

# FULL RESERVE STUDY

## Cobblestone at Roper Mountain Homeowners Association, Inc.



**Simpsonville, South Carolina**

**January 20, 2016**



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# Reserve Study Update

February 16, 2016

The Reserve Study for Cobblestone at Roper Mountain Homeowners Association, Inc.  
Was submitted on .....February 16, 2016

To maintain the most accurate and cost-effective replacement schedule and funding plan for  
your property elements, this study should be updated on or about .....**First Quarter, 2018**  
...but no later than.....**First Quarter, 2019**

As a valued client, we are pleased to offer a future reserve study update with site visit  
for.....**\$3,800**

For a Reserve Study Update with Site visit as noted above.

**This future update fee is based on the same property components that were contained in your last Reserve  
Advisors' reserve study or update. We are pleased to include property additions for an additional fee.**

To initiate your Reserve Study Update, please sign this authorization and fax or mail to the  
number below. Upon receipt of this authorization we will contact you to schedule your site visit  
and invoice for the Reserve Study Update Service.

Sign this contract below and fax to **414-272-3663**. Or mail to  
Reserve Advisors, Inc.  
735 N. Water St., Suite 175  
Milwaukee, WI 53202

Delivery options for your Reserve Study Update Report, Please check one of the following:

- 1-Full color printed copy PLUS Electronic Report, FREE
- 2-Full color printed copies PLUS Electronic Report, \$100

**For: Reserve Advisors, Inc.**

Signature:  \_\_\_\_\_

Nick Brenneman  
Southeast Client Services Manager  
Nick@reserveadvisors.com  
Ref. # 111294  
(800) 980-9881

**For Cobblestone at Roper Mountain  
Homeowners Association, Inc.**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

**Agent or Manager:** Rebecca Thompson

**Management Firm:** NHE, Inc.



Long-term thinking. Everyday commitment.



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## 1. RESERVE STUDY EXECUTIVE SUMMARY

**Client:** Cobblestone at Roper Mountain Homeowners Association, Inc. (Cobblestone at Roper Mountain)

**Location:** Simpsonville, South Carolina

**Reference:** 111294

**Property Basics:** Cobblestone at Roper Mountain Homeowners Association, Inc. is a planned unit development which is responsible for the common elements shared by 117 units. The development was built from 2004 to 2007 and contains asphalt pavement, concrete flatwork, metal fences, two gated entrances, masonry pavers, two masonry retaining walls, a tennis court, a clubhouse and a pool.

**Reserve Components Identified:** 41 Reserve Components.

**Inspection Date:** January 20, 2016.

**Funding Goal:** The Funding Goal of this Reserve Study is to maintain reserves above an adequate, not excessive threshold during one or more years of significant expenditures. Our recommended Funding Plan recognizes these threshold funding years in 2025 and 2045 due to replacement of the asphalt pavement at the streets.

**Cash Flow Method:** We use the Cash Flow Method to compute the Reserve Funding Plan. This method offsets future variable Reserve Expenditures with existing and future stable levels of reserve funding. Our application of this method also considers:

- current and future local costs of replacement
- 1.35% annual rate of return on invested reserves
- 2.6% future Inflation Rate for estimating Future Replacement Costs

**Sources for Local Costs of Replacement:** Our proprietary database, historical costs and published sources, i.e., R.S. Means, Incorporated.

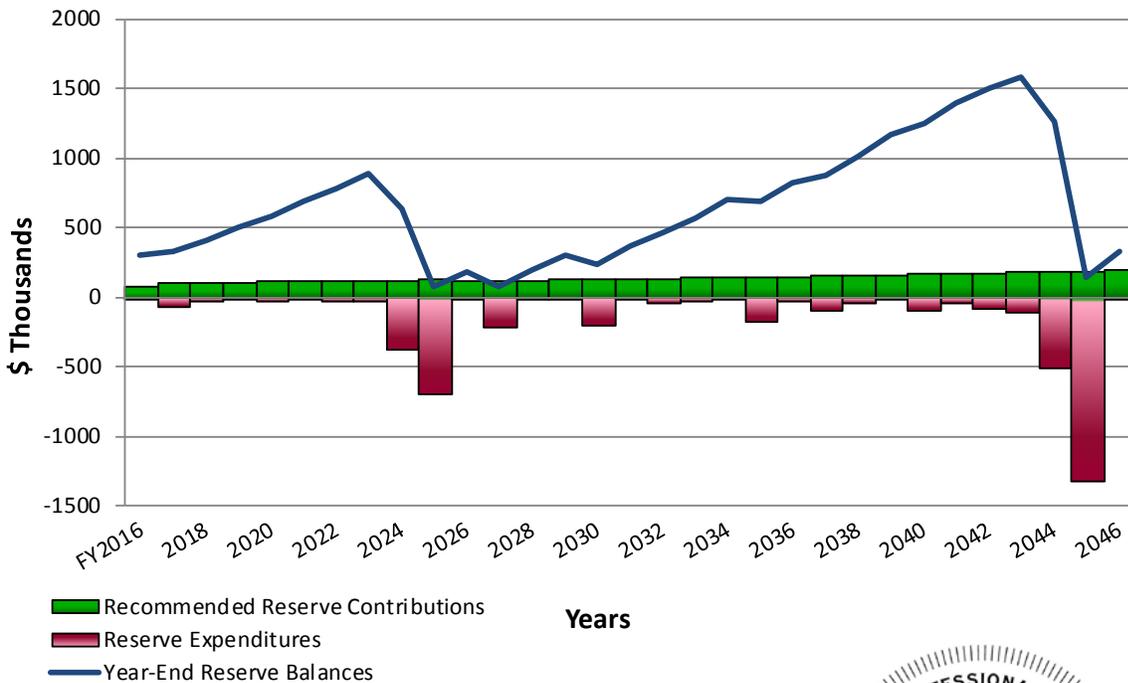
**Cash Status of Reserve Fund:** \$233,820 as of January 1, 2016.

**Recommended Reserve Funding:** The Association budgeted \$79,860 for Reserve Contributions in 2016. We recommend the Association adopt a reserve budget of \$102,000 in 2017. Afterwards, the Association should budget gradual annual increases in reserve funding that in part consider the effects of inflation through 2025. By 2026, the Association will have fully funded for replacement of the asphalt pavement at the streets. Therefore, the Association may anticipate a decrease in the annual Reserve Contribution to \$114,000. Afterwards, the Association should again budget gradual annual increases in reserve funding that in part consider the effects of inflation through 2046, the limit of this study's Cash Flow Analysis. The initial adjustment in Reserve Contributions of \$22,140 represents about a ten percent (10.3%) adjustment in the 2016 total Operating Budget of \$215,000. This initial adjustment of \$22,140 is equivalent to an increase of \$15.77 in the monthly contributions per homeowner.

**Certification:** This *Full Reserve Study* exceeds the Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a "Level I Full Reserve Study."

**Cobblestone at Roper Mountain**  
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)	Year	Reserve Contributions (\$)	Reserve Balances (\$)
2017	102,000	333,777	2027	117,000	81,877	2037	151,100	881,701
2018	104,700	409,055	2028	120,000	190,627	2038	155,000	1,010,144
2019	107,400	507,089	2029	123,100	303,272	2039	159,000	1,161,925
2020	110,200	587,383	2030	126,300	233,597	2040	163,100	1,248,405
2021	113,100	687,635	2031	129,600	362,624	2041	167,300	1,395,036
2022	116,000	785,012	2032	133,000	460,536	2042	171,600	1,495,599
2023	119,000	886,242	2033	136,500	572,526	2043	176,100	1,576,843
2024	122,100	641,069	2034	140,000	705,045	2044	180,700	1,268,091
2025	125,300	71,761	2035	143,600	686,021	2045	185,400	139,694
2026	114,000	183,452	2036	147,300	819,068	2046	190,200	326,301



Respectfully submitted on February 16, 2016 by  
RESERVE ADVISORS, INC.



Alan M. Ebert, PRA<sup>1</sup>, RS<sup>2</sup>, Director of Quality Assurance  
Visual Inspection and Report by: Jeffrey B. Dow, RS



<sup>1</sup>PRA (Professional Reserve Analyst) is the professional designation of the Association of Professional Reserve Analysts. Learn more about APRA at <http://www.apra-usa.com>.

<sup>2</sup> RS (Reserve Specialist) is the reserve provider professional designation of the Community Associations Institute (CAI) representing America's more than 300,000 condominium, cooperative and homeowners associations.

## 2. RESERVE STUDY REPORT

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Full Reserve Study* of

**Cobblestone at Roper Mountain Homeowners Association, Inc.**

**Simpsonville, South Carolina**

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, January 20, 2016. We conducted the original Reserve Study on October 12, 2011.

We present our findings and recommendations in the following report sections and spreadsheets:

- **Identification of Property** - Segregates all property into several areas of responsibility for repair or replacement
- **Reserve Expenditures** - Identifies reserve components and related quantities, useful lives, remaining useful lives and future reserve expenditures during the next 30 years
- **Reserve Funding Plan** - Presents the recommended Reserve Contributions and year-end Reserve Balances for the next 30 years
- **Condition Assessment** - Describes the reserve components, describes our recommendations for repairs or replacement, and includes detailed solutions and procedures for replacements for the benefit of current and future board members
- **Photographs** - Documentation of Condition of various property elements
- **Methodology** - Lists the national standards, methods and procedures used, financial information relied upon for the Financial Analysis of the Reserve Study
- **Definitions** - Contains definitions of terms used in the Reserve Study, consistent with national standards
- **Professional Service Conditions** - Describes Assumptions and Professional Service Conditions
- **Credentials and Resources**

## IDENTIFICATION OF PROPERTY



Cobblestone at Roper Mountain Homeowners Association, Inc. is a planned unit development which is responsible for the common elements shared by 117 units. The development was built from 2004 to 2007 and contains asphalt pavement, concrete flatwork, metal fences, two gated entrances, masonry pavers, two masonry retaining walls, a tennis court, a clubhouse and a pool. We identify 41 major reserve components that are likely to require capital repair or replacement during the next 30 years.

Our investigation includes Reserve Components or property elements as set forth in your Declaration. Our analysis begins by segregating the property elements into several areas of responsibility for repair and replacement. Our process of identification helps assure that future boards and the management team understand whether reserves, the operating budget or

Homeowners fund certain replacements and assists in preparation of the annual budget. We derive these segregated classes of property from our review of the information provided by the Association and through conversations with Management and the Board. These classes of property include:

- Reserve Components
- Long-Lived Property Elements
- Operating Budget Funded Repairs and Replacements
- Property Maintained by Homeowners
- Property Maintained by Others

We advise the Board conduct an annual review of these classes of property to confirm its policy concerning the manner of funding, i.e., from reserves or the operating budget.

The Reserve Study identifies Reserve Components as set forth in your Declaration or which were identified as part of your request for proposed services. Reserve Components are defined by CAI as property elements with:

- Cobblestone at Roper Mountain responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

Long-Lived Property Elements do not have predictable Remaining Useful Lives. The operating budget should fund infrequent repairs. Funding untimely or unexpected replacements from reserves will necessitate increases to Reserve Contributions. Periodic updates of this Reserve Study will help determine the merits of adjusting the Reserve Funding Plan. We identify the following Long-Lived Property Elements as excluded from reserve funding at this time.

- Culvert, Bridge, Putney Bridge Lane
- Electrical Systems, Common
- Fireplace, Clubhouse
- Foundations, Clubhouse, Pool House and Pavilion
- Pipes, Interior Building, Water and Sewer, Clubhouse and Pool House

- Pipes, Subsurface Utilities, Laterals to Clubhouse
- Pool Structure
- Structural Frames, Clubhouse, Pool House and Pavilion

The operating budget provides money for the repair and replacement of certain Reserve

Components. Operating Budget Funded Repairs and Replacements relate to:

- General Maintenance to the Common Elements
- Expenditures less than \$2,500 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Benches, Tennis Court
- Clubhouse and Pool House, Paint Finishes, Interior and Exterior
- Fences and Gates, Metal, Paint Finishes
- Irrigation System
- Landscape, Normal Maintenance
- Life Safety System Control Panel, Clubhouse, Interim Repairs or Replacements
- Pavers, Masonry, Interim Resetting and Partial Replacements
- Railings, Wood, Putney Bridge Road
- Walls and Columns, Masonry, Stone Veneer (We assume the masonry will be repaired in small quantities on an as-needed basis rather than large scale replacements.)
- Other Repairs normally funded through the Operating Budget

Certain items have been designated as the responsibility of the homeowners to repair or replace at their cost. Property Maintained by Homeowners, including items billed back to Homeowners, relates to:

- Homes and Lot Improvements

Certain items have been designated as the responsibility of others to repair or replace.

Property Maintained by Others relates to:

- Light Poles and Fixtures, Streets (Laurens Electric Company)
- Pipes, Subsurface Utilities, Water and Sewer (Greenville Water System)



### 3. RESERVE EXPENDITURES and FUNDING PLAN

The tables following this introduction present:

#### **Reserve Expenditures**

- Line item numbers
- Total quantities
- Quantities replaced per phase (in a single year)
- Reserve component inventory
- Estimated first year of event (i.e., replacement, application, etc.)
- Life analysis showing
  - useful life
  - remaining useful life
- Unit cost of replacement
- 2016 local cost of replacement
- Total future costs of replacement anticipated during the next 30 years
- Schedule of estimated future costs for each reserve component including inflation

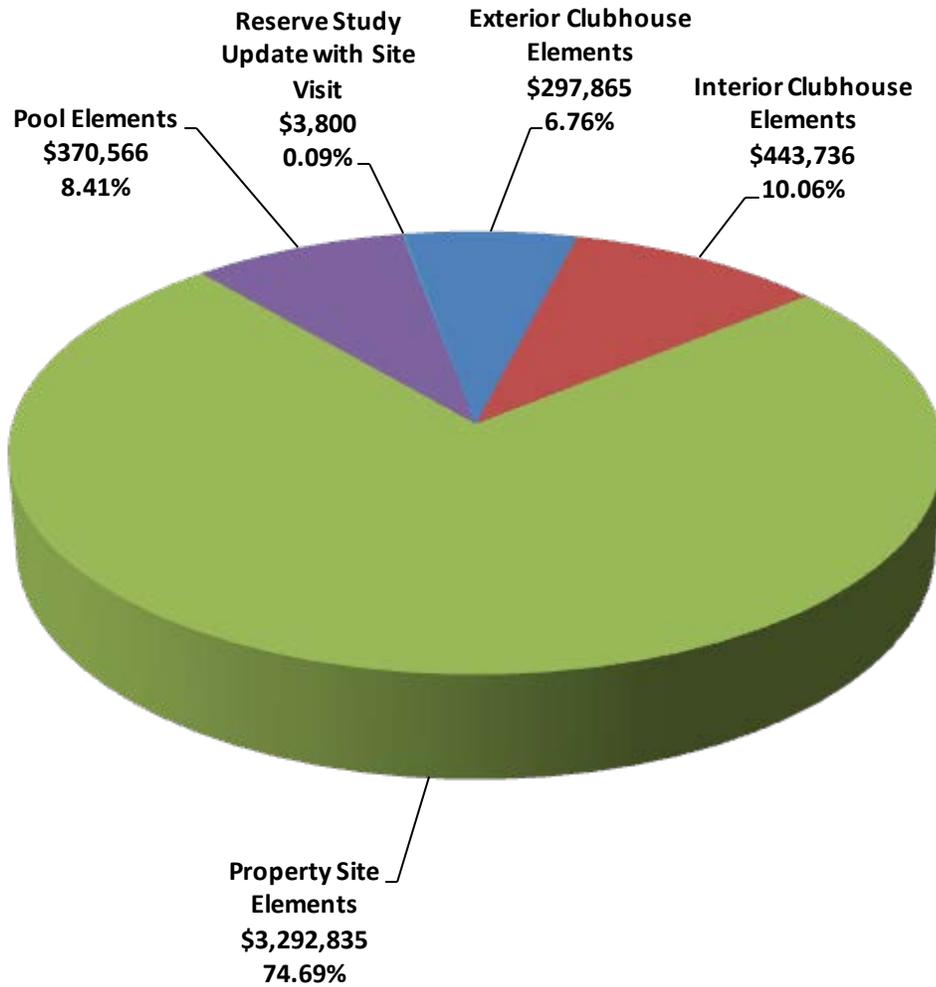
#### **Reserve Funding Plan**

- Reserves at the beginning of each year
- Total recommended reserve contributions
- Estimated interest earned from invested reserves
- Anticipated expenditures by year
- Anticipated reserves at year end

Financial statements prepared by your association, by you or others might rely in part on information contained in this section. For your convenience, we have provided an electronic data file containing the tables of *Reserve Expenditures* and *Reserve Funding Plan*.

The following chart illustrates the relative importance of the categories noted in *Reserve Expenditures* and relative funding during the next 30 years.

**Cobblestone at Roper Mountain**  
 Future Expenditures Relative Cost Illustration



## RESERVE EXPENDITURES

Cobblestone at Roper Mountain  
Homeowners Association, Inc.  
Simpsonville, South Carolina

**Explanatory Notes:**

- 1) **2.6%** is the estimated future Inflation Rate for estimating Future Replacement Costs.
- 2) **FY2016** is Fiscal Year beginning January 1, 2016 and ending December 31, 2016.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				RUL = 0 FY2016	1 2017	2 2018	3 2019	4 2020	5 2021	6 2022	7 2023	8 2024	9 2025	10 2026	11 2027	12 2028	13 2029	14 2030	15 2031
						Useful	Remaining	Unit (2016)	Per Phase (2016)	Total (2016)	30-Year Total (Inflated)																
<b>Exterior Clubhouse Elements</b>																											
1.260	30	30	Each	Light Fixtures	2030	to 25	14	300.00	9,000	9,000	12,892																12,892
1.280	125	125	Squares	Roofs, Asphalt Shingles (Includes Gutters and Downspouts)	2024	15 to 20	8	405.00	50,625	50,625	163,403									62,165							
1.980	1,050	1,050	Square Feet	Windows and Doors, Wood Frames	2045	to 40	29	55.00	57,750	57,750	121,570																
<b>Interior Clubhouse Elements</b>																											
2.071	3	3	Each	Air Handling and Condensing Units, Split Systems	2023	15 to 20	7	5,700.00	17,100	17,100	52,951									20,466							
2.200	85	85	Square Yards	Floor Coverings, Carpet	2019	10 to 15	3	50.00	4,250	4,250	11,165			4,590													
2.240	750	750	Square Feet	Floor Coverings, Tile, Rear Patio	2020	to 15	4	16.00	12,000	12,000	32,841				13,298												
2.241	950	950	Square Feet	Floor Coverings, Tile, Side Patios	2030	to 25	14	16.00	15,200	15,200	21,772															21,772	
2.421	2,850	2,850	Square Feet	Floors, Concrete, Refinishing and Repairs	2017	8 to 12	1	3.00	8,550	8,550	34,769	8,772										11,339					
2.450	4	1	Allowance	Furnishings, Phased	2017	to 20	1 to 16	15,000.00	15,000	60,000	130,350	15,390					17,497					19,894					
2.520	1	1	Allowance	Kitchen Renovation	2030	to 25	14	31,000.00	31,000	31,000	44,404															44,404	
2.550	1	1	Allowance	Life Safety System, Control Panel and Emergency Devices	2030	to 25	14	13,000.00	13,000	13,000	18,621															18,621	
2.560	1	1	Allowance	Light Fixtures and Ceiling Fans	2035	to 30	19	15,000.00	15,000	15,000	24,428																
2.900	2	2	Each	Rest Room Renovation, Clubhouse	2030	to 25	14	10,000.00	20,000	20,000	28,648															28,648	
2.901	2	2	Each	Rest Room Renovation, Pool House	2020	15 to 20	4	8,000.00	16,000	16,000	43,787					17,730											
<b>Property Site Elements</b>																											
4.020	31,100	31,100	Square Yards	Asphalt Pavement, Inspections, Crack Repair and Patch	2016	3 to 5	0	0.10	3,110	3,110	124,786	3,110	3,191	3,274	3,359	3,446	3,536	3,628	3,722			4,020	4,125	4,232	4,342	4,455	4,571
4.040	31,100	15,550	Square Yards	Asphalt Pavement, Mill and Overlay, Phased	2024	15 to 20	8 to 9	12.00	186,600	373,200	1,239,897										229,135	235,092					
4.100	60	30	Each	Catch Basins, Asphalt Pavement, Inspections and Capital Repairs, Phased	2024	15 to 20	8 to 9	375.00	11,250	22,500	74,752										13,814	14,174					
4.101	1	1	Allowance	Catch Basins, Landscaped Areas, Inspections and Capital Repairs	2016	3 to 5	0	2,500.00	2,500	2,500	29,447	2,500			2,770						3,070			3,402			
4.110	25,300	1,900	Linear Feet	Concrete Gutters, Partial	2024	to 65	8 to 30+	25.00	47,500	632,500	315,621										58,327	59,844					
4.140	44,800	1,120	Square Feet	Concrete Sidewalks, Partial	2018	to 65	2 to 30+	8.00	8,960	358,400	136,667			9,432		10,187					11,002		11,883			12,834	
4.245	890	890	Linear Feet	Fences, Metal	2040	to 35	24	50.00	44,500	44,500	82,394																
4.310	2	2	Panels	Gate Entry System	2019	10 to 15	3	3,500.00	7,000	7,000	18,671				7,560												
4.320	8	8	Each	Gate Operators, Hydraulic (2016 is Remaining)	2016	8 to 12	0	1,900.00	15,200	15,200	60,194	13,300											20,159				
4.330	8	8	Each	Gates	2027	to 25	11	1,750.00	14,000	14,000	18,567													18,567			
4.500	1	1	Allowance	Landscape, Partial Replacements	2025	to 20	9	50,000.00	50,000	50,000	168,249												62,994				
4.620	19,800	19,800	Square Feet	Pavers, Masonry, Entrances and Clubhouse	2025	15 to 20	9	11.00	217,800	217,800	732,892													274,400			
4.660	1	1	Allowance	Playground Equipment	2017	15 to 20	1	17,500.00	17,500	17,500	46,455	17,955															
4.740	4,400	4,400	Square Feet	Retaining Walls, Masonry, Putney Bridge Lane, Inspection and Capital Repairs	2025	10 to 15	9	4.00	17,600	17,600	87,886												22,174				
4.800	1	1	Allowance	Signage, Monuments	2027	20 to 25	11	10,000.00	10,000	10,000	13,262													13,262			
4.810	1	1	Allowance	Signage, Street and Traffic	2027	20 to 25	11	10,500.00	10,500	10,500	13,925													13,925			
4.830	790	790	Square Yards	Tennis Court, Color Coat	2017	4 to 6	1	8.00	6,320	6,320	46,539	6,484					7,372										
4.840	345	345	Linear Feet	Tennis Court, Fence	2027	to 25	11	35.00	12,075	12,075	16,014													16,014			
4.850	6	6	Each	Tennis Court, Light Poles and Fixtures	2027	to 35	11	3,500.00	21,000	21,000	27,851													27,851			
4.860	790	790	Square Yards	Tennis Court, Surface Replacement	2027	to 25	11	37.00	29,230	29,230	38,766													38,766			

## RESERVE EXPENDITURES

Cobblestone at Roper Mountain  
Homeowners Association, Inc.  
Simpsonville, South Carolina

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$																	
						Useful	Remaining	Unit (2016)	Per Phase (2016)	Total (2016)	30-Year Total (Inflated)	16 2032	17 2033	18 2034	19 2035	20 2036	21 2037	22 2038	23 2039	24 2040	25 2041	26 2042	27 2043	28 2044	29 2045
<u>Exterior Clubhouse Elements</u>																									
1.260	30	30	Each	Light Fixtures	2030	to 25	14	300.00	9,000	9,000	12,892														
1.280	125	125	Squares	Roofs, Asphalt Shingles (Includes Gutters and Downspouts)	2024	15 to 20	8	405.00	50,625	50,625	163,403										101,238				
1.980	1,050	1,050	Square Feet	Windows and Doors, Wood Frames	2045	to 40	29	55.00	57,750	57,750	121,570														121,570
<u>Interior Clubhouse Elements</u>																									
2.071	3	3	Each	Air Handling and Condensing Units, Split Systems	2023	15 to 20	7	5,700.00	17,100	17,100	52,951														32,485
2.200	85	85	Square Yards	Floor Coverings, Carpet	2019	10 to 15	3	50.00	4,250	4,250	11,165		6,575												
2.240	750	750	Square Feet	Floor Coverings, Tile, Rear Patio	2020	to 15	4	16.00	12,000	12,000	32,841				19,543										
2.241	950	950	Square Feet	Floor Coverings, Tile, Side Patios	2030	to 25	14	16.00	15,200	15,200	21,772														
2.421	2,850	2,850	Square Feet	Floors, Concrete, Refinishing and Repairs	2017	8 to 12	1	3.00	8,550	8,550	34,769														14,658
2.450	4	1	Allowance	Furnishings, Phased	2017	to 20	1 to 16	15,000.00	15,000	60,000	130,350	22,618													25,715
2.520	1	1	Allowance	Kitchen Renovation	2030	to 25	14	31,000.00	31,000	31,000	44,404														29,236
2.550	1	1	Allowance	Life Safety System, Control Panel and Emergency Devices	2030	to 25	14	13,000.00	13,000	13,000	18,621														
2.560	1	1	Allowance	Light Fixtures and Ceiling Fans	2035	to 30	19	15,000.00	15,000	15,000	24,428				24,428										
2.900	2	2	Each	Rest Room Renovation, Clubhouse	2030	to 25	14	10,000.00	20,000	20,000	28,648														
2.901	2	2	Each	Rest Room Renovation, Pool House	2020	15 to 20	4	8,000.00	16,000	16,000	43,787				26,057										
<u>Property Site Elements</u>																									
4.020	31,100	31,100	Square Yards	Asphalt Pavement, Inspections, Crack Repair and Patch	2016	3 to 5	0	0.10	3,110	3,110	124,786	4,689	4,811	4,936	5,065	5,196	5,332	5,470	5,612	5,758	5,908	6,062	6,219		6,717
4.040	31,100	15,550	Square Yards	Asphalt Pavement, Mill and Overlay, Phased	2024	15 to 20	8 to 9	12.00	186,600	373,200	1,239,897														382,858
4.100	60	30	Each	Catch Basins, Asphalt Pavement, Inspections and Capital Repairs, Phased	2024	15 to 20	8 to 9	375.00	11,250	22,500	74,752														23,082
4.101	1	1	Allowance	Catch Basins, Landscaped Areas, Inspections and Capital Repairs	2016	3 to 5	0	2,500.00	2,500	2,500	29,447	3,770				4,177									5,129
4.110	25,300	1,900	Linear Feet	Concrete Gutters, Partial	2024	to 65	8 to 30+	25.00	47,500	632,500	315,621														97,458
4.140	44,800	1,120	Square Feet	Concrete Sidewalks, Partial	2018	to 65	2 to 30+	8.00	8,960	358,400	136,667		13,862			14,971			16,170					17,464	
4.245	890	890	Linear Feet	Fences, Metal	2040	to 35	24	50.00	44,500	44,500	82,394														82,394
4.310	2	2	Panels	Gate Entry System	2019	10 to 15	3	3,500.00	7,000	7,000	18,671				11,111										
4.320	8	8	Each	Gate Operators, Hydraulic (2016 is Remaining)	2016	8 to 12	0	1,900.00	15,200	15,200	60,194														26,735
4.330	8	8	Each	Gates	2027	to 25	11	1,750.00	14,000	14,000	18,567														
4.500	1	1	Allowance	Landscape, Partial Replacements	2025	to 20	9	50,000.00	50,000	50,000	168,249														105,255
4.620	19,800	19,800	Square Feet	Pavers, Masonry, Entrances and Clubhouse	2025	15 to 20	9	11.00	217,800	217,800	732,892														458,492
4.660	1	1	Allowance	Playground Equipment	2017	15 to 20	1	17,500.00	17,500	17,500	46,455														28,500
4.740	4,400	4,400	Square Feet	Retaining Walls, Masonry, Putney Bridge Lane, Inspection and Capital Repairs	2025	10 to 15	9	4.00	17,600	17,600	87,886														28,662
4.800	1	1	Allowance	Signage, Monuments	2027	20 to 25	11	10,000.00	10,000	10,000	13,262														
4.810	1	1	Allowance	Signage, Street and Traffic	2027	20 to 25	11	10,500.00	10,500	10,500	13,925														
4.830	790	790	Square Yards	Tennis Court, Color Coat	2017	4 to 6	1	8.00	6,320	6,320	46,539	9,530													10,835
4.840	345	345	Linear Feet	Tennis Court, Fence	2027	to 25	11	35.00	12,075	12,075	16,014														12,318
4.850	6	6	Each	Tennis Court, Light Poles and Fixtures	2027	to 35	11	3,500.00	21,000	21,000	27,851														
4.860	790	790	Square Yards	Tennis Court, Surface Replacement	2027	to 25	11	37.00	29,230	29,230	38,766														

## RESERVE EXPENDITURES

Cobblestone at Roper Mountain  
Homeowners Association, Inc.  
Simpsonville, South Carolina

**Explanatory Notes:**

- 1) **2.6%** is the estimated future Inflation Rate for estimating Future Replacement Costs.
- 2) FY2016 is Fiscal Year beginning January 1, 2016 and ending December 31, 2016.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				RUL = 0 FY2016	1 2017	2 2018	3 2019	4 2020	5 2021	6 2022	7 2023	8 2024	9 2025	10 2026	11 2027	12 2028	13 2029	14 2030	15 2031	
						Useful	Remaining	Unit (2016)	Per Phase (2016)	Total (2016)	30-Year Total (Inflated)																	
<b>Pool Elements</b>																												
6.200	5,700	5,700	Square Feet	Concrete Deck, Textured Coating, Partial Replacements and Repairs	2017	8 to 12	1	3.25	18,525	18,525	75,334	19,007																
6.300	2,250	2,250	Square Feet	Cover, Vinyl	2021	6 to 8	5	3.00	6,750	6,750	42,879					7,674											9,424	
6.400	370	370	Linear Feet	Fences, Aluminum	2030	to 25	14	38.00	14,060	14,060	20,139																	20,139
6.500	1	1	Allowance	Furniture	2018	to 12	2	13,000.00	13,000	13,000	57,644			13,685														18,621
6.561	8	8	Each	Light Poles and Fixtures	2030	to 25	14	1,500.00	12,000	12,000	17,189																	17,189
6.600	3	1	Allowance	Mechanical Equipment, Phased	2018	to 15	2	4,000.00	4,000	12,000	35,664			4,211				4,787								5,443		
6.800	1,950	1,950	Square Feet	Pool Finish, Plaster	2025	8 to 12	9	12.50	24,375	24,375	121,717																30,709	
		1	Allowance	Reserve Study Update with Site Visit	2018	2	2	3,800.00	3,800	3,800	3,800			3,800														
<b>Anticipated Expenditures, By Year</b>																												
											<b>\$4,408,802</b>	18,910	70,799	34,402	15,509	37,244	21,397	28,497	28,975	377,513	699,387	4,020	220,354	13,077	13,766	199,575	4,571	

## RESERVE EXPENDITURES

Cobblestone at Roper Mountain  
Homeowners Association, Inc.  
Simpsonville, South Carolina

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years		Costs, \$				16 2032	17 2033	18 2034	19 2035	20 2036	21 2037	22 2038	23 2039	24 2040	25 2041	26 2042	27 2043	28 2044	29 2045	30 2046	
						Useful	Remaining	Unit (2016)	Per Phase (2016)	Total (2016)	30-Year Total (Inflated)																
<b>Pool Elements</b>																											
6.200	5,700	5,700	Square Feet	Concrete Deck, Textured Coating, Partial Replacements and Repairs	2017	8 to 12	1	3.25	18,525	18,525	75,334						31,758										
6.300	2,250	2,250	Square Feet	Cover, Vinyl	2021	6 to 8	5	3.00	6,750	6,750	42,879						11,572								14,209		
6.400	370	370	Linear Feet	Fences, Aluminum	2030	to 25	14	38.00	14,060	14,060	20,139																
6.500	1	1	Allowance	Furniture	2018	to 12	2	13,000.00	13,000	13,000	57,644															25,338	
6.561	8	8	Each	Light Poles and Fixtures	2030	to 25	14	1,500.00	12,000	12,000	17,189																
6.600	3	1	Allowance	Mechanical Equipment, Phased	2018	to 15	2	4,000.00	4,000	12,000	35,664		6,188				7,036									7,999	
6.800	1,950	1,950	Square Feet	Pool Finish, Plaster	2025	8 to 12	9	12.50	24,375	24,375	121,717				39,696												51,312
		1	Allowance	Reserve Study Update with Site Visit	2018	2	2	3,800.00	3,800	3,800	3,800																
Anticipated Expenditures, By Year											\$4,408,802	40,607	31,436	16,047	171,951	24,344	99,870	39,241	21,782	92,781	38,393	90,418	115,456	508,527	1,323,236	6,717	

# RESERVE FUNDING PLAN

**CASH FLOW ANALYSIS**  
**Cobblestone at Roper Mountain**  
**Homeowners Association, Inc.**

Individual Reserve Budgets & Cash Flows for the Next 30 Years

	FY2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Reserves at Beginning of Year (Note 1)	233,820	298,338	333,777	409,055	507,089	587,383	687,635	785,012	886,242	641,069	71,761	183,452	81,877	190,627	303,272	233,597
<b>Total Recommended Reserve Contributions (Note 2)</b>	<b>79,860</b>	<b>102,000</b>	<b>104,700</b>	<b>107,400</b>	<b>110,200</b>	<b>113,100</b>	<b>116,000</b>	<b>119,000</b>	<b>122,100</b>	<b>125,300</b>	<b>114,000</b>	<b>117,000</b>	<b>120,000</b>	<b>123,100</b>	<b>126,300</b>	<b>129,600</b>
Plus Estimated Interest Earned, During Year (Note 3)	3,568	4,238	4,980	6,143	7,338	8,549	9,874	11,205	10,240	4,779	1,711	1,779	1,827	3,311	3,600	3,998
Less Anticipated Expenditures, By Year	(18,910)	(70,799)	(34,402)	(15,509)	(37,244)	(21,397)	(28,497)	(28,975)	(377,513)	(699,387)	(4,020)	(220,354)	(13,077)	(13,766)	(199,575)	(4,571)
<b>Anticipated Reserves at Year End</b>	<b>\$298,338</b>	<b>\$333,777</b>	<b>\$409,055</b>	<b>\$507,089</b>	<b>\$587,383</b>	<b>\$687,635</b>	<b>\$785,012</b>	<b>\$886,242</b>	<b>\$641,069</b>	<b>\$71,761</b>	<b>\$183,452</b>	<b>\$81,877</b>	<b>\$190,627</b>	<b>\$303,272</b>	<b>\$233,597</b>	<b>\$362,624</b>

(NOTE 5)

(continued)

Individual Reserve Budgets & Cash Flows for the Next 30 Years, Continued

	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
Reserves at Beginning of Year	362,624	460,536	572,526	705,045	686,021	819,068	881,701	1,010,144	1,161,925	1,248,405	1,395,036	1,495,599	1,576,843	1,268,091	139,694
<b>Total Recommended Reserve Contributions</b>	<b>133,000</b>	<b>136,500</b>	<b>140,000</b>	<b>143,600</b>	<b>147,300</b>	<b>151,100</b>	<b>155,000</b>	<b>159,000</b>	<b>163,100</b>	<b>167,300</b>	<b>171,600</b>	<b>176,100</b>	<b>180,700</b>	<b>185,400</b>	<b>190,200</b>
Plus Estimated Interest Earned, During Year	5,519	6,926	8,566	9,327	10,091	11,403	12,684	14,563	16,161	17,724	19,381	20,600	19,075	9,439	3,124
Less Anticipated Expenditures, By Year	(40,607)	(31,436)	(16,047)	(171,951)	(24,344)	(99,870)	(39,241)	(21,782)	(92,781)	(38,393)	(90,418)	(115,456)	(508,527)	(1,323,236)	(6,717)
<b>Anticipated Reserves at Year End</b>	<b>\$460,536</b>	<b>\$572,526</b>	<b>\$705,045</b>	<b>\$686,021</b>	<b>\$819,068</b>	<b>\$881,701</b>	<b>\$1,010,144</b>	<b>\$1,161,925</b>	<b>\$1,248,405</b>	<b>\$1,395,036</b>	<b>\$1,495,599</b>	<b>\$1,576,843</b>	<b>\$1,268,091</b>	<b>\$139,694</b>	<b>\$326,301</b>

(NOTE 5)

(NOTE 4)

**Explanatory Notes:**

- 1) Year 2016 starting reserves are as of January 1, 2016; FY2016 starts January 1, 2016 and ends December 31, 2016.
- 2) Reserve Contributions for 2016 are budgeted; 2017 is the first year of recommended contributions.
- 3) 1.35% is the estimated annual rate of return on invested reserves.
- 4) Accumulated year 2046 ending reserves consider the age, size, overall condition and complexity of the property.
- 5) Threshold Funding Years (reserve balance at critical point).

#### 4. CONDITION ASSESSMENT

The Condition Assessment of this *Full Reserve Study* includes *Enhanced Solutions and Procedures* for select significant components. These narratives describe the Reserve Components, document specific problems and conditions, and may include detailed solutions and procedures for necessary capital repairs and replacements for the benefit of current and future board members. We advise the Board use this information to help define the scope and procedures for repair or replacement when soliciting bids or proposals from contractors. *However, the Report in whole or part is not and should not be used as a design specification or design engineering service.*

#### Exterior Clubhouse Elements



Clubhouse exterior



Clubhouse exterior



**Pool house exterior**



**Pavilion**

**Light Fixtures** - Cobblestone at Roper Mountain maintains approximately 30 exterior wall and ceiling mounted metal light fixtures with incandescent bulbs to accent the exteriors of the clubhouse, pool house and pavilion. The light fixtures are original and in good overall condition.



**Exterior wall mounted light fixture at clubhouse**



**Exterior wall mounted light fixture at clubhouse**

The useful life of exterior light fixtures of this type and quality is up to 25 years. We recommend the Association plan for replacement of the light fixtures by 2030. We include this information on Line Item 1.260 of *Reserve Expenditures*. Our cost does not include an allowance for replacement of electrical wiring.

**Roofs, Asphalt Shingles** - Approximately 125 *squares*<sup>1</sup> of asphalt shingles comprise the roofs of the clubhouse, pool house and pavilion. The roofs are original and are in good overall condition. Our visual inspection from the ground notes areas of organic stains at the clubhouse roof.



**Asphalt shingle roof at clubhouse**



**Asphalt shingle roof at pool house**



**Organic stains at asphalt shingle roof at clubhouse**



**Organic stains at asphalt shingle roof at clubhouse**

The existing roof assembly comprises the following:

- Laminate shingles
- Boston style ridge caps
- Rubber seal with plastic base boot flashing at waste pipes
- Soffit and ridge vents

<sup>1</sup> We quantify the roof area in *squares* where one square is equal to 100 square feet of surface area.



- Metal drip edge
- Enclosed half weaved valleys

The useful life of asphalt shingle roofs in Simpsonville is from 15- to 20-years. We include the following solutions and procedures pertaining to the components of an asphalt shingle roof system, times of replacement, recommended method of replacement, and coordination of other related work for the benefit of present and future board members.

Insulation and ventilation are two major components of a sloped roof system. Together, proper insulation and ventilation help to control attic moisture and maintain an energy efficient building. Both insulation and ventilation prevent moisture buildup which can cause wood rot, mold and mildew growth, warp sheathing, deteriorate shingles, and eventually damage building interiors. Sufficient insulation helps to minimize the quantity of moisture that enters the attic spaces and adequate ventilation helps to remove any moisture that enters the attic spaces. These two roof system components also help to reduce the amount of energy that is required to heat and cool a building. Proper attic insulation minimizes heat gain and heat loss between the residential living spaces and attic spaces. This reduces energy consumption year-round. Proper attic ventilation removes excessive heat from attic spaces that can radiate into residential living spaces and cause air conditioners to work harder. Properly installed attic insulation and ventilation work together to maximize the useful life of sloped roof systems.

The Association should periodically ensure that the vents are clear of debris and are not blocked from above by attic insulation. If the soffit vents are blocked from above, the Association should install polystyrene vent spaces or baffles between the roof joists at these locations to ensure proper ventilation. Cobblestone at Roper Mountain should fund this ongoing maintenance through the operating budget.

Certain characteristics of condition govern the times of replacement. Replacement of an asphalt shingle roof becomes necessary when there are multiple or recurring leaks and when the shingles begin to cup, curl and lift. These conditions are indications that the asphalt shingle roof is near the end of its useful life. Even if the shingles are largely watertight, the infiltration of water in one area can lead to permanent damage to the underlying roof sheathing. This type of deterioration requires replacement of saturated sections of sheathing and greatly increases the cost of roof replacement. Roof leaks may occur from interrelated roof system components, i.e., flashings. Therefore, the warranty period, if any, on the asphalt shingles, may exceed the useful life of the roof system.

Warranties are an indication of product quality and are not a product guarantee. Asphalt shingle product warranties vary from 20- to 50-years and beyond. However, the scope is usually limited to only the material cost of the shingles as caused by manufacturing defects. Warranties may cover defects such as thermal splitting, granule loss, cupping, and curling. Labor cost is rarely included in the remedy so if roof materials fail, the labor to tear off and install new shingles is extra. Other limitations of warranties are exclusions for "incidental and consequential" damages resulting from age, hurricanes, hail storms, ice dams, severe winds, tornadoes, earthquakes, etc. There are some warranties which offer no dollar limit for replacement at an additional cost (effectively an insurance policy) but again these warranties also have limits and may not cover all damages other than a product defect. We recommend a review of the manufacturers' warranties as part of the evaluation of competing proposals to replace a roof system. This evaluation should identify the current costs of remedy if the roof were to fail in the near term future. A comparison of the costs of remedy to the total replacement cost will assist in judging the merits of the warranties.



Our estimate of remaining useful life considers this possibility and the Association should anticipate the need for capital repairs to the shingles and other roof system components to achieve or maximize the remaining useful life of the roofs. The Association should fund ongoing roof repairs as normal maintenance from the operating budget.

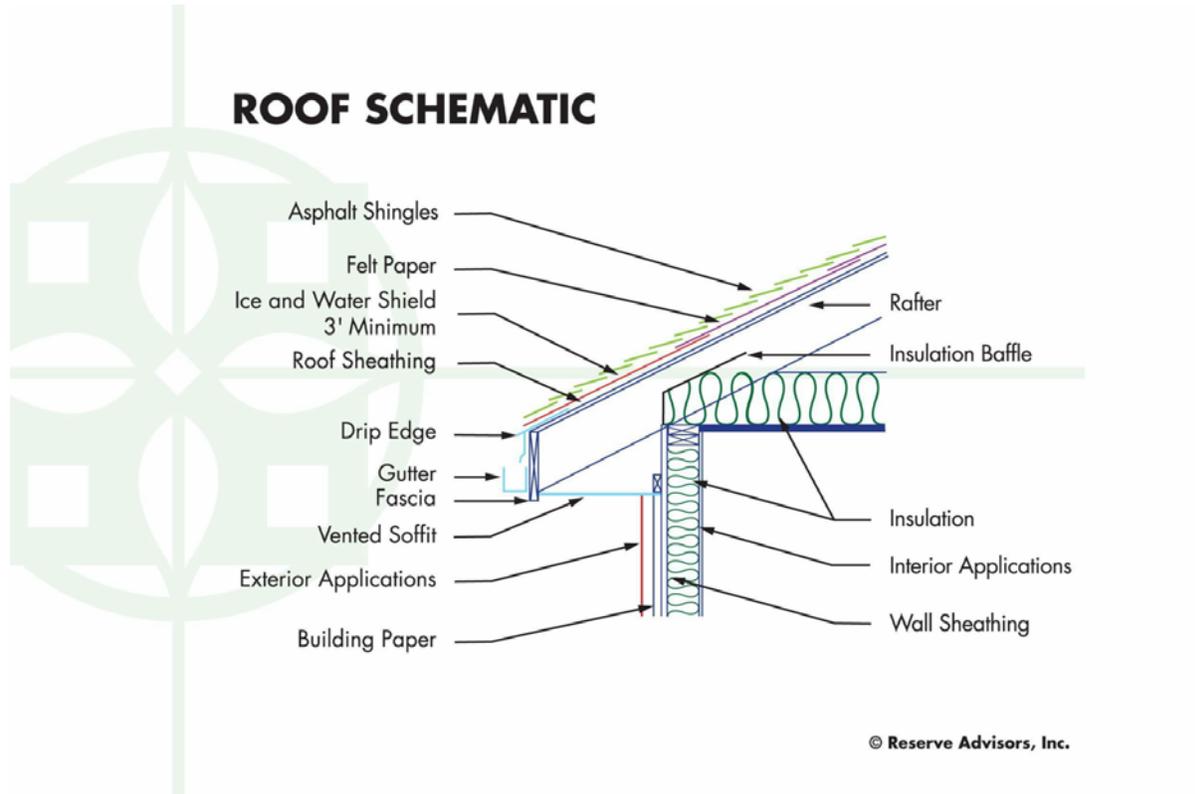
Contractors use one of two methods of replacement for sloped roofs, either an overlayment or a tear-off. Overlayment is the application of new shingles over an existing roof. Although this method is initially more economical, the following disadvantages exist for this type of replacement:

1. Overlaid shingles hide condition defects of the roof system and do not allow for replacement of critical flashings, underlayments and ventilation.
2. Additional layers of shingles absorb and store more heat resulting in premature deterioration of the new shingles and continued deterioration of the underlying shingles and other roof system components.
3. New shingles installed over deteriorated shingles may result in an uneven appearance.

The disadvantages above result in a shorter useful life of 10- to 15-years for overlaid roofs. This shortened useful life and the inevitable eventual replacement of both shingle layers will actually result in increased long-term replacement costs. The costs of an eventual total replacement are deferred onto future homeowners thereby conflicting with the purpose of a reserve study to ensure homeowners pay their “fair share” of the weathering and aging of this commonly owned property. Therefore, we recommend only the tear-off method of replacement. The advantages of the tear-off method include the correction of hidden or latent defects and extend the useful life of the new roof.

The tear-off method of replacement includes removal of the existing shingles, flashings if required and underlayments. The contractor should then inspect the roof sheathing for areas of water damage and partially replace the sheathing as needed. Once the roof sheathing is repaired,

the contractor can begin installation of the new underlayments, flashings and shingles. The following cross-sectional schematic illustrates an asphalt shingle roof system:



The two types of underlayment most often used in an asphalt shingle roof system are ice and water shield membrane, and organic felt paper of varying weights depending on local building codes. Both types of underlayment protect the roof sheathing from moisture damage and wind-driven rain. They have a low vapor resistance that impedes the accumulation of moisture between the underlayment and the roof sheathing. Ice and water shield membrane is thicker than organic paper and is used in areas that are subject to ice dams and standing water. The contractor should install ice and water shield membranes (often a modified bitumen product) at the outer 36 inches of the gutter and rake edge roof eaves, and in the roof valleys. Standard 15-pound organic felt paper should provide sufficient protection over the remaining portions of the roof. Underlayments work in conjunction with flashings to form a watertight roof system.

The function of flashing is to provide a watertight junction between the roofing material and the other parts of the structure and between roof sections. Flashing material is usually galvanized metal, although some roofs use copper or synthetic rubber. The Association should require the contractor to augment existing flashings or replace deteriorated flashings at the time of roof replacement at the following locations:

- Changes in the slope
- Valleys
- Roof intersections with a wall, vertical structure, roof penetration, i.e., vent stacks
- Rakes (sloped edges of the roof) and soffits (lower roof edges)

Another critical type of flashing is drip edge flashing. This important flashing sheds water off the edges of the roofs. The drip edge flashing allows storm water to run off the roof into the gutters without coming into contact with the underlayment and eave board. The special profile of a metal drip edge also prevents or minimizes the possibility of rain water blowing back under the shingles. The contractor should install this flashing at the gutter edge before the installation of underlayment and at the rake edge *after* the installation of underlayment.

Asphalt shingles include both fiberglass shingles and organic mat shingles. Both shingle types are made with asphalt. Fiberglass shingles use a fiberglass reinforcing mat while organic shingles use a wood based cellulose fiber mat. Fiberglass shingles are thinner, lighter and carry a better fire rating than organic shingles. Organic mat shingles are more durable and stay more flexible in cold weather. The contractor should install the shingles atop the underlayment and in conjunction with flashing. Based on a better fire rating, we suggest Cobblestone at Roper Mountain use a standard strip, fiberglass, Class A, minimum weight class of 210 pounds per square self-sealing shingle at the time of replacement. The self-sealing strip affixes to the lower exposed edges of the shingles. Heat from ambient weather and sunlight activates the shingle



adhesive material and seals the two adjacent courses of shingles together. Contractor proposals should specify the types of proposed materials and types of proposed fasteners. The Association should require the use of nail fasteners, not staples, at the time of replacement. Nail guns are acceptable. Staples are of lesser quality and might not withstand wind forces as well as nails.

The Association should plan to coordinate the replacement of gutters and downspouts with the adjacent roofs. This will result in the most economical unit price and minimize the possibility of damage to other roof components as compared to separate replacements. Our estimate of unit cost for roof replacement includes an allowance for the replacement of the gutters and downspouts.

Based on the age and condition of the roofs, we recommend Cobblestone at Roper Mountain budget for replacement by 2024 and again by 2043. We note this information on Line Item 1.280 of *Reserve Expenditures*. We base our cost on replacement with standard laminate Class A 240-260-pounds per square shingles. The Association should fund any repairs prior to the complete replacement of the roofs through the operating budget.

**Windows and Doors** - The clubhouse and pool house windows and doors comprise approximately 1,050 square feet, are original and are in good condition. Construction of the windows and doors at the clubhouse and pool house includes the following:

- Wood frames
- Dual pane glass
- Casement and fixed windows
- Hinged doors

The useful life of wood frame windows and exterior doors is up to 40 years. The useful life of the windows and doors is based on the occurrence of water infiltration, thermal

inefficiencies compared to present technology, type of frame, availability of replacement parts and aesthetics. Based on these factors, we recommend the Association anticipate replacement of these windows and doors by 2045. We depict this information on Line Item 1.980 of *Reserve Expenditures*.

**Interior Clubhouse Elements**



**Interior finishes and fixtures at clubhouse**



**Interior finishes and fixtures at clubhouse**



**Interior finishes and fixtures at clubhouse**



**Interior finishes and fixtures at clubhouse**

**Air Handling and Condensing Units, Split Systems** - The Association maintains three *Tempstar* split system air conditioners to provide heated or cooled air, depending on the season, to the clubhouse. A split system air conditioner consists of an outside condensing unit, an

interior evaporator coil, refrigerant lines and an interior electric air handling unit. Each condensing unit has a cooling capacity that ranges from three- to five-tons. The split systems are original, use R-22 refrigerant and are reported in good operational condition.



**Split system condensers at clubhouse**

With periodic maintenance, the useful life of these units is from 15- to 20-years. We base the time of replacement of a split system on its anticipated useful life and frequency of service interruptions. The condensing unit may require replacement prior to replacement of the related interior forced air unit. However, Cobblestone at Roper Mountain should coordinate the replacement of the interior forced air unit, evaporator coil, refrigerant lines and exterior condensing unit. We recommend the Association anticipate replacement of the systems by 2023 and again by 2041. We include this information on Line item 2.071 of *Reserve Expenditures*. Our cost is based on a 13 Seasonal Energy Efficiency Ratio (SEER) as required by The Department of Energy since January of 2006.

**Floor Coverings, Carpet** - Carpet comprises 85 square yards of the clubhouse floor coverings. Contractor measurements will vary from the actual floor area due to standard roll lengths, patterns and installation waste. The carpet is original and in good overall condition.



#### **Carpet floor coverings at clubhouse**

We suggest the Association budget to replace the carpet every 10- to 15-years to maintain a positive appearance of the common areas. We include the following solutions and procedures pertaining to replacement of the carpet for the benefit of present and future board members.

The appearance, texture and longevity of carpet are determined by the type of fiber, pile and color. There are many types of fibers available. There are also multiple types of carpet piles available. Loop piles, such as Berber, or angle cut piles with woven patterns are ideal for high traffic areas. We suggest the use of mid-tone colors to mask traffic patterns and stains. The contractor should follow the manufacturer's installation guidelines and the *Carpet and Rug Institute's* Carpet Installation Standard.

We advise the Association anticipate replacement of the carpet by 2019 and every 14 years thereafter. We include this information on Line Item 2.200 of *Reserve Expenditures*. Cobblestone at Roper Mountain should continue to fund vacuuming, spot removal and schedule periodic cleanings through the operating budget to maximize the life of the carpet.

**Floor Coverings, Tile, Patios** - Tile comprises approximately 1,700 square feet of the patio floor coverings at the clubhouse. This quantity includes 750 square feet at the rear patio

and 950 square feet at the two side patios. The tile is original and ranges from good to poor condition. We note multiple areas of cracked tile, primarily at the rear patio adjacent to the pool deck.



**Tile floor coverings at clubhouse side patio**



**Tile floor coverings at clubhouse side patio**



**Repaired tile at clubhouse rear patio**



**Cracked tile at clubhouse rear patio**



**Cracked tile at clubhouse rear patio**

Due to high pedestrian traffic, we anticipate a useful life of up to 15 years for the tile at the rear patio. We anticipate a useful life of up to 25 years for the tile at the lesser-used side patios. Replacement of tile is often based on discretionary redecorating prior to the tile reaching the end of its useful life.

An important criterion in selecting tile is slip resistance. High traffic areas require high slip resistance. We recommend use of a tile with high slip resistance at Cobblestone at Roper Mountain.

Installation of the tiles includes floor layout, application of thinset or thickset (bonding material), installation of tiles and application of grout. The thinset or thickset requires time to set. Typically 24- to 48-hours is sufficient. The final installation step is grouting. Grout is a cementitious material to fill joints between tiles. A damp sponge is then used to remove excess grout. The Board should require the contractor to adhere to all product manufacturers' installation specifications and the above guideline parameters of installation.

We recommend Cobblestone at Roper Mountain anticipate replacement of the tile at the rear patio by 2020 and again by 2035. We anticipate replacement of the tile at the side patios by

2030. We note this information on Line Items 2.240 and 2.241 of *Reserve Expenditures*. The Association should fund re-grouting and interim replacements of cracked tiles through the operating budget if necessary.

**Floor, Concrete, Refinishing and Repairs** - Concrete floors comprise approximately 2,850 square feet in the clubhouse. The floors and finish are original and are in fair overall condition. We note several areas of cracked concrete floors.



**Finished concrete floors at clubhouse**



**Finished concrete floors at clubhouse**



**Crack at finished concrete floors at clubhouse**



**Crack at finished concrete floors at clubhouse**



**Crack at finished concrete floors at clubhouse**

Well maintained concrete floors have an indeterminately long useful life and we do not anticipate replacement during the next 30 years. Instead, we recommend Cobblestone at Roper Mountain budget to refinish the floors and perform minor concrete repairs every 8- to 12-years to maximize their useful lives. We recommend the Association plan to refinish and repair the concrete floors in 2017 and every 10 years thereafter. We note this information on Line Item 2.421 of *Reserve Expenditures*.

**Furnishings** - Furnishings in the clubhouse include the following elements:

- Bookcases
- Chairs
- Ottomans
- Pictures and Decorations
- Rugs
- Sofas
- Tables
- Televisions
- Window treatments

These elements are in good to fair overall condition at varied ages. The useful lives of these interior building elements vary up to 20 years. We estimate the present replacement cost of these elements at approximately \$60,000. Due to varied uses, ages and useful lives, we recommend the Association budget \$15,000 plus inflation for phased replacements of up to

twenty-five percent (25%) of the furnishings every five years beginning in 2017. Line Item 2.450 of *Reserve Expenditures* notes our estimate of future costs and anticipated times of replacements.

**Kitchen** - The Association maintains a kitchen located in the clubhouse. Components of the kitchen include:

- Appliances
- Cabinets and countertops
- Light fixtures
- Paint finishes on the ceiling
- Plumbing fixtures
- Wall coverings

The components are original and in good overall condition.



**Kitchen finishes and fixtures at clubhouse**



**Kitchen finishes and fixtures at clubhouse**

The useful life of kitchen components varies up to 25 years. Periodic renovations of the kitchen are an astute practice to maintain a positive overall appearance of the Association. We recommend the Association budget for renovation of the kitchen by 2030. We note this information on Line Item 2.520 of *Reserve Expenditures*.



**Life Safety System** - The life safety system at the clubhouse includes the following components:

- Audio/visual fixtures
- Control panel
- Detectors
- Emergency light fixtures
- Exit light fixtures
- Pull stations
- Wiring

The system is original and in good reported operational condition. Life safety systems have useful lives of up to 25 years with proper maintenance. Changes in technology or building codes may make a replacement desirable prior to the end of the functional life. With consideration of the operational condition and age, we recommend the Association budget for replacement by 2030. Our estimate of future cost considers only that amount necessary to duplicate the same functionality. Local codes or ordinances at the actual time of replacement may require a betterment as compared to the existing system. A betterment could result in a higher, but at this time unknown, cost of replacement than the future amount shown on Line Item 2.550 of *Reserve Expenditures*. Our cost assumes reuse of the existing wiring.

**Light Fixtures** – The Association maintains interior light fixtures and ceiling fans located throughout the clubhouse. The interior light fixtures and ceiling fans are original, in good condition and have useful lives of up to 30 years. Cobblestone at Roper Mountain may desire replacement for aesthetic reasons or to coordinate their replacement with more significant renovations or paint applications. We consider the times of such replacements discretionary. For the purposes of this study, we include an allowance of \$15,000 plus inflation for a total replacement of the light fixtures and ceiling fans by 2035. We include this information on Line Item 2.560 of *Reserve Expenditures*. To reduce energy consumption, Cobblestone at Roper

Mountain should consider the use of fluorescent or light-emitting diode (LED) lighting throughout the common areas and motion sensors.

**Rest Rooms, Clubhouse** - The Association maintains two common area rest rooms located in the clubhouse. Components of the rest rooms include:

- Countertops
- Light fixtures
- Paint finishes on the ceilings
- Plumbing fixtures
- Wall coverings

The components are original and in good overall condition.



**Rest room finishes and fixtures at clubhouse**



**Rest room finishes and fixtures at clubhouse**

The useful life of rest room components varies up to 25 years. Periodic renovations are an astute practice to maintain a positive overall appearance of the Association. We recommend the Association budget for a renovation by 2030. We note this information on Line Item 2.900 of *Reserve Expenditures*. The Association should verify the rest room renovations comply with the Americans with Disabilities Act.

**Rest Rooms, Pool House** - The Association maintains two common area rest rooms located in the pool house. Components of the rest rooms include:

- Drinking fountain
- Light fixtures
- Paint finishes on the walls and ceiling
- Plumbing fixtures
- Rest room partitions
- Tile floor coverings

The components are original and in fair reported overall condition. Due to the high use, we anticipate a lower useful life at the pool rest rooms of 15- to 20-years. We recommend the Association budget for a renovation by 2020 and again by 2035. We note this information on Line Item 2.901 of *Reserve Expenditures*. The Association should verify the rest room renovations comply with the Americans with Disabilities Act.

### **Property Site Elements**

**Asphalt Pavement, Crack Repair and Patch** - Asphalt pavement comprises approximately 31,100 square yards of streets and parking areas throughout the community. The pavement is original and in good to fair overall condition. We note multiple areas of repaired cracks throughout the community. Management and the Board inform us the Association performs cracks repairs and pavement repairs annually. These activities reduce water infiltration and the effects of inclement weather. We elaborate on solutions and procedures necessary for the optimal maintenance of asphalt pavement in the following discussion.

Asphalt pavement is susceptible to isolated areas of accelerated deterioration at the centerlines of streets and at high traffic areas such as intersections. Depressions often appear at areas where vehicles park. Isolated areas of depressions, cracks and deterioration indicate the need for crack repairs and patching. The contractor should patch areas that exhibit potholes, alligator or spider web pattern cracks, and areas of pavement that are severely deteriorated from oil and gasoline deposits from parking vehicles. Area patching requires total replacement of

isolated areas of pavement. The contractor should mechanically rout and fill all cracks with hot emulsion. Crack repair minimizes the chance of the cracks transmitting through the pavement.

Cobblestone at Roper Mountain should budget for inspections, crack repairs and patching annually, except during repaving, beginning in 2016. Line Item 4.020 of *Reserve Expenditures* notes our estimate of future costs and anticipated times of these activities.

**Asphalt Pavement, Repaving** - Asphalt pavement comprises approximately 31,100 square yards of streets and parking areas throughout the community. The pavement is original and in good to fair overall condition. We note multiple areas of repaired cracks throughout the community.



Asphalt pavement – Cobbler Lane



Asphalt pavement – Cobbler Lane



**Asphalt pavement – Portabello Way**



**Repaired transverse crack at Portabello Way**



**Asphalt pavement – Tooley Road**



**Asphalt pavement – Tooley Road**



**Asphalt pavement – Chancery Lane**



**Repaired cracks at Chancery Lane**



**Asphalt pavement – Brixton Circle**



**Repaired crack at centerline of Brixton Circle**



**Repaired cracks at Brixton Circle**



**Repaired cracks at Brixton Circle**



**Asphalt pavement – Putney Bridge Lane**



**Repaired cracks at intersection of Putney Bridge Lane and Gatwick Lake**



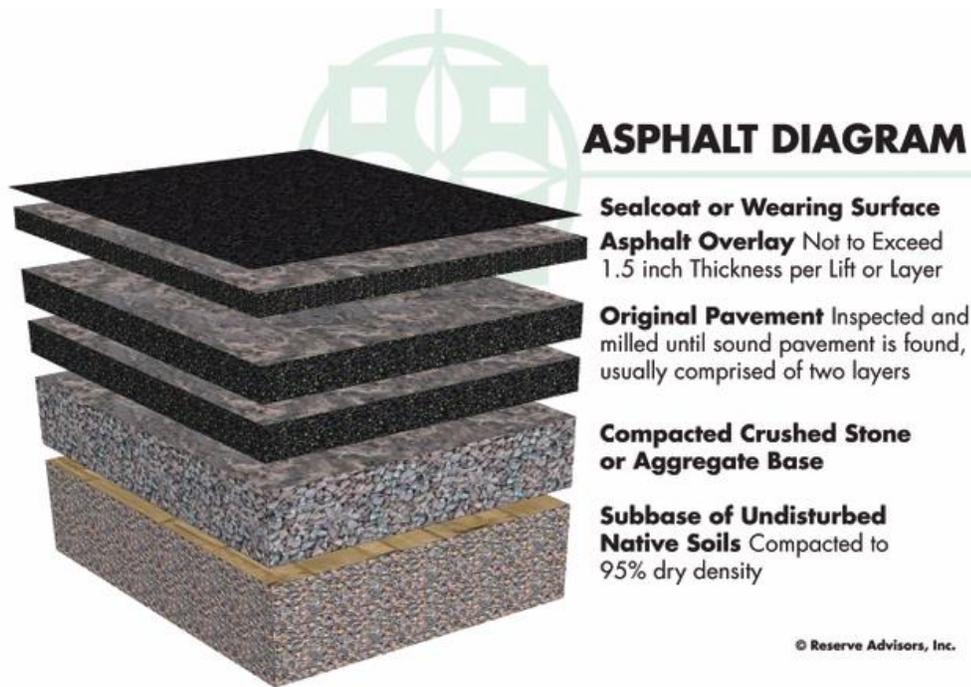
**Asphalt pavement – Ramsford Lane**



**Repaired cracks at Ramsford Lane**

The useful life of pavement in Simpsonville is from 15- to 20-years. We include the following repaving solutions and procedures for the benefit of the present and future board members.

Components of asphalt pavement include native soil, aggregate and asphalt. First the contractor creates a base course of aggregate or crushed stone and native soil. The base course is individually compacted to ninety-five percent (95%) dry density prior to the application of the asphalt. Compaction assures a stable base for the asphalt that reduces the possibility of settlement. For street systems, the initial installation of asphalt uses at least two lifts, or two separate applications of asphalt, over the base course. The first lift is the binder course. The second lift is the wearing course. The wearing course comprises a finer aggregate for a smoother more watertight finish. The following diagram depicts these components:



The manner of repaving is either a *mill and overlay* or *total replacement*. A mill and overlay is a method of repaving where cracked, worn and failed pavement is mechanically removed or milled until sound pavement is found. A new layer of asphalt is overlaid atop the remaining base course of pavement. Total replacement includes the removal of all existing asphalt down to the base course of aggregate and native soil followed by the application of two or more new lifts of asphalt. We recommend mill and overlayment on asphalt pavement that exhibits normal deterioration and wear. We recommend total replacement of asphalt pavement that exhibits severe deterioration, inadequate drainage, pavement that has been overlaid multiple times in the past or where the configuration makes overlayment not possible. Based on the apparent visual condition and configuration of the asphalt pavement, we recommend the mill and overlay method of repaving at Cobblestone at Roper Mountain.

A variety of repairs are necessary to deteriorated pavement prior to the application of an overlay. The contractor should use a combination of area patching, crack repair and milling before the overlayment. Properly milled pavement removes part of the existing pavement and permits the overlay to match the elevation of adjacent areas not subject to repaving. Milling also allows the contractor to make adjustments to the slope of the pavement to ensure proper drainage. The contractor should clean the milled pavement to ensure proper bonding of the new overlayment. We recommend an overlayment thickness that averages 1½ inches (not less than one inch or more than two inches). Variable thicknesses are often necessary to create an adequate slope for proper drainage. The contractor should identify and quantify areas of pavement that require area patching, crack repair and milling to help the Association compare proposed services.

Total replacement requires the removal of all existing asphalt. For area patching, we recommend the contractor use a rectangular saw cut to remove the deteriorated pavement. For larger areas such as entire parking areas or driveways, we recommend the contractor grind, mill or pulverize the existing pavement to remove it. The contractor should then augment and compact the existing aggregate and native soil to create a stable base. Finally the contractor should install the new asphalt in at least two lifts.

The time of replacement is dependent on the useful life, age and condition of the pavement. The useful life is dependent in part on the maintenance applied to the pavement, the amounts and concentration of auto solvents that penetrate the pavement, the exposure to sunlight and detrimental effects of inclement weather. Cobblestone at Roper Mountain should repair any isolated areas of deteriorated pavement annually. We recommend the Association plan for a phased milling and overlayment of the pavement with area patching of up to ten percent (10%)

beginning by 2024 and concluding by 2025. A subsequent phased mill and overlayment is likely beginning by 2044 and concluding by 2045. We depict this information on Line Item 4.040 of *Reserve Expenditures*. The Association should coordinate asphalt repaving with related activities such as partial replacement of concrete gutters, and capital repairs to catch basins.

**Catch Basins** - The 60 concrete catch basins collect storm water from the pavement and conduct it into the storm water system. The overall condition of the catch basins is good without settlement visually apparent. We note isolated concrete spalls and cracks.



**Concrete catch basin**



**Isolated concrete spall and crack at catch basin**

The useful life of catch basins is up to 60 years. However, achieving this useful life usually requires interim capital repairs or partial replacements every 15- to 20-years.

The Association should anticipate the occasional displacement or failure of a catch basin and the surrounding pavement from erosion. Erosion causes settlement around the collar of catch basins. Left unrepaired, the entire catch basin will shift and need replacement. Cobblestone at Roper Mountain should plan to repair or replace any displaced or failed catch basins concurrently with the surrounding pavement and gutters. The exact times and amount of capital repairs or replacements are dependent upon variable natural forces. Based on the age and



condition of the catch basins, we recommend the Association anticipate the inspection, capital repair or partial replacement of 30 catch basins in conjunction with each phase of repaving. We include this information on Line Item 4.100 of *Reserve Expenditures*.

Management and the Board inform us that the Association maintains catch basins in the landscaped areas behind the homes. The Board informs us that there are areas of erosion at the basins. At the request of Management and the Board, we include an allowance of \$2,500 plus inflation every four years beginning in 2016 for inspections and capital repairs to the catch basins in the landscaped areas. We include this information on Line Item 4.101 of *Reserve Expenditures*.

**Concrete, Flatwork** - The Association maintains two applications of concrete flatwork. These applications of concrete have useful lives of up to 65 years although isolated deterioration of limited areas of concrete is common. Inclement weather, inadequate subsurface preparation and improper concrete mixtures or finishing techniques can result in premature deterioration such as settlement, chips, cracks and spalls. Variable conditions like these result in the need to plan for periodic partial replacements of the concrete flatwork throughout the next 30 years. We comment on the respective quantities, conditions and times of partial replacements of concrete flatwork in the following sections of this narrative.

**Concrete Gutters** - Concrete gutters line the pavement of Cobblestone at Roper Mountain. These gutters comprise approximately 25,300 linear feet and are in good condition overall. We note isolated areas of cracked concrete gutter sections.



**Typical concrete gutter and sidewalk**



**Typical concrete gutter**



**Example of cracked gutter sections**



**Typical concrete gutter and sidewalk**

We estimate that up to 7,600 linear feet of gutters, or thirty percent (30%) of the total, will require replacement during the next 30 years. We estimate that up to 1,900 linear feet of gutters, or approximately eight percent (7.5%) of the total, will require replacement in conjunction with each phase of repaving. We depict this information on Line Item 4.110 of *Reserve Expenditures*. We assume the use of 3,500 pounds per square inch (PSI) concrete.

**Concrete Sidewalks** - Concrete sidewalks comprise approximately 44,800 square feet throughout the community. The sidewalks are in good overall condition. We note isolated areas of cracked concrete sections and trip hazards.



**Example of cracked concrete sidewalk section**



**Example of trip hazard at concrete sidewalk**

We estimate that up to 11,200 square feet of concrete sidewalks, or twenty-five percent (25%) of the total, will require replacement during the next 30 years. We recommend the Association budget for replacement of 1,120 square feet of concrete sidewalks every three years beginning by 2018. Line Item 4.140 of **Reserve Expenditures** notes our estimate of future costs and anticipated times of replacements. We base our estimate of replacement on four-inch thick, 3,000 PSI concrete with 6x6 - W1.4xW1.4 steel reinforcing mesh. We recommend an annual inspection of the sidewalks to identify potential trip hazards. We suggest the Association grind down or mark these hazards with orange safety paint prior to replacement and fund this ongoing activity through the operating budget.

The times and costs of these replacements may vary. However, the estimated expenditures detailed in **Reserve Expenditures** are sufficient to budget appropriate reserves.

**Fences, Metal** - Approximately 890 linear feet of metal fences are found at the entrances to the community. The fences are original and in good overall condition. The protective finishes are in fair to poor overall condition at an unknown age. We note rust formation and poor paint finishes at the metal fences.



**Stone veneer wall and metal fence**



**Metal fence**



**Rust formation and poor paint finishes at metal fence. The Association should fund paint applications to the fences through the operating budget.**



**Rust formation and poor paint finishes at metal fence. The Association should fund paint applications to the fences through the operating budget.**



**Rust formation and poor paint finishes at metal fence. The Association should fund paint applications to the fences through the operating budget.**

Fences of this type have a long useful life but are not maintenance free. Periodic maintenance should include periodic applications of protective paint finish to the metal surfaces and partial replacement of deteriorated sections as needed. Metal components at grade and key structural connections are especially prone to failure if not thoroughly maintained. Secure and rust free fasteners and connections will prevent premature deterioration. We recommend paint applications every six- to eight-years and we anticipate a useful life of up to 35 years for the fences.

Periodic applications of paint to the metal will help maximize the useful life. Preparation of the metal before application of the paint finish is important. The paint contractor should remove all soil, dirt, oil, grease and other foreign materials before application of the paint finish to maximize its useful life. The contractor should also remove paint blisters and rust prior to the paint finish application. We recommend the use of a power wire brush, scraper and/or sander as effective means of removal. The Association should require the application of a primer on bare metal. The primer for metal surfaces should include a rust inhibitor for added protection. The

Association should fund for paint applications to the metal fences as needed through the operating budget. We anticipate replacement of the metal fences by 2040. We depict this information on Line Item 4.245 of *Reserve Expenditures*.

**Gate Entry System** - The Association utilizes two gate entry system intercom panels for communication between the units and guests at Cobblestone at Roper Mountain. Management and the Board inform us the panels are original and in good operational condition.



**Gate intercom panel**

Gate entry system intercom panels of this type have useful lives of 10- to 15-years. We recommend the Association anticipate replacement by 2019 and again by 2034. We depict this information on Line Item 4.310 of *Reserve Expenditures*.

**Gates and Operators** - The eight metal gates and eight bi-parting hydraulic operators limit access into the community. The gates are original and in good overall condition. Management and the Board inform us that the Association has replaced one operator and plans to replace the remaining seven operators in 2016.



**Typical gate and hydraulic operator**



**Typical hydraulic operator**

We anticipate a useful life of 8- to 12-years for the operators and recommend the Association budget for replacement by 2027 and every 11 years thereafter. The gates have a longer useful life of up to 25 years. Cobblestone at Roper Mountain should anticipate replacement of the gates by 2027. We depict this information on Line Items 4.320 and 4.330 of *Reserve Expenditures*.

**Landscape, Partial Replacements** - The Association contains a large quantity of trees, shrubbery and other landscape elements. Replacement of these elements is an ongoing need. Many associations budget for these replacements as normal maintenance. Other associations fund ongoing replacements from reserves. Large amounts of landscape may need replacement due to disease, drought or other forces of nature. If the cost of removal and replacement is substantial, funding from reserves is logical. The Association may also desire to periodically update the appearance of the community through major improvements to the landscape. In consideration of these factors and at the request of Management and the Board, we include a landscape allowance every 20 years beginning by 2025 to ensure the accumulation of sufficient reserves for partial replacements of the landscape. The times and costs of these replacements

may vary. However, we judge the amounts shown on Line Item 4.500 of *Reserve Expenditures* sufficient to budget appropriate reserves.

**Pavers, Masonry** - The community entrances and the entrance to the clubhouse utilize approximately 19,800 square feet of coursed ashlar pattern masonry pavers. The pavers are original and in good to fair overall condition. We note areas of vegetation growth and shifted pavers.



**Masonry pavers at rear entrance**



**Example of vegetation growth at masonry pavers at rear entrance**



**Masonry pavers at main entrance**



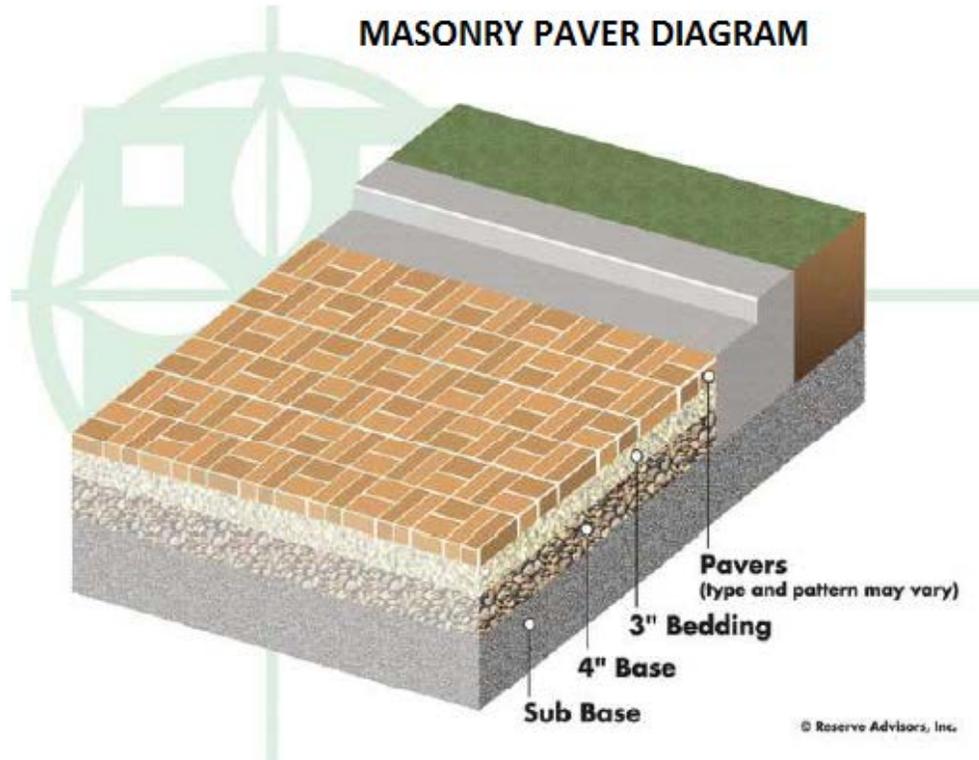
**Example of vegetation growth and paver shift at masonry pavers at main entrance**



**Wearing of pavers at drainage path at clubhouse entrance**

Manufacturers construct masonry pavers as a traffic surface for installation without mortar. Pavers comprise special types of clays that are baked at higher temperatures and for a longer time than other masonry types. Thus, masonry pavers have greater strength and durability than common masonry.

The masonry pavers receive direct traffic wear and transfer loads to the base layers. Pavers at high traffic areas such as at property entrances will experience accelerated deterioration. The base layers comprise well graded aggregate to transfer loads to the sub base and prevent upward migration of water. The sub base carries the entire pavement load and should comprise undisturbed native soil or compacted fill, sloped at a minimum one percent (1%) grade to adequately drain infiltrated moisture. The following diagram depicts the components of a masonry paver system:



Masonry pavers have a long functional useful life. However, over time, the negative effects of inclement weather, erosion and vehicle traffic will create areas of deterioration. We advise the Association budget for complete replacement of the pavers every 15- to 20-years. We include an allowance for this work by 2025 and again by 2045 in conjunction with asphalt pavement repaving. We depict this information on Line Item 4.620 of *Reserve Expenditures*. We suggest the Association conduct interim resetting, vegetation removal and replacement of minor areas of pavers as normal maintenance, funded from the operating budget.

**Playground Equipment** - The Association maintains a playset near the clubhouse. The playground equipment is original and in fair overall condition. We note worn and damaged wood members.



**Playground equipment**



**Worn wood members at playground equipment**



**Damaged wood step at playground equipment**

Safety is the major purpose for maintaining playground equipment. We recommend an annual inspection of the playground equipment to identify and repair as normal maintenance loose connections and fasteners or damaged elements. We suggest the Association learn more about the specific requirements of playground equipment at [PlaygroundSafety.org](http://PlaygroundSafety.org). We recommend the use of a specialist for the design or replacement of the playground equipment environment. Playground equipment of this type has a useful life of 15- to 20-years. We recommend replacement of the playground equipment in 2017 and again by 2035. We include this information on Line Item 4.660 of *Reserve Expenditures*.

**Retaining Walls, Masonry** - The Association maintains two retaining walls at the bridge at Putney Bridge Lane which comprise approximately 4,400 square feet of interlocking dry-set masonry. The retaining walls are original and are in good overall condition. We note no visible deterioration.



**Masonry retaining wall at Putney Bridge Lane**



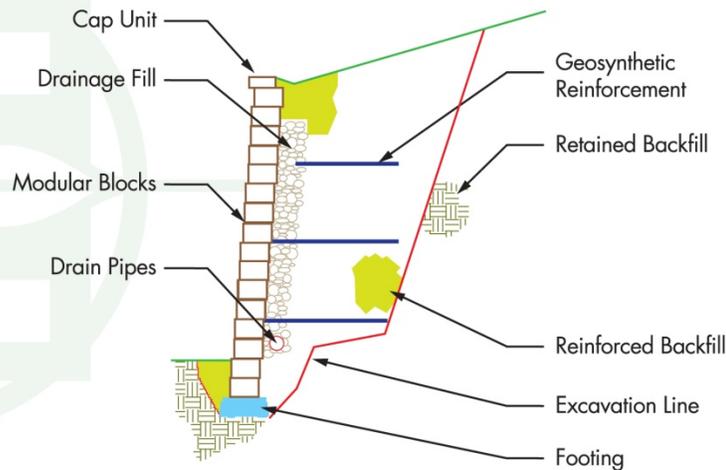
**Masonry retaining wall at Putney Bridge Lane**



**Culvert at bridge at Putney Bridge Lane**

Properly constructed interlocking masonry retaining walls utilize geosynthetic reinforcement and a drainage system to stabilize the wall and prevent the buildup of hydrostatic pressure behind the wall. The Association should follow the manufacturer's specifications when constructing any retaining walls. The following schematic depicts this type of retaining wall:

## MASONRY RETAINING WALL DETAIL



© Reserve Advisors, Inc.

Water stains may indicate inadequate drainage or blocked drainage from behind the walls. Isolated minor cracks in these types of walls are common.

Interlocking masonry retaining walls of this type have indefinite useful lives with the benefit of periodic inspections and capital repairs. We recommend the Association plan for inspections and partial replacements of up to ten percent (10%) of the retaining walls by 2025 and every 10 years thereafter. We depict this information on Line Item 4.740 of *Reserve Expenditures*. The Association should fund for periodic inspections and minor repairs through the operating budget.

**Signage, Monuments** - The Association maintains three property identification signs at the entrances to the community. The signage is original and in good overall condition.



#### **Monument signage**

The functional useful life of these signs is from 20- to 25-years. Community signage contributes to the overall aesthetic appearance of the property to owners and potential buyers. Renovation or replacement of community signs is often predicated upon the desire to "update" the perceived identity of the community rather than for utilitarian concerns. Therefore, the specific times for replacement or renovation are discretionary. We recommend the Association plan to replace the signage by 2027. We note this information on Line Item 4.800 of *Reserve Expenditures*. The Association should fund interim repairs through the operating budget.

**Signage, Street and Traffic** - The Association maintains 13 traffic signs and 11 street signs throughout the community. The street signs are affixed to light poles that are maintained by Georgia Power. These signs are original and in good overall condition.



**Typical street signage at light pole**



**Typical traffic signage**

The functional useful life of the signs is from 20- to 25-years. The street and traffic signs contribute to the overall aesthetic appearance of the property to owners and potential buyers. Replacement of street and traffic signs is often predicated upon the desire to "update" the perceived identity of the community rather than for utilitarian concerns. Therefore, the specific time for replacement of the signs is discretionary. We recommend the Association plan to replace the signs by 2027 in coordination with the monument signage. We note this information on Line Item 4.810 of *Reserve Expenditures*.

**Tennis Court** - Cobblestone at Roper Mountain maintains 790 square yards of asphalt comprising one tennis court at the clubhouse area. The components of the court include the color coat, fence, light poles and fixtures, and the playing surface. We comment on the respective quantities, conditions and times of replacements in the following sections of this narrative.

**Color Coat** - The court color coat surface is original and in poor overall condition.

We note the poor condition of the color coat and repaired cracks.



**Overview of tennis court**



**Repaired crack and poor color coat at tennis court**



**Poor color coat at tennis court**



**Repaired crack and poor color coat at tennis court**

We recommend the Association apply a new color coat every four- to six-years to maximize the useful life. Prior to the application of the color coat, the Association should require the contractor to rout and fill all cracks with hot emulsion. This deters water infiltration and further deterioration of the asphalt playing surface. We advise the Association to perform crack repairs and apply a new color coat application in 2017 and every five years thereafter except when replacement occurs. We include this information on Line Item 4.830 of *Reserve Expenditures*.

***Fence*** - Approximately 345 linear feet of metal chain link fence enclose the court.

The chain link fence is original and in good condition.



**Chain link fence at tennis court**

Chain link fences of this type have a useful life of up to 25 years. We recommend the Association anticipate replacement of the fence by 2027, concurrent with asphalt surface replacement. We depict this information on Line Item 4.840 of ***Reserve Expenditures***.

***Light Poles and Fixtures*** - The Association maintains six light poles and fixtures to illuminate the court. The metal poles and fixtures are original and in good condition.



### **Light poles and fixtures at tennis court**

Light poles and fixtures of this type have a useful life of up to 35 years. We recommend the Association anticipate replacement by 2027, concurrent with asphalt surface replacement. We include this information on Line Item 4.850 of *Reserve Expenditures*.

*Surface* - The court playing surface is original and in good overall condition. Tennis courts have useful lives of up to 25 years. In consideration of the observed condition and to maintain a safe playing surface, we recommend the Association anticipate replacement by 2027. We note this information on Line Item 4.860 of *Reserve Expenditures*. We recommend replacement of the tennis standards from the operating budget on an as needed basis.

The times and costs of these replacements may vary. However, the estimated expenditures detailed in *Reserve Expenditures* are sufficient to budget appropriate reserves.

### **Pool Elements**



**Overview of pool area**

**Concrete Deck** - A concrete deck with a textured coating surrounds the pool and comprises approximately 5,700 square feet. The deck is original and in good to fair overall condition. The textured coating is in good to fair overall condition. We note multiple areas of surface cracks at the deck.



**Coated concrete deck at pool area**



**Cracks at coated concrete pool deck**



**Crack at coated concrete pool deck**



**Cracks at coated concrete pool deck**

The useful life of a concrete pool deck is up to 60 years or more with regular coating applications and repairs. We recommend the Association conduct inspections, partial replacements and repairs to the deck every 8- to 12-years in conjunction with coating replacements.



Inadequate subsurface preparation, improper concrete mixtures, poor finishing techniques, soil movement and water infiltration underneath the concrete deck can cause significant settlement and cracks in the concrete. The pool deck should also be free of trip hazards for the safety of residents and their guests. We recommend the Association budget for the following in 2017 and every 10 years thereafter:

- Selective cut out and replacements of up to five percent (5%) of concrete
- Crack repairs as needed
- Mortar joint repairs
- Caulk replacement
- Coating replacement

The times, amounts and related costs of these repairs and replacements may vary. However, we judge the amounts shown on Line Item 6.200 of *Reserve Expenditures* sufficient to budget appropriate reserves.

**Cover** - A vinyl cover protects the pool during the off-season. The 2,250-square foot cover is in good condition at an unknown age. The pool cover protects against unlawful entry and liability exposure, keeps the pool clear of unwanted leaves and debris, and protects the pool from harsh conditions during winter. The useful life of the pool cover is from six- to eight-years. We recommend Cobblestone at Roper Mountain anticipate replacement of this cover by 2021 and every eight years thereafter. We depict this information on Line Item 6.300 of *Reserve Expenditures*.

**Fences, Aluminum** – The Association maintains approximately 370 linear feet of aluminum fences at the pool area. The fences are original and in good overall condition. We note no visible deterioration.



**Aluminum fence at pool area**

The finish on this type of fence is maintenance free and should last the life of the fences. However, light gauge aluminum fences are prone to damage from pedestrians in high traffic areas, such as surrounding pool decks. We estimate a useful life of up to 25 years for the aluminum fences and recommend replacement by 2030. We include this information on Line Item 6.400 of *Reserve Expenditures*.

**Furniture** - Associated furniture around the pool includes the following:

- Chairs (16)
- Lounges (27)
- Tables (4)
- Umbrellas (4)
- Life safety equipment

These items are original and in good reported condition. Pool furniture has a useful life of up to 12 years. We recommend the Association budget an allowance for replacement of the pool furniture and fixtures by 2018 and every 12 years thereafter. The times and costs of these replacements may vary. However, we judge the amounts shown on Line Item 6.500 of *Reserve Expenditures* sufficient to budget appropriate reserves. We recommend interim re-strapping, refinishing and other repairs to the furniture as normal maintenance to maximize its useful life.

**Light Poles and Fixtures** - The Association uses eight metal light fixtures atop metal poles to illuminate the pool area. These elements are original, in good condition and have useful lives of up to 25 years.



**Typical light pole and fixture at pool area**

The Association should anticipate the need for replacement by 2030. We note this information on Line Item 6.561 of *Reserve Expenditures*.

**Mechanical Equipment** - The pool mechanical equipment comprises the following:

- Automatic chlorinator
- Controls
- Filters
- Interconnected pipe, fittings and valves
- Pumps

The pool mechanical equipment is original and in good reported operational condition. Pool mechanical equipment has a useful life of up to 15 years. Failure of the pool mechanical equipment as a single event is unlikely. We recommend the Association anticipate replacement of up to thirty-three percent (33%) of the pool mechanical equipment by 2018 and every five



years thereafter. We consider interim replacement of motors and minor repairs as normal maintenance. We note this information on Line Item 6.600 of *Reserve Expenditures*.

**Pool Finish, Plaster** - The pool wall and floor surfaces have a plaster finish of 1,950 square feet based on the horizontal surface area. The Association replaced the finish in 2015 and it is in good reported condition. We were unable to inspect the pool due to the cover. This type of pool finish deteriorates with time and requires periodic maintenance and replacement. We recommend the Association anticipate the need to replace the finish and conduct related repairs every 8- to 12-years to maintain the integrity of the pool structure. Removal and replacement provides the opportunity to inspect the pool structure and to allow for partial repairs of the underlying concrete surfaces as needed. We recommend the Association budget for the following by 2025 and every 10 years thereafter:

- Removal and replacement of the finish
- Partial replacements of the scuppers and coping as needed
- Replacement of tiles as needed
- Replacement of joint sealants as needed
- Concrete structure repairs as needed

We include this information on Line Item 6.800 of *Reserve Expenditures*.

### **Reserve Study Update**

An ongoing review by the Board and an Update of this Reserve Study in two- to three-years are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. Many variables change after the study is conducted that may result in significant overfunding or underfunding the reserve account. Variables that may affect the Reserve Funding Plan include, but are not limited to:

- Deferred or accelerated capital projects based on Board discretion
- Changes in the interest rates on reserve investments
- Changes in the *local* construction inflation rate



- Additions and deletions to the Reserve Component Inventory
- The presence or absence of maintenance programs
- Unusually mild or extreme weather conditions
- Technological advancements

Periodic updates incorporate these variable changes since the last Reserve Study or Update.

The Association can expense the fee for an Update with site visit from the reserve account. This fee is included in the Reserve Funding Plan. We base this budgetary amount on updating the same property components and quantities of this Reserve Study report. Budgeting for an Update demonstrates the Board's objective to continue fulfilling its fiduciary responsibility to maintain the commonly owned property and to fund reserves appropriately.



## 5. METHODOLOGY

Reserves for replacement are the amounts of money required for future expenditures to repair or replace Reserve Components that wear out before the entire facility or project wears out. Reserving funds for future repair or replacement of the Reserve Components is also one of the most reliable ways of protecting the value of the property's infrastructure and marketability.

Cobblestone at Roper Mountain can fund capital repairs and replacements in any combination of the following:

1. Increases in the operating budget during years when the shortages occur
2. Loans using borrowed capital for major replacement projects
3. Level monthly reserve assessments annually adjusted upward for inflation to increase reserves to fund the expected major future expenditures
4. Special assessments

We do not advocate special assessments or loans unless near term circumstances dictate otherwise. Although loans provide a gradual method of funding a replacement, the costs are higher than if the Association were to accumulate reserves ahead of the actual replacement. Interest earnings on reserves also accumulate in this process of saving or reserving for future replacements, thereby defraying the amount of gradual reserve collections. We advocate the third method of *Level Monthly Reserve Assessments* with relatively minor annual adjustments. The method ensures that Homeowners pay their "fair share" of the weathering and aging of the commonly owned property each year. Level reserve assessments preserve the property and enhance the resale value of the homes.

This Reserve Study is in compliance with and exceeds the National standards<sup>1</sup> set forth by the Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Full Reserve Study." These standards require a Reserve Component to have a "predictable remaining Useful Life." Estimating Remaining Useful Lives and Reserve

<sup>1</sup> Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".



Expenditures beyond 30 years is often indeterminate. Long-Lived Property Elements are necessarily excluded from this analysis. We considered the following factors in our analysis:

<b>Information Furnished by the Association</b>	
2016 unaudited Cash Status of the Reserve Fund	233,820
2016 Budgeted Reserve Contribution	79,860
Anticipated Interest on Reserve Fund	3,568
Less Anticipated Reserve Expenditures	(18,910)
Projected 2016 Year-End Reserve Balance	\$298,338

The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan

Local<sup>2</sup> costs of material, equipment and labor

Current and future costs of replacement for the Reserve Components

Costs of demolition as part of the cost of replacement

Local economic conditions and a historical perspective to arrive at our estimate of long term future inflation for construction costs in Simpsonville, South Carolina at an annual inflation rate of 2.6%. Isolated or regional markets of greater construction (development) activity may experience slightly greater rates of inflation for both construction materials and labor.

The past and current maintenance practices of Cobblestone at Roper Mountain and their effects on remaining useful lives

The Funding Plan excludes necessary operating budget expenditures. It is our understanding that future operating budgets will provide for the ongoing normal maintenance of Reserve Components.

The anticipated effects of appreciation of the reserves over time in accord with an anticipated future return or yield on investment of your cash equivalent assets at an annual rate of 1.35% (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).

Interest rates on reserves are steady or increasing in concert with the certificates of deposit and money market rates. Slight increases exist in the savings rates of one, two or three-year CDs. Without significant differences in these savings rates, shorter term investments are the choice of many investors.

<sup>2</sup> See Credentials for addition information on our use of published sources of cost data.



We recommend consultation with a professional investment adviser before investing reserves to determine an appropriate investment strategy to maximize a safe return on reserve savings. The following table summarizes rates of inflation and key rates for government securities, generally considered as safe investment alternatives.

Interest Rate and Inflation Data	2014				2015			
	<u>2014:1 (A)</u>	<u>2014:2 (A)</u>	<u>2014:3 (A)</u>	<u>2014:4 (A)</u>	<u>2015:1 (A)</u>	<u>2015:2 (A)</u>	<u>2015:3 (A)</u>	<u>2015:4 (E)</u>
Average or Last Actual = (A)								
1-Year Treasury Bill	0.13%	0.15%	0.13%	0.01%	0.25%	0.27%	0.30%	0.50%
10-Year Treasury Note	2.80%	2.65%	2.40%	2.25%	1.90%	2.50%	2.70%	2.28%
30-Year Treasury Bond	3.90%	3.50%	3.35%	3.00%	2.55%	3.20%	3.40%	3.05%
Consumer Price Index (annualized rate)	1.50%	2.00%	2.40%	2.60%	0.00%	0.00%	0.00%	0.00%
Residential Construction Producer Price Index-Inflation Rate, Bureau of Labor Statistics (Year over Year Oct. 2015 Showing no meaningful change )								-0.3%
Savings Rates Results RANGE as found in <a href="http://www.bankrate.com">http://www.bankrate.com</a>	0.05 to 1.10%		Money Market Savings		0.65 to 1.53%		for 2-Year Certificate of Deposit	
	0.65 to 1.35%		1-Year Certificate of Deposit		0.9 to 1.35%		for 3-Year Certificate of Deposit	
Estimated Near Term Yield Rate for Reserve Savings . . . . .					1.35%			
Est. Near Term Local Inflation Rate for Future Capital Expenditures . . . . .					2.6%			
					<b>11/13/2015</b>			

Updates to this Reserve Study will continue to monitor historical facts and trends concerning the external market conditions.



## 6. DEFINITIONS

Definitions are derived from the standards set forth by the Community Associations Institute (CAI) representing America's 305,000 condominium and homeowners associations and cooperatives, and the Association of Professional Reserve Analysts, setting the standards of care for reserve study practitioners

**Cash Flow Method** - A method of calculating Reserve Contributions where contributions to the reserve fund are designed to offset the variable annual expenditures from the reserve fund. Different Reserve Funding Plans are tested against the anticipated schedule of reserve expenses until the desired funding goal is achieved.

**Component Method** - A method of developing a Reserve Funding Plan with the total contribution is based on the sum of the contributions for individual components.

**Current Cost of Replacement** - That amount required today derived from the quantity of a *Reserve Component* and its unit cost to replace or repair a Reserve Component using the most current technology and construction materials, duplicating the productive utility of the existing property at current *local* market prices for *materials, labor* and manufactured equipment, contractors' overhead, profit and fees, but without provisions for building permits, overtime, bonuses for labor or premiums for material and equipment. We include removal and disposal costs where applicable.

**Fully Funded Balance** - The Reserve balance that is in direct proportion to the fraction of life "used up" of the current Repair or Replacement cost similar to Total Accrued Depreciation.

**Funding Goal (Threshold)** - The stated purpose of this Reserve Study is to determine the adequate, not excessive, minimal threshold reserve balances.

**Future Cost of Replacement** - *Reserve Expenditure* derived from the inflated current cost of replacement or current cost of replacement as defined above, with consideration given to the effects of inflation on local market rates for materials, labor and equipment.

**Long-Lived Property Component** - Property component of Cobblestone at Roper Mountain responsibility not likely to require capital repair or replacement during the next 30 years with an unpredictable remaining Useful Life beyond the next 30 years.

**Percent Funded** - The ratio, at a particular point of time (typically the beginning of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.

**Remaining Useful Life** - The estimated remaining functional or useful time in years of a *Reserve Component* based on its age, condition and maintenance.

**Reserve Component** - Property elements with: 1) Cobblestone at Roper Mountain responsibility; 2) limited Useful Life expectancies; 3) predictable Remaining Useful Life expectancies; and 4) a replacement cost above a minimum threshold.

**Reserve Component Inventory** - Line Items in *Reserve Expenditures* that identify a *Reserve Component*.

**Reserve Contribution** - An amount of money set aside or *Reserve Assessment* contributed to a *Reserve Fund* for future *Reserve Expenditures* to repair or replace *Reserve Components*.

**Reserve Expenditure** - Future Cost of Replacement of a Reserve Component.

**Reserve Fund Status** - The accumulated amount of reserves in dollars at a given point in time, i.e., at year end.

**Reserve Funding Plan** - The portion of the Reserve Study identifying the *Cash Flow Analysis* and containing the recommended Reserve Contributions and projected annual expenditures, interest earned and reserve balances.

**Reserve Study** - A budget planning tool that identifies the current status of the reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures.

**Useful Life** - The anticipated total time in years that a *Reserve Component* is expected to serve its intended function in its present application or installation.



## 7. PROFESSIONAL SERVICE CONDITIONS

**Our Services** - Reserve Advisors, Inc. will perform its services as an independent contractor in accordance with our professional practice standards. Our compensation is not contingent upon our conclusions.

Our inspection and analysis of the subject property is limited to visual observations and is noninvasive. We will inspect sloped roofs from the ground. We will inspect flat roofs where safe access (stairs or ladder permanently attached to the structure) is available. The report is based upon a “snapshot in time” at the moment of our observation. Conditions can change between the time of inspection and the issuance of the report. Reserve Advisors does not investigate, nor assume any responsibility for any existence or impact of any hazardous materials, structural, latent or hidden defects which may or may not be present on or within the property. Our opinions of estimated costs and remaining useful lives are not a guarantee of the actual costs of replacement, a warranty of the common elements or other property elements, or a guarantee of remaining useful lives.

We assume, without independent verification, the accuracy of all data provided to us. You agree to indemnify and hold us harmless against and from any and all losses, claims, actions, damages, expenses or liabilities, including reasonable attorneys' fees, to which we may become subject in connection with this engagement, because of any false, misleading or incomplete information which we have relied upon as supplied by you or others under your direction, or which may result from any improper use or reliance on the report by you or third parties under your control or direction. Your obligation for indemnification and reimbursement shall extend to any controlling person of Reserve Advisors, Inc., including any director, officer, employee, affiliate, or agent. Liability of Reserve Advisors, Inc. and its employees, affiliates, and agents for errors and omissions, if any, in this work is limited to the amount of its compensation for the work performed in this engagement.

**Report** - Reserve Advisors, Inc. will complete the services in accordance with the Proposal. The Report represents a valid opinion of our findings and recommendations and is deemed complete. However, we will consider any additional information made available to us in the interest of promptly issuing a Revised Report if changes are requested within six months of receiving the Report. We retain the right to withhold a Revised Report if payment for services is not rendered in a timely manner. All files, work papers or documents developed by us during the course of the engagement remains our property.

**Your Obligations** - You agree to provide us access to the subject property during our on-site visual inspection and tour. You will provide to us to the best of your ability and if reasonably available, historical and budgetary information, the governing documents, and other information that we request and deem necessary to complete our Study. You agree to pay our actual attorneys' fees and any other costs incurred in the event we have to initiate litigation to collect on any unpaid balance for our services.

**Use of Our Report and Your Name** - Use of this Report is limited to only the purpose stated herein. Any use or reliance for any other purpose, by you or third parties, is invalid. Our Reserve Study Report in whole or part is not and cannot be used as a design specification, design engineering services or an appraisal. You may show our report in its entirety to those third parties who need to review the information contained herein. The Client and other third parties viewing this report should not reference our name or our report, in whole or in part, in any document prepared and/or distributed to third parties without our written consent. *This report contains intellectual property developed by Reserve Advisors, Inc. specific to this engagement and cannot be reproduced or distributed to those who conduct reserve studies without the written consent of Reserve Advisors, Inc.*



We reserve the right to include our client's name in our client lists, but we will maintain the confidentiality of all conversations, documents provided to us, and the contents of our reports, subject to legal or administrative process or proceedings. These conditions can only be modified by written documents executed by both parties.

**Payment Terms, Due Dates and Interest Charges** - The retainer payment is due upon authorization and prior to shipment of the report. The final payment of the fee is due immediately upon receipt of the Report. Subsequent changes to the report can be made for up to six months from the initial report date. Any outstanding balance after 30 days of the invoice date is subject to an interest charge of 1.5% per month. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court in the State of Wisconsin.

#### **CONDITIONS OF OUR SERVICE ASSUMPTIONS**

To the best of our knowledge, all data set forth in this report are true and accurate. Although gathered from reliable sources, we make no guarantee nor assume liability for the accuracy of any data, opinions, or estimates identified as furnished by others that we used in formulating this analysis.

We did not make any soil analysis or geological study with this report; nor were any water, oil, gas, coal, or other subsurface mineral and use rights or conditions investigated.

Substances such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials could, if present, adversely affect the validity of this study. Unless otherwise stated in this report, the existence of hazardous substance, that may or may not be present on or in the property, was not considered. Our opinions are predicated on the assumption that there are no hazardous materials on or in the property. We assume no responsibility for any such conditions. We are not qualified to detect such substances, quantify the impact, or develop the remedial cost.

We have made a visual inspection of the property and noted visible physical defects, if any, in our report. Our inspection and analysis was made by employees generally familiar with real estate and building construction; however, we did not do any invasive testing. Accordingly, we do not opine on, nor are we responsible for, the structural integrity of the property including its conformity to specific governmental code requirements, such as fire, building and safety, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

Our opinions of the remaining useful lives of the property elements do not represent a guarantee or warranty of performance of the products, materials and workmanship.



## 8. CREDENTIALS

### HISTORY AND DEPTH OF SERVICE

**Founded in 1991**, Reserve Advisors, Inc. is the leading provider of reserve studies, insurance appraisals, developer turnover transition studies, expert witness services, and other engineering consulting services. Clients include community associations, resort properties, hotels, clubs, non-profit organizations, apartment building owners, religious and educational institutions, and office/commercial building owners in 48 states, Canada and throughout the world.

The **architectural engineering consulting firm** was formed to take a leadership role in helping fiduciaries, boards, and property managers manage their property like a business with a long range master plan known as a Reserve Study.

Reserve Advisors employs the **largest staff of Reserve Specialists** with bachelor's degrees in engineering dedicated to Reserve Study services. Our principals are founders of Community Associations Institute's (CAI) Reserve Committee that developed national standards for reserve study providers. One of our principals is a Past President of the Association of Professional Reserve Analysts (APRA). Our vast experience with a variety of building types and ages, on-site examination and historical analyses are keys to determining accurate remaining useful life estimates of building components.

**No Conflict of Interest** - As consulting specialists, our **independent opinion** eliminates any real or perceived conflict of interest because we do not conduct or manage capital projects.

### TOTAL STAFF INVOLVEMENT

Several staff members participate in each assignment. The responsible advisor involves the staff through a Team Review, exclusive to Reserve Advisors, and by utilizing the experience of other staff members, each of whom has served hundreds of clients. We conduct Team Reviews, an internal quality assurance review of each assignment, including: the inspection; building component costing; lifing; and technical report phases of the assignment. Each Team Review requires the attendance of several engineers, a Review Coordinator, Director of Quality Assurance and other participatory peers. Due to our extensive experience with building components, we do not have a need to utilize subcontractors.

### OUR GOAL

To help our clients fulfill their fiduciary responsibilities to maintain property in good condition.

### VAST EXPERIENCE WITH A VARIETY OF BUILDINGS

Reserve Advisors has conducted reserve studies for a multitude of different communities and building types. We've analyzed thousands of buildings, from as small as a 3,500-square foot day care center to the 2,600,000-square foot 98-story Trump International Hotel and Tower in Chicago. We also routinely inspect buildings with various types of mechanical systems such as simple electric heat, to complex systems with air handlers, chillers, boilers, elevators, and life safety and security systems.

We're familiar with all types of building exteriors as well. Our well versed staff regularly identifies optimal repair and replacement solutions for such building exterior surfaces such as adobe, brick, stone, concrete, stucco, EIFS, wood products, stained glass and aluminum siding, and window wall systems.

### OLD TO NEW

Reserve Advisors experience includes ornate and vintage buildings as well as modern structures. Our specialists are no strangers to older buildings. We're accustomed to addressing the unique challenges posed by buildings that date to the 1800's. We recognize and consider the methods of construction employed into our analysis. We recommend appropriate replacement programs that apply cost effective technologies while maintaining a building's character and appeal.

**QUALIFICATIONS**  
**THEODORE J. SALGADO**  
**Principal Owner**

**CURRENT CLIENT SERVICES**

Theodore J. Salgado is a co-founder of Reserve Advisors, Inc., which is dedicated to serving community associations, city and country clubs, religious organizations, educational facilities, and public and private entities throughout the United States. He is responsible for the production, management, review, and quality assurance of all reserve studies, property inspection services and consulting services for a nationwide portfolio of more than 6,000 clients. Under his direction, the firm conducts reserve study services for community associations, apartment complexes, churches, hotels, resorts, office towers and vintage architecturally ornate buildings.



**PRIOR RELEVANT EXPERIENCE**

Before founding Reserve Advisors, Inc. with John P. Poehlmann in 1991, Mr. Salgado, a professional engineer registered in the State of Wisconsin, served clients for over 15 years through American Appraisal Associates, the world's largest full service valuation firm. Mr. Salgado conducted facilities analyses of hospitals, steel mills and various other large manufacturing and petrochemical facilities and casinos.

He has served clients throughout the United States and in foreign countries, and frequently acted as project manager on complex valuation, and federal and state tax planning assignments. His valuation studies led to negotiated settlements on property tax disputes between municipalities and property owners.

Mr. Salgado has authored articles on the topic of reserve studies and facilities maintenance. He also co-authored *Reserves*, an educational videotape produced by Reserve Advisors on the subject of Reserve Studies and maintaining appropriate reserves. Mr. Salgado has also written in-house computer applications manuals and taught techniques relating to valuation studies.

**EXPERT WITNESS**

Mr. Salgado has testified successfully before the Butler County Board of Tax Revisions in Ohio. His depositions in pretrial discovery proceedings relating to reserve studies of Crestview Estates Condominium Association in Wauconda, Illinois, Rivers Point Row Property Owners Association, Inc. in Charleston, South Carolina and the North Shore Club Associations in South Bend, Indiana have successfully assisted the parties in arriving at out of court settlements.

**EDUCATION** - Milwaukee School of Engineering - B.S. Architectural Engineering

**PROFESSIONAL AFFILIATIONS/DESIGNATIONS**

American Association of Cost Engineers - Past President, Wisconsin Section  
Association of Construction Inspectors - Certified Construction Inspector  
Association of Professional Reserve Analysts - Past President & Professional Reserve Analyst (PRA)  
Community Associations Institute - Member and Volunteer Leader of multiple chapters  
Concordia Seminary, St. Louis - Member, National Steering Committee  
Milwaukee School of Engineering - Member, Corporation Board  
Professional Engineer, Wisconsin (1982) and North Carolina (2014)

Ted continually maintains his professional skills through American Society of Civil Engineers, ASHRAE, Association of Construction Inspectors, and continuing education to maintain his professional engineer licenses.



**JOHN P. POEHLMANN, RS**  
**Principal**

John P. Poehlmann is a co-founder of Reserve Advisors, Inc. He is responsible for the finance, accounting, marketing, and overall administration of Reserve Advisors, Inc. He also regularly participates in internal Quality Control Team Reviews of Reserve Study reports.



Mr. Poehlmann directs corporate marketing, including business development, advertising, press releases, conference and trade show exhibiting, and electronic marketing campaigns. He frequently speaks throughout the country at seminars and workshops on the benefits of future planning and budgeting for capital repairs and replacements of building components and other assets.

**PRIOR RELEVANT EXPERIENCE**

Mr. Poehlmann served on the national Board of Trustees of Community Associations Institute. An international organization, Community Associations Institute (CAI) is a nonprofit 501(c)(3) trade association created in 1973 to provide education and resources to America's 335,000 residential condominium, cooperative and homeowner associations and related professionals and service providers.

He is a founding member of the Institute's Reserve Committee. The Reserve Committee developed national standards and the Reserve Specialist (RS) Designation Program for Reserve Study providers. Mr. Poehlmann has authored numerous articles on the topic of Reserve Studies, including Reserve Studies for the First Time Buyer, Minimizing Board Liability, Sound Association Planning Parallels Business Concepts, and Why Have a Professional Reserve Study. He is also a contributing author in Condo/HOA Primer, a book published for the purpose of sharing a wide background of industry knowledge to help boards in making informed decisions about their communities.

**INDUSTRY SERVICE AWARDS**

- CAI Wisconsin Chapter Award
- CAI National Rising Star Award
- CAI Michigan Chapter Award

**EDUCATION**

- University of Wisconsin-Milwaukee - Master of Science Management
- University of Wisconsin - Bachelor of Business Administration

**PROFESSIONAL AFFILIATIONS**

- Community Associations Institute (CAI)** - Founding member of Reserve Committee; former member of National Board of Trustees; Reserve Specialist (RS) designation; Member of multiple chapters
- Association of Condominium, Townhouse, & Homeowners Associations (ACTHA)** – member



**ALAN M. EBERT, P.E., PRA, RS**  
**Director of Quality Assurance**

**CURRENT CLIENT SERVICES**

Alan M. Ebert, a Professional Engineer, is Director of Quality Assurance for Reserve Advisors. Mr. Ebert is responsible for the management, review and quality assurance of reserve studies. In this role, he assumes the responsibility of stringent report review analysis to assure report accuracy and the best solution for Reserve Advisors' clients.

Mr. Ebert has been involved with hundreds of Reserve Study assignments. The following is a partial list of clients served by Alan Ebert demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

**Brownsville Winter Haven** Located in Brownsville, Texas, this unique homeowners association contains 525 units. The Association maintains three pools and pool houses, a community and management office, landscape and maintenance equipment, and nine irrigation canals with associated infrastructure.

**Rosemont Condominiums** This unique condominium is located in Alexandria, Virginia and dates to the 1940's. The two mid-rise buildings utilize decorative stone and brick masonry. The development features common interior spaces, multi-level wood balconies and common asphalt parking areas.

**Stillwater Homeowners Association** Located in Naperville, Illinois, Stillwater Homeowners Association maintains four tennis courts, an Olympic sized pool and an upscale ballroom with commercial-grade kitchen. The community also maintains three storm water retention ponds and a detention basin.

**Birchfield Community Services Association** This extensive Association comprises seven separate parcels which include 505 townhome and single family homes. This Community Services Association is located in Mt. Laurel, New Jersey. Three lakes, a pool, a clubhouse and management office, wood carports, aluminum siding, and asphalt shingle roofs are a few of the elements maintained by the Association.

**Oakridge Manor Condominium Association** Located in Londonderry, New Hampshire, this Association includes 104 units at 13 buildings. In addition to extensive roads and parking areas, the Association maintains a large septic system and significant concrete retaining walls.

**Memorial Lofts Homeowners Association** This upscale high rise is located in Houston, Texas. The 20 luxury units include large balconies and decorative interior hallways. The 10-story building utilizes a painted stucco facade and TPO roof, while an on-grade garage serves residents and guests.

**PRIOR RELEVANT EXPERIENCE**

Mr. Ebert earned his Bachelor of Science degree in Geological Engineering from the University of Wisconsin-Madison. His relevant course work includes foundations, retaining walls, and slope stability. Before joining Reserve Advisors, Mr. Ebert was an oilfield engineer and tested and evaluated hundreds of oil and gas wells throughout North America.

**EDUCATION**

University of Wisconsin-Madison - B.S. Geological Engineering

**PROFESSIONAL AFFILIATIONS/DESIGNATIONS**

*Professional Engineering License* - Wisconsin 2012

*Reserve Specialist (RS)* - Community Associations Institute

*Professional Reserve Analyst (PRA)* - Association of Professional Reserve Analysts



**JEFFREY B. DOW, P.E., RS**  
**Responsible Advisor**

**CURRENT CLIENT SERVICES**

Jeffrey B. Dow, a Civil engineer, is an Advisor for *Reserve Advisors, Inc.* Mr. Dow is responsible for the inspection and analysis of the condition of clients' properties, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analyses and Capital Replacement Forecast services and the preparation of Reserve Study Reports for condominiums, townhomes and homeowner associations. Mr. Dow frequently serves as the *Quality Assurance Review Coordinator* for Recreational, Townhome and Mid Rise communities.

The following is a partial list of clients served by Jeffrey Dow demonstrating his breadth of experiential knowledge of community associations in construction and related buildings systems.

**Alson Court Condominium Owners Association, Inc.** This historic Charlotte, NC building was constructed in 1939 and comprises all-brick construction and a clay tile roof. The unique layout of the building, which includes a number of entrances and lobbies, allows for two picturesque courtyards. The property includes two detached garages.

**Charleston Oceanfront Villas Homeowners Association** This oceanfront condominium offers spectacular views of Folly Beach, SC and the Atlantic Ocean. The four-story stucco building contains 96 luxury residential units. Significant amenities include private balconies, large garage on the first floor and two pools.

**Le Club at Old Cutler Condominium Association, Inc.** This condominium community comprises 334 units in 14 buildings in Miami, FL. Amenities of this property include a large pond with a lighted lake walk, large clubhouse with fitness room, pool, sauna, playground and tennis courts.

**Marco Towers Club, Inc.** Located on exclusive Marco Island just south of Naples, FL, this 8-story mid-rise features solid concrete construction and was the designated hurricane shelter for its community for many years. It houses 57 condominiums with balconies offering views of the adjacent intercoastal waterway. The property also includes a party room, office and detached garages.

**Mountaintop Community Association** This mountain golf community is located in Highlands, NC and comprises high-end residential units. The community includes a wastewater treatment plant, lift stations, two domestic water wells, three bridges and asphalt pavement roadways.

**The Academy at Ocean Reef** Located in Key Largo, FL, this private institution serves kindergarten through the eighth grade and includes offices, a science lab, a music room, a television production room, six classrooms, an atrium and other learning facilities.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Inc., Mr. Dow successfully completed the bachelors program in Civil Engineering from Florida State University. He also has four years of experience as a land development engineer in the Washington, D.C. area and Tampa, FL, where he gained knowledge in the design of residential and commercial property, utility layout and stormwater detention.

**EDUCATION**

Florida State University - B.S. Civil Engineering, Cum Laude

**PROFESSIONAL AFFILIATIONS**

*Professional Engineer (P.E.)* - State of Florida, 2008

*Reserve Specialist (RS)* - Community Associations Institute



**MATTHEW R. BEILMAN, RS**  
**Review Coordinator**

**CURRENT CLIENT SERVICES**

Matthew Beilman, a Civil Engineer, is an Advisor for *Reserve Advisors*. Mr. Beilman is responsible for the inspection and analysis of the condition of clients' property, and recommending engineering solutions to prolong the lives of the components. He also forecasts capital expenditures for the repair and/or replacement of the property components and prepares technical reports on assignments. He is responsible for conducting Life Cycle Cost Analysis and Capital Replacement Forecast services and the preparation of Reserve Study Reports for condominiums, townhomes and homeowner associations.

The following is a partial list of clients served by Matthew Beilman demonstrating his breadth of experiential knowledge of community associations and other entities in construction and related buildings systems.

**Fairfield Village Community Association** A unique community association located in Cypress, Texas, comprises nine lakes, perimeter fences, retaining walls and tennis courts. A fitness center with gymnasium, daycare center and a pool are additional amenities for more than 5,000 residents of the community.

**Four Seasons Jackson Hole** A resort property located in Teton Village Wyoming that includes both condominium units and hotel space. The property provides numerous amenities including multiple swimming pools, restaurants and spas. The building includes complex mechanical systems and a concrete tile roof system.

**Fourth Presbyterian Church** A historical church located on Michigan Avenue in Chicago, Illinois. Originally constructed in 1914 the church retains most of its original architectural features including a limestone masonry façade, stained glass windows and slate tile roof. An 80,000 square foot addition was completed in 2012 which utilizes cutting edge design while preserving historical features of the original structure.

**Fries & Schuele** Originally constructed in 1913, this apartment complex in Cleveland Ohio was converted to condominium units in 2007. The development includes a two level underground parking garage beneath an open courtyard, metal frame concrete balconies and a historical masonry and tile façade.

**The Point and Townhouses at River Shores** This attractive community in West Bend, Wisconsin comprises a townhome association and a mid-rise community association. The mid-rise building is constructed of various exterior wall finishes, flat roofs and balconies, and contains various mechanical systems.

**Ronald McDonald House Birmingham** Located in Birmingham, United Kingdom this purpose built accommodation facility is one of the largest of the Ronald McDonald Charities Chapters with 60 guest suites in a seven-story building. The sustainable design and distinct architecture has become the standard for other purpose built Ronald McDonald Houses throughout the United Kingdom.

**PRIOR RELEVANT EXPERIENCE**

Before joining Reserve Advisors, Mr. Beilman attended the University of Wisconsin in Madison, Wisconsin where he attained his Bachelor of Science degree in Civil Engineering with a second major in Economics. His studies focused on construction engineering, project estimating and structural analysis. Mr. Beilman also helped in the design of municipal projects and the inspection of construction while interning at Mead & Hunt in Milwaukee and the design of large scale retaining walls while interning at Allan Block Corporation in Minneapolis.

**EDUCATION**

University of Wisconsin, Madison - B.S. Civil Engineering  
University of Wisconsin, Milwaukee - M.A Economics

**PROFESSIONAL AFFILIATIONS**

*Reserve Specialist (RS)* - Community Associations Institute



## RESOURCES

Reserve Advisors, Inc. utilizes numerous resources of national and local data to conduct its Professional Services. A concise list of several of these resources follows:

**Association of Construction Inspectors**, (ACI) the largest professional organization for those involved in construction inspection and construction project management. ACI is also the leading association providing standards, guidelines, regulations, education, training, and professional recognition in a field that has quickly become important procedure for both residential and commercial construction, found on the web at [www.iami.org](http://www.iami.org). Several advisors and a Principal of Reserve Advisors, Inc. hold Senior Memberships with ACI.

**American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.**, (ASHRAE) the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc., devoted to the arts and sciences of heating, ventilation, air conditioning and refrigeration; recognized as the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines, found on the web at [www.ashrae.org](http://www.ashrae.org). Reserve Advisors, Inc. actively participates in its local chapter and holds individual memberships.

**Community Associations Institute**, (CAI) America's leading advocate for responsible communities noted as the only national organization dedicated to fostering vibrant, responsive, competent community associations. Their mission is to assist community associations in promoting harmony, community, and responsible leadership.

**Marshall & Swift / Boeckh**, (MS/B) the worldwide provider of building cost data, co-sourcing solutions, and estimating technology for the property and casualty insurance industry found on the web at [www.msbinfo.com](http://www.msbinfo.com).

**R.S. Means CostWorks**, North America's leading supplier of construction cost information. As a member of the Construction Market Data Group, Means provides accurate and up-to-date cost information that helps owners, developers, architects, engineers, contractors and others to carefully and precisely project and control the cost of both new building construction and renovation projects found on the web at [www.rsmeans.com](http://www.rsmeans.com).

**Reserve Advisors, Inc.**, library of numerous periodicals relating to reserve studies, condition analyses, chapter community associations, and historical costs from thousands of capital repair and replacement projects, and product literature from manufacturers of building products and building systems.

# Reserve Study Update

February 16, 2016

The Reserve Study for Cobblestone at Roper Mountain Homeowners Association, Inc.  
Was submitted on .....February 16, 2016

To maintain the most accurate and cost-effective replacement schedule and funding plan for  
your property elements, this study should be updated on or about .....**First Quarter, 2018**  
...but no later than.....**First Quarter, 2019**

As a valued client, we are pleased to offer a future reserve study update with site visit  
for.....**\$3,800**

For a Reserve Study Update with Site visit as noted above.

**This future update fee is based on the same property components that were contained in your last Reserve  
Advisors' reserve study or update. We are pleased to include property additions for an additional fee.**

To initiate your Reserve Study Update, please sign this authorization and fax or mail to the  
number below. Upon receipt of this authorization we will contact you to schedule your site visit  
and invoice for the Reserve Study Update Service.

Sign this contract below and fax to **414-272-3663**. Or mail to  
Reserve Advisors, Inc.  
735 N. Water St., Suite 175  
Milwaukee, WI 53202

Delivery options for your Reserve Study Update Report, Please check one of the following:

- 1-Full color printed copy PLUS Electronic Report, FREE
- 2-Full color printed copies PLUS Electronic Report, \$100

**For: Reserve Advisors, Inc.**

Signature:  \_\_\_\_\_

Nick Brenneman  
Southeast Client Services Manager  
Nick@reserveadvisors.com  
Ref. # 111294  
(800) 980-9881

**For Cobblestone at Roper Mountain  
Homeowners Association, Inc.**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

**Agent or Manager: Rebecca Thompson**

**Management Firm: NHE, Inc.**