

# SPYGLASS LANDING CONDOMINIUM MARSHFIELD, MASSACHUSETTS

## CAPITAL RESERVE FUND ANALYSIS

Per the request of Spyglass Landing Condominium Association, Continental Building Consultants (CBC) of Hampton, New Hampshire, has prepared a limited study of the operation and condition of the Condominium to determine the required annual funding levels for the Condominium capital reserve fund.

### PURPOSE AND SCOPE OF STUDY

In review of the documents for Spyglass Landing Condominium Association, the following was found in Article III, of the by-laws of the Declaration of Association:

*3.11 Powers and Duties of the Directors: The Directors shall have the powers and duties specifically conferred upon them by Section 10 (6) of Chapter 183A, the Master Deed and these By-Laws, and all other powers and duties necessary for the administration of the affairs of the Condominium (except as otherwise provided by law, the Master Deed or these By-Laws), including, without limiting the generality of the foregoing, the following powers and duties:*

*3.11.3 To do all things necessary to operate, maintain, repair, improve, replace, alter and otherwise administer and care for the Common Areas and Facilities and, to the extent provided in the Master Deed and these By-Laws, maintain, repair and care for the Units.*

The following was found in Article VII of the by-laws:

*7.1 Reserves and Working Capital: The Directors shall be required to establish and maintain an adequate reserve fund for the periodic maintenance, repair and replacement of improvements to the Common Areas which the Corporation is obligated to maintain. The fund shall be maintained out of regular assessments for common expenses, but shall be deposited in an account separate and segregated from operating funds.*

*7.3 Maintenance, Repair and Replacement of Common Areas and Facilities, Limited Common Areas, and Assessments of Common Expenses: The Directors shall be responsible for the proper maintenance, repair and replacement of the Common Areas and Facilities of the Condominium, and Limited Common Areas, subject to the provisions of Section 7.6 hereof with respect to repairs.*

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*7.4.1 At least thirty (30) days prior to the commencement of each fiscal year of this Corporation (and within thirty (30) days after the recording hereof with respect to the portion of a fiscal year then remaining), the Directors shall estimate the common expenses expected to be incurred during such fiscal year together with a reasonable provision for contingencies and reserves ... .*

The language of the excerpts quoted above imposes a duty on the Directors to provide a capital reserve fund. Aside from maintaining a capital reserve for practical reasons and as a requirement of the bylaws of the Association, the Commonwealth of Massachusetts recently enacted legislation requiring that condominium associations must “maintain adequate reserves.” Although not expressly stated, adequate reserves can be assumed to be that amount required to fund major renovation or replacement projects as they become necessary. Funding should be segregated from the operating fund and kept in accordance with good accounting practices.

Good accounting practices are defined as those outlined by the American Institute of Certified Public Accountants (AICPA). The requirements are presented in the Audit and Accounting Guide for Audits of Common Interest Realty Associations (CIRA). These guidelines state, among other things, that the replacement reserve fund must be based upon factual information.

This study is intended to provide factual information about major common components of the property upon which to base reserve fund accumulation in accordance with CIRA accounting /audit guidelines.

In recognition of the requirement to maintain a reserve fund and to insure the adequacy of this fund, CBC conducted a visual inspection of Spyglass Landing Condominium to determine quantities and conditions of the various major components.

The purpose of the reserve analysis is to insure that the Condominium Association is capable of meeting future capital improvement and repair expenses by determining the nature and likely cost of those expenses which will probably be incurred.

All components of the condominium, like all buildings, are subject to deterioration through use, normal wear and tear, age and weathering. These components must be replaced or repaired as they approach the end of their normal useful lives. If the normal useful life is known and the cost of repair or replacement is known, a fractional amount can be set aside each year in a replacement fund (a capital reserve fund) so that the entire cost of replacement has been accumulated at the time when the item is scheduled for repair or replacement. In other words, all that is required to conduct a reserve analysis is to determine the useful life of the reserve items, find the replacement cost and divide that cost by the remaining number of useful years:

$$\frac{\text{COST OF REPLACEMENT}}{\text{USEFUL LIFE IN YEARS}} = \text{ANNUAL FUNDING REQUIREMENT}$$

This explanation is deceptively simple. There are many concrete facts and several technical judgments involved in the preparation of a reserve study as outlined below:

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The first part of the study involves fact-finding. CBC engineers and consultants study the condominium documents to determine which items are commonly owned to insure that all of these items are considered for inclusion in the reserve analysis and to insure that no privately held items (unit owner property) are included.

The second item of work is the visual inspection of the common components of the property which are likely to be included in the reserve fund. This inspection serves two purposes-to determine quantities of items to be included (for example square yards of pavement, size of boilers, linear feet of piping, etc.) and to determine the present condition of these items.

The quantities of items can be obtained by physical measurement or from construction drawings if available. The conditions of the items are determined by the judgment of the inspecting engineer. The engineer considers the age of the item (if known), its physical appearance, past history of performance (if known), and factors such as unusual exposure to wind or weathering.

Having obtained quantities of replacement items, estimates of present-day replacement costs can be determined. These costs are determined by use of several cost databases available to CBC and verified by discussions with reliable local contractors. The information is constantly updated to insure that costs are current and accurate.

Construction costs are affected by many factors in general including size of project, fluctuating prices of materials, the status of the labor market, and varying contractor overhead costs (e.g. contractor insurance costs have varied considerably in the last few years both up and down).

Factors affecting a specific project may include location, ease of access to work area, difficulty of specific work (e.g. a large, low slope roof will cost less per square foot to shingle than a steep roof broken up by several gables and dormers), bonding requirements and owner's scheduling requirements.

All of these factors must be considered in determining the present day cost of a project.

Remaining useful life of a reserve item can be difficult to judge accurately particularly in new properties with no history of performance. As an item begins to age it becomes easier to focus on its likely lifespan. The expected life becomes even more defined as the item approaches the final years of its useful life. For instance, when a roof is brand new, unless there are very obvious flaws, it may be difficult to determine whether it will have a life of 12 or 20 years or something in between. When the roof is 10 years old it is much easier to determine if it will require replacement in 2 years or if it may serve another 10 years.

The present physical condition of a reserve item is one guideline used to judge its expected remaining life. Other guidelines include manufacturer's data, known performance of similar products, and product warranties. (Warranties can be misleading. Many items have useful lives far beyond the manufacturer's warranty.)

Although some items wear gradually (asphalt paving, roof shingles, painting, etc.) others just stop working with no warning (pool pumps, boilers, elevator motors).

Gradual wear items can be made to serve beyond their planned lives if they are still functional and

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their appearance is satisfactory. For example, although a 20-year old parking lot surface may be cracked in several areas, if there are no other problems such as potholes, there may be no need to resurface even though the reserve schedule may indicate a 20 year repair cycle.

On the other hand, if a heating system is due for replacement and the maintenance costs over the past few years have gradually increased, it may not be wise to try for one more heating season before replacement.

**INFLATION CONSIDERATIONS**

As stated above, the basic reserve cost study is simply a determination of replacement costs and remaining lives. There are other items which should be taken into consideration to make the study complete. Foremost among these items are the allocation of money accumulated in the fund prior to the study, and preparing for the inevitable-inflation.

No reserve fund study can predict future inflation. All estimates must be considered in present day costs. Inflation considerations are handled in two ways.

First, a 2% interest/inflation offset factor is added to present day cost requirements. This 2% factor assumes that any interest accumulated on saved or invested reserve funds will be outstripped by inflation by 2%. This is an extremely conservative figure considering monetary performances over the last 7 years.

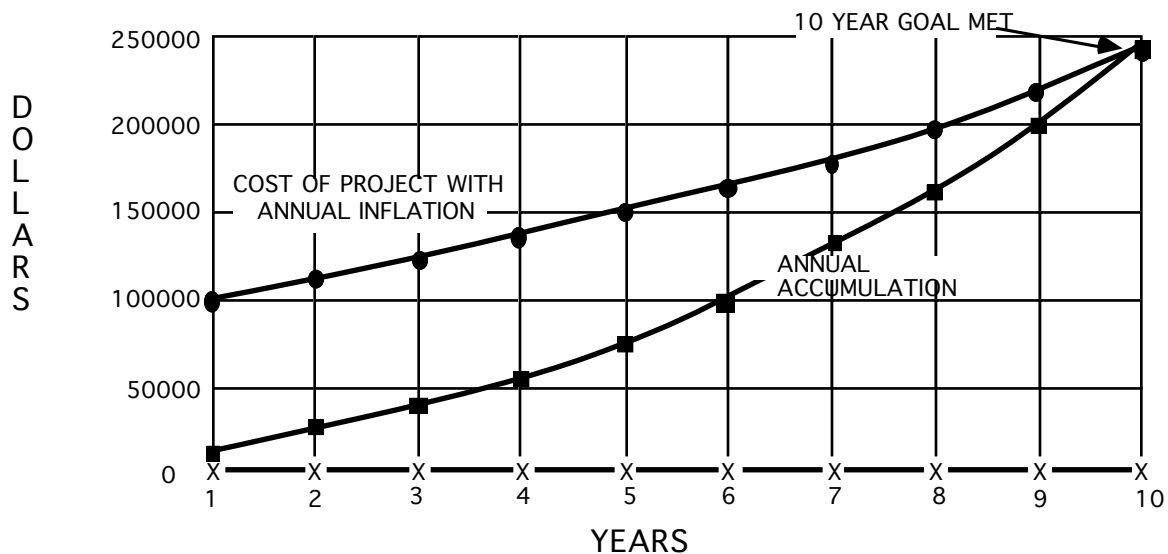
Second, the study must be updated on an annual basis. At time of update, the previous year's inflation, increased specific costs and interest earned can be factored into the study. This insures that funds will be accumulated at a rate which will keep pace with inflation regardless of annual fluctuations. The illustrations on the next page demonstrate this point.

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YEAR	\$100,000 RESERVE REQUIREMENT PD COST IN 10 YRS	ANNUAL DEPOSIT INCREASED ANNUALLY 10% (AIR)*	VALUE AT YEAR END AT 8% INTEREST	INFLATION RATE-10% (AIR)	ACTUAL COST OF PROJECT PER YEAR
1	\$10,000	\$10,200	\$11,016	10%	\$100,000
2	11,000	12,100	23,997	10%	110,000
3	12,100	13,310	39,227	10%	121,000
4	13,310	14,641	57,006	10%	133,100
5	14,641	16,105	77,672	10%	146,410
6	16,105	17,716	101,601	10%	161,501
7	17,716	19,487	129,216	10%	177,156
8	19,487	21,436	160,990	10%	194,872
9	21,436	23,579	197,448	10%	214,359
10	23,579	25,937	239,182	10%	235,795

\*ANNUAL DEPOSIT IS INCREASED BY 2% TO OFFSET INFLATION  
THIS ILLUSTRATION REFLECTS A PROJECT WHICH WOULD COST \$100,000 IN PRESENT DAY DOLLARS AND IS EXPECTED TO BE UNDERTAKEN IN 10 YEARS. IF THE RESERVE SCHEDULE IS UPDATED ON AN ANNUAL BASIS, TOTAL FUNDING FOR PROJECT WILL BE ADEQUATE.

**ACCUMULATION OF FUNDS FOR SAMPLE  
PROJECT SHOWN ABOVE**



**RESERVE ACCUMULATION BY YEAR USING ANNUAL UPDATES**

**FUND ACCUMULATION**

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Reserve funds can be accumulated in two ways, either by setting aside a fixed amount relative to what the Board feels can be added to the budget without increasing fees too much, or by determining what the specific future financial needs are likely to be and setting aside appropriate contributions annually to meet those needs.

The latter is the only acceptable method of reserve accumulation. If the former were applied to all condominium operations the result would be chaos. (Imagine picking a monthly fee out of thin air and hoping that it will result in sufficient money to pay bills.) Unfortunately, this is exactly how many reserve accounts are funded.

Too often, board members feel that they must be more responsive to present considerations of the unit owners than the overall needs of the property with which they are entrusted. In reality, the only obligation of the board is to the condominium and its preservation. Although the idea of increased fees is never pleasant and may result in vociferous discontent among unit owners, the prospect of wide-scale deterioration of the property and correspondent decline in property values is a far more serious threat.

Proper reserve planning has several beneficial effects:

1. It insures that all unit owners contribute their fair share to the upkeep of the property.
2. It insures that funding for repair/replacement projects will be available when needed avoiding the need for special assessments.
3. It helps insure that the reserve fund stays intact and is not used as a contingency fund or slush fund.
4. It adds to the market value of the units within the condominium.

**PREVIOUSLY ACCUMULATED FUNDS**

Funds previously accumulated in a general reserve fund have been distributed proportionately to specific projects. The amount of those funds in the reserve account of Spyglass Landing Condominium Association as of December 31, 2007 is \$65,000.00 as reported by Continuing Care Management, LLC, the Property Manager.

Unless a reserve cost study is performed to determine the initial condominium budget, there will be (or should be) some money accumulated prior to the study. This money must be incorporated into the study and distributed among the reserve items.

In our opinion, the simplest way to account for this prior accumulation is to distribute proportionately among the individual reserve items. An example of this distribution is outlined below:

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Assume that a condominium has \$20,000 accumulated in a reserve fund prior to performing a reserve cost study. For simplification purposes, the reserve cost study lists five items for repair/replacement with the following costs:

<b>RESERVE ITEM</b>	<b>COST</b>	<b>% OF TOTAL</b>
ROOFS	\$100,000	31.25
PARKING AREAS	\$80,000	25
WELL PUMPS	\$40,000	12.5
SEPTIC SYSTEM	\$80,000	25
LANDSCAPING	\$20,000	6.25
<b>TOTAL</b>	<b>\$320,000</b>	<b>100 %</b>

The total cost of reserve items is used to determine the percentage of distribution of the accumulated fund to individual projects. The \$20,000 prior accumulation is distributed on a proportional basis as outlined below:

<b>ITEM</b>	<b>% OF TOTAL</b>	<b>CONTRIBUTION</b>
ROOFS	31.25	\$6,250
PARKING AREAS	25	5,000
WELL PUMPS	12.5	2,500
SEPTIC SYSTEM	25	5,000
LANDSCAPING	6.25	1,250
<b>TOTAL</b>	<b>100 %</b>	<b>\$20,000</b>

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**EXCLUSIONS/LIMITATIONS/INTENDED USE**

Excluded from the capital reserve are items which are considered to be routine maintenance such as painting and sealcoating. Although these are major expense items, they are not considered to be capital improvement items per IRS guidelines and therefore may not be included in any reserve.

The information contained in this report is considered to be useful and timely for a period of one year from the date of the report. It is recommended that the information be reviewed and updated at that time.

The information presented in this report is intended to conform to the requirements presented in the Audit and Accounting Guide for Audits of Common Interest Realty Associations (CIRA) published by the American Institute of Certified Public Accountants (AICPA). Requests for further information or questions by auditors or accountants providing services to this Association may be directed to our office at: 1 (800) 562-1037.



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**SPECIFIC NOTES OF INSPECTION**

Spyglass Landing Condominium consists of 84 townhouse residential units in 28 wood frame buildings on full basement concrete foundations located in Marshfield, MA. The buildings have vinyl sided walls and pitched shingle roofs. Each unit has a one or two car parking garage at ground level and the units have a wood deck or sunporch off the rear of the first floor. On site amenities include a bocce court and a gazebo.

Overall, the property is in good condition overall and is well landscaped. It appears to be well-maintained and well-managed.

The property was inspected in January, 2008 by John Reddy of Continental Building Consultants. The following was noted during inspection:

**ASPHALT PAVEMENT**

The main road, driveways and parking areas in the complex are paved with bituminous asphalt. At the time of inspection, those asphalt surfaces which had been completed were noted to be in good to new condition. No cracking, depressions, potholes or other serious defects were noted in the paved areas. The roads on the property included in this report are Spyglass Landing, Schooner Way and Clipper Circle. Stoney Brook Road is not included.

Maintenance of the asphalt should include an annual inspection for cracks, depressions and potholes which should be repaired as soon as possible after discovery. Sealcoating of asphalt surfaces is not necessary for preservation of the asphalt but may be done for cosmetic purposes. Regardless of how well the asphalt is maintained, it will eventually require replacement due to frost damage, weathering and normal wear and tear.

The line item in the capital reserve schedule entitled ASPHALT ROADS includes the cost of pulverizing the existing asphalt and placement of three inches of new asphalt. It also includes the cost of resetting curbs, catch basins and manholes for the new surface. This is not likely to be required for at least 25 years assuming proper maintenance of the asphalt.

The line items in the capital reserve schedule entitled ASPHALT DRIVEWAYS include the cost of a one inch overlay of asphalt on the existing surfaces. As these surfaces are not subject to the same wear and tear as the roadways, it will probably not be necessary to pulverize and repave them.

**SITE IMPROVEMENTS**

Improvements or amenities on the site include signage, a gazebo, bocce courts, mailboxes and sheds for the irrigation control equipment. All of these items were found to be in good condition at the time of inspection.

No single one of these items would be very expensive to replace in comparison to other items in the capital reserve schedule. However, taken as a group, the items represent a significant expenditure. Rather than funding the replacement of any of these items from ordinary maintenance funds, it is

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more desirable from a planning standpoint to include them in the capital reserve as a group. When any of the items requires replacement, funding is available without impacting the maintenance budget with an unplanned expense.

The line item in the capital reserve schedule entitled SITE IMPROVEMENTS is an allowance intended to cover the cost of replacement or major repair of all of the site improvement items on the property including signage, the gazebo, the bocce courts, the mailboxes and the irrigation equipment sheds.

**LANDSCAPING**

All of the buildings in the complex are landscaped with a combination of trees, bushes, shrubs and flowers. The landscape items which have been installed to date are in good condition.

Over time, the planted landscaping items, particularly bushes and shrubs will grow considerably and in many cases will overgrow their intended size and architectural effect. Cutting these back will most likely either kill them or produce a woody, unattractive plant. In such cases, the plants should be removed and new ones planted.

The line item in the capital reserve schedule entitled LANDSCAPING is an allowance intended to cover the cost of removal and replacement of various landscape items as necessary. It should be noted that although this line item has a fifteen year time line, landscaping projects can be undertaken as desired using reserve funds so allocated.

**SHINGLE ROOFS**

All of the buildings in the complex have pitched, shingled roofs. All roofs were noted to be in very good condition at the time of inspection. No specific deficiencies were noted on any of the roofs. The roofs appear to be adequately ventilated and no water infiltration has been reported.

The roofs should be inspected annually for blowoffs, lifted shingles and/or damaged flashing and appropriate repairs should be made. Also, it was noted that there are some areas where the garage roofs intersect with the main roofs that create narrow valleys where snow accumulation could lead to water intrusion. These areas should be monitored after major snowstorms for any blockages created by heavy snow buildup. If such a buildup appears to be blocking drainage along the valley, it should be removed.

The line item in the capital reserve schedule entitled ROOFS includes the cost of removal and replacement of all shingle roofs as well as replacement of underlayment, flashings and gutters.

**SIDING AND TRIM**

The buildings have vinyl siding and metal trim. All of the siding and trim is in very good condition.

Maintenance of the vinyl siding consists of simply washing it with a garden hose when necessary.

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Vinyl should not be cleaned with a pressure washer as this will force water behind the siding where it will damage interior building components which are intended to remain dry.

Vinyl siding and aluminum trim are both very durable materials which are not likely to require mass replacement any time in the foreseeable future. Occasionally, a piece of siding or trim may require replacement due to storm damage or an accident but no other replacement is likely to be required. Based on the durability of the siding and trim materials, they are not included in the capital reserve schedule.

**WOOD DECKS AND PORCHES**

All of the units have wood decks and steps on the rear facade. The decks and steps are constructed with pressure treated lumber. The decks are presently in good condition. Some of the units have sunporches constructed over the decks. The remainder are open decks.

Pressure treated lumber, even with frequent cleaning and coating, will eventually become dried out which results in splitting, cracking and splintering. As a result, it is likely that most the decking and railings will require replacement after 18-20 years. A small amount of the framing beneath the open decks need replacement, but total replacement of deck framing is unlikely within the foreseeable future. The units which have sunporches are not likely to require replacement of framing or any other component of the sunporches.

The line item in the capital reserve schedule entitled DECKS includes the cost of replacement of railings and decking on the open decks.

**WASTEWATER TREATMENT SYSTEM**

The property has an on site wastewater treatment system which serves all 84 units.

The system consists of a Bio-Clear settlement and clarification system, chlorination tanks, dosing tanks and a large leach field. Other components of the system consist of a lift station at the end of Spyglass Landing extension, several small transfer pumps, and an emergency generator.

Coughlin Environmental Service is the operator of the treatment system and is responsible for the maintenance of system components. Mr. Dan Coughlin was consulted to advise on the longevity of the system and likely replacement requirements.

Most of the system components are fixed items constructed of durable materials including underground PVC piping, concrete and fiberglass tanks and PVC leaching field distribution components. These items are not likely to require replacement in the foreseeable future.

Other components including the pumps and the emergency generator will likely require replacement at some point. Although there are several pumps within the system, most are small and relatively inexpensive. The largest and most expensive are the two pumps which transfer treated effluent to the leach field which would cost about \$5,000 each to replace. The generator is also an expensive component, however, given that it runs about 50 hours per year and is maintained annually,

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replacement is not likely to be necessary within the near future.

As it is not possible to specify definitive life spans for the components of the treatments system, it was recommended by Coughlin Environmental services that a replacement allowance be established.

The line item in the capital reserve schedule entitled WASTEWATER SYSTEM is an allowance intended to cover the cost of replacement of any system components which may require replacement.

**OTHER ISSUES**

- Concrete sidewalks are not included in the capital reserve schedule as they have a useful life of over 50 years.
- The irrigation system is not included in the capital reserve schedule. Although several components of the system including pumps and sprinkler heads will probably require replacement over the years, it is unlikely that the system will ever be replaced in its entirety.
- All of the windows and doors in all units are designated by the provisions of the Master Deed to be the responsibility of the individual Unit Owners, therefore they are not included in the Capital reserve schedule.

**NOTES ON SPREADSHEETS**

On the following pages are spreadsheets.

The spreadsheet on Page 13 depicts the quantities and unit costs of items included in the capital reserve program.

The spreadsheet on Page 14 illustrates the projected reserve requirements of the Association as determined by CBC.

## COSTS AND QUANTITIES OF RESERVE ITEMS

ITEM	QUANTITY	UNITS	X	COST PER UNIT	=	TOTAL COST
ASPHALT ROADS	9,930	SY		\$16.00		\$158,880
ASPHALT DRIVEWAYS	2,061	SY		9.75		20,095
SITE IMPROVEMENTS	1	ALL		10,000		10,000
LANDSCAPING	1	ALL		42,000		42,000
WASTEWATER SYSTEM	1	ALL		50,000		50,000
ROOFS	2,570	CSF		320		822,400
DECKS	16,560	SF		14		231,840
QUANTITY ABBREVIATIONS: SF = SQUARE FEET SY = SQUARE YARDS ALL = ALLOWANCE CSF = ONE HUNDRED SQUARE FEET (ONE SQUARE)						

## CAPITAL RESERVE REQUIREMENTS

ITEM	REMAINING LIFE	YEAR TO REPLACE	TOTAL COST	ON HAND	FUTURE RE- QUIREMENT	ANNUAL CON- TRIBUTION*
ASPHALT ROADS	25	2033	\$158,880	\$7,734	\$151,146	\$6,167
ASPHALT DRIVEWAYS	25	2033	20,095	978	19,117	780
SITE IMPROVEMENTS	15	2023	10,000	487	9,513	647
LANDSCAPING	15	2023	42,000	2,045	39,955	2,717
WASTEWATER SYSTEM	20	2028	50,000	2,434	47,566	2,426
ROOFS	30	2038	822,400	40,036	782,364	26,600
DECKS	25	2033	231,840	11,286	220,554	8,999
TOTAL COST OF PROJECTS:			\$1,335,215			
PRIOR CONTRIBUTION:			\$65,000			
PERCENTAGE OF TOTAL COST:			4.87%			
TOTAL ANNUAL CONTRIBUTION:						\$48,335
CAPITAL REPAIR/REPLACEMENT SCHEDULE PREPARED: FEBRUARY 4, 2008						
BASED ON FINANCIAL DATA CURRENT AS OF: DECEMBER 31, 2007						
* ANNUAL CONTRIBUTION INCLUDES A 2% INFLATION/INTEREST FACTOR						