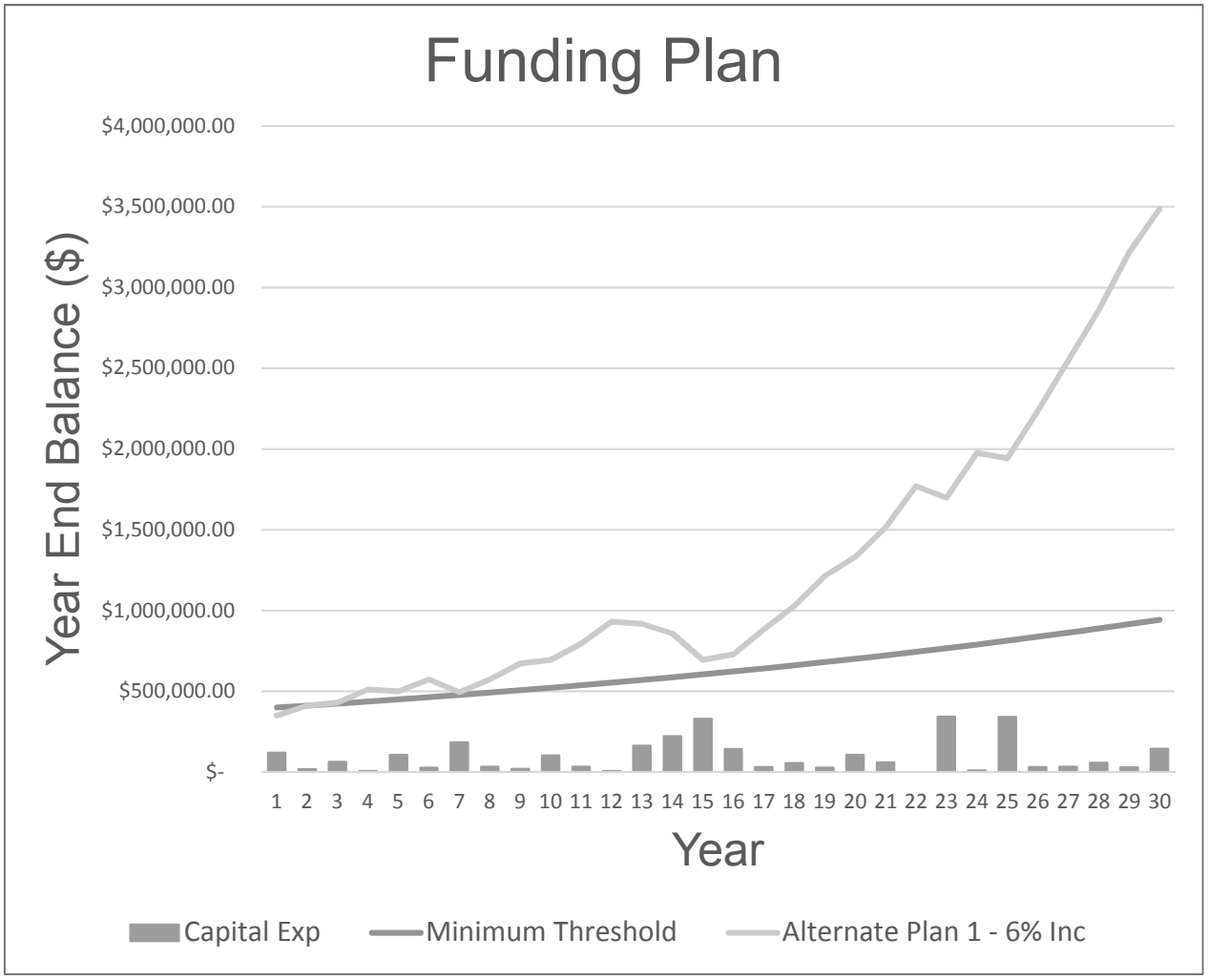
Special Assessments		
Year	Total/Year	Per Unit
		$ -
		$ -
		$ -

SUMMARY

Annual Increase at 6%

No lump sum increase

No Special Assessments



Capital Reserve Fund - Funding Plan - Alternate 1

Annual Increase 6%

Year	Fiscal Year	Beginning Reserve Balance	Revenue	Special Assessment	Investment Earnings	Capital Expenditure	Ending Reserve Balance	Minimum Threshold
2019	1	395,978	70,856	-	3,960	120,741	350,053	400,000
2020	2	350,053	75,107	-	3,501	18,025	410,636	412,000
2021	3	410,636	79,614	-	4,106	63,958	430,398	424,360
2022	4	430,398	84,391	-	4,304	6,825	512,268	437,091
2023	5	512,268	89,454	-	5,123	107,013	499,831	450,204
2024	6	499,831	94,821	-	4,998	26,649	573,002	463,710
2025	7	573,002	100,511	-	5,730	183,903	495,340	477,621
2026	8	495,340	106,541	-	4,953	33,751	573,083	491,950
2027	9	573,083	112,934	-	5,731	19,655	672,093	506,708
2028	10	672,093	119,710	-	6,721	103,077	695,446	521,909
2029	11	695,446	126,892	-	6,954	34,107	795,186	537,567
2030	12	795,186	134,506	-	7,952	6,921	930,722	553,694
2031	13	930,722	142,576	-	9,307	164,385	918,221	570,304
2032	14	918,221	151,131	-	9,182	221,694	856,840	587,413
2033	15	856,840	160,199	-	8,568	330,109	695,498	605,036
2034	16	695,498	169,811	-	6,955	143,012	729,252	623,187
2035	17	729,252	179,999	-	7,293	31,632	884,911	641,883
2036	18	884,911	190,799	-	8,849	56,074	1,028,485	661,139
2037	19	1,028,485	202,247	-	10,285	28,226	1,212,791	680,973
2038	20	1,212,791	214,382	-	12,128	106,351	1,332,951	701,402
2039	21	1,332,951	227,245	-	13,330	59,089	1,514,436	722,444
2040	22	1,514,436	240,880	-	15,144	-	1,770,460	744,118
2041	23	1,770,460	255,332	-	17,705	343,862	1,699,635	766,441
2042	24	1,699,635	270,652	-	16,996	9,868	1,977,416	789,435
2043	25	1,977,416	286,891	-	19,774	340,729	1,943,353	813,118
2044	26	1,943,353	304,105	-	19,434	31,120	2,235,772	837,511
2045	27	2,235,772	322,351	-	22,358	33,462	2,547,019	862,637
2046	28	2,547,019	341,692	-	25,470	58,153	2,856,028	888,516
2047	29	2,856,028	362,194	-	28,560	30,381	3,216,401	915,171
2048	30	3,216,401	383,926	-	32,164	145,694	3,486,796	942,626

Contribution Details

	Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
First Year	$ 5,905	$ 70,856	$ 5	$ 63
Last Year	$ 5,905	$ 70,856	$ 5	$ 63

Number of Units	1129
Fiscal Year starts:	01/01/19
Reserve Funds at start	$ 395,978
Rate of Return (%)	1.00%
Inflation Rate (%)	3.00%
Initial Minimum Threshold	$ 400,000

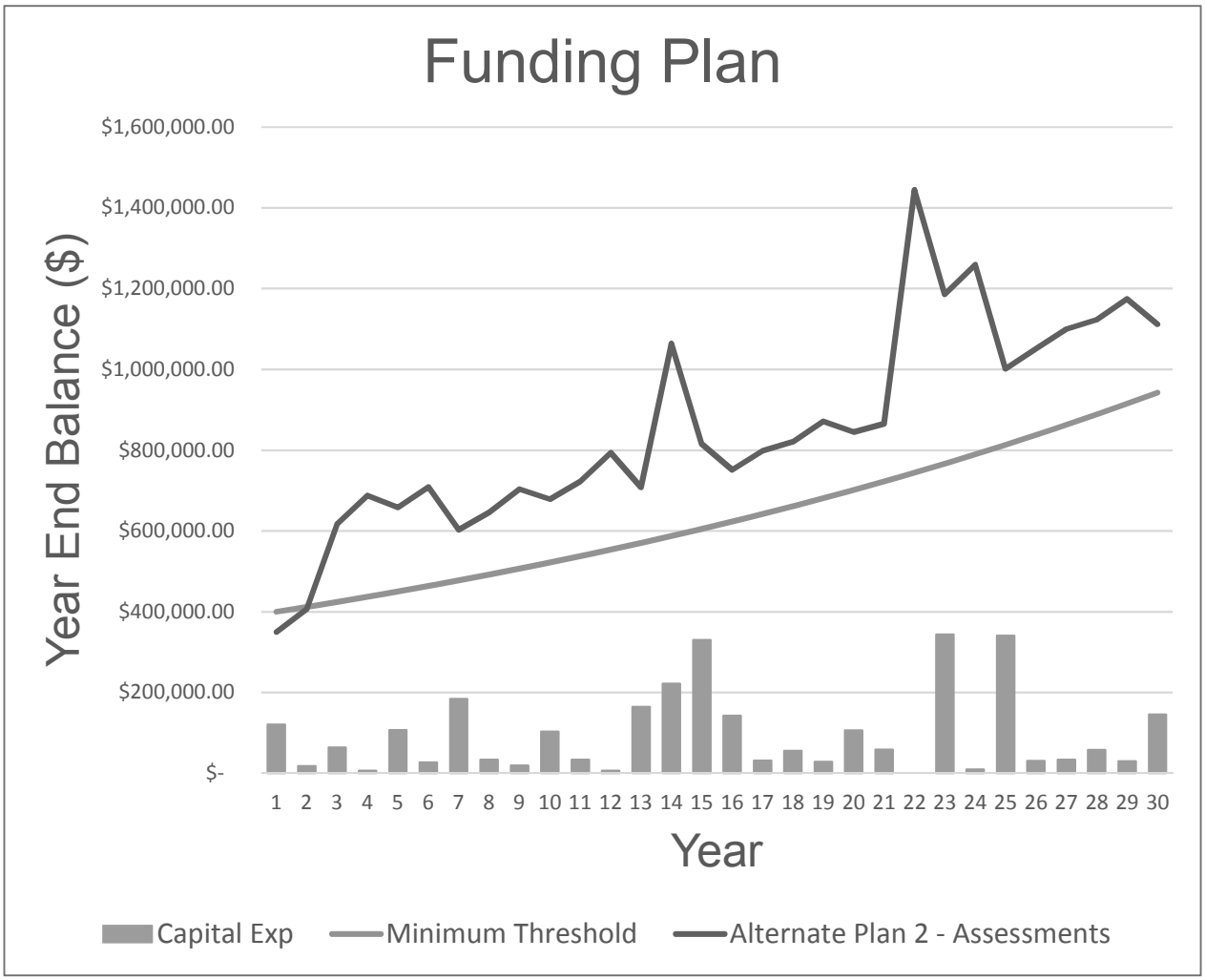
SUMMARY

No Annual Increase

No lump sum increase

Special Assessments
In Year 3, 14, 22

Special Assessments		
Year	Total/Year	Per Unit
Year 3 (2021)	$ 200,000	$ 177
Year 14 (2032)	$ 500,000	$ 443
Year 22 (2040)	$ 500,000	$ 443



Year	Fiscal Year	Beginning Reserve Balance	Revenue	Special Assessment	Investment Earnings	Capital Expenditure	Ending Reserve Balance	Minimum Threshold
2019	1	395,978	70,856	-	3,960	120,741	350,053	400,000
2020	2	350,053	70,856	-	3,501	18,025	406,384	412,000
2021	3	406,384	70,856	200,000	4,064	63,958	617,347	424,360
2022	4	617,347	70,856	-	6,173	6,825	687,551	437,091
2023	5	687,551	70,856	-	6,876	107,013	658,269	450,204
2024	6	658,269	70,856	-	6,583	26,649	709,059	463,710
2025	7	709,059	70,856	-	7,091	183,903	603,103	477,621
2026	8	603,103	70,856	-	6,031	33,751	646,239	491,950
2027	9	646,239	70,856	-	6,462	19,655	703,902	506,708
2028	10	703,902	70,856	-	7,039	103,077	678,720	521,909
2029	11	678,720	70,856	-	6,787	34,107	722,256	537,567
2030	12	722,256	70,856	-	7,223	6,921	793,413	553,694
2031	13	793,413	70,856	-	7,934	164,385	707,819	570,304
2032	14	707,819	70,856	500,000	7,078	221,694	1,064,059	587,413
2033	15	1,064,059	70,856	-	10,641	330,109	815,446	605,036
2034	16	815,446	70,856	-	8,154	143,012	751,445	623,187
2035	17	751,445	70,856	-	7,514	31,632	798,183	641,883
2036	18	798,183	70,856	-	7,982	56,074	820,947	661,139
2037	19	820,947	70,856	-	8,209	28,226	871,786	680,973
2038	20	871,786	70,856	-	8,718	106,351	845,009	701,402
2039	21	845,009	70,856	-	8,450	59,089	865,227	722,444
2040	22	865,227	70,856	500,000	8,652	-	1,444,735	744,118
2041	23	1,444,735	70,856	-	14,447	343,862	1,186,176	766,441
2042	24	1,186,176	70,856	-	11,862	9,868	1,259,026	789,435
2043	25	1,259,026	70,856	-	12,590	340,729	1,001,744	813,118
2044	26	1,001,744	70,856	-	10,017	31,120	1,051,497	837,511
2045	27	1,051,497	70,856	-	10,515	33,462	1,099,407	862,637
2046	28	1,099,407	70,856	-	10,994	58,153	1,123,104	888,516
2047	29	1,123,104	70,856	-	11,231	30,381	1,174,809	915,171
2048	30	1,174,809	70,856	-	11,748	145,694	1,111,719	942,626

Capital Reserve Fund - Funding Plan - Alternate 2

Lump Sum Increase in Year 1

Contribution Details

	Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
First Year	$ 5,905	$ 70,856	$ 5.23	$ 62.76
Last Year	$ 5,905	$ 70,856	$ 5.23	$ 62.76

Number of Units	1129
Fiscal Year starts:	01/01/19
Reserve Funds at start	$ 395,978
Rate of Return (%)	1.00%
Inflation Rate (%)	3.00%
Initial Minimum Threshold	$ 400,000

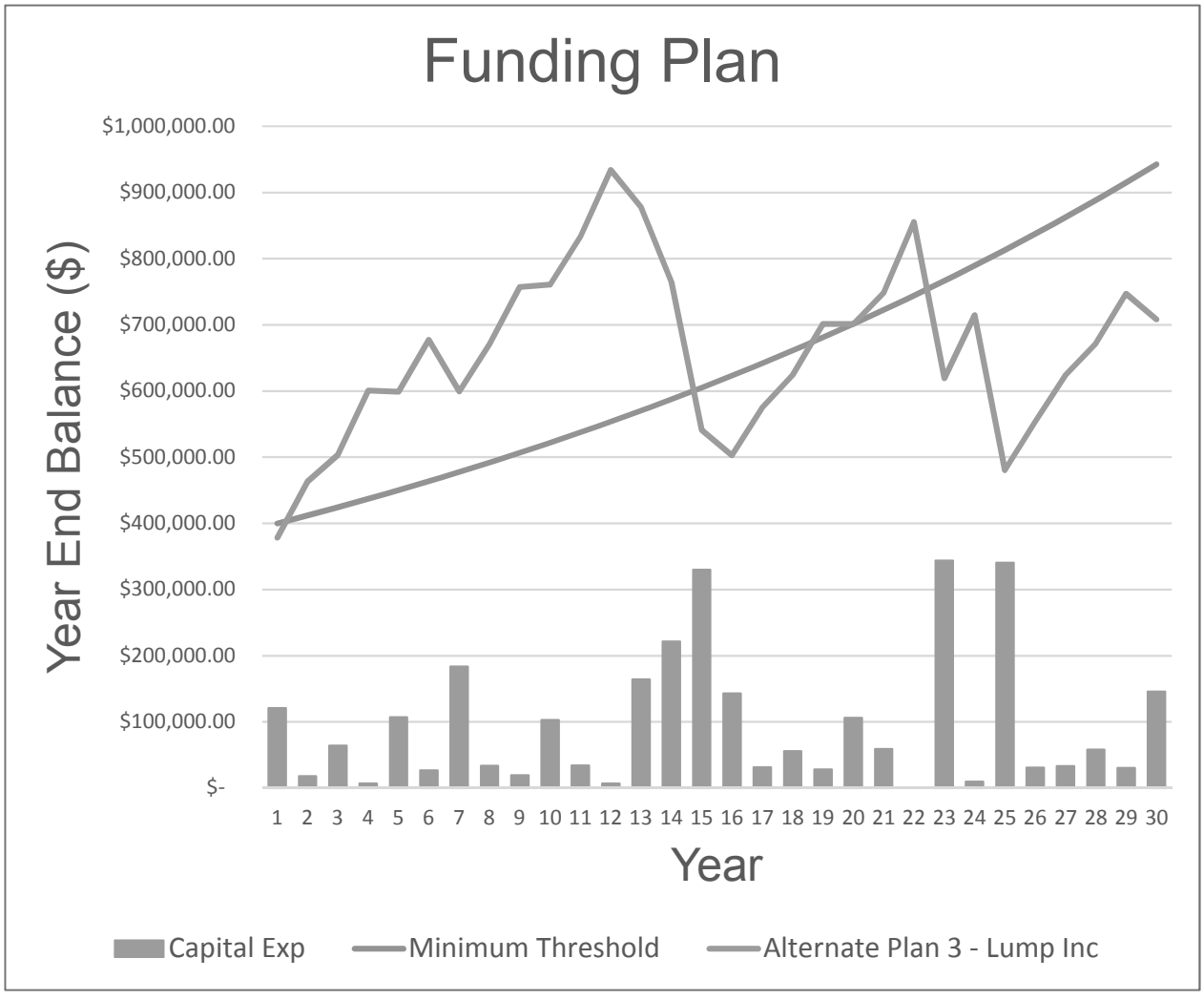
Special Assessments		
Year	Total/Year	Per Unit

SUMMARY

No Annual Increase

Lump sum increase
40% in Year 1

No Special Assessments



Capital Reserve Fund - Funding Plan - Alternate 2

Lump Sum Increase in Year 1

Year	Fiscal Year	Beginning Reserve Balance	Revenue	Special Assessment	Investment Earnings	Capital Expenditure	Ending Reserve Balance	Minimum Threshold
2019	1	395,978	99,198	-	3,960	120,741	378,395	400,000
2020	2	378,395	99,198	-	3,784	18,025	463,353	412,000
2021	3	463,353	99,198	-	4,634	63,958	503,227	424,360
2022	4	503,227	99,198	-	5,032	6,825	600,633	437,091
2023	5	600,633	99,198	-	6,006	107,013	598,824	450,204
2024	6	598,824	99,198	-	5,988	26,649	677,362	463,710
2025	7	677,362	99,198	-	6,774	183,903	599,431	477,621
2026	8	599,431	99,198	-	5,994	33,751	670,872	491,950
2027	9	670,872	99,198	-	6,709	19,655	757,124	506,708
2028	10	757,124	99,198	-	7,571	103,077	760,817	521,909
2029	11	760,817	99,198	-	7,608	34,107	833,516	537,567
2030	12	833,516	99,198	-	8,335	6,921	934,129	553,694
2031	13	934,129	99,198	-	9,341	164,385	878,284	570,304
2032	14	878,284	99,198	-	8,783	221,694	764,571	587,413
2033	15	764,571	99,198	-	7,646	330,109	541,306	605,036
2034	16	541,306	99,198	-	5,413	143,012	502,906	623,187
2035	17	502,906	99,198	-	5,029	31,632	575,501	641,883
2036	18	575,501	99,198	-	5,755	56,074	624,380	661,139
2037	19	624,380	99,198	-	6,244	28,226	701,596	680,973
2038	20	701,596	99,198	-	7,016	106,351	701,460	701,402
2039	21	701,460	99,198	-	7,015	59,089	748,584	722,444
2040	22	748,584	99,198	-	7,486	-	855,269	744,118
2041	23	855,269	99,198	-	8,553	343,862	619,158	766,441
2042	24	619,158	99,198	-	6,192	9,868	714,680	789,435
2043	25	714,680	99,198	-	7,147	340,729	480,296	813,118
2044	26	480,296	99,198	-	4,803	31,120	553,178	837,511
2045	27	553,178	99,198	-	5,532	33,462	624,447	862,637
2046	28	624,447	99,198	-	6,244	58,153	671,736	888,516
2047	29	671,736	99,198	-	6,717	30,381	747,271	915,171
2048	30	747,271	99,198	-	7,473	145,694	708,248	942,626

APPENDIX B

GRAPHIC EXHIBITS

Royal Ranch Desert-Turf Breakdown

Parcel	Meter No.	Meter Size	Desert (sq ft)	Turf (sq ft)
A	8	2"	67,214	48,591
B	7, 9	2", 0.75"	229,531	104,821
C	6	2"	82,311	80,030
D	5	1.5"	77,018	65,711
E	4	2"	142,281	80,501
F	3	2"	31,696	11,624
G	3	2"	70,319	40,219
H	3	2"	77,280	104,829
I	2	1"	39,772	28,030
J	None*	na	91,719	7,302
K	2	1"	196,873	-
		Total Square Feet:	**1,106,014**	**571,658**
		Total Acres	**25.39**	**13.12**

*Note: Irrigation Meter No. 1 in Area 'J' was not found and surveyed by Mike K. & Randy DLG.

Date: 05-11-10

2019 Draft Budget

Royal Ranch HOA

Year: 2019

Notes:

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
4010 - Homeowner Assessments	69,998.00	69,998.00	69,998.00	69,998.00	69,998.00	69,998.00	69,998.00	69,998.00	69,998.00	69,998.00	69,998.00	69,998.00	839,976.00	$62 per mont at 1,129 units
4110 - Interest-Reserves	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	900.00	
4220 - Late Payment Charges	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	600.00	7,200.00	
4230 - Demand Charges	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	6,000.00	
4250 - Collection Costs	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	4,200.00	
4320 - CC&R Enforcement Fees	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	12,000.00	
5010 - Landscape Maintenance Contract	19,777.00	19,777.00	19,777.00	19,777.00	19,777.00	19,777.00	19,777.00	19,777.00	19,777.00	19,777.00	19,777.00	19,777.00	237,324.00	This is the montly rate for the Carescape contract
5030 - Irrigation Repair	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	10,200.00	Based on Carescape's Landscape budget
5060 - Backflow Testing		520.00											520.00	Based on Carescape's Landscape budget
5070 - Drywell Maintenance							4,000.00						4,000.00	Repairs performed in 2017
5080 - Common Area Repairs	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	2,400.00	Unchanged. Covers general repairs to equipment in the common areas.
5120 - Tree Replacement/Removal			8,000.00							5,000.00			13,000.00	Based on Carescape's Landscape budget
5130 - Tree Trimming			25,000.00							25,000.00			50,000.00	Based on Carescape's Landscape budget
5140 - Palm Tree Skinning/Trimming						3,300.00							3,300.00	Based on Carescape's Landscape budget
5170 - Flowers & Shrubs				6,000.00	2,850.00					6,350.00			15,200.00	Annual flowers and shrub replacement
5180 - Storm Damage						500.00	2,500.00	2,500.00	1,000.00				6,500.00	Removal of downed trees and erosion repair
5190 - Seed										17,475.00			17,475.00	Winter overseeding
5200 - Fertilizer / Chemicals					3,025.00								3,025.00	Soil ammendments
5260 - Weed Control		5,100.00				8,850.00							13,950.00	Turf areas
5270 - Pest Control	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	6,000.00	Monthly Pest Control $409 Burns
5290 - Electrical Repair-Common Areas	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	1,800.00	Decreased per trend from previous years
5300 - Property Lighting	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	250.00	3,000.00	Includes commona area lights and christmas lights
5310 - Block Wall Repair	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	4,200.00	Includes repairs to the wall where the metal railing was taken down
5320 - Fencing Repair	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	900.00	Covers fencing like the baseball backstop and metal railings
5330 - Monument Maintenance/Repair	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	960.00	Repairs to the monument signs
5340 - Painting-Common Areas	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	600.00	Community walls are under waranty
5350 - Graffiti Removal	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	960.00	Less graffiti in 2018
5360 - Vandalism Repair	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	2,400.00	Increased due to recent activity in the parks
5370 - Sidewalk / Concrete Repairs	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	350.00	4,200.00	Decreased as less than $4,000 anticipated to be spent in 2018
5410 - Signs	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	600.00	Includes enhancements to community signs
5550 - Self Help Property Maintenance	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	900.00	Covers the cost of the association repairing an owners property. Reimbursed to the HOA when account brought current
5710 - Playground Equipment	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	300.00	3,600.00	Reduced per trend
5730 - Playground Maintenance	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	18,000.00	Increased based on 2018 trend
6580 - Ramada Maintenance	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	80.00	960.00	Reduced based on 2017 and 2018 trends
7010 - Water	12,000.00	12,000.00	8,000.00	8,000.00	14,000.00	16,000.00	31,000.00	31,000.00	17,000.00	32,000.00	18,000.00	28,000.00	227,000.00	Increased 2017 was over 200,000 and 2018 anticipated to be 170,000
7050 - Electricity	1,100.00	1,100.00	1,100.00	1,100.00	1,100.00	1,100.00	1,100.00	1,100.00	1,100.00	1,100.00	1,100.00	1,100.00	13,200.00	Increased slightly due to new rates
7210 - Association Master Policy											9,100.00		9,100.00	Workmans comp and umbrella added to HOAs policy
8045 - Annual Meeting Mailer				3,951.50									3,951.50	Contracted price
8090 - NSF Bank Fees	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	180.00	
8130 - Late Notices / Demand Letters	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	10,200.00	
8150 - Compliance Inspections	395.15	395.15	395.15	395.15	395.15	395.15	395.15	395.15	395.15	395.15	395.15	395.15	4,741.80	Night Time Parking Complaince
8180 - Lien / Judgment Fees	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	1,800.00	Covers the cost of filing liens and judgements. Reibursed to HOA when owner brings account current
8210 - Property Taxes											1,200.00		1,200.00	Increased based of 2017 property taxes
8220 - Income Taxes		50.00											50.00	Decreased based of 2016 income taxes
8250 - Meeting Facility			288.00										288.00	
8280 - Community Events												8,000.00	8,000.00	Holiday event - Party in the park
8310 - Storage	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1,200.00	For storage unit
8490 - Miscellaneous Administrative	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	600.00	
8510 - Management Contract	5,750.00	5,750.00	5,750.00	5,750.00	5,750.00	5,750.00	5,750.00	5,750.00	5,750.00	5,750.00	5,750.00	5,750.00	69,000.00	Fixed rate
8530 - Income Tax / Audit / Review			790.70										790.70	Annual review and filing of taxes
8535 - Collections	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	500.00	6,000.00	Cost of collecting on delinquent accounts. Reimbursed to the HOA when Owner brings their account current
8537 - Legal-Small Claims	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00	4,800.00	Cost of taking accounts to small claims court. Reibursed to the HOA when Owner brings their account current
8540 - Legal-Collections	750.00	750.00	750.00	750.00	750.00	750.00	750.00	750.00	750.00	750.00	750.00	750.00	9,000.00	Reduced based on 2018 trend
8550 - Legal-General Counsel	125.00	125.00	125.00	125.00	125.00	125.00	125.00	125.00	125.00	125.00	125.00	125.00	1,500.00	General attorney services
9020 - General Reserves	5,900.00	5,900.00	5,900.00	5,900.00	5,900.00	5,900.00	5,900.00	5,900.00	5,900.00	5,900.00	5,900.00	5,900.00	70,800.00	Per the reserve study we should have a balance of $395,978 in 2019
9400 - Reserve Interest	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	75.00	900.00	

Income Accounts Total:	$870,276.00
Expense Accounts Total:	$870,276.00
Difference:	$0.00

APPENDIX C

PHOTOGRAPHS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
1		Subject Property - Playground Equipment/ Shades

PHOTO NUMBER		Description:
2		Subject Property - Park Furniture

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

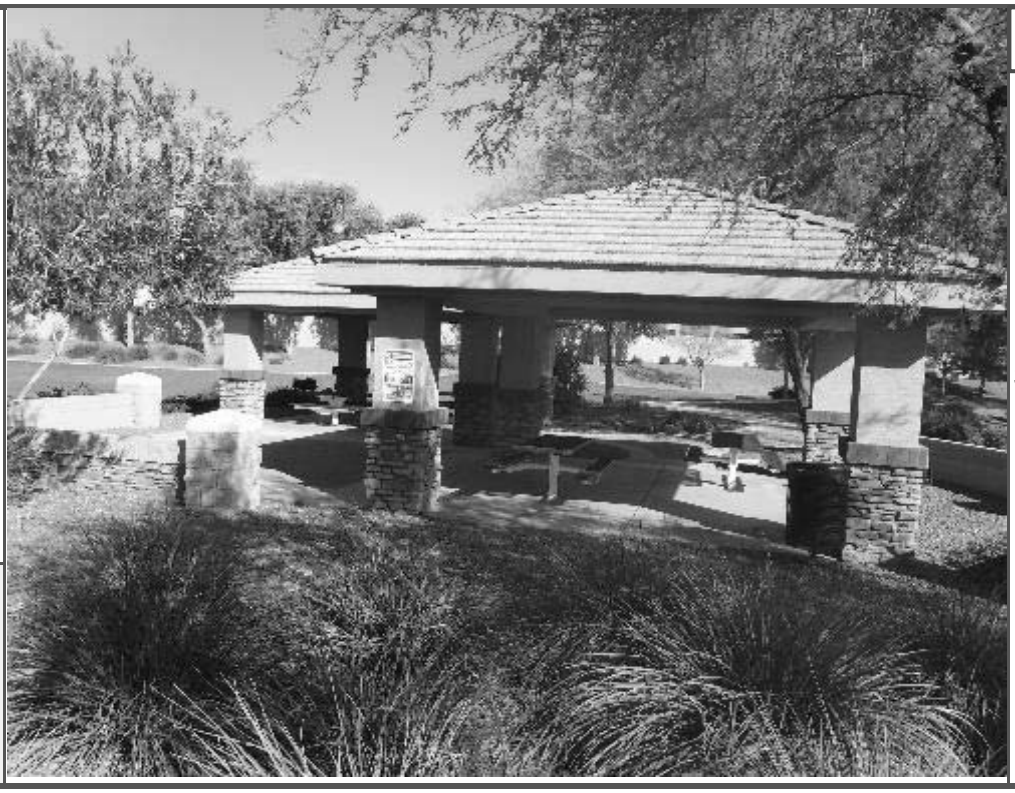
PHOTO NUMBER		Description:
3		Subject Property - Ramadas

PHOTO NUMBER		Description:
4		Subject Property - Park Furniture

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
5		Subject Property - Park Furniture

PHOTO NUMBER		Description:
6		Subject Property - Park Furniture

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
7		Subject Property - Common Area/ Storm Drainage

PHOTO NUMBER		Description:
8		Subject Property - Common Area/ Storm Drainage

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
9		Subject Property - Basketball Court

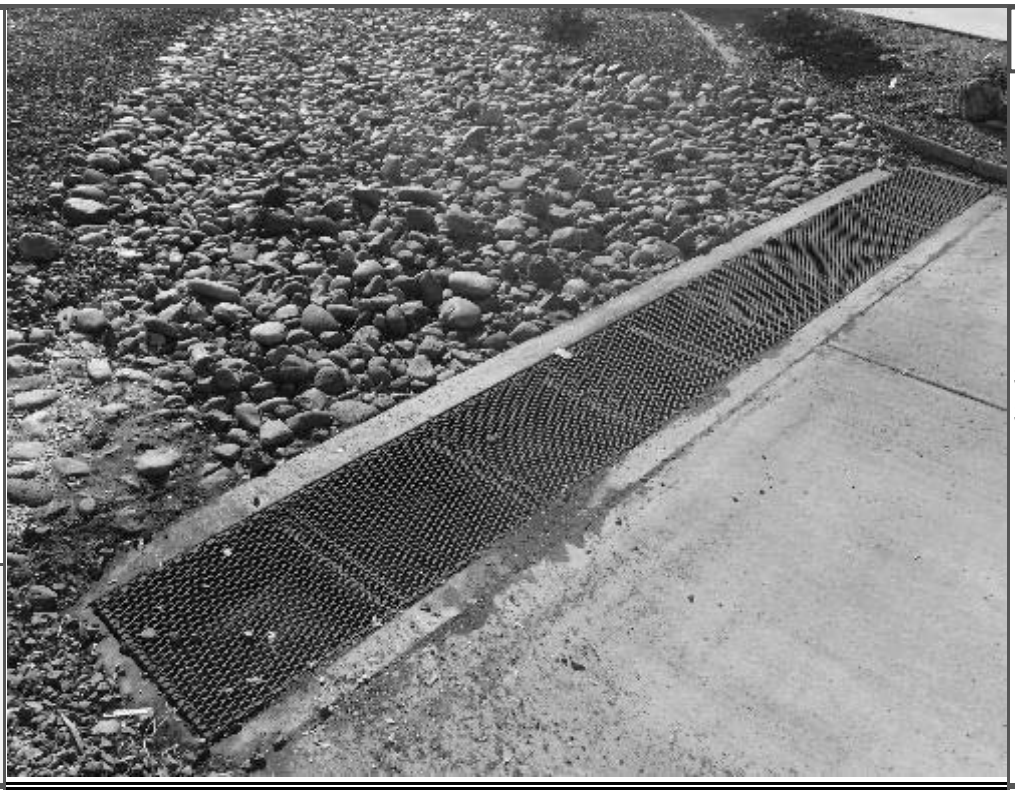
PHOTO NUMBER		Description:
10		Subject Property - Landscape Granite

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
11		Subject Property - Exterior Paint

PHOTO NUMBER		Description:
12		Subject Property - Storm Drainage

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
13		Subject Property - Backflow Prevention Device

PHOTO NUMBER		Description:
14		Subject Property - Playground/ Shade Structure

Project Number: 19-0005

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

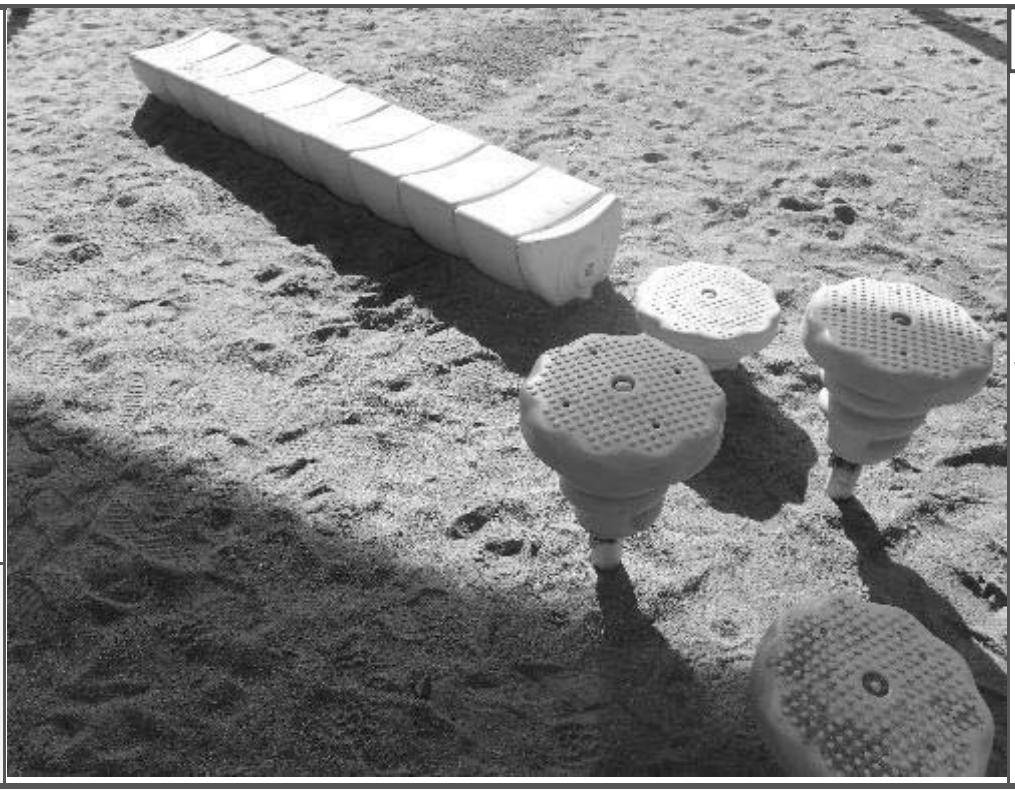
PHOTO NUMBER		Description:
15		Subject Property - Playground Equipment

PHOTO NUMBER		Description:
16		Subject Property - Playground Equipment

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
17		Subject Property - Playground Turf

PHOTO NUMBER		Description:
18		Subject Property - Ramada

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
19		Subject Property - Ramada Light Fixtures

PHOTO NUMBER		Description:
20		Subject Property - Common Area/ Storm Drainage

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
21		Subject Property - Monument Sign

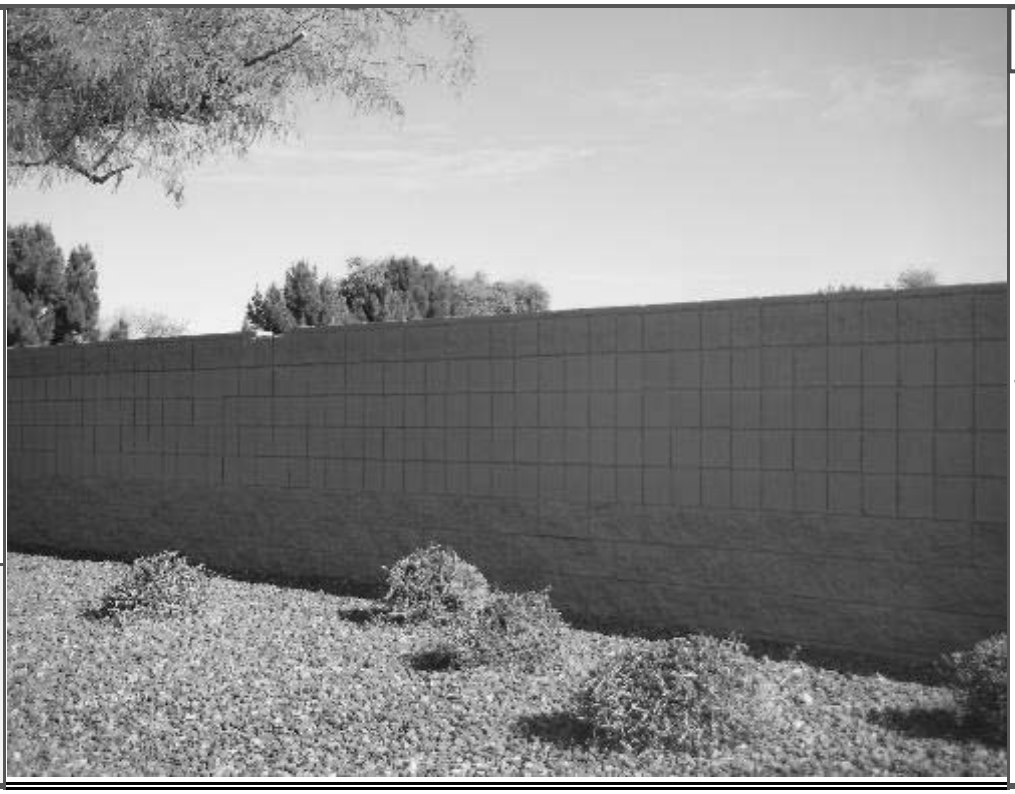
PHOTO NUMBER		Description:
22		Subject Property - Mailbox Kiosk

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
23		Subject Property - Perimeter Wall

PHOTO NUMBER		Description:
24		Subject Property - Perimeter Wall

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

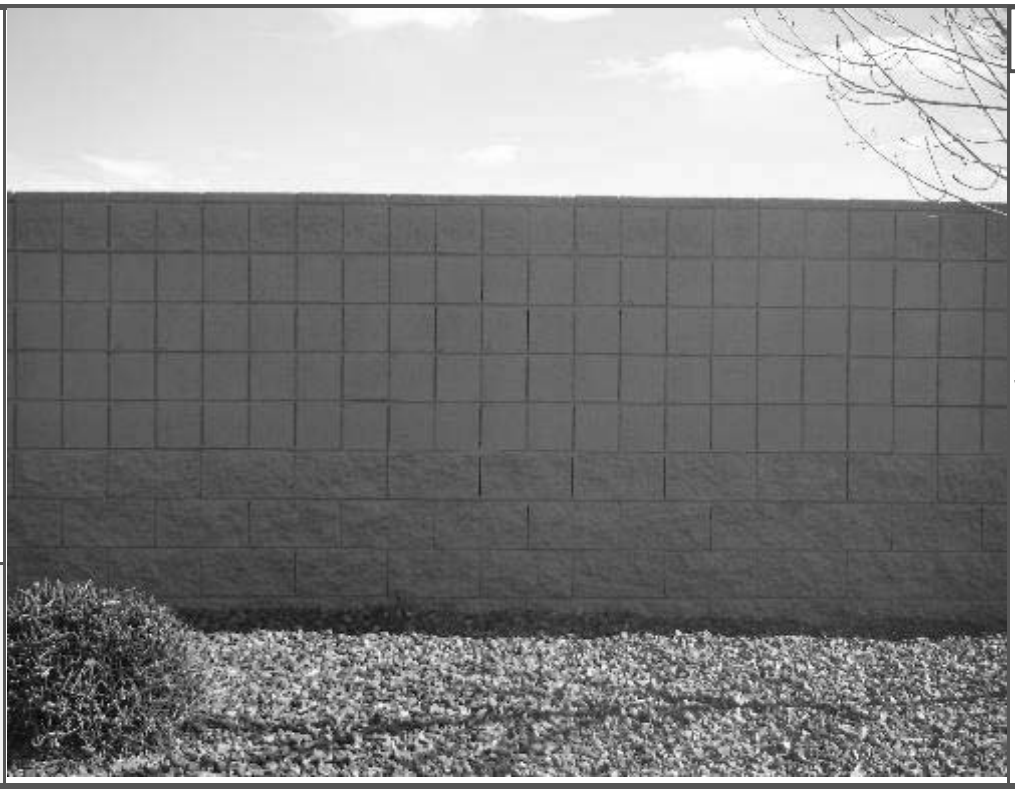
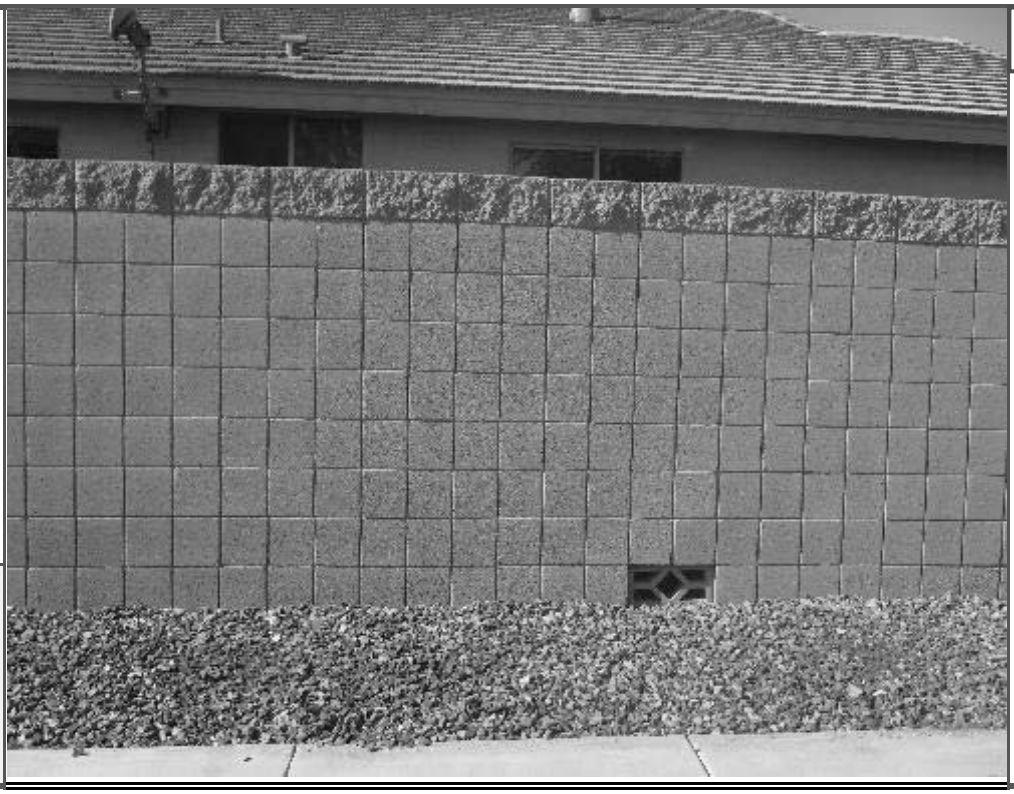
PHOTO NUMBER		Description:
25		Subject Property - Perimeter Wall

PHOTO NUMBER		Description:
26		Subject Property - Interior Wall - Paint

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
27		Subject Property - Interior Wall - Paint

PHOTO NUMBER		Description:
28		Subject Property - Interior Wall - Paint

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
29		Subject Property - Playground Equipment/ Shade Structure

PHOTO NUMBER		Description:
30		Subject Property - Playground Equipment

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
31		Subject Property - Playground Equipment

PHOTO NUMBER		Description:
32		Subject Property - Ramada

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
33		Subject Property - Basketball Court - Surfacing

PHOTO NUMBER		Description:
34		Subject Property - Landscaping

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
35		Subject Property - Bike Racks

PHOTO NUMBER		Description:
36		Subject Property - Backstop

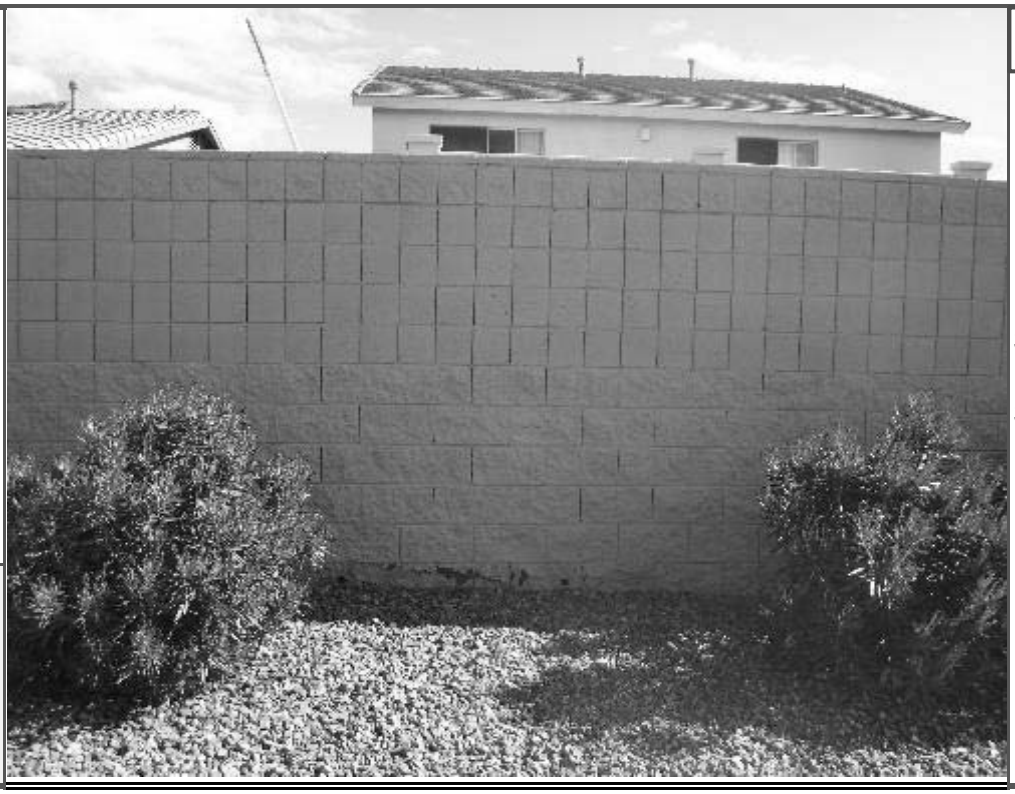
Project Number: 19-0005

CRITERIUM KESSLER ENGINEERS

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
37		Subject Property - Interior Walls - Spalling/ Peeling Paint

PHOTO NUMBER		Description:
38		Subject Property - Interior Walls - Spalling/ Peeling Paint

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
39		Subject Property - Common Area/ Storm Drainage

PHOTO NUMBER		Description:
40		Subject Property - Playground Equipment/ Shade

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
41		Subject Property - Playground Turf

PHOTO NUMBER		Description:
42		Subject Property - Ramada

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
43		Subject Property - Interior Walls (Homeowner Wall facing common area) - Deterioration Observed

PHOTO NUMBER		Description:
44		Subject Property - Interior Walls (Homeowner)

Location:
Royal Ranch
Surprise, Arizona

Photo Taken By:
CKE
Photo Date:
Jan 14, 2019

PHOTO NUMBER		Description:
45		Subject Property - Interior Walls (Homeowner)

PHOTO NUMBER		Description:
46		

CRITERIUM KESSLER ENGINEERS

APPENDIX D

REFERENCE DOCUMENTS

TERMS OF REFERENCE RESERVE STUDY	
Association	The unit owners' association. May be referred to with different terminology in legal covenants of incorporation.
Board	Elected officers of the Association with fiduciary responsibility for the community's common holdings. May be referred to with different terminology in legal covenants of incorporation.
Owner	Individual unit owner, a Member, or the Association.
Community Manager	Professional organization through which the Board delegates responsibilities for operations and maintenance of the community (also known as a property manager, portfolio manager, managing agent, etc.).
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) Workmanship not in compliance with commonly accepted standards, b) Evidence of previous repairs not in compliance with commonly accepted practice, 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 stable, has capacity to function as required, is sufficient for its services, is suitable for operation, and/or conforms to standard construction practices.
Basis of Comparison	Ratings are determined by comparison to other buildings of similar age and construction type.
Left, Right, Front, Rear	Directions are taken from the viewpoint of an observer standing at the property frontage and facing it. Or, for a building within a campus setting, the viewpoint of an observer standing in front of the principal entrance and facing it.
Current deficiency immediate expense	We will note any observed or reported physical condition that requires immediate action to correct an existing or potential safety hazard, an enforceable building code violation, or the poor or deteriorated condition of a critical element or system. Also, to address any conditions which, if left "as is," would likely result in the failure of a critical element or system. Such items will be noted in our report even if they do not require a capital expenditure.
Short-term capital expenditures	Correction of physical deficiencies including deferred maintenance, which may not warrant immediate attention, but required repairs or replacements that should be undertaken on a priority basis, taking precedence over preventative maintenance work within a one-year time frame. Included are physical deficiencies resulting from improper design, faulty installation, and/or substandard quality of original systems or materials. Components or systems that have exceeded their expected useful life and require repair or replacement within a one-year timeframe are also included. Observed minor issues that would typically be addressed as normal operations & maintenance work may not be noted in the report.
Long-term capital expenditures	Non-routine repairs, replacements or planned improvements that will require significant expenditure during the study period. Included are items that will reach the end of their estimated useful life or which, in the opinion of the engineer, will require such expense during that time. If saving for longer-term expenditures is desired, then allowances or contingencies for such items may also be included. Observed minor issues that would typically be addressed as normal operations & maintenance work may not be noted in the report.
Expected Useful Life (EUL)	As components age, they wear and deteriorate at varying rates, depending on their service and exposure. Although it is an inexact science, various financial underwriters, data services, and trade organizations publish guidance regarding the EULs of typical building materials and operating systems. For short-lived components, their EUL is used as the frequency between periodic repairs or replacements. Some systems' economic life may be shortened because improved equipment or materials has become available that is less costly to operate or maintain.
Remaining Useful Life (RUL)	The simple equation for determining remaining useful life before repair or replacement is: EUL – Age = RUL However, based on our evaluation of a component, and our professional judgment, we may assign a shorter or longer RUL to actual items being considered.

BUILDING SYSTEMS AND COMPONENTS
COMMON ABBREVIATIONS AND ACRONYMS

ABS	Acrylonitrile-Butadiene-Styrene (Black Pipe)	IBC	International Building Code
ACM	Asbestos Containing Material	IRC	International Residential Code
ACT	Acoustic Ceiling Tile	KVA	Kilovolt-Ampere
ADA	Americans with Disabilities Act	LF	Lineal Foot
AHU	Air Handling Unit	LUST	Leaking Underground Storage Tank
ASHRAE	American Society of Heating, Refrigeration, and Air-Conditioning Engineers	MSL	Mean Sea Level
ASTM	American Society for Testing and Materials	NEC	National Electric Code
BBL	Barrels	NFPA	National Fire Protection Association
BOCA	Building Officials Code Administrators International	MBH	Thousand British Thermal Units / Hour
BTU	British Thermal Unit	MDP	Main Distribution Panel (electric power)
BTUH	British Thermal Unit / Hour	O&M	Operations & Maintenance
CFM	Cubic Foot / Minute	OSB	Oriented Strand Board (sheathing or decking)
CI	Cast Iron (piping)	PCA	Property Condition Assessment
CIP	Cast in Place (concrete)	PCB	Polychlorinated Biphenyls
CMU	Concrete Masonry Unit (block)	PCR	Property Condition Report
CPVC	Chlorinated Poly Vinyl Chloride (piping)	PE	Polyethylene (pipe)
CW	Cold Water	PE	Licensed Professional Engineer
DI	Ductile Iron (piping)	PVC	Poly Vinyl Chloride (piping and siding)
EIFS	Exterior Insulating and Finishing System	PTAC	Packaged Terminal Air Conditioning Unit
EPDM	Ethylene Propylene Diene Monomer	ROM	Rough Order of Magnitude
EUL	Expected Useful Life	RUL	Remaining Useful Life
FCU	Fan Coil Unit	RTU	Roof Top Unit
FEMA	Federal Emergency Management Agency	SF	Square Foot
FFE	Furniture, Fixtures and Equipment	SOG	Slab On Grade (concrete basement or ground floor)
FHA	Forced Hot Air	SQ	100 Square Feet
FHAA	Fair Housing Act and Amendments	SY	Square Yard
FHW	Forced Hot Water	UBC	Uniform Building Code
FIRM	Flood Insurance Rate Map	UL	Underwriters Laboratories
FOIA	Freedom of Information Act	UST	Underground Storage Tank
GFI	Ground Fault Interruption (circuit breaker)	VAC	Volts Alternating Current
GWB	Gypsum Wall Board (drywall or sheetrock)	VAV	Variable Air Volume Box
HID	High Intensity Discharge (lamp, lighting fixture)	VCT	Vinyl Composition Tile
HVAC	Heating Ventilation and Air Conditioning	VWC	Vinyl Wall Covering
HW	Hot Water		
HWH	Hot Water Heater (domestic)		

National Reserve Study Standards

General Information

Reserve Study

A Reserve Study is made up of two parts, 1) the information about the physical status and repair/replacement cost of the major common area components the association is obligated to maintain (Physical Analysis), and 2) the evaluation and analysis of the association's Reserve balance, income, and expenses (Financial Analysis). The Physical Analysis is comprised of the Component Inventory, Condition Assessment, and Life and Valuation Estimates. The Component Inventory should be relatively "stable" from year to year, while the Condition Assessment and Life and Valuation Estimates will necessarily change from year to year. The Financial Analysis is made up of a finding of the client's current Reserve Fund Status (measured in cash or as Percent Funded) and a recommendation for an appropriate Reserve contribution rate (Funding Plan).

Physical Analysis

- Component Inventory
- Condition Assessment
- Life and Valuation Estimates

Financial Analysis

- Fund Status
- Funding Plan

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KESSLER ENGINEERS

Levels of Service

The following three categories describe the various types of Reserve Studies, from exhaustive to minimal.

I. **Full:** A Reserve Study in which the following five Reserve Study tasks are performed:
   - Component Inventory
   - Condition Assessment (based upon on-site visual observations)
   - Life and Valuation Estimates
   - Fund Status
   - Funding Plan

II. **Update, With-Site-Visit/On-Site Review:** A Reserve Study update in which the following five Reserve Study tasks are performed:
   - Component Inventory (verification only, not quantification)
   - Condition Assessment (based on on-site visual observations)
   - Life and Valuation Estimates
   - Fund Status
   - Funding Plan

III. **Update, No-Site-Visit/Off Site Review:** A Reserve Study update with no on-site visual observations in which the following three Reserve Study tasks are performed:
   - Life and Valuation Estimates
   - Fund Status
   - Funding Plan

Terms and Definitions

CASH FLOW METHOD: A method of developing a Reserve Funding Plan where contributions to the Reserve fund are designed to offset the variable annual expenditures from the Reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of Reserve expenses until the desired Funding Goal is achieved.

COMPONENT: The 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) predictable Remaining Useful Life expectancies, 4) above a minimum threshold cost, and 5) as required by local codes.

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 representative(s) of the association or cooperative.

COMPONENT METHOD: A method of developing a Reserve Funding Plan where the total contribution is based on the sum of contributions for individual components. See "Cash Flow Method."

CONDITION ASSESSMENT: The task of evaluating the current condition of the component based on observed or reported characteristics.

CURRENT REPLACEMENT COST: See "Replacement Cost."

DEFICIT: An actual (or projected) Reserve Balance less than the Fully Funded Balance. The opposite would be a Surplus.

EFFECTIVE AGE: The difference between Useful Life and Remaining Useful Life. Not always equivalent to chronological age, since some components age irregularly. Used primarily in computations.

FINANCIAL ANALYSIS: The portion of a 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 expense over time is presented. The Financial Analysis is one of the two parts of a Reserve Study.

FULLY FUNDED: 100% Funded. When the actual (or projected) Reserve balance is equal to the Fully Funded Balance.

FULLY FUNDED BALANCE (FFB): Total Accrued Depreciation. An indicator against which 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. This number is calculated for each component, then summed together for an association total. Two formulae can be utilized, depending on the provider's sensitivity to interest and inflation effects. Note: Both yield identical results when interest and inflation are equivalent.

FFB = Current Cost X Effective Age / Useful Life

or

FFB = (Current Cost X Effective Age / Useful Life) + [(Current Cost X Effective Age / Useful Life) / (1 + Interest Rate) ^ Remaining Life] - [(Current Cost X Effective Age / Useful Life) / (1 + Inflation Rate) ^ Remaining Life]

FUND STATUS: The status of the reserve fund as compared to an established benchmark such as percent funding.

FUNDING GOALS: Independent of methodology utilized, the following represent the basic categories of Funding Plan goals:

Baseline Funding: Establishing a Reserve funding goal of keeping the Reserve cash balance above zero.

Full Funding: Setting a Reserve funding goal of attaining and maintaining Reserves at or near 100% funded.

Statutory Funding: Establishing a Reserve funding goal of setting aside the specific minimum amount of Reserves required by local statues.

Threshold Funding: Establishing a Reserve funding goal of keeping the Reserve balance above a specified dollar or Percent Funded amount. Depending on the threshold, this may be more or less conservative than "Fully Funding."

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 Contribution Rate over the Years
- 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 of time (typically the beginning of the Fiscal Year), of the *actual (or projected)* Reserve Balance to the *Fully Funded Balance*, expressed as a percentage. 4

PHYSICAL ANALYSIS: The portion of the Reserve Study where the Component Inventory, 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 initial year have "zero" 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.

RESERVE BALANCE: Actual or projected funds as of a particular point in time that the association has identified for use to defray the future repair or replacement of those major components which the association is obligated to maintain. Also known as Reserves, Reserve Accounts, Cash Reserves. Based upon information provided and not audited.

RESERVE PROVIDER: An individual that prepares Reserve Studies.

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. "Our budget and finance committee is soliciting proposals to update our Reserve Study for next year's budget."

RESPONSIBLE CHARGE: A reserve specialist in responsible charge of a reserve study shall render regular and effective supervision to those individuals performing services which directly and materially affect the quality and competence rendered by the reserve specialist. A reserve specialist shall maintain such records as are reasonably necessary to establish that the reserve specialist exercised regular and effective supervision of a reserve study of which he was in responsible charge. A reserve specialist engaged in any of the following acts or practices shall be deemed not to have rendered the regular and effective supervision required herein:

1. The regular and continuous absence from principal office premises from which professional services are rendered; expect for performance of field work or presence in a field office maintained exclusively for a specific project;
2. The failure to personally inspect or review the work of subordinates where necessary and appropriate;
3. The rendering of a limited, cursory or perfunctory review of plans or projects in lieu of an appropriate detailed review;
4. The failure to personally be available on a reasonable basis or with adequate advance notice for consultation and inspection where circumstances require personal availability.

SPECIAL ASSESSMENT: An assessment levied on the members of an association in addition to regular assessments. Special Assessments are often regulated by governing documents or local statutes.

SURPLUS: An actual (or projected) Reserve Balance greater than the Fully Funded Balance.
See "Deficit."

USEFUL LIFE (UL): Total Useful Life or Depreciable Life. The estimated time, in years, that a reserve component can be expected to serve its intended function if properly constructed in its present application or installation.

Reserve Study Required Contents

Each Reserve Study prepared by a Reserve Specialist or Reserve Specialist applicant **must contain all of the following elements:**

PAGE	CONTENTS
____	1. A summary of the association's number of units.
____	2. Association physical description (legal or physical narrative).
____	3. General statement or opinion describing the association's current reserve fund status (good/fair/poor, adequate or inadequate. Percent Funded, etc.).
____	4. General statement describing the methods and objectives utilized in computing or evaluating the association's Reserve Fund status (Percent Funded or otherwise).
____	5. Fiscal Year (start and end) for which the Reserve study is prepared.
____	6. A projection of starting reserve cash balance (as-of above start date).
____	7. A general statement describing the development or computation of the association's starting Reserve Fund balance.
____	8. Recommended reserve contributions (minimum 20 years).
____	9. Projected reserve expenses (minimum 20 years).
____	10. Projected ending reserve fund balance (minimum of 20 years).
____	11. A tabular listing of the components in the Reserve Study.
____	12. A tabular listing of the component quantities or identifying descriptions.
____	13. A tabular listing showing each component's Useful Life.
____	14. A tabular listing showing each component's Remaining Useful Life, where RUL=0=initial year.
____	15. A tabular listing showing each component's Current Replacement Cost.
____	16. A general statement describing the Methods (cash flow, component, etc.) and Goals (Full Funding, Threshold Funding, Baseline Funding) of the Funding Plan, using National Standard terminology.
____	17. Identification of the source(s) utilized to obtain component repair or replacement cost estimates.
____	18. A clear description of which one of the three Reserve Study "Levels of Service" (ie: Full, Update With-Site-Visit, Update No-Site-Visit) was performed.
____	19. A clear statement of assumption used for Interest and inflation (whether zero or otherwise).

Applicants MUST INCLUDE THE ABOVE TABLE with their work product submission, noting the page number where all the above required elements can be found in their sample work product.

Reserve Study Required Disclosures

Each Reserve Study prepared by a Reserve Specialist or Reserve Specialist applicant must contain all of the following disclosures:

PAGE	DISCLOSURE
_____	1. **General:** Description of other involvement(s) with the association, which could result in actual or perceived conflicts of interest.
_____	2. **Physical Analysis:** Description of how thorough the on-site observations were performed: representative sampling vs. all common areas, destructive testing or not, field measurements vs. drawing take-offs, etc.
_____	3. **Personnel Credentials:** State or organizational licenses or credentials carried by the individual responsible for Reserve Study preparation or oversight.
_____	4. **Completeness:** Material issues which, if not disclosed, would cause a distortion of the association's situation.
_____	5. **Reliance on Client Data:** Information provided by the official representative of the association regarding financial, physical, quantity, or historical issues will be deemed reliable by the consultant.
_____	6. **Scope:** The Reserve Study will be a reflection of information provided to the consultant and assembled for the association's use, not for he purpose of performing an audit, quality/forensic analyses, or background checks of historical records.
_____	7. **Reserve Balance:** The actual or projected total presented in the Reserve Study is based upon information provided and was not audited.
_____	8. **Reserve Projects:** Information provided about reserve projects will be considered reliable. Any on-=site inspection should not be considered a project audit or quality inspection.

Applicants MUST INCLUDE THE ABOVE TABLE with their work product submission, noting the page number where all the above required elements can be found in their sample work product.

APPENDIX E

FUNDING METHODOLOGIES
(DISCUSSION POINTS)

Funding Methodologies

The approach to funding methodologies continues to be a subject of much discussion and can create confusion for those responsible for long-term strategic planning for a community.

This is written to be applicable to for communities that utilize reserve studies including Homeowners Associations and Condominium Associations—both residential and commercial.

This Appendix provides general information related to Funding Methodologies and is not specific to your Association or Community. This has been included to provide a framework for consideration of the study, and to explain our approach to the funding analysis.

We also recommend that the Board review the Community Association Institute (CAI) National Reserve Study Standards attached in the "Reference Documents" Appendix of this report.

The Community Association Institute (CAI) recognizes several funding methodologies, all of which may be used to satisfy these principles:

- ✓ Sufficient Funds When Required
- ✓ Stable Contribution Rate over the Years
- ✓ Evenly Distributed Contributions over the Years
- ✓ Fiscally Responsible Some of the more common methods are outlined below.

Within the context of the report, "Section 5.4 – Funding Methodologies," provides a brief overview that we used for this report since we recognize that some Associations prefer a different methodology. The text in included in Section 5.4 is replicated below.

STATUTORY FUNDING

Some states regulate the management of homeowner associations, including the fiduciary responsibility of its Officers or Board regarding reserve funding.

To our knowledge, Arizona does not require any funding criteria.

COVENANTAL FUNDING

The legal documents, which originally establish a homeowner's association, may set forth guidelines for its reserve funding.

You should review the Master Deed and/or CC&Rs for your Association to determine if there are stipulations for long-term funding criteria since each community is set up with unique requirements.

CASH FLOW BASED FUNDING

Criterium Engineer's recommended approach to reserve planning utilizes a cash flow model implementing either Baseline or Threshold Based Funding methodology.

A cash flow based funding plan is prepared so that contributions to capital reserves are selected to be sufficient to offset future variable annual capital expenditures.

Our engineering evaluation and planning yields a projected annual capital expenditure (CapEx) budget schedule over the planning period. This CapEx plan and the Association's current rate of contribution to reserves is entered into our computer model.

The model allows us to determine whether the Association's current rate of contribution will prove sufficient to meet capital obligations over the planning period.

If the Association's current rate of contribution is not sufficient, our computer model allows us to develop alternate contribution strategies for the Association's consideration.

Baseline Cash Flow Based Funding

The goal of baseline funding is to maintain positive year-end balances throughout the planning period.

Threshold Cash Flow Based Funding

One strategy to ensure there will be sufficient funds available to cover unplanned emergencies is to maintain prudent minimum threshold reserve balances. In the face of unusual and uninsured expenses, this may eliminate the need for either making a special assessment or borrowing money.

Often, the initial threshold is established as some multiple of the average annual CapEx budget, and then inflated ahead at the selected rate of inflation.

Maintaining significant threshold balances has the additional benefit of allowing the Association to generate greater returns on investments and thereby reduce the rate of Owners' contribution to reserves.

Of course, the benefits of establishing larger threshold balance values must be weighed against Unit Owners' preference to control their own funds.

In any event, the goal of threshold funding is to ensure that year-end capital reserve fund balances will not fall below some minimum value.

This threshold value is typically determined by one of the following methods:

- ✓ An arbitrary, prudent dollar amount based on our experience
- ✓ It may be calculated as some multiple of the annual average CapEx amount over the study period
- ✓ A collaborative effort with the Board or Community Manager to determine a threshold amount that works for the community

Consideration should be given to increasing the threshold balance value over the study period to reflect historic rates of inflation.

COMPONENT BASED

In our experience, a component-based funding plan based on a comprehensive common component inventory will produce a very conservative funding strategy for an Association.

A component-based funding plan is based on calculated incremental savings toward the eventual repair or replacement of each individual common component.

The accounting concept underlying component-based funding is that an Association should save for repair or replacement of each of their common assets at an annual incremental amount equal to the annual straight-line depreciation of the item. In this way, they will accumulate its full value in capital reserves at the time it is fully depreciated, and funds may be required for a capital expenditure.

Full Funding

For each Fiscal Year, a component-based funding plan calculates an ideal reserve balance that should be on-hand at the beginning of the year. This recommended balance is based on saving money at the rate of depreciation of each common component as explained in the previous section.

If the Association's projected cash flow projection indicates that their capital reserve fund balance will be equal to or greater than that ideal value at the beginning of any given year, then, by Community Association Institute (CAI) definition, the Association is said to be "fully funded" in that year.

In our opinion, when an Association is "fully funded" per the CAI definition set forth below, then, very often, this will mean that the Association is holding more cash reserves than absolutely necessary for prudent management of their financial obligations.

Percent Fully Funded

In component-based fund planning, the percentage ratio between the projected actual reserve balance and the calculated ideal amount of accumulated savings at any point of time is the "percent fully funded".

This metric is used to indicate whether an Association is:

- ✓ "Under-funded" – percent fully funded less than 100%
- ✓ "Over funded" - percent fully funded greater than 100%

Often, statutory and covenantal funding requirements may obligate an Association to maintain their reserve balance above some minimum percent fully funded value.

Such rules were originally promulgated to ensure conservative funding practices, which would protect the membership from unsound financial policies, which some developers and associations have practiced in the past.

SPECIAL ASSESSMENTS

The goal of nearly all reserve studies is to establish a regular, periodic rate of contribution to reserves, which ensures there will be sufficient funds when required.

However, sometimes it is necessary to boost the reserve balance quickly, before there is adequate time to accumulate funds through regular savings. In those cases, assuming the Unit Owners' personal finances can support it, it is expeditious to assess a lump sum special payment.

Special assessments are often tied to, or earmarked for, some particular capital expenditure. This may be a periodic but unusually high expense such as re-paving or re-roofing. Or, it may be to collect funds to pay for some desired new amenity, such as a new building, new tennis court or an elevator.

Although it is unusual, if the individual Unit Owners who form an Association all have sufficient means, the membership may prefer to manage their own investments and contribute to capital expenses only based on annual special assessments rather than through monthly, quarterly, or annual assessments.

BORROWING

The goal of nearly all reserve studies is to establish a regular, periodic rate of contribution to reserves, which ensures there will be sufficient funds when required.

However, sometimes it is necessary to boost the reserve balance quickly, before there is adequate time to accumulate funds through regular savings. In those cases, if the Unit Owners' personal finances cannot support an adequate special assessment, then the Association may need to borrow the funds.

Borrowing is often justified to obtain funds for some particular capital expenditure. This may be a periodic but unusually high expense such as re-paving or re-roofing. Or, a loan may be taken to obtain funds to pay for some desired new feature, such as a new building, tennis court, or to enhanced interior furnishings.

When funds are borrowed, then part of the regular, periodic contributions of the membership in the following years will be earmarked for repaying the loan.

APPENDIX F

PROJECT TEAM QUALIFICATIONS

BUILDING INSPECTION ENGINEERS
PROUDLY SERVING NORTH AMERICA SINCE 1957

Jim Herman

Senior Engineering Field Technician

Jim is a Field Technician for Criterium-Kessler Engineers located in Phoenix, Arizona. He has over 20 years of experience in the refrigeration, semiconductor, and defense industries. His range of management and technical skills include:

- Project Management
- End-to-end Project Execution
- Risk Assessment and Risk Management
- Field Installations and Documentation
- Quality Control and Assurance

Prior to becoming a Field Technician with Criterium-Kessler Engineers, Jim was a Systems Engineer in the defense industry. He led the successful completion on multiple large projects, including the installation of fiber optic cables for a command system for a U.S. ally. In the semiconductor industry, he performed equipment sales, design, training, and installations for chemical and gas distribution systems. For several years, he sold HVAC equipment and continues to perform installations on large jobs with a local mechanical contractor.

EDUCATION AND PROFESSIONAL AFFILIATION

Western International University, Phoenix, AZ
Masters of Science, Information Systems Engineering

Arizona State University, Tempe, AZ
Bachelors of Arts, Mathematics

WHY I DO WHAT I DO

"I enjoy the challenge of solving problems and increasing efficiencies. When promoting engineering at local schools, I tell the students there is no problem we cannot solve with appropriate application of time and resources. Consulting engineering provides ample opportunities to help a client resolve an issue or determine the most effective method to apply limited resources towards a satisfactory solution."

WHY CRITERIUM ENGINEERS

"I found that work is more exciting and rewarding when I'm surrounded by skilled people that are passionate about their mission. Criterium Engineers has a long history of helping their clients that I'm proud to be a part of."

PROJECT HIGHLIGHTS

- **Estrella Community Association, Goodyear, Arizona** – Wall and fence structural defect evaluation across twelve communities.
- **Palm Valley Home Owners Association, Goodyear, Arizona** – Wall evaluation to determine structural deficiencies, repairs, and erosion issues.
- **Paradise Reserve Property Owners Association, Paradise Valley, Arizona** – Reserve Study to project capital needs over the next 30 years.
- **Roadhaven Home Owners Association, Apache Junction, Arizona** – Reserve Study to project capital needs over the next 20 years.

jherman@criterium-kessler.com -- 1-602-463-1023
14539 W. Indian School Road, Suite #880, Goodyear, Arizona 85395

BUILDING INSPECTION ENGINEERS
PROUDLY SERVING NORTH AMERICA SINCE 1957

Kelly G. Kessler

Vice President / Field Technician

Kelly is the Vice President of Criterium-Kessler Engineers, located in Phoeinx, Arizona. Kelly performs client outreach, data analysis, report writing, and is also a field technician.

Prior to her current role, Kelly worked in the face-paced world of software development and data analysis that included diverse clients and locations and created an exciting and rewarding career. After many years of development work, training, and management in the defense industry, intellgience, and military, she decided to join her husband on his endeavor to explore other career opportunities. She joins him now in his company, providing direct support to the engineering team.

EDUCATION AND PROFESSIONAL AFFILIATION

- Community College of Allegheny County, PA
- Indiana University of Pennsylvania, PA
- Bradford Business School, PA

WHY I DO WHAT I DO

"Helping our Clients solve problems, creating pristine environments, recognizing new and exciting building trends – these are the things that making working at Criterium-Kessler Engineers interesting and engaging day-after-day. Above all, I enjoy building lasting and supportive relationships with our clients!"

WHY CRITERIUM ENGINEERS

"Understanding our clients' needs, and the needs of the structures they reside in creates a rewarding and fulfilling career. Our surroundings are critical to our life, welfare, and happiness. Criterium-Kessler Engineers offers more than just a career path for our employees, we offer an environment where ongoing learning and hands-on involvement keeps our business interesting, fresh, and exciting. Through a strong network of 130+ engineers, we can offer a successful solution to any issue related to a building or structure—and that creates confidence for our employees and our clients. We provide clear, concise, and quality reports that provide our clients with the necessary information to understand what is happening, and to make the necessary repairs and upgrades. Our engineers enjoy their successful and diverse client relationships. Finally, our engineers excel at understanding current and best engineering practices."

PROJECT HIGHLIGHTS

- **Canyon Trails Homeowners Association, Goodyear, Arizona** – Structural wall inspections and measurements to prepare for repainting and repairs.
- **Pebble Creek Community Association, Goodyear, Arizona** – Reserve Study to project capital needs over the next 20 years for the Association that manages over 4,500 homes for the Robson and Pebble Creek.
- **Estrella Community Association, Goodyear, Arizona** – Wall and fence structural defect evaluation across twelve communities.
- **Ironwood Village Community Association, Scottsdale, Arizona** – Wall evaluation to determine structural deficiencies, repairs, and erosion issues.

kkessler@criterium-kessler.com / 480.218.1969
14539 W. Indian School Road, Suite #880, Goodyear, Arizona 85395

BUILDING INSPECTION ENGINEERS
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Clark Maxwell

Engineering Field Technician

Clark is an Engineering Field Technician for Criterium-Kessler Engineers located in Phoenix, Arizona. He is a recent graduate from Arizona State University and earned his B.S. in Computational Mathematics. He is now being trained with CKE to perform excellent service in various engineering inspections and evaluations while also utilizing his skills in mathematics and computer programming to aid in the efficiency and accuracy of computer tools such as spreadsheets and report templates. Before his employment with CKE, he worked for Target, offered private mathematics tutoring, and provided care to individuals with special needs. During this time, he developed personal and technical skills including:

- Work efficiency in quick paced environment
- On the spot problem solving
- Communication and personal interaction
- Reliability and commitment to deliver excellent service

EDUCATION AND PROFESSIONAL AFFILIATION

Arizona State University, Tempe, AZ

Bachelors of Science, Computational Mathematics

WHY I DO WHAT I DO

"As an individual driven both by curiosity and a genuine desire to help others, working with and being trained within an engineering team fits my career goals. All of the tools, designs, and structures we use daily came from a desire to fix a problem, and an engineering mind to address it. As a mathematician and computer programmer, I enjoy being able to analyze the data and information brought to me by our engineers and find ways to efficiently process and organize it so that clients will have an easy time understanding the results of our work."

WHY CRITERIUM ENGINEERS

"I love the dynamic of a small team environment where I can know the work I am doing truly has an impact for our clients. Despite being fresh out of school with minimal hands on engineering experience, the team quickly took me in and have been providing me with excellent training and a wealth of knowledge about engineering. Working with a smaller team also means I have the opportunity to be involved in a broad cross-section of projects. Each project is unique and presents an opportunity to learn something new."

PROJECT HIGHLIGHTS

- **Royal Oaks Lifecare Community, Sun City, Arizona –** AutoCAD drawings for the plan design to the Auditorium HVAC System Feasibility Study at Royal Oaks.
- **Parkside at Buckeye, Buckeye, Arizona** – Reserve Study to project capital needs over the next 30 years
- **Estrella Community Association, Goodyear, Arizona** – Wall and fence structural defect evaluation across twelve communities.
- **Commercial Clients** – Stucco moisture and building inspections.

cmaxwell@criterium-kessler.com -- 480.218.1969
14539 W. Indian School Road, Suite #880, Goodyear, Arizona 85395