CAPITAL RESERVE REPLACEMENT FUND ANALYSIS
FOR
BRYAN SQUARE HOMEOWNERS ASSOCIATION
INDEPENDENCE AVENUE, SE, WASHINGTON, D.C.

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Community Description

The Bryan Square Homeowners Association is a residential townhome community consisting of a total of 38 townhomes and common site areas, with certain site improvements shared proportionately with the neighboring condominium building. The townhomes are owned individually in fee simple, with individual homeowners being responsible for their own building exteriors, roofs, decks, etc.

This reserve analysis includes the common capital replacement elements that are 100% responsibility of the Bryan Square HOA (BSHOA), plus the proportionate BSHOA shares of the common site improvements that are maintained under the 'Easement, Maintenance and Cost-Sharing Agreement' for 'Bryan Square' with the Bryan School Lofts Condominium Association (BSLCA). BSHOA is 100% responsible for metal front yard railings and brick columns, stockade fencing, wood trellis structures above the garage door openings, brick screen wall, stone 'garden' retaining wall, and mailboxes.

Proportionately shared capital replacement site improvements include the asphalt paved roadway, parking wing and alleyway, street side concrete and brick sidewalks and curbs, courtyard benches, storm water quality filter vault and filters, courtyard irrigation system, entrance monuments, site lighting, and miscellaneous water supply, electrical power and storm sewer infrastructure. We have included the proportionate reserve funding requirements for the BSHOA shared items as a second set of calculation tables in this analysis.

The community is situated in downtown Washington, D.C., just southeast of Lincoln Park, and roughly ½-mile west of the 'Stadium-Armory' Metro Station and ½-mile east of the 'Eastern Market' Metro Station of the Orange, Blue and Silver Lines. The location is also approximately 1-mile due east of the U.S. Capitol Building and the National Mall.

Executive Summary

The function of a Capital Reserve Replacement Analysis is to inform and advise the Community Association as to the likely capital expenditures for replacement of common elements over the time frame considered by the analysis and the annual contribution levels to the Capital Reserve Replacement Fund calculated as being sufficient to avoid having to levy special assessments or take out a loan in order to support the predicted capital expenditures.

Bryan Square Homeowners Association (100% Owned Components)
We show a total of 12 component line items in the Reserve Schedule for Bryan Square Homeowners Association (BSHOA) 100% Ownership Fund (Page C-3) with an estimated one-time replacement cost of $109,256 (Page C-1). The analysis has been prepared to assist the Association with forming a budget for the next Fiscal Year, and so is meant to reflect the physical conditions and projected initial fund balance (approximately $35,000) as of **January 1st of Year 2020**. The '**Full Funding**' or 'Component Method' funding requirement calculation results in an annual funding requirement of **$3,508**. The '**10% Threshold Funding**' Method, a Cash Flow analysis-based calculation that uses a minimum closing balance of 10% of the estimated one-time replacement cost (above), and results in a minimum annual funding requirement of **$2,929**. Finally, the '**5% Threshold Funding**' Method, a Cash Flow-based calculation that uses a minimum closing balance of 5% of the estimated one-time replacement cost of all line item components, and results in a minimum annual funding requirement of **$2,747** (see Summary Calculations Page C-1 and Graph of Projected Closing Balances Page C-25).

Bryan Square Homeowners Association (Shared Community Components)
We show a total of 13 component line items in the Reserve Schedule for Bryan Square Homeowners Association (BSHOA) Shared Community Fund (Page C-30) with an estimated one-time replacement cost of $116,222 (Page C-28). The analysis has been prepared to assist the Association with forming a budget for the next Fiscal Year, and so is meant to reflect the physical conditions and projected initial fund balance (approximately $32,410) as of **January 1st of Year 2020**. The '**Full Funding**' or 'Component Method' funding requirement calculation results in an annual funding requirement of **$10,441**. The '**10% Threshold Funding**' Method, a Cash Flow analysis-based calculation that uses a minimum closing balance of 10% of the estimated one-time replacement cost (above), and results in a minimum annual funding requirement of **$7,401**. Finally, the '**5% Threshold Funding**' Method, a Cash Flow-based calculation that uses a minimum closing balance of 5% of the

estimated one-time replacement cost of all line item components, and results in a minimum annual funding requirement of **$6,820** (see Summary Calculations Page C-1 and Graph of Projected Closing Balances Page C-25).

The Falcon Group recommends that communities fund their capital replacement reserves to at least the 5% Threshold (Cash Flow) Method level which, in this case, is $2,747 per year for the BSHOA 100% Ownership Funding, and $6,820 for the BSHOA Shared Community Funding, based on the Initial Fund Balances provided and the component data contained herein. The reported annual capital reserve contribution for the 100% HOA Fund for 2019 was slightly higher than our calculated minimum recommended in this analysis. The reported annual contribution toward the Community Shared Fund for 2019 was less than the minimum recommended in this analysis, so the Association should increase its contribution to this Shared Fund or risk running a shortfall in the near future (projected 'threshold year' of 2029). The Association should double check that the assumed Initial Fund Balances are correct, as projected for the beginning of the next Fiscal Year (2020). The capital reserve analysis should be updated every 2 to 3 years to adjust for actual fund balances, aging, pricing, and to reflect any major capital projects that have been completed.

All Capital Reserve Replacement Analyses assume that the Association is funding capital expenditures through the use of regular (e.g. annual, quarterly, or monthly), budgeted contributions to an account set aside for the sole purpose of funding the replacement of a designated set of common elements (often called the "Capital Reserve Fund").

A Community Association can defer common element replacement projects. Such deferrals tend to result in the gradual decrease in property values as the infrastructure and appearance of the community facilities degrade over time. In addition, such deferrals often result in the final replacement costs increasing significantly due to more extensive deterioration and additional damage to other common elements resulting from the failure of the common element to be replaced.

Association Considerations for a Capital Reserve Replacement Analysis

Each Association has a number of choices and options to consider during the Capital Reserve Replacement Analysis process. Two of the most important decisions are the Methodology (q.v.) of the analysis and the Funding Goal (q.v.) of the Association, although there are a number of other considerations, including:

- Budget Thresholds – the budget threshold is simply the lowest total project cost that the Association wants to fund using the Capital Reserve Fund. This is normally a function of the Association's proclivities, operating budget size, and administrative/fiscal history – some communities will fund a $5,000 project through the maintenance or operating budget, while others prefer to schedule and fund a $500 project through the capital reserve budget. Many Associations never make a formal decision, leaving this to the professionals who prepare their Capital Reserve Replacement Analyses.

- Federal Housing Authority/Housing & Urban Development Limitations – the federal government is a significant mortgage insurance provider. The FHA/HUD mortgage insurance programs currently require that community Associations fund replacement reserves for capital expenditures and deferred maintenance with at least 10% of the Association budget in order to meet eligibility requirements for FHA mortgage insurance – failure to maintain this level of replacement reserve funding can trigger requests for a current (less than 12 month old) reserve study or a Fannie Mae form 1073a from lenders (see HUD Mortgagee Letter 2009-46 B).

- Maintenance Budget – no project should be funded in two places. Any and all maintenance contracts for common elements should be reviewed, and any common element whose complete replacement is included in the maintenance contract should be removed from consideration in the Capital Reserve Replacement Analysis, since the Association is already allocating funds to replace the element.

- Operating Budget – no project should be funded in two places. Any common elements that the Association is planning to replace in a series of incremental projects on an annual or irregular (as-needed) basis using the operating budget funds should be removed from consideration in the Capital Reserve Replacement Analysis, since the Association is already allocating funds to replace the element.

- Preventive or Deferred Maintenance Budget – no project should be funded in two places. The Association should compare its capital reserve budget to its preventive/deferred maintenance budget. Line items existing in both schedules should be removed from one or the other, since the Association is already allocating funds to replace the element.

- Statutory Requirements – some jurisdictions may require that certain elements are included in a reserve fund analysis, and other municipalities agree to accept responsibility for some elements (most commonly roadways). Such factors cannot be determined by site inspection – the Association should have documentation indicating any such factors and should certainly inform the professionals performing the Capital Reserve Replacement Analysis of these factors.

- Time Window – the time window is simply the time span that the Association desires to consider its capital reserve expenditures over. Typically, Associations do not consider common elements with a condition assessed remaining life cycle of longer than 30 years as part of the Capital Reserve Replacement Analysis. As a general rule, longer time windows are more conservative (resulting in higher annual contribution levels), with the longer time windows allows the Association a longer lead-time to accumulate funds for large projects.

- Interest and Inflation – interest (sometimes called the rate of return) and inflation can have significant influence on the capital reserve budget. Increasing interest rates tends to reduce the necessary annual contributions, as the Association is essentially collecting additional funding from investment of its capital reserve fund. Increasing inflation rates tends to increase the necessary annual contributions, as the Association needs to collect additional funds to account for the decreasing purchasing power of money. The Falcon Group generally recommends that most Associations are better served by assuming interest and inflation rates of zero and updating their Capital Reserve Replacement Analysis every two to three years (thus correcting for the effects of interest and inflation every second or third year), rather than making assumptions about factors that vary significantly and unpredictably with market forces. That being said, if the Association desires, The Falcon Group can certainly assume whatever average annual interest and inflation rates the Association requests.

Besides the above considerations, there are two decisions that the Association will need to make:

Funding Goals

The funding goal helps to determine the methodology used in the Capital Reserve Replacement Analysis and also is the principal reflection of the Association's fiscal policy. Funding goals can be categorized by their fiscal aggressiveness (willingness to risk the need to levy a special assessment or take out a loan) – more aggressive funding goals tend to result in lower annual levels of contribution to the capital reserve fund, with associated higher risks of shortfalls requiring special assessments or loans.

There are four basic funding goals used by communities when determining Capital Reserve Fund requirements:

- Baseline Funding is the most aggressive funding goal commonly used by Associations. Baseline funding is essentially a special case of threshold funding, where the goal is to never have a negative capital reserve fund balance (in other words the threshold is zero). As this funding goal provides no margin for errors, unexpected or unforeseeable expenses, or market forces that are not in the Association's favor, The Falcon Group does not recommend this as a funding goal for the Association's capital reserve budget.

- Full Funding is the most conservative funding goal commonly used by Associations. Full funding is best understood as an attempt to maintain the capital reserve fund at or near 100% of the accumulated common element depreciation. As an example: assuming element X has a life cycle of 10 years, is presently 5 years old, and has a replacement cost of $10,000, then the full funding goal would be to have $5,000 (5/10 x $10,000) in the capital reserve fund for this item. Full funding, as defined by GAP Report #24 ("A Complete Guide to Reserve Funding & Reserve Investment Strategies", 4th ed., produced by CAI), appears simpler than it actually is in practice, and tends to result in over-funding if the community is starting with a capital reserve fund balance less than the current depreciation of its common elements, or to result in under-funding if the community is starting with a capital reserve

fund balance greater than the current depreciation of its common elements, unless applied carefully and with the understanding that annual contributions will change over the course of time as overages and shortages are corrected, resulting in an annual contribution recommendation that decreases or increases with the passage of time in all except the simplest cases.

- Statutory Funding is a funding goal (and/or methodology) that the community is legally obligated to meet or exceed. Such funding goals are typically the result of state or local statutes or the result of one or more provisions in the governing documents of the Community Association. The relative aggressiveness of such funding goals will vary depending upon the statute or provision involved.

- Threshold Funding is normally a moderate funding goal. The essential goal of threshold funding is to avoid having a capital reserve fund balance below some predetermined level (the "threshold" or "threshold balance"), which can be determined as a percentage of the total cost to replace the considered common elements, by decree as some absolute value (e.g. the community decides that $100,000 is the threshold balance because that is a number it is comfortable with), or as some multiple of the annual contribution (e.g. the community wants to have a capital reserve fund balance of no less than 9 months of capital reserve fund contributions). Note that Baseline Funding is essentially a threshold funding goal where the threshold balance equals zero.

Methodology

There are essentially three methods used in Capital Reserve Analyses performed for most communities. The decision of which methodology to use is made by the Community Association, often under the advisement of its accountant, lawyer, and/or engineer. These three methodologies are:

- Cash Flow methodologies are based upon a projection of the future expenditures that the Community Association is likely to experience. The cash flow is then determined, based upon these expenditures, so that the resulting Capital Reserve Fund balances over the time window meet the funding goal.

- Component methodologies are based upon calculating the yearly contribution necessary to fund the replacement of each common element that is being considered. Each element is considered separately, producing a series of distinct line item entries of necessary contributions, which are summed to produce the total annual contribution to meet the funding goal.

- Statutory methodologies, like Statutory Funding Goals, are determined entirely by the statutes and/or governing document provisions that create the methodology. Statutory methodologies will most commonly resemble cash flow or component methodologies but can theoretically be based upon any fiscal or legal conceptualization of the capital reserve funding.

Methodology and funding goal are normally related closely to each other. As a rule, baseline and threshold funding goals are most easily calculated using a cash flow methodology, full funding goals are normally calculated using a component methodology, and statutory funding goals and methodologies are often found together (e.g. the local government legislates both what the funding goal is and how the community calculates its reserve fund contribution to ensure that the funding goal is met).

Please note that cash flow methodologies and component methodologies cannot be easily compared on a line item by line item basis, as cash flow methodologies do not generate a definite line item breakdown of how the annual funding is distributed between the various line items. Likewise, cash flow methodologies do not lend themselves to division of common element responsibilities between various entities. For instance, if an Association is internally divided between several sub-groups that do not share all common elements (for instance, an Association where owners of detached dwelling units do not own a share of the common elements of multifamily buildings in the Association and vice versa, but all owners share responsibility for the recreational facilities and site improvements), then the proper application a cash flow methodology would require multiple analyses, with one analysis for each division of responsibility (in the aforesaid case, there would need to be an analysis for detached dwelling unit buildings, an analysis for multifamily buildings, and an analysis for the

recreational facilities and site improvements), and each analysis requiring a distinct set of initial conditions (most notably initial capital reserve fund balances).

Analysis

A Capital Reserve Replacement Analysis consists of a series of calculations, which essentially attempt to create a mathematical model of the Association's capital reserve fund expenditures/cash flows over a designated time window, and then determine the annual contributions to the capital reserve fund necessary to support the modeled expenditures/cash flows.

Capital Reserve Replacement Analyses, as performed by The Falcon Group, performs several sets of separate, distinct, and independent calculations upon the same basic information. This permits the analysis to include a component methodology full funding calculation and several cash flow methodology threshold funding calculations (using different threshold balances) to permit the Association to more fully examine its possible capital reserve funding options. Please note that the cash flow and component methodologies cannot be directly compared on a line item by line item basis, due to the significant differences between the underlying mathematics of these methodologies.

The Capital Reserve Replacement Analysis calculations and results are shown in a series of tables and graphs that demonstrate the general viability and end results of the various scenarios. These tables and graphs allow the Association to verify that one or more of the scenarios considered meet Association requirements and do not engage in unacceptable levels of over- or under-funding, as well as allowing the Association to inspect the underlying assumptions and numerical bases of the various scenarios and compare the costs (annual contributions over the time window of the analysis) of achieving these scenarios.

Please note that this Capital Reserve Replacement Analysis is a guide, not a legally binding document. The Association should not allow itself to feel constrained from performing necessary or desirable projects simply because they are not included in this analysis, nor should it feel itself forced to perform any project simply because it has been scheduled in this analysis. If work needs to be done, then do it, and likewise, if the common element condition does not justify replacement or refurbishment, then refrain from performing the work until it needs to be done. The Falcon Group believes and recommends that every Association should have a reserve analysis performed no less than once every three years to allow the updating of estimated replacement costs to reflect inflation, technological advances, changes in the construction industry, and current market forces, as well to allow alterations in life cycle information to reflect any significant alterations in the Association's common element conditions or quantities, as well as any significant changes in industry standards or market forces.

Limits of Inspection & Disclosures

The Falcon Group will not accept responsibility for the detection or analysis of conditions not visible to the naked eye under normal lighting conditions, or conditions located in areas which cannot be accessed by inspectors.

On-site inspections include walking the improved areas of the site and visual inspection of representative samples of the observable common elements. Please note that The Falcon Group cannot accept responsibility for detection of non-representative conditions as part of the on-site inspections.

On-site inspections are limited, most notably by the following:

- Unless otherwise stated in the Common Element Descriptions & General Comments, no non-visual examinations were conducted.
- No destructive or invasive testing of any kind was undertaken.
- At no time was any private residence entered, nor were the interior conditions of any private residence examined.

- No security measures (locks, alarms, etc.) were circumvented, and areas within security perimeters were examined from outside said perimeter.

- No area of the site inaccessible to pedestrian traffic was examined and no areas requiring special tools to access or necessitating specific equipment or training to work in safely were entered.

Conditions stated in the report are representative of the general observed conditions of each item. Isolated areas of above or below average conditions may exist for any item. This analysis is not meant to be, nor should it be used as, a detailed condition evaluation of the common elements or a construction defect investigation.

No attempt has been made to predict either the rate of inflation or the rate of return on investments and savings that can be achieved by the Association. The Falcon Group assumes that the Association can achieve a consistent rate of return on investments and savings that equals or exceeds inflation, and that any investment income above and beyond the rate of inflation will be retained within the Capital Reserve Fund, but, for budgeting purposes, assumes that the annual rate of cost inflation and the annual rate of investment return seen by the Association is zero (0%). The Association should consult with its accountant to verify the viability of these assumptions. If the Association desires inclusion of non-zero inflation and investment return, please contact The Falcon Group with the desired annual rates of inflation and investment return so that a revised analysis can be prepared to reflect the Association's desired assumptions in this regard.

Information provided by official representatives of the Association is assumed to be reliable and accurate. This analysis is a reflection of the information supplied to The Falcon Group and has been assembled for the Association's use; this analysis is not meant to be an audit, quality/forensic analysis, or background check of historical information. Similarly, on-site inspections performed as part of this analysis should not be considered a project audit or quality inspection of any reserve project.

The current analysis uses field-measurements to quantify the common elements considered in the analysis. Field measurements performed as part of this analysis are not meant or intended to be used for contractor bidding, design work/calculations, or any function other than budget calculation.

The current analysis uses common element quantities developed from publicly available data sources and/or images. The quality of such information varies widely, and the precision that can be achieved in such quantity measurements is therefore often limited.

Community Specific Conditions & Commentary

General Comments

Please note that, based upon professional judgment and information provided by the Association or the Association's management professionals, the following have not been considered as part of this Capital Reserve Replacement Analysis:

- Annual maintenance tasks (e.g. filling potholes & sealing pavement cracks).

- Any building components or building mounted or connected components (assumed to be the responsibility of the individual homeowner).

- Drainage repairs or enhancements.

- Fire suppression systems (e.g. fire sprinkler heads and valves).

- Painting, sealing, or staining of exterior or interior wooden components.

- Painting of exterior or interior metal components.

- Preventive maintenance tasks (e.g. power-washing siding, annual inspections).

- Protected or concealed structural components, such as foundations, wall framing, floor/ceiling framing, roof framing, and similar components.
- Radon mitigation systems.
- Routine (e.g. sweeping stoops, snow clearing) and emergency (e.g. repairing broken stair treads) maintenance tasks.

Should the above list be incorrect, please notify The Falcon Group so that the analysis can be appropriately amended.

These items are excluded from this analysis because they are typically considered to be either maintenance or operating expenses, and are therefore expected to be accounted for in those budgets, or have predicted remaining life cycles that exceed the analysis time window, and are therefore not typically considered a capital expenditure (at this point in time), or are not common elements, and are therefore not the Association's responsibility. The Association should review all maintenance and operating budgets to confirm that sufficient funding is being allocated toward all maintenance and operating budget items, and the Association's legal professionals should verify the responsibilities of both Association and individual unit owners to confirm that the common element list used in the analysis is accurate.

Calculation Table Notes

The following are notes that provide specific comments for use with the Association's current Capital Reserve Replacement Analysis. These notes are numbered and correspond to the numbers given in the analysis Calculation Tables, which immediately follow these notes.

1. General Note on Aging Estimates: Many of the line item components vary slightly in age and/or condition; however, in general like components have been assigned an estimated average remaining useful service life based upon our observations. Single or isolated replacements of certain components may be needed occasionally and can be funded through the capital reserves as the need arises. Such as-needed isolated replacements may be especially prevalent for items like light fixtures, heaved or broken flags of concrete sidewalk, electronics, curbing, etc. For purposes of establishing the funding strategies, complete replacement projects are assumed in most cases (with exceptions for percentage or partial quantities where complete replacement is not typically necessary). Capital reserve replacement projects are generally more economical when completed as larger, more comprehensive scopes of work due to realized economies of scale and mobilization costs.

2. General Note on Replacement Cost Estimates: Similarly, the estimated per-unit costs used are average costs for the type, quality and class of existing components, understanding that actual realized future costs may vary above or below the estimates used in this analysis. In accordance with recommended industry standards, the replacement cost estimates utilized for this analysis should be reviewed and updated every two to three (2 – 3) years. Periodic professional updates of this analysis for pricing, aging, physical conditions, and actual fund balances are required to prevent an underfunded condition from developing in the future.

3. General Note on Quantity Calculations: The current analysis uses field-measured Line Item Quantities. Field measurements performed as part of this analysis are not meant or intended to be used for contractor bidding, design work/calculations, or any function other than budget calculation.

4. We have included line item funding for the eventual need to replace the steel picket front yard fencing of the townhomes after a typical useful life of some 45 years. This differs from the strategy of painting and repair reserves used by the previous analysis. We have also included line item funding for major masonry repairs to the brick pillars that help to support this front yard fencing, after some 30 years of service life. The major repairs would include resetting and repointing of the precast concrete caps, replacement of cracked or damaged brick, and grinding and tuck pointing of eroded or cracked brick mortar joints.

Grinding & Repointing or "Tuck Pointing" Exterior Brick Mortar Joints

5. We have included line item funding for the replacement of the wood stockade fence located at the west side of the HOA property. The Association reports that this fence is new as of 2018.

6. We have continued to include line item funding for replacement of the 2 HOA mailbox clusters, including restoration of the brick masonry support pillars as described for the front yard fence pillars above.

7. Line item funding has been continued for the major repairs that will eventually be required for the 'garden' stone retaining walls at the perimeter of the property. The unit price used anticipates a minor amount of face stone reinstallation work, a major amount of resetting the blue stone copings, and partial cutting and pointing of mortar joints.

8. Note that the existing brick masonry screen walls should not need complete replacement within the time window of this analysis; however, this type of wall does require ongoing maintenance and eventually partial major repairs. A major repair line item has been included, as well as a mortar joint re-pointing line item. Like the brick fence pillars, the major repairs would include resetting and repointing of the top of the wall / coping masonry, replacement of cracked or damaged brick, and grinding and tuck pointing of eroded or cracked brick mortar joints.

   Over time the mortar joints of the brick masonry weather and erode, and some may begin to crack, debond and/or spall, creating opportunities for excessive water intrusion. We have included line item funding for the repointing of approximately 15% of the brick mortar joints (based on total square feet of surface) on a cycle of every 15 years. During the repointing, or 'tuck pointing' process, the existing weathered or failed mortar is ground from the joint to a depth of approximately ¾" to 1". Then new, properly specified mortar is tooled into the open joint so as to restore a weather-tight surface to the wall (see sample image as follows).

Grinding & Repointing or "Tuck Pointing" Exterior Brick

9. The HOA reports that it will complete an ongoing replacement program for the pressure preservative treated (PPT) lumber trellis structures located above many of the townhome garage doors. For reserve funding purposes we have assumed an average age and have used separate unit price estimates for the larger and the smaller trellis sizes.

10. We have added a line item for the funding of the replacement of 10% of the concrete sidewalk every 10 years (1% per year average) for the sidewalk located along the townhome front yards that border the courtyard. This would be funded as a 100% HOA expense. Likewise, we have included funding for the eventual replacement / reconstruction of the brick borders for those sidewalks as a 100% HOA expense. The circle of sidewalk at the center of the courtyard that connects the park benches, as well as all of the remaining street side concrete sidewalk, has been included as a Shared reserve funding item, as "Concrete Street and Bench Sidewalk".

    The Shared Concrete Street and Bench Sidewalk item has been budgeted for future expenditures based upon the assumption that approximately 10% of the BSHOA proportionate share (2,071 square feet = 60%) of the total quantity (3,452 square feet) will be replaced every ten (10) years for the foreseeable future. We have included the concrete walkway along both side of Independence Court, and the circle of concrete sidewalk that links the park benches of the common courtyard. It is assumed that service walks to single townhomes are the responsibility of the individual homeowner, and that the rectangle of concrete townhome access sidewalk around the perimeter of the common courtyard (10% is 86 square feet) is the 100% responsibility of the HOA.

    Based upon actual replacement projects in the future, the Association may want to increase or decrease this number to reflect actual rates of failure propagation. Cost reflects a general average cost. Please note that, as a matter of best operating practice, all common area pedestrian walkways should be subjected to annual inspection for safety concerns, including trip hazards. This evaluation does not purport to be an inclusive or definitive walkway safety evaluation.

11. The Shared Brick Borders for Street and Bench Sidewalk item has been budgeted based upon the assumption that all of the BSHOA proportionate share (1,035 linear feet = 60%) of the total quantity (1,726 linear feet) will be reconstructed after a useful service life of approximately 25 years. This includes the brick borders along both sides of Independence Avenue, and at the circle of concrete sidewalk that links the park benches of the common courtyard. We have assumed that the brick borders along the rectangle of concrete townhome access sidewalk around the perimeter of the common courtyard (approximately 215 linear feet) is the 100% responsibility of the HOA.

Note that the longitudinal joints along the brick borders, which needs to function as a joint between dissimilar materials (brick and concrete), has been installed as a 'hard' mortar joint. The current rigid joint is not able to accommodate the normal thermal expansion and contraction cycles that occur at different rates between the materials and is breaking apart. These mortar joints should be removed and replaced with a 'soft' flexible sealant, or 'expansion' type joint over a specified backer rod or backing material, to accommodate the thermal cycles without breaking, and thereby controlling water intrusion and subsequent frost damage.

Based upon actual replacement projects in the future, the Association may want to increase or decrease this number to reflect actual rates of failure propagation. Cost reflects a general average cost. Please note that, as a matter of best operating practice, all common area pedestrian walkways should be subjected to annual inspection for safety concerns, including trip hazards. This evaluation does not purport to be an inclusive or definitive walkway safety evaluation.

12. The Association reports that the park benches were replaced as of 2018. We have included funding for 50% shared replacement.

13. We have included line item funding for a 50% share of the eventual need to replace the major electrical power panels and supports in the community.

14. We understand that the BSHOA shares the site lighting fixture costs 50/50 with BSLCA. Because the total quantity of the pole mounted sight light fixtures is an odd number (9), we allocated 50% of the estimated cost for replacement for the line item funding requirement. We assume replacement with fixtures of similar types, styles, and functionality. No testing or analysis of underground or otherwise concealed wiring has been performed; replacement cost estimates assume that the existing wiring and/or conduits are of acceptable capacity and condition and will be retained during fixture replacement.

15. We have included line item funding for the eventual replacement or complete reconstruction of the limited area lawn irrigation system for the central courtyard after approximately 20 years. Irrigation systems are often treated as deferred maintenance items for budgeting purposes since heads and components can be replaced as needed; however, due to the relatively small size and limited area nature of this system, we have included a lump sum funding item for total replacement. We understand this item is shared 50/50.

16. We have continued to include a 50% share of funding for the major repair / reconstruction of the stone masonry entrance monument walls and community signage plaques.

17. The existing roadways contain several locations of isolated cracking and the beginning signs sub-grade failures and will require a minor amount of full-depth structural patching repairs during the pavement project. We understand that the Association is completing localized repairs and seal coating. The cost for this item assumes milling for drainage improvement and planar continuity purposes, as well as to maintain curb reveal. The cost also includes a factor for some full depth repairs (as required), installation of a new 2" thick wearing course, and line striping to match the existing layout of the community. We estimate that the community may wish to reconstruction the asphalt paved roadways by Year 2025. Funding for a 60% share of the roadways, curbs / gutters has been included in the Shared Reserve Fund for BSHOA.

The Falcon Group has observed that a quality seal coat material (applied using a two-coating application procedure) applied over the bituminous pavement surface approximately 6 years after installation of the asphalt (and every 5 to 6 years thereafter until a new pavement surface is installed) to seal superficial cracks and prevent water infiltration is generally useful. In addition to its aesthetic appeal, sealcoating prevents water infiltration from occurring in small voids and small surface cracks. Large cracks in pavement should be cleaned of all debris and filled with a thicker sealant annually prior to the onset of winter as a matter of routine or preventive maintenance. We recommend that the Bryan Square Community consider a crack fill and seal coating procedure for the Fall of 2019 or Spring 2020 in order to gain the maximum service life of the roadways while minimizing the need for costly structural patching.

18. The Shared Brick Paved Parking item has been budgeted based upon the assumption that 4 of the 12 parking spaces are considered "Visitor" spaces, and so are 'Shared', and thus 60% the responsibility of the BSHOA.

19. The Shared Concrete Curb / Gutter line item has been budgeted for future expenditures based upon the assumption that approximately 5% (50 linear feet) of the BSHOA proportionate share (995 linear feet = 60% share) of the total quantity of common street curb / gutter (1,658 linear feet) will be replaced every eighteen (18) years during the street milling and paving projects. We have included the concrete curb / gutter along both side of Independence Court, including the small concrete curb 'bull noses' along the townhome section of the roadway and along the South Carolina Avenue, SE entrance drive.

    Based upon actual replacement projects in the future, the Association may want to increase or decrease this number to reflect actual rates of failure propagation. Cost reflects a general average cost.

20. We understand that the BSHOA shares the Storm Sewer Water Quality Vault Filter Replacement costs 60/40 with BSLCA. Because the total quantity of the filters is an odd number (23), we allocated 60% of the estimated cost for replacement for the line item funding requirement. Based on feedback from the Association, and the reported cleaning of the filters every year, we have used a typical useful service life of approximately 7 years for replacement.

21. As discussed with Board Members during our site visit, we have included 60% shared line item funding for the eventual need to replace the trench grate storm sewer inlet that crosses the width of the main entranceway to the community. This Fall or next Spring the asphalt pavement along the edges of the trench drain should be cut out and patched.

Client	Scope of Work
Bryan Square Homeowners Association	**100% HOA Components**
File Number	
19-0316	Full Study with Measurement
Version	
August, 2019	

Community Information

Number of Units	38
Date of Original Construction	circa. 2004
Location	Washington, D.C.

Initial Conditions

Initial Fiscal Year	2020
Initial Fund Balance	$35,000
Prior Year Annual Contribution	$3,600
Current Fund Balance	NA
Date of Current Fund Balance	NA
Last Day of Fiscal Year	December 31
Initial Percent Funded	104.63%
Initial Estimated Total Replacement Cost	$109,256
PV Expenditure in Time Window	$111,943

Revisions

Description	Check By	Date
Initial Fund Balance	JSW	10/7/2019

Analysis Calculation Constants

Time Window	30

Summary of Funding Schedules Over Time Window

Funding Schedule	Note	Initial Fiscal Year Annual Contribution	Maximum Fund Balance	Minimum Fund Balance
Full Funding	see Funding Projection for annual contributions in other than initial fiscal year	$3,508	$78,192	$29,207
%5 Threshold Funding	see Funding Projection for annual contributions in other than initial fiscal year	$2,747	$67,415	$5,463
%10 Threshold Funding	see Funding Projection for annual contributions in other than initial fiscal year	$2,929	$69,964	$10,926

Line Item footnotes in parentheses at the end of each line item	Reserve Schedule					
	Life Cycle		Estimated Cost			
	Typically Expected	Condition Assessed Remaining (note 1)	Quantity (note 2)	Unit of Measure	Unit Cost	Line Item Occurrence Cost
1-Fence-brick fence pillars, major repair-[4]	30	14	16	each	$ 800.00	$ 12,800
1-Fence-steel picket yard fencing-[4]	45	29	357	linear foot	95.00	33,915
1-Fence-wood stockade fence-[5]	20	18	225	linear foot	30.00	6,750
1-Postal-mailbox clusters-[6]	30	14	2	each	2,000.00	4,000
1-Retaining Wall-stone garden retaining wall repair-[7]	40	24	390	linear foot	25.00	9,750
1-Screen Wall-brick screen walls, masonry repair-[8]	40	24	350	square foot	20.00	7,000
1-Screen Wall-brick screen walls, repointing 15%-[8]	15	4	53	square foot	15.00	795
1-Trellis-lumber trellis, garage, large-[9]	20	19	10	each	1,200.00	12,000
1-Trellis-lumber trellis, garage, small-[9]	20	19	10	each	700.00	7,000
1-Walkway-sidewalk, courtyard perimeter, 10%-[10]	10	8	86	square foot	11.00	946
1-Walkway-brick borders, courtyard perimeter-[10]	25	8	215	linear foot	20.00	4,300
1-Water Supply-water supply/hydrant repair fund-[11]	40	24	1	lump sum	10,000.00	10,000
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Line Item footnotes in parentheses at the end of each line item	Total Line Item Cost	Full Funding Schedule				
		Current Theoretical Full Funding Line Item Balance	Initial Fund Allocation (pooling)	Current Overage (+) or Shortage (-)	Effective Age of Component	Current Theoretical Full Funding Line Item Annual Contribution
1-Fence-brick fence pillars, major repair-[4]	$ 12,800	$ 6,400	$ 6,696	$ 296	15	$ 427
1-Fence-steel picket yard fencing-[4]	33,915	11,305	11,829	524	15	754
1-Fence-wood stockade fence-[5]	6,750	338	353	16	1	338
1-Postal-mailbox clusters-[6]	4,000	2,000	2,093	93	15	133
1-Retaining Wall-stone garden retaining wall repair-[7]	9,750	3,656	3,826	169	15	244
1-Screen Wall-brick screen walls, masonry repair-[8]	7,000	2,625	2,747	122	15	175
1-Screen Wall-brick screen walls, repointing 15%-[8]	795	530	555	25	10	53
1-Trellis-lumber trellis, garage, large-[9]	12,000	-	-	-	-	600
1-Trellis-lumber trellis, garage, small-[9]	7,000	-	-	-	-	350
1-Walkway-sidewalk, courtyard perimeter, 10%-[10]	946	95	99	4	1	95
1-Walkway-brick borders, courtyard perimeter-[10]	4,300	2,752	2,879	127	16	172
1-Water Supply-water supply/hydrant repair fund-[11]	10,000	3,750	3,924	174	15	250
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Line Item	Fiscal Year ►	2020	2021	2022
	Nominal Expenditure (in Future Dollars) in Fiscal Year / Present Value of Line Item Expenditures In Time Window	$ -	$ -	$ -
1-Fence-brick fence pillars, major repair-[4]	$ 12,800	-	-	-
1-Fence-steel picket yard fencing-[4]	$ 33,915	-	-	-
1-Fence-wood stockade fence-[5]	$ 6,750	-	-	-
1-Postal-mailbox clusters-[6]	$ 4,000	-	-	-
1-Retaining Wall-stone garden retaining wall repair-[7]	$ 9,750	-	-	-
1-Screen Wall-brick screen walls, masonry repair-[8]	$ 7,000	-	-	-
1-Screen Wall-brick screen walls, repointing 15%-[8]	$ 1,590	-	-	-
1-Trellis-lumber trellis, garage, large-[9]	$ 12,000	-	-	-
1-Trellis-lumber trellis, garage, small-[9]	$ 7,000	-	-	-
1-Walkway-sidewalk, courtyard perimeter, 10%-[10]	$ 2,838	-	-	-
1-Walkway-brick borders, courtyard perimeter-[10]	$ 4,300	-	-	-
1-Water Supply-water supply/hydrant repair fund-[11]	$ 10,000	-	-	-
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Line Item	2023	2024	2025	2026
	$ -	$ 795	$ -	$ -
1-Fence-brick fence pillars, major repair-[4]	-	-	-	-
1-Fence-steel picket yard fencing-[4]	-	-	-	-
1-Fence-wood stockade fence-[5]	-	-	-	-
1-Postal-mailbox clusters-[6]	-	-	-	-
1-Retaining Wall-stone garden retaining wall repair-[7]	-	-	-	-
1-Screen Wall-brick screen walls, masonry repair-[8]	-	-	-	-
1-Screen Wall-brick screen walls, repointing 15%-[8]	-	795	-	-
1-Trellis-lumber trellis, garage, large-[9]	-	-	-	-
1-Trellis-lumber trellis, garage, small-[9]	-	-	-	-
1-Walkway-sidewalk, courtyard perimeter, 10%-[10]	-	-	-	-
1-Walkway-brick borders, courtyard perimeter-[10]	-	-	-	-
1-Water Supply-water supply/hydrant repair fund-[11]	-	-	-	-
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Line Item	2027	2028	2029	2030
	$ -	$ 5,246	$ -	$ -
1-Fence-brick fence pillars, major repair-[4]	-	-	-	-
1-Fence-steel picket yard fencing-[4]	-	-	-	-
1-Fence-wood stockade fence-[5]	-	-	-	-
1-Postal-mailbox clusters-[6]	-	-	-	-
1-Retaining Wall-stone garden retaining wall repair-[7]	-	-	-	-
1-Screen Wall-brick screen walls, masonry repair-[8]	-	-	-	-
1-Screen Wall-brick screen walls, repointing 15%-[8]	-	-	-	-
1-Trellis-lumber trellis, garage, large-[9]	-	-	-	-
1-Trellis-lumber trellis, garage, small-[9]	-	-	-	-
1-Walkway-sidewalk, courtyard perimeter, 10%-[10]	-	946	-	-
1-Walkway-brick borders, courtyard perimeter-[10]	-	4,300	-	-
1-Water Supply-water supply/hydrant repair fund-[11]	-	-	-	-
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Line Item	2031	2032	2033	2034
	$ -	$ -	$ -	$ 16,800
1-Fence-brick fence pillars, major repair-[4]	-	-	-	12,800
1-Fence-steel picket yard fencing-[4]	-	-	-	-
1-Fence-wood stockade fence-[5]	-	-	-	-
1-Postal-mailbox clusters-[6]	-	-	-	4,000
1-Retaining Wall-stone garden retaining wall repair-[7]	-	-	-	-
1-Screen Wall-brick screen walls, masonry repair-[8]	-	-	-	-
1-Screen Wall-brick screen walls, repointing 15%-[8]	-	-	-	-
1-Trellis-lumber trellis, garage, large-[9]	-	-	-	-
1-Trellis-lumber trellis, garage, small-[9]	-	-	-	-
1-Walkway-sidewalk, courtyard perimeter, 10%-[10]	-	-	-	-
1-Walkway-brick borders, courtyard perimeter-[10]	-	-	-	-
1-Water Supply-water supply/hydrant repair fund-[11]	-	-	-	-
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Line Item	2035	2036	2037	2038
	$ -	$ -	$ -	$ 7,696
1-Fence-brick fence pillars, major repair-[4]	-	-	-	-
1-Fence-steel picket yard fencing-[4]	-	-	-	-
1-Fence-wood stockade fence-[5]	-	-	-	6,750
1-Postal-mailbox clusters-[6]	-	-	-	-
1-Retaining Wall-stone garden retaining wall repair-[7]	-	-	-	-
1-Screen Wall-brick screen walls, masonry repair-[8]	-	-	-	-
1-Screen Wall-brick screen walls, repointing 15%-[8]	-	-	-	-
1-Trellis-lumber trellis, garage, large-[9]	-	-	-	-
1-Trellis-lumber trellis, garage, small-[9]	-	-	-	-
1-Walkway-sidewalk, courtyard perimeter, 10%-[10]	-	-	-	946
1-Walkway-brick borders, courtyard perimeter-[10]	-	-	-	-
1-Water Supply-water supply/hydrant repair fund-[11]	-	-	-	-
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Line Item	2039	2040	2041	2042
	$ 19,795	$ -	$ -	$ -
1-Fence-brick fence pillars, major repair-[4]	-	-	-	-
1-Fence-steel picket yard fencing-[4]	-	-	-	-
1-Fence-wood stockade fence-[5]	-	-	-	-
1-Postal-mailbox clusters-[6]	-	-	-	-
1-Retaining Wall-stone garden retaining wall repair-[7]	-	-	-	-
1-Screen Wall-brick screen walls, masonry repair-[8]	-	-	-	-
1-Screen Wall-brick screen walls, repointing 15%-[8]	795	-	-	-
1-Trellis-lumber trellis, garage, large-[9]	12,000	-	-	-
1-Trellis-lumber trellis, garage, small-[9]	7,000	-	-	-
1-Walkway-sidewalk, courtyard perimeter, 10%-[10]	-	-	-	-
1-Walkway-brick borders, courtyard perimeter-[10]	-	-	-	-
1-Water Supply-water supply/hydrant repair fund-[11]	-	-	-	-
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Line Item	2043	2044	2045	2046
	$ -	$ 26,750	$ -	$ -
1-Fence-brick fence pillars, major repair-[4]	-	-	-	-
1-Fence-steel picket yard fencing-[4]	-	-	-	-
1-Fence-wood stockade fence-[5]	-	-	-	-
1-Postal-mailbox clusters-[6]	-	-	-	-
1-Retaining Wall-stone garden retaining wall repair-[7]	-	9,750	-	-
1-Screen Wall-brick screen walls, masonry repair-[8]	-	7,000	-	-
1-Screen Wall-brick screen walls, repointing 15%-[8]	-	-	-	-
1-Trellis-lumber trellis, garage, large-[9]	-	-	-	-
1-Trellis-lumber trellis, garage, small-[9]	-	-	-	-
1-Walkway-sidewalk, courtyard perimeter, 10%-[10]	-	-	-	-
1-Walkway-brick borders, courtyard perimeter-[10]	-	-	-	-
1-Water Supply-water supply/hydrant repair fund-[11]	-	10,000	-	-
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Line Item	2047	2048	2049	2050
	$ -	$ 946	$ 33,915	$ -
1-Fence-brick fence pillars, major repair-[4]	-	-	-	-
1-Fence-steel picket yard fencing-[4]	-	-	33,915	-
1-Fence-wood stockade fence-[5]	-	-	-	-
1-Postal-mailbox clusters-[6]	-	-	-	-
1-Retaining Wall-stone garden retaining wall repair-[7]	-	-	-	-
1-Screen Wall-brick screen walls, masonry repair-[8]	-	-	-	-
1-Screen Wall-brick screen walls, repointing 15%-[8]	-	-	-	-
1-Trellis-lumber trellis, garage, large-[9]	-	-	-	-
1-Trellis-lumber trellis, garage, small-[9]	-	-	-	-
1-Walkway-sidewalk, courtyard perimeter, 10%-[10]	-	946	-	-
1-Walkway-brick borders, courtyard perimeter-[10]	-	-	-	-
1-Water Supply-water supply/hydrant repair fund-[11]	-	-	-	-
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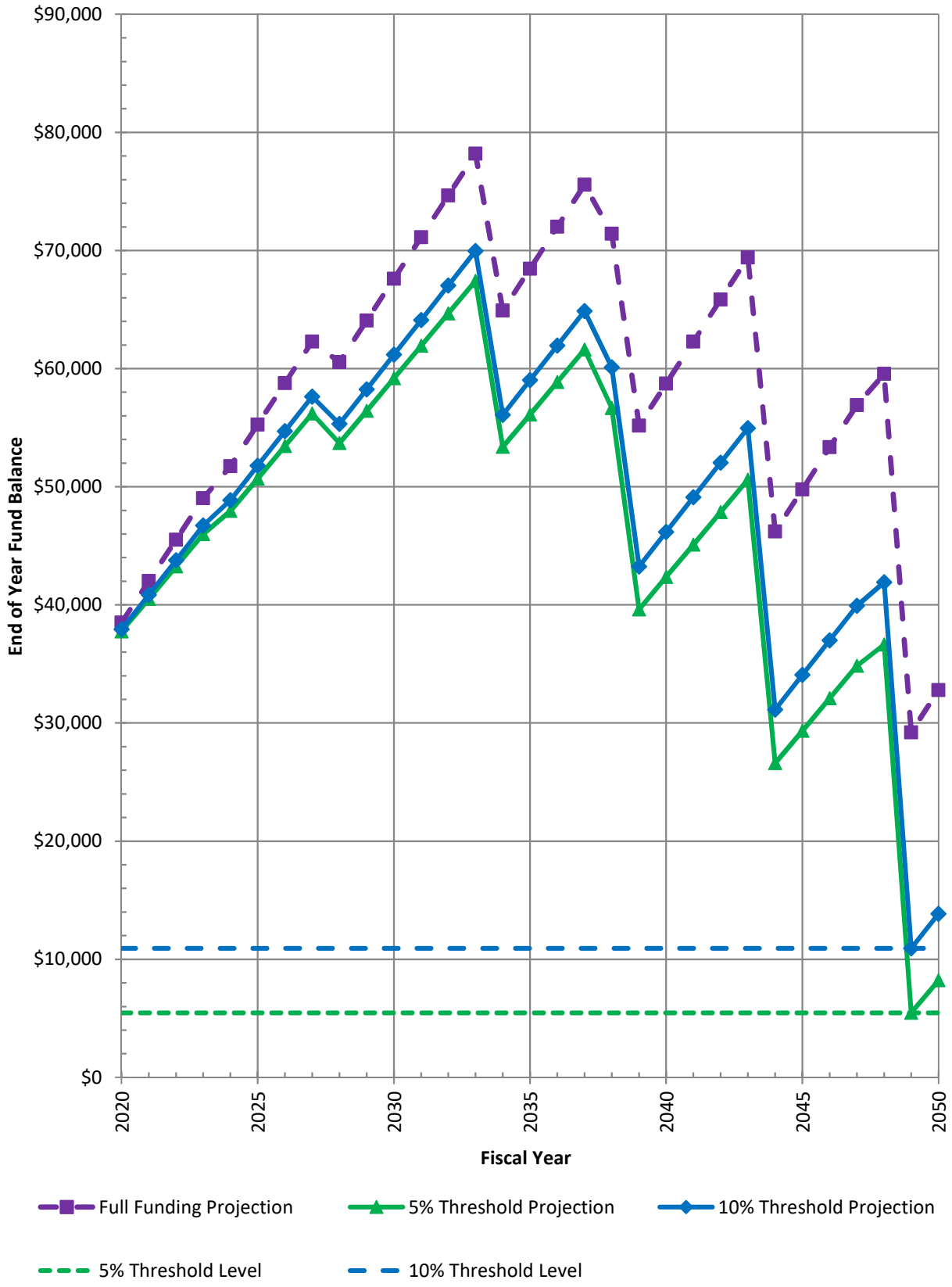
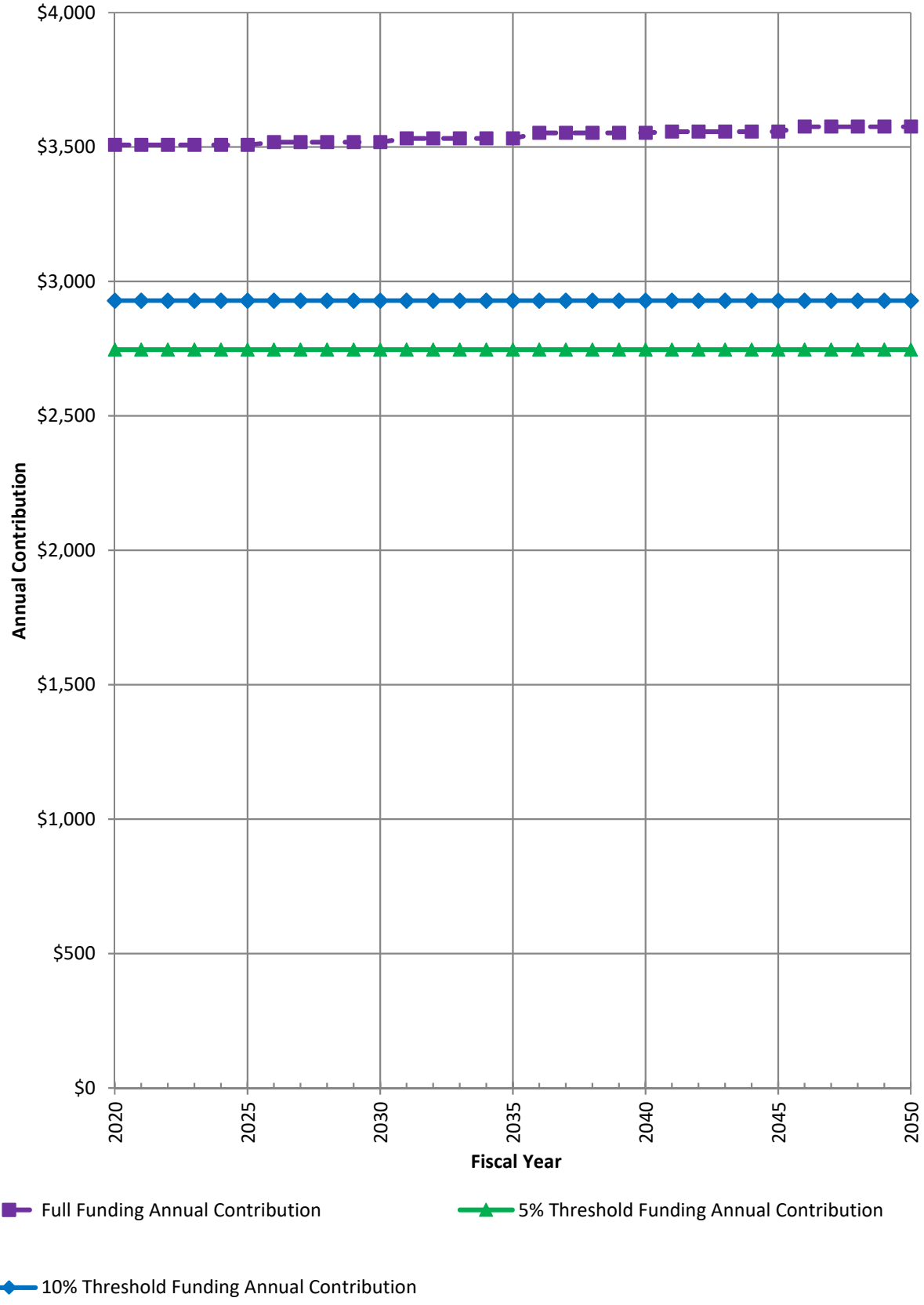
Fiscal Year	Nominal Expenditure (in Future Dollars) in Fiscal Year	Full Funding Scenario Projection		
		Start of Year Fund Balance	Projected Contribution	End of Year Fund Balance
2020	$ -	$ 35,000	$ 3,508	$ 38,508
2021	-	38,508	3,508	42,016
2022	-	42,016	3,508	45,524
2023	-	45,524	3,508	49,032
2024	795	49,032	3,508	51,745
2025	-	51,745	3,508	55,253
2026	-	55,253	3,518	58,771
2027	-	58,771	3,518	62,289
2028	5,246	62,289	3,518	60,560
2029	-	60,560	3,518	64,078
2030	-	64,078	3,518	67,596
2031	-	67,596	3,532	71,128
2032	-	71,128	3,532	74,660
2033	-	74,660	3,532	78,192
2034	16,800	78,192	3,532	64,924
2035	-	64,924	3,532	68,456
2036	-	68,456	3,553	72,009
2037	-	72,009	3,553	75,562
2038	7,696	75,562	3,553	71,419
2039	19,795	71,419	3,553	55,177
2040	-	55,177	3,553	58,730
2041	-	58,730	3,557	62,287
2042	-	62,287	3,557	65,844
2043	-	65,844	3,557	69,401
2044	26,750	69,401	3,557	46,208
2045	-	46,208	3,557	49,766
2046	-	49,766	3,576	53,341
2047	-	53,341	3,576	56,917
2048	946	56,917	3,576	59,546
2049	33,915	59,546	3,576	29,207
2050	-	29,207	3,576	32,782

Fiscal Year	Nominal Expenditure (in Future Dollars) in Fiscal Year	5% Threshold Funding Scenario Projection				10% Threshold Funding Scenario Projection			
		Initial Year Threshold of $5,463				Initial Year Threshold of $10,926			
		Start of Year Fund Balance	Projected Contribution	End of Year Fund Balance	Nominal Threshold in Year	Start of Year Fund Balance	Projected Contribution	End of Year Fund Balance	Nominal Threshold in Year
2020	$ -	$ 35,000	$ 2,747	$ 37,747	$ 5,463	$ 35,000	$ 2,929	$ 37,929	$ 10,926
2021	-	37,747	2,747	40,494	5,463	37,929	2,929	40,858	10,926
2022	-	40,494	2,747	43,241	5,463	40,858	2,929	43,787	10,926
2023	-	43,241	2,747	45,987	5,463	43,787	2,929	46,716	10,926
2024	795	45,987	2,747	47,939	5,463	46,716	2,929	48,850	10,926
2025	-	47,939	2,747	50,686	5,463	48,850	2,929	51,779	10,926
2026	-	50,686	2,747	53,433	5,463	51,779	2,929	54,708	10,926
2027	-	53,433	2,747	56,180	5,463	54,708	2,929	57,637	10,926
2028	5,246	56,180	2,747	53,681	5,463	57,637	2,929	55,320	10,926
2029	-	53,681	2,747	56,428	5,463	55,320	2,929	58,249	10,926
2030	-	56,428	2,747	59,174	5,463	58,249	2,929	61,177	10,926
2031	-	59,174	2,747	61,921	5,463	61,177	2,929	64,106	10,926
2032	-	61,921	2,747	64,668	5,463	64,106	2,929	67,035	10,926
2033	-	64,668	2,747	67,415	5,463	67,035	2,929	69,964	10,926
2034	16,800	67,415	2,747	53,362	5,463	69,964	2,929	56,093	10,926
2035	-	53,362	2,747	56,109	5,463	56,093	2,929	59,022	10,926
2036	-	56,109	2,747	58,856	5,463	59,022	2,929	61,951	10,926
2037	-	58,856	2,747	61,602	5,463	61,951	2,929	64,880	10,926
2038	7,696	61,602	2,747	56,653	5,463	64,880	2,929	60,113	10,926
2039	19,795	56,653	2,747	39,605	5,463	60,113	2,929	43,247	10,926
2040	-	39,605	2,747	42,352	5,463	43,247	2,929	46,176	10,926
2041	-	42,352	2,747	45,099	5,463	46,176	2,929	49,105	10,926
2042	-	45,099	2,747	47,846	5,463	49,105	2,929	52,034	10,926
2043	-	47,846	2,747	50,593	5,463	52,034	2,929	54,963	10,926
2044	26,750	50,593	2,747	26,589	5,463	54,963	2,929	31,142	10,926
2045	-	26,589	2,747	29,336	5,463	31,142	2,929	34,071	10,926
2046	-	29,336	2,747	32,083	5,463	34,071	2,929	37,000	10,926
2047	-	32,083	2,747	34,830	5,463	37,000	2,929	39,929	10,926
2048	946	34,830	2,747	36,631	5,463	39,929	2,929	41,912	10,926
2049	33,915	36,631	2,747	5,463	5,463	41,912	2,929	10,926	10,926
2050	-	5,463	2,747	8,210	5,463	10,926	2,929	13,855	10,926

End of Fiscal Year Fund Projection Graph



Annual Contribution in Fiscal Year Graph



2020 total expenditure $0 consisting of these projects:	2021 total expenditure $0 consisting of these projects:	2022 total expenditure $0 consisting of these projects:	2023 total expenditure $0 consisting of these projects:

2024 total expenditure $795 consisting of these projects:	2025 total expenditure $0 consisting of these projects:	2026 total expenditure $0 consisting of these projects:	2027 total expenditure $0 consisting of these projects:
1-Screen Wall-brick screen walls, repointing 15%-[8] $795			

2028 total expenditure $5,246 consisting of these projects:	2029 total expenditure $0 consisting of these projects:	2030 total expenditure $0 consisting of these projects:	2031 total expenditure $0 consisting of these projects:
1-Walkway-brick borders, courtyard perimeter-[10] $4,300 1-Walkway-sidewalk, courtyard perimeter, 10%-[10] $946			

2032 total expenditure $0 consisting of these projects:	2033 total expenditure $0 consisting of these projects:	2034 total expenditure $16,800 consisting of these projects:	2035 total expenditure $0 consisting of these projects:
		1-Fence-brick fence pillars, major repair-[4] $12,800 1-Postal-mailbox clusters-[6] $4,000	

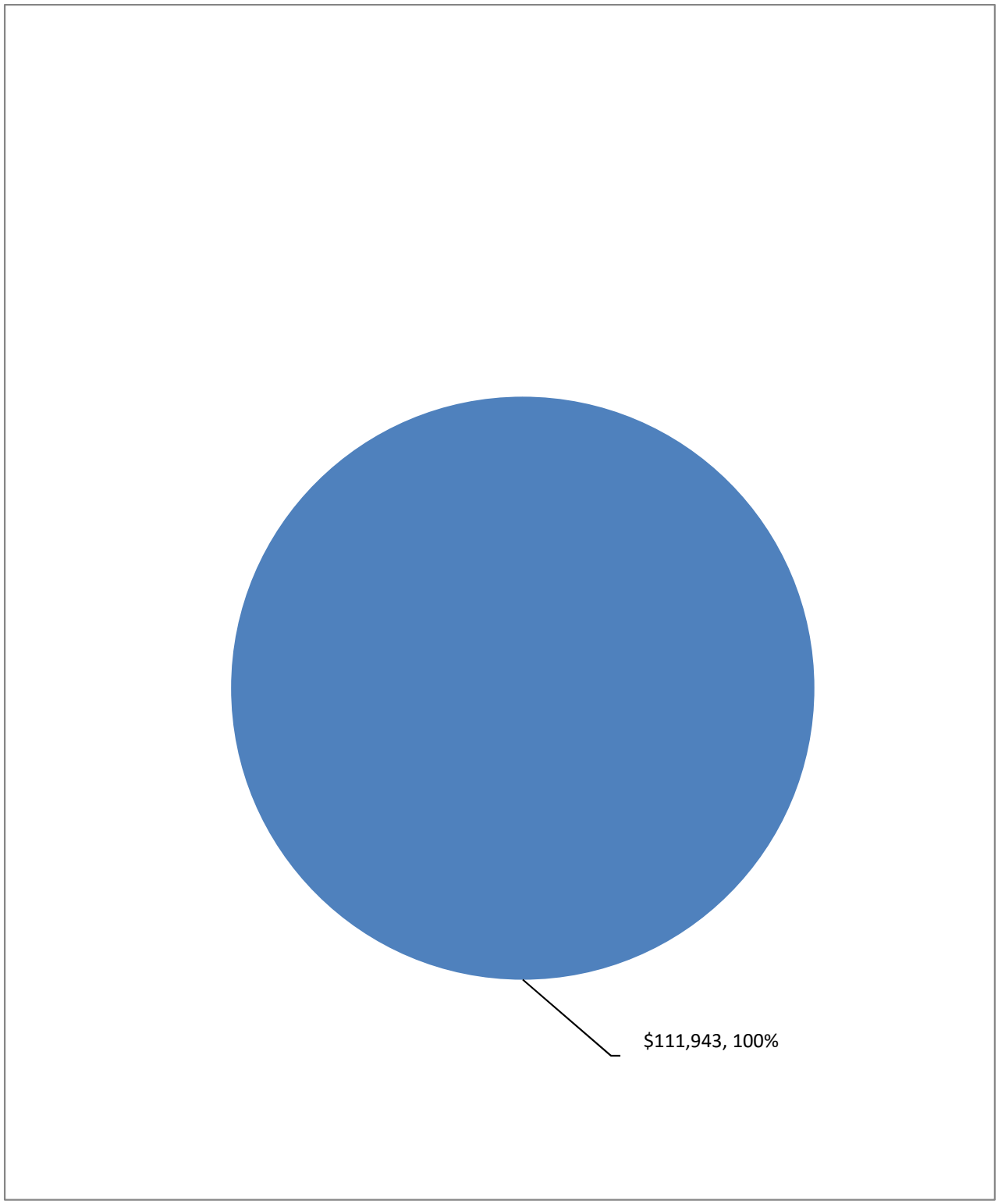
2036 total expenditure $0 consisting of these projects:	2037 total expenditure $0 consisting of these projects:	2038 total expenditure $7,696 consisting of these projects:	2039 total expenditure $19,795 consisting of these projects:
		1-Fence-wood stockade fence-[5] $6,750 1-Walkway-sidewalk, courtyard perimeter, 10%-[10] $946	1-Trellis-lumber trellis, garage, large-[9] $12,000 1-Trellis-lumber trellis, garage, small-[9] $7,000 1-Screen Wall-brick screen walls, repointing 15%-[8] $795

2040 total expenditure $0 consisting of these projects:	2041 total expenditure $0 consisting of these projects:	2042 total expenditure $0 consisting of these projects:	2043 total expenditure $0 consisting of these projects:

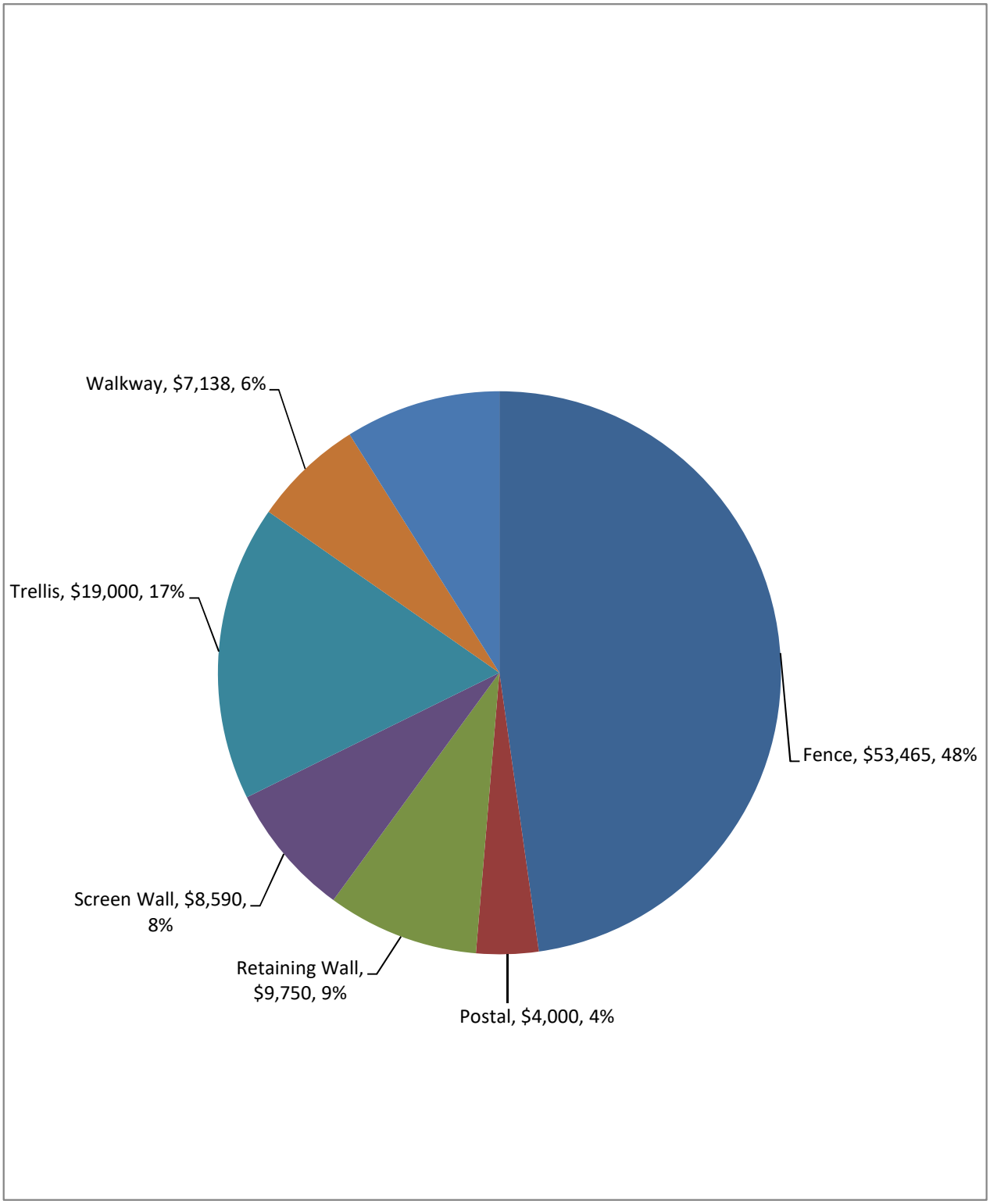
2044 total expenditure $26,750 consisting of these projects:	2045 total expenditure $0 consisting of these projects:	2046 total expenditure $0 consisting of these projects:	2047 total expenditure $0 consisting of these projects:
1-Water Supply-water supply/hydrant repair fund-[11] $10,000 1-Retaining Wall-stone garden retaining wall repair-[7] $9,750 1-Screen Wall-brick screen walls, masonry repair-[8] $7,000			

2048 total expenditure $946 consisting of these projects:	2049 total expenditure $33,915 consisting of these projects:	2050 total expenditure $0 consisting of these projects:
1-Walkway-sidewalk, courtyard perimeter, 10%-[10] $946	1-Fence-steel picket yard fencing-[4] $33,915	

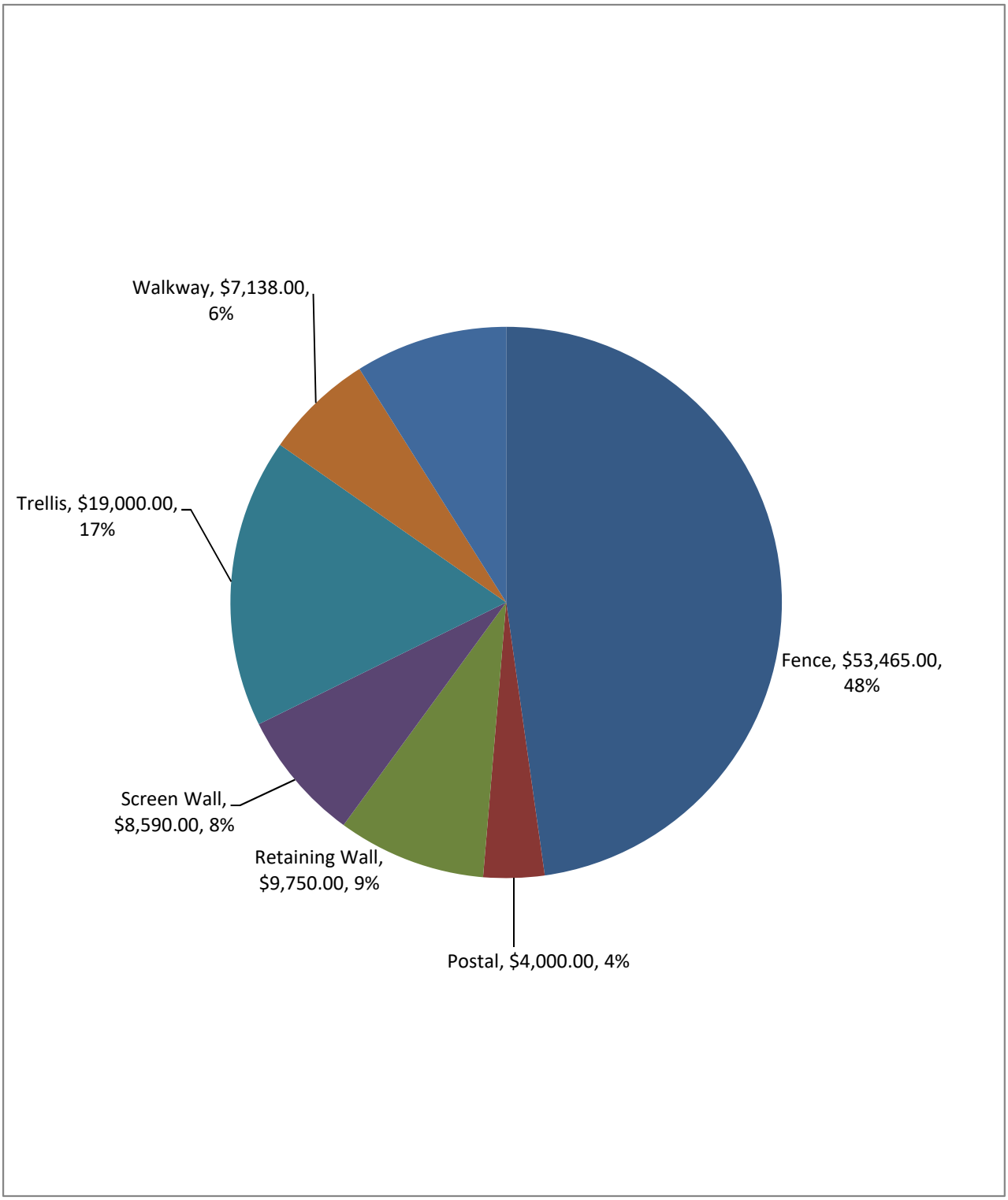
Present Value Expenditure Over Time Window by Line Item Category



Present Value Expenditure Over Time Window by Line Item Type



Present Value Expenditure Over Time Window for 1 Category by Line Item Type



Client	Scope of Work
Bryan Square Homeowners Association	**Shared Components w/BSLCA**
File Number	**(Bryan Square's Share)**
19-0316	Full Study with Measurement
Version	
August, 2019	

Community Information	
Number of Units	38
Date of Original Construction	circa. 2004
Location	Washington, D.C.

Initial Conditions	
Initial Fiscal Year	2020
Initial Fund Balance	$32,410
Prior Year Annual Contribution	$3,600
Current Fund Balance	NA
Date of Current Fund Balance	NA
Last Day of Fiscal Year	December 31
Initial Percent Funded	50.65%
Initial Estimated Total Replacement Cost	$116,222
PV Expenditure in Time Window	$194,481

Revisions		
Description	Check By	Date
Adjust Initial Fund Balance	JSW	10/24/2019

Analysis Calculation Constants	
Time Window	30

Summary of Funding Schedules Over Time Window

Funding Schedule	Note	Initial Fiscal Year Annual Contribution	Maximum Fund Balance	Minimum Fund Balance
Full Funding	see Funding Projection for annual contributions in other than initial fiscal year	$10,441	$84,389	$28,020
%5 Threshold Funding	see Funding Projection for annual contributions in other than initial fiscal year	$6,820	$67,268	$5,811
%10 Threshold Funding	see Funding Projection for annual contributions in other than initial fiscal year	$7,401	$80,634	$11,622

Line Item footnotes in parentheses at the end of each line item	Reserve Schedule					
	Life Cycle		Estimated Cost			
	Typically Expected	Condition Assessed Remaining (note 1)	Quantity (note 2)	Unit of Measure	Unit Cost	Line Item Occurrence Cost
SHARED-Benches-park benches, courtyard, 50%-[12]	20	18	2	each	$ 850.00	$ 1,700
SHARED-Electrical-electrical panel fund, 50%-[13]	45	29	1	lump sum	4,000.00	4,000
SHARED-Illumination-site lighting, pole mount, 50%-[14]	25	9	9	each	1,150.00	10,350
SHARED-Irrigation-irrigation system, courtyard, 50%-[15]	20	4	1	lump sum	5,000.00	5,000
SHARED-Monumentation-main entrance monument repair, 50%-[16]	25	6	1	lump sum	5,000.00	5,000
SHARED-Pavement-asphalt pavement reconstruct, 60%-[17]	18	5	1,680	square yard	26.00	43,680
SHARED-Pavement-asphalt pavement seal coat, 60%-[17]	6	11	1,680	square yard	1.50	2,520
SHARED-Pavement-brick paved parking, 60% of 4 spots-[18]	30	24	480	square foot	15.00	7,200
SHARED-Pavement-street curb/gutter, concrete, 5%-[19]	18	5	50	linear foot	34.00	1,700
SHARED-Storm Water-storm water quality filters, 60%-[20]	7	4	23	each	265.00	6,095
SHARED-Storm Water-trench drain inlet, main entrance, 60%-[21]	36	21	1	lump sum	6,000.00	6,000
SHARED-Walkway-brick border, 60% street & bench walk-[11]	25	8	1,035	linear foot	20.00	20,700
SHARED-Walkway-street & bench sidewalk, 10%-[10]	10	8	207	square foot	11.00	2,277
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Line Item footnotes in parentheses at the end of each line item	Total Line Item Cost	Full Funding Schedule				
		Current Theoretical Full Funding Line Item Balance	Initial Fund Allocation (pooling)	Current Overage (+) or Shortage (-)	Effective Age of Component	Current Theoretical Full Funding Line Item Annual Contribution
SHARED-Benches-park benches, courtyard, 50%-[12]	$ 1,700	$ 85	$ 43	$ (42)	1	$ 85
SHARED-Electrical-electrical panel fund, 50%-[13]	4,000	1,333	675	(658)	15	89
SHARED-Illumination-site lighting, pole mount, 50%-[14]	10,350	6,210	3,146	(3,064)	15	414
SHARED-Irrigation-irrigation system, courtyard, 50%-[15]	5,000	3,750	1,900	(1,850)	15	250
SHARED-Monumentation-main entrance monument repair, 50%-[16]	5,000	3,600	1,824	(1,776)	18	200
SHARED-Pavement-asphalt pavement reconstruct, 60%-[17]	43,680	29,120	14,751	(14,369)	12	2,427
SHARED-Pavement-asphalt pavement seal coat, 60%-[17]	2,520	-	-	-	-	420
SHARED-Pavement-brick paved parking, 60% of 4 spots-[18]	7,200	1,200	608	(592)	5	240
SHARED-Pavement-street curb/gutter, concrete, 5%-[19]	1,700	1,133	574	(559)	12	94
SHARED-Storm Water-storm water quality filters, 60%-[20]	6,095	1,741	882	(859)	2	871
SHARED-Storm Water-trench drain inlet, main entrance, 60%-[21]	6,000	2,333	1,182	(1,151)	14	167
SHARED-Walkway-brick border, 60% street & bench walk-[11]	20,700	13,248	6,711	(6,537)	16	828
SHARED-Walkway-street & bench sidewalk, 10%-[10]	2,277	228	115	(112)	1	228
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Line Item	Fiscal Year ►	2020	2021	2022
	Nominal Expenditure (in Future Dollars) in Fiscal Year / Present Value of Line Item Expenditures In Time Window	$ -	$ -	$ -
SHARED-Benches-park benches, courtyard, 50%-[12]	$ 1,700	-	-	-
SHARED-Electrical-electrical panel fund, 50%-[13]	$ 4,000	-	-	-
SHARED-Illumination-site lighting, pole mount, 50%-[14]	$ 10,350	-	-	-
SHARED-Irrigation-irrigation system, courtyard, 50%-[15]	$ 10,000	-	-	-
SHARED-Monumentation-main entrance monument repair, 50%-[16]	$ 5,000	-	-	-
SHARED-Pavement-asphalt pavement reconstruct, 60%-[17]	$ 87,360	-	-	-
SHARED-Pavement-asphalt pavement seal coat, 60%-[17]	$ 7,560	-	-	-
SHARED-Pavement-brick paved parking, 60% of 4 spots-[18]	$ 7,200	-	-	-
SHARED-Pavement-street curb/gutter, concrete, 5%-[19]	$ 3,400	-	-	-
SHARED-Storm Water-storm water quality filters, 60%-[20]	$ 24,380	-	-	-
SHARED-Storm Water-trench drain inlet, main entrance, 60%-[21]	$ 6,000	-	-	-
SHARED-Walkway-brick border, 60% street & bench walk-[11]	$ 20,700	-	-	-
SHARED-Walkway-street & bench sidewalk, 10%-[10]	$ 6,831	-	-	-
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Line Item	2023	2024	2025	2026
	$ -	$ 11,095	$ 45,380	$ 5,000
SHARED-Benches-park benches, courtyard, 50%-[12]	-	-	-	-
SHARED-Electrical-electrical panel fund, 50%-[13]	-	-	-	-
SHARED-Illumination-site lighting, pole mount, 50%-[14]	-	-	-	-
SHARED-Irrigation-irrigation system, courtyard, 50%-[15]	-	5,000	-	-
SHARED-Monumentation-main entrance monument repair, 50%-[16]	-	-	-	5,000
SHARED-Pavement-asphalt pavement reconstruct, 60%-[17]	-	-	43,680	-
SHARED-Pavement-asphalt pavement seal coat, 60%-[17]	-	-	-	-
SHARED-Pavement-brick paved parking, 60% of 4 spots-[18]	-	-	-	-
SHARED-Pavement-street curb/gutter, concrete, 5%-[19]	-	-	1,700	-
SHARED-Storm Water-storm water quality filters, 60%-[20]	-	6,095	-	-
SHARED-Storm Water-trench drain inlet, main entrance, 60%-[21]	-	-	-	-
SHARED-Walkway-brick border, 60% street & bench walk-[11]	-	-	-	-
SHARED-Walkway-street & bench sidewalk, 10%-[10]	-	-	-	-
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Line Item	2027	2028	2029	2030
	$ -	$ 22,977	$ 10,350	$ -
SHARED-Benches-park benches, courtyard, 50%-[12]	-	-	-	-
SHARED-Electrical-electrical panel fund, 50%-[13]	-	-	-	-
SHARED-Illumination-site lighting, pole mount, 50%-[14]	-	-	10,350	-
SHARED-Irrigation-irrigation system, courtyard, 50%-[15]	-	-	-	-
SHARED-Monumentation-main entrance monument repair, 50%-[16]	-	-	-	-
SHARED-Pavement-asphalt pavement reconstruct, 60%-[17]	-	-	-	-
SHARED-Pavement-asphalt pavement seal coat, 60%-[17]	-	-	-	-
SHARED-Pavement-brick paved parking, 60% of 4 spots-[18]	-	-	-	-
SHARED-Pavement-street curb/gutter, concrete, 5%-[19]	-	-	-	-
SHARED-Storm Water-storm water quality filters, 60%-[20]	-	-	-	-
SHARED-Storm Water-trench drain inlet, main entrance, 60%-[21]	-	-	-	-
SHARED-Walkway-brick border, 60% street & bench walk-[11]	-	20,700	-	-
SHARED-Walkway-street & bench sidewalk, 10%-[10]	-	2,277	-	-
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Line Item	2031	2032	2033	2034
	$ 8,615	$ -	$ -	$ -
SHARED-Benches-park benches, courtyard, 50%-[12]	-	-	-	-
SHARED-Electrical-electrical panel fund, 50%-[13]	-	-	-	-
SHARED-Illumination-site lighting, pole mount, 50%-[14]	-	-	-	-
SHARED-Irrigation-irrigation system, courtyard, 50%-[15]	-	-	-	-
SHARED-Monumentation-main entrance monument repair, 50%-[16]	-	-	-	-
SHARED-Pavement-asphalt pavement reconstruct, 60%-[17]	-	-	-	-
SHARED-Pavement-asphalt pavement seal coat, 60%-[17]	2,520	-	-	-
SHARED-Pavement-brick paved parking, 60% of 4 spots-[18]	-	-	-	-
SHARED-Pavement-street curb/gutter, concrete, 5%-[19]	-	-	-	-
SHARED-Storm Water-storm water quality filters, 60%-[20]	6,095	-	-	-
SHARED-Storm Water-trench drain inlet, main entrance, 60%-[21]	-	-	-	-
SHARED-Walkway-brick border, 60% street & bench walk-[11]	-	-	-	-
SHARED-Walkway-street & bench sidewalk, 10%-[10]	-	-	-	-
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Line Item	2035	2036	2037	2038
	$ -	$ -	$ 2,520	$ 10,072
SHARED-Benches-park benches, courtyard, 50%-[12]	-	-	-	1,700
SHARED-Electrical-electrical panel fund, 50%-[13]	-	-	-	-
SHARED-Illumination-site lighting, pole mount, 50%-[14]	-	-	-	-
SHARED-Irrigation-irrigation system, courtyard, 50%-[15]	-	-	-	-
SHARED-Monumentation-main entrance monument repair, 50%-[16]	-	-	-	-
SHARED-Pavement-asphalt pavement reconstruct, 60%-[17]	-	-	-	-
SHARED-Pavement-asphalt pavement seal coat, 60%-[17]	-	-	2,520	-
SHARED-Pavement-brick paved parking, 60% of 4 spots-[18]	-	-	-	-
SHARED-Pavement-street curb/gutter, concrete, 5%-[19]	-	-	-	-
SHARED-Storm Water-storm water quality filters, 60%-[20]	-	-	-	6,095
SHARED-Storm Water-trench drain inlet, main entrance, 60%-[21]	-	-	-	-
SHARED-Walkway-brick border, 60% street & bench walk-[11]	-	-	-	-
SHARED-Walkway-street & bench sidewalk, 10%-[10]	-	-	-	2,277
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Line Item	2039	2040	2041	2042
	$ -	$ -	$ 6,000	$ -
SHARED-Benches-park benches, courtyard, 50%-[12]	-	-	-	-
SHARED-Electrical-electrical panel fund, 50%-[13]	-	-	-	-
SHARED-Illumination-site lighting, pole mount, 50%-[14]	-	-	-	-
SHARED-Irrigation-irrigation system, courtyard, 50%-[15]	-	-	-	-
SHARED-Monumentation-main entrance monument repair, 50%-[16]	-	-	-	-
SHARED-Pavement-asphalt pavement reconstruct, 60%-[17]	-	-	-	-
SHARED-Pavement-asphalt pavement seal coat, 60%-[17]	-	-	-	-
SHARED-Pavement-brick paved parking, 60% of 4 spots-[18]	-	-	-	-
SHARED-Pavement-street curb/gutter, concrete, 5%-[19]	-	-	-	-
SHARED-Storm Water-storm water quality filters, 60%-[20]	-	-	-	-
SHARED-Storm Water-trench drain inlet, main entrance, 60%-[21]	-	-	6,000	-
SHARED-Walkway-brick border, 60% street & bench walk-[11]	-	-	-	-
SHARED-Walkway-street & bench sidewalk, 10%-[10]	-	-	-	-
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Line Item	2043	2044	2045	2046
	$ 45,380	$ 12,200	$ 6,095	$ -
SHARED-Benches-park benches, courtyard, 50%-[12]	-	-	-	-
SHARED-Electrical-electrical panel fund, 50%-[13]	-	-	-	-
SHARED-Illumination-site lighting, pole mount, 50%-[14]	-	-	-	-
SHARED-Irrigation-irrigation system, courtyard, 50%-[15]	-	5,000	-	-
SHARED-Monumentation-main entrance monument repair, 50%-[16]	-	-	-	-
SHARED-Pavement-asphalt pavement reconstruct, 60%-[17]	43,680	-	-	-
SHARED-Pavement-asphalt pavement seal coat, 60%-[17]	-	-	-	-
SHARED-Pavement-brick paved parking, 60% of 4 spots-[18]	-	7,200	-	-
SHARED-Pavement-street curb/gutter, concrete, 5%-[19]	1,700	-	-	-
SHARED-Storm Water-storm water quality filters, 60%-[20]	-	-	6,095	-
SHARED-Storm Water-trench drain inlet, main entrance, 60%-[21]	-	-	-	-
SHARED-Walkway-brick border, 60% street & bench walk-[11]	-	-	-	-
SHARED-Walkway-street & bench sidewalk, 10%-[10]	-	-	-	-
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Line Item	2047	2048	2049	2050
	$ -	$ 2,277	$ 6,520	$ -
SHARED-Benches-park benches, courtyard, 50%-[12]	-	-	-	-
SHARED-Electrical-electrical panel fund, 50%-[13]	-	-	4,000	-
SHARED-Illumination-site lighting, pole mount, 50%-[14]	-	-	-	-
SHARED-Irrigation-irrigation system, courtyard, 50%-[15]	-	-	-	-
SHARED-Monumentation-main entrance monument repair, 50%-[16]	-	-	-	-
SHARED-Pavement-asphalt pavement reconstruct, 60%-[17]	-	-	-	-
SHARED-Pavement-asphalt pavement seal coat, 60%-[17]	-	-	2,520	-
SHARED-Pavement-brick paved parking, 60% of 4 spots-[18]	-	-	-	-
SHARED-Pavement-street curb/gutter, concrete, 5%-[19]	-	-	-	-
SHARED-Storm Water-storm water quality filters, 60%-[20]	-	-	-	-
SHARED-Storm Water-trench drain inlet, main entrance, 60%-[21]	-	-	-	-
SHARED-Walkway-brick border, 60% street & bench walk-[11]	-	-	-	-
SHARED-Walkway-street & bench sidewalk, 10%-[10]	-	2,277	-	-
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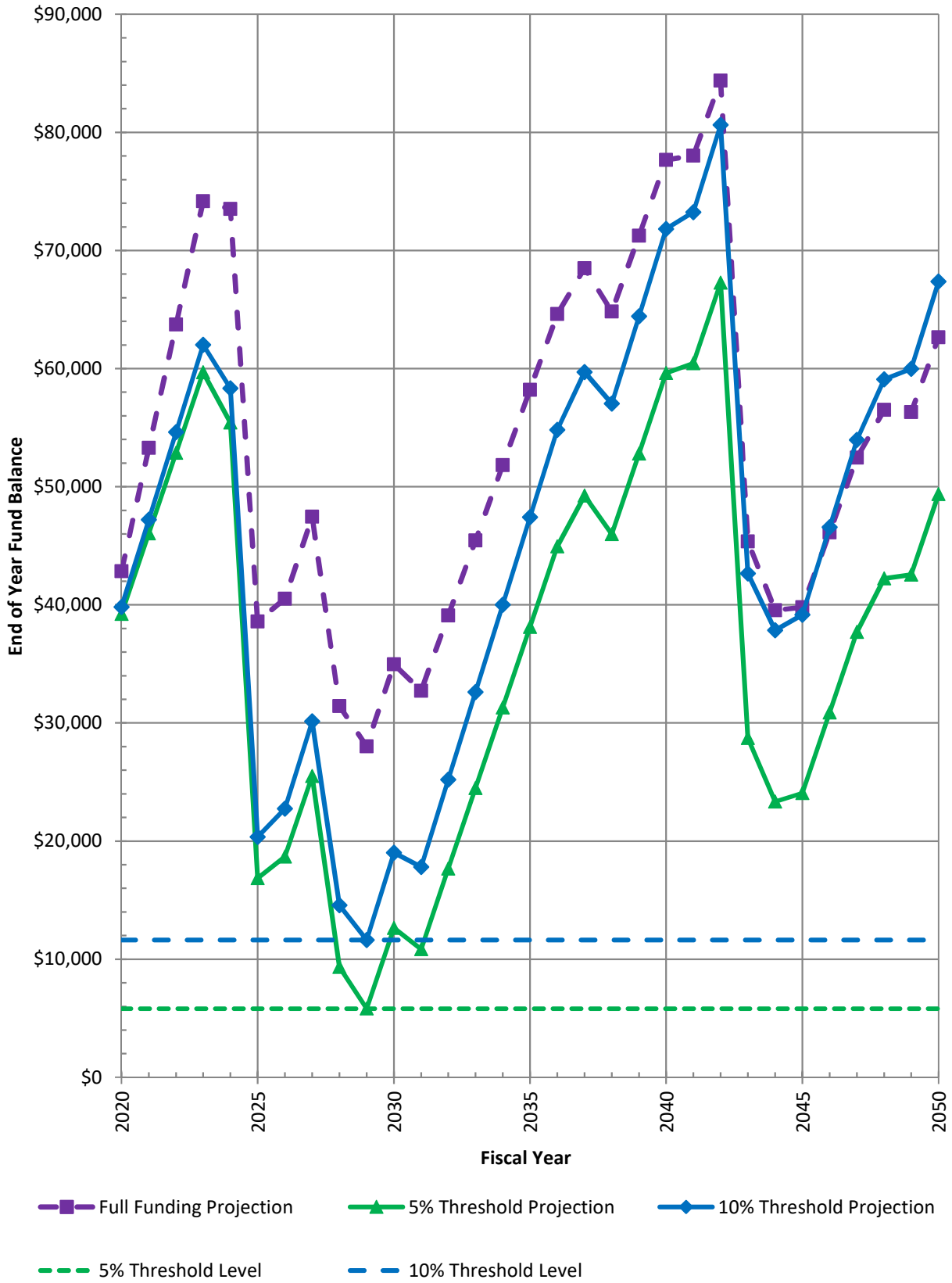
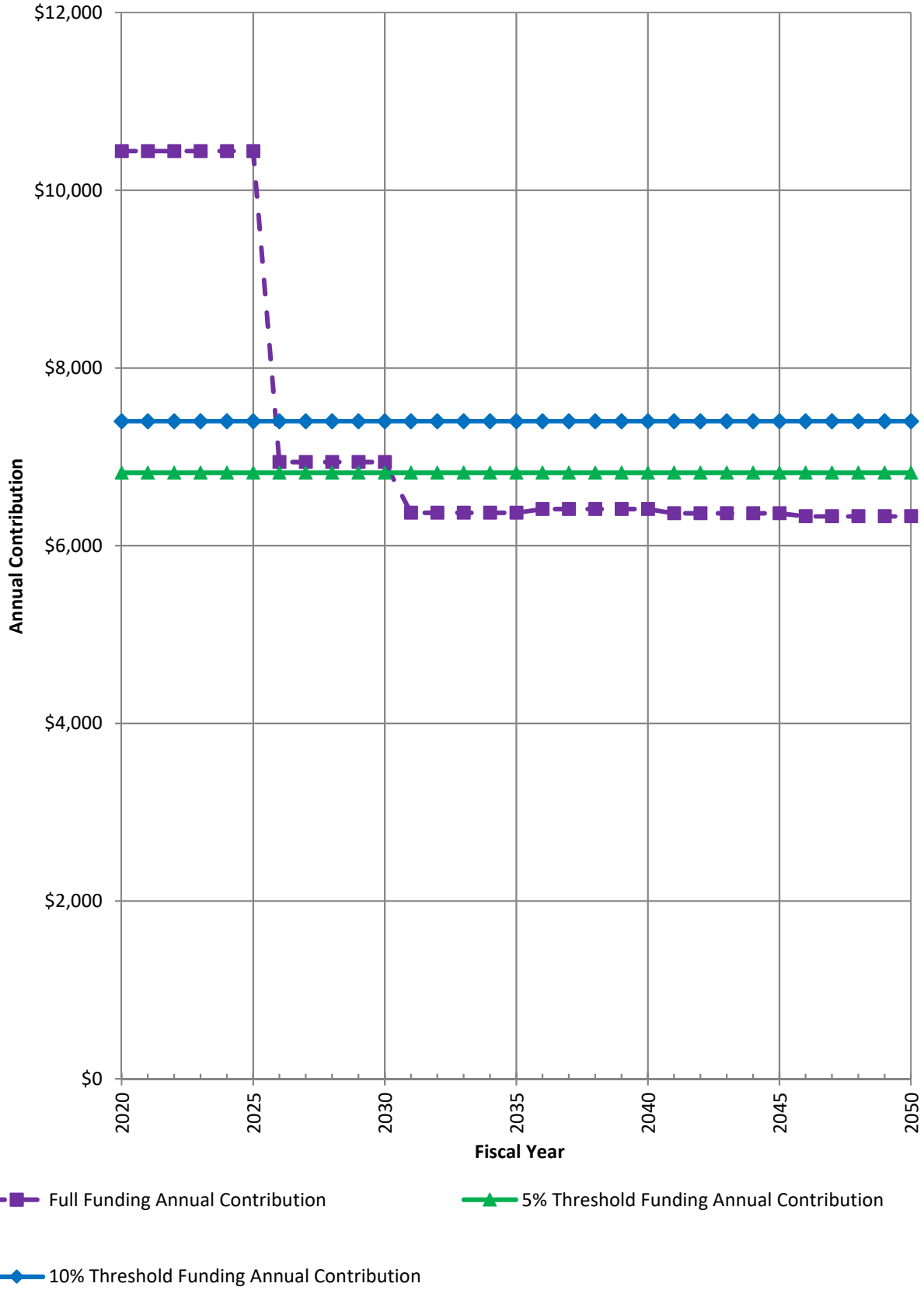
Fiscal Year	Nominal Expenditure (in Future Dollars) in Fiscal Year	Full Funding Scenario Projection		
		Start of Year Fund Balance	Projected Contribution	End of Year Fund Balance
2020	$ -	$ 32,410	$ 10,441	$ 42,851
2021	-	42,851	10,441	53,292
2022	-	53,292	10,441	63,733
2023	-	63,733	10,441	74,174
2024	11,095	74,174	10,441	73,520
2025	45,380	73,520	10,441	38,581
2026	5,000	38,581	6,941	40,523
2027	-	40,523	6,941	47,464
2028	22,977	47,464	6,941	31,428
2029	10,350	31,428	6,941	28,020
2030	-	28,020	6,941	34,961
2031	8,615	34,961	6,370	32,717
2032	-	32,717	6,370	39,087
2033	-	39,087	6,370	45,457
2034	-	45,457	6,370	51,827
2035	-	51,827	6,370	58,198
2036	-	58,198	6,411	64,609
2037	2,520	64,609	6,411	68,500
2038	10,072	68,500	6,411	64,840
2039	-	64,840	6,411	71,251
2040	-	71,251	6,411	77,662
2041	6,000	77,662	6,363	78,026
2042	-	78,026	6,363	84,389
2043	45,380	84,389	6,363	45,373
2044	12,200	45,373	6,363	39,536
2045	6,095	39,536	6,363	39,805
2046	-	39,805	6,330	46,134
2047	-	46,134	6,330	52,464
2048	2,277	52,464	6,330	56,516
2049	6,520	56,516	6,330	56,326
2050	-	56,326	6,330	62,656

Fiscal Year	Nominal Expenditure (in Future Dollars) in Fiscal Year	5% Threshold Funding Scenario Projection				10% Threshold Funding Scenario Projection			
		Initial Year Threshold of $5,811				Initial Year Threshold of $11,622			
		Start of Year Fund Balance	Projected Contribution	End of Year Fund Balance	Nominal Threshold in Year	Start of Year Fund Balance	Projected Contribution	End of Year Fund Balance	Nominal Threshold in Year
2020	$ -	$ 32,410	$ 6,820	$ 39,230	$ 5,811	$ 32,410	$ 7,401	$ 39,811	$ 11,622
2021	-	39,230	6,820	46,051	5,811	39,811	7,401	47,213	11,622
2022	-	46,051	6,820	52,871	5,811	47,213	7,401	54,614	11,622
2023	-	52,871	6,820	59,691	5,811	54,614	7,401	62,016	11,622
2024	11,095	59,691	6,820	55,417	5,811	62,016	7,401	58,322	11,622
2025	45,380	55,417	6,820	16,857	5,811	58,322	7,401	20,344	11,622
2026	5,000	16,857	6,820	18,677	5,811	20,344	7,401	22,745	11,622
2027	-	18,677	6,820	25,497	5,811	22,745	7,401	30,146	11,622
2028	22,977	25,497	6,820	9,341	5,811	30,146	7,401	14,571	11,622
2029	10,350	9,341	6,820	5,811	5,811	14,571	7,401	11,622	11,622
2030	-	5,811	6,820	12,631	5,811	11,622	7,401	19,024	11,622
2031	8,615	12,631	6,820	10,837	5,811	19,024	7,401	17,810	11,622
2032	-	10,837	6,820	17,657	5,811	17,810	7,401	25,211	11,622
2033	-	17,657	6,820	24,477	5,811	25,211	7,401	32,613	11,622
2034	-	24,477	6,820	31,298	5,811	32,613	7,401	40,014	11,622
2035	-	31,298	6,820	38,118	5,811	40,014	7,401	47,416	11,622
2036	-	38,118	6,820	44,938	5,811	47,416	7,401	54,817	11,622
2037	2,520	44,938	6,820	49,239	5,811	54,817	7,401	59,699	11,622
2038	10,072	49,239	6,820	45,987	5,811	59,699	7,401	57,028	11,622
2039	-	45,987	6,820	52,807	5,811	57,028	7,401	64,429	11,622
2040	-	52,807	6,820	59,628	5,811	64,429	7,401	71,831	11,622
2041	6,000	59,628	6,820	60,448	5,811	71,831	7,401	73,232	11,622
2042	-	60,448	6,820	67,268	5,811	73,232	7,401	80,634	11,622
2043	45,380	67,268	6,820	28,708	5,811	80,634	7,401	42,655	11,622
2044	12,200	28,708	6,820	23,329	5,811	42,655	7,401	37,857	11,622
2045	6,095	23,329	6,820	24,054	5,811	37,857	7,401	39,163	11,622
2046	-	24,054	6,820	30,874	5,811	39,163	7,401	46,564	11,622
2047	-	30,874	6,820	37,695	5,811	46,564	7,401	53,966	11,622
2048	2,277	37,695	6,820	42,238	5,811	53,966	7,401	59,090	11,622
2049	6,520	42,238	6,820	42,538	5,811	59,090	7,401	59,972	11,622
2050	-	42,538	6,820	49,359	5,811	59,972	7,401	67,373	11,622

End of Fiscal Year Fund Projection Graph



Annual Contribution in Fiscal Year Graph



2020 total expenditure $0 consisting of these projects:	2021 total expenditure $0 consisting of these projects:	2022 total expenditure $0 consisting of these projects:	2023 total expenditure $0 consisting of these projects:

2024 total expenditure $11,095 consisting of these projects:	2025 total expenditure $45,380 consisting of these projects:	2026 total expenditure $5,000 consisting of these projects:	2027 total expenditure $0 consisting of these projects:
SHARED-Storm Water-storm water quality filters, 60%-[20] $6,095 SHARED-Irrigation-irrigation system, courtyard, 50%-[15] $5,000	SHARED-Pavement-asphalt pavement reconstruct, 60%-[17] $43,680 SHARED-Pavement-street curb/gutter, concrete, 5%-[19] $1,700	SHARED-Monumentation-main entrance monument repair, 50%-[16] $5,000	

2028 total expenditure $22,977 consisting of these projects:	2029 total expenditure $10,350 consisting of these projects:	2030 total expenditure $0 consisting of these projects:	2031 total expenditure $8,615 consisting of these projects:
SHARED-Walkway-brick border, 60% street & bench walk-[11] $20,700 SHARED-Walkway-street & bench sidewalk, 10%-[10] $2,277	SHARED-Illumination-site lighting, pole mount, 50%-[14] $10,350		SHARED-Storm Water-storm water quality filters, 60%-[20] $6,095 SHARED-Pavement-asphalt pavement seal coat, 60%-[17] $2,520

2032 total expenditure $0 consisting of these projects:	2033 total expenditure $0 consisting of these projects:	2034 total expenditure $0 consisting of these projects:	2035 total expenditure $0 consisting of these projects:

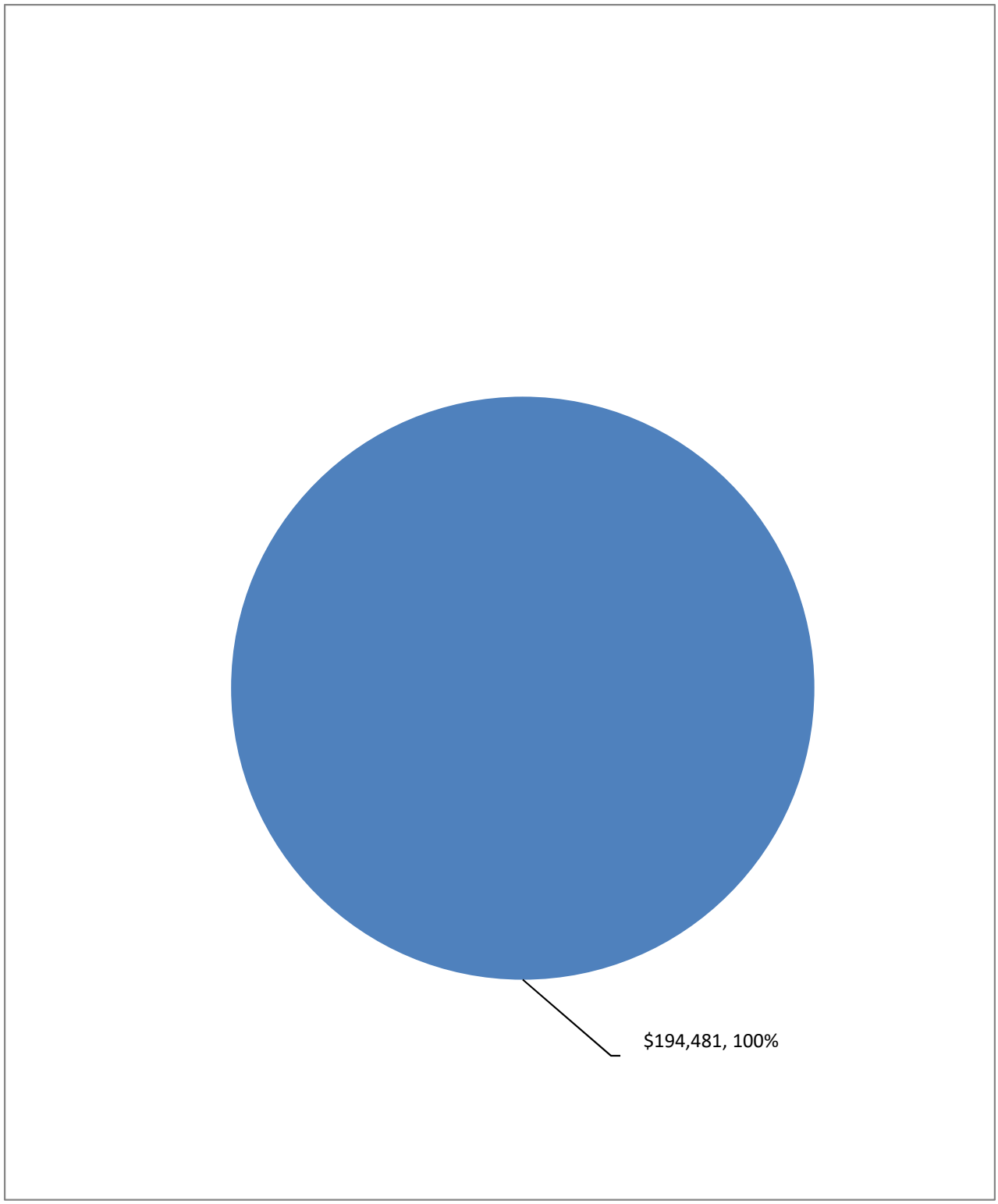
2036 total expenditure $0 consisting of these projects:	2037 total expenditure $2,520 consisting of these projects:	2038 total expenditure $10,072 consisting of these projects:	2039 total expenditure $0 consisting of these projects:
	SHARED-Pavement-asphalt pavement seal coat, 60%-[17] $2,520	SHARED-Storm Water-storm water quality filters, 60%-[20] $6,095 SHARED-Walkway-street & bench sidewalk, 10%-[10] $2,277 SHARED-Benches-park benches, courtyard, 50%-[12] $1,700	

2040 total expenditure $0 consisting of these projects:	2041 total expenditure $6,000 consisting of these projects:	2042 total expenditure $0 consisting of these projects:	2043 total expenditure $45,380 consisting of these projects:
	SHARED-Storm Water-trench drain inlet, main entrance, 60%-[21] $6,000		SHARED-Pavement-asphalt pavement reconstruct, 60%-[17] $43,680 SHARED-Pavement-street curb/gutter, concrete, 5%-[19] $1,700

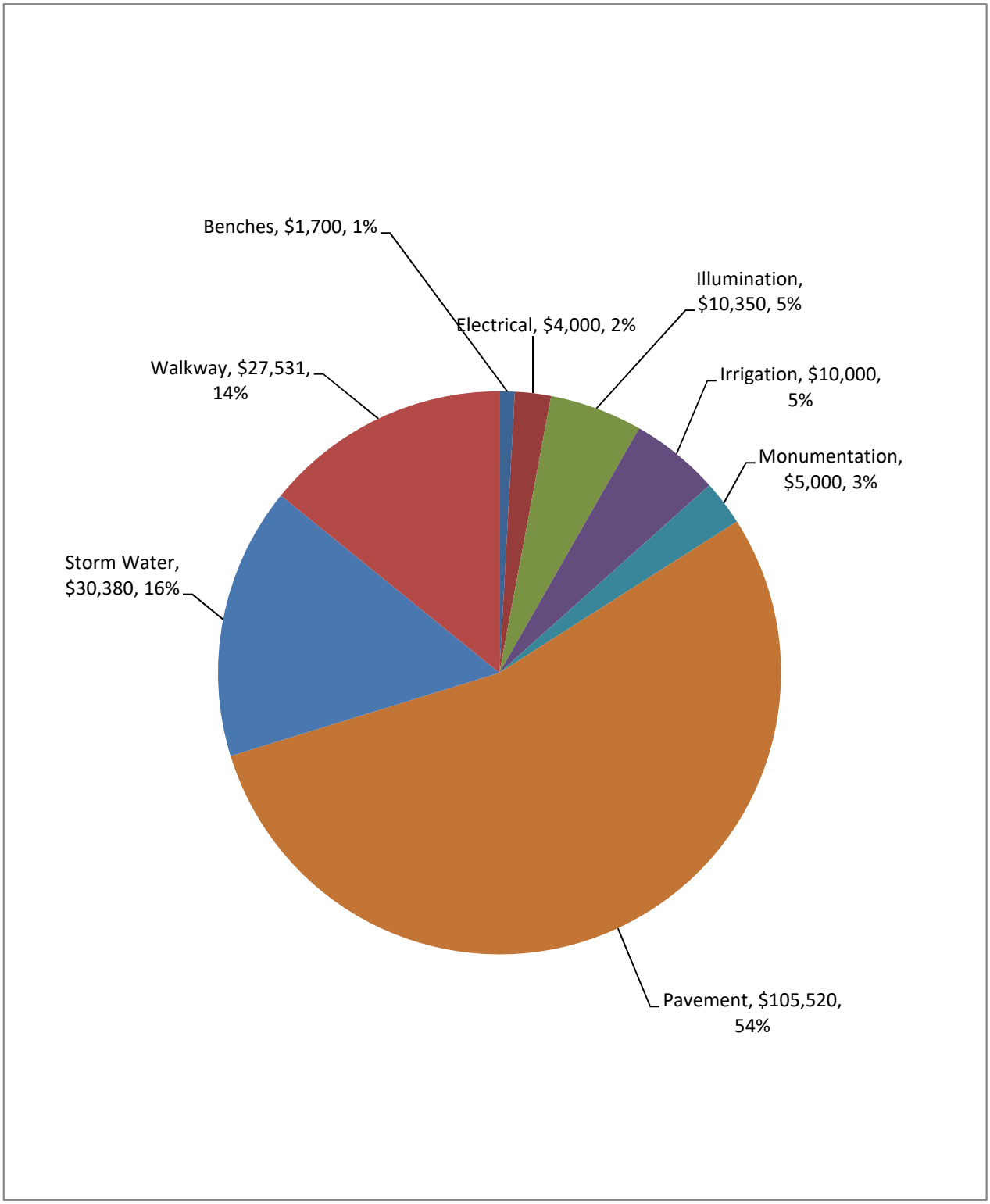
2044 total expenditure $12,200 consisting of these projects:	2045 total expenditure $6,095 consisting of these projects:	2046 total expenditure $0 consisting of these projects:	2047 total expenditure $0 consisting of these projects:
SHARED-Pavement-brick paved parking, 60% of 4 spots-[18] $7,200 SHARED-Irrigation-irrigation system, courtyard, 50%-[15] $5,000	SHARED-Storm Water-storm water quality filters, 60%-[20] $6,095		

2048 total expenditure $2,277 consisting of these projects:	2049 total expenditure $6,520 consisting of these projects:	2050 total expenditure $0 consisting of these projects:
SHARED-Walkway-street & bench sidewalk, 10%-[10] $2,277	SHARED-Electrical-electrical panel fund, 50%-[13] $4,000 SHARED-Pavement-asphalt pavement seal coat, 60%-[17] $2,520	

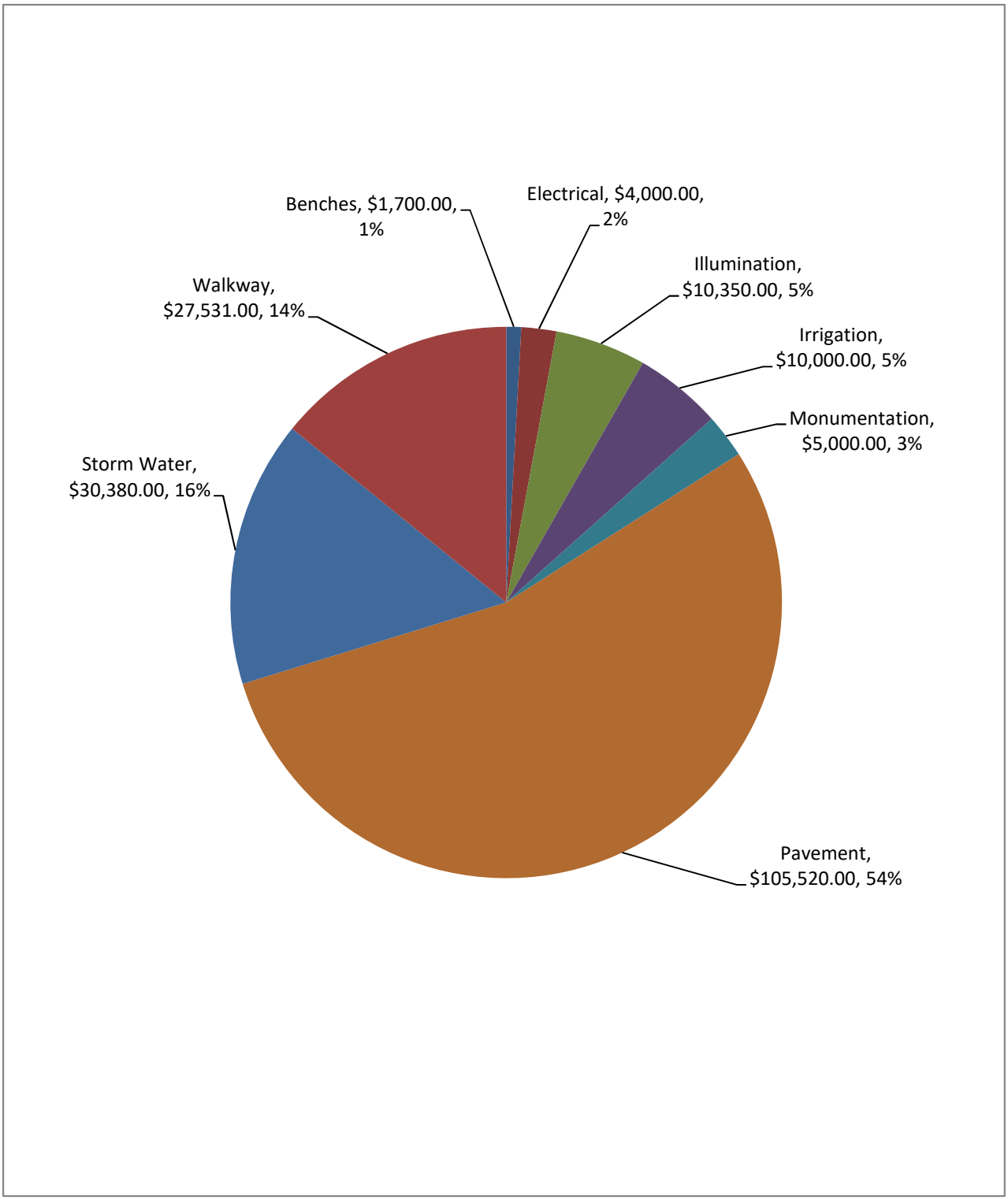
Present Value Expenditure Over Time Window by Line Item Category



Present Value Expenditure Over Time Window by Line Item Type



Present Value Expenditure Over Time Window for Shared Category by Line Item Type



Calculation Table Explanatory Descriptions

The following sections describe the individual sheets of the Calculation Tables, in the order they appear in the report.

Executive Summary

This page shows the basic fiscal and initial condition information upon which the remainder of the analysis has been based and includes basic information regarding the Association, the report (including its revision history), and a basic summary of the funding schedules considered in the analysis.

Client

This entry lists the full (official) name of the Association, to the best of The Falcon Group's knowledge.

File Number

This entry indicates the file/client number that The Falcon Group has assigned to the Association for our internal filing and archiving purposes. This number should remain constant through all of the communications that the Association has with The Falcon Group.

Version

This entry indicates the month and year in which this analysis was performed. This information is included to allow differentiation between precedent and antecedent analyses.

Community Information

These entries indicate the number of privately owned portions (be they detached single family dwellings, condominium units, attached single family dwellings [often called townhouses], business condominium units, or some combination thereof) within the Association, the approximate or median date of original construction, and the geographic location of the Association's physical components (which is often useful information in that construction costs tend to vary with geographic location and local market forces).

Initial Conditions

These entries list the conditions that The Falcon Group understands to exist as of the first day of the initial fiscal year of the analysis shown (while most Associations have fiscal years that run concurrent with calendar years, this is not universal, and the initial conditions therefore include an explicit listing of the last day of the Association's fiscal year), and include the initial fund balance, which is often pro-rated from the current fund balance, based upon the date of the current fund balance and the prior year's annual contribution. The initial conditions also include the initial percent funded, which gives an indication of how conservatively the Association has historically funded its capital reserve fund to the beginning of the initial fiscal year, and the initial estimated total replacement cost, which is the basis that The Falcon Group typically uses to determine the threshold levels for the cash-flow methodology fund projections.

Included in this area, for the Association's edification, is the "PV Expenditure in Time Window", which is the summation of the "Present Value of Line Item Expenditures in Time Window" column from the Expenditure Projection.

Scope of Work

This indicates the processes undertaken as part of the analysis evaluation. The Falcon Group, besides specifying scopes of work by CAI standards (updates with and without site visits and full studies) also indicates if the Association requested field measurement of the common elements and indicates if other work scopes (e.g. roof or siding inspections, moisture testing, etc.) beyond typical visual inspection and quantity measurement, are included in the analysis evaluation.

Revisions

Many Capital Reserve Replacement Analyses are revised one or more times to reflect changes in assumptions, new information, or alternative funding goals. The revision entries indicate dates that The Falcon Group has revised the current

analysis, and include short descriptions of the revisions made and initials of the editor in The Falcon Group who performed the revision(s).

Analysis Calculation Constants

These entries list the constants used in the analysis, including the time window (industry standard time window is thirty years), the assumed annual rate of cost inflation (The Falcon Group, unless otherwise directed by the Association, will assume this to be zero), and the assumed annual rate of investment return (The Falcon Group, unless otherwise directed by the Association, will assume this to be zero).

Summary of Funding Schedules Over Time Window

These entries indicate the funding schedules (the various scenarios) considered in the analysis, along with relevant notes regarding these funding schedules, the contribution required in the initial fiscal year to comply with the funding schedule as calculated, and the maximum and minimum end of year fund balances projected to occur in each of the funding schedules.

Line Item Schedules

There are two distinct line item schedules, the reserve schedule, which displays life cycle and estimated cost information that is used to develop the expenditure projection, and the depreciation schedule, which displays the depreciation and fund allocation information that is used to develop the full funding scenario projection.

Line Item

These entries name the individual projects/expenditures that are expected to be funded through the Association's capital reserve fund and are therefore being considered in the analysis. Each line item name is compounded of a category (typical categories are ANCILLARY, BUILDING, and SITE), a type (such as Pavement, Roof, Swimming Pool, or Utility, among others), a description (such as asphalt, concrete, metal railing, seal coating, wood deck, or so forth), and, in some cases a miscellaneous component including secondary descriptions (such as street names, building numbers, or phase numbers) and notes (typically in the form of one or more numbers in parenthesis that reference the notes in the narrative section of the report), with all components being separated by hyphens. The line item names are constructed in this fashion so that they can be easily organized into related categories. The organization of the individual line items in a systematic fashion (arranging similar or related line items in close proximity to each other) tends to make the Line Item Schedules and Expenditure Projection of the analysis more easily read, cross-referenced, and checked.

Always be mindful of notes – due to the tabular nature of the Calculation Sheets, important qualifications, disclosures, and observations regarding individual line items typically cannot be expected to fit within the space limitations of the Calculation Sheets, so the line item notes often include vital explanatory material.

Life Cycle [Reserve Schedule]

The typically expected life cycle is the number of years that The Falcon Group would expect to see between occurrences of the line item expenditure. The condition assessed remaining life cycle is the number of years that The Falcon Group expects to elapse before the next occurrence of the line item expenditure.

Estimated Cost [Reserve Schedule]

The total line item cost per occurrence of the line item expenditure in the initial year is determined by multiplying the line item quantity by the line item unit cost. Please note that each line item has also been given a unit of measure – this is very important, in that a both quantity and unit cost entries cannot be appropriately interpreted without knowing the unit of measurement (for instance, there is a vast difference between a square foot of concrete and a cubic yard of concrete, and quantities and unit costs based upon cubic yards will be very different from those based upon square feet).

It must be understood that estimated costs are shown for the initial fiscal year of the analysis. If inflation is assumed to be zero, than the estimated line item cost per occurrence will be constant over the time window – otherwise estimated line item costs will change over the time window.

The individual line item unit costs (the estimated cost for which the components represented by the line item can be realistically replaced, reconstructed, or refurbished as the case may be, per unit of measurement) are based upon the cost information available to us as of the time the analysis is performed, as well as various assumptions in regards to non-visible construction details and material characteristics. The Falcon Group bases unit costs upon current R.S. Means reference books (R.S. Means is a commercially available series of cost estimating guides published by Reed Construction Data), contractor bids for similar scopes of work with which The Falcon Group has been involved, industry/manufacturer specific information, and whatever historical expenditure information that the Association has supplied to The Falcon Group for review.

The Association should remain aware that these are estimated costs. Market forces can alter individual costs significantly in comparatively short periods of time due to material price increases, labor shortages, regulatory environment changes, and etcetera. Actual costs can also be significantly altered by design requirements (e.g. use of unusual materials or design details), project or community specific requirements (e.g. unusually restricted hours of work), or other factors that are not determined until the actual project designs and specifications are created. The actual cost that the Association will see can be expected to vary to a greater or lesser degree from what has been estimated for the purposes of this Capital Reserve Replacement Analysis.

Please note that the Line Item Occurrence Cost is not necessarily identical to the Total Line Item Cost (q.v.), in that line items, for various reasons, may not be showing the entire quantity of the common element considered in the analysis (this is typically done to allow more accurate modeling of items such as concrete pedestrian walks, where replacement is often performed on an as-needed basis for comparatively small portions of the total, and is generally combined with a very short life cycle to reflect many small expenditures rather than a single large expenditure).

Total Line Item Cost

This line item entry is simply the total quantity of the common element multiplied by the unit cost. Please note that, for various reasons, the analysis tables may not be showing the total quantity of the common element in question (q.v., Estimated Cost), in which case this entry will not agree with the Line Item Occurrence Cost entry under the Reserve Schedule heading. These entries have been included for the use of accounting professionals and community managers, and do not necessarily appear elsewhere in the analysis, as expenditure projections are based upon the Line Item Occurrence Cost entries.

Current Theoretical Full Funding Line Item Balance [Full Funding Schedule]

This line item entry is essentially the difference between the estimated line item occurrence cost and the depreciated value at the beginning of the initial fiscal year of the analysis (based upon simple straight-line depreciation of the occurrence cost over the typically expected life cycle with an assumed residual value of zero), and thus represents both the value of the common element(s) represented by the line item that has been lost to senescence (aging), wear, weathering, and other forms of deterioration since the installation of said element(s) and the theoretical “ideal” level of funding expected if the Association was attempting to maintain full funding.

Initial Fund Allocation [Full Funding Schedule]

This line item entry is the portion of the initial fund balance that has been allocated to the line item for calculation purposes. The process of determining this allocation is called “pooling”, and tends to become a complex issue, especially in regards to fund distribution in severely under-funded situations. The Falcon Group uses an algorithm that preferentially directs funding allocation to cover expenditures occurring in the initial fiscal year and allocates the remainder based upon the individual line item current cumulative depreciations. Note the sum of all line item initial fund allocations, by definition, is equal to the initial fund balance.

The Association should remember that pooling is essentially an accounting convenience that is used to allow the component methodology calculations, not an intrinsic characteristic of the typical capital reserve fund. It is rare for an Association to explicitly divide their capital reserve fund into separate savings or investment accounts for each individual line item of their Capital Reserve Replacement Analysis, and the line item initial fund allocation is therefore not normally reflected in any administrative or fiscal structure within an Association.

Current Overage (+) or Shortage (-) [Full Funding Schedule]

This line item entry is simply the difference between the initial fund allocation and the current theoretical full funding line item balance. Positive numbers indicate overages (the initial fund allocation is greater than the current theoretical full funding line item balance) while negative numbers indicates shortages (the initial fund allocation is less than the current theoretical full funding line item balance). An Association that is fully funded will have neither overages nor shortages.

Effective Age of Component [Full Funding Schedule]

This line item entry is essentially the numerical representation of the estimated number of full years of "typical" deterioration experienced by the components of the line item up to the initial year of the analysis. Thus, if a line item has an expected life cycle of 15 years and a condition assessed remaining life of 10 years, it has an effective age of 4, because the line item is in the midst of its 5th year.

Current Theoretical Full Funding Line Item Annual Contribution [Full Funding Schedule]

This line item entry is the estimated value of the common element(s) represented by the line item that is lost each year to senescence (aging), wear, weathering, and other forms of deterioration, and is therefore a form of depreciation. This analysis assumes all depreciation to be a linear function of the line item life cycle and occurrence cost for budgeting purposes. Depreciation is an accounting convention and mathematical construction, not necessarily a true reflection of the actual physical deterioration of many common elements. Many objects tend to experience a gradually increasing rate of deterioration as they age, and their actual value often more closely resembles a logarithmic or exponential function than a linear function. The difficulties in attempting to more accurately model actual material degradation mathematically make depreciation via linear functions the favored basis of calculation for full funding analyses.

Expenditure Projection

The expenditure projection sheets essentially cycle the line item life cycles, including various non-cyclical or meta-cyclical factors, over the analysis time window and generate the predicted cash-outflow from the Association's capital reserve fund over the course of the analysis time window.

The majority of the expenditure projection takes the form of an array or grid that cross-references each line item (the rows) with each fiscal year (the columns) in the analysis time window, with line item expenditure occurrences in each fiscal year being summed to produce the nominal expenditure (in future dollars) for each fiscal year.

Line Item

These entries are identical to the entries in the line item schedules.

Fiscal Year

These entries indicate the fiscal year in which the entries below are occurring. Please note that, depending upon the start/end date of the Association's fiscal year, these years may or may not match calendar periods. The Falcon Group will generally use the calendar year numeral in which the fiscal year starts as the fiscal year numeral – for instance, if an Association's fiscal year runs from April 1 to March 1, then The Falcon Group would indicate the fiscal year from April 1, 2013 to March 1, 2014 as the 2013 fiscal year.

Nominal Expenditure (in Future Dollars) in Fiscal Year

These entries are the sums of the expenditures projected to occur in each individual fiscal year. These entries reflect the effects of any assumed rate of cost inflation, and are therefore in terms of future dollars for the fiscal year in which they appear.

Present Value of Line Item Expenditures in Time Window

These entries are the summation of the projected expenditures for each individual line item. These entries reflect the effects of any assumed rate of cost inflation and rate of return on investment, and are therefore an estimate of the current dollar sum (present value) that is theoretically equivalent to the cash-flow represented for the line item. In other words, if the

Association has an initial reserve fund balance equal to the sum of all of the present value of line item expenditures in time window entries, then it would theoretically be able to fund all of the expenditures projected to occur within the current time window out of the reserve fund and its investment earnings without any contributions from the Association, with the last expenditures in the time window reducing the fund balance to zero. The Falcon Group has never observed such a situation, and would never advise an Association to attempt such a strategy; these entries have been included to give the Association an index by which it can determine which line items are likely to have the most influence on threshold funding scenario projections (and thus where changes are most likely to materially alter recommended annual contributions).

Annual Funding Projection

The annual funding projection sheets display the projected expenditures from the capital reserve fund, contributions to the capital reserve fund, and the resulting start of year and end of year fund balances for the various funding scenarios considered in the analysis. Each sheet takes the form of an array or grid that cross-references each fiscal year (the rows) with the projected expenditures in that fiscal year, and the starting and ending fund balances, projected contribution, and (in the case of threshold funding scenarios) the nominal threshold (initial year threshold corrected for cost inflation) for each scenario considered in the analysis. Please note that each scenario is represented by the columns underneath the title of the scenario (located along the top of the sheet), and that these scenarios are each independently calculated.

Fiscal Year and Nominal Expenditure (in Future Dollars) in Fiscal Year

These entries have identical values to the entries in the expenditure projection, although they have been transposed, which is to say that these entries are displayed horizontally from left to right in the expenditure projection but are displayed vertically from top to bottom in the annual funding projection.

Start of Year Fund Balance

These entries are the projected capital reserve fund balance on the first day of the given fiscal year for the given scenario projection. Please observe that the start of year fund balance for all considered funding scenarios is the same in the initial fiscal year, and equals the initial fund balance.

The start of year fund balance for fiscal years after the initial year is equal to preceding fiscal years end of year fund balance for the given scenario plus any return on investment.

Projected Contribution

These entries are the per annum contributions to the capital reserve fund for the given fiscal year and given scenario projection.

End of Year Fund Balance

These entries are the projected capital reserve fund balances on the last day of the given fiscal year for the given scenario projection; it is essentially the sum of that fiscal year's start of year fund balance and projected contribution, less the expenditure in that fiscal year.

Nominal Threshold in Year

These entries are initial year threshold (which is shown directly below the threshold scenario title), corrected for the estimated cumulative cost inflation since the initial fiscal year. Where the assumed rate of cost inflation is zero, all of these entries should be identical within a given funding scenario.

Projection Graphs

These sheets contain graphic representations of subsets of the information within the annual funding projection.

The end of fiscal year fund project graph is a graphical comparison of the various scenario projections tabulated in the annual funding projection. This graph contains information given in the annual funding projection in a more accessible format that often proves helpful for qualitative judgments of the merits of the various funding scenarios offered in the Capital

Reserve Replacement Analysis. This graph displays the end of year fund balances for the various funding scenarios, as well as the various non-zero threshold balances so as to allow for relatively simple comparison between the various scenarios over the analysis time window.

Expenditure Calendar

These sheets display the total (nominal) expenditure within each fiscal year of the analysis time window, along with the list of line items and their associated expenditures (in order from greatest to least expenditure) occurring in the given fiscal year.

The expenditure calendar essentially displays the same basic information set as the expenditure projection, but organizes the information in a different format that many users find more accessible. While the expenditure projection predominantly organizes information by line item and only secondarily by year, the expenditure calendar organizes information predominantly by year.