

**RESERVE FUND STUDY**  
**TERRACES AT WALHALLA CONDOMINIUM ASSOCIATION**  
**COLUMBUS, OHIO**

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## 1.0 INTRODUCTION

Terraces at Walhalla Condominium Association has authorized Criterium-Liskay Engineers to conduct a Building Evaluation and Reserve Fund Study for Terraces at Walhalla Condominium located in Columbus, Ohio.

Studies of this nature are important to ensure that a community has sufficient funds for long-term, periodic capital expenditure requirements. Anticipating large expenditures over an extended period of time through a structured analysis and scheduling process assists the Association in meeting financial requirements without increasing the service fees above permitted maximums, borrowing the funds, or levying special financial assessments to the owners.

This report is designed to analyze components of the community for which the Association is responsible and to assess a useful expected life and useful remaining life to those components. The anticipated scheduled repair or replacement of the component and the anticipated expense for the activity are then analyzed in conjunction with the current capital reserves funding program for the community.

This study should be considered as a “full inspection” since the entire site was inspected by an on site inspection. This is not an update to a previous inspection. There has not been any other previous involvement between the association and Criterium-Liskay Engineers.

The present amount of funds in the reserve account was not audited but is based on information provided by Marc Hardman, Board President.

Typically, a community association has two broad cash requirements: the general operating reserves and the capital repair and replacement reserves. In this report, we will focus on those items falling under the capital repair and replacement reserve criteria. We have projected a capital repair and replacement reserve for 20 years. The first 10 years are the most reliable. Such a study should be updated every five to seven years.

This report is intended to be used as a tool to determine reserve fund allocation requirements for the community, to manage future Association obligations, and to inform the community of future financial needs in general. The report that follows has been prepared from the perspective of what an owner of this property would benefit from knowing. Some items, beyond those of immediate concern, may be discussed, because without including these issues could cause a distortion of the association’s situation. Therefore, the report should be read in its entirety in order to fully understand all of the information that has been obtained.

## 2.0 EXECUTIVE SUMMARY

The association consists of 20 units in one building. There is a parking garage and commercial space located on the lower level of the building. The building was completed in 2010.

Catch basins in the road collect the storm water as do floor drains in the garage and downspouts in the building, then carries the storm water away to the city system.

The building is of stick framed construction built with poured concrete foundations. Floors are constructed of either concrete over a metal pan or wood framing. The exterior walls are covered with brick and fiberboard siding. The roofing is covered with EPDM rubber membrane. The gutters and downspouts are aluminum.

Entry into the building and garage is controlled by an access control system. There is an asphalt service drive and visitor parking on the street. The buildings and grounds are generally in good condition.

Based on our evaluation, the current level of funding of the reserve fund for this project is not adequate. A more detailed analysis of the reserve fund has been provided in Appendix A

Based on our observations, there are no items of immediate concern.

There are several capital expenditures to be expected over the next 10 to 20 years. For your convenience, we have prepared the following summary of the condition of the major systems of the property.

<b>PROPERTY SUMMARY-</b>			
<b>SYSTEM</b>	<b>CONDITION</b>	<b>ACTIVITY REQUIRED</b>	<b>ANTICIPATED YEAR OF ACTIVITY</b>
<b>SITE</b>			
Asphalt	G	Seal	2015-2033
Asphalt	G	Repair	2018-2033
Concrete Sidewalk	G	Repair	2018-2033
<b>BUILDING EXTERIOR</b>			
Wood siding	G	Repair	2018-2033
Brick	G	Repair	2018-2033
Roofing	G	Replace	2030
Metal work	G	Caulk	2016-2033
<b>BUILDING INTERIOR</b>			
Common area	G	Remodel	2018-2033
Hallway painting	G	Repaint	2018-2033
<b>MECHANICAL</b>			
HVAC Units	G	Replace	2026
Exhaust Fan Units	G	Replace	2023
<b>AMENITIES</b>			
Work-out equipment			
Security Systems	G	Update	2028
<b>OTHER</b>			
Reserve Study	G	Update	2018-2033

**Table 2.1: Summary**

## 3.0 PURPOSE & SCOPE

### 3.1 Purpose

The purpose of this study is to perform a reserve fund analysis and to develop a capital needs plan. It is intended to be used as a tool for the Terraces at Walhalla Condominium Association, Inc. in determining the allocation requirements into the reserve fund in order to meet future anticipated capital expenditures for the community.

This report forecasts obligations for the community 20 years into the future. It should be noted that events might occur that could have an effect on the underlying component or system useful life assumptions used in this study. Likewise, inevitable market fluctuations can have an impact on component or system replacement and repair costs. Therefore, a study such as this should be updated from time to time, usually on a five-year cycle, in order to reflect the most accurate needs and obligations of the community.

### 3.2 Scope

This study has been performed according to the scope as generally defined by the Terraces at Walhalla Condominium Association, Inc., Criterium-Liskay Engineers and the standards of the Community Associations Institute. The findings and recommendations are based on interviews with the community's management personnel and an investigation of the buildings and site.

The guidelines used to determine which physical components within the community are to be included in the component inventory are based on the following general criteria:

1. The component must be a common element, or otherwise noted to be the responsibility of the Association to replace.
2. The funding for replacement should be from one source only, not funded from another area of the budget or through a maintenance contract.
3. The cost of replacement should be high enough to make it financially unsound to fund it from the operating budget.
4. Components, such as day to day painting, which are considered deferred maintenance, are most appropriately funded from the Operating Budget instead of Reserves.

Our reserve study analysis included evaluating the following association property:

- **Site and Grounds:** The community currently consists of one finished building with a total of 20 units. There are commercial spaces for lease and a parking garage on the first floor. The building occupies an estimated half acre parcel of ground, based on information from the Franklin County auditor's web site. The ground slopes from east to west.
- **Private Streets, Sidewalks and Curbs:** There is a single entrance road off of High Street. The drive is constructed of asphalt. There are sidewalks from the street to the building. There is assigned parking in the lower level parking garage. Access to the parking garage is controlled by a security system.
- **Building Common Elements:** The common elements of the building generally consist of roofs, gutters and downspouts, exterior wall

covering, trim, balconies, the interior hall decorations, the work-out equipment, the structural components of the roof, foundations and the common elements of the electrical and plumbing systems.

- **Amenities:** There is a mailbox station and exercise room on the first floor off the front lobby. There is an elevator that services all floors. There is a central trash collection system for all floors. There is a garage on the lower level of the building. There is a fire alarm, wet sprinkler and security system that protects the entire building.

The community's common elements were developed from information provided by the property manager.

We did not inspect the interior of any of the units or the meeting room or exercise room as part of this study.

This study estimates the funding levels required for maintaining the long term viability of the facility. Our approach involves:

1. Examining association managed equipment, buildings and site facilities.
2. Predicting their remaining service life and, approximating how frequently they will require repair or replacement.
3. Estimating repair or replacement costs (in 2015 dollars) for each capital item and applying a 3.0% inflation rate.
4. Using data developed in Steps 1, 2 and 3 to project Capital Reserve balances for Years 1 through 20.

The statements in this report are opinions about the present condition of the subject community. They are based on visual evidence available during a diligent investigation of all reasonably accessible areas falling under the responsibility of the Association. We did not remove any surface materials, perform any destructive testing, or move any furnishings. This study is not an exhaustive technical evaluation. Such an evaluation would entail a significantly larger scope than this effort.

### 3.3 Sources of Information

An on-site inspection of the property occurred on the following date:

- December 22, 2014

Construction drawings were reviewed.

We based our cost estimates on some or all of the following:

- Some costs and schedule information from our historical files
- R.S. Means
- Local contractors

### 3.4 Standards of Reference

For your reference, the following definitions may be helpful:

*Excellent:* Component or system is in "as new" condition, requiring no rehabilitation and should perform in accordance with expected performance.

*Good:* Component or system is sound and performing its function, although it may show signs of normal wear and tear. Some minor rehabilitation work may be required.

*Fair:* Component or system falls into one or more of the following categories: a) Evidence of previous repairs not in compliance with commonly accepted practice, b) Workmanship not in compliance with commonly accepted standards, c) Component or system is obsolete, d) Component or system approaching end of expected performance. Repair or replacement is required to prevent further deterioration or to prolong expected life.

*Poor:* Component or system has either failed or cannot be relied upon to continue performing its original function as a result of having exceeded its expected performance, excessive deferred maintenance, or state of disrepair. Present condition could contribute to or cause the deterioration of other adjoining elements or systems. Repair or replacement is required.

*Adequate:* A component or system is of a capacity that is defined as enough for what is required, sufficient, suitable, and/or conforms to standard construction practices.

All ratings are determined by comparison to other buildings of similar age and construction type. Further, some details of workmanship and materials will be examined more closely in higher quality buildings where such details typically become more relevant.

All directions (left, right, rear, etc.), when used, are taken from the viewpoint of an observer standing in front of a building and facing it.

*Repair/Replacement Reserves* - Non-annual maintenance items that will require significant expenditure over the life of the buildings. Included are items that will reach the end of their estimated useful life during the course of this forecast, or, in the opinion of the investigator, will require attention during that time.

#### **4.0 DESCRIPTION**

The construction of the Association property was completed in 2010. The community consists of a single four story building with 20 units of various configurations. The building lower level has a parking garage and commercial lease spaces.

There is a single entrance into the development off of High Street. The service drive is paved with asphalt.

The building is constructed of stick-frame construction with the outer walls covered with either brick or fiber-board siding. Roofing on the building consists of EPDM rubber membrane over insulation and a wood framed deck. There are interior drains and aluminum gutters with aluminum downspouts from the roof that carry away storm water to the storm water system.

There are balconies with metal railings on each unit. There are three terraces for the tenants use. There is a lobby off the front entrance with an exercise room and a mailbox station nearby. There is an elevator that serves all the floors. There is a common trash collection system for all the floors with a trash dumpster located in the lower level.

Electrical, water and gas service is supplied underground with the electric and gas individually metered to each unit. There is an access and security system for all doors and the garage. The entire building is protected by a wet sprinkler system.

## 5.0 OBSERVATIONS

The following key observations were made about the current condition of the common elements of the property.

### **Site and Grounds**

The slope of ground is generally away from the units. Overall the condition of the grounds near the structure generally appears in good condition.

The asphalt to the parking garage is deteriorating and is in fair condition. There is a storm drain in the drive which does not have a concrete collar. Funds for installation on a concrete drain surround, periodic sealing and repairs of asphalt are included in the study.

There is a concrete sidewalk between the on street parking and the front door. The sidewalk appears generally in good condition. Some repairs are anticipated due to settlement over time and these repairs are included in the reserve study.

### **Building Exterior**

The building is of stick-framed construction with an EPDM membrane covered flat roof. The exterior of the building is clad with concrete block on the first level and brick or fiber-board siding on the upper three levels. Generally, the concrete block and brick are in good condition. The fiberboard siding is in fair condition with areas of deterioration and trim coming off. Regular inspection and re-caulking is required, especially at the horizontal trim. Without these inspections, rainwater and driven rain can work their way past the siding and into the sheathing members of the building. Once the water becomes trapped between the wood sheathing and the foam insulation, rotting can begin. Funds for the upkeep of the fiberboard siding is included in the study.

The roof was examined by going onto the roof surface. The roofing (which includes the flashing, gutters and downspouts) is in good condition. Frequent inspections of the roof should be undertaken to identify and repair seams that may open. Because there are several air conditioners on the roof and other mechanical equipment, the installation of walking pads from the access hatch opening to all the equipment around the roof is recommended to reduce the chance of accidental damage. Minor repairs to the roof are considered maintenance, however the replacement of the roofing has been included in the study.

There are cantilevered balconies off many of the units. The unit owners are responsible for the care and upkeep of the balconies including the supports, decking, railing and roofs. Therefore, funds have not been included in this study.

The three public terraces are the responsibility of the Association. One of the terraces have a rubber membrane walking surface and a sound proofing mat. The other two terraces have a concrete floor. The flooring appears to be in good condition. Funds to eventually replace the flooring have been included in the survey. There are fiberboard railings around one of the terraces. The fiberboard is touching the concrete deck and is used as cap for the railing. In both places the fiberboard is deteriorating and in poor condition. Funds for the repair of these areas and for the general upkeep of the fiberboard railings have been included under the fiberboard siding costs.

### **Building Interiors**

Except as noted, the interior lobby, halls, workout room and mechanical equipment rooms appear to be in good condition. There are doors to the fire escape stairwells which do not close properly.

None of the furniture in the hallway or other common rooms is included in the study, however periodic replacement of the carpet is included. Funds are included for the periodic replacement of the workout equipment.

### **Mechanical**

The electrical service is provided underground at the South side of the building. The disconnect switch is located on the south end of the building. The electric meters are located adjacent to the main disconnect and metering equipment. Each unit has its own electric panel.

The main gas meter is located outside the West corner of the building.

There are heating and cooling units that service the lobbies on each floor. There are heating units servicing the garage. Replacement of these units is included in the study. Each living unit has its own split system for heating and cooling. Repairs and maintenance of these individual systems are the responsibility of the unit owners and thus is not included in the reserve study.

Plumbing in the building appeared in good condition.

The security system and fire alarm system is operational. Over time the system will need to be replaced due to technological improvements and the obsolescence of the current system components. This upgrade has been included in the study.

The fire protection system was operational.

There are battery operated emergency lighting fixtures in the hallways and stairways. As part of normal maintenance these battery powered lighting/EXIT signs will need to be replaced.

### Amenities

There is an elevator that services all the floors. The elevator is operational. Upgrades to its control system are included in this study.

There is a central trash collection system servicing all the floors. This appears to be in good condition.

There is a mailbox area off the first floor lobby. The mailboxes are in good condition.

## **6.0 RESERVE FUND ANALYSIS**

Using software developed by Criterium Engineers and KPMG Peat Marwick, we have analyzed capital reserves draw-down for the projected capital expenditures to determine the amount needed. The following is a projected reserve fund analysis for non-annual items as discussed in the report. This projection takes into consideration a reasonable return on invested moneys and inflation.

The intent of this reserve fund projection is to help the Association develop a reserve fund to provide for anticipated repair or replacements of various system components during the next 20 years.

The capital items listed are those that are typically the responsibility of the association. However, association by-laws vary, and therefore, which components are the responsibilities of the owner and which is the responsibility of the Association can vary.

This projection provides the following:

- An input sheet that defines all the criteria used for the financial alternatives, including the assumed inflation rate and rate of return on deposited reserve funds.
- A table that lists anticipated replacement and/or repair items complete with estimated remaining life expectancies, projected costs of replacement and/or repair, a frequency in years of when these items require replacement and/or repair, and a projection based on this frequency.
- A table and graph that represent end of year balances versus capital expenditures based on your current funding program and reserve balances, and alternatives to your current program. The provided graphs illustrate what effects the funding methods will have over the presented 20 period versus the anticipated capital expenditures. Care should be taken in analyzing the graphs due to varying graphic scales that occur within each graph and between graphs.
- Note that based on our developed list of capital items and taking inflation into account the current funding is not adequate over the next 20 years.
- The Association should bear in mind that unanticipated expenditures can always arise and maintenance of a significant reserve fund balance can be viewed as a way to avoid special assessments.

We have included three alternatives to your current funding program and recommend that the board adopt an alternative that best reflects the objectives of the community. In summary they are as follows:

#### **Current Reserve Funding Rate:**

Based on information received from Marc Hardman, Board President, the projected reserve fund balance as of January 1, 2015 will be about \$20,110.20 The current annual contribution into the reserve fund is \$413.84 or \$20.69 per unit per month.

**Alternative 1:** Increase the current monthly per unit contribution to the Reserve Fund from \$20.69 to \$27.00 in 2015. In 2016 increase the monthly contribution by \$1.50 per unit every year until 2026 when the contribution to the Reserve Fund will be \$42.00. Maintain this rate through the balance of the 20 years. This alternative maintains a positive balance during the 20 year period and is at least 10% of the annual budget to be in compliance O.R. Code 5311.

**Alternative 2:** Increase the current monthly per unit reserve fund

contribution in 2015 to \$27.00 per unit per month into the Reserve Fund. Beginning in 2016 increase the monthly fee by 4.5% every year until 2026 when the fee will be about \$41.93 per unit per month. Maintain this rate through the balance of the 20 years. This alternative also maintains a positive balance during the 20 year period and is at least 10% of the annual budget to be in compliance O.R. Code 5311.

- **Alternative 3:** Increase the per unit monthly contribution to the Reserve Fund to \$40.00 from the current monthly contribution in 2015 and maintain this rate through the 20 years. This alternative also maintains a positive balance during the 20 year period and is at least 10% of the annual budget to be in compliance O.R. Code 5311

Addendum A lists estimated capital reserves from 2015 through 2035.

The analysis provides three alternatives to provide adequate funding for this property. Other alternatives can be calculated if the board requests.

We trust this answers any questions that may arise.

The observations described in this study are valid on the dates of the investigation and have been made under the conditions noted in the report. We prepared this study for the exclusive use of Terraces at Walhalla Condominium Association, Criterium-Liszkay Engineers does not intend any other individual or party to rely upon this study without our express written consent. If another individual or party relies on this study, they shall indemnify and hold Criterium-Liszkay Engineers harmless for any damages, losses, or expenses they may incur as a result of its use.

This study is limited to the visual observations made during our inspection. We did not remove surface materials, conduct any destructive or invasive testing, move furnishings or equipment, or undertake any digging or excavation. Accordingly, we cannot comment on the condition of systems that we could not see, such as buried structures and utilities, nor are we responsible for conditions that could not be seen or were not within the scope of our services at the time of the investigation. We did not undertake to completely assess the stability of the buildings or the underlying foundation soil since this effort would require excavation and destructive testing. Likewise, this is not a seismic assessment.

We did not investigate the following areas:

- Buried utilities or infrastructure
- Concealed structural members or systems
- Any individual components
- None of the individual utilities
- The meeting room or exercise room

We do not render an opinion on uninvestigated portions of the community.

We did not perform any computations or other engineering analysis as part of this evaluation, nor did we conduct a comprehensive code compliance investigation. This study is not to be considered a warranty of condition, and no warranty is implied. The appendices are an integral part of this report and must be included in any review.

## 7.0 CONCLUSION

## 8.0 LIMITATIONS

In our Reserve Fund Analysis, we have provided estimated costs. These costs are based on our general knowledge of building systems and the contracting and construction industry. When appropriate, we have relied on standard sources, such as Means Building Construction Cost Data, to develop estimates. However, for items that we have developed costs (e.g.: structural repairs), no standard guide for developing such costs exists. Actual costs can vary significantly, based on the availability of qualified contractors to do the work, as well as many other variables. We cannot be responsible for the specific cost estimates provided.

We have performed no design work as part of this study, nor have we obtained competitive quotations or estimates from contractors as this also is beyond the scope of the project. The actual cost to remedy deficiencies and deferred maintenance items that we have identified may vary significantly from estimates and competitive quotations from contractors.

If you have any questions about this study or the reserve fund analysis, please feel free to contact us. Thank-you for the opportunity to be of assistance to you.

Respectfully submitted,

Scott Malley R.A.  
Criterium-Liskay Engineers

**Appendix A: RESERVE FUND PROJECTIONS**

# Reserve Study Worksheet

## General Information:

1 Organization: **Terraces of Walhalla**  
 2 Address: **Columbus, OH**

3	Number of Units	<b>20</b>
4	Age of Building (in years)	<b>5</b>
5a	Study Period (in years)	<b>20</b>
5b	Normal Fiscal Year starts:	<b>January 1, 2015</b>
5c	Partial Fiscal Year starts:	<b>January 1, 2015</b>
5d	Partial Year Length:	<b>12 months</b>
6	Site Inspection Date	<b>December 11, 2014</b>
7	Reserve Funds at start	<b>\$20,110</b>
8	Rate of Return on invested Reserve Funds (%)	<b>0.3%</b>
9	Inflation Rate (%)	<b>3.0%</b>

## 10 Current Funding Levels

Existing Funding Levels				
	Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
<b>Reserve Fund Contribution.....</b>	<b>\$414</b>	<b>\$4,966</b>	<b>\$20.69</b>	<b>\$248.30</b>
	<b>Years Out</b>	<b>Total Annual</b>	<b>Per Unit</b>	
<b>Planned Special Assessment.....</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Balance Computed.....</b>	<b>(\$53,998)</b>			

## 11 Alternative Reserve Fund Contribution

Alternative 1 Level Funding with Steps				
	Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
<b>Monthly Amount, (First Year).....</b>	<b>\$540</b>	<b>\$6,480</b>	<b>\$27.00</b>	<b>\$324.00</b>
<b>Monthly Amount, (Last Year).....</b>	<b>\$840</b>	<b>\$10,080</b>	<b>\$42.00</b>	<b>\$504.00</b>
<b>Balance Required Final Year.....</b>	<b>\$8,704</b>			
	<b>Years Out</b>	<b>Total/Year</b>	<b>Per Unit</b>	
<b>Special Assessments:</b>				
<b>First Assessment.....</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Second Assessment.....</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Balance Computed.....</b>	<b>\$29,235</b>			

Alternative 2 Escalating Funding at 4.5% per Year				
	Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
<b>Monthly Amount, (First Year).....</b>	<b>\$540</b>	<b>\$6,480</b>	<b>\$27.00</b>	<b>\$324.00</b>
<b>Monthly Amount, (Last Year).....</b>	<b>\$839</b>	<b>\$10,063</b>	<b>\$41.93</b>	<b>\$503.16</b>
<b>Balance Required Final Year.....</b>	<b>\$8,704</b>			
<b>Base Escalation %.....</b>	<b>4.50%</b>			
	<b>Years Out</b>	<b>Total/Year</b>	<b>Per Unit</b>	
<b>Special Assessments:</b>				
<b>First Assessment.....</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Second Assessment.....</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Balance Computed.....</b>	<b>\$27,640</b>			

Alternative 3 Level Funding				
	Total/Month	Total Annual	Per Unit/Month	Per Unit/Year
<b>Monthly Amount, (First Year).....</b>	<b>\$800</b>	<b>\$9,600</b>	<b>\$40.00</b>	<b>\$480.00</b>
<b>Monthly Amount, (Last Year).....</b>	<b>\$800</b>	<b>\$9,600</b>	<b>\$40.00</b>	<b>\$480.00</b>
<b>Balance Required Final Year.....</b>	<b>\$8,704</b>			
<b>Base Escalation %.....</b>	<b>0.00%</b>			
	<b>Years Out</b>	<b>Total/Year</b>	<b>Per Unit</b>	
<b>Special Assessments:</b>				
<b>First Assessment.....</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Second Assessment.....</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	
<b>Balance Computed.....</b>	<b>\$20,325</b>			

**Reserve Fund Worksheet**

Fiscal Years:															
Normal: Jan 2015	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Partial: Jan 2015 (12 months)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

**Existing Funding Levels**

Beginning Reserve Fund Balance:	\$20,110	\$25,139	\$16,550	\$21,570	\$22,576	\$27,611	\$29,753	\$34,357	\$39,421	\$44,498	(\$16,688)	(\$25,665)	(\$20,699)	(\$38,795)	(\$33,829)
Revenue:	\$4,966	\$4,966	\$4,966	\$4,966	\$4,966	\$4,966	\$4,966	\$4,966	\$4,966	\$4,966	\$4,966	\$4,966	\$4,966	\$4,966	\$4,966
Special Assessments:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$63	\$41	\$54	\$56	\$69	\$74	\$86	\$98	\$111	\$0	\$0	\$0	\$0	\$0	\$0
Capital Expenditures:	\$0	\$13,596	\$0	\$4,016	\$0	\$2,898	\$448	\$0	\$0	\$66,152	\$13,943	\$0	\$23,062	\$0	\$18,756
Ending Reserve Balance:	\$25,139	\$16,550	\$21,570	\$22,576	\$27,611	\$29,753	\$34,357	\$39,421	\$44,498	(\$16,688)	(\$25,665)	(\$20,699)	(\$38,795)	(\$33,829)	(\$47,619)

**Alternative 1, Level Funding with Steps**

Average Cap. Expenditure \$8,704

Beginning Reserve Fund Balance:	\$20,110	\$26,656	\$19,950	\$27,218	\$30,839	\$38,856	\$44,349	\$52,672	\$61,826	\$71,364	\$14,970	\$11,134	\$21,267	\$8,306	\$18,432
Revenue:	\$6,480	\$6,840	\$7,200	\$7,560	\$7,920	\$8,280	\$8,640	\$9,000	\$9,360	\$9,720	\$10,080	\$10,080	\$10,080	\$10,080	\$10,080
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$66	\$50	\$68	\$77	\$97	\$111	\$131	\$154	\$178	\$37	\$28	\$53	\$21	\$46	\$24
Capital Expenditures:	\$0	\$13,596	\$0	\$4,016	\$0	\$2,898	\$448	\$0	\$0	\$66,152	\$13,943	\$0	\$23,062	\$0	\$18,756
Ending Reserve Balance:	\$26,656	\$19,950	\$27,218	\$30,839	\$38,856	\$44,349	\$52,672	\$61,826	\$71,364	\$14,970	\$11,134	\$21,267	\$8,306	\$18,432	\$9,781

**Alternative 2, Escalating Funding at 4.5% per Year**

Beginning Reserve Fund Balance:	\$20,110	\$26,656	\$19,882	\$27,025	\$30,480	\$38,303	\$43,589	\$51,709	\$60,679	\$70,069	\$13,580	\$9,725	\$19,837	\$6,856	\$16,962
Revenue:	\$6,480	\$6,772	\$7,076	\$7,395	\$7,728	\$8,075	\$8,439	\$8,818	\$9,215	\$9,630	\$10,063	\$10,063	\$10,063	\$10,063	\$10,063
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$66	\$50	\$67	\$76	\$96	\$109	\$129	\$151	\$175	\$34	\$24	\$49	\$17	\$42	\$21
Capital Expenditures:	\$0	\$13,596	\$0	\$4,016	\$0	\$2,898	\$448	\$0	\$0	\$66,152	\$13,943	\$0	\$23,062	\$0	\$18,756
Ending Reserve Balance:	\$26,656	\$19,882	\$27,025	\$30,480	\$38,303	\$43,589	\$51,709	\$60,679	\$70,069	\$13,580	\$9,725	\$19,837	\$6,856	\$16,962	\$8,289

**Alternative 3, Level Funding**

Beginning Reserve Fund Balance:	\$20,110	\$28,822	\$23,926	\$32,647	\$37,364	\$46,119	\$51,991	\$60,334	\$69,146	\$77,980	\$20,520	\$15,255	\$23,954	\$9,556	\$18,242
Revenue:	\$8,640	\$8,640	\$8,640	\$8,640	\$8,640	\$8,640	\$8,640	\$8,640	\$8,640	\$8,640	\$8,640	\$8,640	\$8,640	\$8,640	\$8,640
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$72	\$60	\$81	\$93	\$115	\$130	\$150	\$172	\$194	\$51	\$38	\$60	\$24	\$45	\$20
Capital Expenditures:	\$0	\$13,596	\$0	\$4,016	\$0	\$2,898	\$448	\$0	\$0	\$66,152	\$13,943	\$0	\$23,062	\$0	\$18,756
Ending Reserve Balance:	\$28,822	\$23,926	\$32,647	\$37,364	\$46,119	\$51,991	\$60,334	\$69,146	\$77,980	\$20,520	\$15,255	\$23,954	\$9,556	\$18,242	\$8,146

## Reserve Fund Worksheet

Fiscal Years:					
Normal: Jan 2015	2030	2031	2032	2033	2034
Partial: Jan 2015 (12 months)	16	17	18	19	20

### Existing Funding Levels

Beginning Reserve Fund Balance:	(\$47,619)	(\$47,132)	(\$42,166)	(\$57,035)	(\$58,964)
Revenue:	\$4,966	\$4,966	\$4,966	\$4,966	\$4,966
Special Assessments:	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$0	\$0	\$0	\$0	\$0
Capital Expenditures:	\$4,479	\$0	\$19,834	\$6,895	\$0
Ending Reserve Balance:	(\$47,132)	(\$42,166)	(\$57,035)	(\$58,964)	(\$53,998)

### Alternative 1, Level Funding wi

Beginning Reserve Fund Balance:	\$9,781	\$15,420	\$25,564	\$15,849	\$19,082
Revenue:	\$10,080	\$10,080	\$10,080	\$10,080	\$10,080
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$38	\$64	\$40	\$48	\$73
Capital Expenditures:	\$4,479	\$0	\$19,834	\$6,895	\$0
Ending Reserve Balance:	\$15,420	\$25,564	\$15,849	\$19,082	\$29,235

### Alternative 2, Escalating Fundi

Beginning Reserve Fund Balance:	\$8,289	\$13,908	\$24,031	\$14,296	\$17,508
Revenue:	\$10,063	\$10,063	\$10,063	\$10,063	\$10,063
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$35	\$60	\$36	\$44	\$69
Capital Expenditures:	\$4,479	\$0	\$19,834	\$6,895	\$0
Ending Reserve Balance:	\$13,908	\$24,031	\$14,296	\$17,508	\$27,640

### Alternative 3, Level Funding

Beginning Reserve Fund Balance:	\$8,146	\$12,338	\$21,030	\$9,861	\$11,635
Revenue:	\$8,640	\$8,640	\$8,640	\$8,640	\$8,640
Special Assessment #1:	\$0	\$0	\$0	\$0	\$0
Special Assessment #2:	\$0	\$0	\$0	\$0	\$0
Investment Earnings:	\$31	\$52	\$25	\$29	\$51
Capital Expenditures:	\$4,479	\$0	\$19,834	\$6,895	\$0
Ending Reserve Balance:	\$12,338	\$21,030	\$9,861	\$11,635	\$20,325

**Itemized Worksheet**

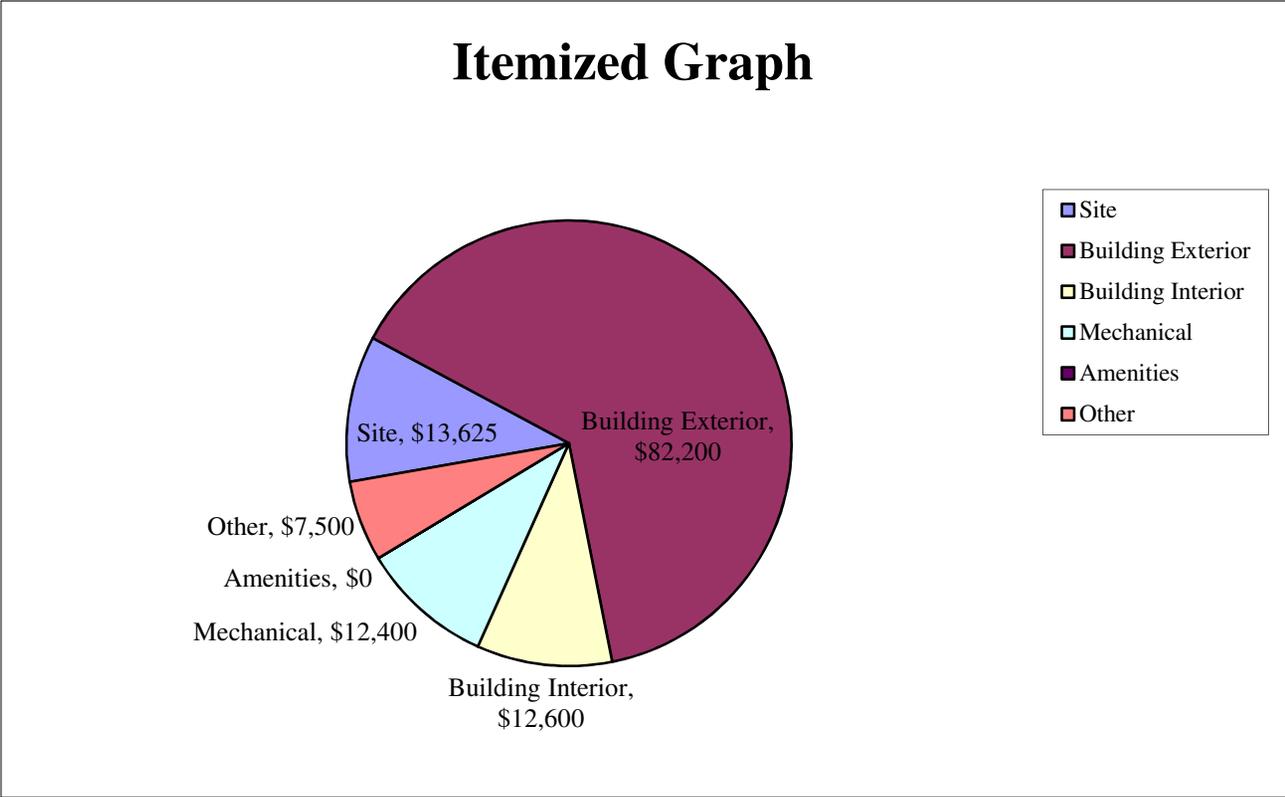
Capital Item To Be Replaced	Quantity	Unit cost	Reserve Requirement (*)	Beginning Balance	Frequency (yrs**)	Remaining Life (yrs)	Reserve Funding Monthly	Funding Required Annual	Full Funding Balance	Information Source
<b>Site</b>										
Asphalt - Seal	1,500 sf	\$0.25	\$375.00	(\$185.11)	3	6	\$7.78	\$93.35	(\$375.00)	
Asphalt - Mill and Fill	1,500 sf	\$2.45	\$3,675.00	\$1,451.24	15	3	\$61.77	\$741.25	\$2,940.00	
Concrete sidewalk - Replace	100 sf	\$32.00	\$3,200.00	\$315.92	15	12	\$20.03	\$240.34	\$640.00	
Concrete drain surround - Install	1 ea	\$1,200.00	\$1,200.00	\$572.60	30	1	\$52.28	\$627.40	\$1,160.00	
<b>Building Exterior</b>										
Roofing - Replace	10,950 sf	\$3.50	\$38,325.00	\$7,567.16	15	9	\$284.79	\$3,417.54	\$15,330.00	
Fibre-board siding - Repair/Paint	1 bldg	\$12,000.00	\$12,000.00	\$5,182.99	8	1	\$568.08	\$6,817.01	\$10,500.00	
Terrace flooring - Replace	1,750 sf	\$4.50	\$7,875.00	\$1,295.75	15	10	\$54.83	\$657.93	\$2,625.00	
<b>Building Interior</b>										
Carpet - Replace	1,400 sf	\$9.00	\$12,600.00	\$2,073.20	18	12	\$73.10	\$877.23	\$4,200.00	
<b>Mechanical</b>										
HVAC Unit - Replace	2 ea	\$1,200.00	\$2,400.00	\$355.41	20	14	\$12.17	\$146.04	\$720.00	
Security system - Replace	1 ea	\$5,000.00	\$5,000.00	\$740.43	20	14	\$25.35	\$304.26	\$1,500.00	
Fire alarm system - Replace	1 ea	\$5,000.00	\$5,000.00	\$740.43	20	14	\$25.35	\$304.26	\$1,500.00	
<b>Amenities</b>										
<b>Other</b>										
Reserve study - Update	1 ls	\$2,500.00	\$2,500.00	\$0.00	5	5	\$41.67	\$500.00	\$0.00	
<b>Totals</b>			\$94,150.00	\$20,110.00			\$1,227.22	\$14,726.61	\$40,740.00	
<b>Total Over Term</b>			\$128,325.00							

\* Costs are typically 10%±

\*\* Reserve study is based on a 20 year projection of non-annual maintenance

# Itemized Graph

Categories	Totals
Site	\$13,625
Building Exterior	\$82,200
Building Interior	\$12,600
Mechanical	\$12,400
Amenities	\$0
Other	\$7,500
<b>Total</b>	<b>\$128,325</b>



# Itemized Funding



Categories	Reserve Requirement	Beginning Balance	Balance Requiring Funding	Monthly Reserve Funding Required	Annual Reserve Funding Required	Full Funding Balance	Percent Funded
Site	\$13,625	\$2,155	\$11,470	\$142	\$1,702	\$4,365	
Building Exterior	\$82,200	\$14,046	\$68,154	\$908	\$10,892	\$28,455	
Building Interior	\$12,600	\$2,073	\$10,527	\$73	\$877	\$4,200	
Mechanical	\$12,400	\$1,836	\$10,564	\$63	\$755	\$3,720	
Amenities	\$0	\$0	\$0	\$0	\$0	\$0	
Other	\$7,500	\$0	\$7,500	\$42	\$500	\$0	
<b>Totals</b>	<b>\$128,325</b>	<b>\$20,110</b>	<b>\$108,215</b>	<b>\$1,227</b>	<b>\$14,727</b>	<b>\$40,740</b>	<b>49.4%</b>

**Annual Expense By Year**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Year:</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>Year Number:</b>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<b>Site</b>																
Asphalt - Seal	0	0	0	0	0	0	375	0	0	375	0	0	375	0	0	375
Asphalt - Mill and Fill	0	0	0	3,675	0	0	0	0	0	0	0	0	0	0	0	0
Concrete sidewalk - Replace	0	0	0	0	0	0	0	0	0	0	0	0	3,200	0	0	0
Concrete drain surround - Install	0	1,200	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Building Exterior</b>																
Roofing - Replace	0	0	0	0	0	0	0	0	0	38,325	0	0	0	0	0	0
Fibre-board siding - Repair/Paint	0	12,000	0	0	0	0	0	0	0	12,000	0	0	0	0	0	0
Terrace flooring - Replace	0	0	0	0	0	0	0	0	0	0	7,875	0	0	0	0	0
<b>Building Interior</b>																
Carpet - Replace	0	0	0	0	0	0	0	0	0	0	0	0	12,600	0	0	0
<b>Mechanical</b>																
HVAC Unit - Replace	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,400	0
Security system - Replace	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,000	0
Fire alarm system - Replace	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,000	0
<b>Amenities</b>																
<b>Other</b>																
Reserve study - Update	0	0	0	0	0	2,500	0	0	0	0	2,500	0	0	0	0	2,500
<b>Total Costs</b>	<b>0</b>	<b>13,200</b>	<b>0</b>	<b>3,675</b>	<b>0</b>	<b>2,500</b>	<b>375</b>	<b>0</b>	<b>0</b>	<b>50,700</b>	<b>10,375</b>	<b>0</b>	<b>16,175</b>	<b>0</b>	<b>12,400</b>	<b>2,875</b>
<b>Total Costs Adjusted For 3% Inflation</b>	<b>0</b>	<b>13,596</b>	<b>0</b>	<b>4,016</b>	<b>0</b>	<b>2,898</b>	<b>448</b>	<b>0</b>	<b>0</b>	<b>66,152</b>	<b>13,943</b>	<b>0</b>	<b>23,062</b>	<b>0</b>	<b>0</b>	<b>4,479</b>

## Annual Expense By Year

	Year:	2031	2032	2033	2034
	Year Number:	17	18	19	20
<b>Site</b>					
Asphalt - Seal		0	0	375	0
Asphalt - Mill and Fill		0	0	3,675	0
Concrete sidewalk - Replace		0	0	0	0
Concrete drain surround - Install		0	0	0	0
<b>Building Exterior</b>					
Roofing - Replace		0	0	0	0
Fibre-board siding - Repair/Paint		0	12,000	0	0
Terrace flooring - Replace		0	0	0	0
<b>Building Interior</b>					
Carpet - Replace		0	0	0	0
<b>Mechanical</b>					
HVAC Unit - Replace		0	0	0	0
Security system - Replace		0	0	0	0
Fire alarm system - Replace		0	0	0	0
<b>Amenities</b>					
<b>Other</b>					
Reserve study - Update		0	0	0	0
<b>Total Costs</b>		<b>0</b>	<b>12,000</b>	<b>4,050</b>	<b>0</b>
<b>Total Costs Adjusted For 3% Inflation</b>		<b>0</b>	<b>19,834</b>	<b>6,895</b>	<b>0</b>

## Existing Funding Levels

Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments	Investment Earnings	Capital Expenditures	Ending Balance
2015	1	\$20,110	\$4,966	\$0	\$63	\$0	\$25,139
2016	2	\$25,139	\$4,966	\$0	\$41	\$13,596	\$16,550
2017	3	\$16,550	\$4,966	\$0	\$54	\$0	\$21,570
2018	4	\$21,570	\$4,966	\$0	\$56	\$4,016	\$22,576
2019	5	\$22,576	\$4,966	\$0	\$69	\$0	\$27,611
2020	6	\$27,611	\$4,966	\$0	\$74	\$2,898	\$29,753
2021	7	\$29,753	\$4,966	\$0	\$86	\$448	\$34,357
2022	8	\$34,357	\$4,966	\$0	\$98	\$0	\$39,421
2023	9	\$39,421	\$4,966	\$0	\$111	\$0	\$44,498
2024	10	\$44,498	\$4,966	\$0	\$0	\$66,152	(\$16,688)
2025	11	(\$16,688)	\$4,966	\$0	\$0	\$13,943	(\$25,665)
2026	12	(\$25,665)	\$4,966	\$0	\$0	\$0	(\$20,699)
2027	13	(\$20,699)	\$4,966	\$0	\$0	\$23,062	(\$38,795)
2028	14	(\$38,795)	\$4,966	\$0	\$0	\$0	(\$33,829)
2029	15	(\$33,829)	\$4,966	\$0	\$0	\$18,756	(\$47,619)
2030	16	(\$47,619)	\$4,966	\$0	\$0	\$4,479	(\$47,132)
2031	17	(\$47,132)	\$4,966	\$0	\$0	\$0	(\$42,166)
2032	18	(\$42,166)	\$4,966	\$0	\$0	\$19,834	(\$57,035)
2033	19	(\$57,035)	\$4,966	\$0	\$0	\$6,895	(\$58,964)
2034	20	(\$58,964)	\$4,966	\$0	\$0	\$0	(\$53,998)

**Existing Funding Levels**

Beginning Balance as of start of year beginning Jan 2015: \$20,110

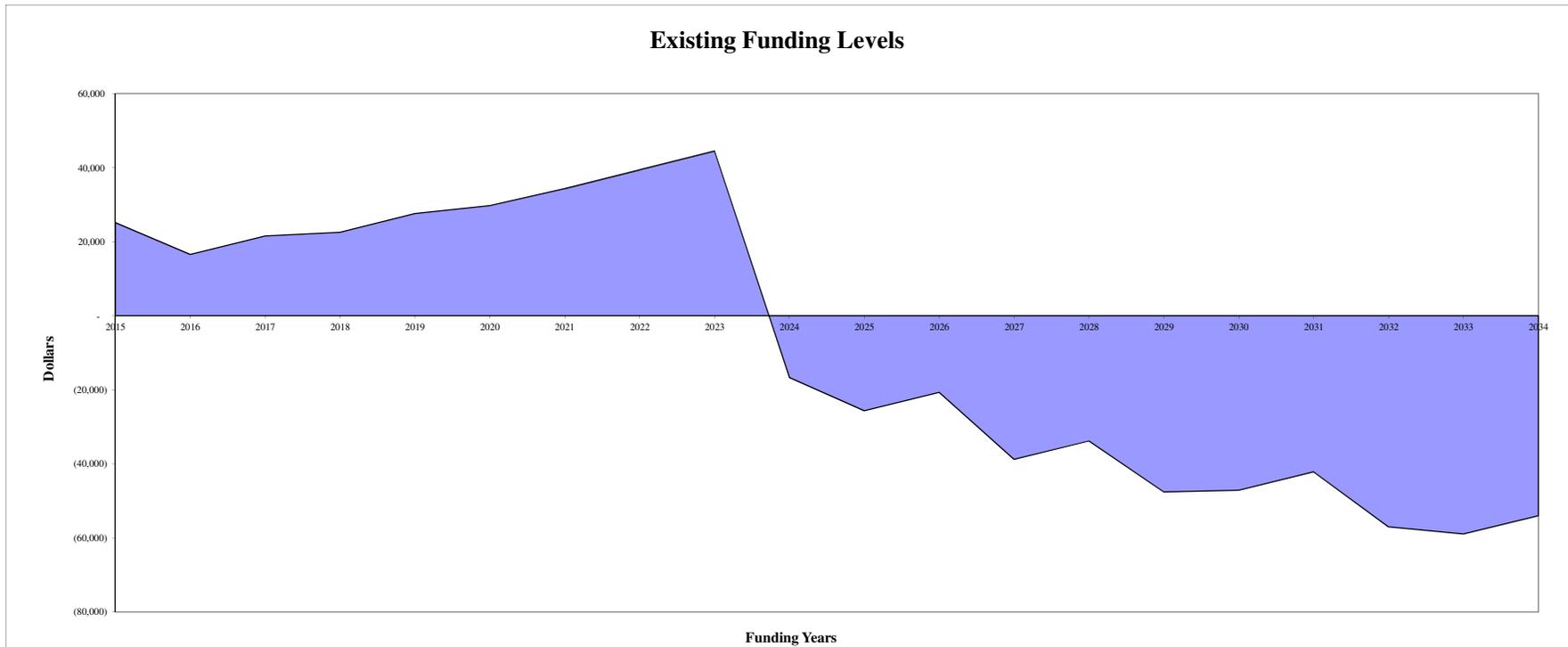
CONTRIBUTIONS	
AMOUNT	
\$4,965.96	per year
\$248.30	per unit per year
\$413.83	per month
\$20.69	per unit per month

SPECIAL ASSESSMENTS			
Totals			
Per Year	\$0	Per Unit	\$0

**Projected Annual Funding and Expenditures:**

Year:	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	25,139	16,550	21,570	22,576	27,611	29,753	34,357	39,421	44,498	(16,688)	(25,665)	(20,699)	(38,795)	(33,829)	(47,619)
Capital Expenditures:	-	13,596	-	4,016	-	2,898	448	-	-	66,152	13,943	-	23,062	-	18,756
Total Revenue (all sources)	5,029	5,007	5,020	5,022	5,035	5,040	5,052	5,064	5,077	4,966	4,966	4,966	4,966	4,966	4,966

Year:	2030	2031	2032	2033	2034
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	(47,132)	(42,166)	(57,035)	(58,964)	(53,998)
Capital Expenditures:	4,479	-	19,834	6,895	-
Total Revenue (all sources)	(42,653)	(42,166)	(37,200)	(52,069)	(53,998)



## Alternative 1: Level Funding with Steps

Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments 1	Special Assessments 2	Investment Earnings	Capital Expenditures	Ending Balance
2015	1	\$20,110	\$6,480	\$0	\$0	\$66	\$0	\$26,656
2016	2	\$26,656	\$6,840	\$0	\$0	\$50	\$13,596	\$19,950
2017	3	\$19,950	\$7,200	\$0	\$0	\$68	\$0	\$27,218
2018	4	\$27,218	\$7,560	\$0	\$0	\$77	\$4,016	\$30,839
2019	5	\$30,839	\$7,920	\$0	\$0	\$97	\$0	\$38,856
2020	6	\$38,856	\$8,280	\$0	\$0	\$111	\$2,898	\$44,349
2021	7	\$44,349	\$8,640	\$0	\$0	\$131	\$448	\$52,672
2022	8	\$52,672	\$9,000	\$0	\$0	\$154	\$0	\$61,826
2023	9	\$61,826	\$9,360	\$0	\$0	\$178	\$0	\$71,364
2024	10	\$71,364	\$9,720	\$0	\$0	\$37	\$66,152	\$14,970
2025	11	\$14,970	\$10,080	\$0	\$0	\$28	\$13,943	\$11,134
2026	12	\$11,134	\$10,080	\$0	\$0	\$53	\$0	\$21,267
2027	13	\$21,267	\$10,080	\$0	\$0	\$21	\$23,062	\$8,306
2028	14	\$8,306	\$10,080	\$0	\$0	\$46	\$0	\$18,432
2029	15	\$18,432	\$10,080	\$0	\$0	\$24	\$18,756	\$9,781
2030	16	\$9,781	\$10,080	\$0	\$0	\$38	\$4,479	\$15,420
2031	17	\$15,420	\$10,080	\$0	\$0	\$64	\$0	\$25,564
2032	18	\$25,564	\$10,080	\$0	\$0	\$40	\$19,834	\$15,849
2033	19	\$15,849	\$10,080	\$0	\$0	\$48	\$6,895	\$19,082
2034	20	\$19,082	\$10,080	\$0	\$0	\$73	\$0	\$29,235

### Alternative 1: Level Funding with Steps

Beginning Balance as of start of year beginning Jan 2015: \$20,110

CONTRIBUTIONS	
FIRST YR	LAST YR
\$6,480.00	\$10,080.00
\$324.00	\$504.00
\$540.00	\$840.00
\$27.00	\$42.00

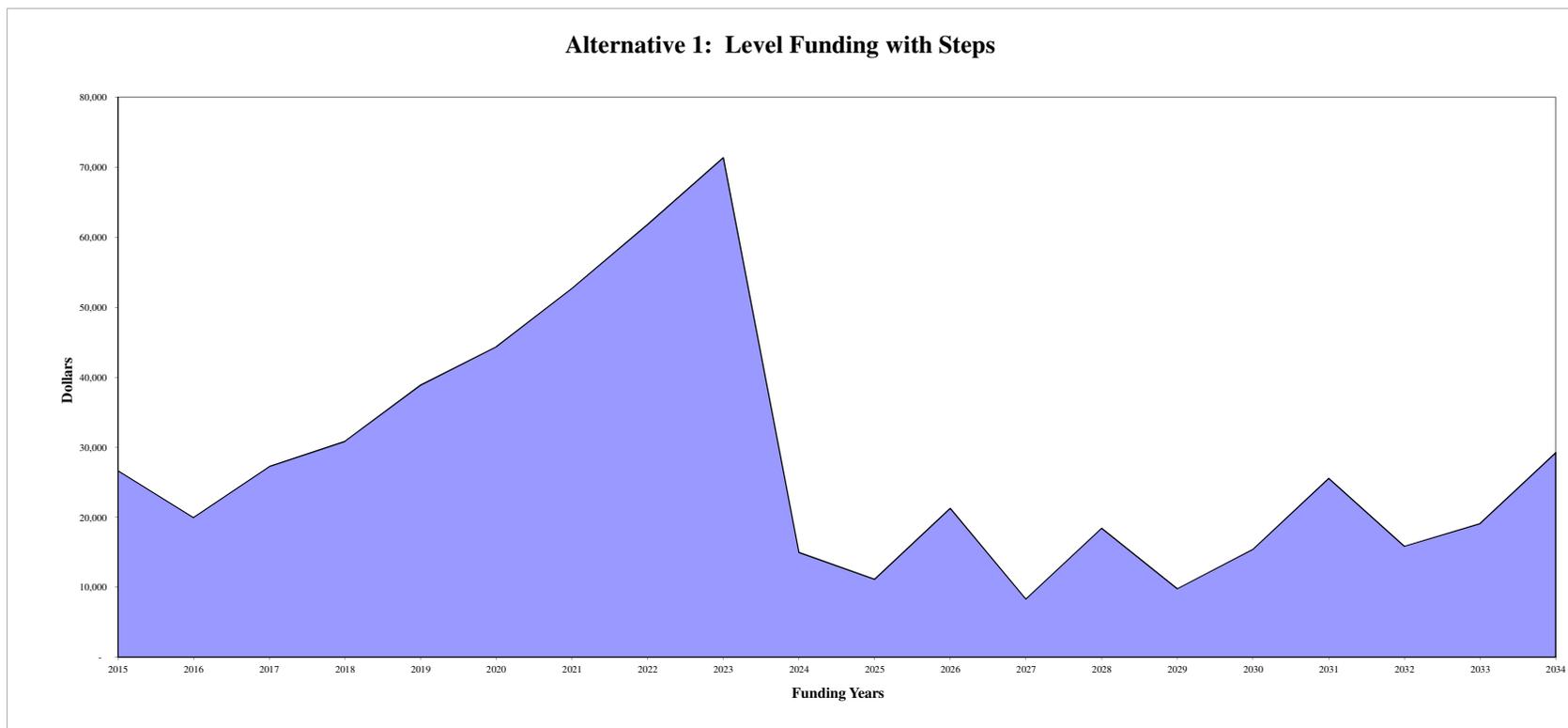
SPECIAL ASSESSMENTS				
First Second	Per Year Per Year	Totals		\$0 \$0
		\$0 \$0	Per Unit Per Unit	

SETTINGS (analyzed by unit/month)		
Starting amount (\$):	27	
Increment by (\$):	1.5	
Every	1	year
Frequency:	10	time

#### Projected Annual Funding and Expenditures:

Year:	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	26,656	19,950	27,218	30,839	38,856	44,349	52,672	61,826	71,364	14,970	11,134	21,267	8,306	18,432	9,781
Capital Expenditures:	-	13,596	-	4,016	-	2,898	448	-	-	66,152	13,943	-	23,062	-	18,756
Total Revenue (all sources)	6,546	6,890	7,268	7,637	8,017	8,391	8,771	9,154	9,538	9,757	10,108	10,133	10,101	10,126	10,104

Year:	2030	2031	2032	2033	2034
Year Number:	16	17	18	19	20
End of Year Reserve Fund Balance	15,420	25,564	15,849	19,082	29,235
Capital Expenditures:	4,479	-	19,834	6,895	-
Total Revenue (all sources)	10,118	10,144	10,120	10,128	10,153



## Alternative 2: Escalating Funding at 4.5% per Year

Year	Year Number	Beginning Reserve Fund Balance	Fee Revenue	Special Assessments 1	Special Assessments 2	Investment Earnings	Capital Expenditures	Ending Balance
2015	1	\$20,110	\$6,480	\$0	\$0	\$66	\$0	\$26,656
2016	2	\$26,656	\$6,772	\$0	\$0	\$50	\$13,596	\$19,882
2017	3	\$19,882	\$7,076	\$0	\$0	\$67	\$0	\$27,025
2018	4	\$27,025	\$7,395	\$0	\$0	\$76	\$4,016	\$30,480
2019	5	\$30,480	\$7,728	\$0	\$0	\$96	\$0	\$38,303
2020	6	\$38,303	\$8,075	\$0	\$0	\$109	\$2,898	\$43,589
2021	7	\$43,589	\$8,439	\$0	\$0	\$129	\$448	\$51,709
2022	8	\$51,709	\$8,818	\$0	\$0	\$151	\$0	\$60,679
2023	9	\$60,679	\$9,215	\$0	\$0	\$175	\$0	\$70,069
2024	10	\$70,069	\$9,630	\$0	\$0	\$34	\$66,152	\$13,580
2025	11	\$13,580	\$10,063	\$0	\$0	\$24	\$13,943	\$9,725
2026	12	\$9,725	\$10,063	\$0	\$0	\$49	\$0	\$19,837
2027	13	\$19,837	\$10,063	\$0	\$0	\$17	\$23,062	\$6,856
2028	14	\$6,856	\$10,063	\$0	\$0	\$42	\$0	\$16,962
2029	15	\$16,962	\$10,063	\$0	\$0	\$21	\$18,756	\$8,289
2030	16	\$8,289	\$10,063	\$0	\$0	\$35	\$4,479	\$13,908
2031	17	\$13,908	\$10,063	\$0	\$0	\$60	\$0	\$24,031
2032	18	\$24,031	\$10,063	\$0	\$0	\$36	\$19,834	\$14,296
2033	19	\$14,296	\$10,063	\$0	\$0	\$44	\$6,895	\$17,508
2034	20	\$17,508	\$10,063	\$0	\$0	\$69	\$0	\$27,640

**Alternative 2: Escalating Funding at 4.5% per Year**

Beginning Balance as of start of year beginning Jan 2015: \$20,110

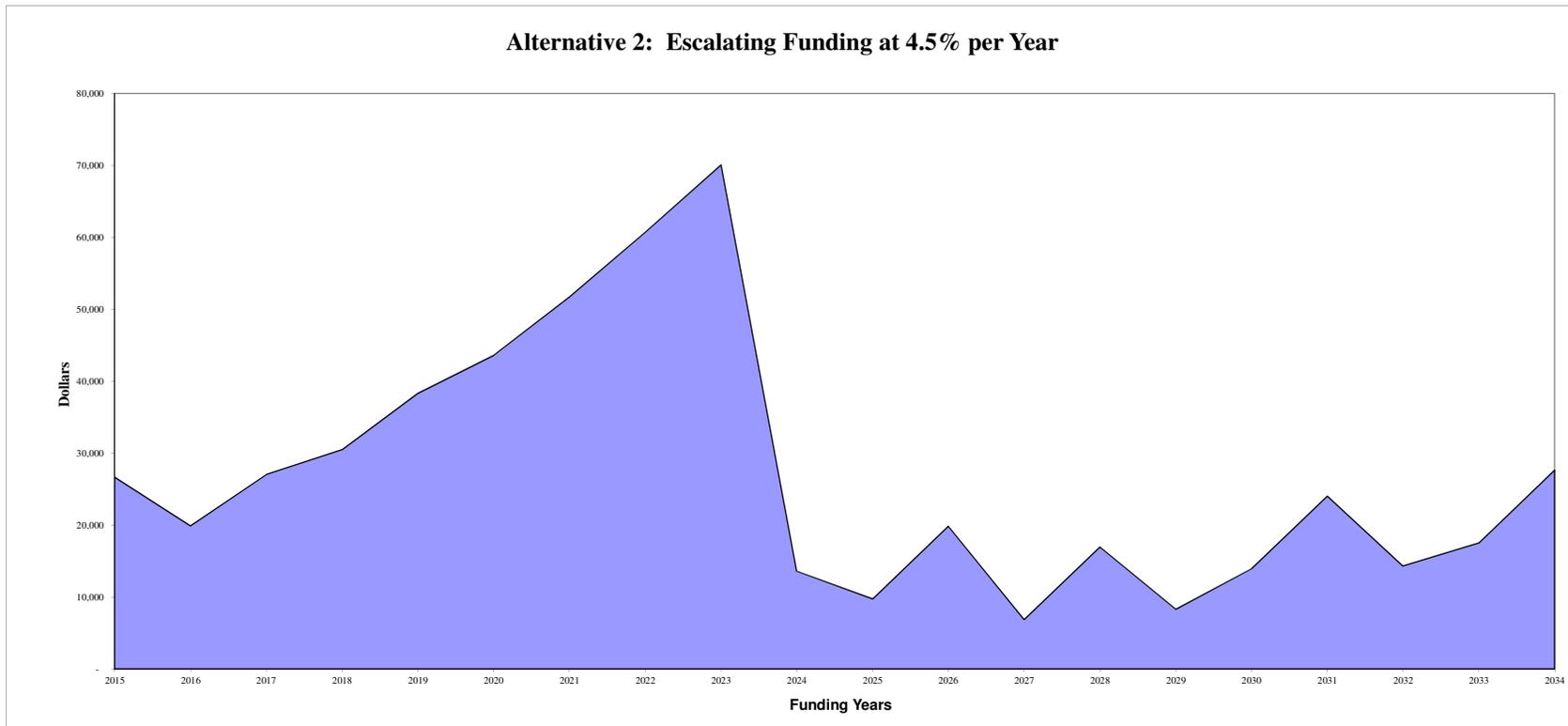
CONTRIBUTIONS	
FIRST YR	LAST YR
\$6,480.00	\$10,063.24 per year
\$324.00	\$503.16 per unit per year
\$540.00	\$838.60 per month
\$27.00	\$41.93 per unit per month

SPECIAL ASSESSMENTS				
		Totals		
		Per Year	\$	Per Unit
First			\$0	\$0
Second			\$0	\$0

SETTINGS (analyzed by unit/month)		
Starting amount (\$):	27	
Increment by (%):	4.5	
Step (%):		
Every	1	year
Frequency:	10	time

**Projected Annual Funding and Expenditures:**

Year:	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	26,656	19,882	27,025	30,480	38,303	43,589	51,709	60,679	70,069	13,580	9,725	19,837	6,856	16,962	8,289
Capital Expenditures:	-	13,596	-	4,016	-	2,898	448	-	-	66,152	13,943	-	23,062	-	18,756
Total Revenue (all sources)	6,546	6,821	7,144	7,471	7,823	8,184	8,568	8,970	9,390	9,664	10,087	10,113	10,080	10,106	10,084
Year:	2030	2031	2032	2033	2034										
Year Number:	16	17	18	19	20										
End of Year Reserve Fund Balance	13,908	24,031	14,296	17,508	27,640										
Capital Expenditures:	4,479	-	19,834	6,895	-										
Total Revenue (all sources)	10,098	10,123	10,099	10,107	10,132										



### Alternative 3: Level Funding

<b>Year</b>	<b>Year Number</b>	<b>Beginning Reserve Fund Balance</b>	<b>Fee Revenue</b>	<b>Special Assessments 1</b>	<b>Special Assessments 2</b>	<b>Investment Earnings</b>	<b>Capital Expenditures</b>	<b>Ending Balance</b>
2015	1	\$20,110	\$8,640	\$0	\$0	\$72	\$0	\$28,822
2016	2	\$28,822	\$8,640	\$0	\$0	\$60	\$13,596	\$23,926
2017	3	\$23,926	\$8,640	\$0	\$0	\$81	\$0	\$32,647
2018	4	\$32,647	\$8,640	\$0	\$0	\$93	\$4,016	\$37,364
2019	5	\$37,364	\$8,640	\$0	\$0	\$115	\$0	\$46,119
2020	6	\$46,119	\$8,640	\$0	\$0	\$130	\$2,898	\$51,991
2021	7	\$51,991	\$8,640	\$0	\$0	\$150	\$448	\$60,334
2022	8	\$60,334	\$8,640	\$0	\$0	\$172	\$0	\$69,146
2023	9	\$69,146	\$8,640	\$0	\$0	\$194	\$0	\$77,980
2024	10	\$77,980	\$8,640	\$0	\$0	\$51	\$66,152	\$20,520
2025	11	\$20,520	\$8,640	\$0	\$0	\$38	\$13,943	\$15,255
2026	12	\$15,255	\$8,640	\$0	\$0	\$60	\$0	\$23,954
2027	13	\$23,954	\$8,640	\$0	\$0	\$24	\$23,062	\$9,556
2028	14	\$9,556	\$8,640	\$0	\$0	\$45	\$0	\$18,242
2029	15	\$18,242	\$8,640	\$0	\$0	\$20	\$18,756	\$8,146
2030	16	\$8,146	\$8,640	\$0	\$0	\$31	\$4,479	\$12,338
2031	17	\$12,338	\$8,640	\$0	\$0	\$52	\$0	\$21,030
2032	18	\$21,030	\$8,640	\$0	\$0	\$25	\$19,834	\$9,861
2033	19	\$9,861	\$8,640	\$0	\$0	\$29	\$6,895	\$11,635
2034	20	\$11,635	\$8,640	\$0	\$0	\$51	\$0	\$20,325

**Alternative 3: Level Funding**

Beginning Balance as of start of year beginning Jan 2015: \$20,110

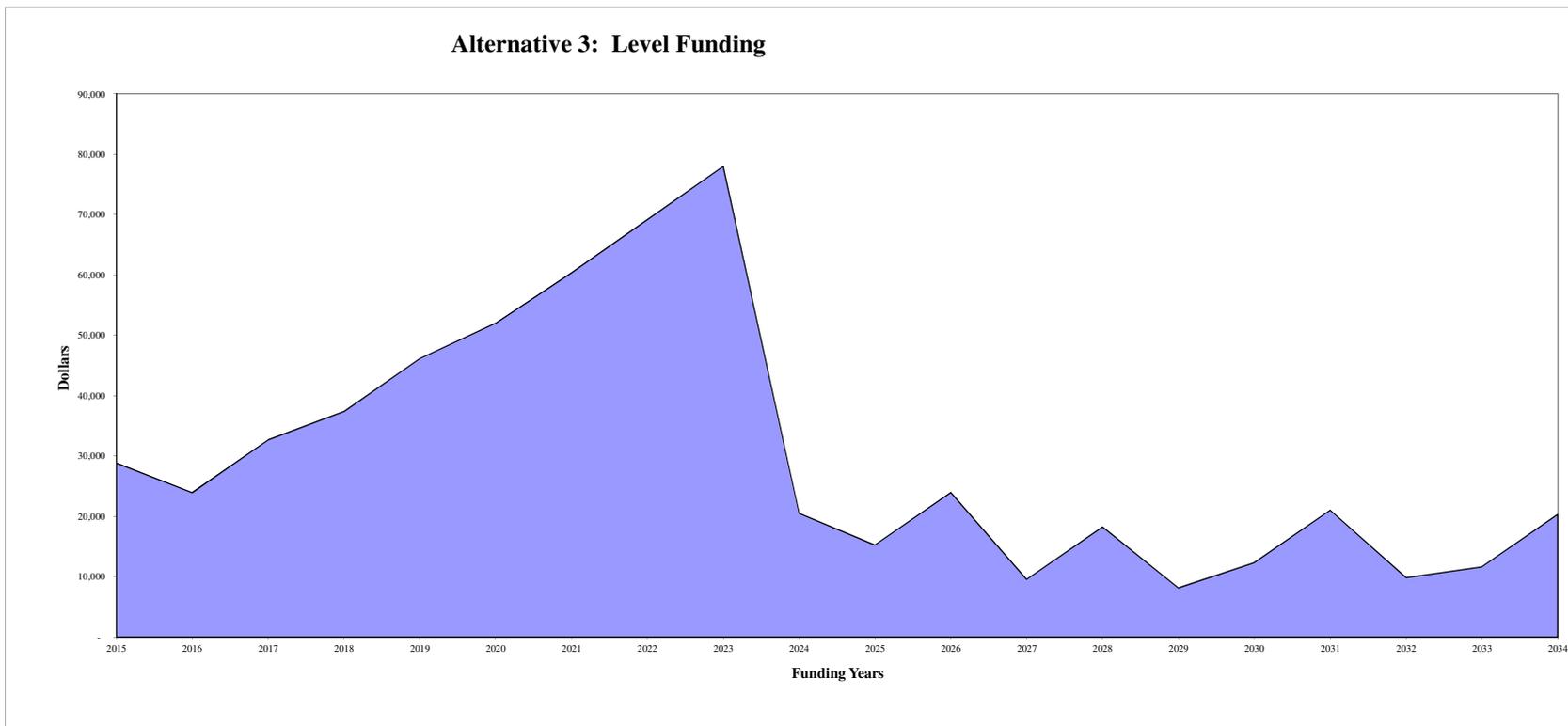
CONTRIBUTIONS	
FIRST YR	LAST YR
\$9,600.00	\$9,600.00 per year
\$480.00	\$480.00 per unit per year
\$800.00	\$800.00 per month
\$40.00	\$40.00 per unit per month

SPECIAL ASSESSMENTS			
First Second	Per Year Per Year	Totals	
		\$0 \$0	Per Unit Per Unit
		\$0	\$0
		\$0	\$0

SETTINGS (analyzed by unit/month)	
Starting amount (\$):	40
Increment by (%):	0
Step (%):	0
Every	1 year
Frequency:	1 time

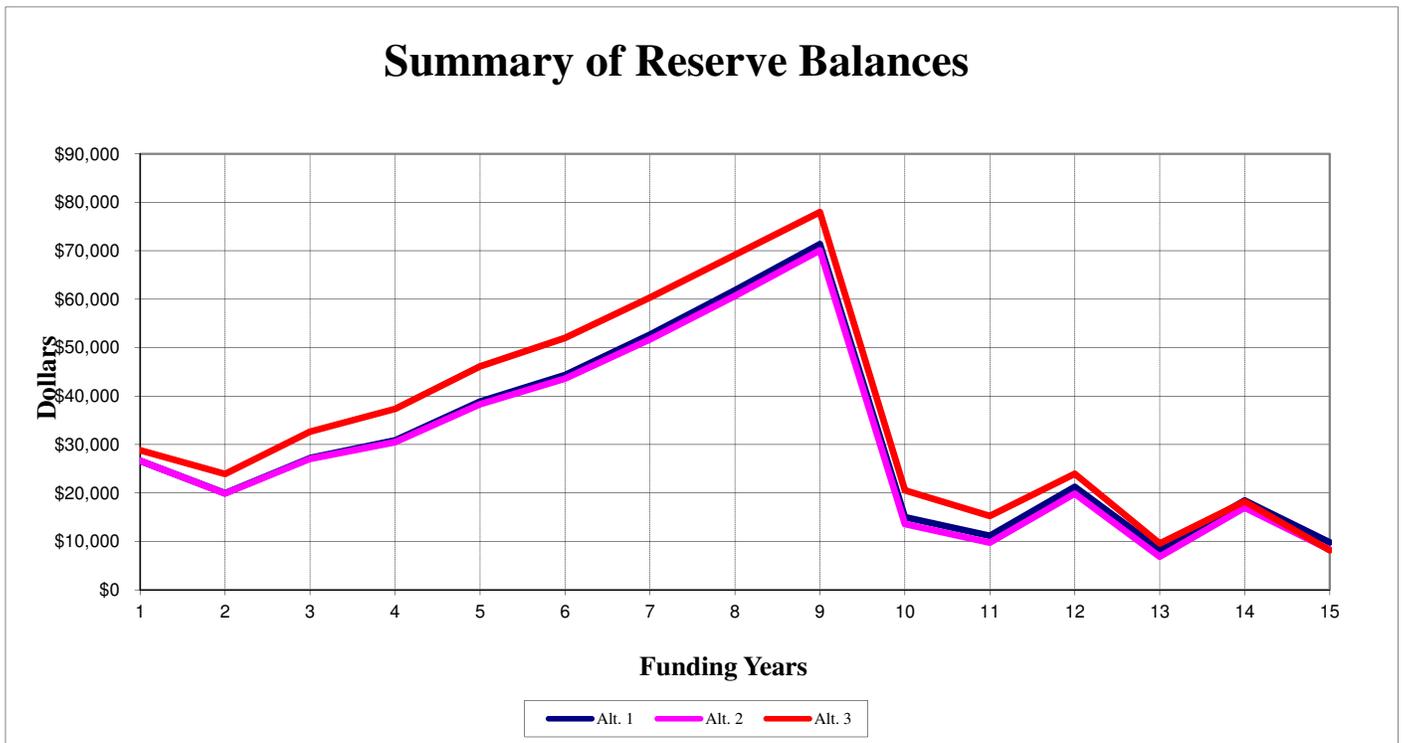
**Projected Annual Funding and Expenditures:**

Year:	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Year Number:	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
End of Year Reserve Fund Balance	28,822	23,926	32,647	37,364	46,119	51,991	60,334	69,146	77,980	20,520	15,255	23,954	9,556	18,242	8,146
Capital Expenditures:	-	13,596	-	4,016	-	2,898	448	-	-	66,152	13,943	-	23,062	-	18,756
Total Revenue (all sources)	8,712	8,700	8,721	8,733	8,755	8,770	8,790	8,812	8,834	8,691	8,678	8,700	8,664	8,685	8,660
Year:	2030	2031	2032	2033	2034										
Year Number:	16	17	18	19	20										
End of Year Reserve Fund Balance	12,338	21,030	9,861	11,635	20,325										
Capital Expenditures:	4,479	-	19,834	6,895	-										
Total Revenue (all sources)	8,671	8,692	8,665	8,669	8,691										



# Summary of Reserve Balances

<u>Year</u>	<u>Year Number</u>	<u>Yearly Expenditures</u>	<u>Alt. 1</u>	<u>Alt. 2</u>	<u>Alt. 3</u>
2015	1	\$0	\$26,656	\$26,656	\$28,822
2016	2	\$13,596	\$19,950	\$19,882	\$23,926
2017	3	\$0	\$27,218	\$27,025	\$32,647
2018	4	\$4,016	\$30,839	\$30,480	\$37,364
2019	5	\$0	\$38,856	\$38,303	\$46,119
2020	6	\$2,898	\$44,349	\$43,589	\$51,991
2021	7	\$448	\$52,672	\$51,709	\$60,334
2022	8	\$0	\$61,826	\$60,679	\$69,146
2023	9	\$0	\$71,364	\$70,069	\$77,980
2024	10	\$66,152	\$14,970	\$13,580	\$20,520
2025	11	\$13,943	\$11,134	\$9,725	\$15,255
2026	12	\$0	\$21,267	\$19,837	\$23,954
2027	13	\$23,062	\$8,306	\$6,856	\$9,556
2028	14	\$0	\$18,432	\$16,962	\$18,242
2029	15	\$18,756	\$9,781	\$8,289	\$8,146
2030	16	\$4,479	\$15,420	\$13,908	\$12,338
2031	17	\$0	\$25,564	\$24,031	\$21,030
2032	18	\$19,834	\$15,849	\$14,296	\$9,861
2033	19	\$6,895	\$19,082	\$17,508	\$11,635
2034	20	\$0	\$29,235	\$27,640	\$20,325

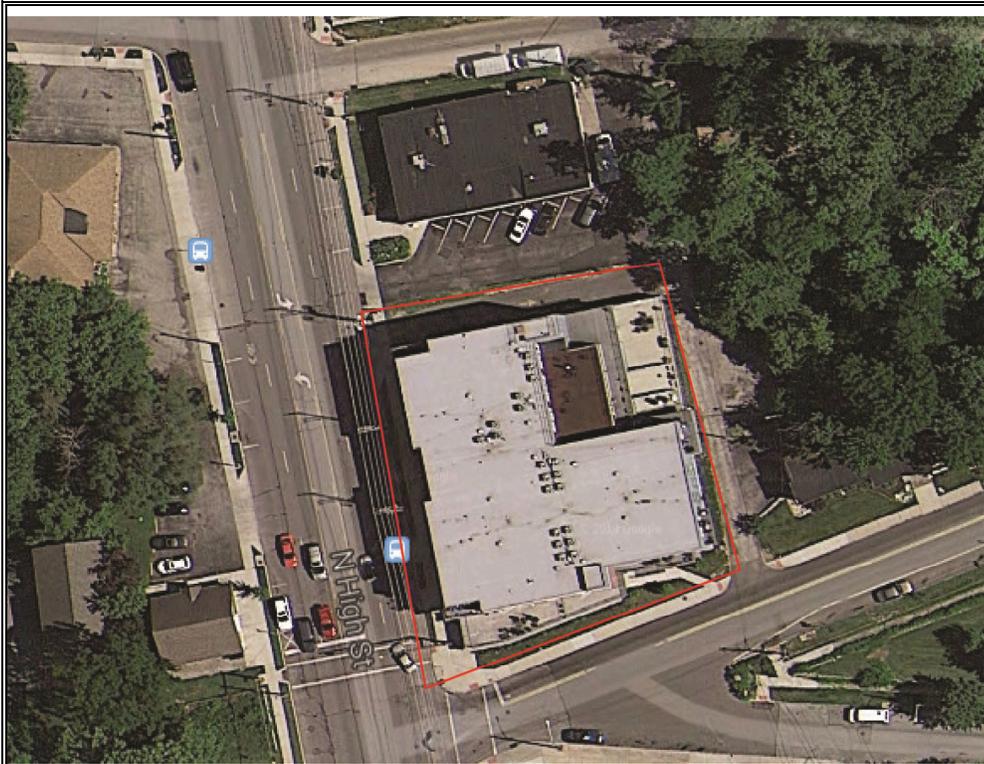


**Appendix B: PROJECT PHOTOGRAPHS**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Site plan of the  
Terraces of  
Walhalla  
Condominium  
Association.

**Photo Number**  
**1**



**Description:**  
Entry sign for the  
Terraces on  
Walhalla.

**Photo Number**  
**2**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
West elevation of  
the Terraces on  
Walhalla.

**Photo Number**  
**3**



**Description:**  
North elevation of  
the Terraces on  
Walhalla.

**Photo Number**  
**4**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
East elevation of  
the Terraces on  
Walhalla.

**Photo Number**  
**5**



**Description:**  
South elevation of  
the Terraces on  
Walhalla.

**Photo Number**  
**6**

**Location:**  
Terraces on Walhalla  
Columbus, OH

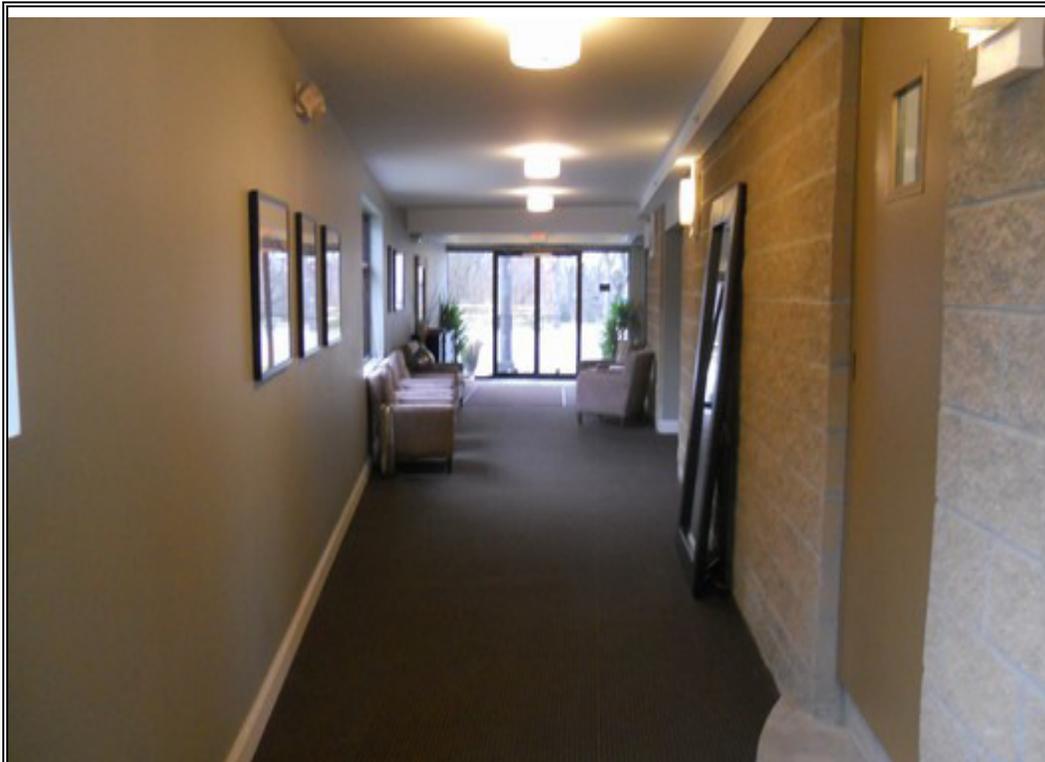
**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Entry doors.

**Photo Number**  
**7**



**Description:**  
First floor hall.

**Photo Number**  
**8**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Workout room.

**Photo Number**  
**9**



**Description:**  
Mailboxes.

**Photo Number**  
**10**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Fire/exit door  
which does not  
close.

**Photo Number**  
**11**



**Description:**  
Through wall  
HVAC unit.

**Photo Number**  
**12**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Roof top access  
hatch.

**Photo Number**  
**13**



**Description:**  
Rooftop HVAC  
units and roofing.

**Photo Number**  
**14**

**Location:**  
Terraces on Walhalla  
Columbus, OH

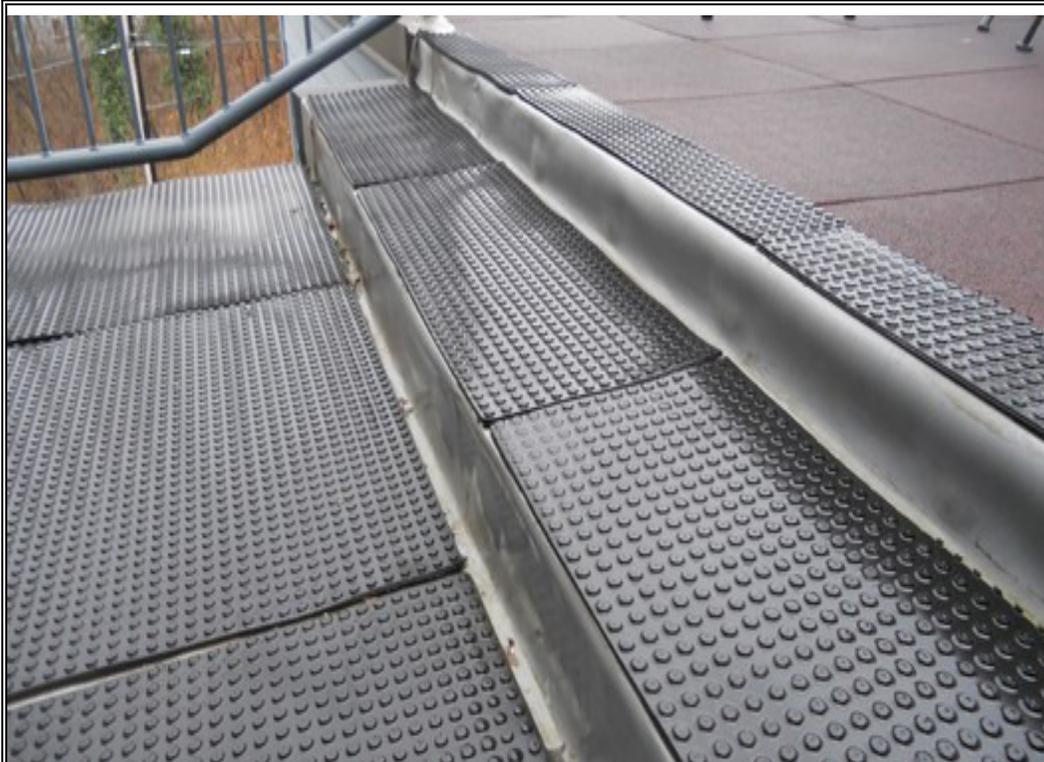
**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Fourth floor  
terrace.

**Photo Number**  
**15**



**Description:**  
Steps up to terrace.

**Photo Number**  
**16**

**Location:**  
Terraces on Walhalla  
Columbus, OH

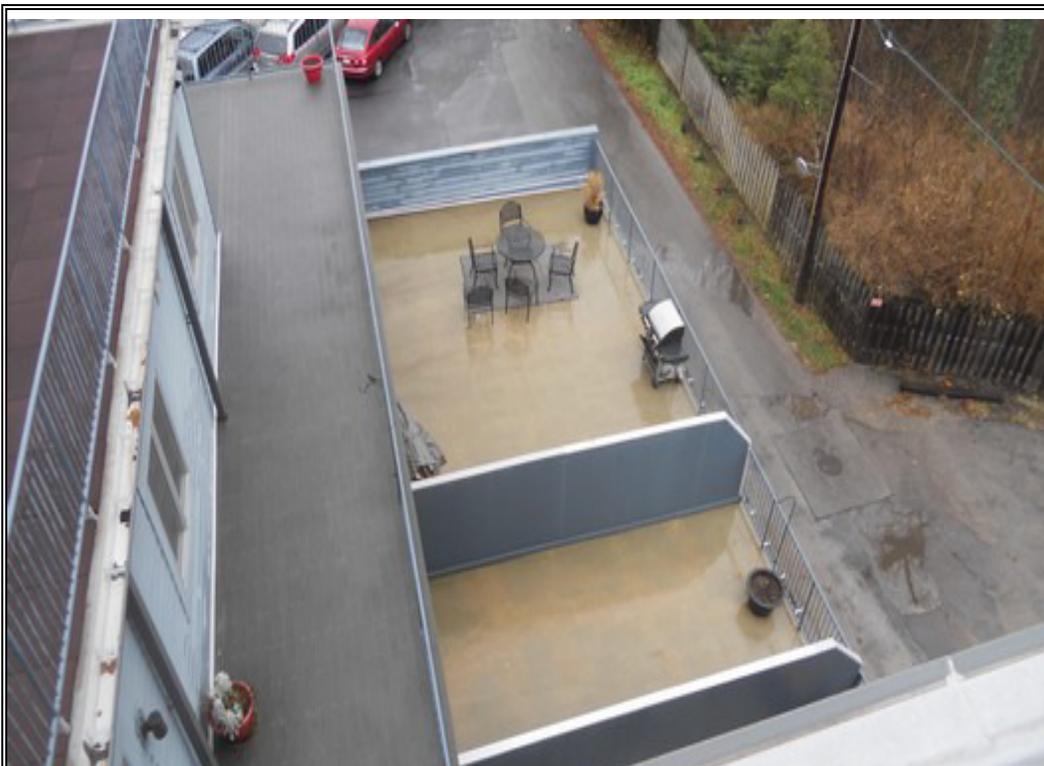
**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Close-up of terrace  
flooring.

**Photo Number**  
**17**



**Description:**  
Second floor  
terrace.

**Photo Number**  
**18**

**Location:**  
Terraces on Walhalla  
Columbus, OH

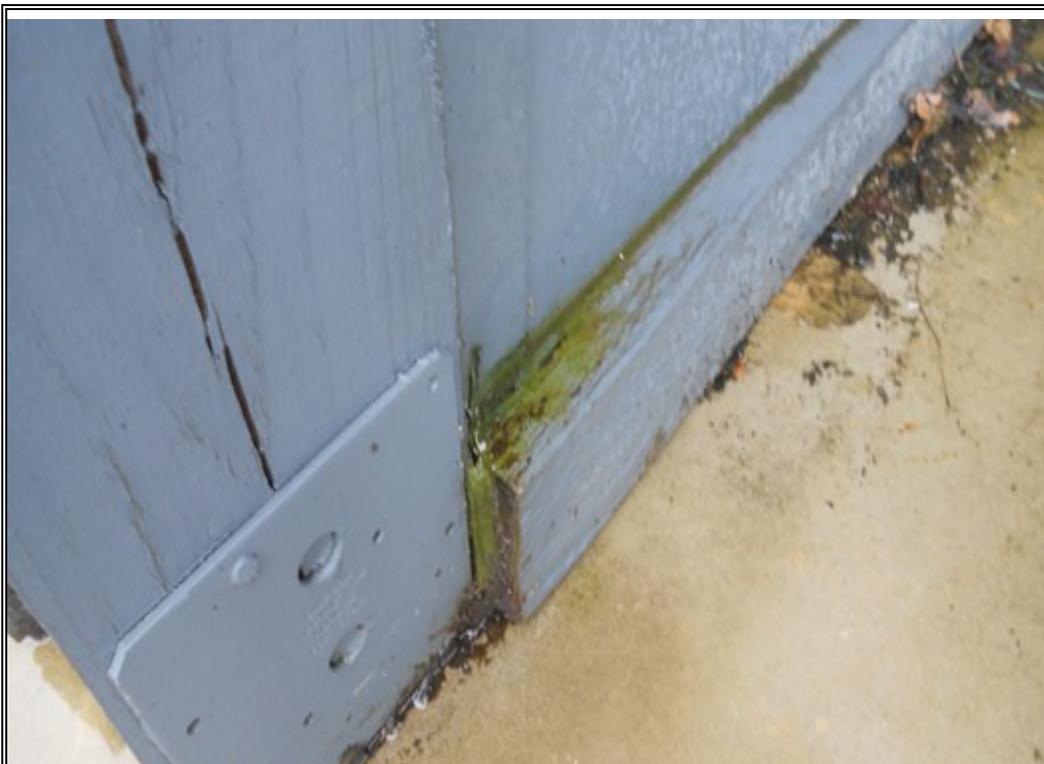
**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Second floor  
terrace wall.

**Photo Number**  
**19**



**Description:**  
Close-up of wall  
showing  
deterioration.

**Photo Number**  
**20**

**Location:**  
Terraces on Walhalla  
Columbus, OH

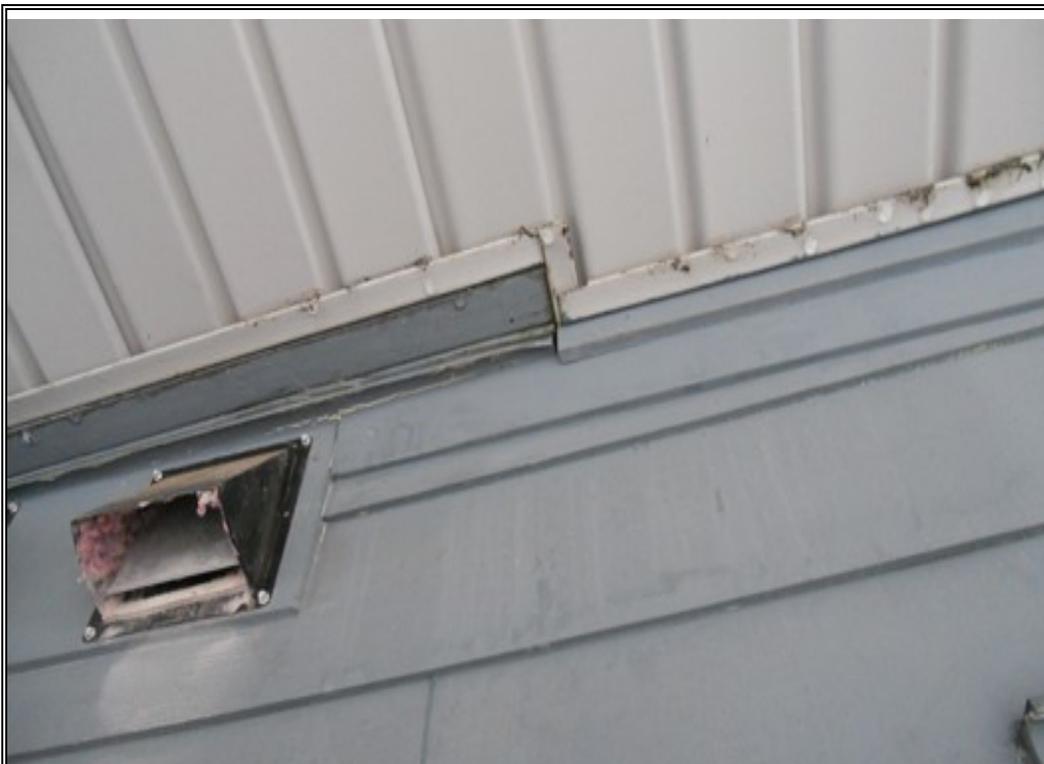
**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Portion of  
fiberboard cap  
having been  
replaced.

**Photo Number**  
**21**



**Description:**  
Ceiling under  
decks showing  
water penetration.

**Photo Number**  
**22**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Under side of deck  
showing peeling  
paint and  
deterioration.

**Photo Number**  
**23**



**Description:**  
Photo of deck.

**Photo Number**  
**24**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Area of fiberboard  
trim pulling away  
from wall.

**Photo Number**  
**25**



**Description:**  
Portion of siding  
pulling away from  
wall.

**Photo Number**  
**26**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Area of second floor terrace and gutter where water leaks into garage.

**Photo Number**  
**27**



**Description:**  
Inside of garage where water is penetrating.

**Photo Number**  
**28**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Steel support on  
underside of decks  
showing rust.

**Photo Number**  
**29**



**Description:**  
Railing post detail  
showing rust.

**Photo Number**  
**30**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Fourth floor  
terrace gutter and  
drain,

**Photo Number**  
**31**



**Description:**  
which runs through  
third floor deck,

**Photo Number**  
**32**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014

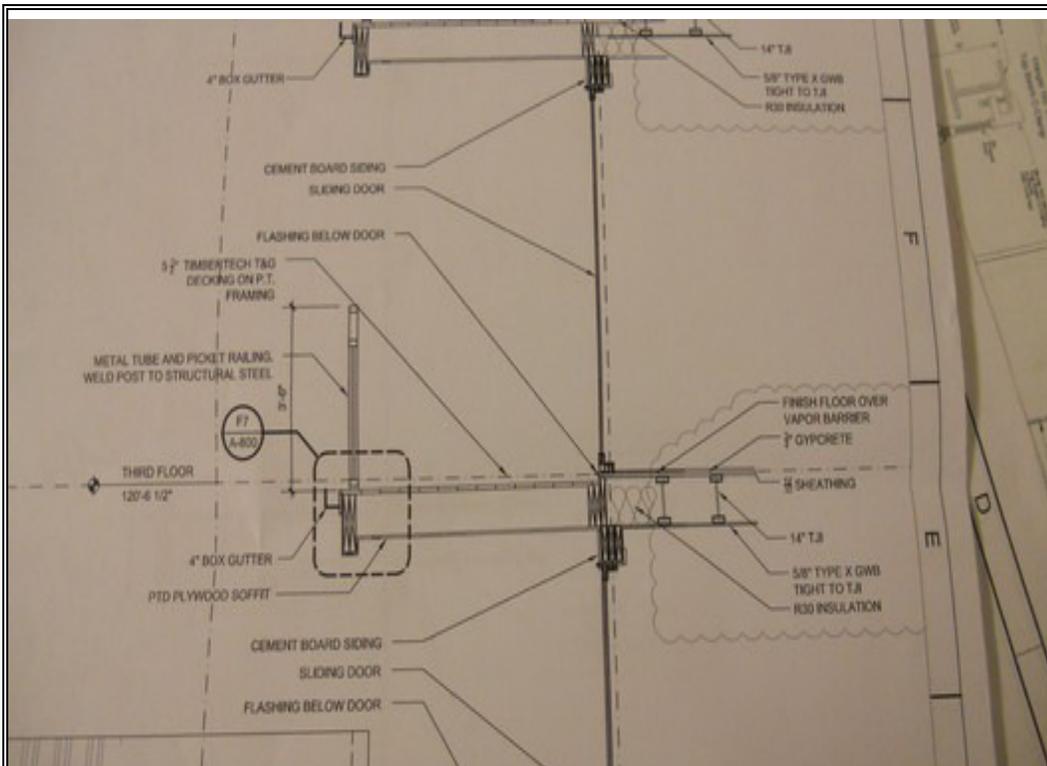


**Description:**

And deposits onto and across second floor patio.

**Photo Number**

**33**



**Description:**

Detail of typical balcony. The deck is not water proof and there is no continuous vapor barrier at the building.

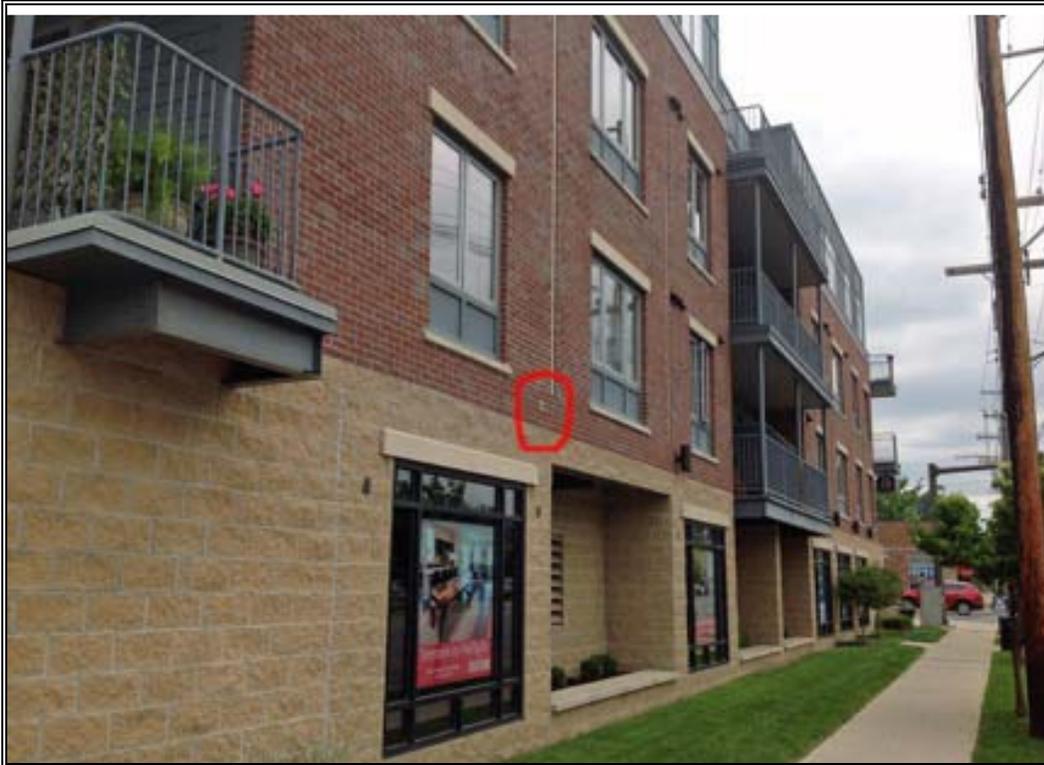
**Photo Number**

**34**

**Location:**  
Terraces on Walhalla  
Columbus, OH

**Photo Taken by:**  
Scott Malley

**Date:**  
December 22, 2014



**Description:**  
Missing light  
fixture.

**Photo Number**  
**35**

**Appendix C: PROFESSIONAL QUALIFICATIONS**

## **CRITERIUM-LISZKAY ENGINEERS**

110 N. High St., Suite 207

Gahanna, Ohio 43230 614-418-7200, fax 614 418-7270 [www.clengineers.com](http://www.clengineers.com),

**Scott T. Malley** 614-282-7319 [stmalley@hotmail.com](mailto:stmalley@hotmail.com)

**Education:** The Ohio State University - Bachelors of Science in Architecture, 1983

**Registered:** Ohio #10445, 1993

**Employment:** **Self Employed** - January 2000 to Current

Retail stores, nail spas, restaurants, nightclubs and residential remodels. Took retail tenants from initial design through buildout, including site surveys, Architectural/MEP drawings and building permit processes. Consulted for Feinknopf Macioce Schappa Architects, Inc. performing assessments of various public school systems for the OFSC and as project manager for a series of medical office buildings. Consulted for Steiner + Associates as a Tenant Coordinator at The Greene Town Center, Beavercreek, Ohio, an 85 store lifestyle shopping center. Took clients from initial meetings, coordination of project documentation requirements and buildout through final closeouts. Used internal and web based programs to coordinate needs of multiple tenants with interoffice departments.

Projects included:

Venetian Nail Spa – FL, WI, OH, AL, TX	Nail Experts - Tuttle Mall
Dakota Watch – The Greene Town Center	Farah Jewelers - Polaris Fashion Place Mall
Pita Pit restaurants – FL, GA, SC, TN, KY, WV,	3rd Degree Tan & Spa - Delaware, Ohio
PA, OH, MI, IN, IL, IA, KS, OK, NE, OR, WA	Gallery of the Stars - Easton Town Center
U BE U Nightclub – Columbus, Ohio	Sun Optics - Easton Town Center
Janina's Restaurant – Powell, Ohio	Modern Nails - Easton Town Center
Network Bar & Bistro - Columbus, Ohio	Residential Addition - 4500 Dublin Road

**White Associates Architects, Inc.** - January 1990 to December 1999

A 4 to 6 person firm working on a variety of projects including retail, commercial, residential, industrial and renovation. Participated in most phases of architecture including conceptual design, presentation drawings, code analysis, developing and producing construction documents, and construction administration.

Projects included:

The Cookers Restaurants – Various Locations.  
AJ Cheers, card shop – Various Locations  
Spectica Eyewear – Various Locations  
Cheryl and Co., Commissary and stores, Westerville, Ohio  
Midland and Newark Theatre Renovation Projects. Newark, Ohio  
The Buggyworks Nightclub (Mecca), adaptive reuse. Columbus, Ohio  
The Longaberger Golf Clubhouse and associated buildings. Hanover, Ohio.  
The Longaberger Tea House, Close to Home Restaurant and  
Barn relocation and remodel, all in Newark, Ohio.

**Merchant Design Group** - January 1988 to December 1989

Co-owner of a 4-person design firm working on new residences, retail stores and The Limited production drawings.

**Abbot and Abbot Architects** - July 1986 to December 1987

Produced roll-out type construction documents for various divisions of The Limited stores.

**Colorado** - October 1984 to June 1986

Studied stained glass. Designed and created windows for various locations both residential and retail.

**White Associates Architects, Inc** - July 1983 to September 1984

Produced roll-out type construction documents for various divisions of The Limited stores.