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September 28, 2004

Central Park Recreational Facilities Assoc.
49383 Central Park Boulevard
Canton, Michigan 48188

ATTENTION: Mr. Ibu El
Treasurer

SUBJECT: **REPORT OF CONDITION ASSESSMENT & CAPITAL RESERVE STUDY 2005**
Central Park Recreational Facility
Canton, Michigan
Synergy ENG Project No. 04.1057

Dear Mr. El:

Synergy ENG has completed a report of our Condition Assessment and Capital Reserve Study for the Central Park Recreational Facility located in Canton, Michigan.

The Central Park Recreational Facility ("the Facility") will have a predicted reserve balance on December 31, 2004 of approximately ~~$29,000~~ $17,750 UPDATED over the 20-year study period the facility is faced with a series of significant capital costs relating to the periodic maintenance and late-term replacement of asphalt pavements, site concrete, the tennis court and tot lot, swimming pool pump and filtration equipment, pool house roof and changing rooms.

In addition, significant capital costs are projected outside of the 20-year study period. These costs include late-term swimming pool restoration, and repeat-cycle pavement, tennis court, pump and filtration equipment and roof replacement.

As a result of both the in-cycle and late-term expenditures, our analysis indicates that the facility should contribute a sum of ~~$16,450~~ per year to the reserve fund from 2005, and increase this amount by 2.36% per year from 2006 (reference Table 3 in Appendix C, and financial overview section). This will allow for the funding of expenditures within the study period, and will allow the accumulation of $176,000 in the last year of the study period (2024). Such a significant reserve fund balance is required to offset the costs of expenditures occurring past 2024.

Please review this report, and advise us of any comments, corrections, or alternative funding scenarios you would like us to consider. If no changes are requested, please consider this the final version of our report of Condition Assessment and Reserve Fund Plan.

Very Truly Yours,
Synergy ENG

Benjamin J.M. Dutton, BSc (Hons), MCIOB, MRICS, RPA
Reserve Specialist

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Quality Assurance Review

ELEMENTS OF A RESERVE FUND PLAN

One of the most important assets held by a Community Association (Unit Owners Association, Homeowners Association, Cooperative, etc.) is its replacement reserve fund. The main goal of the fund is to protect property value, not only for common areas within a community, but also for individual residential (or commercial) properties within the community. Reserve funds protect property by providing the means to replace deteriorated capital assets before they become problematic, ultimately lowering property values.

The most common method of managing reserve funds has been the component method. In this method each common element requiring replacement reserve funds has its own separate "account" from which the community draws money when replacement is needed. Each "account" is allotted a percentage of the community's assessments in order to build the fund in anticipation of capital asset replacement. The percentage allotted for a particular capital asset is often related to that asset's replacement value and anticipated life in relation to the total capital asset value of all the community's common elements. The level of assessment is set so that each individual common element is adequately funded when the time for replacement occurs.

Another concept for managing reserve funds is the cash flow method. This method pools all of a community's reserve funds into one "account," from which the community draws funds for capital replacement needs. Reserve fund assessments are deposited entirely into the one "account." The level of assessment is set so that the replacement reserve fund stays above a minimum level, usually set as a percentage of the community's total capital asset value. The minimum level, or percentage depends on a variety of factors, such as condition and age of the community.

Comparison of the two analysis methods reveals that in using the component method, a community's replacement needs are often either over funded, as a total reserve balance, or under funded for individual reserve components, and assessment requirements tend to vary from year to year. Using the cash flow method, communities can adequately fund their capital asset replacement needs while maintaining lower, consistent assessments.

The reserve fund is only one aspect of a reserve fund plan. In order to know if a property is adequately funded, a Community Association must know how and when the reserve fund will be spent, and how and to what level the fund must be replenished. This is accomplished through a reserve study.

To develop a reserve fund plan, Synergy ENG observes and documents the condition of common property elements or systems, and assesses whether or not the systems are functioning properly and when the systems will require replacement. Synergy ENG estimates replacement costs by taking into account reliability of systems currently in place, our experience with potential alternative systems, constructability of replacement systems, and the potential for unforeseen circumstances. Using the replacement cost data developed for the study, we analyze the reserve fund requirements for the community. Our analysis method is a hybrid of the previously described cash flow and component methods.

First, we summarize the replacement cost data for each component of common community property, summing the replacement cost of each component to arrive at the total capital asset value of the property. During this phase of the study, we may include maintenance items, and we may not include items that are truly reserve replacement items. The rationale for adding or deleting items is primarily cost. Maintenance items that are performed regularly and tend to be costly may be included, while items that require infrequent replacement and whose cost is insignificant need not be included.

Then we estimate the timing of replacements over the 20-year study period based on the observed property conditions and our experience with similar common elements. It is important to recognize that the information provided by the reserve study is not a mandate for managing and maintaining the community's common property. Often items are not replaced which have been scheduled for replacement in the study. Further, there may be certain items that are somewhat discretionary from a replacement standpoint, and their replacement timing or value can vary according to the goals of the community.

Next we look at the required reserve expenditures for each year of the study period, allowing us to look ahead for years when large expenditures are likely. From this spending forecast we can determine if complete replacement of a component can be funded, or if a Phased approach is required. Occasionally, replacement of a particular component may be hastened or deferred in order to more evenly distribute expenditures from year to year.

Once the timing of replacements is estimated, we determine the required reserve fund contribution for each common property component or system in each year of the study. The sum of all component contributions in a particular year is the contribution that would be required in that year by the component method of analysis.

Finally, for each year of the study period we sum the contributions and expenditures to determine if the property is adequately funded, and if not, what will be required to reach proper funding levels. Using the cash flow method, we determine an appropriate minimum level of funding for the community's common property replacement needs. Then we analyze different funding scenarios to arrive at a realistic recommendation for the community's reserve fund contributions.

The final report contains a considerable amount of information. To help understand where to find the appropriate information for a particular question, we offer the following description of the report contents.

Although the descriptive text of the report is presented up front, and the financial data is presented as appendices, that does not mean that the text supersedes the tables in the appendices. On the contrary, when the report is used as a planning tool, which is its ultimate purpose, the tables in the appendices are the most important part of the report. It is important to understand that ***these tables represent a model and not a mandate***. The text is supplemental to the appendices and need not be read cover to cover. Once a reserve fund plan is implemented and a particular component requires replacement, the text can provide guidance regarding appropriate replacement systems and techniques.

The report text is broken down so that similar or related building or site systems are grouped into sections. Each section is further broken down into three parts – Description, Condition, and Recommended Repairs/Replacements. In that manner, we describe each component, assess its condition, and recommend repairs or replacements. We have provided an explanation of our estimate in cases where we encountered unusual conditions or made basic assumptions.

Appendices consist of a series of tables that we have developed in conjunction with property managers. Table 1 and Table 2 summarize the anticipated expenditures by system and by year, respectively. Table 3 is a Cash Flow Summary, which illustrates how the reserve fund is affected by the annual reserve contributions and projected expenditures. Table 4 is a summary of required reserve fund contributions by component, for the predicted expenditures. Allocations of the existing reserve fund balance are made relative to individual component service life and repair/replacement cost. Often, we will show cash flow summaries for more than one funding scenario, to demonstrate the effect of increasing or decreasing reserve contributions. These scenarios can then be used to determine how a

community can best fund their capital assets. In addition to the Cash Flow Summary tables, we provide a bar chart plotting expenditures and reserve balances by year, and a line graph illustrating the funding level versus recommended ranges. Tables 1, 2 and 4 reference text sections for descriptions of components and their replacement needs. The tables and charts that make up Table 3 provides the answers to the following questions:

Are we adequately funded to meet our capital replacement needs?

and if not . . . . . .

What will it take to bring our reserve fund up to an appropriate level?

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APPENDICES

INTRODUCTORY SUMMARY

The Central Park Recreational Facility is a residential recreational complex located at 49383 Central Park Drive in Canton, Michigan. The facility consists of various site features, recreational amenities and a pool house developed circa 2000.

Site features that are the responsibility of the Central Park Recreational Facility Association, Inc. ("the Association") includes an asphalt-paved parking area, concrete sidewalks and curbs, entrance and site signage, pole-mounted lights and landscaping, site furniture, and portions of the community-wide stormwater management system.

Recreational features and amenities include a single asphalt-bound tennis court and associated net accessories, an in-ground swimming pool, a cast-in-place concrete pool deck and tot lot, perimeter chain-link and metal picket fencing, pool pump and filtration equipment, and pool furniture. Building features include the exterior roof and wall systems at the pool house; interior finishes within the restrooms and changing rooms, and includes the pool house mechanical, electric and plumbing installations.

Synergy ENG was requested to perform a Condition Assessment and develop a Reserve Fund Plan for the community. This effort included an evaluation of the community condition, and an estimate of life-cycle costs and reserve expenditures for common elements of the community. This report summarizes our findings, provides recommendations for repairs and replacements, and includes a Reserve Fund Plan for anticipation of future spending needs.

It should be noted that our scope of services did not include sampling, testing or evaluation of suspect asbestos-containing materials, lead-based paint, lead in drinking water, radon, indoor air quality, mold or other hazardous materials or environmental issues.

On September 24, 2004, Benjamin Dutton, R.S. of Synergy ENG visited the community to quantify and assess the condition of the community common elements. The survey was visual in nature, and involved no destruction to gain access to hidden conditions. Mr. Ibu El, the Association Treasurer, assisted Synergy ENG on site and provided additional information.

This report summarizes our findings, provides brief descriptions of the components, describes their condition, provides recommendations for corrective action, and includes a Reserve Fund Plan for anticipating future spending needs. Photographs of observed conditions are provided in the attached appendix. All information presented is based on the condition of common elements at the time our survey is conducted. Reserve Fund Plan cost data is based on published construction cost data, conversations with local contractors, cost information provided by the community manager for previous and planned expenditures, and experience with similar projects. Actual construction costs can vary significantly due to time of season, material costs, material availability, unforeseen conditions, and other factors beyond our control. Explanations of the Reserve Fund Plan tables are provided in the attached appendices.

Section Four of this report includes various community specific maintenance protocols. Reference is made to these protocols throughout this report.

1.0 SITE FEATURES

Site features that are the responsibility of the Association include an asphalt-paved parking area, concrete sidewalks and curb and gutter, entrance and site signage, pole-mounted lights and landscaping, site furniture and portions of the community-wide stormwater management system.

1.1 Description

Asphalt pavement under the control of the Association includes the asphalt-paved parking lot at the side of the pool house. Table 1-1 summarizes asphalt-paved areas.

Table 1-1 Asphalt Paved Areas

Area of Asphalt Pavement (s.y) [1]	No. of Parking Stalls [2]
2,325	39

1. S.Y. indicates square yards
2. Includes two stalls marked as accessible

Cast-in-place concrete sidewalks are provided at portions of the parking lot perimeter, at the tennis court entrance, and adjacent to the front and side building entrances. Sidewalks are typically 6' to 7' wide, and appear to consist of standard 4 - 5" thick welded-wire-mesh reinforced concrete slabs.

Standard profile cast-in-place concrete curb sections with contoured gutters are provided at the perimeter of the parking area. Table 1-2 summarizes the approximate area of concrete site features.

Table 1-2 Area of Concrete Site Features

Sidewalks (s.f.) [1]	Curbs (l.f.) [2]
3,175	635

1. s.f. indicates square feet. Quantity includes 715 square feet of concrete apron at parking lot entrance
2. l.f. indicates linear feet

Various traffic enforcement signs consisting of prefinished steel sign panels supported on perforated painted steel posts are provided at the parking lot perimeter. Entrance signs consist of two painted wood sign panels with engraved lettering supported on a brick monument and provided at the parking lot entrance.

Four 15' tall painted steel light poles supporting domed heads are provided at the perimeter of the parking lot. Light-poles are supported on cast-in-place concrete piers. Landscaping at the community consists of numerous grassed-lawn areas, semi-mature trees, shrubs and planters.

Site furniture consists of ten metal-framed picnic tables, a single metal-framed bench and three trash bins. Storm water at the facility is collected in surface-recessed drainage inlets, and conveyed via reinforced concrete pipe (RCP) to the City maintained stormwater management system.

1.2 Condition

The asphalt-paved parking lot is generally in good condition. However, we noted localized areas of pavement cracks (reference Photograph 1 in Appendix E) and faded surface markings, localized areas of rutting and surface damage (reference

Photograph 2 in Appendix E), and areas of apparent subbase settlement due to overloading of the pavement section (reference Photograph 3 in Appendix E).

$1,600 Concrete slab

Overloading of the pavement was contained to the location where the dumpster unit was placed directly on the pavement surface. Our experience with similar communities and our observation of present site conditions indicates that if the dumpster unit is allowed to remain on the pavement surface advanced deterioration of adjacent pavement areas will take place. Therefore, we recommend that the community budget an allowance of approximately $1,600 for the installation of a 5" thick welded-wire-mesh reinforced concrete slab at this area. As a newly installed component and not a replacement project, this cost is not included within this reserve fund plan.

As the pavements continues to age and deteriorate a structured repair program will extend the useful life of the pavement, reduce the need for reactive repairs and replacements, and in the long-term, reduce reserve expenditures relative to the pavements. The recommendations detailed in section 1.3 and within the attached maintenance protocols provide this structured maintenance and repair program.

Concrete sidewalks are generally in fair to good condition. However, we noted six cracked sidewalk sections (reference Photograph 4 in Appendix E). We have recommend budgeting an on-going yearly allowance for the replacement of cracked, settled, spalled or otherwise deteriorated concrete sidewalks throughout the study period.

Concrete curb and gutter sections are generally in good condition. However, we noted ten cracked curb section, one settled section and four spalled sections (reference Photograph 5 in Appendix E). Similar to the approach adopted for sidewalk replacement, we recommend that a yearly allowance be made for replacement of deteriorated curb and gutter sections.

included in Study as PM?

Site and entrance signs are generally in good condition. However, we noted localized corrosion at signposts, and noted peeled paint and deteriorated wood sections at the entrance sign panels (reference Photograph 6 in Appendix E). Assuming the cleaning, priming and repainting of signposts, and the repainting of entrance sign panels near-term as an operating expense, replacement of signs is not anticipated until mid-term.

Light poles are in good condition and are reportedly fully operational. We have recommended that an allowance be made for the late-term replacement of heads, refinishing of poles and the localized replacement of electrical components. Landscaping and site furniture is in good condition.

No problems with the adequacy or performance of the stormwater management system were reported to us or observed. However, as the system ages it is prudent to reserve funds for as-needed repairs or replacements.

1.3 Recommended Repairs/Replacements

The following repairs are included in the reserve tables in the attached appendices.

1.1 - We recommend crack filling, seal coating and re-striping the asphalt-paved parking lot every five years from 2005, except when pavements are resurfaced. Our opinion of cost for each cycle of crack filling, seal coating and re-striping is $2,325. This cost assumes the application of a two-coat

bituminous-based seal coat. Reference Maintenance Protocols 1 & 2 in Section 4.

1.2 - We recommend that an escalating allowance be made for the removal and replacement of areas of settled pavement, rutting and alligator cracking. Our opinion of cost includes for removal of failed asphalt to the stone subbase course and installing new asphalt and stone as necessary. Cost assumes that this work is completed every five years from 2010 in conjunction with seal coating and resurfacing cycles. Reference Maintenance Protocol 3 in Section 4.

SHOULD WE COORDINATE W/ PHASE I & II WORK THERE PAVEMENT IMPROVEMENTS?

1.3 - Asphalt resurfacing (mill and overlay) is typically needed about every 20 to 25-years. Our opinion of cost to complete a 1 ½" mill and overlay of the asphalt-paved parking lot is $23,250 in 2020. Cost includes for the installation of a geotextile fabric prior to the overlay to help retard reflective cracking. Reference Maintenance Protocol 4 in Section 4.

1.4 - The reserve tables include a variable allowance to replace cracked, settled and spalled concrete sidewalks every year starting in 2005. Reference Maintenance Protocol 5 in Section 4.

1.5 - The reserve tables include a variable allowance to replace cracked, settled and spalled concrete curb and gutter sections every year starting in 2005. Reference Maintenance Protocol 6 in Section 4.

1.6 - We recommend that a sum of $2,100 be budgeted for replacement of site signage in 2014. Reference Maintenance Protocol 7 in Section 4.

1.7 - The reserve fund tables include an allowance of $1,500 for the replacement of entrance signs in 2014. This replacement cost and schedule assumes replacement with high-density urethane (HDU) sign panels. HDU signs maintain the same appearance as wood signs but require less maintenance and typically last in excess of 15-years. Reference Maintenance Protocol 8 in Section 4.

1.8 - The reserve tables include a sum of $10,000 for refinishing of light poles and replacement of fixtures in 2025. Reference Maintenance Protocol 9 in Section 4.

CAN THAT COST HOW MUCH WAS CURRENT FIXTURES?

1.9 - The reserve tables include a sum of $2,800 for the replacement of site furniture in 2021.

EXTERIOR FURNITURE NOT PATIO FURNITURE

1.10 - The reserve tables include a sum of $5,000 every five years for the as-needed repair and localized replacement of the stormwater management system.

2.0 RECREATIONAL FEATURES & AMENITIES

Recreational features and amenities include a single asphalt-bound tennis court and associated net accessories, an in-ground swimming pool and cast-in-place concrete pool deck a tot lot, perimeter chain-link and metal picket fencing, pool pump and filtration equipment, and pool furniture.

2.1 Description

A single asphalt-bound at-grade tennis court is provided adjacent to the pool house. The tennis court has a playing surface area of approximately 120 x 60 feet. The tennis court surface is coated with a multiple-layer acrylic-based color coat. A 10-foot tall-coated steel chain-link fence is provided at the tennis court perimeter. Tennis court accessories include a net and posts.

A tot lot is provided at the rear of the pool house. The tot lot contains a single prefabricated fiberglass and steel unit, a steel-framed swing unit and a fiberglass critter. The tot lot is set within a bark bed and enclosed with fiberglass ties.

A common use in-ground swimming pool is located at the rear of the pool house. The pool is configured rectangular in plan, and has a surface area of approximately 1,182 square feet, a depth of 3 to 5 feet, a perimeter measurement of 160 linear feet and a volume of approximately 35,070 gallons. A review of available drawings indicated that the pool is of typical gunite construction with an 8" mild steel reinforced wall and floor structure, marcite whitecoat, cast stone bullnose coping and ceramic waterline tile accents.

A cast-in-place at-grade concrete deck surrounds the pool. A review of available drawings indicated that pool deck was designed as a 5" thick cast-in-place concrete slab reinforced with welded-wire-mesh and sloped away from the pool structure at an angle of ¼" per 1'. The pool deck measures approximately 1,995 square feet and is enclosed by a 48" tall steel picket fence consisting of 5/8" square pickets placed on surface-mounted 2" square railing posts placed at 72 ½" on-center.

The swimming pool pump and filtration equipment is of a modern design incorporating PVC components. The filtration and pump system consists of a 36" diameter Triton II TR-140 one-piece commercial fiberglass reinforced 7.06 square feet high-rate sand filter, a 3-horsepower A.O. Smith centrifugal electric pump and strainer assembly (Model # K56P2P102, Serial # 5RT25AEZ), a Stenner® duplex automatic chemical feed system (Model # 45M5), PVC schedule 40 piping, a manually operated PVC control valve system, and a 399,000 British Thermal Unit per hour (BTU/HR) capacity gas-fired pool heater (Model # LG400NX, Serial # C01PF0797). A single Square D® 18-unit electric panel board and various switches are located within the pool pump room.

Deck furniture consists of 34 aluminum-framed loungers and 13 chairs with vinyl strapping.

2.2 Condition

The tennis court is in good condition. However, we noted localized areas of ponded water, localized failure of the acrylic color coat (reference Photograph 7 in Appendix E), improper edge stabilization, and differential movement and settlement between the court structure and fence post piers. We have recommended that an in-depth

hot mix asphalt overlay be completed at the tennis court mid to late-term. Drainage and subgrade improvements, and replacement of net posts should also be completed at this time. In the interim, we recommend that the Association adopt a proactive approach to the sealing of settlement cracks at fence posts, and the periodic re-application of the court color coating.

not included →

The tot lot is in good condition. We recommend that the Association complete periodic safety inspections, followed by mid to late-term replacement.

The swimming pool appears to be in good condition with no significant instances of settlement or other distress noted or reported to us. We have recommended that an allowance be made for the on-going re-application of the pool white coat, the cyclical replacement of cracked, delaminated and spalled coping and waterline tiles, and late-term restoration.

included? →

The pool is not provided with a cover. Our experience with similar communities is that the white coat, perimeter accents and the pool structure typically last longer if pools are covered in the off-season. As such, we recommend that the Association budget an allowance of approximately $5,300 for the installation of a pool cover near-term. As a newly installed component and not a replacement project, this cost is not included within this reserve fund plan.

not included →

The pool deck is in generally good condition. However, we noted instances of longitudinal and traverse concrete cracks (reference Photograph 8 in Appendix E). We have recommended that an allowance be made for the cyclical replacement of the pool deck throughout the study period, followed by full replacement is conjunction with the pool restoration project.

The steel picket fence enclosing the pool deck is in good condition. However, we noted numerous instances of corrosion, and noted that picket and railing sections were field welded and not jointed together. This is likely to result in the need to complete reactive repairs, and will eventually reduce the useful life of the fence. We recommend that the Association budget an operating allowance for the cleaning, priming, repainting and repair of the fence every three to five years, followed by the budgeting of a reserve allowance for eventual late-term replacement.

The pool pump and filtration equipment, and related components installed within the pool pump room appear to be in good condition and are reportedly fully operational. However, only minimal ventilation is provided within the pump room leading to the build-up of chlorine-laden air resulting in the advanced corrosion of metallic components. Management may wish to consider the installation of passive or mechanical ventilation within the pool pump room to aid in the dissipation of chlorine-laden air.

Pool furniture appears to be in good condition. We have recommended that an allowance be made for near-term replacement of vinyl straps followed by mid-term replacement of the furniture.

2.3 Recommended Repairs/Replacements

The following repairs or replacements are included in the reserve fund tables in the attached appendices:

2.1 - We recommend that an allowance of $4,500 be made for the application of a multiple coat acrylic color coat at the tennis court every five years from

2007 done

2006 except at the time of court resurfacing. Prior to application of the color coat, areas where water ponds should be corrected by patching with an appropriate patching product, and possibly finished with one or more applications of an acrylic resurfacer. The acrylic resurfacer is intended to blend the patching with surrounding areas to a uniform texture. In addition, cracks should be filled, and areas of subbase settlement should be removed and replaced. Reference Maintenance Protocol 10 in Section 4.

2.2 - We recommend that an allowance of $15,000 be made for a 1" hot asphalt overlay and as-needed full depth repair of the tennis court in 2020. To improve adhesion of the overlay to the existing slab or leveling course, a tack coat or a bond coat of emulsified asphalt should be used. Prior to the 1" overlay, a leveling course of dense asphalt may be necessary for correcting the planarity of the court surface. Note this resurfacing date assumes periodic repair and reapplication of the acrylic color coat. Reference Maintenance Protocol 11 in Section 4.

2.3 - The reserve fund tables include a sum of $6,000 for the replacement of the tennis court perimeter fence in conjunction with each overlay cycle. Reference Maintenance Protocol 12 in Section 4.

2.4 - We recommend that a sum of $15,000 be made for replacement of the tot lot in 2016 and every fifteen-years thereafter. Reference Maintenance Protocol 13 in Section 4.

2.5 - The reserve fund tables include a sum of approximately $5,300 for the periodic re-application of the swimming pool white coat every seven years from 2007, except at the time of the pool restoration project. Reference Maintenance Protocol 14 in Section 4.

2.6 - We recommend budgeting a variable amount every three years for the replacement of cracked and delaminated coping stones and waterline tiles at the pool from 2007. Reference Maintenance Protocols 15 & 16 in Section 4.

2.7 - We recommend that funds be allocated to complete a "pool restoration project". This project should include repairing failed or deteriorated structural beams and wall sections, replacing deteriorated lights and strainers, installing a dual-drain system, and completing necessary accessibility upgrades. Our opinion of cost for this project is $41,370 in 2035. Reference Maintenance Protocol 17 in Section 4.

What is dual drain system? Don't we have this?

2.8 - The reserve fund tables include an escalating allowance for the cyclical replacement of the pool deck every five years from 2010, with full replacement of the deck scheduled to coincide with the pool restoration project. Reference Maintenance Protocol 18 in Section 4.

2.9 - The reserve tables include a sum of $7,350 for replacement of the pool deck perimeter fence in 2021, and every 20-years thereafter.

2.10 - The reserve tables include a sum of $12,500 in 2017 and every fifteen years thereafter for replacement of the main pool pump and filtration equipment and chlorination system. This cost assumes a replacement cost of $4,500 for the Triton filter, a cost of $1,000 for the chlorination system, and a cost of $7,000 for the pool pump and strainer assembly.

2.11 - We recommend that an allowance of $4,000 be made for replacement of the gas-fired pool heater in 2012.

2.12 - The reserve fund tables include a sum of $2,000 for replacement of electrical installations within the pool pump room in 2010. Reference Maintenance Protocol 19 in Section 4.

2.13 - The reserve tables include a sum of $3,000 in 2009 and every ten years thereafter for the re-strapping of pool furniture.

2.14 - We recommend that a sum of $6,075 be made for the replacement of pool furniture every ten years from 2014. This cost assumes a unit rate of $75 per chair, and $150 per lounger.

3.0 POOL HOUSE

The pool house is of wood-framed construction supporting a steep asphalt-shingled roof, with aluminum gutters and downspouts, a combination of brick and Hardiplank® shakes and siding exteriors, painted wood trim and paneling, building-mounted and soffit recessed lights, wood-framed sash windows and metal panel entrance doors. Table 3-1 summarizes the area of the pool house.

Table 3-1 Pool House Areas & Quantities

Element	Quantity or Area
Roof	2,495 square feet
Gutters & Downspouts	225 linear feet
Brick	1,110 square feet
Hardiplank®	1,320 square feet
Doors	3
Windows (small)	24
Windows (large)	8
Soffit Recessed Lights	12
Building-Mounted Lights	4

3.1 Description

Roofs, Gutters and Downspouts

The roof system at the pool house consists of a gable roof covered with architectural fiberglass roof shingles attached to wood decking boards over a 2 x 8" wood structure. Roof ventilation is achieved through aluminum soffits vents and ridge vents. Drainage is achieved through painted steel gutters provided at the front, side and rear roof edges. Gutters discharge to steel downspouts that drain to precast concrete splash blocks.

Exterior Wall Systems

The exterior wall system consists of a combination of a brick veneer and a compressed hardboard siding and shakes ("Hardiplank®"). Painted wood trim is used as rake boards and building trim, with painted plywood panels provided as column and post covers. Windows are double-glazed sash units set in wood frames. Doors consist of painted steel panel doors.

Other Building Features

A series of metal-halide spotlights are recessed into the gypsum board soffit provided at unenclosed portions of the pool house. Various wall-mounted carriage lights are also located at the front and rear of the pool house.

Three painted steel picket gates restrict access to the pool house and pool area. The gates are controlled by a magnetic access control system. The system appears to consist of two components; a 600-pound rated electromagnetic assembly and strike plate, and a one-amp power-source with battery back-up.

Interior Finishes & Equipment

Interior finishes include finishes within the male and female changing rooms. Finishes include painted gypsum board walls and ceilings, sheet flooring, prefinished steel partitions, prefabricated fiberglass shower stalls, and vitreous china fixtures and fittings. Unenclosed portions of the building interiors are left unfinished and are provided with an exposed concrete slab-on-grade floor.

Service & Mechanical Installations

A single 80-gallon residential electric powered Bradford White® water heater (Model # MI80R6DS13, Serial # XA3031908) provides heated water for the rest rooms and showers. Two drinking fountains are located at the rear of the pool house.

3.2 Condition

Roofs, Gutters and Downspouts

The shingled roof and associated gutters and downspouts appear to be in good condition. Synergy ENG viewed the underside of the exposed roof structure and noted no significant instances or evidence of present or historic water ingress or other related concerns.

The typical useful life of fiberglass shingles is twenty to twenty-five years. Based upon the roof conditions observed, the use of relatively high quality shingles, and an installation date of circa 2000, we recommend budgeting for the replacement of the roof system in 2021. Gutters and downspouts, vents and flashing should be replaced at the same time.

When expressing an opinion of cost for roof replacement we have considered that any roof replacement project would generally follow the following guidelines:

- Removal and disposal of the existing roof shingles and saturated-felt underlayment
- Removal of deteriorated roof sheathing. Cost assumes replacement of 15% of roof sheathing
- Installation of ice and water shield and aluminum flashing at the drip edge
- Installation of saturated-felt underlayment and 30-year fiberglass shingles over underlayment. Shingles to be attached with galvanized nails
- Removal and replacement of gutters and downspouts, flashing and ridge vents

Exterior Wall Systems

The brick veneer, siding, shakes, and wood trim and paneling appear to be in good condition. However, we noted localized instances of rotted wood trim. We have recommended that an allowance be made for the periodic replacement of deteriorated trim in conjunction with painting cycles, and for the late-term replacement of siding and shakes.

Windows and metal panel doors are generally in good condition. However, we noted localized corrosion at the base of the entrance door provided at the pool pump room. Continued exposure to chlorine-laden air is likely to result in premature failure of the pool pump room door.

Other Building Features

Soffit recessed lights, building-mounted lights, and the access control system appear to be in good condition and are all reportedly fully operational. We have recommended the late-term replacement of these components.

Interior Finishes & Equipment

Interior finishes and equipment appear to be in generally good condition. However, we understand that water damage to the gypsum wallboard has occurred within each shower area. Replacement of deteriorated wallboard is recommended near-term, with full refurbishment of the changing rooms recommended mid to late-term.

The slab-on-grade concrete provided at unenclosed portions of the building is in fair to good condition. We noted approximately 780 square feet of severely cracked and heaved concrete (reference Photograph 9 in Appendix E). We recommend that the community rout and seal cracks near-term followed by replacement of the cracked and heaved concrete within the next two years.

Service & Mechanical Installations

The electric water heater appears to be in good condition. However, the water heater is situated within a corrosive environment. Due to the location of the water heater, replacement is recommended near to mid-term. Drinking fountains appear to be in good condition.

3.3 Recommended Repairs/Replacements

The following repair or replacement items are included in the reserve tables.

3.1 - The reserve fund tables include a sum of approximately $8,700 for replacement of the roof system in 2021. Reference Maintenance Protocol 20 & 21 in Section 4.

3.2 - We recommend budgeting a sum of $6,600 for replacement of siding and shakes in 2035.

3.3 - The reserve fund tables include an allowance of $800 every 10 years from 2011 for replacement of deteriorated bricks and mortar, and for the cleaning of stains. Reference Maintenance Protocol 22 in Section 4.

3.4 - The Internal Revenue Service (IRS) does not consider painting as a reserve expenditure. However, we recommend budgeting a reserve allowance of $300 for the replacement of deteriorated wood trim and paneling in conjunction with painting cycles. Reference Maintenance Protocol 23 in Section 4.

3.5 - The reserve fund tables include an allowance of $9,600 for the replacement of windows in 2035.

3.6 - We recommend budgeting a sum of $450 in 2010 for replacement of the pool pump room door, and $1,350 in 2019 for replacement of all doors. Reference Maintenance Protocol 24 in Section 4.

3.7 - The reserve fund tables include an allowance of $1,500 for the replacement of soffit-recessed and building-mounted lights in 2015. Reference Maintenance Protocol 25 in Section 4.

3.8 - We recommend making an allowance of $3,500 for the replacement of the access control system in 2019.

3.9 - The reserve fund tables include an allowance of $1,000 for the replacement of deteriorated gypsum wallboard in 2005.

3.10 -We recommend making an allowance of $15,000 for the refurbishment of changing rooms and for replacement of plumbing fixtures in 2017.

3.11- The reserve fund tables include an allowance of approximately $7,000 for the replacement of cracked and heaved slab-on-grade in 2006.

3.12- We recommend budgeting a sum of $800 for replacement of the electric water heater in 2010.

3.13- The reserve fund tables include a sum of $2,400 in 2026 for replacement of the drinking fountains.

4.0 MAINTENANCE PROTOCOLS

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

This section includes protocols for many, but not necessarily all, components in the study. Items for which no maintenance is necessary, appropriate, or beyond the purview of this report are not include in this section.

1. Asphalt Seal Coating: The purpose is to seal and add new life to a roadway surface. It protects the existing pavement but does not add significant structural strength. A surface treatment can range from a single, light application of emulsified asphalt as a "fog" seal, to a multiple-surface course made up of alternate applications of asphalt and fine aggregate. Seal coating of all asphalt pavements should be performed at approximately five-year intervals. The material used should be impervious to petroleum products and should be applied after crack filling, oil-spot cleaning, and full-depth repairs have been accomplished. Seal coating is a cost-effective way of extending the life of asphaltic concrete pavement. Seal coating is generally not scheduled for up to five years after cycles of pavement mill and overlay.

2. 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.

3. 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.

4. Asphalt Mill & Overlay: 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.

5. 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. Concrete Curb & Gutter: 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.

7. Street Signs: Standard painted metal street signs generally require very little maintenance over their useful service life. Signage tends to fade due to environmental exposure. Periodic cleaning of rust and repainting the posts will maintain appearance. There is little that can be done with the signs except to replace them periodically. Out of plumb posts should be straightened.

8. Entrance Signage: The wood components of entrance signs should be periodically cleaned of loose paint, lamination cracks should be re-sealed, and the sign repainted to maintain appearance. Out-of-plumb posts should be straightened and secured.

9. Light Poles: Outdoor lighting has a limited service life because of the accelerated aging process due to weather extremes. Remediation of the pole fixtures is a viable alternative to full replacement and would include painting the poles along with lamp housing replacement, including ballasts and capacitors. Any poles observed to be out of plumb should be straightened. Periodic cleaning of peeling paint and rust, priming and re-painting of poles and fixtures will help extend the useful service life.

10. Tennis Court Color Coat: Color coating extends the life of the surface if cracking and other surface problems are not present. An average five-year life for color coating is scheduled, except within a year or two of scheduled surface overlay. Any cracking around net post footings should be sealed to prevent moisture infiltration.

11. Tennis Court Surface Overlay: Court surface overlays are usually required when settlement of the sub-base causes cracks to appear at the surface. Direct overlays usually allow any cracks to migrate (reflective cracking) to the new surface. A technique to eliminate this problem is to separate the old surface from the new surface with a layer of fine marble dust. This allows the two surfaces to move independently and results in a more stable top surface. Net post footing displacement caused by over-tensioning of the net cable also results in court surface damage. However, the footings can be replaced without overlaying the court. In this region, tennis courts usually give about fifteen years of service before this procedure is necessary. Some courts fail much sooner and some last much longer. It is prudent to plan for overlay now because of the large expense involved if required. Good maintenance practices, including frequent sweeping, periodic color coating of the surface and proper tensioning of the net cable can extend the service life of tennis courts.

12. Chain Link Fencing: Very little maintenance is necessary for chain link fencing and gates. Periodic removal of encroaching vegetation should be performed to prevent damage to components. Damaged components should be repaired or replaced. Rusted fencing components may be painted to improve appearance.

13. 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.

14. Pool White Coat: Pool white coating seals the pool surface and helps prevent water infiltration into the structure of the pool. White coat generally has a service life of 7 to 10 years. Prior to white coating, the old surface must be cleaned and sandblasted or acidized to prepare the surface to accept the new white coat. Surfaces adjacent to all fittings, lap lane tiles, waterline tiles, and lights must be prepared by chipping the surface so that the new plaster feathers in around the edges. Any damaged tiles or coping or loose or hollow plaster in the pool shell should be removed and repaired prior to white coating. Sometimes a bond coat will be applied to increase adhesion. White coating should be done on a dry day when temperatures will remain above freezing. The pool should be refilled immediately, the filter system started, and the surface brushed frequently for several days to prevent residue buildup, which creates a rough surface. Eggshell cracking is part of the curing process of white coat and is not indicative of problems. Pool covers help extend the life of the white coat by preventing seasonal damage and discoloration, which may require acid treatments to maintain appearance.

15. Pool Coping: The coping around the pool perimeter is standard commercial bullnose cast stone, bedded and grouted to the pool structure. In order to extend the useful life of the pool structure and adjacent pool deck, it is important to keep the coping sections watertight. This will prevent water from infiltrating beneath the pool structure, which, if not controlled may cause damage during freeze/thaw cycles. Sealant should be applied between the pool coping and the pool deck. Deteriorated or separated sealant should be removed completely before new sealant is applied. Any loose, cracked, or "hollow" copings should be re-bedded or replaced annually as part of the long-term preventative maintenance required for pools. Deteriorated or cracked mortar between coping tiles or below the coping tiles at the pool structure should be diligently repaired.

16. Pool Sealant: The joint between coping tiles and pool deck should be sealed with a flexible sealant to prevent water infiltration behind the pool structure. Over time, this sealant deteriorates and water infiltration can cause damage to the pool structure during freeze/thaw cycles. Sealant should periodically be removed and replaced to prevent damage, and annual inspections and repairs should be performed between replacements. Sealant should be applied when coping stones are replaced or re-bedded. Other signs of problems include loose or missing mortar between the coping stones and between the coping stones and the pool structure below.

17. Pool Structure: The swimming pools are in-ground, cast-in-place concrete structures. Most outdoor pools of this type, in this area, require a major renovation between twenty and forty years of age. It is prudent to plan for structural renovation now because of the large expense involved if required. Core samples should be taken periodically, as the pool ages, to

determine the condition of the gunnite and concrete. Water infiltration will weaken the concrete and early detection can prevent higher repair costs.

18. Concrete Pool Deck: Cast-in-place concrete, slab-on-grade pool deck sections, which have large cracks, should be removed and replaced periodically to prevent water infiltration behind the pool structure. Minor cracks can be routed and sealed to extend the service life of the deck. In some instances, a breathable cementitious coating can be applied to improve the surface appearance and extend the surface life.

19. Electrical Service Entrance: A preventive maintenance program should be conducted every three years by a licensed electrician. That maintenance involves inspection of all switchgear, panelboards and connections, cleaning (where required), thermographic scans, and retorqing connections. (It is important to note that arcing failures occur where connections have loosened as a result of thermal cycling.)

20. Composite Shingle Roofs: Roofs and attic spaces should be inspected annually for damage and leaks. During the attic inspection, check to make sure that mechanical ventilation systems, such as bathroom exhaust fans and dryer ducts, are routed through the roof and not discharging into the attic space. 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. It is important to ensure that proper ventilation is occurring at the soffit vents and that insulation is not obstructing the airflow. If attic ventilation appears to be inadequate, the installation of ridge vents and/or through-the-roof mechanical vents is usually a cost-effective way of extending the useful service life of the sheathing. Roof penetrations, such as plumbing vents, are a major source of leaks. During the inspection, these areas should be checked carefully for signs of leakage or rotten sheathing.

21. Gutters & Downspouts: Gutters and downspouts should be inspected annually. 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.

22. Brick Component Tuckpointing & Repair: Brick components should be inspected periodically for step cracks in the mortar and shear cracks through the brick and mortar, indicating settlement problems. Signs of efflorescence on the brick face and mortar or spalling brick faces indicate water infiltration and should be investigated. Efflorescence, a residue of fine white crystals resulting from salts leaching from the mortar, serves as a warning that water is infiltrating the structure. Water infiltration problems are usually initiated at the top of an improperly sealed coping. Eliminating the infiltration of water into the structure from the coping can be accomplished by various methods, depending on the brick detail. Installation of a metal coping is sometimes a cost-effective method of solving these problems and extending the life of the component. Application of a penetrating sealer or a breathable coating may also extend the useful service life of the brick. All vegetation, such as vines or tree limbs should be kept clear of the brick to prevent damage. As brick components age, depending upon the initial quality of the mortar and the long-term environment of the wall, mortar joints may deteriorate. This condition can be corrected by tuckpointing. Applying soft sealants to the deteriorated joints or to cover up mortar joint cracks is not recommended. Deteriorated or cracked mortar joints should be repaired by cutting damaged material ¾-inch deep with a diamond blade masonry saw. The void should then be filled with new mortar and the joints struck to match the original work.

23. Painted Wood Components: The service life of painted wood components depends greatly on the type of wood used, the initial installation method, level of exposure to the elements, and preventative maintenance practices during its service life. Kiln dried trim pieces should be primed on all surfaces prior to installation. Re-painting projects should be performed every four years or as needed. Loose and flaking paint should be thoroughly removed and deteriorated trim pieces replaced with primed trim pieces prior to repainting projects.

24. Doors: Doors should be periodically repainted, including tops and bottoms, to seal out moisture. Metal doors should have rust removed and be thoroughly primed prior to re-painting. Damaged or loose hardware should be replaced to prevent damage to doors and frames.

25. Exterior Lighting: Outdoor lighting has a limited service life because of the accelerated aging process due to weather extremes. Remediation of the pole fixtures is a viable alternative to full replacement and would include painting the poles along with lamp housing replacement, including ballasts and capacitors. Any poles observed to be out of plumb should be straightened. Periodic cleaning of peeling paint and rust, priming, and re-painting of poles and fixtures will help extend the useful service life. Building-mounted lights should be replaced as needed. Landscape lighting generally has a short service life due to close ground contact, moisture, and damage due to landscaping practices. Sometimes remediation of the fixtures is possible, but generally, it must be replaced frequently.

5.0 FINANCIAL OVERVIEW

5.1 Funding Analysis

The following section provides supplemental information to the financial and funding calculations and tables shown in Appendix A through D.

The Association is on a calendar fiscal year. Management reported that the reserve fund balance, including cash and securities, as of December 31, 2004 is projected to be approximately **$20,000**. We have used the **OMB projected, five-year average 2.36% inflation factor** in our model and a 2% interest rate. The total expenditures for the twenty-year study period for both the **Cash Flow Method and Component Method** are projected to be **$303,017**.

5.1.1 Funding Analysis, Cash Flow Method (Table 3 & Graph): In order to offset the predicted cost of expenditures throughout the study period, and to allow the accumulation of a suitable ending reserve balance, we recommend that the annual reserve fund contribution be set at **$16,450** per year from 2005, with a 2.36% annual increase. At this level, the total for all annual contributions for the twenty-year study period would be **$414,338**, and the total interest income is projected to be **$45,224**.

5.1.2 Funding Analysis, Component Method (Table 4 & Graph): This method of funding would require annual contributions ranging from a low of **$18,161** to a high of **$27,802** for an average annual contribution throughout the twenty-year study period of **$20,406**. 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.

The condition assessment and reserve fund plan is intended to be a working tool for Management and the Board for planning over the long term in order to help them understand the complex issues before them and make informed decisions. The Board of Directors, in consultation with Management and accounting professionals, should decide which of the two reserve funding methods (cash flow or component method) is appropriate for the community.

5.2 ACCOUNTING METHODS

5.2.1 Cash Flow Method of Funding (Pooling): The balance of the reserve fund and corresponding annual contribution is determined by setting a level above a pre-determined minimum balance computed after the yearly expenditures. The minimum balance is typically expressed as a percentage, or ratio, of the total asset base to the reserve fund balance. The appropriate level is determined by a variety of factors including condition, age and complexity of the community. This method is becoming widely accepted in part because of advanced computer modeling but also because it can be a more efficient use of capital. This method is depicted on Table 3, Current Funding Analysis Cash Flow Method.

5.2.2 Component Method of Funding: Each component requiring replacement is funded at 100 percent of its replacement value on a ratio directly proportionate to its life cycle years. Funds set aside for replacement of individual components should not be used for the replacement of other components. Each component is allotted a percentage of the community's total reserve fund. In rare cases where a reserve fund is actually over funded, $0 will be displayed on the component tables, indicating that the component is fully funded for that cycle. This method of funding usually results in relatively high annual contributions and fund balances,

but is considered to be the most conservative method for accruing reserve funds. This method is depicted on Table 3, Component Contribution by Year.

5.2.3 Interest Income on Reserve Funds: In order to replicate approximate financial conditions, interest income on reserve funds should be recognized. The financial tables have been programmed to calculate interest income based on a pre-determined rate. This rate can be set at any level, including zero, for those desiring to not recognize interest. **Typically, a rate of 4.22 percent is used to reflect OMB's (Office of Management and Budget) projection for three-year T-Note rates during the 2003 through 2012 time period**. The rate should reflect, as accurately as possible, the actual combined rate of return on all securities and other instruments of investment.

Interest calculations are segregated into three individual asset components, and the results are summed to generate the yearly interest accumulations. Interest accrued by the reserve fund assets are compartmentalized and calculated according to the following three categories; beginning reserve fund balance, interest accumulated upon the reserve fund contributions, and interest lost by the capital expenditures.

Interest earned on the yearly beginning reserve fund balance is calculated by compounding the beginning reserve fund balance on a monthly period by the interest rate. Interest earned for the reserve fund contributions are calculated by assuming that twelve equal installments are deposited, and interest is accrued and compounded monthly upon the accumulating balance. Likewise, the interest lost on the capital expenditures is calculated on the assumption that expenditures are deducted from the reserve balance on a monthly basis, and the interest that is lost is calculated upon the aggregate monthly balance. The interest income displayed on 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.

5.2.4 Future Replacement Costs (Inflation): In order to replicate actual financial conditions, 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. Typically, a rate of **2.36 percent** is used to reflect **OMB's average annual Consumer Price Index (urban) for the period of 2003 through 2012**.

5.2.5 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. Example: Funding for a re-roofing project, while, at the same time, funding for a second re-roofing project. This method often results in higher annual contribution requirements and leads to generational equity issues. Synergy ENG employs this method only in special circumstances.

5.2.6 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. 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. This method is the standard by which Synergy ENG calculates funding.

5.3 REPLACEMENT METHODS

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

5.3.2 Cyclic Replacement: Components are replaced in stages over a period of time. Example: Sidewalks are typically replaced in sections rather than as complete units.

5.3.3 Minor Components: A minimum component value should be established for inclusion in the reserve fund. Components of insignificant value in relation to the scale of the community should not be include and should be deferred to the maintenance budget. A small community might exclude components with aggregate values less than $1,000, while a large community might exclude components with aggregate values of less than $5,000.

5.3.4 Long Life Components: Almost all communities have some components with useful service lives typically ranging between thirty and sixty years. Traditionally, this type of component has been ignored completely or include at full replacement value far beyond the twenty-year study period. Example: Storm water drainage systems have a useful service life of approximately forty to sixty years. However, they typically require expensive repairs sometime during their service life. Synergy ENG programming addresses these issues by calculating partial funding over a period of time to provide for anticipated localized repairs.

5.3.5 Projected Useful Service Life: Useful service lives of components are established using construction industry standards as a guideline. Useful service lives can vary greatly due to initial quality and installation, inappropriate materials, maintenance practices, environment 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 replacements and for accumulating reserve funds.

5.4 UPDATING THE RESERVE FUND PLAN

In order for a reserve fund plan to remain a viable planning tool, it should be periodically updated. Changing financial conditions and widely varying aging patterns of components dictate that revisions should be undertaken every three to five years, depending upon the complexity of the common assets and the age of the community. The updating process typically involves a site visit to observe current conditions, adjusting fund balances and contributions, and recalculating the financial tables. This updating process insures the integrity of the reserve fund plan and contributes to the financial health of the community. Synergy ENG encourages communities to perform annual administrative updates. These updates include adjustments to the replacement schedules, annual contributions, balances, replacement costs, and interest income. This type of update does not require a site visit and can be a cost-effective way of keeping the Reserve Fund Plan current between major update cycles. Updates are particularly important for those communities employing the Cash Flow Method of accounting because it maintains the twenty-year outlook period. The Cash Flow Method does not consider expenditures beyond the study period. Those expenditures are brought into the study as it is periodically updated.

APPENDIX A

TABLE 1
Component Data and Asset Replacement Schedule

Synergy ENG
Capital Reserve Consultants

1.5	Concrete C
1.6	Site Signag
1.7	Entrance Si
1.8	Light Poles
1.9	Site Furnitu
1.10	Stormwater
2. RECREATIONAL FEATUR	
2.1	Tennis Cou
2.2	Tennis Cou
2.3	Tennis Cou
2.4	Tot Lot
2.5	Pool White
2.6	Pool Copin
2.7	Pool Restor
2.8	Pool Deck
2.9	Pool Deck F
2.10	Pool Pump
2.11	Pool Heater
2.12	Pool Pump
2.13	Pool Furnitu
2.14	Pool Furnitu

3.1	Re-l
3.2	Sidi
3.3	Tuc
3.4	Trim
3.5	Win
3.6	Doo
3.7	Ligh
3.8	Acc
3.9	Wall
3.10	Char
3.11	Slab
3.12	Wate
3.13	Drinl

Reserve Fund Plan for
CENTRAL PARK RECREATIONAL FACILITY
Canton, Michigan

CALENDAR OF EXPENDITURES
TABLE 2
2005 Through 2024

FUTURE COST FORMAT

YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2005	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES
1	2	3	4	5	6
2005					2005
	1.1	Crack Fill, Seal Coat & Re-Stripe Pavements	$2,325	$2,325	TOTAL EXPENDITURES
	1.4	Concrete Sidewalks DONE 5/05	$1,556	$1,556	
	1.5	Concrete Curbs & Gutters DONE 5/05	$2,381	$2,381	
	3.9	Wallboard Allowance	$1,000	$1,000	
					$7,262
2006					2006
	1.4	Concrete Sidewalks	$222	$228	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$163	
	2.1	Tennis Court Color Coat	$4,500	$4,607	
	3.4	Trim & Panelling	$300	$307	
	3.11	Slab-On-Grade Allowance #200 DONE 5/05	$7,020	$7,187	
					$12,492
2007					2007
	1.4	Concrete Sidewalks	$222	$233	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$166	
	2.5	Pool White Coat	$5,319	$5,576	
	2.6	Pool Coping	$240	$252	
					$6,227
2008					2008
	1.4	Concrete Sidewalks	$222	$239	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$170	
					$409
2009					2009
	1.4	Concrete Sidewalks	$222	$244	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$174	
	2.13	Pool Furniture (Re-Strapping) (2008)	$3,000	$3,297	
					$3,715
2010					2010
	1.1	Crack Fill, Seal Coat & Re-Stripe Pavements	$2,325	$2,616	TOTAL EXPENDITURES
	1.2	Full-Depth Pavement Repair	$900	$1,013	
	1.4	Concrete Sidewalks	$222	$250	
	1.5	Concrete Curbs & Gutters	$159	$179	
	1.10	Stormwater Management System	$5,000	$5,626	
	2.6	Pool Coping	$240	$270	
	2.8	Pool Deck	$698	$786	
	2.12	Pool Pump Room Electrical Installations	$2,000	$2,250	
	3.6	Doors	$446	$501	
	3.12	Water Heater	$800	$900	
					$14,390
2011					2011
	1.4	Concrete Sidewalks	$222	$256	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$183	
	2.1	Tennis Court Color Coat	$4,500	$5,184	
	3.3	Tuckpointing (Brick work)	$800	$922	
	3.4	Trim & Panelling	$300	$346	
					$6,890
2012					2012
	1.4	Concrete Sidewalks	$222	$262	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$187	
	2.11	Pool Heater	$4,000	$4,718	
					$5,167

Reserve Fund Plan for
CENTRAL PARK RECREATIONAL FACILITY
Canton, Michigan

CALENDAR OF EXPENDITURES
TABLE 2
2005 Through 2024

YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2005	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES
1	2	3	4	5	6
2013					2013
	1.4	Concrete Sidewalks	$222	$268	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$192	
	2.6	Pool Coping	$240	$290	
					$750
2014					2014
	1.4	Concrete Sidewalks	$222	$275	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$196	
	1.6	Site Signage	$2,100	$2,596	
	1.7	Entrance Signs	$1,500	$1,855	
	2.5	Pool White Coat	$5,319	$6,576	
	2.14	Pool Furniture (Replacement)	$6,075	$7,511	
					$19,009
2015					2015
	1.1	Crack Fill, Seal Coat & Re-Stripe Pavements	$2,325	$2,943	TOTAL EXPENDITURES
	1.2	Full-Depth Pavement Repair	$1,800	$2,279	
	1.4	Concrete Sidewalks	$222	$281	
	1.5	Concrete Curbs & Gutters	$159	$201	
	1.10	Stormwater Management System	$5,000	$6,329	
	2.8	Pool Deck	$698	$884	
	3.7	Lighting	$1,500	$1,899	
					$14,816
2016					2016
	1.4	Concrete Sidewalks	$222	$288	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$206	
	2.1	Tennis Court Color Coat	$4,500	$5,832	
	2.4	Tot Lot	$15,000	$19,441	
	2.6	Pool Coping	$240	$311	
	3.4	Trim & Panelling	$300	$389	
					$26,467
2017					2017
	1.4	Concrete Sidewalks	$222	$295	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$211	
	2.10	Pool Pump & Filtration Equipment	$12,500	$16,588	
	3.10	Changing Room Refurbishment	$15,000	$19,905	
					$36,998
2018					2018
	1.4	Concrete Sidewalks	$222	$302	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$216	
					$518
2019					2019
	1.4	Concrete Sidewalks	$222	$309	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$221	
	2.6	Pool Coping	$240	$334	
	2.13	Pool Furniture (Re-Strapping)	$3,000	$4,173	
	3.6	Doors	$1,350	$1,878	
	3.8	Access Control System	$3,500	$4,869	
					$11,784

Reserve Fund Plan for
CENTRAL PARK RECREATIONAL FACILITY
Canton, Michigan

CALENDAR OF EXPENDITURES
TABLE 2
2005 Through 2024

YEAR	COMPONENT NO.	COMPONENT	PRESENT COST 2005	FUTURE COST (INFLATED)	TOTAL ANNUAL EXPENDITURES
1	2	3	4	5	6
2020					2020
	1.2	Full-Depth Pavement Repair	$3,600	$5,127	TOTAL EXPENDITURES
	1.3	Pavement Resurfacing	$23,250	$33,114	
	1.4	Concrete Sidewalks	$222	$317	
	1.5	Concrete Curbs & Gutters	$159	$226	
	1.10	Stormwater Management System	$5,000	$7,121	
	2.2	Tennis Court Resurfacing	$15,000	$21,364	
	2.3	Tennis Court Perimeter Fence	$6,000	$8,546	
	2.8	Pool Deck	$698	$994	
	2.12	Pool Pump Room Electrical Installations	$2,000	$2,849	
	3.12	Water Heater	$800	$1,139	
					$80,797
2021					2021
	1.4	Concrete Sidewalks	$222	$324	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$231	
	1.9	Site Furniture	$2,800	$4,083	
	2.5	Pool White Coat	$5,319	$7,756	
	2.9	Pool Deck Perimeter Fence	$7,350	$10,718	
	3.1	Re-Roofing	$8,733	$12,734	
	3.3	Tuckpointing	$800	$1,167	
	3.4	Trim & Panelling	$300	$437	
					$37,451
2022					2022
	1.4	Concrete Sidewalks	$222	$332	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$237	
	2.6	Pool Coping	$240	$358	
					$927
2023					2023
	1.4	Concrete Sidewalks	$222	$340	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$243	
					$582
2024					2024
	1.4	Concrete Sidewalks	$222	$348	TOTAL EXPENDITURES
	1.5	Concrete Curbs & Gutters	$159	$248	
	2.11	Pool Heater	$4,000	$6,260	
	2.14	Pool Furniture (Replacement)	$6,075	$9,508	
					$16,365

APPENDIX C

TABLE 3
Current Funding Analysis
Cash Flow Method

And (if applicable)

TABLE 3.1, 3.2, 3.3 (Etc.)
Alternative Funding Analysis
Cash Flow Method

Synergy ENG
Capital Reserve Consultants

FUNDING ANALYSIS
CASH FLOW METHOD
TABLE 3

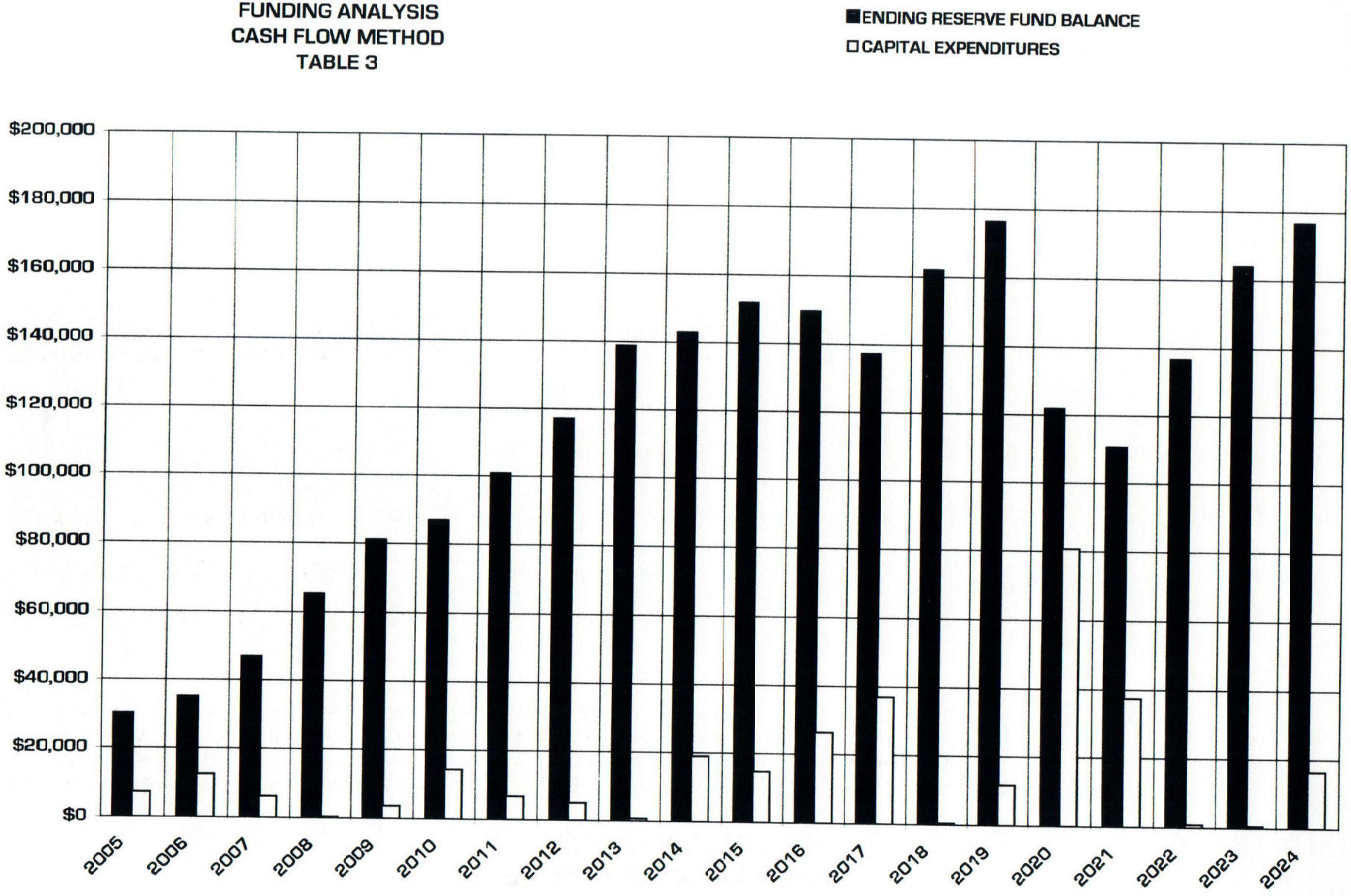
		Beginning Reserve Fund Balance: $0	Annual Contribution to Reserves: $17,398	Contribution Percentage Increase: 2.36%	Annual Inflation Factor: 2.36%	Annual Interest Income Factor: 2.00%	
YEAR	TOTAL ASSET BASE	BEGINNING RESERVE FUND BALANCE	ANNUAL CONTRIBUTION	INTEREST INCOME	CAPITAL EXPENDITURES	ENDING RESERVE FUND BALANCE	ASSET BASE TO BALANCE RATIO
1	2	3	4	5	6	7	8
2005	$288,167	$0	$17,398	$203	$7,262	$10,339	4%
2006	$294,958	$10,339	$17,809	$313	$12,492	$15,969	5%
2007	$301,919	$15,969	$18,229	$559	$6,227	$28,530	9%
2008	$309,044	$28,530	$18,659	$936	$409	$47,716	15%
2009	$316,337	$47,716	$19,100	$1,262	$3,715	$64,362	20%
2010	$323,803	$64,362	$19,550	$1,390	$14,390	$70,913	22%
2011	$331,445	$70,913	$20,012	$1,681	$6,890	$85,715	26%
2012	$339,267	$85,715	$20,484	$2,021	$5,167	$103,053	30%
2013	$347,273	$103,053	$20,967	$2,465	$750	$125,736	36%
2014	$355,469	$125,736	$21,462	$2,564	$19,009	$130,753	37%
2015	$363,858	$130,753	$21,969	$2,758	$14,816	$140,663	39%
2016	$372,445	$140,663	$22,487	$2,734	$26,467	$139,417	37%
2017	$381,235	$139,417	$23,018	$2,509	$36,998	$127,946	34%
2018	$390,232	$127,946	$23,561	$3,020	$518	$154,008	39%
2019	$399,441	$154,008	$24,117	$3,327	$11,784	$169,668	42%
2020	$408,868	$169,668	$24,686	$2,271	$80,797	$115,829	28%
2021	$418,517	$115,829	$25,269	$2,073	$37,451	$105,720	25%
2022	$428,395	$105,720	$25,865	$2,613	$927	$133,271	31%
2023	$438,505	$133,271	$26,476	$3,183	$582	$162,348	37%
2024	$448,853	$162,348	$27,100	$3,462	$16,365	$176,545	39%
	STUDY PERIOD TOTALS		$438,218	$41,343	$303,016		

APPENDIX D

TABLE 4
Funding Analysis Component Method

Synergy ENG
Capital Reserve Consultants

FUNDING ANALYSIS
CASH FLOW METHOD
TABLE 3



R[illegible] Fund Plan for
CENTRAL [illegible]ECREATIONAL FACILITY
[illegible]n, Michigan

FUNDING ANAL[illegible]IS
COMPONENT M[illegible]D
TABLE 4

Beginning Reserve Fund Balance:

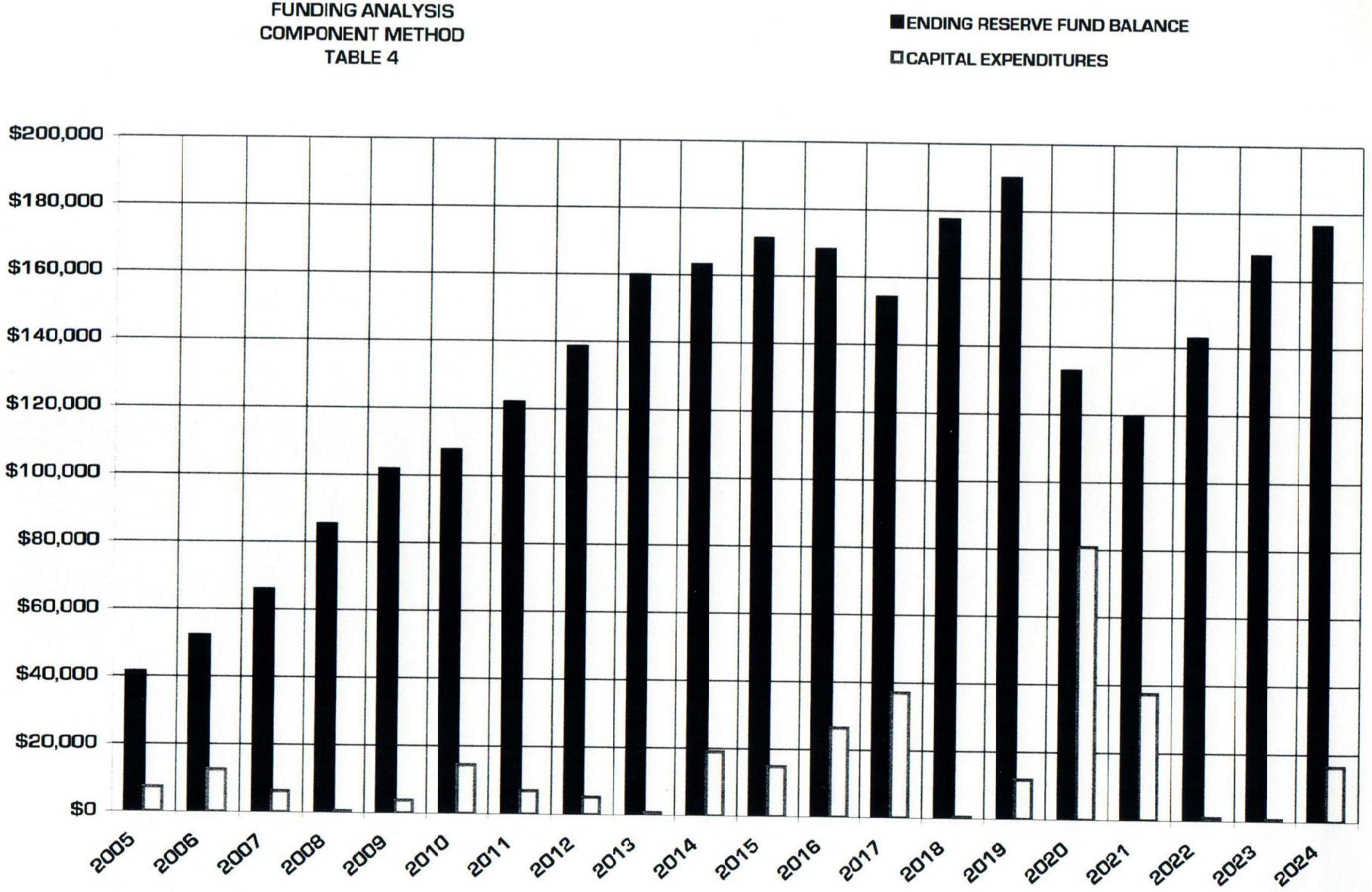
$20,000

Component Number	COMPONENT	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1.1	Crack Fill, Seal Coat & Re-Stripe Pavements	$1,622	$497	$497	$497	$497	$497	$559	$559	$559	$559	$559	$336	$336	$336	$336	$336	$336	$336	$336	$336
1.2	Full-Depth Pavement Repair	$159	$159	$159	$159	$159	$159	$433	$433	$433	$433	$433	$974	$974	$974	$974	$974	$110	$110	$110	$110
1.3	Pavement Resurfacing	$1,606	$1,606	$1,606	$1,606	$1,606	$1,606	$1,606	$1,606	$1,606	$1,606	$1,606	$1,606	$1,606	$1,606	$1,606	$1,606	$2,156	$2,156	$2,156	$2,156
1.4	Concrete Sidewalks	$1,539	$225	$230	$236	$242	$247	$253	$259	$265	$272	$278	$285	$292	$299	$306	$313	$321	$328	$336	$344
1.5	Concrete Curbs & Gutters	$2,356	$161	$165	$169	$173	$177	$181	$185	$190	$194	$199	$204	$208	$213	$218	$224	$229	$234	$240	$246
1.6	Site Signage	$205	$205	$205	$205	$205	$205	$205	$205	$205	$205	$211	$211	$211	$211	$211	$211	$211	$211	$211	$211
1.7	Entrance Signs	$146	$146	$146	$146	$146	$146	$146	$146	$146	$146	$151	$151	$151	$151	$151	$151	$151	$151	$151	$151
1.8	Light Poles	$570	$570	$570	$570	$570	$570	$570	$570	$570	$570	$570	$570	$570	$570	$570	$570	$570	$570	$570	$570
1.9	Site Furniture	$188	$188	$188	$188	$188	$188	$188	$188	$188	$188	$188	$188	$188	$188	$188	$188	$188	$266	$266	$266
1.10	Stormwater Management System	$882	$882	$882	$882	$882	$882	$1,203	$1,203	$1,203	$1,203	$1,203	$1,353	$1,353	$1,353	$1,353	$1,353	$1,522	$1,522	$1,522	$1,522
2.1	Tennis Court Color Coat	$1,713	$1,713	$985	$985	$985	$985	$985	$1,108	$1,108	$1,108	$1,108	$1,108	$666	$666	$666	$666	$666	$666	$666	$666
2.2	Tennis Court Resurfacing	$1,036	$1,036	$1,036	$1,036	$1,036	$1,036	$1,036	$1,036	$1,036	$1,036	$1,036	$1,036	$1,036	$1,036	$1,036	$1,036	$1,391	$1,391	$1,391	$1,391
2.3	Tennis Court Perimeter Fence	$414	$414	$414	$414	$414	$414	$414	$414	$414	$414	$414	$414	$414	$414	$414	$414	$556	$556	$556	$556
2.4	Tot Lot	$1,306	$1,306	$1,306	$1,306	$1,306	$1,306	$1,306	$1,306	$1,306	$1,306	$1,306	$1,306	$1,582	$1,582	$1,582	$1,582	$1,582	$1,582	$1,582	$1,582
2.5	Pool White Coat	$1,415	$1,415	$1,415	$875	$875	$875	$875	$875	$875	$875	$875	$1,032	$1,032	$1,032	$1,032	$1,032	$1,032	$1,032	$1,217	$1,217
2.6	Pool Coping	$81	$81	$81	$87	$87	$87	$94	$94	$94	$94	$101	$101	$101	$108	$108	$108	$116	$116	$116	$124	$124
2.7	Pool Restoration Project	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844	$1,844
2.8	Pool Deck	$123	$123	$123	$123	$123	$123	$168	$168	$168	$168	$168	$189	$189	$189	$189	$189	$213	$213	$213	$213
2.9	Pool Deck Perimeter Fence	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$492	$698	$698	$698
2.10	Pool Pump & Filtration Equipment	$1,041	$1,041	$1,041	$1,041	$1,041	$1,041	$1,041	$1,041	$1,041	$1,041	$1,041	$1,041	$1,041	$1,350	$1,350	$1,350	$1,350	$1,350	$1,350	$1,350
2.11	Pool Heater	$472	$472	$472	$472	$472	$472	$472	$472	$461	$461	$461	$461	$461	$461	$461	$461	$461	$461	$461	$461
2.12	Pool Pump Room Electrical Installations	$298	$298	$298	$298	$298	$298	$257	$257	$257	$257	$257	$257	$257	$257	$257	$257	$325	$325	$325	$325
2.13	Pool Furniture (Re-Strapping)	$512	$512	$512	$512	$512	$377	$377	$377	$377	$377	$377	$377	$377	$377	$377	$477	$477	$477	$477	$477
2.14	Pool Furniture (Replacement)	$655	$655	$655	$655	$655	$655	$655	$655	$655	$655	$858	$858	$858	$858	$858	$858	$858	$858	$858	$858
3.1	Re-Roofing	$585	$585	$585	$585	$585	$585	$585	$585	$585	$585	$585	$585	$585	$585	$585	$585	$585	$829	$829	$829
3.2	Siding	$312	$312	$312	$312	$312	$312	$312	$312	$312	$312	$312	$312	$312	$312	$312	$312	$312	$312	$312	$312
3.3	Tuckpointing	$107	$107	$107	$107	$107	$107	$107	$105	$105	$105	$105	$105	$105	$105	$105	$105	$105	$133	$133	$133
3.4	Trim & Panelling	$114	$114	$66	$66	$66	$66	$66	$74	$74	$74	$74	$74	$83	$83	$83	$83	$83	$94	$94	$94
3.5	Windows	$428	$428	$428	$428	$428	$428	$428	$428	$428	$428	$428	$428	$428	$428	$428	$428	$428	$428	$428	$428
3.6	Doors	$71	$71	$71	$71	$71	$71	$190	$190	$190	$190	$190	$190	$190	$190	$190	$71	$71	$71	$71	$71
3.7	Lighting	$138	$138	$138	$138	$138	$138	$138	$138	$138	$138	$138	$154	$154	$154	$154	$154	$154	$154	$154	$154
3.8	Access Control System	$272	$272	$272	$272	$272	$272	$272	$272	$272	$272	$272	$272	$272	$272	$272	$396	$396	$396	$396	$396
3.9	Wallboard Allowance	$789	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3.10	Changing Room Refurbishment	$1,249	$1,249	$1,249	$1,249	$1,249	$1,249	$1,249	$1,249	$1,249	$1,249	$1,249	$1,249	$1,249	$1,620	$1,620	$1,620	$1,620	$1,620	$1,620	$1,620
3.11	Slab-On-Grade Allowance	$2,811	$2,811	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
3.12	Water Heater	$119	$119	$119	$119	$119	$119	$103	$103	$103	$103	$103	$103	$103	$103	$103	$103	$130	$130	$130	$130
3.13	Drinking Fountains	$134	$134	$134	$134	$134	$134	$134	$134	$134	$134	$134	$134	$134	$134	$134	$134	$134	$134	$134	$134
	ANNUAL COMPONENT CONTRIBUTION TOTALS	$27,802	$22,380	$18,802	$18,277	$18,286	$18,161	$18,941	$19,081	$19,081	$19,099	$19,481	$19,999	$19,862	$20,553	$20,565	$20,690	$21,176	$21,941	$21,963	$21,976

COMPONENT METHOD SUMMARY	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
BEGINNING RESERVE FUND BALANCE	$20,000	$41,168	$51,994	$65,756	$85,146	$101,595	$107,458	$121,809	$138,333	$159,656	$162,970	$170,975	$167,889	$153,956	$177,317	$189,773	$132,844	$119,074	$142,720	$167,214
PLUS ANNUAL COMPONENT CONTRIBUTION	$27,802	$22,380	$18,802	$18,277	$18,286	$18,161	$18,941	$19,081	$19,081	$19,099	$19,481	$19,999	$19,862	$20,553	$20,565	$20,690	$21,176	$21,941	$21,963	$21,976
CAPITAL EXPENDITURES	$7,262	$12,492	$6,227	$409	$3,715	$14,390	$6,890	$5,167	$750	$19,009	$14,816	$26,467	$36,998	$518	$11,784	$80,797	$37,451	$927	$582	$16,365
SUBTOTAL	$40,540	$51,055	$64,569	$83,624	$99,717	$105,365	$119,509	$135,723	$156,664	$159,745	$167,635	$164,507	$150,753	$173,991	$186,098	$129,666	$116,568	$140,087	$164,100	$172,825
PLUS INTEREST INCOME @ 2.00%	$628	$939	$1,187	$1,522	$1,878	$2,092	$2,301	$2,610	$2,992	$3,224	$3,341	$3,381	$3,203	$3,326	$3,675	$3,178	$2,505	$2,633	$3,114	$3,437
ENDING RESERVE FUND BALANCE	$41,168	$51,994	$65,756	$85,146	$101,595	$107,458	$121,809	$138,333	$159,656	$162,970	$170,975	$167,889	$153,956	$177,317	$189,773	$132,844	$119,074	$142,720	$167,214	$176,262

STUDY PERIOD TOTAL CONTRIBUTIONS	$408,114
STUDY PERIOD INTEREST TOTAL	$51,165
AVERAGE ANNUAL CONTRIBUTION	$20,406
TOTAL EXPENDITURES	$303,017

FUNDING ANALYSIS
COMPONENT METHOD
TABLE 4



APPENDIX E

PHOTOGRAPHS

Synergy ENG
Capital Reserve Consultants

PHOTO #1
Crack at asphalt-paved parking lot. Cracks should be filled near-term and periodically to reduce water infiltration into and subsequent damage to the pavement subbase ("foundation")

PHOTO #2
Damage at asphalt-paved parking lot. We have recommended that an allowance be made for the periodic coating and repair of the pavements, followed by late-term replacement

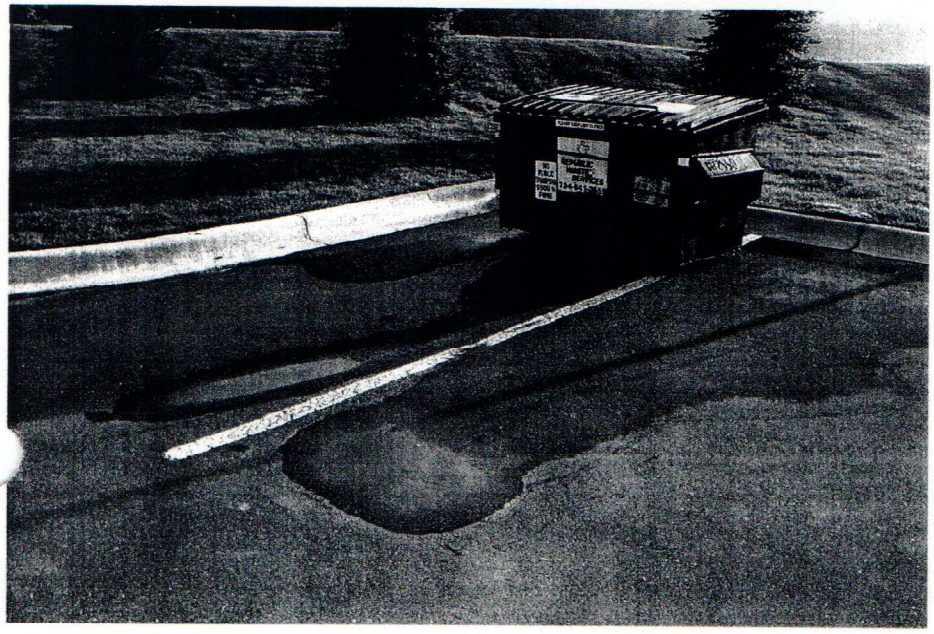


PHOTO #3
Dumpster unit placed directly on asphalt pavement resulting in overloading of the pavement section. We recommend that the Association consider the installation of a cast-in-place concrete pad below and surrounding the dumpster unit

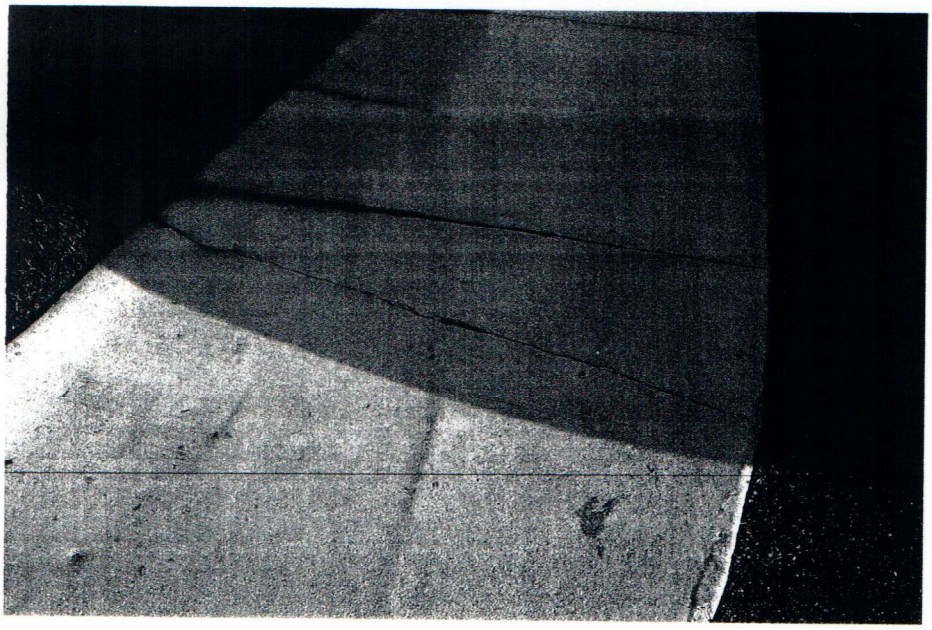


PHOTO #4
Cracked sidewalk panel. We have recommended that an allowance be made for the on-going replacement of cracked, settled and spalled site concrete

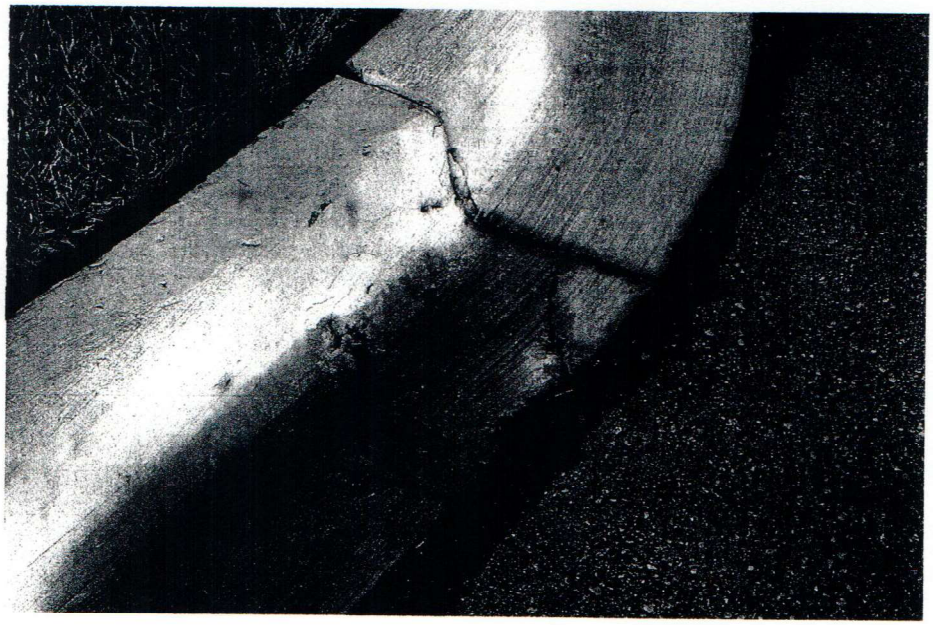


PHOTO #5
Cracked curb and gutter section. We have recommended that an allowance be made for the on-going replacement of cracked, settled and spalled site concrete

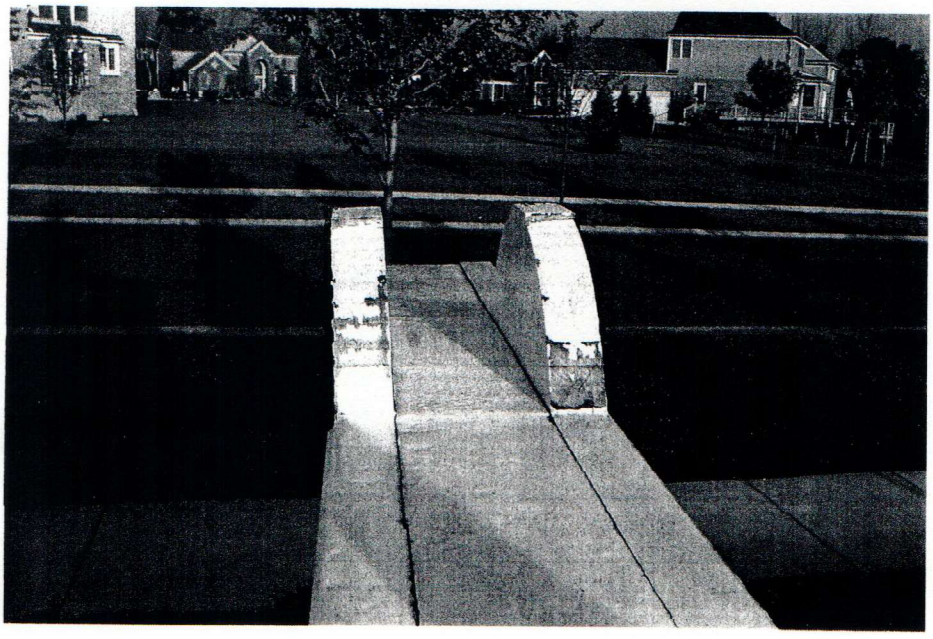


PHOTO #6
Peeled paint and localized deterioration at entrance signage. We recommend that the Association complete periodic cleaning and painting of the entrance signs as an operating expense, followed by mid-term replacement

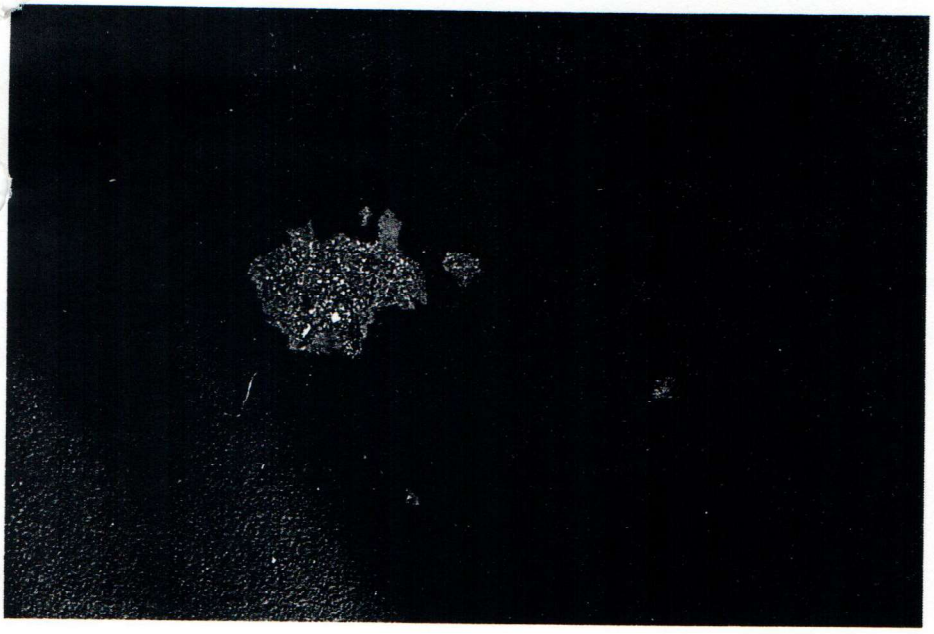


PHOTO #7
Deterioration of acrylic color coat at tennis court. Re-application of the color coat is recommended near-term and periodically, followed by replacement of the tennis court late-term

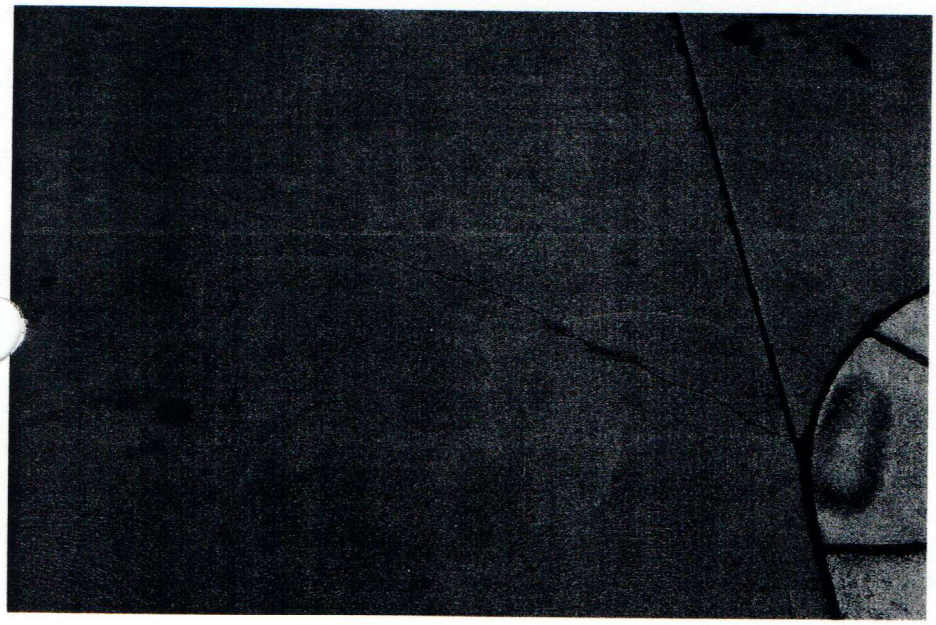


PHOTO #8
Cracked concrete at pool deck. Periodic cyclical replacement of the deck is recommended throughout the study period, followed by full replacement of the deck in conjunction with the recommended pool restoration project

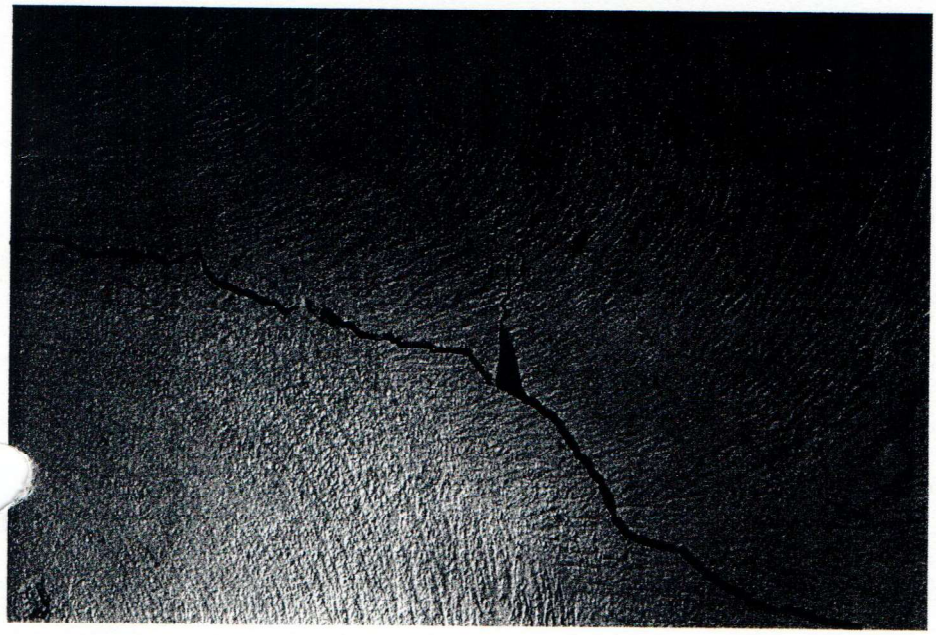


PHOTO #9
Cracked and heaved concrete at slab-on-grade. We recommend routing and sealing the slab near-term, followed by replacement