MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.

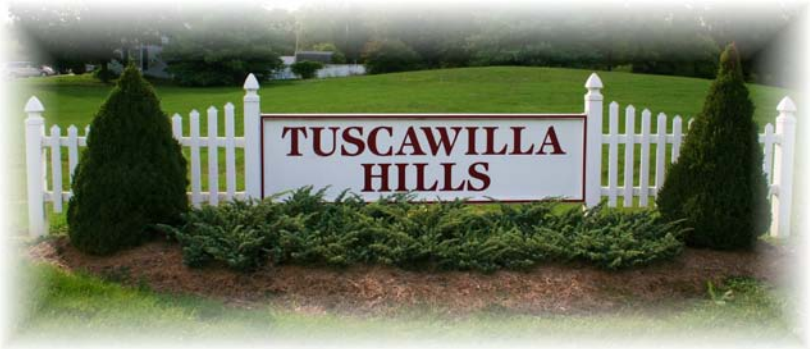
MEMBER OF community ASSOCIATIONS INSTITUTE

Condition Assessment
and
Reserve Fund Plan Update
2012

for

TUSCAWILLA HILLS

Charles Town, West Virginia



Prepared for:
The Board of Directors
&
Property Management People, Inc.

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.

MEMBER OF community ASSOCIATIONS INSTITUTE

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September 30, 2011

Ms. Renee Hall, Community Manager
Property Management People, Inc.
92 Thomas Johnson Drive, Suite 170
Frederick, Maryland 21702

RE: **CONDITION ASSESSMENT AND RESERVE FUND PLAN UPDATE 2012**
Tuscawilla Hills Citizen's Association
Charles Town, West Virginia
Project No. 7178

Dear Ms. Hall:

Mason & Mason Capital Reserve Analysts, Inc. has completed the report for Tuscawilla Hills.

As outlined in our proposal, the report is being submitted to you and the Board of Directors for review and comment. A review of the Summary of Key Issues iii, and Sections 1 and 2 will provide you with our findings and financial analyses. We will be happy to meet with the Board to help them fully understand the issues. If no changes are necessary, please consider this version the final report. If changes are requested, Mason & Mason will make the revisions and re-issue the report. We encourage the Board to complete this process expeditiously and will support the effort.

We genuinely appreciate the opportunity to work with you and the Association.

Sincerely,

Mason & Mason Capital Reserve Analysts, Inc.

James G. Mason, R. S.
Principal

N. K. Mason, R. S.
Principal

TABLE OF CONTENTS

FOREWORD

PLEASE READ THIS FIRST

This report contains information the Board requires to fulfill its fiduciary responsibilities with respect to the financial health of the Association. Even if you are already familiar with the concepts of capital reserve planning, it requires some study. The information in this report is vital to your Association's financial health. Unless you understand it, your Association may not follow it. This may lead to underfunding and financial stress at some time in the future.

Our years of experience providing reserve analysis to both first-time and multi-update return clients has compelled us to develop a logical funding approach, which is based on generational equity and fairness to common-interest property owners that helps ensure realistic reserve funding levels.

Our approach is neither standard, nor is it necessarily easy to understand without first becoming familiar with some basic concepts. Section 3 explains these concepts in more detail. We want you to understand them because a well-informed Association makes the best decisions for its common-property owners.

SUMMARY OF KEY ISSUES

Different readers will look for different things from this report. Perhaps the *homeowner* will just be looking for the high points. A *prospective buyer* may be looking at the general financial condition of the Association's reserves. A *Board member* should probe deeper in order to understand the financial tools that will be helpful in fulfilling their fiduciary responsibilities to the Association.

The Summary of Key Issues presents a recapitulation of the most important findings of Tuscawilla Hills' Reserve Fund Plan Update. Each is discussed in greater detail in the body of the report. We encourage the reader to "go deeper" into the report, and we have written it in a way that's understandable to a first-time reader.

Analyzing the capital reserves reveals that:

- The reserve fund is approximately **153**% fully funded. **This is a significant improvement from past years. Our goal is to remain fully funded by the end of the 20-year period (2031).**

In order to achieve this goal the Association should:

- Decrease the annual contribution in **2013** from **$86,000** to **$69,142**, and plan on annual increases of **3.0**% to reflect inflation thereafter.
- This represents a decrease from **$14.27** to **$11.47** (a net decrease of **$2.79**) per residential unit, per month (based on **502** residences).

Supporting data is contained in the body of this report, and we encourage the reader to take the time to understand it.

VISUAL EVALUATION METHODOLOGY

The first step in the process is collection of specific data on each of your community's commonly-held components. This information includes quantity and condition of each included component. We collect most of this data during the on-site field survey. When this information is not available in the field, we may obtain it by discussion with those knowledgeable through management or service activities.

The field survey or condition assessment is visual and non-invasive. We don't perform destructive testing to uncover hidden conditions or perform operational testing of mechanical, electrical, plumbing, fire and life safety protection, or perform code compliance analysis.

We make no warranty that every defect has been identified. Our scope of work doesn't include an evaluation of moisture penetration, mold, indoor air quality, or other environmental issues. While we may identify safety hazards observed during the course of the field survey, this report shouldn't be considered a safety evaluation of components.

Replacement costs are sometimes based on published references, such as R. S. Means. However, our opinions of replacement costs usually include removal and disposal and are usually based on experience with similar projects including information provided by local contractors and reported client experience. Actual construction costs can vary significantly due to seasonal considerations, material availability, labor, economy of scale, and other factors beyond our control.

Projected useful service lives are based on statistical data and our opinion of their current visual condition. No guarantee of component service life expectancies are expressed or implied and none should be inferred by this report. Your actual experience in replacing components may differ significantly from the projections in the report, because of conditions beyond our control or that were not visually apparent at the time of the survey.

1. INTRODUCTION

1.1 Background: Tuscawilla Hills is comprised of 502 residences including single-family homes, townhomes, and duplexes, as well as five apartment buildings. Constructed in the 1970s, the development is located off Route 51 just west of Charles Town, West Virginia. Amenities include a tot lot, basketball court, and two mail stations. The community is served by thirty-six private named streets. Generally, the townhome sections are provided with curbs and sidewalks, while the remaining community streets are pavement with gravel shoulders ranging from 17 to 22 feet in width. Two entrances are provided at WVA Route 51 and at Summit Point Road. Domestic water and sewer utilities are provided by the City.

2011 has been a particularly expensive year for the Association. The storm of July 12, 2011, resulted in an expenditure of $18,000 for removal and trimming of damaged trees in the common areas. In the spring, common area surface settlement remediation required an expenditure of $8,000. Vandalism to traffic signs combined with additional measures to prevent property damage resulted in expenditures of $4,000. Since these expenditures were unplanned, the funds were not available in the general budget, and were taken from normal reserve contributions. This has resulted in a lower than planned contribution to reserves for 2011. Subsequently, Management and the Board have elected to take a closer look at the reserves and especially the pavements to determine if the original plan is holding up or if adjustments should be made.

We are providing the Condition Assessment and Reserve Fund Plan Update based on Proposal Acceptance Agreement No. 7181 dated September 27, 2011. Our services are subject to all terms and conditions specified therein.

Mason & Mason did not review the declarations, covenants, or other organization documents pertaining to the establishment and governance of the Citizen's Association. Ultimately, the establishment, management, and expenditure of reserves are within the discretion of the Association and its Board of Directors pursuant to their organizational documents and subject to the laws of the applicable jurisdiction. We are not otherwise financially associated with the Management Company or the Association and therefore do not have any conflicts of interest that would bias this report. Information provided by Management is deemed reliable. This report is not intended to be an audit or a forensic investigation. This report is not a mandate, but is intended to be a guide for future planning.

Mason & Mason provided a Level I Condition Assessment and Reserve Fund Plan for Tuscawilla Hills in 2007. This report is a Level II update of the previous report and includes a new condition assessment. All common components were visually observed. Measurements and quantities were generally accepted from the previous report except where changes have occurred. The update report is a stand-alone document and reference to the previous report should not be necessary.

James G. Mason, R. S., and N. K. Mason, R. S. conducted the field evaluation for this Level II report on September 27, 2011. The weather was clear to overcast and the temperature was approximately 78 degrees F. Precipitation had occurred intermittingly for several days prior to the site visit. The pavements, walkways, and grounds were generally dry and clean of debris.

1.2 Principal Findings: The common assets appear to be in overall fair to good improving condition for their age. The community is now approaching its thirty-five year benchmark in terms of replacement of major systems. The 2008, 2009, and 2010 pavement repairs were completed as scheduled and under budget. The primary reason for the under budget status was that the paving contractor did not utilize mill and replace, but simply used a 1 1/2" or 2" overlay with a guarantee of three years. Only a very small amount of pavement was actually milled prior to overlay. The repairs were located properly and the work appears to be very good with feathering and level interfaces with older pavements. Even though extensive repair overlays were completed, during the 2007 through 2011 (four-year) period, additional deflection damage is now present. The pavements were visually surveyed again. (See Asphalt Pavement Report, Section 7). Approximately 8% of the streets require overlay repairs near-term. Of this, only 1% should be accomplished in 2012. The remaining 7% should be serviceable until 2014. Having visually surveyed the pavements at each end of a four-year period, we are now able to establish a deficiency ratio based on actual field conditions. This also helps us make future projections and develop more efficient use of funding to maintain the pavements. To this end, we have reprogrammed the reserve fund plan to address pavement restorations on a two-year continuing basis with percentages reflecting current and projected conditions. The new plan will fully replace all pavements by 2028, a sixteen year period. Due to continuing unpredictable escalation in oil prices, extreme weather events, heavy rain, poor economic conditions, and variations in the approach to repair by contractors, pavement repair costs are still not stable and are subject to fluctuations. It should be noted that the pavement on Tuscawilla Drive extending from the entrance to Newington Court is heavily traveled and showing signs of severe distress. We have included this section in the total overlay repair for this road. However, normal overlay repairs will not be successful on this section. The Board should secure an engineering evaluation, complete with coring, to design a system capable of sustaining the traffic loading on this apparently problematic base. This information would be helpful in planning and would eliminate the unknown liability.

Concrete sidewalks and curbs have generally been constructed at the townhome sections and were measured and visually surveyed in 2007. The deficiency rate was quite low at 1%, but the tripping hazards and severe scaling, at a minimum, should have been corrected, but were not according to Management. The sidewalks and curbs were visually surveyed again. No appreciable increase in damage was noted, although there remains a few serious tripping hazards requiring repair.

The two primary components of the mail stations are the roofing and the mailboxes, which have been included in the tables. These structures have both been upgraded with new boxes or extra boxes stored for the future, an expanded size for both buildings including additional sidewalks, new siding, and new roofing on one. These facilities should now be serviceable for many years to come.

The tot lot border has been replaced and is in good condition. Metal equipment is in continuing good condition and is capable of many additional years of service. The wood play components are in poor condition and should be replaced or removed near-term.

The basketball court is in continuing fair condition with a large transverse crack down the middle of the court separating each goal. The crack should be filled and the court would benefit from color coat to improve the playing surface.

Split-rail fencing was partially replaced with vinyl fencing in two locations. Some of the split-rail components were re-used for repairs in other locations. All fencing appears to be in good or serviceable condition.

The entrance features and storm water drainage have also been included in the tables. Items that have not been included in the Reserve Fund Plan, but are to be addressed under the Operations budget are mailbox station wood or metal cladding trim, brick repairs, street signs, and traffic calming devices.

In order to maintain the physical attributes that preserve property values and provide a safe environment for occupants and guests, a series of capital expenditures should be anticipated. Consequently, we have scheduled near-, mid-, and late-term restoration and replacement projects based on anticipated need from our experience with similar properties.

Generally, our approach is to group appropriately related component replacement items into projects. This creates a more realistic model and allows a grouping time line that is more convenient to schedule and logical to accomplish. Please see the Table 1 Discussion, Column 18, and the Asphalt Pavement Report in Section 7, for specific information.

2. FINANCIAL ANALYSIS

We are currently in unprecedented financial times. Previous standardized methods for determining or projecting inflation and interest income are not currently reliable. Recent inflation experience has surpassed government CPI and construction cost sources. This appears to result from a combination of factors, particularly wage rates and demand for services. We track the inflation rate among our clients based on their reported costs for typical services. A 3.5% annual rate reflects their general experience over the past decade. However, currently we are seeing somewhat lower rates and we are using 3%. Interest income has dropped substantially, and many smaller Associations are reduced to savings accounts or certificates of deposit, which are yielding only 1% to 2%.

Unlike reserves, interest income is taxable, so this further reduces the net gain. The combination of ever higher costs and lower interest income is driving reserve funding requirements substantially higher. It is impossible to forecast whether anticipated lower demand will help reduce or stabilize costs in the future. You can only delay repairs for so long.

During these times, it is prudent to keep a close watch on the economy and be ready to respond by updating the reserve fund plan as economic changes dictate.

Since asphalt pavement is particularly sensitive to oil costs and is generally the single most expensive component in many communities who own their streets, reserve fund plan pavement costs should be adjusted periodically to reflect market conditions. Gasoline prices do not necessarily reflect asphalt prices. Refinery practices combined with government plans for massive infrastructure projects will most likely result in continued shortages and subsequent higher costs for both asphalt and concrete products.

2.1 Calculation Basics: The Association is on a calendar fiscal year. Management reported that the un-audited reserve fund balance, including cash and securities, as of **December 31, 2011,** is projected to be **$86,906**. We have used a **2.00%** annual interest income factor and a **3.0%** inflation factor in calculations. The total expenditures for the twenty-year period for both the **Cash Flow Method** and **Component Method** are projected to be **$1,699,110**.

2.2 Current Funding Analysis, Cash Flow Method (Table 3): The 2012 annual contribution to reserves has been set at **$86,000 with a presumed 3% annual increase**. At this level, the total for all annual contributions for the twenty-year period would be **$2,310,852**, and the total interest income is projected to be **$188,159**. **This funding results in balances significantly higher than the fully-funded goal.**

2.3 Alternative Funding Analysis, Cash Flow Method, Hybrid Approach (Table 3.1): This plan provides the annual contributions necessary to maintain balances more consistent with the **fully funded goal by decreasing the annual contribution to $69,142 in 2013 and providing an annual escalation factor of 3.00%, matching inflation thereafter. This plan allows for a gradual increase over time after the initial decrease, and addresses generational equity issues.** The total for all annual contributions for the twenty-year period would be **$1,822,643**, and the total interest income is projected to be **$92,463**. The **fully funded** balance in **2031** is **$302,902.**

2.4 Funding Analysis, Component Method (Table 4): This method of funding would require variable annual contributions, averaging **$89,520** over the twenty-year period. The total for all annual contributions would be **$1,790,393**, and the total interest income is projected to be **$124,713**. The **fully funded** balance in **2031** is **$302,902**. The Component Method model considers the current reserve fund balance in computing individual component contributions for current cycles. The Component Method model distributes the current reserve fund balance proportionally to all components prior to calculating the individual component contributions for each component cycle.

3. METHODS OF FUNDING

Once the data is compiled, our proprietary software produces two distinct funding methods. These are the **Component Method and Cash Flow Method**. Each of these methods is used in analyzing your Association's reserve status and each plays a role in the Board's decision on how to fund reserves. While we provide the guidance, the choice of funding method is ultimately the prerogative of the Board. Considering the vulnerability of the Association's assets, its risk tolerance, and its ability to fund contributions, the Board should decide how the Association will fund its reserves and at what level.

3.1 Component Method: As reserve analysts, we recognize the value of Component Method calculations as they address both future replacement costs and the time remaining to fund them. **This is the foundation of the savings concept. You will see the term "fully funded." This simply means you are on schedule, in any given year, to accrue sufficient funds by the component's replacement date. It does not mean you must have 100% of the funds ahead of time.** Simplified Example: A component projected to cost $1,000 at the end of its 10-year life cycle would require a $100 annual contribution in each of the 10 years. As long as you follow this contribution plan, the component is "fully funded."

Prior to determining the actual required annual contribution, a complex calculation apportions the existing reserve fund to each component. Each component's remaining unfunded balance forms the basis for the required contribution going forward.

Funds set aside for replacement of individual components are not normally used for the replacement of other components, even though the funds reside in the same bank account. In rare cases where a reserve fund is actually overfunded, $0 will be displayed on the Component Method tables, indicating that the component is fully funded for that cycle.

While the time basis for the report is a 20-year period, the Component Method allows for inclusion of long-life components that may require replacement after the specified period. **This allows for funding of long-life components contemporaneously, which is fundamentally fair if they are serving the current owners. This is in contrast to saying "if it doesn't require replacement within our 20-year period, we're going to ignore it."**

Due to replacement cycle time and cost differentials, the Component Method typically results in annual contribution fluctuations, which often makes it difficult for a Board to implement. **However, its guidance is essential and invaluable for understanding funding liabilities and making informed recommendations.**

Table 4 shows these calculations, as well as projects interest income, expenses with inflation, and yearly balances, which will be "fully funded."

3.2 Cash Flow Method: The Cash Flow Method is easier to implement. It is a simple 20-year spread sheet that includes the starting balance, current contribution, interest income, inflation rate, projected expenses, and resulting yearly balances. The Cash Flow Method pools the contributions allocated to each of the Association's common components into a single "account."

Table 3 shows these calculations. This table reflects the information you provided on your reserve fund balance and current contribution. It also shows projected yearly positive or negative balances. **The Cash Flow Method doesn't include replacement**

funding for anything beyond the 20-year period, thus leaving a potential shortfall in funding and failing to address generational equity if not specifically set to do so. It doesn't provide any real guidance beyond the basic information. There are several variations on cash flow goals such as Threshold Funding (just enough to stay positive) and Percentage Funding (a predetermined level based on some arbitrary percentage), but these schemes don't address the reality of fully funding, and typically are just a way of passing the obligation on to the next generation.

3.3 Hybrid Approach: Please note that this is not a method, rather a way (approach) for us to utilize the Cash Flow Method, while insuring the appropriate funding levels are achieved long-term. Our Hybrid Approach uses the projected fully funded balance at the end of the 20-year period from Table 4 as a funding goal. We then set up Cash Flow funding plans. Table 3 is your "*where we are now*" Cash Flow spreadsheet modeling your reserve balance and current contribution. Table 3.1 (and possibly others) provides alternative(s) to this that meet the fully funded goal from Table 4.

We usually establish a new Cash Flow contribution that requires only small annual inflationary increases to reach the fully funded goal at the end of the 20-year period. This has the added effect of establishing a funding plan that addresses inflation. The contribution in the first year, adjusted for inflation, is equal to the contribution in the last year, based on inflated dollars (future value of money). This approach will also allow underfunded Associations the time to catch up, mitigating undue hardships. It balances the risk of temporary underfunding with the benefit of consistent predictable increasing contributions. The combination of the Component and Cash Flow Methods (Hybrid Approach) provides the advantages of both methods.

4. RESERVE PROGRAMMING

The Mason & Mason proprietary software used to produce the financial tables (Tables 1 through 4) has been under continual refinement for over a decade. It is unique in the industry as it provides comprehensive modeling through Microsoft Access and Excel that addresses the many challenges of reserve funding, allows analysts and clients to run "what if" scenarios, provides an easy to understand matrix of views and functions, and is easily provided to clients through e-mail.

4.1 Interest Income on Reserve Funds: Most Associations invest at least part of their reserve funds. Small Associations may simply use a savings account or certificates of deposit, while large Associations may have multiple investments with short-, medium-, and long-term instruments. One issue that is difficult to quantify is the percentage of funds invested. Some Associations invest a fairly substantial portion, while others hold back due to current cash outflow obligations. Some Associations do not reinvest the investment proceeds in their reserves; rather they divert the cash into their operations fund. We do not agree with this approach as it has the effect of requiring additional reserve contributions to make up for the difference. There is also the issue of changing rates over the 20-year period. In the recent past we have seen large swings in relatively short time periods. While reserve funds are not usually taxable by the IRS, the investment income generated by the reserve fund is taxable in most situations. Even with all these potential pitfalls, investment income still represents a substantial source of additional funds and for this reason should not be ignored. There is no way to make "one size fits all" with any accuracy for the individual Association. Our

approach to this dilemma is to use lower approximations that compensate for less than 100% of funds invested. We feel this is still better than not recognizing it, and periodic updates allow for adjustments based on experience. The rate can be set at any level, including zero, for Associations desiring to not recognize interest. **The rate should reflect, as accurately as possible, the actual composite rate of return on all securities and other instruments of investment including allowances for taxes.**

The interest income displayed on Table 3 and Table 4 is the summation of the beginning reserve fund interest accrual and the interest earned on the contributions minus the interest lost by withdrawing the capital expenditures. This method of calculation, while not exact, approximates the averages of the three principal components of a reserve fund for each twelve-month period.

4.2 Future Replacement Costs (Inflation): Inflation is a fact of life. In order to replicate future financial conditions as accurately as possible, inflation on replacement costs should be recognized. The financial tables have been programmed to calculate inflation based upon a pre-determined rate. This rate can be set at any level, including zero. **A plan that doesn't include inflation is a 1-year plan, and any data beyond that first year won't reflect reality.**

4.3 Simultaneous Funding: This is a method of calculating funding for multiple replacement cycles of a single component over a period of time from the same starting date. Simple Example: Funding for a re-roofing project, while, at the same time, funding for a second, subsequent re-roofing project. This method serves a special purpose if multiple-phase projects are all near-term, but will result in higher annual contribution requirements and leads to generational equity issues otherwise. We use this type of programming only in special circumstances.

4.4 Sequential Funding: This is a method of calculating funding for multiple replacement cycles of a single component over a period of time where each funding cycle begins when the previous cycle ends. Simple Example: Funding for the second re-roofing project begins after the completion of the initial re-roofing project. This method of funding appears to be fundamentally equitable. We use this type of programming except in special circumstances.

4.5 Normal Replacement: Components are scheduled for complete replacement at the end of their useful service lives. Simple Example: An entrance sign is generally replaced all at once.

4.6 Cyclic Replacement: Components are replaced in stages over a period of time. Simple Example: Deficient sidewalk panels are typically replaced individually as a small percentage, rather than the complete system.

4.7 Minor Components: A minimum component value is usually established for inclusion in the reserve fund. Components of insignificant value in relation to the scale of the Association shouldn't be included and should be deferred to the operations budget. A small Association might exclude components with aggregate values less than $1,000, while a large Association might exclude components with aggregate values of less than $10,000. Including many small components tends to over complicate the plan and doesn't provide any relative value or utility.

4.8 Long Life Components: Almost all Associations have some components with long or very long useful service lives typically ranging between thirty and sixty years. Traditionally, this type of component has been ignored completely. Simple Example: Single replacement components such as entrance monuments should be programmed for full replacement at their statistical service life. This allows for all common property owners to pay their fair share during the time the component serves them. This also has the added effect of reducing the funding burden significantly as it is carried over many years.

4.9 Projected Useful Service Life: Useful service lives of components are established using construction industry standards and our local experience as a guideline. Useful service lives can vary greatly due to initial quality and installation, inappropriate materials, maintenance practices or lack thereof, environment, parts attrition, and obsolescence. By visual observation, the projected useful service life may be shortened or extended due to the present condition. The projected useful service life is not a mandate, but a guideline, for anticipating when a component will require replacement and how many years remain to fund it.

4.10 Generational Equity: As the term applies to reserves, it is the state of fairness between and over the generations relating to responsibility for assets you are utilizing during your time of ownership. It is neither reasonable, nor good business to defer current liabilities to future owners. This practice is not only unfair, it can also have a very negative impact on future property values.

5. UPDATING THE RESERVE FUND PLAN

A reserve fund plan should be periodically updated to remain a viable planning tool. Changing financial conditions and widely varying aging patterns of components dictate that revisions should be undertaken periodically from one to five years, depending upon the complexity of the common assets and the age of the community. Weather, which is unpredictable, plays a large part in the aging process.

Full Updates (Level II) include a site visit to observe current conditions. These updates include adjustments to the component inventory, replacement schedules, annual contributions, balances, replacement costs, inflation rates, and interest income.

We encourage Associations that are undergoing multiple simultaneous or sequential costly restoration projects (usually high rise buildings) to perform Level III Administrative Updates. Administrative updates do not include a condition assessment. They are accomplished by comparing original projections with actual experience during the interim period as reported by Management. These updates can be performed annually and include adjustments to the replacement schedules, contributions, balances, replacement costs, inflation rates, and interest income. The Level III Administrative Update can be a cost-effective way of keeping current between Level II Full Update cycles. Full Updates (Level II) and Administrative Updates (Level III) help to ensure the integrity of the reserve fund plan.

6. PREVENTIVE MAINTENANCE

The following preventive maintenance practices are suggested to assist the Association in the development of a routine maintenance program. The recommendations are not to be considered the only maintenance required, but should be included in an overall program. The development of a maintenance checklist and an annual condition survey will help extend the useful service lives of the Association's assets.

This section includes best maintenance practices or life-extension maintenance for many, but not necessarily all, components in the report. Items for which no maintenance is necessary, appropriate or beyond the purview of this report are not included in this section. We typically include them for townhomes and garden condominiums while mid- and high-rise buildings are generally too complex.

6.1 Asphalt Pavement: Pavement maintenance is the routine work performed to keep a pavement, subjected to normal traffic and the ordinary forces of nature, as close as possible to its as-constructed condition. Asphalt overlays may be used to correct both surface deficiencies and structural deficiencies. Surface deficiencies in asphalt pavement usually are corrected by thin resurfacing, but structural deficiencies require overlays designed on factors such as pavement properties and traffic loading. Any needed full-depth repairs and crack filling should be accomplished prior to overlaying. The edgemill and overlay process includes milling the edges of the pavement at the concrete gutter and feathering the depth of cut toward the center of the drive lane. Milling around meter heads and utility features is sometimes required. The typical useful life for an asphalt overlay is twenty years.

6.2 Asphalt Full-Depth Repairs: In areas where significant alligator cracking, potholes, or deflection of the pavement surface develops, the existing asphalt surface should be removed to the stone base course and the pavement section replaced with new asphalt. Generally, this type of failure is directly associated with the strength of the base course. When the pavement is first constructed, the stone base consists of a specific grain size distribution that provides strength and rigidity to the pavement section. Over time, the stone base course can become contaminated with fine-grained soil particles from the supporting soils beneath the base course. The most positive repair to such an area is to remove the contaminated base course and replace it with new base stone to the design depth. It is appropriate to perform these types of repairs immediately prior to asphalt restoration projects. Generally, this type of repair should not be required for approximately five years after an asphalt restoration project.

6.3 Asphalt Crack Filling: Cracks that develop throughout the life of the asphalt should be thoroughly cleaned of plant growth and debris (lanced) and then filled with a rubberized asphalt crack sealant. If the crack surfaces are not properly prepared, the sealant will not adhere. Crack filling should be accomplished every three to six years to prevent infiltration of water through the asphalt into the sub-grade, causing damage to the road base. It is appropriate to perform these types of repairs immediately prior to edgemill and overlay. Generally, this type of repair should not be required for approximately five years after an edgemill and overlay project.

6.4 Concrete Sidewalks: When sidewalks are cracked or scaled or sections have settled, the resulting differential or "tripping hazard" can present a liability problem for the Association if personal injury should occur as a result. Tripping hazards should be repaired expeditiously to promote safety and prevent liability problems for the community. Generally, where practical and appropriate, concrete element repairs and replacements are scheduled in the same years to promote cost efficiencies. Replacements are usually scheduled in cycles because the necessity of full replacement at one time is unlikely. Typically, damaged or differentially settled sections can be removed by saw cutting or jack hammer and re-cast. Concrete milling of the differential surfaces is sometimes an appropriate, cost-effective alternative to re-casting. Skim coating is not an effective repair for scaled or settled concrete surfaces and, over time, will usually worsen the problem.

6.5 Concrete Curbs and Gutters: Vehicle impacts, differential settlement, construction damage, and cracking and spalling of the concrete will eventually result in the need for replacement of some curb sections. A typical damaged or settled section, usually 10 feet in length, will be removed by saw cutting or jack hammer and re-cast. Replacements are scheduled in cycles because the necessity of full replacement at one time is unlikely.

6.6 Composite Shingle Roofs: Roofs should be inspected annually for damage and leaks. Loose or missing shingles should be replaced on a regular basis. Signs of deflected roof sheathing or discoloration of the sheathing are indicative of moisture problems and should be investigated. Gutters and downspouts should be inspected annually, and loose, damaged, or leaking sections should be secured, repaired, or replaced. All gutters should be kept clean of leaf material and debris. Clogged downspouts should be cleared. In areas where gutters collect fallen leaves, gutters should have screens installed. Downspouts should be directed away from buildings. Erosion can be minimized by the use of properly located splash blocks or plastic flexible tubing. In all cases, water should be directed away from building foundations. Splash blocks must be properly placed, and flexible plastic extensions require diligent maintenance.

6.7 Tot Lot Equipment and Outdoor Furniture: Little maintenance is necessary on the newer style, pre-finished or painted metal play modules other than periodic safety inspections and repair, re-finishing, or replacement of any worn or damaged components. Bare wood components, both non-treated and pressure-treated, generally will achieve a greater useful service life and improved appearance if preventative maintenance is performed. Periodic pressure washing and sealing with wood preservative is recommended on all wood components. Rough edges and splinters should be sanded prior to sealing. Damaged or deteriorated wood components should be replaced as necessary. Generally, securing or repairing wood components with screws will provide a better fastening method than nails. Tot lot equipment should be inspected frequently for loose components, rough edges, splinters, and safety hazards. Tot lot borders should be leveled periodically, and protruding border anchors should be made flush with the timber surface.

7.0 ASPHALT PAVEMENT REPORT

Street Name	Total SY Asphalt Pavement	Total SY Overlay Repair	Overall Rating 1 to 10 Condition	Individual % of Deficiency
1. Central Mailbox Parking	220	44	3	20
2. Summit Point Entrance @ Mailbox	1,690	0	7	0
3. Mountaineer Court	2,087	111	7	5
4. West Hall Drive	3,296	34	7	1
5. Standish Court	2,145	0	7	0
6. Berkeley Court	2,591	367	2	14
7. Bradford Court	1,467	0	8	0
8. Beekman Place	1,545	111	8	7
9. Tall Oak Drive	5,545	225	6	4
10. Newington Court	2,496	116	6	5
11. Tuscawilla Drive	20,313	2,776	4	14
12. Lindsey Drive	1,769	889	7	50
13. Carrell Lane	1,082	0	8	0
14. New Castle Drive	3,548	0	8	0
15. Douglas Drive	2,906	867	7	29
16. Captain Kime Drive	1,644	0	8	0
17. Camden Drive	1,152	1,075	2	99
18. Camden Court	922	0	6	0
19. Friendship Court	525	14	7	2
20. Captain Baird Court	962	0	8	0
21. Lexington Court	816	0	8	0
22. Barbary Court	917	0	8	0
23. Packett Drive	5,135	100	5	2
24. Durham Court	730	0	8	0
25. Tall Oak Court	625	13	7	2
26. Sunlite Drive	3,437	444	6	13
27. Supreme Court	572	0	6	0
28. Webhannet Drive	1,806	56	6	3
29. Phyllis Court	787	6	6	<1
30. Concord Court	611	0	6	0
31. East View Court	2,384	0	6	0
32. Deerfield Drive	2,961	44	6	1
33. Albar Court	775	0	8	0
34. Auburn Court	1,048	0	10	0
35. Mary Lee Drive	1,633	122	5	7
36. Berkeley Drive	3,056	222	5	7
37. Altoona Way	891	0	6	0
38. Fenway Drive	7,759	144	7	2
39. Midway Farm Drive	771	22	7	3
TOTALS	**94,619**	**7,780**		**8%**

REPAIRS, 2012

Street Name	Mill and Replace SY	
6. Berkeley Court	367	
15. Douglas Drive*	867	
TOTAL	**1,234**	**1%**

*Cul de sac section

REPAIRS, 2014	Overlay Repair	
All remaining Streets from above	**6,546**	**7%**

COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE
TABLE 1
EXPLANATION

Column **1** **Component No.** aids in the identification of the common asset and is consistent throughout all the tables.

Column **2** **Component** is the name identifier of the common asset.

Column **3** **Quantity** of the component identified, which may be an exact number, an estimate, or simply a (1) if the expenditure projection is a lump sum (LS) allowance.

Column **4** **Unit of Measurement** used to quantify the component: SY = Square Yards
SF = Square Feet
LF = Linear Feet
EA = Each
LS = Lump Sum
PR = Pair

Column **5** **Unit Cost** used to calculate the required expenditure. This unit cost includes removal and disposal of existing components and installation of new components, including materials, labor, overhead and profit for the contractor.

Column **6** **Total Asset Base** is the quantity times the cost extension of the component in current dollars.

Column **7** **Typical Service or Cycle Life in Yrs** is the typical useful service life expectancy of similar components in average conditions or the length of years between partial-replacement cycles, and does not necessarily reflect the conditions observed during the field evaluation. This number is furnished for reference and is not necessarily computed in the system.

Column **8** **1st Cycle Year** is the scheduled year of the first projected expenditure.

Column **9** **Percentage of Replacement** is the percentage of the component value expenditure programmed for the first cycle.

Column **10** **Cost for 1st Cycle** is the future calculated cost (with inflation) of the 1st projected expenditure.

Column **11** **2nd Cycle Year** is the scheduled year of the second projected expenditure. If a second cycle is not listed, it is because the first cycle is beyond the end of the 20-year period.

Column **12** **Percentage of Replacement** is the percentage of component value expenditure in the second replacement cycle. This can vary from the percentage of the first cycle for various reasons, such as the increased age of a component may require progressively larger expenditures.

Columns **13** Through **16** **Cycles, Percentage, and Cost** repeats as itemized above. Although not shown on the tables due to space constraints, the cycles continue throughout the 20-year period and beyond

Column **18** **Discussion** is the description, condition, and recommendation of the component and the methodology employed in the decision-making process for it.

Reserve Fund Plan for TUSCAWILLA HILLS CITIZEN'S ASSOCIATION
Charles Town, West Virginia

COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE
TABLE 1
2012 Through 2031

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

Component No.	Component	Quantity	Unit of Measurement	Unit Cost	Total Asset Base	Typical Service or Cycle Life in Yrs	1st Cycle Year	Percentage of Replacement	Cost For 1st Cycle	2nd Cycle Year	Percentage of Replacement	Cost For 2nd Cycle	3rd Cycle Year	Percentage of Replacement	Cost For 3rd Cycle	DISCUSSION
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18
1 ASPHALT COMPONENTS																
1.1	Asphalt Life-Extension Overlay Repairs	94,619	SY	$11.20	1,059,733	25	2012	1%	$10,597	2014	7%	$78,699	2016	6%	$71,564	The asphalt pavement throughout the community appears to range from poor to improving good condition. The thickness of the pavement could not be visually determined, although it is reported to be originally a 6"aggregate sub-base, with 2" base asphalt and 1" wear course. This is quite minimal for pavement serving heavy trash trucks and moving vans. The recent repair overlays have reportedly been in the 1 1/2" to 2" thickness range, although this could not be confirmed. The overlays are reportedly under warranty for three years. We don't anticipate cracking to show up until four to five years, so this may not be important. Restoration includes edgemilling where there are curbs, full milling where there is severe deflection, and overlay with 1-½" new compacted asphalt at a minimum. Core sampling should be used to determine the depth and condition of the sub-base and pavement prior to restoration. Costs include re-striping, but not replacement of any inadequate sub-base. The cost is an aggregate average for all types of repair, but principally based on overlays like the type recently installed. See the Asphalt Pavement Report, Section 7, for additional details. It should be noted that this is only a rough projection of anticipated replacement requirements and that actual experience may be faster or slower than scheduled. The new schedule is based on information gathered over four years of observation and, therefore, is somewhat more reliable. Future updates will help continue to refine the schedules. This line items replaces both asphalt repair and restoration line items previously scheduled.
2 CONCRETE COMPONENTS																
2.1	Concrete Sidewalks	48,409	SF	$8.50	$411,477	5	2013	1%	$4,238	2018	2%	$9,826	2023	2%	$11,392	Concrete sidewalks throughout the community are generally 4' or 5' wide. The thickness of the concrete could not be visually determined although the thickened edge at pavements appears to be generally 8". Most sidewalks appear to be in good condition. We observed approximately seven trip hazards that should be repaired as soon as practicable, and the scaled edges at the Central Mail Station may be a hazard. Over time, additional cracking, settlement and scaling should be anticipated. Replacement of additional scaled sections should be addressed with each replacement cycle as they will tend to deteriorate more quickly over time. Cyclic repairs are scheduled as full replacement at one time is not appropriate or anticipated. Concrete repairs are scheduled to coincide with other concrete components to promote cost efficiencies.
2.2	Concrete Curbs & Gutters	6,316	LF	$32.00	$202,112	5	2013	1%	$2,082	2018	1%	$2,413	2023	1%	$2,798	The drivelanes and parking bays of the townhome sections are lined with standard-profile, cast-in-place, concrete curbs. Most curbs are generally in continuing good condition with a small number of deficient sections observed. As curbs age, cracks, vehicle impact damage, and settlement should be anticipated. Cyclic repairs are scheduled as full replacement at one time is not appropriate or anticipated. Concrete are scheduled to coincide with other concrete components to promote cost efficiencies.
3 SITE FEATURES																
3.1	Entrance Features	1	LS	$6,500.00	$6,500	25	2030	100%	$11,066	2055	100%	$23,169				The entrance features on each side of Tuscawilla Drive at Route 51 consist of a painted polyvinyl chloride (PVC) panel sign approximately 10' by 3' supported on each side by 7' sections of PVC picket fencing. The structures appear to be in continuing good condition with no damage or deterioration observed. Other than cleaning and replacement of damaged components, this type of material requires little maintenance throughout its long useful service life.
3.2	Central Mail Station Re-Roofing	205	SF	$5.75	$1,179	20	2028	100%	$1,892	2048	100%	$3,416				The 3/12 pitched roof has an asphalt shingle covering, which has recently been replaced and is in good condition. Pre-finished replacement aluminum gutters and downspouts are installed at roof terminations and are in good condition. Re-roofing projects include replacement of shingles, deteriorated sheathing, and gutters and downspouts.
3.3	Central Mailboxes Inventory	1	LS	$30,000.00	$30,000	40	2048	100%	$86,948							This building has been enlarged and reconfigured since the previous evaluation. Mailboxes are of two different configurations: Built-in and free standing including parcel box modules. Most of the in-wall modules are replacements that were, reportedly, provided by the postal service at no charge. They appear to be in good condition. The older modules appear to be in continuing good, serviceable condition. Of the three free-standing modules, two have new bases, and all appear to be in good, serviceable condition. We understand that additional in-wall modules are stored for future use.
3.4	Summit Point Mail Station Re-Roofing	436	SF	$5.75	$2,507	20	2023	100%	$3,470	2043	100%	$6,268				The 3/12 pitched roof has an asphalt shingle covering. It appears to be in continuing good condition with no deteriorated shingles or deflection of the roof sheathing observed. Pre-finished aluminum gutters and downspouts are installed at all roof terminations. Downspouts appear to be properly directed away from building foundations. All components appear to be in good condition. Re-roofing projects include replacement of shingles, deteriorated sheathing, and gutters and downspouts.
3.5	Summit Point Mailboxes Inventory	1	LS	$30,000.00	$30,000	40	2048	100%	$86,948							This building has been reconfigured since the previous evaluation. Mailboxes at this station are replacement, in-wall modules that were, reportedly, provided by the postal service at no charge with additional replacement modules stored within the building. They appear to be in good condition.
3.6	Tot Lot & Outdoor Furniture	1	LS	$29,200.00	$29,200	15	2012	55%	$16,060	2027	100%	$45,493	2042	100%	$70,876	One tot lot is located within the community. Equipment consists of new wood borders in good condition, a metal swing set and climbing dome in continuing good condition, wood benches and two spring toys in continuing good condition, and a small wood post play module that has deteriorated significantly since the previous evaluation. We observed weakened and one missing ladder rung and warped and split wood components. We have budgeted a near-term percentage for replacement of the play module with costs are based on replacement with U.S. Consumer Product Safety Commission (CPSC)-compliant play modules. Preventive maintenance will improve appearance and extend the useful service lives of tot lot components. Frequent, periodic safety checks of all components should be conducted to prevent personal injury.

Reserve Fund Plan for
TUSCAWILLA HILLS CITIZEN'S ASSOCIATION
Charles Town, West Virginia

COMPONENT DATA AND ASSET REPLACEMENT SCHEDULE
TABLE 1
2012 Through 2031

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

Component No.	Component	Quantity	Unit of Measurement	Unit Cost	Total Asset Base	Typical Service or Cycle Life in Yrs	1st Cycle Year	Percentage of Replacement	Cost For 1st Cycle	2nd Cycle Year	Percentage of Replacement	Cost For 2nd Cycle	3rd Cycle Year	Percentage of Replacement	Cost For 3rd Cycle	DISCUSSION
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18
3.7	Basketball Court Restoration	296	SY	$12.50	$3,700	20	2018	100%	$4,418	2038	100%	$7,979				A basketball court is located within the community at the recreation area. The court appears to be in continuing fair, but serviceable condition, with one large crack across the center as well as a repair patch. Filling the crack with a rubberized asphaltic material would prevent water from infiltrating beneath the court and may extend the useful service life by preventing freeze/thaw damage. Color coating would seal the surface and possibly extend the service life.
3.8	Basketball Standards	2	EA	$2,200.00	$4,400	40	2018	100%	$5,254	2058	100%	$17,138				Painted metal post standards with backboards are constructed at each end of the court. They appear to be in continuing serviceable condition, but would benefit from rust removal and repainting. They are scheduled for replacement coinciding with the court restoration project.
3.9	Split-Rail Fencing	1,916	LF	$13.00	$24,908	20	2014	10%	$2,642	2017	10%	$2,888	2020	10%	$3,155	Wood split-rail fencing is constructed adjacent to the perimeter at Summit Point Road. We understand that components from the main entrance fencing, that was replaced with vinyl fencing, was used to replace deteriorated timbers and posts. The fencing generally appear to be in good condition. This category includes smaller sections of fencing located throughout the community, most of which appear to be somewhat deteriorated. We have budgeted a periodic allowance to address repairs/replacements as necessary.
3.10	Vinyl Fencing	264	LF	$10.25	$2,706	30	2041	100%	$6,377							Vinyl three-rail fencing has been installed replacing the split rail fencing adjacent to the entrance signs and at another perimeter location at Fenway Drive. All components appear to be in good condition and should provide a long service life with little or no maintenance other than replacing or repairing damaged components.
3.11	Storm Water Drainage System Allowance	1	LS	$7,500.00	$7,500	7	2013	100%	$7,725	2020	100%	$9,501	2027	100%	$11,685	Storm water drainage is provided by concrete yard drains, curb drop inlets, underground structures, and approximately four storm water management areas created by earthen impoundment structures. All observable components appear to be in continuing good condition. Vegetation should be periodically controlled as woody vegetation diminishes capacity over time. Though storm water drainage systems are a long life component and catastrophic failure is not anticipated, it is prudent to plan for localized repairs and repairs to ancillary damage as the system ages. This category may also be used to address localized erosion issues.

CALENDAR OF EXPENDITURES
TABLE 2
EXPLANATION

Column **1** **Year** is the year of the projected replacement or repair related expenditure.

Column **2** **Component No.** aids in identifying the component and is consistent throughout all the tables.

Column **3** **Component** is the name identifier of the common asset.

Column **4** **Present Cost** is the expenditure for the 1ST cycle in 1ST - year dollars.

Column **5** **Future Cost (Inflated)** is the projected expenditure in future dollars.

Column **6** **Total Annual Expenditures** is the sum for each year.

Column **7** **Action** is an area provided for Management for record keeping. Make notations as to the action taken on each component such as date of work, cost, provider, etc.

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Reserve Fund Plan for
TUSCAWILLA HILLS CITIZEN'S ASSOCIATION
Charles Town, West Virginia

CALENDAR OF EXPENDITURES
TABLE 2
2012 Through 2031

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2012	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
2012					2012	
	1.1	Asphalt Life-Extension Overlay Repairs	$10,597	$10,597	TOTAL EXPENDITURES	
	3.6	Tot Lot & Outdoor Furniture	$16,060	$16,060		
					$26,657	
2013					2013	
	2.1	Concrete Sidewalks	$4,115	$4,238	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	$2,021	$2,082		
	3.11	Storm Water Drainage System Allowance	$7,500	$7,725		
					$14,045	
2014					2014	
	1.1	Asphalt Life-Extension Overlay Repairs	$74,181	$78,699	TOTAL EXPENDITURES	
	3.9	Split-Rail Fencing	$2,491	$2,642		
					$81,341	
2015					2015	
					NO EXPENDITURES	
2016					2016	
	1.1	Asphalt Life-Extension Overlay Repairs	$63,584	$71,564	TOTAL EXPENDITURES	
					$71,564	
2017					2017	
	3.9	Split-Rail Fencing	$2,491	$2,888	TOTAL EXPENDITURES	
					$2,888	
2018					2018	
	1.1	Asphalt Life-Extension Overlay Repairs	$63,584	$75,923	TOTAL EXPENDITURES	
	2.1	Concrete Sidewalks	$8,230	$9,826		
	2.2	Concrete Curbs & Gutters	$2,021	$2,413		
	3.7	Basketball Court Restoration	$3,700	$4,418		
	3.8	Basketball Standards	$4,400	$5,254		
					$97,834	
2019					2019	
					NO EXPENDITURES	
2020					2020	
	1.1	Asphalt Life-Extension Overlay Repairs	$190,752	$241,639	TOTAL EXPENDITURES	
	3.9	Split-Rail Fencing	$2,491	$3,155		
	3.11	Storm Water Drainage System Allowance	$7,500	$9,501		
					$254,295	
2021					2021	
					NO EXPENDITURES	
2022					2022	
	1.1	Asphalt Life-Extension Overlay Repairs	$190,752	$256,355	TOTAL EXPENDITURES	
					$256,355	
2023					2023	
	2.1	Concrete Sidewalks	$8,230	$11,392	TOTAL EXPENDITURES	
	2.2	Concrete Curbs & Gutters	$2,021	$2,798		
	3.4	Summit Point Mail Station Re-Roofing	$2,507	$3,470		
	3.9	Split-Rail Fencing	$2,491	$3,448		
					$21,107	
2024					2024	
	1.1	Asphalt Life-Extension Overlay Repairs	$190,752	$271,967	TOTAL EXPENDITURES	
					$271,967	

Reserve Fund Plan for
TUSCAWILLA HILLS CITIZEN'S ASSOCIATION
Charles Town, West Virginia

CALENDAR OF EXPENDITURES
TABLE 2
2012 Through 2031

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2012	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES	ACTION
1	2	3	4	5	6	7
2025					2025	
					NO EXPENDITURES	
2026					2026	
	1.1	Asphalt Life-Extension Overlay Repairs	$190,752	$288,529	TOTAL EXPENDITURES	
	3.9	Split-Rail Fencing	$2,491	$3,768		
					$292,297	
2027					2027	
	3.6	Tot Lot & Outdoor Furniture	$29,200	$45,493	TOTAL EXPENDITURES	
	3.11	Storm Water Drainage System Allowance	$7,500	$11,685		
					$57,177	
2028					2028	
	1.1	Asphalt Life-Extension Overlay Repairs	$84,779	$136,045	TOTAL EXPENDITURES	
	2.1	Concrete Sidewalks	$12,344	$19,809		
	2.2	Concrete Curbs & Gutters	$4,042	$6,487		
	3.2	Central Mail Station Re-Roofing	$1,179	$1,892		
					$164,232	
2029					2029	
	3.9	Split-Rail Fencing	$2,491	$4,117	TOTAL EXPENDITURES	
					$4,117	
2030					2030	
	1.1	Asphalt Life-Extension Overlay Repairs	$42,389	$72,165	TOTAL EXPENDITURES	
	3.1	Entrance Features	$6,500	$11,066		
					$83,231	
2031					2031	
					NO EXPENDITURES	

CURRENT FUNDING ANALYSIS CASH FLOW METHOD
TABLE 3.0
EXPLANATION

and, if applicable,

ALTERNATIVE FUNDING ANALYSIS CASH FLOW METHOD
TABLE 3.1, 3.2, 3,3 (etc.)
EXPLANATION

Table 3.0 shows the financial picture over the 20-year period, using the current annual contribution if provided to us, and the reserve fund balance reported at the beginning of the first year. If the results of the analysis indicate a need to increase the annual contribution to achieve the fully funded goal, Table 3.1, and possibly, 3.2 will be provided for consideration. Alternatives might also be provided if a community is over-funded and desires to adjust the annual contribution appropriately downward.

Any of the tables in this Cash Flow Section can be identified as Hybrid Approach if the calculations have been set to achieve the fully funded goal. The goal will be identified by a green arrow.

Alternative funding may be achieved by increasing the annual contribution to a fixed yearly amount (straight-line), by applying an annual escalation factor to increase contributions over time (escalating), or a combination of both methods (used to get over a deficit year due to a large expenditure or combination thereof). An inflation factor and interest income factor are usually included in the calculations on this page.

Column **1** **Year** 1 of 20 included in the Cash Flow Method spreadsheets.

Column **2** **Total Asset Base** calculated component replacement values or repair costs adjusted for inflation.

Column **3** **Beginning Reserve Fund Balance** is the balance reported to us based on financial statements or projected to the end of a current year for plans beginning in the coming year.

Column **4** **Annual Contribution,** on **Table 3**, is the amount contributed annually to the reserve fund as reported to us. On the **Alternative Funding Analysis Tables (3.1, 3.2, etc.)**, the annual contribution is calculated using Excel Goal Seek to establish the first year amount that then only requires inflationary annual increases to eventually achieve the fully funded goal **(Hybrid Approach)**.

Column **5** **Interest Income,** which is indicated in the heading of the table, is applied to the reserve fund balance and is accrued monthly throughout each year after the yearly expenditures are deducted. The interest income percentage may be set to reflect actual experience of the reserve fund composite investments.

Column **6** **Capital Expenditures** are annual totals of expenditures for each year of the 20-year period adjusted by the inflation factor listed in the heading of the table.

Column **7** **Ending Reserve Fund Balance** is the result of the beginning reserve fund balance plus the annual contribution, plus the interest income, less the capital expenditures for the year.

Reserve Fund Plan for
TUSCAWILLA HILLS CITIZEN'S ASSOCIATION
Charles Town, West Virginia

CURRENT FUNDING ANALYSIS
CASH FLOW METHOD
TABLE 3

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

Beginning Reserve Fund Balance:	Annual Contribution To Reserves:	Contribution Percentage Increase:	Annual Inflation Factor:	Annual Interest Income Factor:
$86,906	$86,000	3.00%	3.00%	2.00%

YEAR	TOTAL ASSET BASE	BEGINNING RESERVE FUND BALANCE	ANNUAL CONTRIBUTION	INTEREST INCOME	CAPITAL EXPENDITURES	ENDING RESERVE FUND BALANCE
1	2	3	4	5	6	7
2012	1,815,921	$86,906	$86,000	$3,339	$26,657	$149,588
2013	1,870,399	$149,588	$88,580	$3,832	$14,045	$227,955
2014	1,926,511	$227,955	$91,237	$4,712	$81,341	$242,564
2015	1,984,306	$242,564	$93,975	$5,920	$0	$342,458
2016	2,043,835	$342,458	$96,794	$7,190	$71,564	$374,878
2017	2,105,150	$374,878	$99,698	$8,622	$2,888	$480,309
2018	2,168,305	$480,309	$102,688	$9,751	$97,834	$494,915
2019	2,233,354	$494,915	$105,769	$11,142	$0	$611,826
2020	2,300,354	$611,826	$108,942	$10,773	$254,295	$477,247
2021	2,369,365	$477,247	$112,210	$10,856	$0	$600,314
2022	2,440,446	$600,314	$115,577	$10,591	$256,355	$470,126
2023	2,513,659	$470,126	$119,044	$10,557	$21,108	$578,620
2024	2,589,069	$578,620	$122,615	$10,060	$271,967	$439,329
2025	2,666,741	$439,329	$126,294	$10,244	$0	$575,867
2026	2,746,744	$575,867	$130,083	$9,865	$292,297	$423,518
2027	2,829,146	$423,518	$133,985	$9,388	$57,178	$509,712
2028	2,914,020	$509,712	$138,005	$10,008	$164,233	$493,492
2029	3,001,441	$493,492	$142,145	$11,465	$4,117	$642,985
2030	3,091,484	$642,985	$146,409	$13,670	$83,231	$719,833
2031	3,184,229	$719,833	$150,802	$16,173	$0	$886,808
STUDY PERIOD TOTALS			2,310,852	$188,159	1,699,110	

Reserve Fund Plan for
TUSCAWILLA HILLS CITIZEN'S ASSOCIATION
Charles Town, West Virginia

ALTERNATIVE FUNDING ANALYSIS
HYBRID APPROACH
CASH FLOW METHOD
TABLE 3.1

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

Beginning Reserve Fund Balance:	Annual Contribution To Reserves:	Contribution Percentage Increase:	Annual Inflation Factor:	Annual Interest Income Factor:
$86,906	$86,000	3.00%	3.00%	2.00%

YEAR	TOTAL ASSET BASE	BEGINNING RESERVE FUND BALANCE	ANNUAL CONTRIBUTION	INTEREST INCOME	CAPITAL EXPENDITURES	ENDING RESERVE FUND BALANCE
1	2	3	4	5	6	7
2012	1,815,921	$86,906	$86,000	$3,339	$26,657	$149,588
2013	1,870,399	$149,588	$69,142	$3,620	$14,045	$208,306
2014	1,926,511	$208,306	$71,217	$4,097	$81,341	$202,279
2015	1,984,306	$202,279	$73,353	$4,882	$0	$280,514
2016	2,043,835	$280,514	$75,554	$5,708	$71,564	$290,212
2017	2,105,150	$290,212	$77,820	$6,675	$2,888	$371,819
2018	2,168,305	$371,819	$80,155	$7,316	$97,834	$361,456
2019	2,233,354	$361,456	$82,560	$8,196	$0	$452,211
2020	2,300,354	$452,211	$85,037	$7,291	$254,295	$290,244
2021	2,369,365	$290,244	$87,588	$6,813	$0	$384,645
2022	2,440,446	$384,645	$90,215	$5,961	$256,355	$224,466
2023	2,513,659	$224,466	$92,922	$5,314	$21,108	$301,594
2024	2,589,069	$301,594	$95,709	$4,175	$271,967	$129,512
2025	2,666,741	$129,512	$98,581	$3,689	$0	$231,781
2026	2,746,744	$231,781	$101,538	$2,609	$292,297	$43,631
2027	2,829,146	$43,631	$104,584	$1,399	$57,178	$92,437
2028	2,914,020	$92,437	$107,722	$1,255	$164,233	$37,181
2029	3,001,441	$37,181	$110,953	$1,915	$4,117	$145,932
2030	3,091,484	$145,932	$114,282	$3,287	$83,231	$180,270
2031	3,184,229	$180,270	$117,710	$4,922	$0	$302,902
STUDY PERIOD TOTALS			1,822,643	$92,463	1,699,110	FULLY FUNDED BALANCE GOAL

FUNDING ANALYSIS COMPONENT METHOD
TABLE 4

EXPLANATION

Table 4 is a yearly list of annual contributions (year 1 through year 20) calculated for each component, which is required to achieve fully funded status for each individual year. These contributions are the result of first applying the reported balance (Balance Distribution) to each component proportionally, and then calculating the remaining individual contributions necessary to cover the expenditure in the scheduled year. Future costs (inflation) are factored into the replacement cycles. The calculated annual contribution for each year (total for all individual annual contributions) is shown in the bottom row **Annual Component Contribution Totals**.

Expenditures, interest, and inflation are identical to the Cash Flow Method.

Column **1**	**Component Number** aids in the identification of the common asset and is consistent throughout all the tables.
Column **2**	**Component** is the name identifier of the common asset.
Columns **3 - 22**	**Years** provide the calculated annual contributions for each component throughout the 20-year period (note that cycles usually have different schedules and do not always result in the same totaled contributions for individual years).

COMPONENT METHOD SUMMARY

The **Component Method Summary** calculates the beginning reserve fund balance, the annual component contribution, the annual expenditures, and interest income. It then provides the fully funded reserve fund balance for each individual year.

Due to the usual difficulty of achieving a fully funded balance early in a reserve fund plan, especially the 1ST year, we use the fully funded balance at the end of the 20-year period as the fully funded goal (green arrow) and then use this goal in the Table 3 Cash Flow calculations. We refer to this procedure as the Hybrid Approach.

Reserve Fund Plan for
TUSCAWILLA HILLS CITIZEN'S ASSOCIATION
Charles Town, West Virginia

FUNDING ANALYSIS
COMPONENT METHOD
TABLE 4

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.
www.masonreserves.com 800-776-6980 Fax 800-776-6408

Beginning Reserve Fund Balance:

$86,906

Component Number	COMPONENT	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
1.1	Asphalt Life-Extension Overlay Repairs	$43,013	$38,536	$35,043	$35,043	$37,177	$37,177	$118,323	$118,323	$125,528	$125,528	$133,173	$133,173	$141,283	$141,283	$66,617	$66,617	$35,337	$35,337	$37,489	$37,489
2.1	Concrete Sidewalks	$1,791	$1,867	$1,867	$1,867	$1,867	$1,867	$2,165	$2,165	$2,165	$2,165	$2,165	$3,764	$3,764	$3,764	$3,764	$3,764	$4,364	$4,364	$4,364	$4,364
2.2	Concrete Curbs & Gutters	$880	$459	$459	$459	$459	$459	$532	$532	$532	$532	$532	$1,233	$1,233	$1,233	$1,233	$1,233	$1,429	$1,429	$1,429	$1,429
3.1	Entrance Features	$218	$218	$218	$218	$218	$218	$218	$218	$218	$218	$218	$218	$218	$218	$218	$218	$218	$218	$714	$714
3.2	Central Mail Station Re-Roofing	$43	$43	$43	$43	$43	$43	$43	$43	$43	$43	$43	$43	$43	$43	$43	$43	$139	$139	$139	$139
3.3	Central Mailboxes Inventory	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704
3.4	Summit Point Mail Station Re-Roofing	$120	$120	$120	$120	$120	$120	$120	$120	$120	$120	$120	$255	$255	$255	$255	$255	$255	$255	$255	$255
3.5	Summit Point Mailboxes Inventory	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704	$704
3.6	Tot Lot & Outdoor Furniture	$9,384	$2,599	$2,599	$2,599	$2,599	$2,599	$2,599	$2,599	$2,599	$2,599	$2,599	$2,599	$2,599	$2,599	$2,599	$4,049	$4,049	$4,049	$4,049	$4,049
3.7	Basketball Court Restoration	$296	$296	$296	$296	$296	$296	$324	$324	$324	$324	$324	$324	$324	$324	$324	$324	$324	$324	$324	$324
3.8	Basketball Standards	$352	$352	$352	$352	$352	$352	$280	$280	$280	$280	$280	$280	$280	$280	$280	$280	$280	$280	$280	$280
3.9	Split-Rail Fencing	$553	$553	$933	$933	$933	$1,020	$1,020	$1,020	$1,114	$1,114	$1,114	$1,218	$1,218	$1,218	$1,330	$1,330	$1,330	$1,454	$1,454	$1,454
3.10	Vinyl Fencing	$69	$69	$69	$69	$69	$69	$69	$69	$69	$69	$69	$69	$69	$69	$69	$69	$69	$69	$69	$69
3.11	Storm Water Drainage System Allowance	$3,264	$1,263	$1,263	$1,263	$1,263	$1,263	$1,263	$1,263	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,554	$1,911	$1,911	$1,911	$1,911	$1,911
ANNUAL COMPONENT CONTRIBUTION TOTALS		$61,391	$47,783	$44,670	$44,670	$46,804	$46,891	$128,364	$128,364	$135,954	$135,954	$143,599	$146,138	$154,248	$154,248	$79,694	$81,501	$51,113	$51,237	$53,885	$53,885

COMPONENT METHOD SUMMARY	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
BEGINNING RESERVE FUND BALANCE	$86,906	$124,063	$160,826	$127,888	$175,627	$154,922	$202,563	$238,580	$373,159	$263,832	$406,593	$303,609	$436,360	$329,130	$491,703	$289,893	$320,956	$214,871	$266,887	$243,515
PLUS ANNUAL COMPONENT CONTRIBUTION	$61,391	$47,783	$44,670	$44,670	$46,804	$46,891	$128,364	$128,364	$135,954	$135,954	$143,599	$146,138	$154,248	$154,248	$79,694	$81,501	$51,113	$51,237	$53,885	$53,885
CAPITAL EXPENDITURES	$26,657	$14,045	$81,341	$0	$71,564	$2,888	$97,834	$0	$254,295	$0	$256,355	$21,108	$271,967	$0	$292,297	$57,178	$164,233	$4,117	$83,231	$0
SUBTOTAL	$121,640	$157,801	$124,155	$172,558	$150,867	$198,925	$233,093	$366,944	$254,818	$399,786	$293,837	$428,639	$318,641	$483,378	$279,100	$314,216	$207,836	$261,991	$237,541	$297,400
PLUS INTEREST INCOME @ 2.00%	$2,423	$3,025	$3,733	$3,068	$4,055	$3,638	$5,488	$6,215	$9,014	$6,807	$9,772	$7,721	$10,489	$8,325	$10,793	$6,740	$7,035	$4,896	$5,974	$5,503
FULLY FUNDED RESERVE FUND BALANCE	$124,063	$160,826	$127,888	$175,627	$154,922	$202,563	$238,580	$373,159	$263,832	$406,593	$303,609	$436,360	$329,130	$491,703	$289,893	$320,956	$214,871	$266,887	$243,515	$302,902

FULLY FUNDED BALANCE GOAL

CURRENT FULLY FUNDED STATUS	153%	TOTAL EXPENDITURES	1,699,110	TOTAL CONTRIBUTIONS	1,790,393	STUDY PERIOD TOTAL INTEREST	$124,713	AVERAGE ANNUAL CONTRIBUTION	$89,520

PHOTOGRAPHS
WITH
DESCRIPTIVE NARRATIVES

MASON & MASON
CAPITAL RESERVE ANALYSTS, INC.

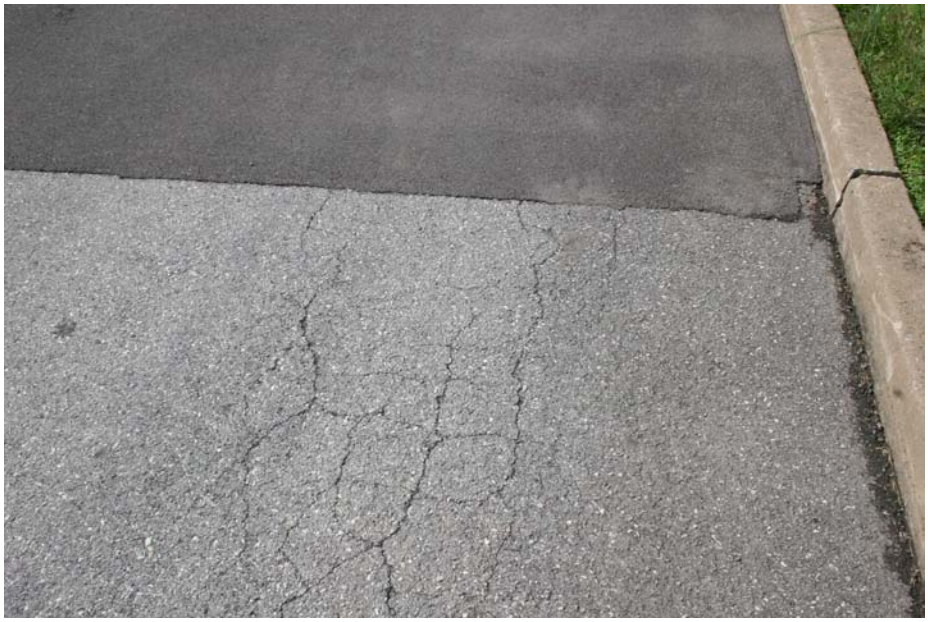

PHOTO #1
Here is an example, where, in proximity of recent overlay repair, there is additional damage now extending beyond the original overlay, as deflection continues.

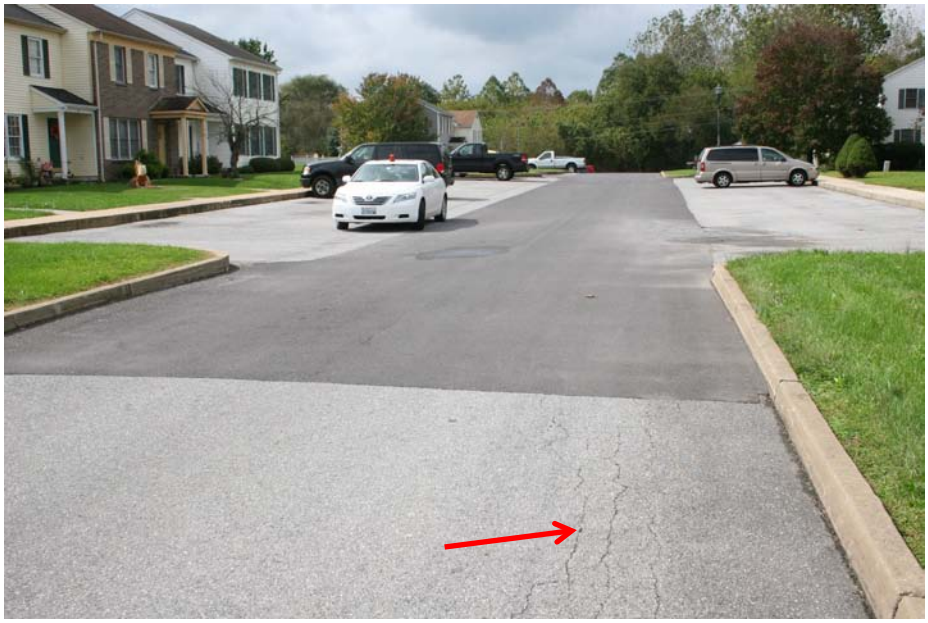

PHOTO #2
In the same area this shows the extent of the additional deflection beyond the overlay.

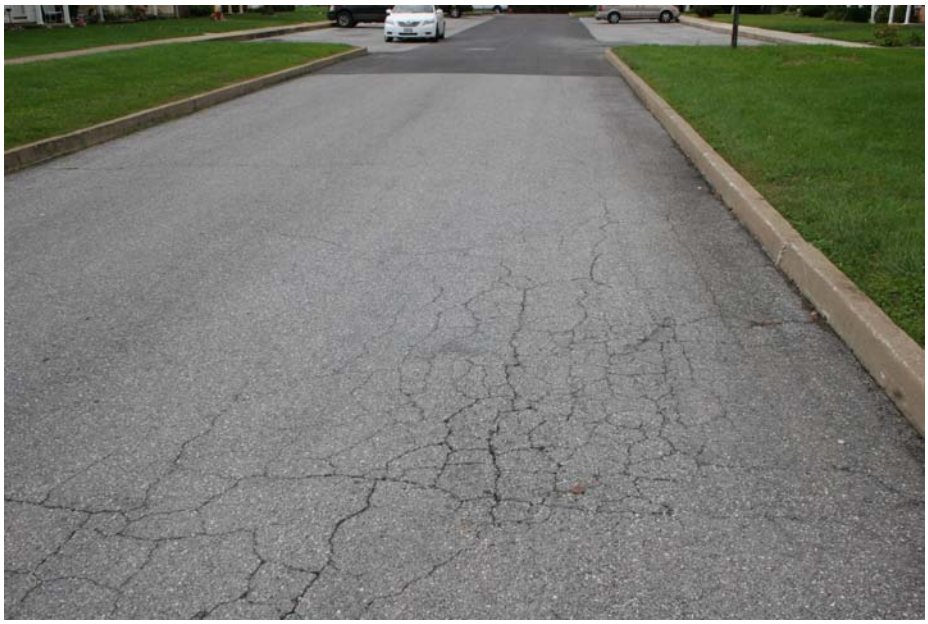

PHOTO #3
Further down the same street, new deflection is now present where none existed four years ago.

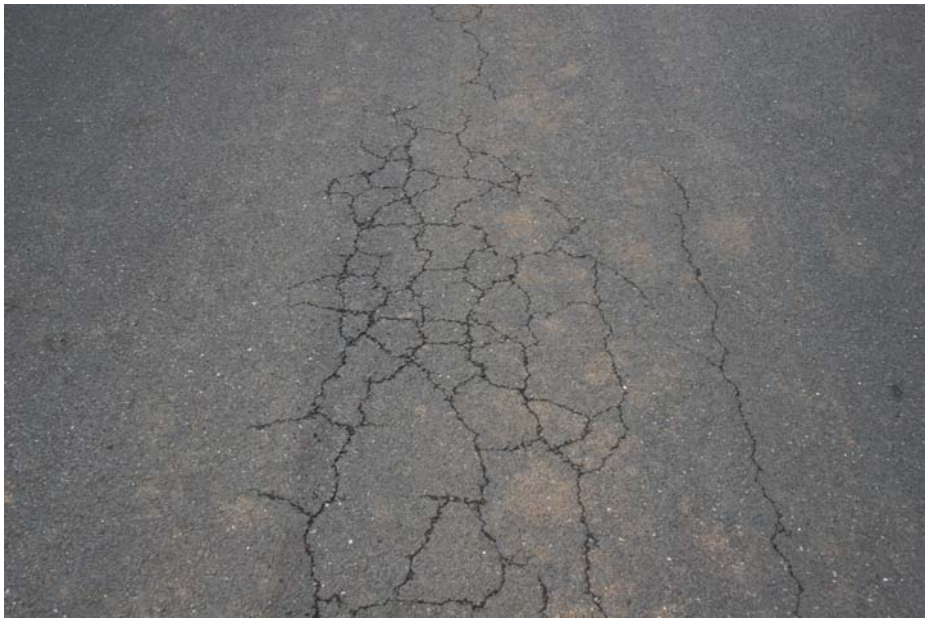

PHOTO #4
This deflection is on Tall Oak Drive, which is a section that was a recent overlay repair prior to 2007. This classic reflective cracking indicates poor pavement that was simply overlaid.

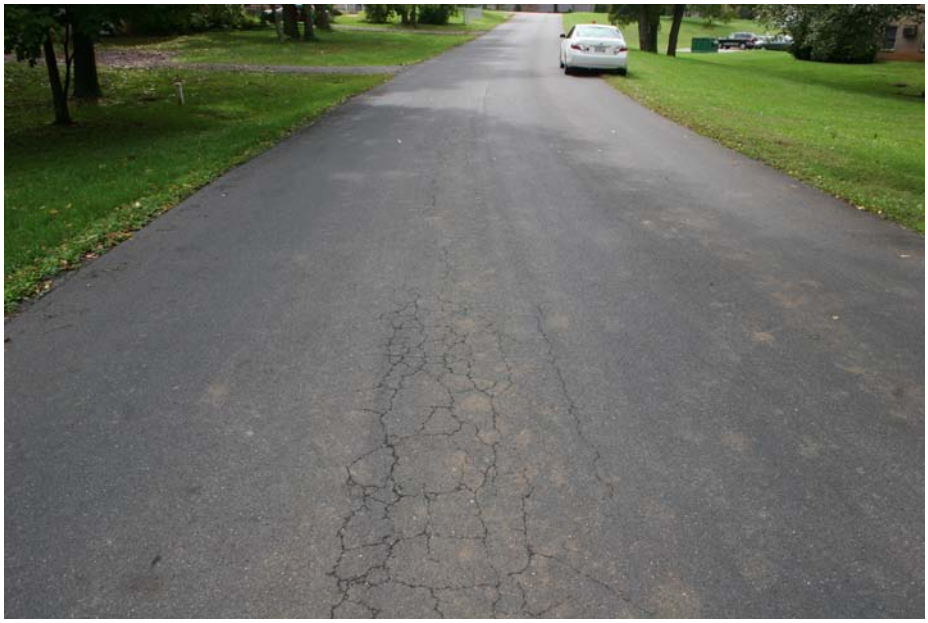

PHOTO #5
This is an overview of the section of Tall Oak Drive with the pre-2007 overlay. Note that beginning deflection is present along significant portions of it.

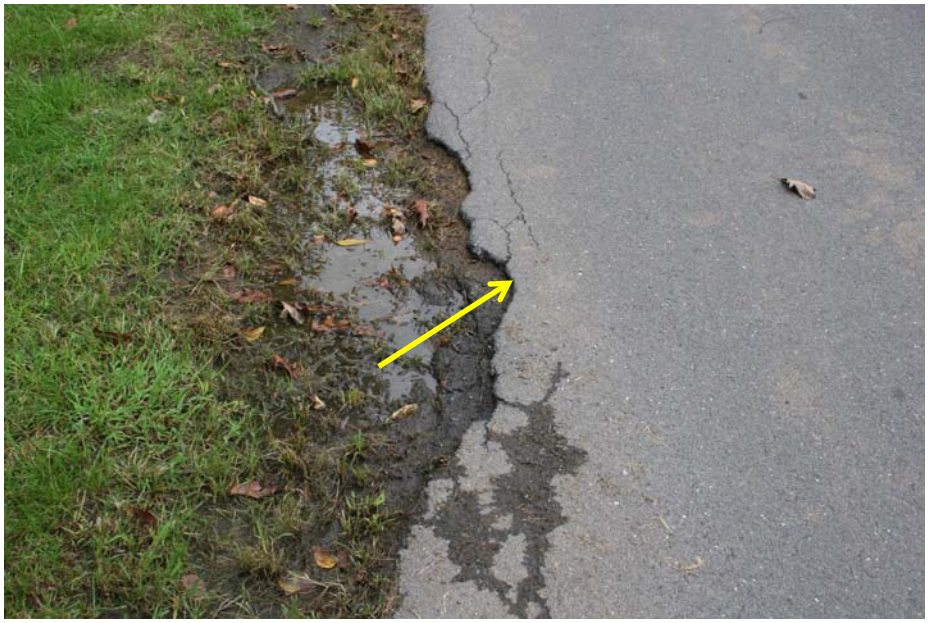

PHOTO #6
The arrow indicates an overlay thickness of less than 1 1/2", which may be the reason that the Tall Oak Drive section is now beginning to fail. This edge damage should be repaired in the 2014 repair cycle.

PHOTO #7
This is the worst damage, which has occurred since 2007 on the Douglas Drive cul de sac. This section is scheduled for repair in 2012.

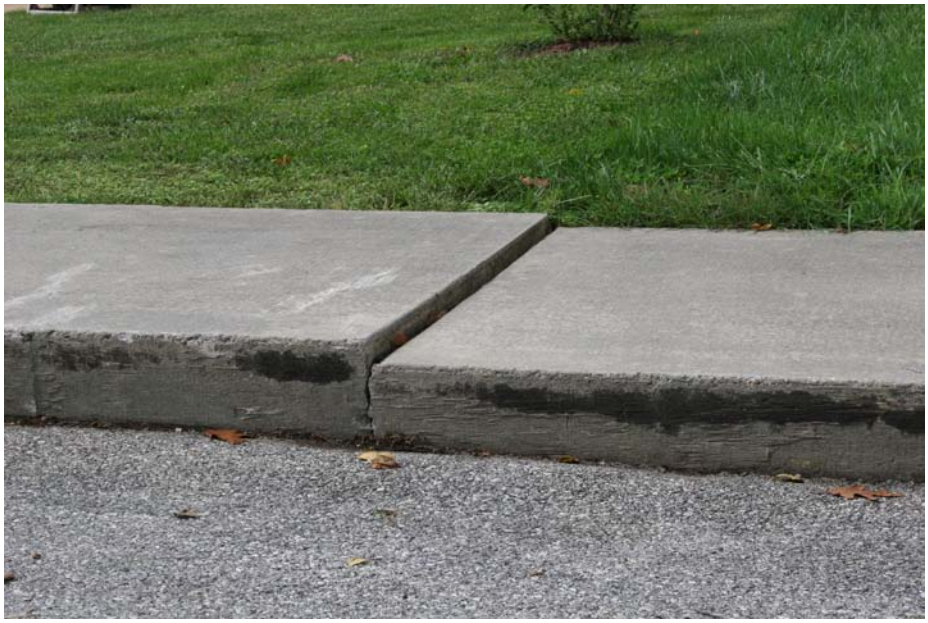

PHOTO #8
This is an example of differential settlement of adjacent sidewalk panels resulting in a tripping hazard requiring repair.

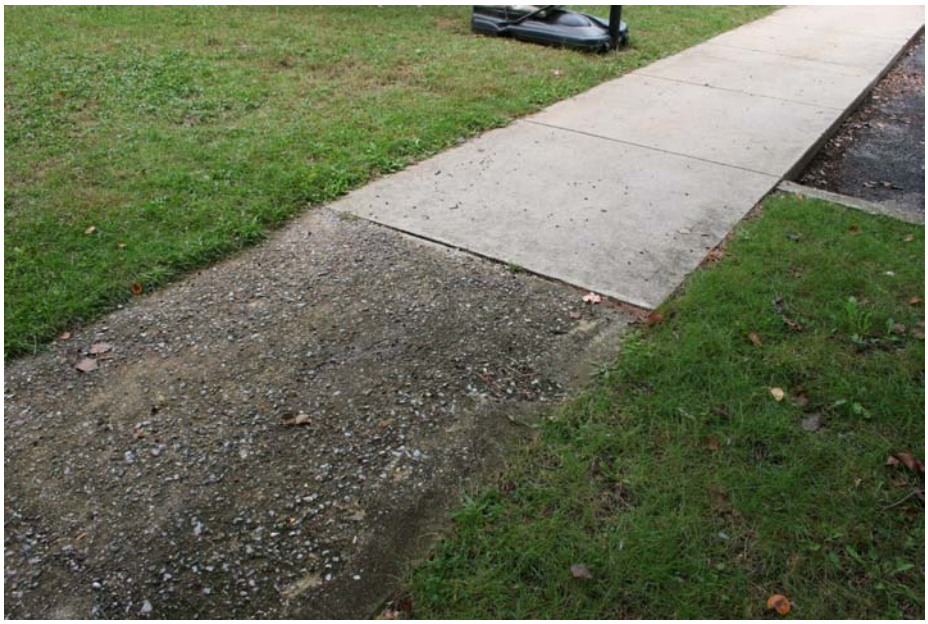

PHOTO #9
This is an example of severe surface scaling of a sidewalk panel requiring replacement.

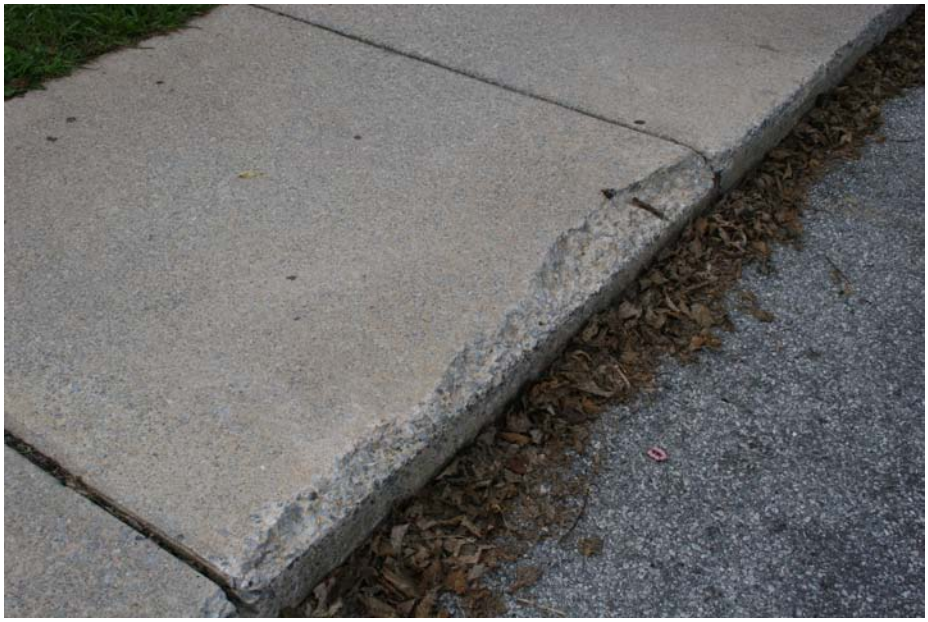

PHOTO #10
This is impact damage of sidewalk panels near the Central Mail Station. This type of deficiency could be a potential tripping hazard.

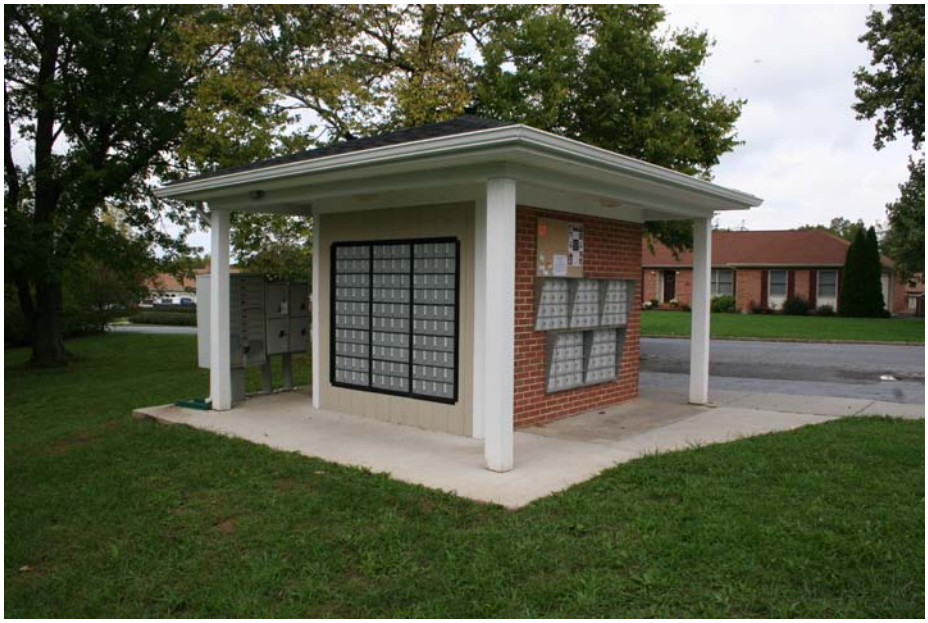

PHOTO #11
This is an overview of the Central Mail Station with new roofing and enlarged box facility. The structure should provide many additional service years with the repairs and improvements.

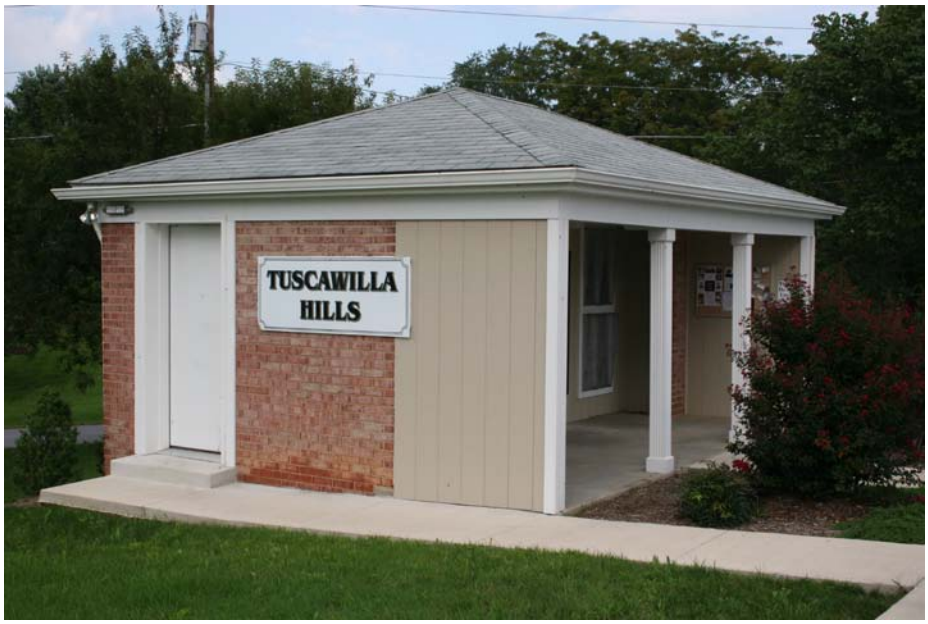

PHOTO #12
This is an overview of the Summit Point Mail Station with enlarged box facility and new carrier entrance. The structure should provide many additional service years with the repairs and improvements.

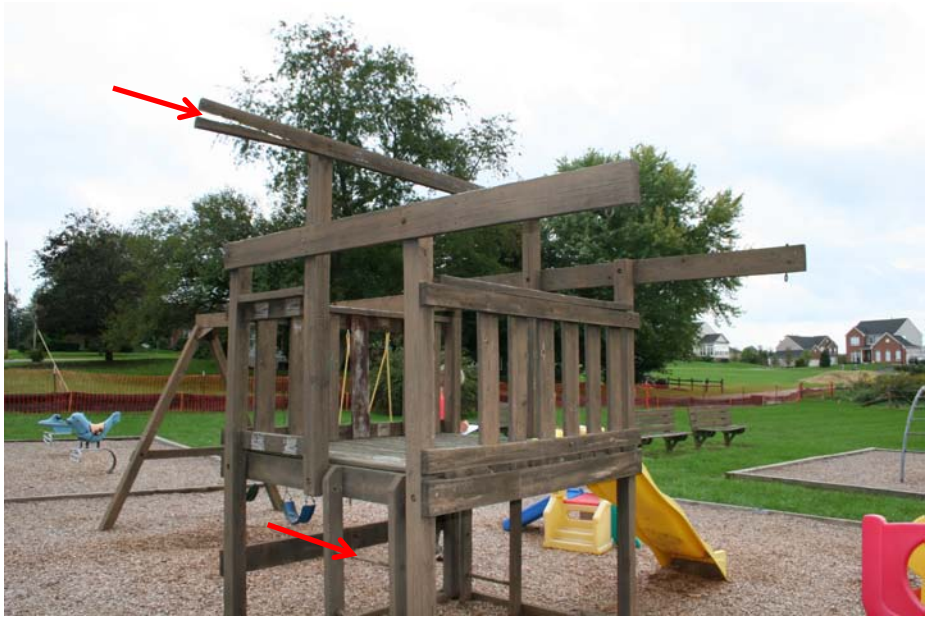

PHOTO #13
The wood play module is at the end of its service life and should be replaced for safety.

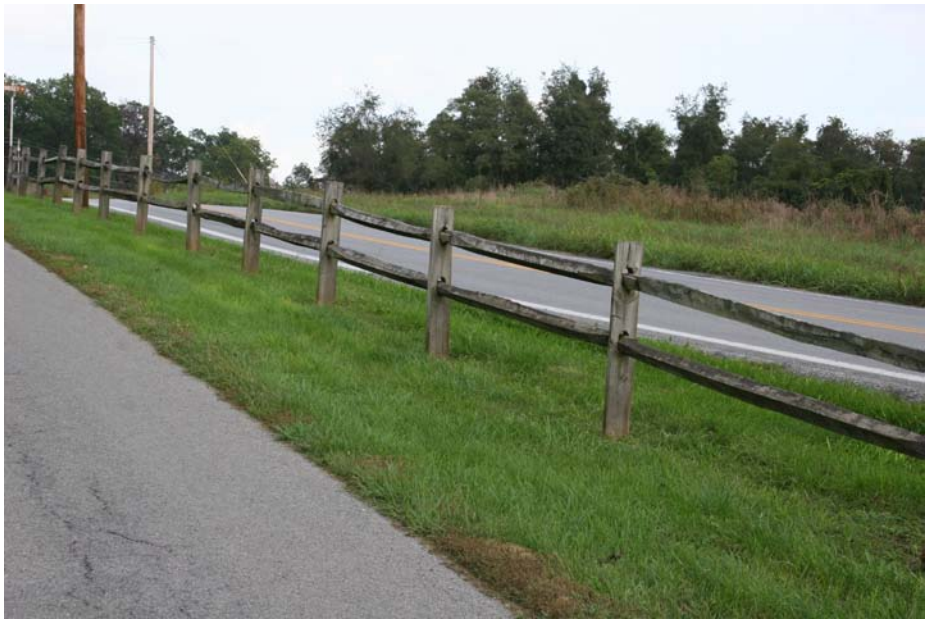

PHOTO #14
Split-rail fencing has benefitted from supplements from other fencing that was removed and replaced by vinyl fencing.

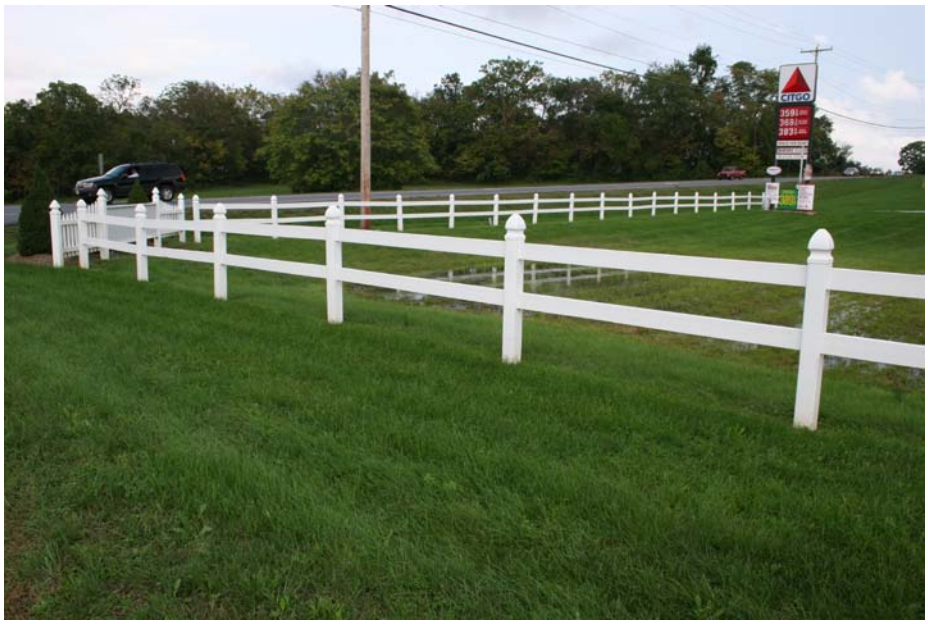

PHOTO #15
This the new replacement vinyl fencing that has been installed at the entrance and at Fenway Drive.