Revised
RESERVE STUDY
Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Inspected - June 25, 2019

Revised - October 10, 2019

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Greensboro Condominium Owners Association
St. Louis Park, Minnesota

Dear Board of Directors of Greensboro Condominium Owners Association:

At the direction of the Board that recognizes the need for proper reserve planning, we have conducted a *Reserve Study* of Greensboro Condominium Owners Association in St. Louis Park, Minnesota and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, June 25, 2019.

This *Reserve Study* exceeds the Association of Professional Reserve Analysts (APRA) standards fulfilling the requirements of a "Level II Reserve Study Update."

An ongoing review by the Board and an Update of this Reserve Study are necessary to ensure an equitable funding plan since a Reserve Study is a snapshot in time. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. We look forward to continuing to help Greensboro Condominium Owners Association plan for a successful future.

As part of our long-term thinking and everyday commitment to our clients, we are available to answer any questions you may have regarding this study.

Respectfully submitted on October 10, 2019 by

Reserve Advisors, Inc.

Visual Inspection and Report by: Tanner A. Oldenburger, PE, RS[1], West Region Engineering Manager
Review by: Alan M. Ebert, RS, PRA[2], Director of Quality Assurance

[1] 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] 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.

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Table of Contents

1. RESERVE STUDY EXECUTIVE SUMMARY 1.1

2. RESERVE STUDY REPORT 2.1

3. RESERVE EXPENDITURES and FUNDING PLAN 3.1

4. RESERVE COMPONENT DETAIL 4.1

Condominium Building 4.1

Exterior Building Elements 4.1

Skylights 4.1

Walls, Siding, Fiber Cement 4.2

Walls, Masonry 4.5

Windows and Doors 4.9

Interior Building Elements 4.11

Floor Coverings, Carpet, Hallways and Stairwells 4.11

Laundry Room 4.13

Light Fixtures, Hallways 4.14

Paint Finishes, Hallways and Stairwells 4.14

Wall Coverings, Hallways and Stairwells 4.16

Building Services Elements 4.17

Boilers, Building Heat 4.17

Boilers, Domestic Hot Water 4.19

Electrical System 4.20

Laundry Equipment 4.22

Life Safety System 4.23

Light Fixtures, Emergency and Exit 4.24

Pipes 4.25

Security Systems 4.27

Storage Tanks, Domestic Hot Water 4.28

Water Softeners 4.29

Condominium Building Roof Elements 4.30

Roofs, EPDM 4.30

Three-Bedroom Building 4.34

Exterior Building Elements 4.34

Light Fixtures 4.34
Walls, Siding, Fiber Cement 4.35
Walls, Masonry 4.37
Building Services Elements 4.42
Water Softeners 4.42
Three-Bedroom Roof Elements 4.43
Roofs, EPDM 4.43
Two-Bedroom Building 4.46
Exterior Building Elements 4.46
Light Fixtures 4.46
Walls, Siding, Fiber Cement 4.47
Walls, Masonry 4.49
Two-Bedroom Roof Elements 4.52
Roofs, EPDM 4.52
Common Property 4.54
Property Site Elements 4.54
Asphalt Pavement, Crack Repair, Patch and Seal Coat 4.54
Asphalt Pavement, Repaving 4.55
Catch Basins 4.57
Concrete Curbs and Gutters 4.58
Concrete Sidewalks and Steps 4.59
Landscape 4.60
Light Poles and Fixtures 4.61
Maintenance Cart 4.62
Pipes, Subsurface Utilities 4.62
Retaining Walls, Masonry 4.63
Signage 4.65
Tennis Courts, Color Coat 4.65
Tennis Courts, Fence 4.66
Tennis Courts, Surface 4.67
Clubhouse Elements 4.68
Balconies, Wood 4.68

HVAC Equipment 4.69
Interior Renovations 4.70
Rest Rooms....4.71
Roof, Modified Bitumen 4.73
Windows and Doors 4.74
Pool Elements....4.75
Concrete Deck....4.75
Fence, Aluminum....4.76
Mechanical Equipment 4.76
Pool Finish, Plaster Replacement and Tile Repairs....4.77
Structures 4.79
Garage Elements....4.79
Roofs, EPDM....4.79
Reserve Study Update....4.80

5. METHODOLOGY 5.1
6. CREDENTIALS 6.1
7. DEFINITIONS 7.1
8. PROFESSIONAL SERVICE CONDITIONS 8.1

1. RESERVE STUDY EXECUTIVE SUMMARY

Client: Greensboro Condominium Owners Association (Greensboro)
Location: St. Louis Park, Minnesota
Reference: 080656

Property Basics: Greensboro Condominium Owners Association is a condominium style development of 260 units in 15 buildings. The Association is comprised of 164 units in four condominium buildings, 58 units in seven three-bedroom buildings and 38 units in four two-bedroom buildings. The development was built from 1970 to 1973.

Reserve Components Identified: 31 Condominium Building and Roof Reserve Components, 7 Three-Bedroom Building and Roof Reserve Components, 5 Two-Bedroom Building and Roof Components, and 29 Common Property Reserve Components

Inspection Date: June 25, 2019. We conducted previous inspections in 2008, 2011, 2013 and 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 Plans note the following critical years:

- Condominium Building: Threshold funding year in 2023 due to exterior façade repairs
- Condominium Building Roof: Threshold funding years in 2023 and 2043 due to replacement of the roofs
- Three-Bedroom Building: Threshold funding year in 2022 due to exterior façade repairs
- Three-Bedroom Building Roof: Threshold funding year in 2043 due subsequent replacement of the roofs
- Two-Bedroom Building: Threshold funding years in 2020 and 2022 due to exterior façade repairs
- Two-Bedroom Building Roof: Threshold funding year in 2043 due to replacement of the roofs
- Common Property: Threshold funding years in 2020 and 2021 due to landscape renovations and 2049 due to asphalt pavement total replacement.

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
- 1.7% anticipated annual rate of return on invested reserves
- 2.5% 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.

Condominium Building and Roof

Cash Status of Condominium Reserve Funds:

- $463,456 for the building and $796,590 for the roofs as of August 31, 2019
- The Association budgeted $110,016 for the building and $17,500 for the roofs in 2019

Recommended Condominium Building Reserve Funding: We recommend the following in order to achieve a stable and equitable Funding Plan:

- Adopt a reserve budget of $113,000 in 2020 with inflationary increases through 2023
- Stable contributions of $122,400 from 2024 through 2027
- Inflationary increases through 2049, the limit of this study's Cash Flow Analysis
- 2020 Reserve Contribution of $113,000 is equivalent to an average monthly contribution of $57.42 per unit owner.

Recommended Condominium Roofs Reserve Funding: We recommend the following in order to achieve a stable and equitable Funding Plan:

- Phased increases of $10,500 from 2020 through 2022
- Inflationary increases through 2049, the limit of this study's Cash Flow Analysis
- Initial adjustment of $10,500 is equivalent to an increase of $5.34 in the monthly contributions per unit owner.

Three-Bedroom Building and Roof

Cash Status of Three-Bedroom Reserve Funds:

- $69,232 for the building and $625,990 for the roofs as of August 31, 2019
- The Association budgeted $60,900 for the building and $8,400 for the roofs in 2019

Recommended Three-Bedroom Building Reserve Funding: We recommend the following in order to achieve a stable and equitable Funding Plan:

- Increase to $88,000 in 2020
- Phased increases of approximately $6,000 from 2020 through 2022
- Inflationary increase in 2023
- Decrease to $60,000 by 2024
- Inflationary increases from 2025 to 2033
- Decrease to $25,000 by 2034
- Inflationary increases through 2049, the limit of this study's Cash Flow Analysis
- 2020 Reserve Contribution of $88,000 is equivalent to an average monthly contribution of $126.44 per homeowner.

Recommended Three-Bedroom Roofs Reserve Funding: We recommend the following in order to achieve a stable and equitable Funding Plan:

- Due to the timing and estimated cost of the near term roof replacements, as well as by request from the Board, do not budget reserve contributions for roofs from 2020 through 2023
- Adopt a reserve contribution of $27,000 by 2024
- Inflationary increases through 2049, the limit of this study's Cash Flow Analysis

Two-Bedroom Building and Roof

Cash Status of Two-Bedroom Reserve Funds:

- $51,160 for the building and $368,753 for the roofs as of August 31, 2019
- The Association budgeted $38,700 for the building and $3,800 for the roofs in 2019

Recommended Two-Bedroom Building Reserve Funding: We recommend the following in order to achieve a stable and equitable Funding Plan:

- Increase to $52,100 in 2020

- Inflationary increases from 2021 through 2028
- Decrease to $15,000 by 2029
- Inflationary increases through 2049, the limit of this study's Cash Flow Analysis
- 2020 Reserve Contribution of $52,100 is equivalent to an average monthly contribution of $114.25 per homeowner.

Recommended Two-Bedroom Roof Reserve Funding: We recommend the following in order to achieve a stable and equitable Funding Plan:

- Due to the timing and estimated cost of the near term roof replacements, as well as by request from the Board, do not budget reserve contributions for roofs from 2020 through 2023
- Adopt a reserve contribution of $17,000 by 2024
- Inflationary increases through 2049, the limit of this study's Cash Flow Analysis

Common Property

Cash Status of Common Property Reserve Fund:

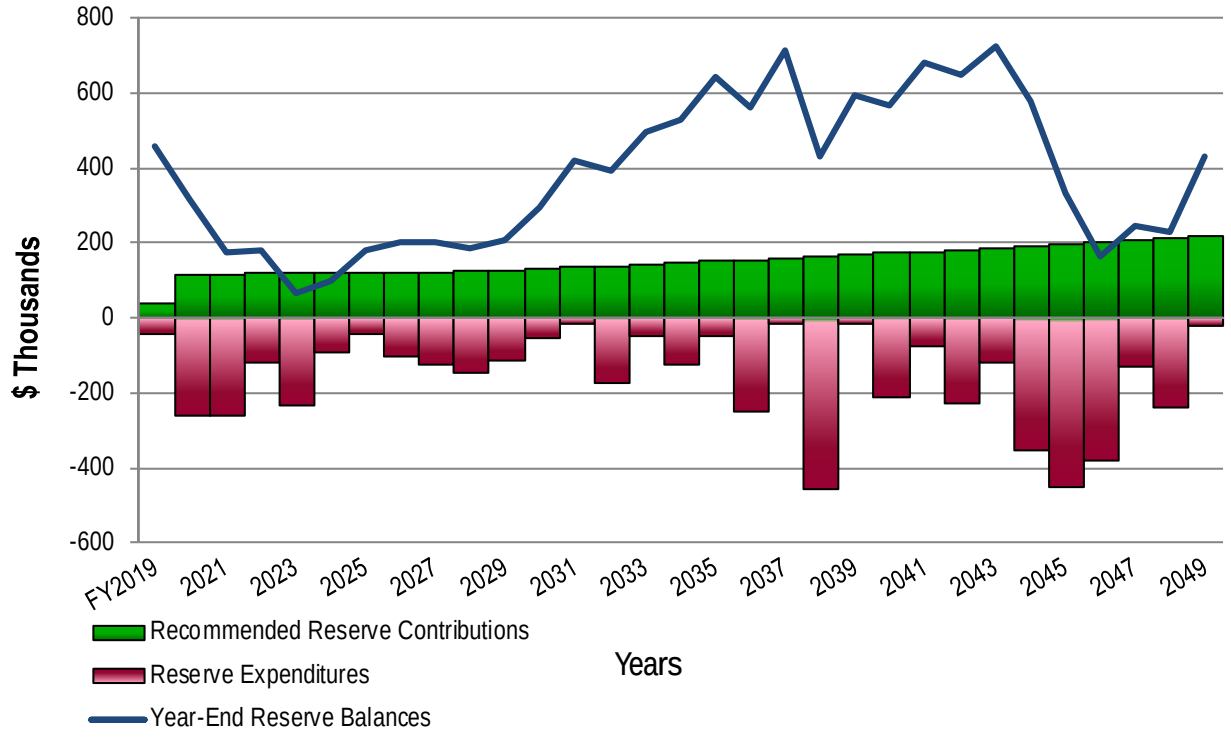
- $197,145 as of August 31, 2019
- The Association budgeted $235,800 for reserve contributions in 2019.

Recommended Common Property Reserve Funding: We recommend the following in order to achieve a stable and equitable Funding Plan:

- Stable contributions of $204,000 from 2020 through 2022
- Decrease to $108,000 in 2023 due to completion of planned landscape renovations
- Inflationary increases through 2049, the limit of this study's Cash Flow Analysis
- 2020 Reserve Contribution of $204,000 is equivalent to an average monthly contribution of $65.38 per homeowner.

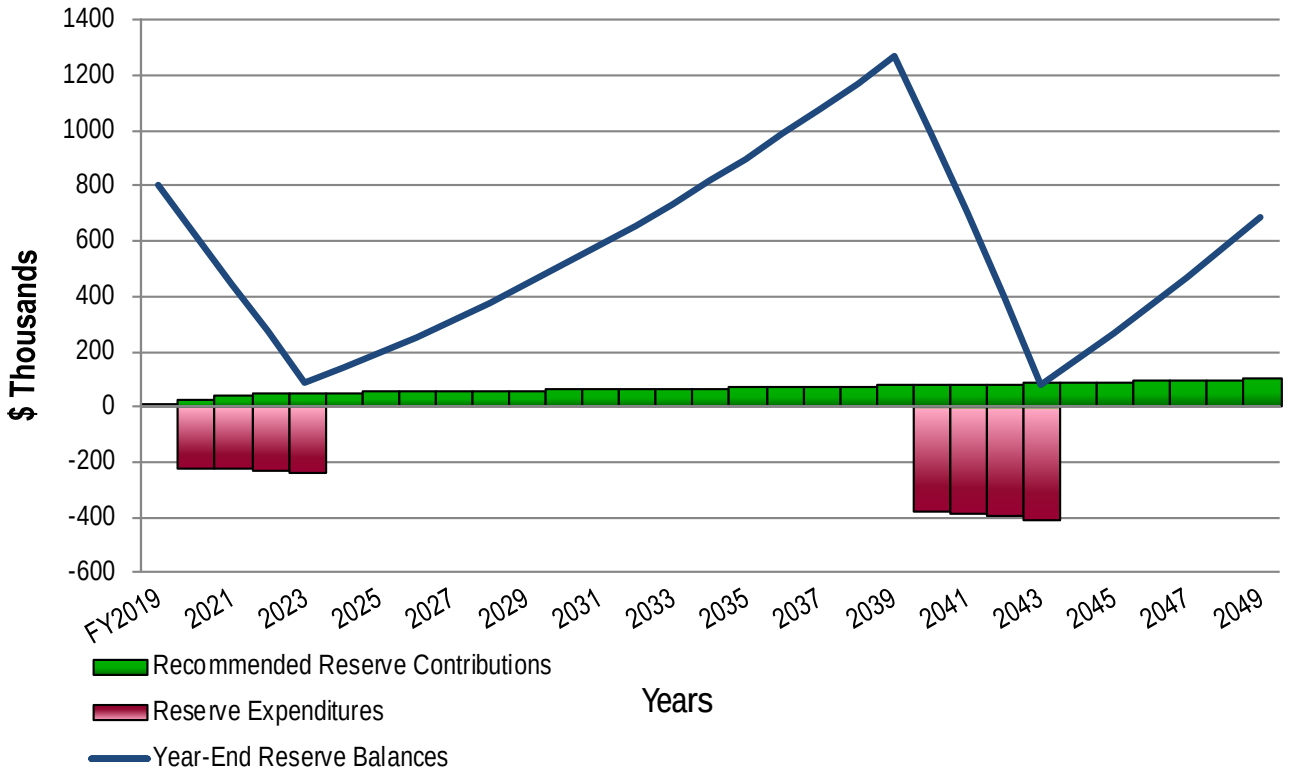
Greensboro – Condominium Building
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)
2020	113,000	319,021	2030	132,600	293,150	2040	173,200	567,958
2021	116,100	177,097	2031	136,200	421,607	2041	177,900	680,547
2022	119,200	178,123	2032	139,900	392,919	2042	182,700	647,714
2023	122,400	68,093	2033	143,700	497,366	2043	187,600	726,159
2024	122,400	98,335	2034	147,600	531,514	2044	192,700	579,406
2025	122,400	183,215	2035	151,600	643,704	2045	197,900	333,003
2026	122,400	205,014	2036	155,700	560,578	2046	203,200	163,254
2027	122,400	204,263	2037	159,900	715,076	2047	208,700	248,492
2028	125,700	187,750	2038	164,200	433,414	2048	214,300	228,851
2029	129,100	207,272	2039	168,600	593,632	2049	220,100	432,284



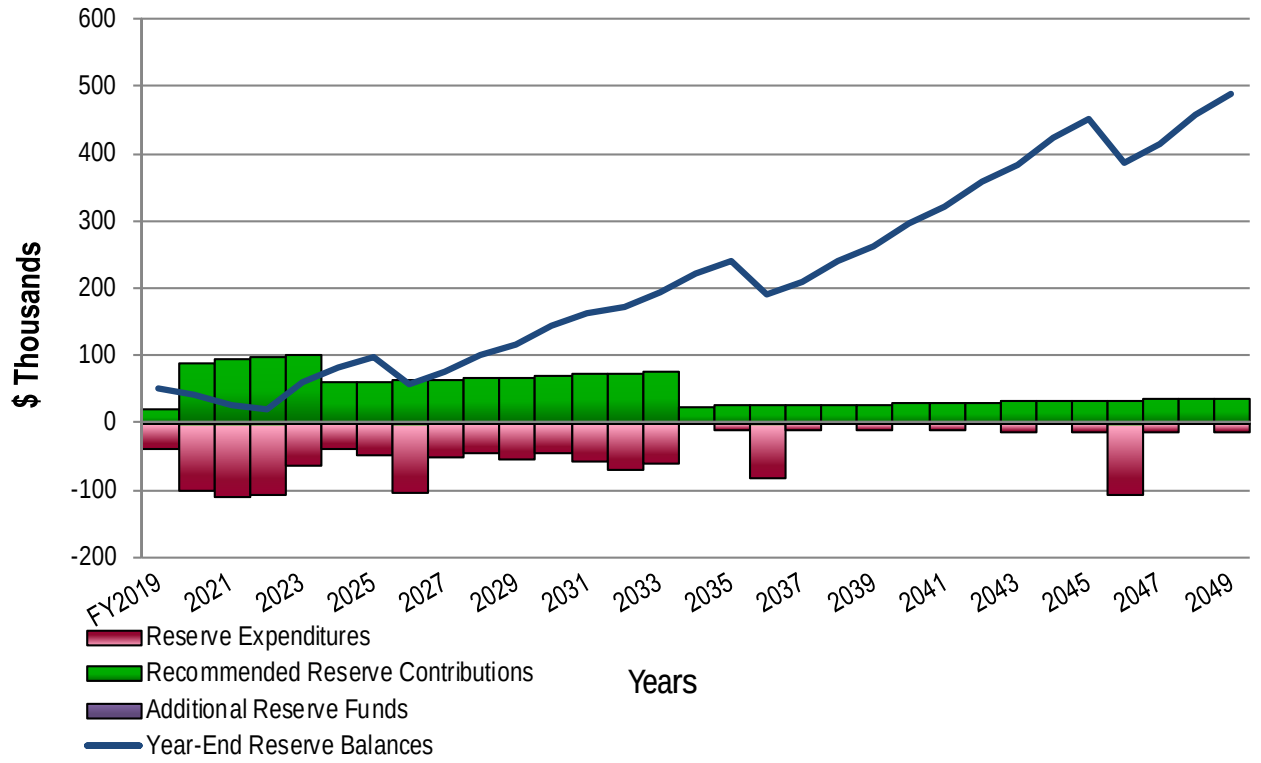
Greensboro – Condominium Building Roof
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)
2020	28,000	626,747	2030	60,700	512,123	2040	79,200	992,183
2021	38,500	448,067	2031	62,300	583,659	2041	81,300	702,307
2022	49,000	270,778	2032	64,000	658,125	2042	83,500	399,226
2023	50,300	85,460	2033	65,700	735,572	2043	85,800	82,532
2024	51,700	139,052	2034	67,500	816,150	2044	88,100	172,784
2025	53,100	194,967	2035	69,300	899,914	2045	90,500	266,991
2026	54,500	253,245	2036	71,200	987,018	2046	92,900	365,220
2027	56,000	314,026	2037	73,100	1,077,519	2047	95,400	467,640
2028	57,500	377,353	2038	75,100	1,171,575	2048	98,000	574,423
2029	59,100	443,370	2039	77,100	1,269,247	2049	100,600	685,643



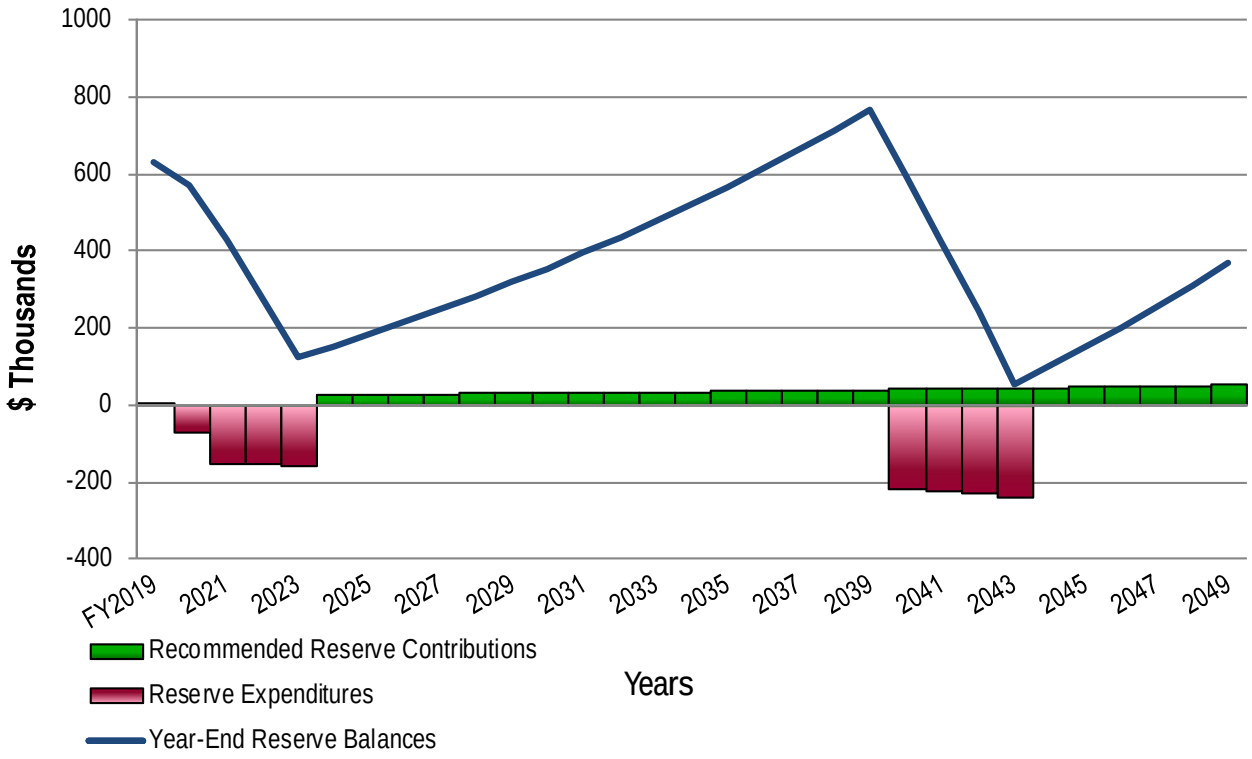
Greensboro – Three-Bedroom Building
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)
2020	88,000	40,440	2030	70,500	144,105	2040	29,400	297,378
2021	94,000	25,292	2031	72,400	163,339	2041	30,200	321,110
2022	100,000	20,051	2032	74,400	172,819	2042	31,000	357,832
2023	102,700	59,455	2033	76,400	193,498	2043	31,800	383,561
2024	60,000	81,801	2034	25,000	222,000	2044	32,700	423,059
2025	61,600	97,391	2035	25,700	241,653	2045	33,600	451,032
2026	63,300	58,372	2036	26,400	189,900	2046	34,500	385,826
2027	65,000	74,370	2037	27,100	209,869	2047	35,400	414,264
2028	66,800	99,422	2038	27,800	241,473	2048	36,400	458,016
2029	68,600	116,982	2039	28,600	263,253	2049	37,400	488,942



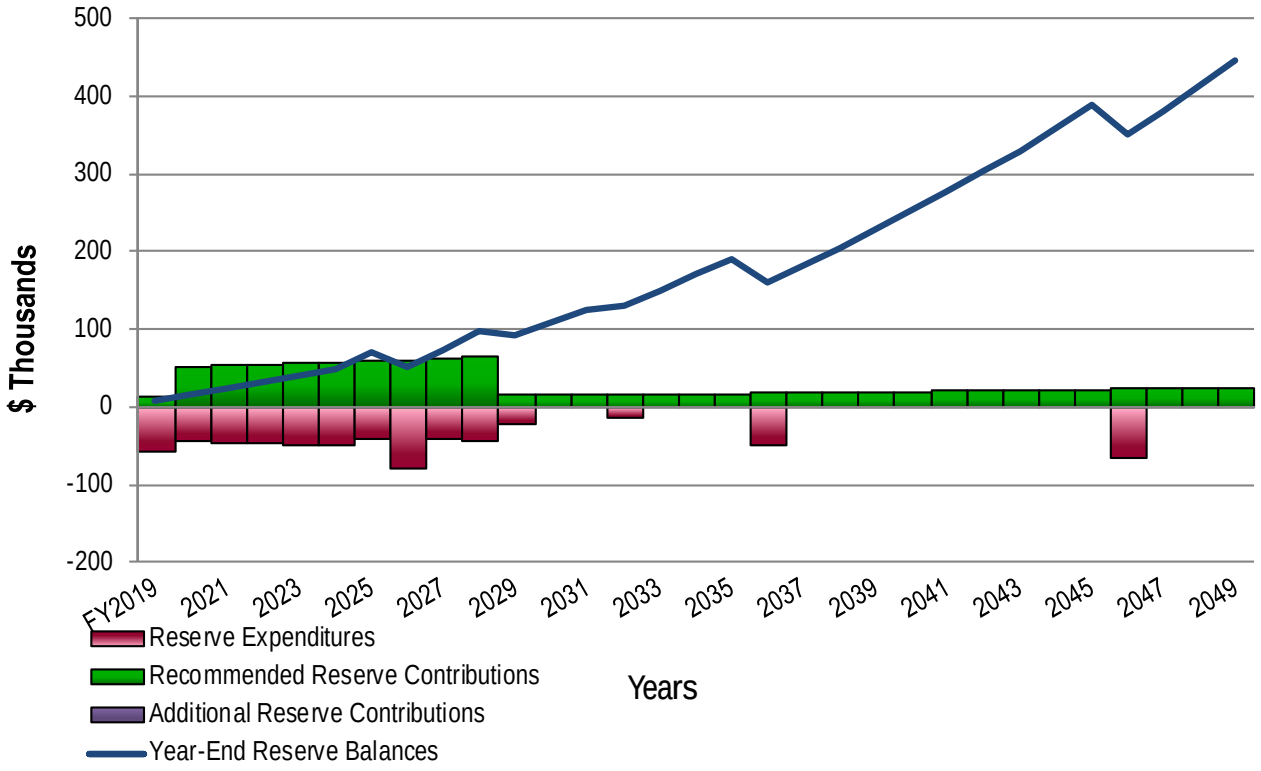
Greensboro – Three-Bedroom Building Roof
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)
2020	0	569,247	2030	31,600	355,832	2040	41,400	599,720
2021	0	427,242	2031	32,500	394,657	2041	42,500	426,128
2022	0	278,727	2032	33,400	435,050	2042	43,600	244,575
2023	0	123,481	2033	34,300	477,037	2043	44,800	54,861
2024	27,000	152,810	2034	35,200	520,646	2044	46,000	102,185
2025	27,700	183,343	2035	36,200	566,005	2045	47,200	151,523
2026	28,400	215,101	2036	37,200	613,143	2046	48,500	203,011
2027	29,200	248,206	2037	38,200	662,091	2047	49,800	256,685
2028	30,000	282,681	2038	39,200	712,880	2048	51,100	312,583
2029	30,800	318,548	2039	40,300	765,642	2049	52,500	370,843



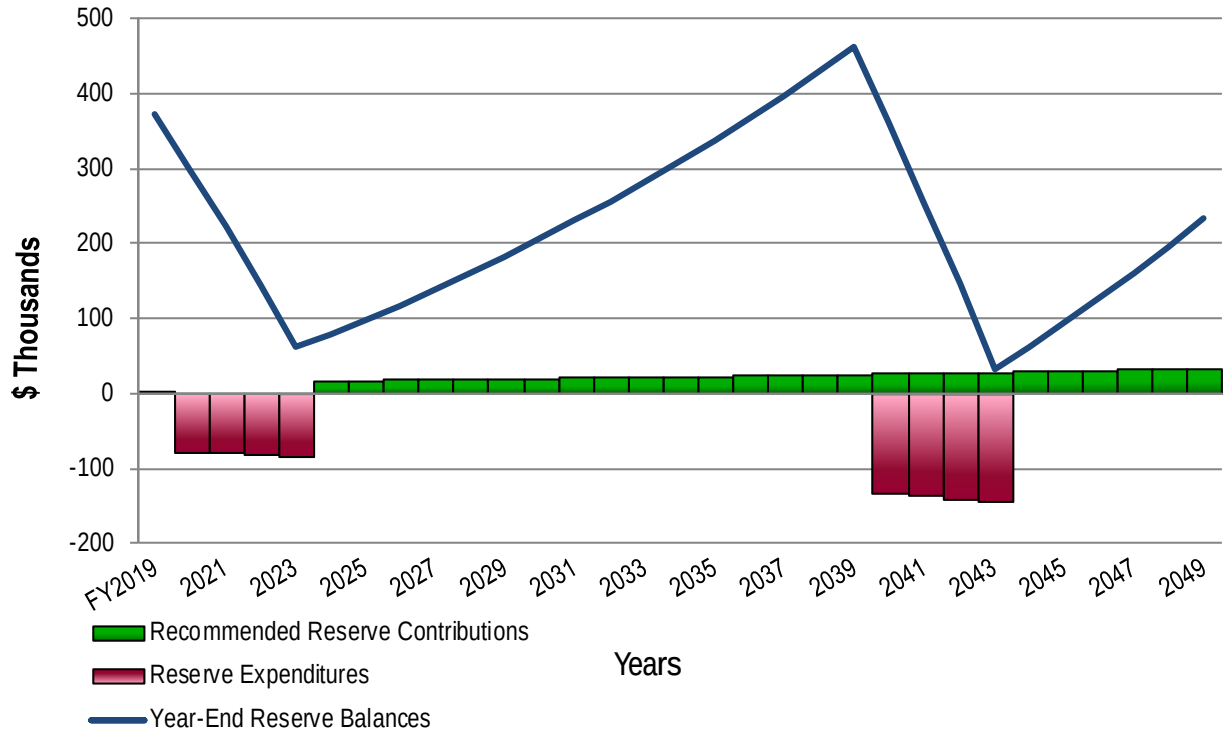
Greensboro – Two-Bedroom Building
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)
2020	52,100	15,714	2030	15,400	108,472	2040	20,000	252,487
2021	53,500	23,655	2031	15,800	126,250	2041	20,500	277,454
2022	54,900	31,893	2032	16,200	131,729	2042	21,100	303,450
2023	56,400	40,501	2033	16,600	150,709	2043	21,700	330,493
2024	57,900	49,449	2034	17,000	170,416	2044	22,300	358,601
2025	59,500	70,063	2035	17,500	190,962	2045	22,900	387,792
2026	61,100	52,665	2036	18,000	161,602	2046	23,500	351,828
2027	62,700	74,359	2037	18,500	183,006	2047	24,100	382,114
2028	64,400	96,990	2038	19,000	205,279	2048	24,800	413,621
2029	15,000	91,388	2039	19,500	228,434	2049	25,500	446,369



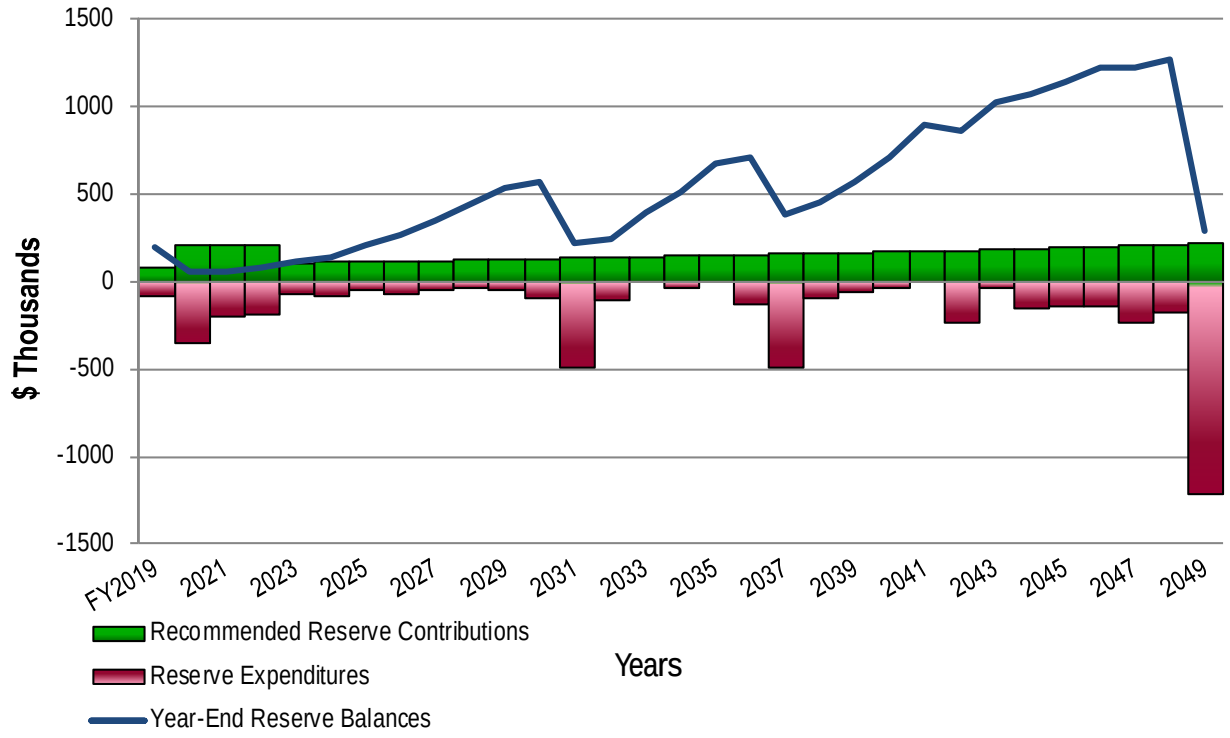
Greensboro – Two-Bedroom Building Roof
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)
2020	0	299,529	2030	20,000	205,987	2040	26,200	361,776
2021	0	223,581	2031	20,500	230,163	2041	26,900	256,982
2022	0	144,153	2032	21,100	255,355	2042	27,600	147,384
2023	0	61,128	2033	21,700	281,580	2043	28,300	32,801
2024	17,000	79,312	2034	22,300	308,856	2044	29,100	62,706
2025	17,500	98,309	2035	22,900	337,201	2045	29,900	93,926
2026	18,000	118,133	2036	23,500	366,633	2046	30,700	126,484
2027	18,500	138,799	2037	24,100	397,171	2047	31,500	160,402
2028	19,000	160,320	2038	24,800	428,934	2048	32,400	195,804
2029	19,500	182,711	2039	25,500	461,943	2049	33,300	232,716



Greensboro – Common Property
Recommended Reserve Funding Table and Graph

Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)	Year	Reserve Contributions ($)	Reserve Balances ($)
2020	204,000	56,310	2030	130,100	572,092	2040	169,700	710,439
2021	204,000	58,517	2031	133,600	218,642	2041	174,300	898,298
2022	204,000	75,210	2032	137,200	247,437	2042	179,000	860,194
2023	108,000	110,878	2033	140,900	393,741	2043	183,800	1,019,083
2024	110,900	139,627	2034	144,700	511,444	2044	188,800	1,074,674
2025	113,900	213,678	2035	148,600	670,002	2045	193,900	1,146,661
2026	117,000	268,808	2036	152,600	708,389	2046	199,100	1,223,628
2027	120,200	347,859	2037	156,700	387,375	2047	204,500	1,217,358
2028	123,400	443,614	2038	160,900	455,477	2048	210,000	1,275,132
2029	126,700	530,556	2039	165,200	566,936	2049	215,700	287,928



2. RESERVE STUDY REPORT

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

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

and submit our findings in this report. The effective date of this study is the date of our visual, noninvasive inspection, June 25, 2019. We conducted previous inspections in 2008, 2011, 2013 and 2016.

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
- **Five-Year Outlook -** Identifies reserve components and anticipated reserve expenditures during the first five years
- **Reserve Component Detail -** Describes the reserve components, includes photographic documentation of the condition of various property elements, describes our recommendations for repairs or replacement, and includes detailed solutions and procedures for replacements for the benefit of current and future board members
- **Methodology -** Lists the national standards, methods and procedures used to develop 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

Our investigation includes Reserve Components or property elements as set forth in your Declaration. The Expenditure tables in Section 3 list the elements contained in this study. 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:

- Greensboro responsibility
- Limited useful life expectancies
- Predictable remaining useful life expectancies
- Replacement cost above a minimum threshold

Long-Lived Property Elements may not have predictable Remaining Useful Lives or their replacement may occur beyond the 30-year scope of the study. 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.

- Electrical Systems (Electrical Panels Replaced 2011)
- Foundations
- Structural Frames
- Walls, Fiber Cement Siding, Lap Style Areas, Total Replacement (2012-2013) (We include for near term trim repairs, window re-flashing and panel style siding replacement in the near term)
- Windows and Doors, Aluminum Frame, Entrances and Stairwells, Condominium Buildings (Replaced in 2012 and estimated useful life of up to 45 years)

The operating budget provides money for the repair and replacement of certain Reserve Components. The Association may develop independent criteria for use of operating and reserve funds. For purposes of calculating appropriate Reserve Contributions, we identify the following list of Operating Budget Funded Repairs and Replacements:

- General Maintenance to the Common Elements
- Expenditures less than $8,000 (These relatively minor expenditures have a limited effect on the recommended Reserve Contributions.)
- Baseboard Heaters, Common
- Benches
- Bike Racks
- Clubhouse, Masonry
- Clubhouse, Domestic Water Heater
- Clubhouse, Exterior Light Fixtures
- Clubhouse, Paint Finishes, Exterior
- Common Property, Fences, Wood, Trash Areas
- Common Property, Garage Doors
- Common Property, Interior Doors, Clubhouse
- Common Property, Landscape, General
- Common Property, Pool Cover
- Common Property, Rails, Site
- Common Property, Retaining Walls Less Than Two-Feet in Height
- Condominium Buildings, Concrete Steps, Landings and Stoops
- Condominium Buildings, Exhaust Fans
- Condominium Buildings, Expansion Tanks
- Condominium Buildings, Exterior Light Fixtures
- Condominium Buildings, Interior Doors, Common
- Condominium Buildings, Interior Finishes, Rental Units

- Condominium Buildings, Interior Finishes, Storage Areas
- Condominium, Two- and Three-Bedroom Buildings, Masonry Walls, Ongoing Repointing and Isolated Repairs (Per Management and the Board)
- Fire Extinguishers
- Flag Poles
- Motors
- Paint Finishes, Touch Up
- Pumps Less Than Five-HP (horsepower)
- Storm Water Drainage, Area Wells and Catch Basins, Landscape
- Two-Bedroom Buildings, Wood Borders, Patios
- Two- and Three-Bedroom Buildings, Ladders, Roof Access (We assume replacement as needed in lieu of aggregate replacement.)
- Two- and Three-Bedroom Buildings, Mailboxes
- Two- and Three-Bedroom Buildings, Masonry Walls, Steel Lintel and Masonry Rowlock Replacements (Per Management and the Board. We strongly suggest a systematic coordinated approach for replacements of these elements through capital funds based the age and observed condition)
- Two- and Three-Bedroom Buildings, Pipes, Interior, Common
- Valves, Small Diameter (we assume replacement as needed in lieu of an aggregate replacement of all the small diameter valves as a single event)
- Other Repairs normally funded through the Operating Budget

Steel lintel with edge corrosion

Steel lintel with excessive corrosion and deflection

Steel lintel with edge corrosion

Previous lintel and window rowlock sill replacement

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 unit:

- Condominium Buildings, Balconies, Wood
- Condominium Buildings, Concrete Patios, Units
- Condominium Buildings, Garage Building Exterior Components
- Condominium Buildings, HVAC (Heating, Ventilation and Air Conditioning), Fin Tube Radiators and Packaged Air Conditioning Units
- Condominium Buildings, Skylights, Units
- Interiors
- Piping Systems, Units
- Three-Bedroom Buildings, Balconies, Wood (We include for near term repairs and removal costs on Line Item 1.805 in coordination with lintel and masonry repairs)
- Two- and Three-Bedroom Buildings, Concrete Patios and Stoops
- Two-Bedroom Buildings, Detached Garage Building Exterior Components
- Two- and Three-Bedroom Buildings, Electrical Circuit Protection Panels (Replaced 2011)
- Two- and Three-Bedroom Buildings, HVAC, Packaged Rooftop Units
- Two- and Three-Bedroom Buildings, Water Heaters, Domestic
- Windows, Doors and Skylights, Units

Certain items have been designated as the responsibility of others to repair or replace. Property Maintained by Others relates to:

- Street Systems, Franklin Avenue and Louisiana Avenue (City of St. Louis Park)
- Walking Trails, South Property Boundary (City of St. Louis Park)
- Parking Lot and Access Drive, West Side of Property (Adjacent Property Owner)

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
- 2019 local cost of replacement
  - Per unit
  - Per phase
  - Replacement of total quantity
- 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

Five-Year Outlook

- Line item numbers
- Reserve component inventory of only the expenditures anticipated to occur within the first five years
- Schedule of estimated future costs for each reserve component anticipated to occur within the first five years

The purpose of a Reserve Study is to provide an opinion of reasonable annual Reserve Contributions. Prediction of exact timing and costs of minor Reserve Expenditures typically will not significantly affect the 30-year cash flow analysis. Adjustments to the times and/or costs of expenditures may not always result in an adjustment in the recommended Reserve Contributions.

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***.

Condominium Building

RESERVE EXPENDITURES

Years 2019 to 2034

Greensboro Condominium Owners Association
St. Louis Park, Minnesota

Explanatory Notes:

1) 2.7% is the estimated Inflation Rate for estimating Future Replacement Costs.
2) FY2019 is Fiscal Year beginning January 31, 2019 and ending December 31, 2019.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024	6 2025	7 2026	8 2027	9 2028	10 2029	11 2030	12 2031	13 2032	14 2033	15 2034
				Exterior Building Elements																							
1.580	16	**8**	Each	Skylights, Common	2020	15 to 20	1 to 3	620.00	4,960	9,920	**28,300**		5,094		5,373												
1.760	27,000	**27,000**	Square Feet	Walls, Fiber Cement Siding, Paint Finishes and Capital Repairs	2026	8 to 10	7	2.00	54,000	54,000	**260,872**								65,071							
1.762	2	**1**	Allowance	Walls, Fiber Cement Siding, Near Term Repairs, Phased	2021	N/A	2 to 3	80,000.00	80,000	160,000	**171,035**			84,378	86,657												
1.800	2,350	**140**	Linear Feet	Walls, Masonry, Windows and Doors, Lintels and Sills (Rowlocks), Partial	2023	to 50+	4 to 30+	230.00	32,200	540,500	**453,350**					35,821			38,802			42,030			45,527		
1.810	1,040	**260**	Linear Feet	Walls, Masonry, Concrete Sill Flashing Repairs, Phased	2020	N/A	1 to 4	65.00	16,900	67,600	**72,287**		17,356	17,825	18,306	18,800											
1.981	300	**300**	Square Feet	Windows, Common, Laundry and Boiler Rooms	2044	to 35	25	52.00	15,600	15,600	**30,366**																
				Interior Building Elements																							
2.200	1,900	**1,900**	Square Yards	Floor Coverings, Carpet, Hallways and Stairwells	2021	8 to 12	2	58.00	110,200	110,200	**116,231**			116,231												
2.540	4	**4**	Each	Laundry Rooms, Renovation	2025	15 to 20	6	8,500.00	34,000	34,000	**107,862**							39,893								
2.560	248	**248**	Each	Light Fixtures, Hallways and Stairwells	2038	to 30	19	125.00	31,000	31,000	**51,428**																
2.800	23,000	**23,000**	Square Feet	Paint Finishes, Hallways and Stairwells	2023	8 to 12	4	1.40	32,200	32,200	**143,608**					35,821										46,757	
2.980	37,000	**37,000**	Square Feet	Wall Coverings, Hallways and Stairwells	2023	to 15	4	3.50	129,500	129,500	**358,900**					144,063											
				Building Services Elements																							
3.105	3	**3**	Each	Boilers, Building Heat, 300-MBH, 7316	2021	18 to 25	2	10,500.00	31,500	31,500	**97,895**			33,224													
3.106	3	**3**	Each	Boilers, Building Heat, 300-MBH, 7318	2020	18 to 25	1	10,500.00	31,500	31,500	**95,321**		32,350														
3.107	3	**3**	Each	Boilers, Building Heat, 300-MBH 7412 (Incl. Removal of 4th Boiler)	2019	18 to 25	0	11,350.00	34,050	34,050	**100,279**	34,000															
3.108	3	**3**	Each	Boilers, Building Heat, 300-MBH, 7414	2043	18 to 25	24	10,500.00	31,500	31,500	**59,704**																
3.160	1	**1**	Each	Boiler, Domestic Hot Water, 350-MBH, 7316 (Incl. Circl. Pump)	2028	15 to 20	9	16,300.00	16,300	16,300	**53,302**										20,717						
3.161	1	**1**	Each	Boiler, Domestic Hot Water, 300-MBH, 7318 (Incl. Circl. Pump)	2029	15 to 20	10	16,300.00	16,300	16,300	**54,741**											21,276					
3.162	1	**1**	Each	Boiler, Domestic Hot Water, 300-MBH, 7412 (Incl. Circl. Pump)	2027	15 to 20	8	16,300.00	16,300	16,300	**51,900**								20,172								
3.163	1	**1**	Each	Boiler, Domestic Hot Water, 300-MBH, 7414 (Incl. Circl. Pump)	2028	15 to 20	9	16,300.00	16,300	16,300	**53,302**										20,717						
3.300	1	**1**	Allowance	Electrical System, Main Panels, Remaining Original, Partial	2027	to 70+	8	60,000.00	60,000	60,000	**74,253**								74,253								
3.500	32	**8**	Each	Laundry Equipment, Washers and Dryers, Phased	2019	to 10	0 to 3	1,250.00	10,000	40,000	**189,213**	10,000	10,270	10,547	10,832							13,053	13,405	13,767	14,139		
3.560	4	**4**	Buildings	Life Safety Systems, Fire Detection (Includes Units Devices)	2020	to 25	1	32,000.00	128,000	128,000	**387,339**		131,456														
3.580	40	**40**	Each	Light Fixtures, Emergency and Exit	2037	to 25	18	250.00	10,000	10,000	**16,154**																
3.600	340	**15**	Each	Pipes, Riser Sections, Building Heating, Partial	2024	to 80+	5 to 30+	1,950.00	30,128	663,000	**551,658**						34,420				38,291				42,597		44,928
3.605	670	**30**	Each	Pipes, Riser Sections, Domestic Water, Waste and Vent, Partial	2024	to 80+	5 to 30+	1,700.00	51,765	1,139,000	**947,858**						59,141				65,792				73,190		77,196
3.820	4	**4**	Buildings	Security Systems, Intercom Panels and Card Readers	2027	to 15	8	6,500.00	26,000	26,000	**80,160**								32,176								
3.860	4	**4**	Each	Storage Tanks, Domestic Hot Water, 7316 and 7412	2040	to 25	21	5,600.00	22,400	22,400	**39,195**																
3.861	4	**4**	Each	Storage Tanks, Domestic Hot Water, 7318 and 7414	2036	to 25	17	5,600.00	22,400	22,400	**35,233**																
3.900	8	**4**	Each	Water Softeners, Phased	2029	15 to 20	10 to 11	7,000.00	28,000	56,000	**193,753**											36,548	37,535				
				Property Site Elements																							
4.110	1	**1**	Allowance	Concrete Steps, Entries	2020	to 50	1	60,000.00	60,000	60,000	**61,620**		61,620														
				Anticipated Expenditures, By Year							**$4,937,119**	44,000	258,146	262,205	121,168	234,505	93,561	39,893	103,873	126,601	145,517	112,907	50,940	13,767	175,453	46,757	122,124

Condominium Building

RESERVE EXPENDITURES

Years 2035 to 2049

Greensboro Condominium Owners Association
St. Louis Park, Minnesota

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	16 2035	17 2036	18 2037	19 2038	20 2039	21 2040	22 2041	23 2042	24 2043	25 2044	26 2045	27 2046	28 2047	29 2048	30 2049
				Exterior Building Elements																						
1.580	16	**8**	Each	Skylights, Common	2020	15 to 20	1 to 3	620.00	4,960	9,920	**28,300**						8,679		9,154							
1.760	27,000	**27,000**	Square Feet	Walls, Fiber Cement Siding, Paint Finishes and Capital Repairs	2026	8 to 10	7	2.00	54,000	54,000	**260,872**		84,936										110,865			
1.762	2	**1**	Allowance	Walls, Fiber Cement Siding, Near Term Repairs, Phased	2021	N/A	2 to 3	80,000.00	80,000	160,000	**171,035**															
1.800	2,350	**140**	Linear Feet	Walls, Masonry, Windows and Doors, Lintels and Sills (Rowlocks), Partial	2023	to 50+	4 to 30+	230.00	32,200	540,500	**453,350**	49,315			53,419			57,864			62,678			67,894		
1.810	1,040	**260**	Linear Feet	Walls, Masonry, Concrete Sill Flashing Repairs, Phased	2020	N/A	1 to 4	65.00	16,900	67,600	**72,287**															
1.981	300	**300**	Square Feet	Windows, Common, Laundry and Boiler Rooms	2044	to 35	25	52.00	15,600	15,600	**30,366**										30,366					
				Interior Building Elements																						
2.200	1,900	**1,900**	Square Yards	Floor Coverings, Carpet, Hallways and Stairwells	2021	8 to 12	2	58.00	110,200	110,200	**116,231**															
2.540	4	**4**	Each	Laundry Rooms, Renovation	2025	15 to 20	6	8,500.00	34,000	34,000	**107,862**											67,969				
2.560	248	**248**	Each	Light Fixtures, Hallways and Stairwells	2038	to 30	19	125.00	31,000	31,000	**51,428**				51,428											
2.800	23,000	**23,000**	Square Feet	Paint Finishes, Hallways and Stairwells	2023	8 to 12	4	1.40	32,200	32,200	**143,608**									61,030						
2.980	37,000	**37,000**	Square Feet	Wall Coverings, Hallways and Stairwells	2023	to 15	4	3.50	129,500	129,500	**358,900**				214,837											
				Building Services Elements																						
3.105	3	**3**	Each	Boilers, Building Heat, 300-MBH, 7316	2021	18 to 25	2	10,500.00	31,500	31,500	**97,895**												64,671			
3.106	3	**3**	Each	Boilers, Building Heat, 300-MBH, 7318	2020	18 to 25	1	10,500.00	31,500	31,500	**95,321**											62,971				
3.107	3	**3**	Each	Boilers, Building Heat, 300-MBH 7412 (Incl. Removal of 4th Boiler)	2019	18 to 25	0	11,350.00	34,050	34,050	**100,279**										66,279					
3.108	3	**3**	Each	Boilers, Building Heat, 300-MBH, 7414	2043	18 to 25	24	10,500.00	31,500	31,500	**59,704**									59,704						
3.160	1	**1**	Each	Boiler, Domestic Hot Water, 350-MBH, 7316 (Incl. Circl. Pump)	2028	15 to 20	9	16,300.00	16,300	16,300	**53,302**											32,585				
3.161	1	**1**	Each	Boiler, Domestic Hot Water, 300-MBH, 7318 (Incl. Circl. Pump)	2029	15 to 20	10	16,300.00	16,300	16,300	**54,741**												33,465			
3.162	1	**1**	Each	Boiler, Domestic Hot Water, 300-MBH, 7412 (Incl. Circl. Pump)	2027	15 to 20	8	16,300.00	16,300	16,300	**51,900**										31,728					
3.163	1	**1**	Each	Boiler, Domestic Hot Water, 300-MBH, 7414 (Incl. Circl. Pump)	2028	15 to 20	9	16,300.00	16,300	16,300	**53,302**											32,585				
3.300	1	**1**	Allowance	Electrical System, Main Panels, Remaining Original, Partial	2027	to 70+	8	60,000.00	60,000	60,000	**74,253**															
3.500	32	**8**	Each	Laundry Equipment, Washers and Dryers, Phased	2019	to 10	0 to 3	1,250.00	10,000	40,000	**189,213**					17,038	17,498	17,970	18,455							22,239
3.560	4	**4**	Buildings	Life Safety Systems, Fire Detection (Includes Units Devices)	2020	to 25	1	32,000.00	128,000	128,000	**387,339**											255,883				
3.580	40	**40**	Each	Light Fixtures, Emergency and Exit	2037	to 25	18	250.00	10,000	10,000	**16,154**			16,154												
3.600	340	**15**	Each	Pipes, Riser Sections, Building Heating, Partial	2024	to 80+	5 to 30+	1,950.00	30,128	663,000	**551,658**		47,387		49,981		52,716		55,601		58,644		61,854		65,239	
3.605	670	**30**	Each	Pipes, Riser Sections, Domestic Water, Waste and Vent, Partial	2024	to 80+	5 to 30+	1,700.00	51,765	1,139,000	**947,858**		81,420		85,877		90,576		95,534		100,762		106,277		112,093	
3.820	4	**4**	Buildings	Security Systems, Intercom Panels and Card Readers	2027	to 15	8	6,500.00	26,000	26,000	**80,160**								47,984							
3.860	4	**4**	Each	Storage Tanks, Domestic Hot Water, 7316 and 7412	2040	to 25	21	5,600.00	22,400	22,400	**39,195**						39,195									
3.861	4	**4**	Each	Storage Tanks, Domestic Hot Water, 7318 and 7414	2036	to 25	17	5,600.00	22,400	22,400	**35,233**		35,233													
3.900	8	**4**	Each	Water Softeners, Phased	2029	15 to 20	10 to 11	7,000.00	28,000	56,000	**193,753**													59,038	60,632	
				Property Site Elements																						
4.110	1	**1**	Allowance	Concrete Steps, Entries	2020	to 50	1	60,000.00	60,000	60,000	**61,620**															
				Anticipated Expenditures, By Year							**$4,937,119**	49,315	248,976	16,154	455,542	17,038	208,664	75,834	226,728	120,734	350,457	451,993	377,132	126,932	237,964	22,239

RESERVE FUNDING PLAN

Condominium Building

CASH FLOW ANALYSIS

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	Reserves at Beginning of Year (Note 1)	463,456	457,621	319,021	177,097	178,123	68,093	98,335	183,215	205,014	204,263	187,750	207,272	293,150	421,607	392,919	497,366
	Total Recommended Reserve Contributions (Note 2)	**35,563**	**113,000**	**116,100**	**119,200**	**122,400**	**122,400**	**122,400**	**122,400**	**122,400**	**125,700**	**129,100**	**132,600**	**136,200**	**139,900**	**143,700**	**147,600**
Plus	**Estimated Interest Earned, During Year (Note 3)**	2,602	6,546	4,181	2,994	2,075	1,403	2,373	3,272	3,450	3,304	3,329	4,218	6,024	6,865	7,504	8,672
Less	**Anticipated Expenditures, By Year**	(44,000)	(258,146)	(262,205)	(121,168)	(234,505)	(93,561)	(39,893)	(103,873)	(126,601)	(145,517)	(112,907)	(50,940)	(13,767)	(175,453)	(46,757)	(122,124)
	Anticipated Reserves at Year End	$457,621	$319,021	$177,097	$178,123	$68,093 **(NOTE 5)**	$98,335	$183,215	$205,014	$204,263	$187,750	$207,272	$293,150	$421,607	$392,919	$497,366	$531,514

(continued)

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

		2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
	Reserves at Beginning of Year	531,514	643,704	560,578	715,076	433,414	593,632	567,958	680,547	647,714	726,159	579,406	333,003	163,254	248,492	228,851
	Total Recommended Reserve Contributions	**151,600**	**155,700**	**159,900**	**164,200**	**168,600**	**173,200**	**177,900**	**182,700**	**187,600**	**192,700**	**197,900**	**203,200**	**208,700**	**214,300**	**220,100**
Plus	**Estimated Interest Earned, During Year**	9,905	10,150	10,752	9,680	8,656	9,790	10,523	11,195	11,579	11,004	7,690	4,183	3,470	4,023	5,572
Less	**Anticipated Expenditures, By Year**	(49,315)	(248,976)	(16,154)	(455,542)	(17,038)	(208,664)	(75,834)	(226,728)	(120,734)	(350,457)	(451,993)	(377,132)	(126,932)	(237,964)	(22,239)
	Anticipated Reserves at Year End	$643,704	$560,578	$715,076	$433,414	$593,632	$567,958	$680,547	$647,714	$726,159	$579,406	$333,003	$163,254	$248,492	$228,851	$432,284 **(NOTE 4)**

Explanatory Notes:

1) Year 2019 starting reserves are as of August 31, 2019; FY2019 starts January 31, 2019 and ends December 31, 2019.

2) Reserve Contributions for 2019 are the remaining budgeted 4 months; 2020 is the first year of recommended contributions.

3) 1.7% is the estimated annual rate of return on invested reserves; 2019 is a partial year of interest earned.

4) Accumulated year 2049 ending reserves consider the age, size, overall condition and complexity of the property.

5) Threshold Funding Year (reserve balance at critical point).

*Refer to the Reserve Expenditures pages for the full list of reserve elements

Condominium Building

FIVE-YEAR OUTLOOK

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Line Item	Reserve Component Inventory	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024
	Exterior Building Elements						
1.580	Skylights, Common		5,094		5,373		
1.762	Walls, Fiber Cement Siding, Near Term Repairs, Phased			84,378	86,657		
1.800	Walls, Masonry, Windows and Doors, Lintels and Sills (Rowlocks), Partial					35,821	
1.810	Walls, Masonry, Concrete Sill Flashing Repairs, Phased		17,356	17,825	18,306	18,800	
	Interior Building Elements						
2.200	Floor Coverings, Carpet, Hallways and Stairwells			116,231			
2.800	Paint Finishes, Hallways and Stairwells					35,821	
2.980	Wall Coverings, Hallways and Stairwells					144,063	
	Building Services Elements						
3.105	Boilers, Building Heat, 300-MBH, 7316			33,224			
3.106	Boilers, Building Heat, 300-MBH, 7318		32,350				
3.107	Boilers, Building Heat, 300-MBH 7412 (Incl. Removal of 4th Boiler)	34,000					
3.500	Laundry Equipment, Washers and Dryers, Phased	10,000	10,270	10,547	10,832		
3.560	Life Safety Systems, Fire Detection (Includes Units Devices)		131,456				
3.600	Pipes, Riser Sections, Building Heating, Partial						34,420
3.605	Pipes, Riser Sections, Domestic Water, Waste and Vent, Partial						59,141
	Property Site Elements						
4.110	Concrete Steps, Entries		61,620				
	Anticipated Expenditures, By Year	44,000	258,146	262,205	121,168	234,505	93,561

Condominium Building Roofs

RESERVE EXPENDITURES

Years 2019 to 2034

Greensboro Condominium Owners Association
St. Louis Park, Minnesota

Explanatory Notes:

1) **2.7%** **is the estimated Inflation Rate for estimating Future Replacement Costs.**
2) **FY2019 is Fiscal Year beginning January 31, 2019 and ending December 31, 2019.**

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024	6 2025	7 2026	8 2027	9 2028	10 2029	11 2030	12 2031	13 2032	14 2033	15 2034
				Exterior Building Elements																							
1.400	600	**150**	Squares	Roofs, EPDM, Phased (Incl. Scuppers and Downpouts)	2020	15 to 20	1 to 4	1,430.00	214,500	858,000	**2,480,700**		220,291	226,239	232,348	238,621											
				Anticipated Expenditures, By Year							**$2,480,700**	0	220,291	226,239	232,348	238,621	0	0	0	0	0	0	0	0	0	0	0

Condominium Building Roofs

RESERVE EXPENDITURES

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	16 2035	17 2036	18 2037	19 2038	20 2039	21 2040	22 2041	23 2042	24 2043	25 2044	26 2045	27 2046	28 2047	29 2048	30 2049
				Exterior Building Elements																						
1.400	600	**150**	Squares	Roofs, EPDM, Phased (Incl. Scuppers and Downpouts)	2020	15 to 20	1 to 4	1,430.00	214,500	858,000	**2,480,700**						375,324	385,458	395,865	406,554						
	Anticipated Expenditures, By Year										**$2,480,700**	0	0	0	0	0	375,324	385,458	395,865	406,554	0	0	0	0	0	0

RESERVE FUNDING PLAN

Condo Roof

CASH FLOW ANALYSIS

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	Reserves at Beginning of Year (Note 1)	796,590	806,954	626,747	448,067	270,778	85,460	139,052	194,967	253,245	314,026	377,353	443,370	512,123	583,659	658,125	735,572
	Total Recommended Reserve Contributions (Note 2)	**5,833**	**28,000**	**38,500**	**49,000**	**50,300**	**51,700**	**53,100**	**54,500**	**56,000**	**57,500**	**59,100**	**60,700**	**62,300**	**64,000**	**65,700**	**67,500**
Plus	**Estimated Interest Earned, During Year (Note 3)**	4,531	12,084	9,059	6,059	3,003	1,892	2,815	3,778	4,781	5,827	6,917	8,053	9,236	10,466	11,747	13,078
Less	**Anticipated Expenditures, By Year**	0	(220,291)	(226,239)	(232,348)	(238,621)	0	0	0	0	0	0	0	0	0	0	0
	Anticipated Reserves at Year End	$806,954	$626,747	$448,067	$270,778	$85,460 (NOTE 5)	$139,052	$194,967	$253,245	$314,026	$377,353	$443,370	$512,123	$583,659	$658,125	$735,572	$816,150

(continued)

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

		2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
	Reserves at Beginning of Year	816,150	899,914	987,018	1,077,519	1,171,575	1,269,247	992,183	702,307	399,226	82,532	172,784	266,991	365,220	467,640	574,423
	Total Recommended Reserve Contributions	**69,300**	**71,200**	**73,100**	**75,100**	**77,100**	**79,200**	**81,300**	**83,500**	**85,800**	**88,100**	**90,500**	**92,900**	**95,400**	**98,000**	**100,600**
Plus	**Estimated Interest Earned, During Year**	14,464	15,904	17,401	18,956	20,572	19,060	14,282	9,284	4,060	2,152	3,707	5,329	7,020	8,783	10,620
Less	**Anticipated Expenditures, By Year**	0	0	0	0	0	(375,324)	(385,458)	(395,865)	(406,554)	0	0	0	0	0	0
	Anticipated Reserves at Year End	$899,914	$987,018	$1,077,519	$1,171,575	$1,269,247	$992,183	$702,307	$399,226	$82,532 (NOTE 5)	$172,784	$266,991	$365,220	$467,640	$574,423	$685,643 (NOTE 4)

Explanatory Notes:

1) Year 2019 starting reserves are as of August 31, 2019; FY2019 starts January 31, 2019 and ends December 31, 2019.
2) Reserve Contributions for 2019 are the remaining budgeted 4 months; 2020 is the first year of recommended contributions.
3) 1.7% is the estimated annual rate of return on invested reserves; 2019 is a partial year of interest earned.
4) Accumulated year 2049 ending reserves consider the age, size, overall condition and complexity of the property.
5) Threshold Funding Years (reserve balance at critical point).

*Refer to the Reserve Expenditures pages for the full list of reserve elements

Condominium Building Roofs

FIVE-YEAR OUTLOOK

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Line Item	Reserve Component Inventory	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024
	Exterior Building Elements						
1.400	Roofs, EPDM, Phased (Incl. Scuppers and Downpouts)		220,291	226,239	232,348	238,621	
	Anticipated Expenditures, By Year	0	220,291	226,239	232,348	238,621	0

Three-Bedroom Building

RESERVE EXPENDITURES

Years 2019 to 2034

Greensboro Condominium Owners Association
St. Louis Park, Minnesota

Explanatory Notes:

1) **2.7%** **is the estimated Inflation Rate for estimating Future Replacement Costs.**
2) **FY2019 is Fiscal Year beginning January 31, 2019 and ending December 31, 2019.**

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024	6 2025	7 2026	8 2027	9 2028	10 2029	11 2030	12 2031	13 2032	14 2033	15 2034
				Exterior Building Elements																							
1.261	116	**116**	Each	Light Fixtures, Entrances	2032	to 25	13	120.00	13,920	13,920	**19,681**													19,681		
1.766	58	**4**	Units	Walls, Fiber Cement Siding, Panel Style and Trim, Replacement, Phased	2020	to 50	1 to 14	8,500.00	34,000	493,000	**603,550**		34,918	35,861	36,829	56,735	38,845	39,893	40,971	42,077	43,213	44,380	45,578	46,808	48,072	49,370	
1.761	26,000	**26,000**	Square Feet	Walls, Fiber Cement Siding, Paint Finishes and Capital Repairs	2026	8 to 10	7	2.00	52,000	52,000	**251,210**								62,661							
1.805	12	**4**	Units	Walls, Masonry, Garage Lintels & Balcony Repairs, Remaining, Phased (2019 is Budgeted)	2019	N/A	0 to 2	13,500.00	54,000	162,000	**203,306**	32,400	55,458	56,955	58,493											
1.811	18	**6**	Units	Walls, Masonry, Concrete Sill Flashing Repairs, Remaining (2019 is Budgeted)	2019	N/A	0 to 2	1,585.00	9,510	28,530	**35,766**	5,668	9,767	10,030	10,301											
				Building Services Elements																							
3.961	7	**1**	Each	Water Softeners, Phased	2021	to 15	2 to 14	6,500.00	6,500	45,500	**153,313**			6,856		7,231		7,627		8,044		8,484		8,949		9,438	
				Anticipated Expenditures, By Year							**$1,266,826**	38,068	100,143	109,702	105,623	63,966	38,845	47,520	103,632	50,121	43,213	52,864	45,578	55,757	67,753	58,808	0

Three-Bedroom Building

RESERVE EXPENDITURES

Years 2035 to 2049

Greensboro Condominium Owners Association
St. Louis Park, Minnesota

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	16 2035	17 2036	18 2037	19 2038	20 2039	21 2040	22 2041	23 2042	24 2043	25 2044	26 2045	27 2046	28 2047	29 2048	30 2049
				Exterior Building Elements																						
1.261	116	**116**	Each	Light Fixtures, Entrances	2032	to 25	13	120.00	13,920	13,920	**19,681**															
1.766	58	**4**	Units	Walls, Fiber Cement Siding, Panel Style and Trim, Replacement, Phased	2020	to 50	1 to 14	8,500.00	34,000	493,000	**603,550**															
1.761	26,000	**26,000**	Square Feet	Walls, Fiber Cement Siding, Paint Finishes and Capital Repairs	2026	8 to 10	7	2.00	52,000	52,000	**251,210**		81,790										106,759			
1.805	12	**4**	Units	Walls, Masonry, Garage Lintels & Balcony Repairs, Remaining, Phased (2019 is Budgeted)	2019	N/A	0 to 2	13,500.00	54,000	162,000	**203,306**															
1.811	18	**6**	Units	Walls, Masonry, Concrete Sill Flashing Repairs, Remaining (2019 is Budgeted)	2019	N/A	0 to 2	1,585.00	9,510	28,530	**35,766**															
				Building Services Elements																						
3.961	7	**1**	Each	Water Softeners, Phased	2021	to 15	2 to 14	6,500.00	6,500	45,500	**153,313**	9,955		10,500		11,074		11,681		12,320		12,994		13,705		14,455
				Anticipated Expenditures, By Year							**$1,266,826**	9,955	81,790	10,500	0	11,074	0	11,681	0	12,320	0	12,994	106,759	13,705	0	14,455

RESERVE FUNDING PLAN

Three-Bedroom Building

CASH FLOW ANALYSIS

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	Reserves at Beginning of Year (Note 1)	69,232	51,806	40,440	25,292	20,051	59,455	81,801	97,391	58,372	74,370	99,422	116,982	144,105	163,339	172,819	193,498
	Total Recommended Reserve Contributions (Note 2)	**20,300**	**88,000**	**94,000**	**100,000**	**102,700**	**60,000**	**61,600**	**63,300**	**65,000**	**66,800**	**68,600**	**70,500**	**72,400**	**74,400**	**76,400**	**25,000**
Plus	**Estimated Interest Earned, During Year (Note 3)**	342	777	554	382	670	1,191	1,510	1,313	1,119	1,465	1,824	2,201	2,591	2,833	3,087	3,502
Less	**Anticipated Expenditures, By Year**	(38,068)	(100,143)	(109,702)	(105,623)	(63,966)	(38,845)	(47,520)	(103,632)	(50,121)	(43,213)	(52,864)	(45,578)	(55,757)	(67,753)	(58,808)	0
	Anticipated Reserves at Year End	$51,806	$40,440	$25,292	$20,051	$59,455	$81,801	$97,391	$58,372	$74,370	$99,422	$116,982	$144,105	$163,339	$172,819	$193,498	$222,000
					(NOTE 5)												

(continued)

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

		2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
	Reserves at Beginning of Year	222,000	241,653	189,900	209,869	241,473	263,253	297,378	321,110	357,832	383,561	423,059	451,032	385,826	414,264	458,016
	Total Recommended Reserve Contributions	**25,700**	**26,400**	**27,100**	**27,800**	**28,600**	**29,400**	**30,200**	**31,000**	**31,800**	**32,700**	**33,600**	**34,500**	**35,400**	**36,400**	**37,400**
Plus	**Estimated Interest Earned, During Year**	3,908	3,637	3,369	3,804	4,254	4,725	5,213	5,722	6,249	6,798	7,367	7,053	6,743	7,352	7,981
Less	**Anticipated Expenditures, By Year**	(9,955)	(81,790)	(10,500)	0	(11,074)	0	(11,681)	0	(12,320)	0	(12,994)	(106,759)	(13,705)	0	(14,455)
	Anticipated Reserves at Year End	$241,653	$189,900	$209,869	$241,473	$263,253	$297,378	$321,110	$357,832	$383,561	$423,059	$451,032	$385,826	$414,264	$458,016	$488,942
																(NOTE 4)

Explanatory Notes:

1) Year 2019 starting reserves are as of August 31, 2019; FY2019 starts January 31, 2019 and ends December 31, 2019.

2) Reserve Contributions for 2019 are the remaining budgeted 4 months; 2020 is the first year of recommended contributions.

3) 1.7% is the estimated annual rate of return on invested reserves; 2019 is a partial year of interest earned.

4) Accumulated year 2049 ending reserves consider the need to fund for replacement of the replacement of the lap style fiber cement siding shortly after 2049, and the age, size, overall condition and complexity of the property.

5) Threshold Funding Year (reserve balance at critical point).

*Refer to the Reserve Expenditures pages for the full list of reserve elements

Three-Bedroom Building

FIVE-YEAR OUTLOOK

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Line Item	Reserve Component Inventory	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024
	Exterior Building Elements						
1.766	Walls, Fiber Cement Siding, Panel Style and Trim, Replacement, Phased		34,918	35,861	36,829	56,735	38,845
1.805	Walls, Masonry, Garage Lintels & Balcony Repairs, Remaining, Phased (2019 is Budgeted)	32,400	55,458	56,955	58,493		
1.811	Walls, Masonry, Concrete Sill Flashing Repairs, Remaining (2019 is Budgeted)	5,668	9,767	10,030	10,301		
	Building Services Elements						
3.961	Water Softeners, Phased			6,856		7,231	
	Anticipated Expenditures, By Year	38,068	100,143	109,702	105,623	63,966	38,845

Three-Bedroom Building Roofs

RESERVE EXPENDITURES

Years 2019 to 2034

Greensboro Condominium Owners Association
St. Louis Park, Minnesota

Explanatory Notes:

1) **2.7%** **is the estimated Inflation Rate for estimating Future Replacement Costs.**
2) **FY2019 is Fiscal Year beginning January 31, 2019 and ending December 31, 2019.**

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024	6 2025	7 2026	8 2027	9 2028	10 2029	11 2030	12 2031	13 2032	14 2033	15 2034
				Exterior Building Elements																							
1.401	435	**109**	Squares	Roofs, EPDM, Phased (Incl. Scuppers and Downpouts)	2020	15 to 20	1 to 4	1,150.00	125,063	500,250	**1,448,142**		73,225	150,404	154,465	158,636											
				Anticipated Expenditures, By Year							**$1,448,142**	0	73,225	150,404	154,465	158,636	0	0	0	0	0	0	0	0	0	0	0

Three-Bedroom Building Roofs

RESERVE EXPENDITURES

Years 2035 to 2049

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	16 2035	17 2036	18 2037	19 2038	20 2039	21 2040	22 2041	23 2042	24 2043	25 2044	26 2045	27 2046	28 2047	29 2048	30 2049
				Exterior Building Elements																						
1.401	435	**109**	Squares	Roofs, EPDM, Phased (Incl. Scuppers and Downpouts)	2020	15 to 20	1 to 4	1,150.00	125,063	500,250	**1,448,142**						218,830	224,738	230,806	237,038						
				Anticipated Expenditures, By Year							**$1,448,142**	0	0	0	0	0	218,830	224,738	230,806	237,038	0	0	0	0	0	0

RESERVE FUNDING PLAN

Three-Bedroom Building Roof

CASH FLOW ANALYSIS

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	Reserves at Beginning of Year (Note 1)	625,990	632,345	569,247	427,242	278,727	123,481	152,810	183,343	215,101	248,206	282,681	318,548	355,832	394,657	435,050	477,037
	Total Recommended Reserve Contributions (Note 2)	**2,800**	**0**	**0**	**0**	**0**	**27,000**	**27,700**	**28,400**	**29,200**	**30,000**	**30,800**	**31,600**	**32,500**	**33,400**	**34,300**	**35,200**
Plus	**Estimated Interest Earned, During Year (Note 3)**	3,555	10,127	8,399	5,950	3,390	2,329	2,833	3,358	3,905	4,475	5,067	5,684	6,325	6,993	7,687	8,409
Less	**Anticipated Expenditures, By Year**	0	(73,225)	(150,404)	(154,465)	(158,636)	0	0	0	0	0	0	0	0	0	0	0
	Anticipated Reserves at Year End	$632,345	$569,247	$427,242	$278,727	$123,481	$152,810	$183,343	$215,101	$248,206	$282,681	$318,548	$355,832	$394,657	$435,050	$477,037	$520,646

(continued)

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

		2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
	Reserves at Beginning of Year	520,646	566,005	613,143	662,091	712,880	765,642	599,720	426,128	244,575	54,861	102,185	151,523	203,011	256,685	312,583
	Total Recommended Reserve Contributions	**36,200**	**37,200**	**38,200**	**39,200**	**40,300**	**41,400**	**42,500**	**43,600**	**44,800**	**46,000**	**47,200**	**48,500**	**49,800**	**51,100**	**52,500**
Plus	**Estimated Interest Earned, During Year**	9,159	9,938	10,748	11,589	12,462	11,508	8,646	5,653	2,524	1,324	2,138	2,988	3,874	4,798	5,760
Less	**Anticipated Expenditures, By Year**	0	0	0	0	0	(218,830)	(224,738)	(230,806)	(237,038)	0	0	0	0	0	0
	Anticipated Reserves at Year End	$566,005	$613,143	$662,091	$712,880	$765,642	$599,720	$426,128	$244,575	$54,861 **(NOTE 5)**	$102,185	$151,523	$203,011	$256,685	$312,583	$370,843 **(NOTE 4)**

Explanatory Notes:

1) Year 2019 starting reserves are as of August 31, 2019; FY2019 starts January 31, 2019 and ends December 31, 2019.

2) Reserve Contributions for 2019 are the remaining budgeted 4 months; 2020 is the first year of recommended contributions.

3) 1.7% is the estimated annual rate of return on invested reserves; 2019 is a partial year of interest earned.

4) Accumulated year 2049 ending reserves consider the age, size, overall condition and complexity of the property.

5) Threshold Funding Year (reserve balance at critical point).

*Refer to the Reserve Expenditures pages for the full list of reserve elements

Three-Bedroom Building Roofs

FIVE-YEAR OUTLOOK

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Line Item	Reserve Component Inventory	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024
	Exterior Building Elements						
1.401	Roofs, EPDM, Phased (Incl. Scuppers and Downpouts)		73,225	150,404	154,465	158,636	
	Anticipated Expenditures, By Year	0	73,225	150,404	154,465	158,636	0

Two-Bedroom Building

RESERVE EXPENDITURES

Years 2019 to 2034

Greensboro Condominium Owners Association
St. Louis Park, Minnesota

Explanatory Notes:

1) 2.7% is the estimated Inflation Rate for estimating Future Replacement Costs.
2) FY2019 is Fiscal Year beginning January 31, 2019 and ending December 31, 2019.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024	6 2025	7 2026	8 2027	9 2028	10 2029	11 2030	12 2031	13 2032	14 2033	15 2034
				Exterior Building Elements																							
1.261	76	**76**	Each	Light Fixtures, Entrances and Patios	2032	to 25	13	120.00	9,120	9,120	**12,895**													12,895		
1.767	38	**4**	Units	Walls, Fiber Cement Siding, Panel Style and Trim, Replacement, Phased (2019 is Budgeted)	2019	to 50	0 to 9	8,500.00	34,000	323,000	**420,339**	47,719	34,918	35,861	36,829	37,823	38,845	39,893	40,971	42,077	43,213	22,190					
1.769	16,000	**16,000**	Square Feet	Walls, Fiber Cement Siding, Paint Finishes and Capital Repairs	2026	8 to 10	7	2.00	32,000	32,000	**154,591**								38,561								
1.812	30	**6**	Units	Walls, Masonry, Concrete Sill Flashing Repairs, Remaining (2019 is Budgeted)	2019	N/A	0 to 4	1,585.00	9,510	47,550	**59,952**	8,410	9,767	10,030	10,301	10,579	10,865										
				Anticipated Expenditures, By Year							**$647,777**	56,129	44,685	45,891	47,130	48,402	49,710	39,893	79,532	42,077	43,213	22,190	0	0	12,895	0	0

Two-Bedroom Building

RESERVE EXPENDITURES

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	16 2035	17 2036	18 2037	19 2038	20 2039	21 2040	22 2041	23 2042	24 2043	25 2044	26 2045	27 2046	28 2047	29 2048	30 2049
				Exterior Building Elements																						
1.261	76	**76**	Each	Light Fixtures, Entrances and Patios	2032	to 25	13	120.00	9,120	9,120	**12,895**															
1.767	38	**4**	Units	Walls, Fiber Cement Siding, Panel Style and Trim, Replacement, Phased (2019 is Budgeted)	2019	to 50	0 to 9	8,500.00	34,000	323,000	**420,339**															
1.769	16,000	**16,000**	Square Feet	Walls, Fiber Cement Siding, Paint Finishes and Capital Repairs	2026	8 to 10	7	2.00	32,000	32,000	**154,591**		50,332										65,698			
1.812	30	**6**	Units	Walls, Masonry, Concrete Sill Flashing Repairs, Remaining (2019 is Budgeted)	2019	N/A	0 to 4	1,585.00	9,510	47,550	**59,952**															
				Anticipated Expenditures, By Year							**$647,777**	0	50,332	0	0	0	0	0	0	0	0	0	65,698	0	0	0

RESERVE FUNDING PLAN

Two-Bedroom Building

CASH FLOW ANALYSIS

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	Reserves at Beginning of Year (Note 1)	51,160	8,098	15,714	23,655	31,893	40,501	49,449	70,063	52,665	74,359	96,990	91,388	108,472	126,250	131,729	150,709
	Total Recommended Reserve Contributions (Note 2)	**12,900**	**52,100**	**53,500**	**54,900**	**56,400**	**57,900**	**59,500**	**61,100**	**62,700**	**64,400**	**15,000**	**15,400**	**15,800**	**16,200**	**16,600**	**17,000**
Plus	**Estimated Interest Earned, During Year (Note 3)**	167	201	332	468	610	758	1,007	1,034	1,071	1,444	1,588	1,684	1,978	2,174	2,380	2,707
Less	**Anticipated Expenditures, By Year**	(56,129)	(44,685)	(45,891)	(47,130)	(48,402)	(49,710)	(39,893)	(79,532)	(42,077)	(43,213)	(22,190)	0	0	(12,895)	0	0
	Anticipated Reserves at Year End	$8,098	$15,714 **(NOTE 5)**	$23,655	$31,893 **(NOTE 5)**	$40,501	$49,449	$70,063	$52,665	$74,359	$96,990	$91,388	$108,472	$126,250	$131,729	$150,709	$170,416

(continued)

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

		2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
	Reserves at Beginning of Year	170,416	190,962	161,602	183,006	205,279	228,434	252,487	277,454	303,450	330,493	358,601	387,792	351,828	382,114	413,621
	Total Recommended Reserve Contributions	**17,500**	**18,000**	**18,500**	**19,000**	**19,500**	**20,000**	**20,500**	**21,100**	**21,700**	**22,300**	**22,900**	**23,500**	**24,100**	**24,800**	**25,500**
Plus	**Estimated Interest Earned, During Year**	3,046	2,972	2,904	3,273	3,655	4,053	4,467	4,896	5,343	5,808	6,291	6,234	6,186	6,707	7,248
Less	**Anticipated Expenditures, By Year**	0	(50,332)	0	0	0	0	0	0	0	0	0	(65,698)	0	0	0
	Anticipated Reserves at Year End	$190,962	$161,602	$183,006	$205,279	$228,434	$252,487	$277,454	$303,450	$330,493	$358,601	$387,792	$351,828	$382,114	$413,621	$446,369 **(NOTE 4)**

Explanatory Notes:

1) Year 2019 starting reserves are as of August 31, 2019; FY2019 starts January 31, 2019 and ends December 31, 2019.

2) Reserve Contributions for 2019 are the remaining budgeted 4 months; 2020 is the first year of recommended contributions.

3) 1.7% is the estimated annual rate of return on invested reserves; 2019 is a partial year of interest earned.

4) Accumulated year 2049 ending reserves consider the need to fund for replacement of the replacement of the lap style fiber cement siding shortly after 2049, and the age, size, overall condition and complexity of the property.

5) Threshold Funding Years (reserve balance at critical point).

*Refer to the Reserve Expenditures pages for the full list of reserve elements

Two-Bedroom Building

FIVE-YEAR OUTLOOK

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Line Item	Reserve Component Inventory	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024
	Exterior Building Elements						
1.767	Walls, Fiber Cement Siding, Panel Style and Trim, Replacement, Phased (2019 is Budgeted)	47,719	34,918	35,861	36,829	37,823	38,845
1.812	Walls, Masonry, Concrete Sill Flashing Repairs, Remaining (2019 is Budgeted)	8,410	9,767	10,030	10,301	10,579	10,865
	Anticipated Expenditures, By Year	56,129	44,685	45,891	47,130	48,402	49,710

Two-Bedroom Building Roofs

RESERVE EXPENDITURES

Years 2019 to 2034

Greensboro Condominium Owners Association
St. Louis Park, Minnesota

Explanatory Notes:

1) 2.7% is the estimated Inflation Rate for estimating Future Replacement Costs.
2) FY2019 is Fiscal Year beginning January 31, 2019 and ending December 31, 2019.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024	6 2025	7 2026	8 2027	9 2028	10 2029	11 2030	12 2031	13 2032	14 2033	15 2034
				Exterior Building Elements																							
1.402	265	**66**	Squares	Roofs, EPDM, Phased (Incl. Scuppers and Downpouts)	2020	15 to 20	1 to 4	1,150.00	76,188	304,750	**881,111**		78,245	80,357	82,527	84,755											
				Anticipated Expenditures, By Year							**$881,111**	0	78,245	80,357	82,527	84,755	0	0	0	0	0	0	0	0	0	0	0

Two-Bedroom Building Roofs

RESERVE EXPENDITURES

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Remaining	Costs, $ Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	16 2035	17 2036	18 2037	19 2038	20 2039	21 2040	22 2041	23 2042	24 2043	25 2044	26 2045	27 2046	28 2047	29 2048	30 2049
				Exterior Building Elements																						
1.402	265	**66**	Squares	Roofs, EPDM, Phased (Incl. Scuppers and Downpouts)	2020	15 to 20	1 to 4	1,150.00	76,188	304,750	**881,111**						133,310	136,909	140,606	144,402						
				Anticipated Expenditures, By Year							**$881,111**	0	0	0	0	0	133,310	136,909	140,606	144,402	0	0	0	0	0	0

RESERVE FUNDING PLAN

Two Bed Roofs

CASH FLOW ANALYSIS

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	Reserves at Beginning of Year (Note 1)	368,753	372,113	299,529	223,581	144,153	61,128	79,312	98,309	118,133	138,799	160,320	182,711	205,987	230,163	255,355	281,580
	Total Recommended Reserve Contributions (Note 2)	**1,267**	**0**	**0**	**0**	**0**	**17,000**	**17,500**	**18,000**	**18,500**	**19,000**	**19,500**	**20,000**	**20,500**	**21,100**	**21,700**	**22,300**
Plus	**Estimated Interest Earned, During Year (Note 3)**	2,093	5,661	4,409	3,099	1,730	1,184	1,497	1,824	2,166	2,521	2,891	3,276	3,676	4,092	4,525	4,976
Less	**Anticipated Expenditures, By Year**	0	(78,245)	(80,357)	(82,527)	(84,755)	0	0	0	0	0	0	0	0	0	0	0
	Anticipated Reserves at Year End	$372,113	$299,529	$223,581	$144,153	$61,128	$79,312	$98,309	$118,133	$138,799	$160,320	$182,711	$205,987	$230,163	$255,355	$281,580	$308,856

(continued)

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

		2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
	Reserves at Beginning of Year	308,856	337,201	366,633	397,171	428,934	461,943	361,776	256,982	147,384	32,801	62,706	93,926	126,484	160,402	195,804
	Total Recommended Reserve Contributions	**22,900**	**23,500**	**24,100**	**24,800**	**25,500**	**26,200**	**26,900**	**27,600**	**28,300**	**29,100**	**29,900**	**30,700**	**31,500**	**32,400**	**33,300**
Plus	**Estimated Interest Earned, During Year**	5,445	5,932	6,438	6,963	7,509	6,943	5,215	3,408	1,519	805	1,320	1,858	2,418	3,002	3,612
Less	**Anticipated Expenditures, By Year**	0	0	0	0	0	(133,310)	(136,909)	(140,606)	(144,402)	0	0	0	0	0	0
	Anticipated Reserves at Year End	$337,201	$366,633	$397,171	$428,934	$461,943	$361,776	$256,982	$147,384	$32,801	$62,706	$93,926	$126,484	$160,402	$195,804	$232,716
										(NOTE 5)						**(NOTE 4)**

Explanatory Notes:

1) Year 2019 starting reserves are as of August 31, 2019; FY2019 starts January 31, 2019 and ends December 31, 2019.

2) Reserve Contributions for 2019 are the remaining budgeted 4 months; 2020 is the first year of recommended contributions.

3) 1.7% is the estimated annual rate of return on invested reserves; 2019 is a partial year of interest earned.

4) Accumulated year 2049 ending reserves consider the age, size, overall condition and complexity of the property.

5) Threshold Funding Year (reserve balance at critical point).

*Refer to the Reserve Expenditures pages for the full list of reserve elements

Two-Bedroom Building Roofs

FIVE-YEAR OUTLOOK

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Line Item	Reserve Component Inventory	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024
	Exterior Building Elements						
1.402	Roofs, EPDM, Phased (Incl. Scuppers and Downpouts)		78,245	80,357	82,527	84,755	
	Anticipated Expenditures, By Year	0	78,245	80,357	82,527	84,755	0

Common Property

RESERVE EXPENDITURES

Years 2019 to 2034

Greensboro Condominium Owners Association
St. Louis Park, Minnesota

Explanatory Notes:

1) 2.7% is the estimated Inflation Rate for estimating Future Replacement Costs.
2) FY2019 is Fiscal Year beginning January 31, 2019 and ending December 31, 2019.

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Life Analysis, Years Remaining	Costs, $ Unit (2019)	Costs, $ Per Phase (2019)	Costs, $ Total (2019)	Costs, $ 30-Year Total (Inflated)	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024	6 2025	7 2026	8 2027	9 2028	10 2029	11 2030	12 2031	13 2032	14 2033	15 2034
				Property Site Elements																							
4.020	16,585	**16,585**	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat	2022	3 to 5	3	1.40	23,219	23,219	**216,797**				25,151				27,979								34,626
4.040	16,585	**16,585**	Square Yards	Asphalt Pavement, Mill and Overlay	2031	15 to 20	12	20.50	339,993	339,993	**468,074**													468,074			
4.045	16,600	**16,600**	Square Yards	Asphalt Pavement, Total Replacement, Partial	2049	15 to 20	30	32.00	531,200	531,200	**1,181,330**																
4.100	10	**10**	Each	Catch Basins and Storm Draiange, Inspections and Capital Repairs	2031	15 to 20	12	1,250.00	12,500	12,500	**17,209**													17,209			
4.110	2,100	**175**	Linear Feet	Concrete Curbs and Gutters, Partial	2031	to 65	12 to 30+	35.00	6,125	73,500	**32,770**													8,432			
4.140	3	**1**	Allowance	Concrete Sidewalks and Steps, Near Term Modifications	2020	to 65	1 to 3	varies	varies	170,000	**170,000**		75,000	50,000	20,000	15,000	10,000										
4.142	28,000	**1,000**	Square Feet	Concrete Sidewalks and Steps, Partial (Subsequent)	2028	to 65	9 to 30+	15.00	15,000	420,000	**151,790**										19,064				21,208		
4.500	4	**1**	Allowance	Landscape, Renovations, Near Term Proposed, Phased	2019	n/a	0 to 3	varies	varies	493,000	**516,000**	23,000	264,000	114,000	65,000	50,000											
4.501	1	**1**	Allowance	Landscape, Partial Replacements (Subsequent)	2027	to 5	8	28,000.00	28,000	28,000	**230,183**									34,651					39,589		
4.560	40	**10**	Each	Light Poles and Fixtures, Phased	2025	to 30	6 to 27	2,700.00	27,000	108,000	**171,290**							31,680							38,175		
4.600	1	**1**	Each	Maintenance Cart	2021	6 to 8	2	14,000.00	14,000	14,000	**83,642**			14,766								18,274					
4.650	5	**1**	Allowance	Pipes, Subsurface Utilities, Main Lines, Partial Replacements (2019 Budgeted)	2019	to 80+	0 to 24	65,000.00	65,000	325,000	**549,346**	25,000					74,262						87,134				
4.745	2,800	**700**	Square Feet	Retaining Walls, Masonry, Partial	2045	to 35	26 to 30+	48.00	33,600	134,400	**67,169**																
4.800	2	**2**	Each	Signage, Property Idendification	2026	15 to 20	7	9,500.00	19,000	19,000	**61,903**								22,895								
4.830	1,260	**1,260**	Square Yards	Tennis Courts, Color Coat	2020	4 to 6	1	7.50	9,450	9,450	**87,391**		9,705							11,695					13,361		
4.840	430	**430**	Linear Feet	Tennis Courts, Fence	2022	to 25	3	45.00	19,350	19,350	**61,759**				20,960												
4.860	1,260	**1,260**	Square Yards	Tennis Courts, Surface Replacement	2022	to 25	3	42.00	52,920	52,920	**168,905**				57,323												
				Clubhouse Elements																							
5.202	300	**300**	Square Feet	Balcony, Wood, Total Replacement	2039	20 to 25	20	32.00	9,600	9,600	**16,356**																
5.450	2	**2**	Each	HVAC Equipment, Split Systems	2038	to 20	19	6,000.00	12,000	12,000	**19,908**																
5.500	1	**1**	Allowance	Interior Renovations (Finishes, Furnishings and Kitchen)	2038	to 20	19	25,000.00	25,000	25,000	**41,474**																
5.513	2	**2**	Each	Rest Rooms, Renovations	2019	to 25	0	15,000.00	30,000	30,000	**88,396**	30,000															
5.600	10	**10**	Squares	Roof, Modified Bitumen	2026	15 to 20	7	1,250.00	12,500	12,500	**39,395**								15,063								
5.800	1	**1**	Allowance	Windows and Doors	2043	to 35	24	21,500.00	21,500	21,500	**40,750**																
				Pool Elements																							
6.200	3,800	**3,800**	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2025	8 to 12	6	2.50	9,500	9,500	**47,620**							11,147									
6.400	300	**300**	Linear Feet	Fence, Aluminum	2037	to 25	18	60.00	18,000	18,000	**29,076**																
6.600	2	**1**	Allowance	Mechanical Equipment, Phased	2023	to 15	4 to 11	8,000.00	8,000	16,000	**48,119**					8,900							10,724				
6.800	1,300	**1,300**	Square Feet	Pool Finish, Plaster Replacement and Tile Repairs	2021	8 to 10	2	17.50	22,750	22,750	**99,169**			23,995								29,695					
6.900	1,300	**1,300**	Square Feet	Structure, Total Replacement	2037	to 60	18	165.00	214,500	214,500	**346,494**																
				Garage Elements																							
7.100	10	**10**	Squares	Roofs, EPDM, Common Property Garages	2028	15 to 20	9	1,200.00	12,000	12,000	**38,610**										15,252						
				Anticipated Expenditures, By Year							**$5,090,925**	78,000	348,705	202,761	188,434	73,900	84,262	42,827	65,937	46,346	34,316	47,969	97,858	493,715	112,333	0	34,626

Common Property

RESERVE EXPENDITURES

Years 2035 to 2049

Greensboro Condominium Owners Association
St. Louis Park, Minnesota

Line Item	Total Quantity	Per Phase Quantity	Units	Reserve Component Inventory	Estimated 1st Year of Event	Life Analysis, Years Useful	Life Analysis, Years Remaining	Costs, $ Unit (2019)	Per Phase (2019)	Total (2019)	30-Year Total (Inflated)	16 2035	17 2036	18 2037	19 2038	20 2039	21 2040	22 2041	23 2042	24 2043	25 2044	26 2045	27 2046	28 2047	29 2048	30 2049
				Property Site Elements																						
4.020	16,585	**16,585**	Square Yards	Asphalt Pavement, Crack Repair, Patch and Seal Coat	2022	3 to 5	3	1.40	23,219	23,219	**216,797**				38,520				42,851				47,670			
4.040	16,585	**16,585**	Square Yards	Asphalt Pavement, Mill and Overlay	2031	15 to 20	12	20.50	339,993	339,993	**468,074**															
4.045	16,600	**16,600**	Square Yards	Asphalt Pavement, Total Replacement, Partial	2049	15 to 20	30	32.00	531,200	531,200	**1,181,330**															1,181,330
4.100	10	**10**	Each	Catch Basins and Storm Draiange, Inspections and Capital Repairs	2031	15 to 20	12	1,250.00	12,500	12,500	**17,209**															
4.110	2,100	**175**	Linear Feet	Concrete Curbs and Gutters, Partial	2031	to 65	12 to 30+	35.00	6,125	73,500	**32,770**						10,717									13,621
4.140	3	**1**	Allowance	Concrete Sidewalks and Steps, Near Term Modifications	2020	to 65	1 to 3	varies	varies	170,000	**170,000**															
4.142	28,000	**1,000**	Square Feet	Concrete Sidewalks and Steps, Partial (Subsequent)	2028	to 65	9 to 30+	15.00	15,000	420,000	**151,790**		23,593				26,246				29,198				32,481	
4.500	4	**1**	Allowance	Landscape, Renovations, Near Term Proposed, Phased	2019	n/a	0 to 3	varies	varies	493,000	**516,000**															
4.501	1	**1**	Allowance	Landscape, Partial Replacements (Subsequent)	2027	to 5	8	28,000.00	28,000	28,000	**230,183**			45,230					51,675					59,038		
4.560	40	**10**	Each	Light Poles and Fixtures, Phased	2025	to 30	6 to 27	2,700.00	27,000	108,000	**171,290**					46,002							55,433			
4.600	1	**1**	Each	Maintenance Cart	2021	6 to 8	2	14,000.00	14,000	14,000	**83,642**			22,615								27,987				
4.650	5	**1**	Allowance	Pipes, Subsurface Utilities, Main Lines, Partial Replacements (2019 Budgeted)	2019	to 80+	0 to 24	65,000.00	65,000	325,000	**549,346**		102,238						119,959						140,753	
4.745	2,800	**700**	Square Feet	Retaining Walls, Masonry, Partial	2045	to 35	26 to 30+	48.00	33,600	134,400	**67,169**											67,169				
4.800	2	**2**	Each	Signage, Property Idendification	2026	15 to 20	7	9,500.00	19,000	19,000	**61,903**												39,008			
4.830	1,260	**1,260**	Square Yards	Tennis Courts, Color Coat	2020	4 to 6	1	7.50	9,450	9,450	**87,391**			15,265					17,440					19,925		
4.840	430	**430**	Linear Feet	Tennis Courts, Fence	2022	to 25	3	45.00	19,350	19,350	**61,759**													40,799		
4.860	1,260	**1,260**	Square Yards	Tennis Courts, Surface Replacement	2022	to 25	3	42.00	52,920	52,920	**168,905**													111,582		
				Clubhouse Elements																						
5.202	300	**300**	Square Feet	Balcony, Wood, Total Replacement	2039	20 to 25	20	32.00	9,600	9,600	**16,356**					16,356										
5.450	2	**2**	Each	HVAC Equipment, Split Systems	2038	to 20	19	6,000.00	12,000	12,000	**19,908**				19,908											
5.500	1	**1**	Allowance	Interior Renovations (Finishes, Furnishings and Kitchen)	2038	to 20	19	25,000.00	25,000	25,000	**41,474**				41,474											
5.513	2	**2**	Each	Rest Rooms, Renovations	2019	to 25	0	15,000.00	30,000	30,000	**88,396**										58,396					
5.600	10	**10**	Squares	Roof, Modified Bitumen	2026	15 to 20	7	1,250.00	12,500	12,500	**39,395**										24,332					
5.800	1	**1**	Allowance	Windows and Doors	2043	to 35	24	21,500.00	21,500	21,500	**40,750**									40,750						
				Pool Elements																						
6.200	3,800	**3,800**	Square Feet	Concrete Deck, Inspections, Partial Replacements and Repairs	2025	8 to 12	6	2.50	9,500	9,500	**47,620**			15,346												21,127
6.400	300	**300**	Linear Feet	Fence, Aluminum	2037	to 25	18	60.00	18,000	18,000	**29,076**			29,076												
6.600	2	**1**	Allowance	Mechanical Equipment, Phased	2023	to 15	4 to 11	8,000.00	8,000	16,000	**48,119**			12,923							15,572					
6.800	1,300	**1,300**	Square Feet	Pool Finish, Plaster Replacement and Tile Repairs	2021	8 to 10	2	17.50	22,750	22,750	**99,169**											45,479				
6.900	1,300	**1,300**	Square Feet	Structure, Total Replacement	2037	to 60	18	165.00	214,500	214,500	**346,494**			346,494												
				Garage Elements																						
7.100	10	**10**	Squares	Roofs, EPDM, Common Property Garages	2028	15 to 20	9	1,200.00	12,000	12,000	**38,610**										23,358					
				Anticipated Expenditures, By Year							**$5,090,925**	0	125,831	486,949	99,902	62,358	36,963	0	231,925	40,750	150,856	140,635	142,111	231,344	173,234	1,216,078

RESERVE FUNDING PLAN

Common

CASH FLOW ANALYSIS

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Individual Reserve Budgets & Cash Flows for the Next 30 Years

		FY2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	Reserves at Beginning of Year (Note 1)	197,145	198,864	56,310	58,517	75,210	110,878	139,627	213,678	268,808	347,859	443,614	530,556	572,092	218,642	247,437	393,741
	Total Recommended Reserve Contributions (Note 2)	**78,600**	**204,000**	**204,000**	**204,000**	**108,000**	**110,900**	**113,900**	**117,000**	**120,200**	**123,400**	**126,700**	**130,100**	**133,600**	**137,200**	**140,900**	**144,700**
Plus	**Estimated Interest Earned, During Year (Note 3)**	1,119	2,151	968	1,127	1,568	2,111	2,978	4,067	5,197	6,671	8,211	9,294	6,665	3,928	5,404	7,629
Less	**Anticipated Expenditures, By Year**	(78,000)	(348,705)	(202,761)	(188,434)	(73,900)	(84,262)	(42,827)	(65,937)	(46,346)	(34,316)	(47,969)	(97,858)	(493,715)	(112,333)	0	(34,626)
	Anticipated Reserves at Year End	$198,864	$56,310 **(NOTE 5)**	$58,517 **(NOTE 5)**	$75,210	$110,878	$139,627	$213,678	$268,808	$347,859	$443,614	$530,556	$572,092	$218,642	$247,437	$393,741	$511,444

(continued)

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

		2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049
	Reserves at Beginning of Year	511,444	670,002	708,389	387,375	455,477	566,936	710,439	898,298	860,194	1,019,083	1,074,674	1,146,661	1,223,628	1,217,358	1,275,132
	Total Recommended Reserve Contributions	**148,600**	**152,600**	**156,700**	**160,900**	**165,200**	**169,700**	**174,300**	**179,000**	**183,800**	**188,800**	**193,900**	**199,100**	**204,500**	**210,000**	**215,700**
Plus	**Estimated Interest Earned, During Year**	9,958	11,618	9,235	7,104	8,617	10,766	13,559	14,821	15,839	17,647	18,722	19,978	20,574	21,008	13,174
Less	**Anticipated Expenditures, By Year**	0	(125,831)	(486,949)	(99,902)	(62,358)	(36,963)	0	(231,925)	(40,750)	(150,856)	(140,635)	(142,111)	(231,344)	(173,234)	(1,216,078)
	Anticipated Reserves at Year End	$670,002	$708,389	$387,375	$455,477	$566,936	$710,439	$898,298	$860,194	$1,019,083	$1,074,674	$1,146,661	$1,223,628	$1,217,358	$1,275,132	$287,928 **(NOTE 4&5)**

Explanatory Notes:

1) Year 2019 starting reserves are as of August 31, 2019; FY2019 starts January 31, 2019 and ends December 31, 2019.

2) Reserve Contributions for 2019 are the remaining budgeted 4 months; 2020 is the first year of recommended contributions.

3) 1.7% is the estimated annual rate of return on invested reserves; 2019 is a partial year of interest earned.

4) Accumulated year 2049 ending reserves consider the age, size, overall condition and complexity of the property.

5) Threshold Funding Years (reserve balance at critical point).

*Refer to the Reserve Expenditures pages for the full list of reserve elements

Common Property

FIVE-YEAR OUTLOOK

Greensboro Condominium Owners Association

St. Louis Park, Minnesota

Line Item	Reserve Component Inventory	RUL = 0 FY2019	1 2020	2 2021	3 2022	4 2023	5 2024
	Property Site Elements						
4.020	Asphalt Pavement, Crack Repair, Patch and Seal Coat				25,151		
4.140	Concrete Sidewalks and Steps, Near Term Modifications		75,000	50,000	20,000	15,000	10,000
4.500	Landscape, Renovations, Near Term Proposed, Phased	23,000	264,000	114,000	65,000	50,000	
4.600	Maintenance Cart			14,766			
4.650	Pipes, Subsurface Utilities, Main Lines, Partial Replacements (2019 Budgeted)	25,000					74,262
4.830	Tennis Courts, Color Coat		9,705				
4.840	Tennis Courts, Fence				20,960		
4.860	Tennis Courts, Surface Replacement				57,323		
	Clubhouse Elements						
5.513	Rest Rooms, Renovations	30,000					
	Pool Elements						
6.600	Mechanical Equipment, Phased					8,900	
6.800	Pool Finish, Plaster Replacement and Tile Repairs			23,995			
	Anticipated Expenditures, By Year	78,000	348,705	202,761	188,434	73,900	84,262

4. RESERVE COMPONENT DETAIL

The Reserve Component Detail of this *Reserve Study* includes enhanced solutions and procedures for select significant components. This section describes the Reserve Components, documents specific problems and condition assessments, 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*.

Condominium Building

Exterior Building Elements

Condominium style building exterior front elevation view

Condominium style building exterior side elevation view

Skylights

Line Item: 1.580

Quantity: 16 each located at the common area 3rd floor hallways

History: Varied ages with a limited portion being replaced in approximately 2010

Condition: Fair overall with areas of sealant failures

Common domed skylight

Sealant failure at Building 7414 skylight

Useful Life: Up to 20 years

Component Detail Notes: Skylights have considerably shorter lives when compared to windows and doors of similar construction due to an increased exposure to weather elements. Snow drifts and wind driven rains cause excessive wear to the seals and frames. Failed seals or glass are common occurrences as the skylights age and approach the end of their useful lives.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We assume a portion of the skylights may require replacement in coordination with replacement of the roofs. Therefore, we include for a phased replacement.

Walls, Siding, Fiber Cement

Line Items: 1.760 and 1.762

Quantity: Approximately 27,000 square feet of lap style fiber cement siding

History and Condition: Installed in 2012. Management and the Board inform us of recent issues at the fiber cement siding relating primarily to the installation method and flashing at the window perimeters and trim. We reviewed the inspections and recommendations conducted by *Encompass Engineers* dated June 14, 2019. We agree with recommendations on sealant inspections and replacements in the near term on an as-needed basis until window replacement events and siding flashing remediation efforts are conducted. Updates of this Reserve Study will consider possible changes in the scope and times of component replacements.

The original finish at the lap style siding is good overall condition with respect to the age, and we do not anticipate the need for near term paint finishes based on the current observed condition.

Fiber cement siding and window trim overview

Fiber cement siding overview

Trim deterioration due to water infiltration

Trim deterioration due to water infiltration

Trim deterioration at window

Loose fasteners

Useful Life: With the benefit of periodic maintenance, applications of this type of material can have a useful life of up to 50 years. This useful life is based on a high

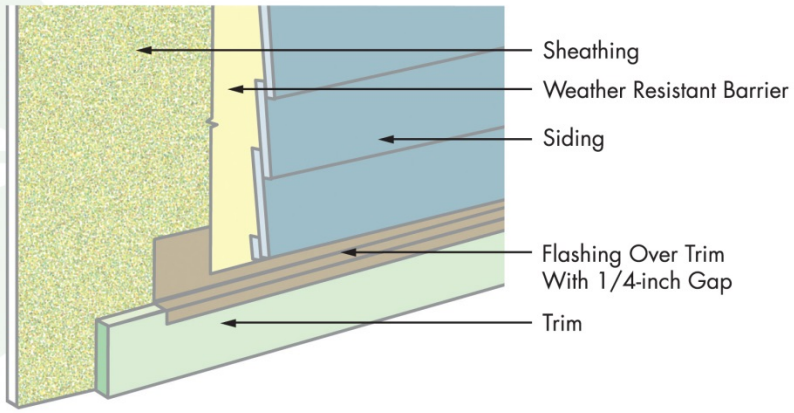
grade pre-finish applied in the factory which can typically last up to 15 years. This useful life is also dependent upon paint applications and partial replacements up to every 8- to 10-years.

Component Detail Notes: Fiber cement siding is made from a combination of cement, sand and cellulose fiber. Manufacturing of the siding utilizes a steam curing process to increase strength and dimensional stability. The siding is also manufactured in layers forming a sheet of desired thickness. A wood grain imprint is typically applied to the exposed surface. Fiber cement siding offers many advantages over other types of siding. These advantages include:

- Capable of withstanding salt spray and ultraviolet rays
- Dimensional stability (will not buckle or warp as easily as other materials)
- Paint applications last longer compared to wood siding
- Resistant to insects, birds and fire

The following diagram details a typical fiber cement siding system at the interface with other building components although it may not reflect the actual configuration at Greensboro:

FIBER CEMENT SIDING DETAIL



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Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Based on the reported issues and the likely need for removal and re-flashing at the exterior windows and trim replacements, we include an allowance of $85,000 plus inflation from 2021 to 2022 to remediate this installation

defect. The cost of these repairs will be highly dependent on the actual flashing details discovered from an invasive investigation of the exterior façade. Updates of this Reserve Study will consider possible changes in the scope and times of component replacements.

We anticipate the following during each paint application cycle:

- Paint finish application
- Replacement of 800 square feet, or up to three percent (3%), of the siding and trim (The exact amount of material in need of replacement will depend on the actual future conditions and desired appearance. We recommend replacement wherever cracks, delamination and deterioration impair the ability of the material to prevent water infiltration.)
- Replacement of the sealants as needed

Walls, Masonry

Line Item: 1.800 and 1.810

Quantity: Approximately 37,000 square feet of the exterior walls

History: The Board informs us of isolated ongoing repointing masonry events and repairs conducted though the operating budget. Management and the Board informs us of a flashing construction defect at the top concrete sill at the transition to the fiber cement siding. The Association has recently conducted partial replacements of the through-wall flashing at these areas at the two- and three-bedroom buildings to date. Based on previous repair costs conducted, we estimate for the phased replacement of the flashing at these concrete sill areas from 2020 through 2023. Updates of this Reserve Study will consider possible changes in the scope and times of component replacements.

Condition: Fair overall with the following evident:

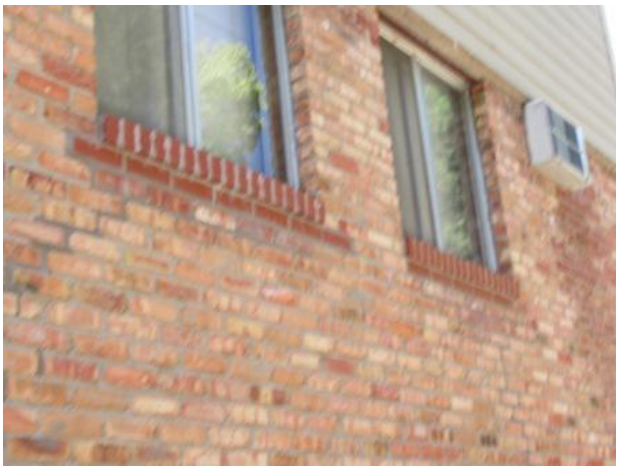
- Minimal previous repairs evident
- Systemic efflorescence is not visible
- Lintels exhibit rust corrosion and isolated deflection and mortar deterioration
- Masonry exhibits cracks primarily near the lintels and sills
- Masonry exhibits spalls
- Mortar deterioration is evident
- Weeps and flashing at lintels are not visible

Masonry wall overview

Steel lintel at window with edge corrosion stains

Window sealant in good condition

Lintel support corrosion and mortar deterioration



Replaced window rowlock sills

Mortar deterioration at lintel support

Mortar step cracks

Lintel finish deterioration and corrosion

Masonry spalls

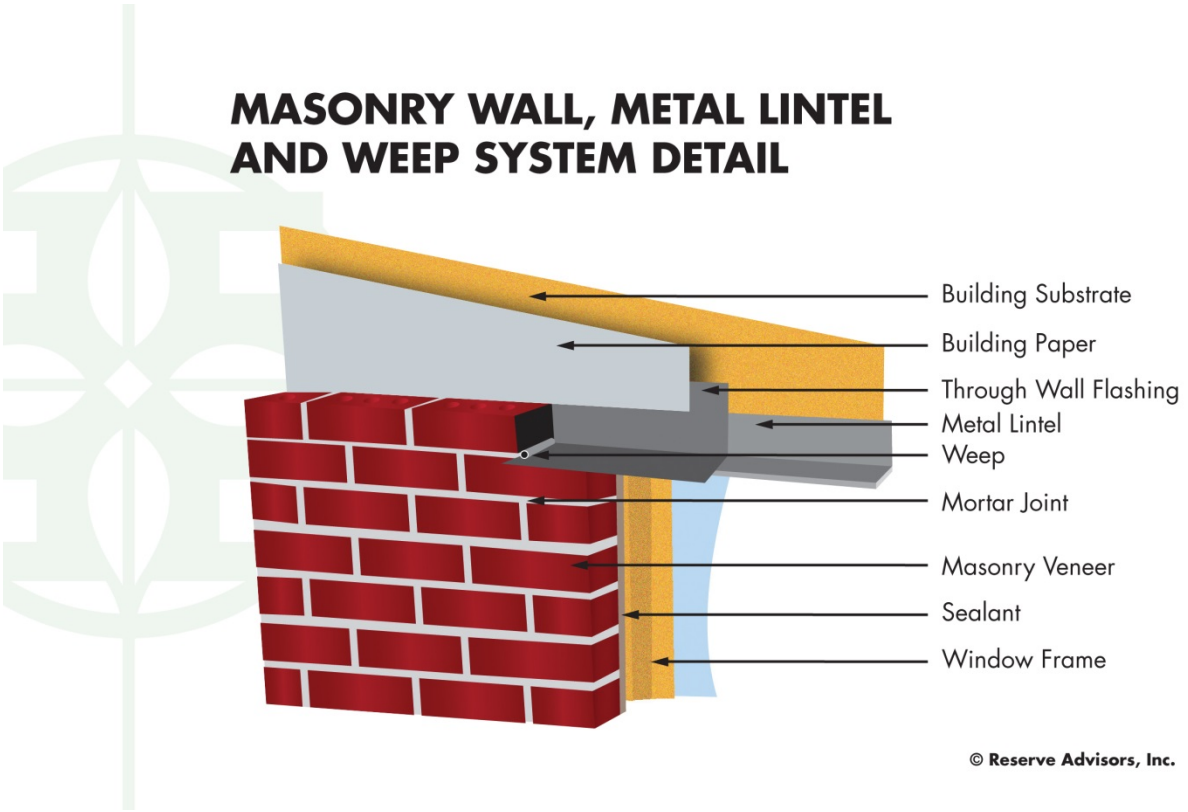
Window rowlock sill deterioration

Replaced masonry portion at wall base

Masonry cracks

Useful Life: We advise the Association continues to fund ongoing inspections, repointing events and isolated repairs though the operating budget to forestall deterioration. We recommend the Association funds for lintel replacement and re-flashing and sill repairs through reserves. These elements have useful lives of up to and beyond 50 years.

Component Detail Notes: We recommend an inspection, repair and replacement of the steel lintels. Lintels are structural supports or beams above windows and doors. Fatigued lintels also allow the direct penetration of storm water into the wall assembly. These inspections should locate areas of rust on the lintels and cracks or other structural damage to the walls around lintels. The contractor should remove any areas of rust, prime and paint these lintels. Paint protects and maximizes the remaining useful life of the lintels and therefore the exterior wall systems. Structural damage can eventually lead to costly replacements of lintels and surrounding wall systems. The following diagram details a typical metal lintel and weep system and may not reflect the actual configuration at Greensboro:



Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost includes the following activities:

- Complete inspection of the masonry
- Replacement of the masonry adjacent to lintel and/or sill repairs
- We recommend the Association anticipates replacement/flashing installation at up to fifty-five percent (55%) of the metal lintels and

masonry sills (rowlocks) based on the exposure of the lower and outer wall openings. We do not anticipate the need for large aggregate replacement events at the lintels adjacent to the concrete sills and the inset exterior walls at the balcony and patio areas due to limited exposure to weather

- Paint applications to the metal lintels (approximately 1,400 linear feet)

Windows and Doors

Line Item: 1.980

Quantity: Approximately 300 square feet of vinyl frame windows with steel guards at the common laundry rooms and boiler rooms. The Association also maintains approximately 2,300 square feet of commercial aluminum frame windows and doors at the entrances and stairwells.

History: Replaced in 2012

Condition: Good overall with no visible deterioration evident

Aluminum frame storefront window and door system (Long Lived)

Aluminum frame entry door (Long Lived)

Common vinyl frame window with steel guard at laundry room

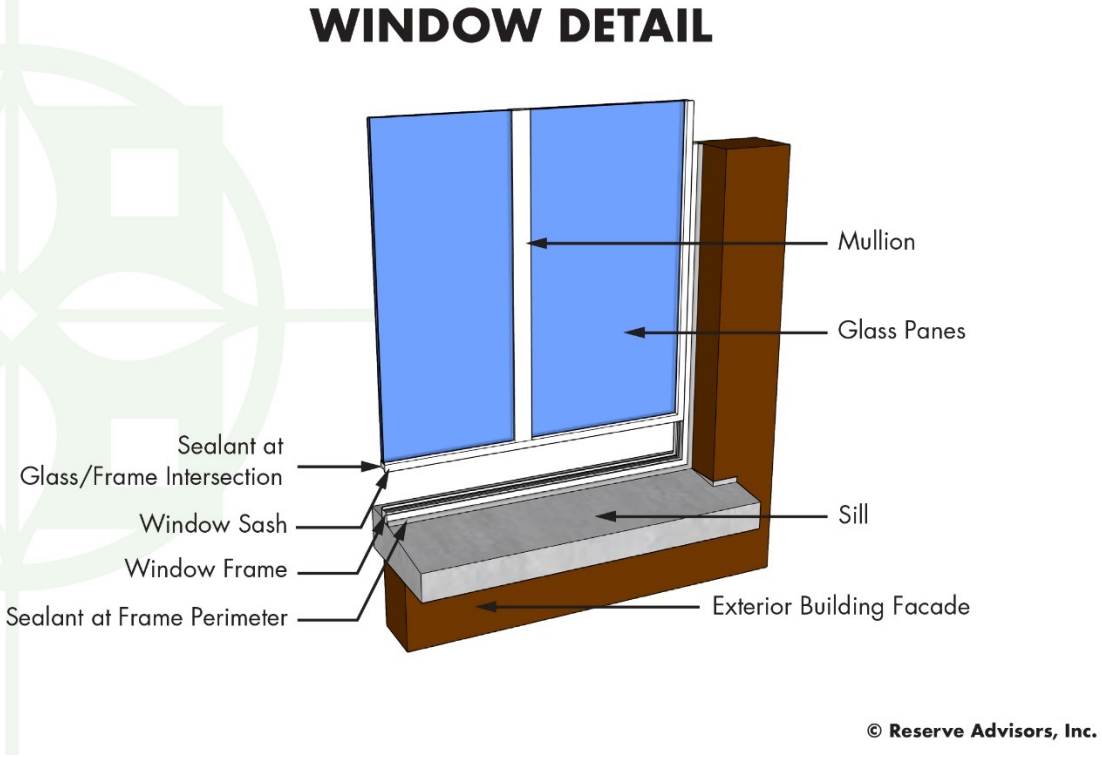
Typical vinyl window frame

Useful Life: Up to 35 years for the vinyl frame windows (We anticipate a useful life of up to 45 year for the aluminum frame components and therefore do not anticipate replacement over the next 30 years)

Component Detail Notes: Construction includes the following:

- Vinyl frames
- Dual pane glass
- Sliding windows with steel guards

The following schematic depicts the typical components of a window system although it may not reflect the actual configuration at Greensboro:



Properly designed window assemblies anticipate the penetration of some storm water beyond the gaskets. This infiltrated storm water collects in an internal drainage system and drains, or exits, the frames through weep holes. These weep holes can become clogged with dirt or if a sealant is applied, resulting in trapped storm water. We recommend Greensboro periodically verify that weep holes are unobstructed as normal maintenance. However, as window frames, gaskets and sealants deteriorate, leaks into the interior can result. The windows will eventually need replacement or major capital repairs to prevent water infiltration and damage from wind driven rain.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Interior Building Elements

Floor Coverings, Carpet, Hallways and Stairwells

Line Item: 2.200

Quantity: Approximately 1,900 square yards at the hallways at stairwells (Contractor measurements will vary from the actual floor area due to standard roll lengths, patterns and installation waste.)

History: Approximately 11 years of age

Condition: Fair overall with frays, wear and stains evident

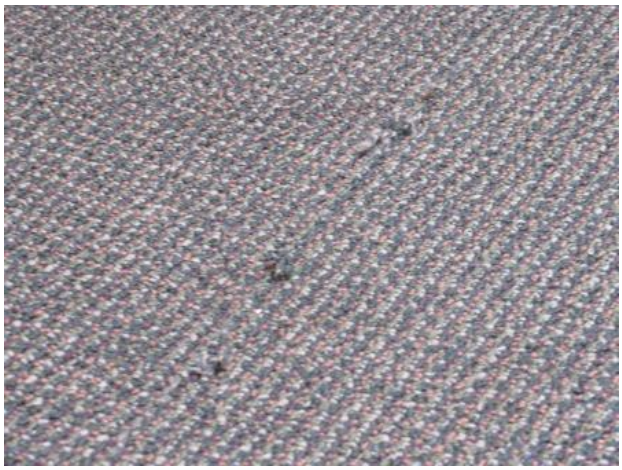
Stairwell carpet floor coverings

Hallway carpet floor coverings

Carpet wear and stains

Carpet stains

Carpet stains



Carpet ravels

Useful Life: 8- to 12-years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We recommend the Association coordinates replacement with paint finishes and wall covering replacement.

Laundry Room

Line Item: 2.540

History and Condition: Components are in good to fair overall condition at an unknown age

Laundry room overview

Vinyl flooring at laundry room

Useful Life: Renovation up to every 15 years

Component Detail Notes: Components of the laundry room, excluding the laundry equipment, include:

- Vinyl tile floor coverings
- Paint finishes on the walls and ceilings
- Light fixtures

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We defer this work based on the low priority expressed by the Board.

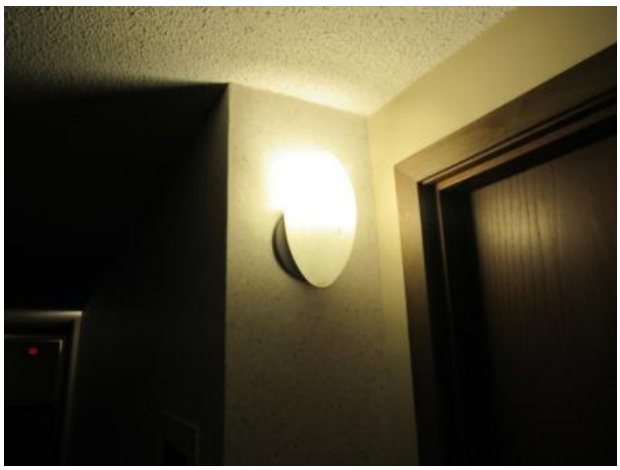
Light Fixtures, Hallways

Line Item: 2.560

Quantity: Approximately 248 interior wall and ceiling mounted light fixtures located throughout the hallways and stairwells

History: Approximately 11 years of age

Condition: Reported satisfactory



Wall mounted light fixture

Useful Life: Up to 30 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Paint Finishes, Hallways and Stairwells

Line Item: 2.800

Quantity: Approximately 23,000 square feet at a portion of the walls and the ceilings

History: Approximately 11 years of age

Condition: Fair overall with stains and cracks evident

Ceiling paint finishes overview

Ceiling finish deterioration

Previous ceiling crack repair

Peeling finish at ceiling

Ceiling stain near Unit 307 at Building 7414

Ceiling damage at stairwell

Useful Life: 8- to 12-years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We recommend the Association coordinates this work with replacement of the wall coverings and carpet. However, we defer the timing of replacement based on requests from the Board.

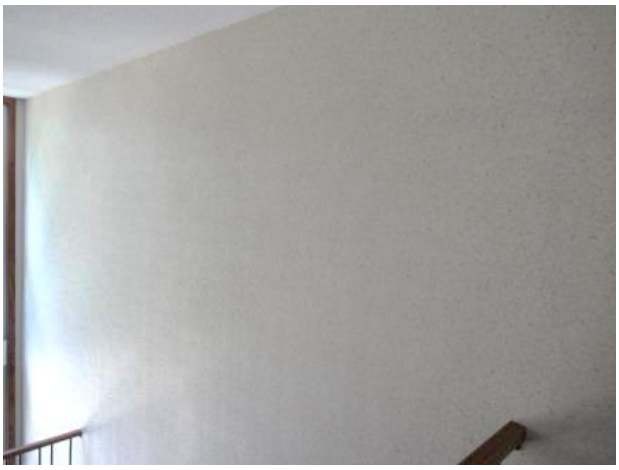
Wall Coverings, Hallways and Stairwells

Line Item: 2.980

Quantity: Approximately 37,000 square feet at the hallways and stairwells (Contractor measurements will vary from the actual area due to standard roll lengths, patterns and installation waste.)

History: Approximately 11 years of age

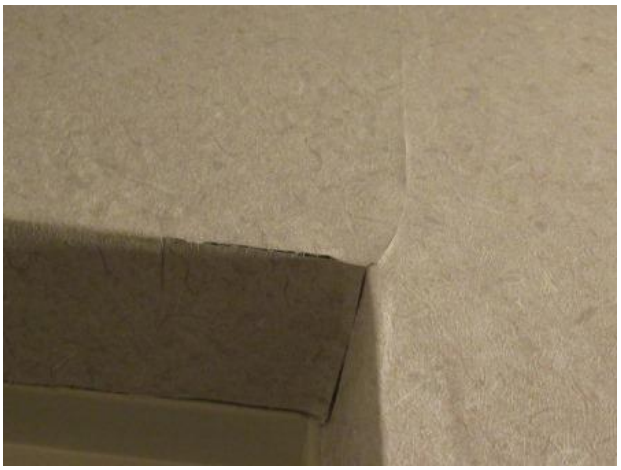
Condition: Fair overall with damage and peeling seams evident



Wallpaper overview

Peeling wallpaper seam

Peeling wallpaper seam



Peeling wallpaper seam

Useful Life: Up to 15 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We recommend the Association coordinates this near term work with carpet replacement and paint finishes. However, we defer the timing of replacement based on requests from the Board.

Building Services Elements

Boilers, Building Heat

Line Items: 3.105 through 3.108

Quantity, History and Condition:

- Building 7316 – Three *Triad* boilers, date to 1979, 300-MBH (thousand British Thermal Units per hour) each, reported in fair operational condition
- Building 7318 – Three *Triad* boilers, replaced in 1994, 300-MBH each, reported in fair to poor operational condition
- Building 7412 – Three *Triad* boilers (4th boiler is reportedly not in operation), date to 1979, 300-MBH each, reported in poor operational condition
- Building 7414 – Three *Slant-Fin* boilers, replaced in 2018, 300-MBH each, reported in good operational condition

Building heat boilers at Building 7316

Building heat boilers at Building 7318

Building heat boilers at Building 7412

Building heat boilers at Building 7414

Useful Life: 18- to 25-years (We recognize the useful live achieved on the original boiler systems, however the estimated useful life is based on modern equipment)

Component Detail Notes: The boilers have an efficiency of eighty percent (80%). The lack of replacement parts, increased efficiencies of new units, increased maintenance costs and corrosion of components will eventually justify complete replacement.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our estimate of cost includes an allowance for replacement of the controls and is provided by the Board.

Boilers, Domestic Hot Water

Line Items: 3.160 through 3.163

Quantity: One *RBI* 350-MBH gas-fired boiler for each building

History: Replaced from 2010 through 2012

Condition: Reported satisfactory without operational deficiencies

Domestic water boiler at Building 7316

Domestic water boiler at Building 7318

Domestic water boiler at Building 7412

Domestic water boiler at Building 7414

Useful Life: 15- to 20-years

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our estimate of cost includes an allowance for replacement of controls and the circulation pumps. Due to the low average MBH per unit, we anticipate a lower than expected useful life.

Electrical System

Line Item: 3.300

History: The buildings have isolated upgraded panels for the boilers and the remaining common equipment is primarily original to construction. The main panels and switchgear are manufactured by *Federal Pacific* which this equipment is obsolete and replacement parts and repairs can be costly in lieu of complete replacement. Management does not report any known safety issues or recent required repairs.

Condition: Reported satisfactory

Main electrical panel switchgear

Individual meters at common electrical banks

Useful Life: Up to and sometimes beyond 70 years

Component Detail Notes: We give a brief overview of electrical system components in the following sections of this narrative.

Primary Switchgear - The primary switchgear is located where the electric supply comes into the building. Switchgear can include associated controls, regulating, metering and protective devices, and is used for the transmission, distribution and conversion of electric power for use within the building. Switchgear components have a useful life of up to and sometimes beyond 70 years. Replacement is often determined by a desired upgrade of the entire electrical system.

Distribution Panel - The distribution panel is an electric switchboard or panel used to control, energize or turn off electricity in total or for individual circuits. The panel also distributes electricity to individual and controllable circuits. One or more distribution panels may exist and further distribute electricity to individual panel boards for each unit. The distribution panel is enclosed in a box and contains circuit breakers, fuses and switches. Distribution panels have a useful life of up to and sometimes beyond 70 years.

Circuit Protection - Once electricity is distributed throughout the building and is at a usable voltage level, the electricity is divided into circuits. Each circuit requires circuit protection. Circuit protection is necessary to prevent injury and fires, and minimize damage to electrical components and disturbances to the electrical system. Abnormalities in the circuit can include overloads, short circuits and surges. Circuit protection devices are commonly referred to as circuit breakers and fuses. For the protection of the circuits in the units and common areas, we recommend the use of only circuit breakers as they are safer than fuses. However, the use of fuses is common for equipment like emergency systems and individual items of equipment. Fuses with a low capacity rating can easily be replaced with fuses of a higher rating resulting in an unprotected, overloaded and unsafe circuit. The circuit protection panels have a useful life of up to and sometimes beyond 70 years.

Conductors - Conductors are the electrical wires that convey electricity to the units, light fixtures, receptacles and appliances. Conductors in typical high and low capacity circuits are copper, as is assumed the case at Greensboro. Copper conductors have an indefinite useful life.

Conductor Insulation and Conduit - Conductor insulation provides protection against the transfer of electricity. Conductor insulation can eventually become brittle and damaged from rodents or heat from many years of service. Conductor conduit is a pipe or tube used to enclose insulated electric wires to protect them from damage. Steel conductor conduit, although galvanized, will eventually rust if used in damp conditions. The useful life of conductor insulation and conduit is indeterminate.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We recommend the Association budget to replace up to fifty percent (50%) of the main switchgears, and distribution and circuit protection panels. Updates of this Reserve Study will consider possible changes in the scope and times of component replacements based on the conditions, including the need for replacement of the wires.

We recommend the Association conduct thermoscans of the distribution panels and circuit protection panels, and inspections of the transformers for any indications of arcing, burning or overheating on a regular basis, funded through the operating budget.

Verification of the integrity of all connection points minimizes the potential for arcing and fires.

Laundry Equipment

Line Item: 3.500

Quantity: 32 pieces of commercial grade coin operated clothes washers and dryers

History and Condition: Varied in age and Board anticipates near term phased replacement

Laundry equipment

Laundry equipment

Useful Life: Up to 10 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Life Safety System

Line Items: 3.555 and 3.560

Quantity: The life safety system at Greensboro includes the following components:

- Audio/visual fixtures
- Control panels
- Detectors
- Pull stations
- Wiring

History and Condition: The audio fixtures, pull stations, and three control panels appear to be primarily original. One control panel at Building 7414 has been updated, but also appears to be dated. Management and the Board anticipate near term upgrades are required at the system.

Life safety system control panel

Life safety system emergency devices

Life safety system control panel

Useful Life: Up to 25 years

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our costs include an allowance for an audio/visual fixture and detector in each unit. Changes in technology or building codes may make a replacement desirable prior to the end of the functional life. 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.

Light Fixtures, Emergency and Exit

Line Item: 3.580

Quantity: Approximately 40 fixtures

History: Replaced in 2012

Condition: Reported satisfactory

Exit signage and emergency light fixture

Useful Life: Up to 25 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Pipes

Line Items: 3.600 and 3.605

Quantity: We estimate the building utilizes approximately 340 common building heating pipes for the two-pipe system and 670 common domestic water, waste and vent pipes based on the layout and configuration of the building. The exact locations and conditions of the pipes were not ascertained due to the nature of their location and the non-invasive nature of our inspection. We comment on the respective quantities and conditions of the piping systems in the following sections of this narrative.

History and Condition:

- Building Heating– Primarily original and reported in satisfactory condition with no recent major repairs

- Domestic Water, Supply and Return – Primarily original and reported in satisfactory condition with no recent major repairs
- Sanitary Waste Disposal and Vent – Primarily original and reported in satisfactory condition with no recent major repairs

Component Detail Notes: The Association is responsible for maintenance and replacement of the piping systems arranged in vertical and horizontal segments. These pipes comprise the following:

- Building heating (including fin tube radiators)
- Domestic cold water
- Domestic hot water supply and return
- Vent plumbing fixtures
- Sanitary waste disposal

Building Heating - The building heating system at Greensboro utilizes a two-pipe system. The copper pipes have a useful life of up to and sometimes beyond 80 years.

Domestic Water - Copper piping is the predominant type of pipe used in new construction for domestic water piping. With low mineral content in the water, the useful life of copper domestic water pipes is up to and sometimes beyond 80 years. However, there is recent evidence that copper piping prematurely develops pinhole leaks. Studies have shown that changes in water treatment practices, recently required in response to U.S. Environmental Protection Agency regulations, are dramatically increasing the risk of pitting corrosion in many geographic locations. Utility companies are implementing higher chloride levels to prevent outbreaks of waterborne disease. These higher chloride levels can accelerate corrosion of copper pipes and indeterminately reduce their useful life.

In the event that numerous pinhole leaks develop or occur throughout the system of pipes, Greensboro should also consider “in-place” pipe restoration technology. This process includes drying, sandblasting away interior pipe occlusions and applying an epoxy lining to the interior surfaces of the pipes. Future updates of this study will consider the possibility of the pipe restoration process in lieu of pipe replacement at Greensboro. Restoration technology can extend the useful life of a pipe system thus avoiding a system pipe replacement.

Sanitary Waste Disposal and Vent - The cast iron pipes typically deteriorate from the inside out as a result of sewer gases, condensation and rust.

Valves - The piping systems include various valves. Identification of a typical useful life and remaining useful life for individual valves is difficult. Associations typically replace valves on an as needed basis in our experience.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost assumes replacement of all pipes located

within each wall opening, associated branch piping, fittings and minimal interior finishes. However, the cost does not include temporary housing for affected residents, pipes within the units or significant interior finishes.

The Association budgets an amount in the annual operating budget for minor pipe repairs and replacements. We recommend the Association continue to fund interim pipe replacements, prior to more aggregate replacements identified in the following paragraphs, from the operating budget. We also recommend the Association contract for an invasive investigation of the condition of the piping system prior to beginning more aggregate replacements, funded through the operating budget.

We recommend the Association budget the following expenditures:

- Building heating - We include expenditures to replace 15 riser sections beginning by 2024 with an increasing rate of replacement as the pipes age. Our estimate provides funds to replace approximately fifty percent (50%) of the riser sections during the next 30 years.
- Domestic water, waste and vent - We include expenditures to replace 30 riser sections beginning by 2024 with an increasing rate of replacement as the pipes age. Our estimate provides funds to replace approximately fifty percent (50%) of the riser sections during the next 30 years.

An invasive analysis of the piping systems will provide various replacement options. Replacement of the systems as an aggregate event will likely require the use of special assessments or loans to fund the replacements.

Although it is likely that the times of replacement and extent of repair costs may vary from the budgetary allowance, Greensboro could budget sufficient reserves for the beginning of these pipe replacements and have the opportunity to adjust its future reserves up or down to meet any changes to these budgetary estimates. Updates of this Reserve Study would incorporate changes to budgetary costs through a continued historical analysis of the rate of deterioration and actual pipe replacements to budget sufficient reserves.

We recommend the Association budget for replacement of the following items through the operating budget:

- Replacement of valves on an as-needed basis
- Minor pipe repairs and replacements
- invasive investigation of the condition of the piping system prior to beginning more aggregate replacements
- Rodding of waste pipes

Security Systems

Line Item: 3.820

Quantity: Each building utilizes an intercom panel and three fob access points

History: Installed in 2012 and history of minor component repairs

Condition: Reported satisfactory

Intercom panel

Security system access control point

Useful Life: Up to 15 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Storage Tanks, Domestic Hot Water

Line Items: 3.860 and 3.861

Quantity: Two 119-gallon insulated storage tanks per building

History: The four *Bock* tanks at Buildings 7316 and 7412 were replaced in 2015 and the two *Lochnivar* tanks at Buildings 7318 and 7414 were replaced in 2011

Condition: Reported satisfactory

Typical water tanks at Buildings 7316 and 7412

Typical water tanks at Buildings 7318 and 7414

Useful Life: Up to 25 years

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Water Softeners

Line Item: 3.960

Quantity: Two each per building

History: Estimated age of seven years

Condition: Reported satisfactory

Typical water softener

Useful Life: 15- to 20-years

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Property Site Elements

Concrete Steps

Line Item: 4.110

Quantity: Eight each

History: The Association anticipates a $60,000 expense in 2020 for replacement of the entry steps

Concrete steps

Useful Life: Up to 50 years although interim deterioration of areas is common

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Condominium Building Roof Elements

Roofs, EPDM

Line Item: 1.380

Quantity: Approximately 600 *squares*[1] of ethylene propylene diene monomer (EPDM) roofing at the four condominium style buildings

History and Condition: Replaced from 2000 to 2002. Based on review of the Association's recent roof inspection report conducted by *AMBE LTD* dated August 15, 2019, we agree with the conclusion with the history of leaks and observed condition that the roofs are due for near term replacement. Based on the current financial status of the roof reserves, we recommend the Association anticipates a phased replacement project with preventative maintenance repairs at any roofs to be deferred for replacement.

EPDM with stone ballast overview

Partition wall aluminum coping flashing

Displaced ballast at roof edge

Area experiencing poor drainage

[1] We quantify the roof area in squares where one square is equal to 100 square feet of surface area.

Minor coping flashing deflection

Displaced ballast and previous roof repairs

Lack of downspout drain cover

Area with evidence of poor drainge

Aluminum downspout and scupper

Downspout damage

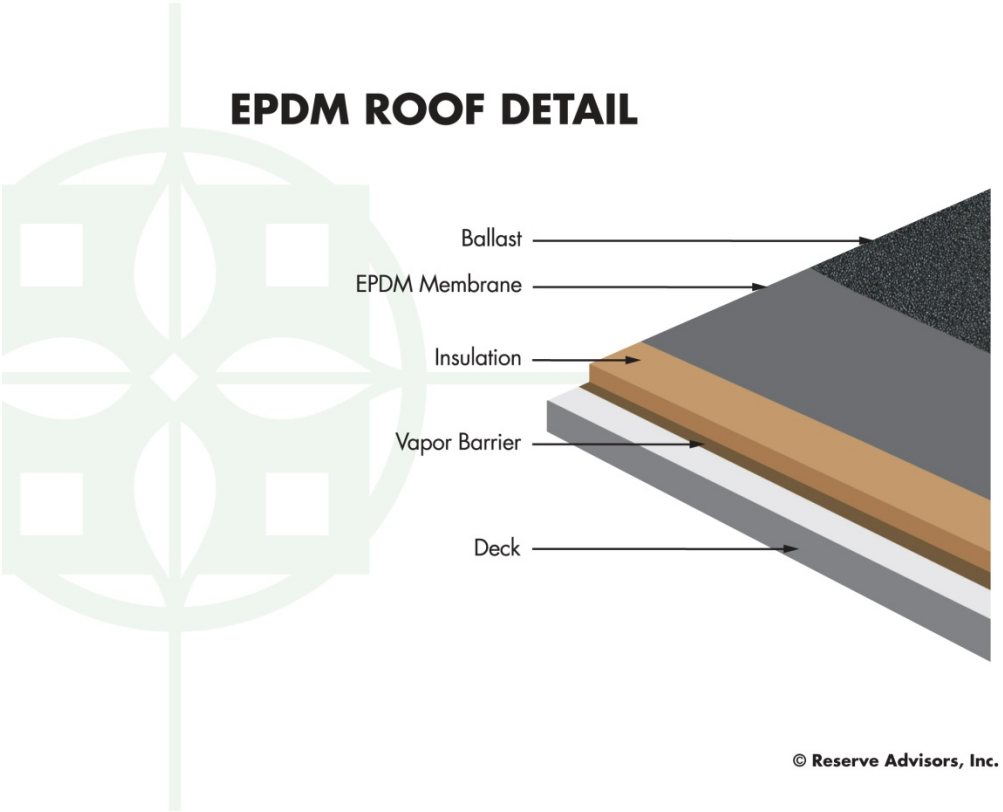
Useful Life: 15- to 20-years

Component Detail Notes: EPDM membrane roofing is a synthetic-rubber compound that provides outstanding physical performance properties and weathering characteristics. EPDM is a single-ply roof membrane which is used on flat and low-pitch roofs. Unlike built-up roofing systems, EPDM roofs require a less labor intensive installation.

Over time, exposure to ultraviolet light, heat and weather degrade the membrane. This degradation results in membrane damage from thermal expansion and contraction, adverse weather and pedestrian traffic. The aging process makes the membrane less pliable and more difficult to maintain. Ponding water on the roof can increase the effects of ultraviolet light on the membrane and contaminants in ponded water can cause the membrane to deteriorate prematurely.

Contractors can install a new EPDM roof in one of two ways: *tear-off* or an *overlay*. An *overlay* is the application of a new roof membrane over an existing roof. This method, although initially more economical, often covers up problems with the deck, flashing and saturated insulation. The *tear-off* method of replacement includes removal of the existing roofing, flashings and insulation, and installation of a new roofing system.

The following detail depicts a typical EPDM roof although it may not reflect the actual configuration at Greensboro:



Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. The estimate of cost is based on information provided

by Management from the preliminary estimates noted in the *AMBE LTD* roof report dated August 15, 2019. Our estimates include for replacement of the downspouts, scuppers, and partial replacement of the underlying insulation as needed.

Three-Bedroom Building

Exterior Building Elements

Three-story building exterior front elevation view

Three-story building exterior rear elevation view

Three-story building exterior side elevation view

Light Fixtures

Line Item: 1.261

Quantity: 116 exterior wall mounted light fixtures accent the unit entrances

History: 12 years of age

Condition: Good overall with no visible deterioration evident

Wall mounted light fixture

Useful Life: Up to 25 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Walls, Siding, Fiber Cement

Line Items: 1.766 and 1.761

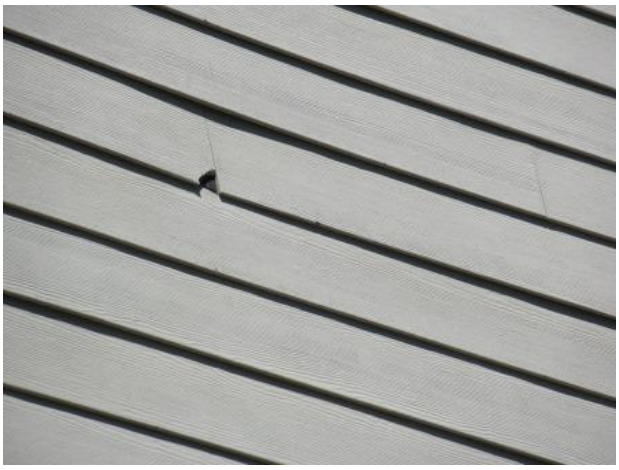
Quantity: Approximately 16,500 square feet of lap style fiber cement siding and approximately 9,500 square feet of panel style fiber cement siding.

History and Condition: Installed in 2012. Management and the Board inform us of recent issues at the fiber cement siding relating primarily to the installation method and flashing at the window perimeters and trim. We reviewed the inspections and recommendations conducted by *Encompass Engineers* dated June 14, 2019. We agree with recommendations on sealant inspections and replacements in the near term on an as-needed basis until window replacement events and siding flashing remediation efforts are conducted. Updates of this Reserve Study will consider possible changes in the scope and times of component replacements.

The original finish at the lap style siding is good overall condition with respect to the age, and we do not anticipate the need for near term paint finishes based on the current observed condition. However, we do anticipate the need for replacement at the panel style siding due to finish fading and reported water intrusion issues.

Deflection at siding panels

Trim deterioration at window



Siding damage at butt joint

Fiber cement panel style siding

Current flashing repair at masonry top sill and siding base

Siding to trim interface sealant failure

Siding panel finish fade

Siding panel finish stains

Useful Life: With the benefit of periodic maintenance, applications of this type of material can have a useful life of up to 50 years. This useful life is based on a high grade pre-finish applied in the factory which can typically last up to 15 years. This useful life is also dependent upon paint applications and partial replacements up to every 8- to 10-years.

Component Detail Notes: The previous narrative "**Walls, Fiber Cement Siding**" in the ***Condominium Building Elements*** section details our recommendations concerning fiber cement siding.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Based information provided by the Board, we include for repairs at up to four units beginning by 2020 through 2033. The cost of these repairs will be highly dependent on the actual flashing details discovered from an invasive investigation of the exterior façade. We opine this timeline is too extended in order to correct water infiltration defects known at this time. Updates of this Reserve Study will consider possible changes in the scope and times of component replacements.

We anticipate the following during each paint application cycle:

- Paint finish application
- Replacement of 780 square feet, or up to three percent (3%), of the siding and trim (The exact amount of material in need of replacement will depend on the actual future conditions and desired appearance. We recommend replacement wherever cracks, delamination and deterioration impair the ability of the material to prevent water infiltration.)
- Replacement of the sealants as needed

Walls, Masonry

Line Items: 1.805 and 1.811

Quantity: Approximately 23,500 square feet of the exterior walls

History: The Board informs us of isolated ongoing repointing masonry events and repairs conducted though the operating budget. Management and the Board informs us of a flashing construction defect at the top concrete sill at the transition to the fiber cement siding. The Association has recently conducted partial replacements of the through-wall flashing at approximately 370 linear feet at the three-bedroom buildings from 2018 to 2019. Based on previous repair costs conducted, we estimate for the phased replacement of the flashing at these concrete sill areas from 2020 through 2022. Updates of this Reserve Study will consider possible changes in the scope and times of component replacements.

Management and the Board also inform us of a current repair event located at the steel lintels above the garages adjacent to the 28 wood balconies. The steel and masonry show significant deterioration and require near term remediation to avoid structural issues and continued deterioration. The Association removed the balconies and repaired the masonry, flashing and lintels at two locations in 2017 and six location in 2018. The Association plans to conduct similar repairs at the remaining 20 balconies from 2019 through 2022. The estimate of cost and timing of remediation is based on information provided by Management and the Board.

At the request of the Board, we omit future expenditures for capital repairs at the masonry including lintel and sill replacements as these expenses are planned to be conducted on an as-needed basis through the operating budget. We do not agree with this classification based on the observed condition and age of the steel lintels and masonry rowlocks.

Condition: Fair overall with the following evident:

- Repairs evident at a limited portion of the masonry sills and steel window and patio door lintels
- Systemic efflorescence is not visible
- Lintels exhibit rust corrosion and isolated deflection and mortar deterioration
- Masonry exhibits cracks primarily near the lintels and sills
- Masonry exhibits spalls and cracks
- Mortar deterioration is evident
- Weeps and flashing at lintels are not visible (Isolated lintels currently utilize weeps)

Previous masonry mortar repairs

Masonry step crack at garage lintel support

Masonry deterioration at wall base

Window sealant deterioration

Masonry deterioration at top sill

Masonry rowlock sill deterioration

Previous repair at window rowlock sill

Previous chimney mortar repair

Step crack at garage lintel support

Masonry deterioration at chimney

Previous large crack repair

Masonry deterioration

Masonry deterioration adjacent to balcony

Masonry deterioration and support angle corrosion at balcony

Recently repaired masonry and support angle with flashing and weeps

Steel lintel at window

Useful Life: We advise the Association continues to fund ongoing inspections, repointing events and isolated repairs though the operating budget to forestall deterioration. We recommend the Association funds for lintel replacement and re-flashing and sill repairs through reserves. These elements have useful lives of up to and beyond 50 years.

Component Detail Notes: The previous narrative "**Walls, Masonry**" in the ***Condominium Building Elements*** section details our recommendations concerning masonry lintel and sill repairs.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost includes the following activities:

- Complete inspection of the masonry
- Replacement of the masonry adjacent to lintel and/or sill repairs

- We recommend replacement/flashing installation at 1,925 linear feet, or approximately sixty-five percent (65%) of the metal lintels and masonry sills (rowlocks) based on the exposure of the first floor windows and doors at the building rears. We do not anticipate the need for large aggregate replacement events at the lintels adjacent to the concrete sills and the inset exterior walls at the rear unit entry doors.
- Paint applications to the metal lintels (approximately 2,900 linear feet)

Building Services Elements

Water Softeners

Line Item: 3.960

Quantity: Seven each

History: Varied, unknown ages

Condition: Reported satisfactory

Typical common water softener

Useful Life: Up to 15 years

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Failure as a single event is unlikely. Therefore, we recommend the Association anticipate a phased replacement of the water softeners.

Three-Bedroom Roof Elements

Roofs, EPDM

Line Item: 1.400

Quantity: Approximately 435 squares at the seven three-bedroom buildings

History and Condition: Replaced from 2000 to 2002. Based on review of the Association's recent roof inspection report conducted by *AMBE LTD* dated August 15, 2019, we agree with the conclusion with the history of leaks and observed condition that the roofs are due for near term replacement. Based on the current financial status of the roof reserves, we recommend the Association anticipates a phased replacement project with preventative maintenance repairs at any roofs to be deferred for replacement.

EPDM with stone ballast overview

EPDM with stone ballast overview

Membrane tenting at parapet wall

Membrane tenting at parapet wall

Excessive sealant at chimney flashing

Previous membrane repair

Membrane tenting at parapet wall

Aluminum gutter and drainage scupper

Useful Life: 15- to 20-years

Component Detail Notes: The previous narrative "***Roofs, EPDM***" in the **Condominium Roof Elements** section details our recommendations concerning roof replacements.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. The estimate of cost is based on information provided by Management from the preliminary estimates noted in the *AMBE LTD* roof report dated August 15, 2019. Our estimates include for replacement of the downspouts, scuppers, and partial replacement of the underlying insulation as needed.

Two-Bedroom Building

Exterior Building Elements

Two-Bedroom Building exterior rear elevation view

Two-Bedroom Building exterior front elevation view

Two-Bedroom Building exterior side elevation view

Light Fixtures

Line Item: 1.260

Quantity: 76 exterior wall and ceiling mounted light fixtures accent the entrances and patios

History: 12 years of age

Condition: Good overall

Ceiling mounted light fixture

Useful Life: Up to 25 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Walls, Siding, Fiber Cement

Line Items: 1.767 and 1.769

Quantity: Approximately 10,700 square feet of lap style fiber cement siding and approximately 5,300 square feet of panel style fiber cement siding.

History and Condition: Installed in 2012. Management and the Board inform us of recent issues at the fiber cement siding relating primarily to the installation method and flashing at the window perimeters and trim. We reviewed the inspections and recommendations conducted by *Encompass Engineers* dated June 14, 2019. We agree with recommendations on sealant inspections and replacements in the near term on an as-needed basis until window replacement events and siding flashing remediation efforts are conducted. Updates of this Reserve Study will consider possible changes in the scope and times of component replacements.

The original finish at the lap style siding is good overall condition with respect to the age, and we do not anticipate the need for near term paint finishes based on the current observed condition. However, we do anticipate the need for replacement at the panel style siding due to finish fading and reported water intrusion issues.

Lap and panel siding fiber cement siding

Window trim deterioration due to water infiltration

Window trim deterioration due to water infiltration

Trim and siding interface sealant failure

Current siding and trim installation investigation due to water infiltration and premature deterioration

Evidence of water intrusion

Useful Life: With the benefit of periodic maintenance, applications of this type of material can have a useful life of up to 50 years. This useful life is based on a high grade pre-finish applied in the factory which can typically last up to 15 years. This useful life is also dependent upon paint applications and partial replacements up to every 8- to 10-years.

Component Detail Notes: The previous narrative "**Walls, Fiber Cement Siding**" in the ***Condominium Building Elements*** section details our recommendations concerning fiber cement siding.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Based information provided by the Board, we include for repairs at up to four units beginning by 2020 through 2029. The cost of these repairs will be highly dependent on the actual flashing details discovered from an invasive investigation of the exterior façade. We opine this timeline is too extended in order to correct water infiltration defects known at this time. Updates of this Reserve Study will consider possible changes in the scope and times of component replacements.

We anticipate the following during each paint application cycle:

- Paint finish application
- Replacement of 480 square feet, or up to three percent (3%), of the siding and trim (The exact amount of material in need of replacement will depend on the actual future conditions and desired appearance. We recommend replacement wherever cracks, delamination and deterioration impair the ability of the material to prevent water infiltration.)
- Replacement of the sealants as needed

Walls, Masonry

Line Item: 1.812

Quantity: Approximately 18,000 square feet of the exterior walls

History: The Board informs us of isolated ongoing repointing masonry events and repairs conducted though the operating budget. Management and the Board informs us of a flashing construction defect at the top concrete sill at the transition to the fiber cement siding. The Association has recently conducted partial replacements of the through-wall flashing at approximately 375 linear feet at the two-bedroom buildings from 2018 to 2019. Based on previous repair costs conducted, we estimate for the phased replacement of the flashing at these concrete sill areas from 2020 through 2024. Updates of this Reserve Study will consider possible changes in the scope and times of component replacements.

At the request of the Board, we omit future expenditures for capital repairs at the masonry including lintel and sill replacements as these expenses are planned to be

conducted on an as-needed basis through the operating budget. We do not agree with this classification based on the observed condition and age of the steel lintels and masonry rowlocks.

Condition: Fair overall with the following evident:

- Repairs evident at a limited portion of the steel window and patio door lintels
- Systemic efflorescence is not visible
- Lintels exhibit rust corrosion, deflection and mortar deterioration
- Masonry exhibits cracks primarily near the lintels
- Masonry exhibits spalls and cracks
- Mortar deterioration is evident
- Weeps and flashing at lintels are not visible

Masonry wall overview

Masonry deterioration at chimney

Mortar deterioration

Efflorescence at wall cap sill

Steel lintel finish in good overall condition

Steel lintel with finish deterioration and onset of deflection

Masonry step crack near roof access ladder

Mortar deterioration at chimney

Useful Life: We advise the Association continues to fund ongoing inspections, repointing events and isolated repairs though the operating budget to forestall deterioration. We recommend the Association funds for lintel replacement and re-flashing and sill repairs through reserves. These elements have useful lives of up to and beyond 50 years.

Component Detail Notes: The previous narrative "**Walls, Masonry**" in the ***Condominium Building Elements*** section details our recommendations concerning masonry lintel and sill repairs.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost includes the following activities:

- Complete inspection of the masonry
- Replacement of the masonry adjacent to lintel and/or sill repairs

- We recommend replacement/flashing installation at 450 linear feet, or approximately seventy percent (70%) of the metal lintels based on the exposure of the first floor windows and patio doors at the building rears. We do not anticipate the need for large aggregate replacement events at the inset exterior walls at the unit entry doors.
- Paint applications to the metal lintels (approximately 610 linear feet)

Two-Bedroom Roof Elements

Roofs, EPDM

Line Item: 1.402

Quantity: Approximately 265 squares at the four two-bedroom buildings

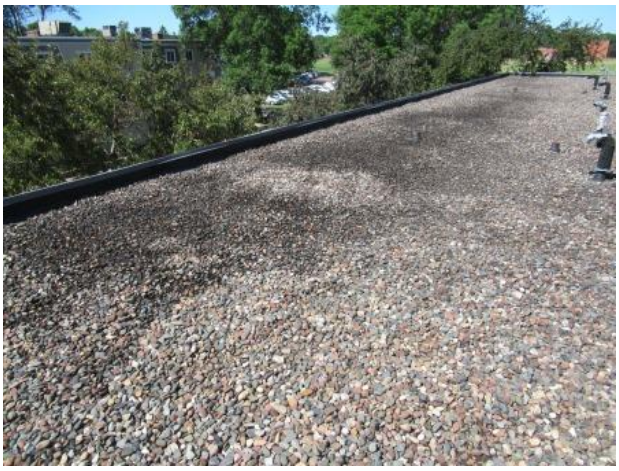
History and Condition: Replaced from 2000 to 2002. Based on review of the Association's recent roof inspection report conducted by *AMBE LTD* dated August 15, 2019, we agree with the conclusion with the history of leaks and observed condition that the roofs are due for near term replacement. Based on the current financial status of the roof reserves, we recommend the Association anticipates a phased replacement project with preventative maintenance repairs at any roofs to be deferred for replacement.

EPDM with stone ballast overview

EPDM with stone ballast overview

Excessive sealant at chimney flashing

Membrane tenting



Area with evidence of poor drainage

Roof edge flashing sealant faliure

Displaced ballast

Area with evidence of poor drainage

Sealant adhesion failure at masonry flashing

Downspout and drainage scupper

Useful Life: 15- to 20-years

Component Detail Notes: The previous narrative "***Roofs, EPDM***" in the **Condominium Roof Elements** section details our recommendations concerning roof replacements.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. The estimate of cost is based on information provided by Management from the preliminary estimates noted in the *AMBE LTD* roof report dated August 15, 2019. Our estimates include for replacement of the downspouts, scuppers, and partial replacement of the underlying insulation as needed.

Common Property

Property Site Elements

Asphalt Pavement, Crack Repair, Patch and Seal Coat

Line Item: 4.020

Quantity: Approximately 16,585 square yards

History: The parking areas and drives were repaved in 2012 and seal coated and repaired in 2018

Condition: Good overall

Useful Life: Three- to five-years

Component Detail Notes: Proposals for seal coat applications should include crack repairs and patching. The contractor should only apply seal coat applications after repairs are completed. A seal coat does not bridge or close cracks, therefore, unrepaired cracks render the seal coat applications useless.

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost includes an allowance for crack repairs and patching of up to two percent (2%) of the pavement.

Asphalt Pavement, Repaving

Line Item: 4.040

Quantity: Approximately 16,585 square yards

History: Pavement was totally replaced in 2012

Condition: Good overall with isolated areas of wear coarse cracks and deterioration evident

Asphalt pavement overview

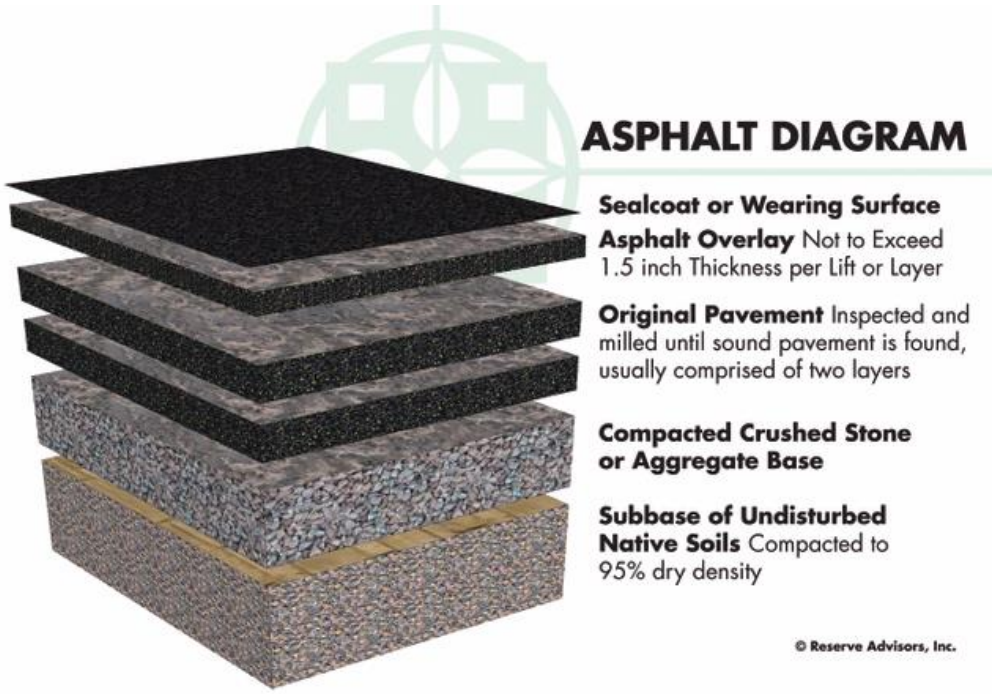
Asphalt pavement overview

Centerline deterioration at intersection

Previous crack repairs

Useful Life: 15- to 20-years with the benefit of timely crack repairs and patching

Component Detail Notes: 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 the typical components although it may not reflect the actual configuration at Greensboro:



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 for initial repaving followed by the total replacement method for subsequent repaving at Greensboro.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost for milling and overlayment includes area patching of up to ten percent (10%).

Catch Basins

Line Item: 4.100

Quantity: 10 each

History: Original with modifications and repairs conducted in 2012 in coordination with the repaving event

Condition: Good overall without settlement visually apparent

Curb inlet catch basin

Catch basin

Useful Life: The useful life of catch basins is up to 65 years. However, achieving this useful life usually requires interim capital repairs or partial replacements every 15- to 20-years.

Component Detail Notes: Erosion causes settlement around the collar of catch basins. Left unrepaired, the entire catch basin will shift and need replacement.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We recommend the Association plan for inspections and capital repairs to the catch basins in conjunction with repaving. Our costs include allowances for isolated breach repairs at subsurface drainage pipes.

Concrete Curbs and Gutters

Line Item: 4.110

Quantity: Approximately 2,100 linear feet adjacent to the drives and parking areas

Condition: Good overall with isolated areas of damage and cracks

Concrete curb and gutter

Curb damage

Curb and gutter cracks

Useful Life: Up to 65 years although interim deterioration of areas is common

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We estimate that up to 525 linear feet of curbs and gutters, or twenty-five percent (25%) of the total, will require replacement during the next 30 years.

Concrete Sidewalks and Steps

Line Items: 4.140 and 4.142

Quantity: Approximately 28,000 square feet of common areas sidewalks and steps throughout the property

History and Condition: The Association conducted a large portion of sidewalk modifications from 2017 to 2018 to connect the sidewalk systems and reconfigured the location of the steps. Management and the Board inform us the Association has planned an allowance total of approximately $170,000 from 2020 to 2024 to conduct similar work at the remaining areas of the property. The existing areas of concrete flatwork are in good to fair overall condition.

Recently replaced concrete steps and sidewalk

Recently replaced concrete sidewalk at east perimeter

Onset of sidewalk trip hazard

Steel railing at building entrance corrosion (We recommend paint finishes, repairs and replacement is funded through the operating budget)

Useful Life: Up to 65 years although interim deterioration of areas is common

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Following the near term modifications, we estimate that up to 7,000 square feet of concrete sidewalks, or twenty-five percent (25%) of the total, will require replacement during the next 30 years.

Landscape

Line Items: 4.500 and 4.501

Component Detail Notes: 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.

Useful Life: Based on information provided by Management and the Board, we include near term landscape allowances of $516,000 from 2019 to 2023 for planned upgrades. Following this work, we include for partial landscape allowances every five years thereafter.

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Light Poles and Fixtures

Line Item: 4.560

Quantity: Approximately 40 poles with light fixtures located at the streets and courtyard areas

History: Varied ages with fixture replacements at the street areas recently and courtyard lighting additions recently. The remaining ages and conditions vary throughout the property.

Condition: Good to fair overall

Street light fixture

Light pole base corrosion

Courtyard light pole and fixture

Useful Life: Up to 30 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Based on the varied ages and conditions, we include for a phased replacement of up to 10 light poles and fixtures with each event. Updates will consider the Board's desire to coordinate replacement of these elements.

Maintenance Cart

Line Item: 4.600

Quantity: One each

History: Unknown ages

Condition: Reported in satisfactory operational condition with recent repairs conducted to defer the timing of replacement

Maintenance cart

Useful Life: Six- to eight-years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Pipes, Subsurface Utilities

Line Item: 4.650

Quantity: Based on review of the provided *Bonestroo* site civil report dated May 10, 2011, the property utilizes approximately 3,400 linear feet of main domestic water and sanitary subsurface pipes throughout the community. At direction of Management and

the Board, we exclude the lateral distribution pipes at the individual buildings as a common area expense.

Condition and History: Reported satisfactory with no reported systemic issues and isolated repairs conducted in 2017. We assume the system was inspected, partially replaced and repaired in 2012 with the property renovation project.

Management and the Board inform us of drainage issues around the clubhouse and tennis court areas. Based on information noted in the *Encompass Engineers* report dated August 27, 2019, we include an additional allowance of $25,000 in 2019 to replace the subsurface drainage pipes and catch basins.

Useful Life: Up to and likely beyond 80 years

Component Detail Notes: The Association maintains the subsurface utility pipes throughout the property. The exact amounts and locations of the subsurface utility pipes were not ascertained due to the nature of the underground construction and the non-invasive nature of the inspection. However, the estimates were based off of civil plans provided by Management and the Board.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We recommend the Association budget for replacement of 250 linear feet of subsurface utility pipes every six years beginning by 2024. Our estimates include for partial replacement of up to thirty-five percent (35%) of the common main line pipes over the next 30 years.

Although it is likely that the times of replacement and extent of repair costs may vary from the budgetary allowance, Greensboro could budget sufficient reserves for these utility repairs and have the opportunity to adjust its future reserves up or down to meet any changes to these budgetary estimates. Updates of this Reserve Study would incorporate changes to budgetary costs through a continued historical analysis of the rate of deterioration and actual repairs to budget sufficient reserves.

Retaining Walls, Masonry

Line Item: 4.745

Quantity: Approximately 2,800 square feet located throughout the property

History: A portion of the walls adjacent to the buildings were installed in approximately 2008 and the remaining walls at the site perimeters were installed from 2017 to 2018.

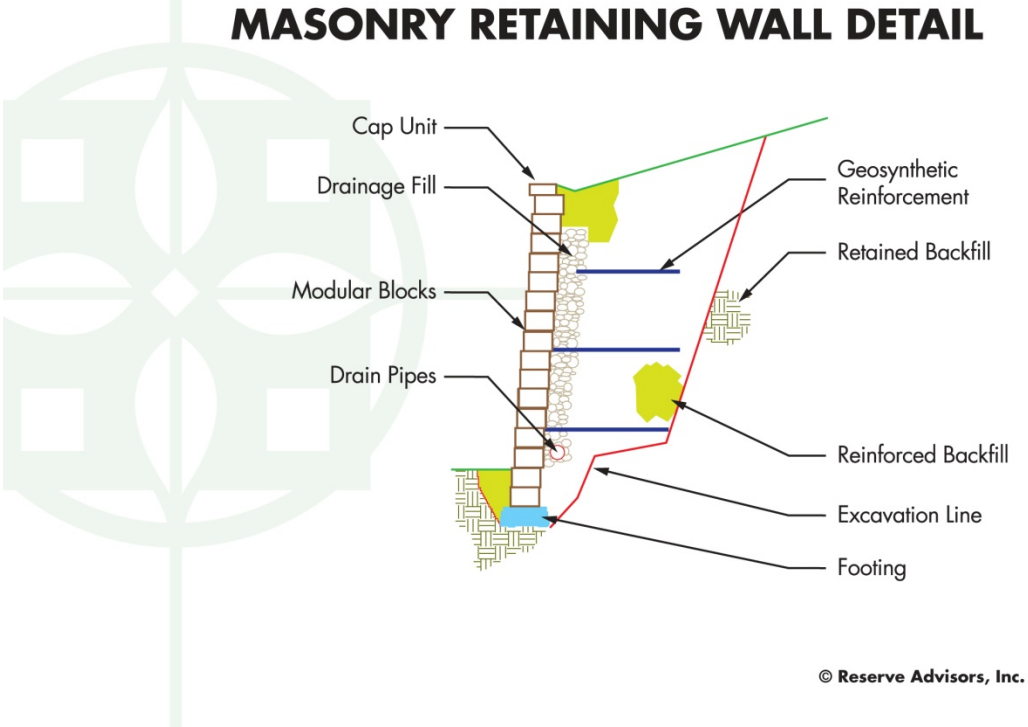
Condition: Good overall with no visible deterioration evident

East perimeter masonry retaining walls

North perimeter masonry retaining walls

Useful Life: Up to 35 years

Component Detail Notes: 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. Water stains may indicate inadequate drainage or blocked drainage from behind the walls. The following schematic depicts the typical components of a retaining wall system although it may not reflect the actual configuration at Greensboro:



Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Signage

Line Item: 4.800

Quantity: Two property identification signs

History: Replaced in 2006

Condition: Good overall

Louisiana Avenue intersection signage

Franklin Avenue signage

Useful Life: 15- to 20-years

Component Detail Notes: 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.

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Tennis Courts, Color Coat

Line Item: 4.830

Quantity: Approximately 1,260 square yards comprising two tennis courts

History: The surface was color coated in 2013 and has a history of repairs

Condition: Fair to poor overall

Useful Life: Four- to six-years

Component Detail Notes: 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.

Priority/Criticality: Not recommended to defer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We defer the timing of color coat applications based on the assumption the surface is replaced in the near term. Updates to this Reserve Study will consider an alternate material used at the time of replacement.

Tennis Courts, Fence

Line Item: 4.840

Quantity: Approximately 430 linear feet

History: Unknown age

Condition: Fair to poor overall with displaced posts evident

Chain link tennis court fence

Displaced fence post support

Useful Life: Up to 25 years

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We recommend the Board considers coordinated replacement with replacement of the tennis court surface.

Tennis Courts, Surface

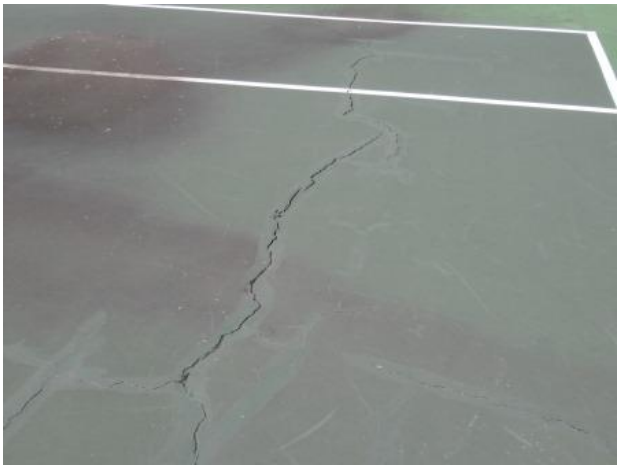
Line Item: 4.860

Quantity: Approximately 1,260 square yards of asphalt comprising two tennis court

History: We assume the surface is likely original. We are informed the Board may consider an alternative material for the surface at the time of replacement. For purposes of this study, we include for replacement with a like-kind asphalt surface. Updates of this Reserve Study will consider possible changes in the scope and times of component replacements.

Condition: Fair to poor overall with large cracks and surface deterioration evident

Tennis court overview and color coat deterioration



Surface cracks

Surface settlement

Color coat delamination

Useful Life: Up to 25 years

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. The timing of replacement is based on requests from the Board.

Clubhouse Elements

Clubhouse exterior overview

Clubhouse exterior overview

Balconies, Wood

Line Item: 5.202

Quantity: One wood balcony which comprises a total of 300 square feet

History: The structure was replaced in 2012 and the deck boards were replaced in 2016.

Condition: Good overall condition with no visible deterioration evident

Wood frame balcony

Steel column balcony support

Useful Life: 20- to 25-years

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Our cost for interim repairs includes replacement of the deck boards and partial replacement of deteriorated wood components. Proper maintenance should include the following activities funded through the operating budget:

- Annual inspections to identify and correct any unsafe conditions
- Securing of loose fasteners and replacement of deteriorated fasteners
- Replacement of deteriorated wood components
- Power washing with an algaecide and application of a sealer/stain

HVAC Equipment

Line Item: 5.450

Quantity: Two *Goodman* 2-ton split systems

History: Replaced in 2018

Condition: Reported satisfactory

Clubhouse condensing units

Useful Life: Up to 20 years

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Interior Renovations

Line Item: 5.500

History: The 2nd floor interior space of the clubhouse was renovated in 2018

Condition: Good overall

Clubhouse interior

Clubhouse kitchen

Useful Life: Complete interior renovation every 20 years.

Component Detail Notes: The clubhouse includes the following finishes:

- Vinyl floor coverings
- Paint finishes on the walls and ceilings
- Plumbing fixtures
- Kitchen cabinets and countertops
- Furnishings including sofas, tables, and chairs
- Various appliances including a stove, refrigerator and microwave

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. We recommend interim paint finishes and furnishing replacements are funded through the operating budget.

Rest Rooms

Line Item: 2.900

Quantity: Two common rest rooms at the lower floor of the clubhouse

History: Components appear to be primarily original with sauna inserts that appear to have been updated previously

Condition: Fair to poor overall

Rest rooms hallway

Rest rooms

Tile damage

Tile damage

Sauna

Useful Life: Renovation up to every 25 years

Component Detail Notes: Components include:

- Carpet, ceramic tile and laminate floor coverings
- Partial ceramic tile wall coverings
- Paint finishes on the walls and ceiling
- Light fixtures
- Plumbing fixtures
- Sauna inserts
- Shower inserts

Priority/Criticality: Per Board discretion

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Roof, Modified Bitumen

Line Item: 5.600

Quantity: Approximately 12 *squares* [2]

History: Replaced in 2008

Condition: Good to fair condition based on our limited inspection from adjacent buildings. Management does not report any recent or active leaks.

Flat membrane roof at clubhouse

Clubhouse roof

[2] We quantify the roof area in squares where one square is equal to 100 square feet of surface area.

Area of poor drainage at clubhouse roof

Useful Life: 15- to 20-years

Component Detail Notes: The previous narrative "Roofs, EPDM" in the ***Condominium Building*** section details our recommendations concerning flat roof replacement.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Windows and Doors

Line Item: 5.800

Quantity: Four sliding glass doors, two standard windows and two standard doors

History: Replaced from 2007 to 2008

Condition: Good condition

Vinyl frame window at clubhouse

Vinyl frame sliding glass door at clubhouse

Useful Life: Up to 35 years

Priority/Criticality: Not recommended to defer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Pool Elements

Pool area overview

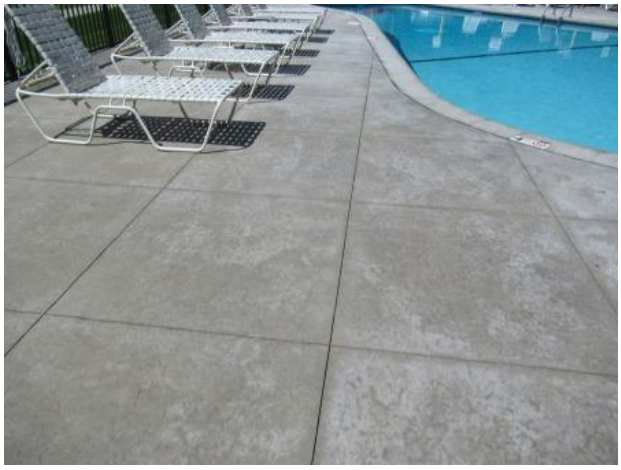
Concrete Deck

Line Item: 6.200

Quantity: Approximately 3,800 square feet

History: The deck was completely replaced in 2013

Condition: Good condition with no significant deterioration evident



Concrete deck

Useful Life: The useful life of a concrete pool deck is up to 60 years or more with timely repairs. We recommend the Association conduct inspections, partial replacements and repairs to the deck every 8- to 12-years.

Component Detail Notes: We recommend the Association budget for the following:

- Selective cut out and replacements of up to ten percent (10%) of concrete
- Crack repairs as needed
- Mortar joint repairs
- Caulk replacement

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Fence, Aluminum

Line Item: 6.400

Quantity: Approximately 300 linear feet

History: Replaced in 2013

Condition: Good overall condition

Aluminum fence

Useful Life: Up to 25 years

Priority/Criticality: Not recommended to defer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Mechanical Equipment

Line Item: 6.600

Quantity:

- Controls
- Filters
- Heater
- Interconnected pipe, fittings and valves
- Pumps
- Salt water generators

History: The heater was replaced in 2018 and the remaining ages of the equipment vary. We assume the filters and salt water generators were replaced in 2013 with renovation of the pool.

Condition: Reported satisfactory

Pool heater

Pool filters and pumps

Useful Life: Up to 15 years

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3. Failure of the pool mechanical equipment as a single event is unlikely. Therefore, we include replacement of up to fifty percent (50%) of the equipment per event. We consider interim replacement of motors and minor repairs as normal maintenance.

Pool Finish, Plaster Replacement and Tile Repairs

Line Item: 6.800

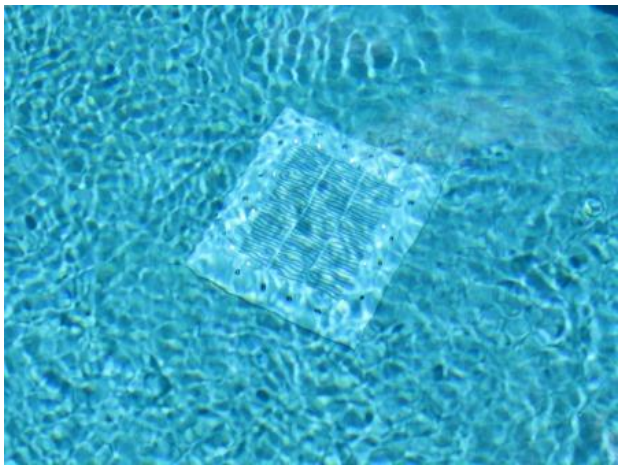
Quantity: Approximately 1,300 square feet based on the horizontal surface area

History: The finish was replaced in 2013

Condition: Good to fair condition

Plaster pool finish with tile perimeter

Plaster in good overall condition



Anti-entrapment drain cover (Inspect and replace through the operating budget)

Useful Life: 8- to 10-years for salt water pools

Component Detail Notes: Removal and replacement provides the opportunity to inspect the pool structure and to allow for partial repairs of the underlying concrete surfaces as needed. To maintain the integrity of the pool structure, we recommend the Association budget for the following:

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

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Structures

Line Item: 6.900

Quantity: Approximately 1,300 square feet of horizontal surface area

History: The concrete deck at the pool and subsurface pipe repairs were conducted in 2013 with renovation of the pool. For purposes of this study, we assume the pool structure was repaired and not completely replaced in 2013 with replacement of the plaster due to the same configuration and size of the pool noted before the renovation project.

Conditions: Visually appear in good condition. The concrete floor and walls have a plaster finish. This finish makes it difficult to thoroughly inspect the concrete structure during a noninvasive visual inspection. Management does not report any issues with water loss.

Useful Life: Up to 60 years

Component Detail Notes: The need to replace a pool structure depends on the condition of the concrete structure, the condition of the embedded or concealed water circulation piping, possible long term uneven settlement of the structure, and the increasing cost of repair and maintenance. Deterioration of any one of these component systems could result in complete replacement of the pool. For example, deferral of a deteriorated piping system could result in settlement and cracks in the pool structure. This mode of failure is more common as the system ages and deterioration of the piping system goes undetected. For reserve budgeting purposes, we recommend Greensboro plan to replace the following components:

- As the concrete deck was completely replaced in 2013, we assume the deck could be repaired as needed in coordination with a pool structure replacement event. We include for this work on Line Item 6.200 and coordinate timing with the structure replacement.
- Pool structures
- Subsurface piping

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Garage Elements

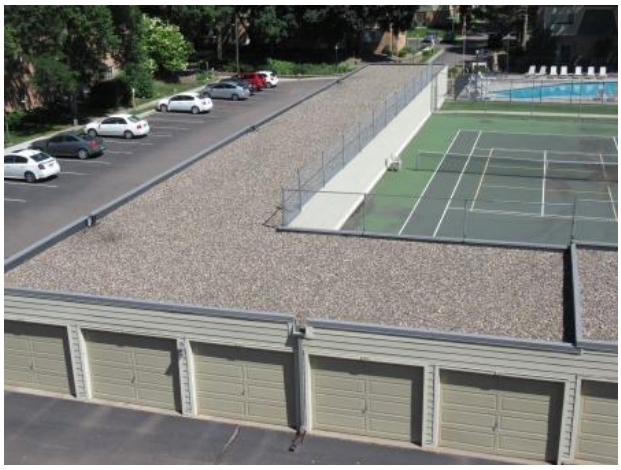
Roofs, EPDM

Line Item: 7.100

Quantity: Based on information provided by Management and the Board, the Association is responsible for approximately 10 squares of the detached garage roofs. The remaining 285 squares is the responsibly of the individual garage owners.

History: The roofs were reportedly replaced in 2012

Condition: Good overall with no reports of recent repairs or leaks by Management



EPDM roof with stone ballast overview at garages

Useful Life: 15- to 20-years

Component Detail Notes: The previous narrative "Roofs, EPDM" in the ***Condominium Building*** section details our recommendations concerning flat roof replacement.

Priority/Criticality: Defer only upon opinion of independent professional or engineer

Expenditure Detail Notes: Expenditure timing and costs are depicted in the ***Reserve Expenditures*** table in Section 3.

Reserve Study Update

An ongoing review by the Board and an Update of this Reserve Study 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. We recommend the Board budget for an Update to this Reserve Study in two- to three-years. 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.

Greensboro 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[1] set forth by the Community Associations Institute (CAI) and the Association of Professional Reserve Analysts (APRA) fulfilling the requirements of a "Level II Reserve Study Update." These standards require a Reserve Component to have a "predictable remaining Useful Life." Estimating Remaining Useful Lives and Reserve 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:

- The Cash Flow Method to compute, project and illustrate the 30-year Reserve Funding Plan
- Local[2] 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 St. Louis

[1] Identified in the APRA "Standards - Terms and Definitions" and the CAI "Terms and Definitions".
[2] See Credentials for additional information on our use of published sources of cost data.

Park, Minnesota at an annual inflation rate[3]. 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 Greensboro and their effects on remaining useful lives
- Financial information provided by the Association pertaining to the cash status of the reserve fund and budgeted reserve contribution
- The anticipated effects of appreciation of the reserves over time in accord with a return or yield on investment of your cash equivalent assets. (We did not consider the costs, if any, of Federal and State Taxes on income derived from interest and/or dividend income).
- 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.

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

[3] Derived from Marshall & Swift, historical costs and the Bureau of Labor Statistics.

6. 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. 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 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

TANNER A. OLDENBURGER, PE, RS
Regional Engineering Manager, West Region

CURRENT CLIENT SERVICES

Tanner A. Oldenburger, a Professional Civil Engineer, is an Advisor for ***Reserve Advisors, Inc***. Mr. Oldenburger 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.

The following is a partial list of over 400 clients served by Tanner Oldenburger demonstrating his breadth of experiential knowledge of community associations in construction, remediation procedures and related buildings systems.

North Star Lofts Owner's Association Located in the historic Mill District in Minneapolis, Minnesota, this distinctive building contains 37 loft-style condominiums in an eight-story building. The building was originally a blanket factory in the 1920's and was converted to residential units in the late 1990's. The building exterior comprises masonry walls, rooftop decks and a historically preserved tower and sign.

MacLaren Hill Condominium Association This development contains a combination of three apartment-style buildings and eight townhome style buildings located in St. Paul, Minnesota. This Association maintains a shared ownership agreement between the two building types that include all the property site and garage elements.

Portland Tower Association This 17-story high-rise in downtown Minneapolis, Minnesota includes rooftop deck, curtain wall exterior and parking garage. The building also utilizes a high-efficiency central HVAC system with 22 variable frequency drives.

Bearpath Homeowners Association Located in Eden Prairie, Minnesota, this exclusive community comprises four cost centers for the single family homes, golf villas, fairway villas and townhomes.. The Association maintains the villa and townhome exterior building elements as well as a gate house and approximately four miles of private streets.

Cochran Park Condominium Association Located in St. Paul, Minnesota, these two distinguished condominium buildings were constructed in 1914. The Association maintains garage structures, the stucco exteriors and clay tile mansard roof, as well as the common electrical and piping systems throughout the buildings.

Four Seasons Beijing Residences This high-end development comprises two 22-story buildings and is located in downtown Beijing, China. The building exteriors include granite cladded walls and inverted flat roofs. The property features a spa, fitness center, indoor pool, extensive mechanical systems and 18 elevators.

PRIOR RELEVANT EXPERIENCE

Before joining Reserve Advisors, Inc., Mr. Oldenburger attended Montana State University in Bozeman, Montana where he attained his Bachelor of Science degree in Civil Engineering and his Masters of Science degree in Civil Engineering with a focus on Structural Engineering. His relevant employment history includes working for the structural design team at Compass Consulting Engineers. He was responsible for the design and analysis of custom residential and commercial projects throughout the Northwest.

EDUCATION

Montana State University - B.S. Civil Engineering
Montana State University – M.S. Civil Engineering

PROFESSIONAL AFFILIATIONS/DESIGNATIONS

Professional Engineering License (PE) - Minnesota
Reserve Specialist (RS) – Community Associations Institute

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

CURRENT CLIENT SERVICES

Alan M. Ebert, a Professional Engineer, is the 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 thousands 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, North Carolina, Illinois, Colorado
Reserve Specialist (RS) **-** Community Associations Institute
Professional Reserve Analyst (PRA) **-** Association of Professional Reserve Analysts

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. 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. 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.marshallswift.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.

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.

7. 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 Greensboro 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) Greensboro 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.

8. PROFESSIONAL SERVICE CONDITIONS

Our Services - Reserve Advisors, Inc. (RA) performs its services as an independent contractor in accordance with our professional practice standards and its compensation is not contingent upon our conclusions. The purpose of our reserve study is to provide a budget planning tool that identifies the current status of the reserve fund, and an opinion recommending an annual funding plan to create reserves for anticipated future replacement expenditures of the property.

Our inspection and analysis of the subject property is limited to visual observations, is noninvasive and is not meant to nor does it include investigation into statutory, regulatory or code compliance. RA inspects sloped roofs from the ground and inspects 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 inspection. RA may note visible physical defects in our report. The inspection is made by employees generally familiar with real estate and building construction but in the absence of invasive testing RA cannot opine on, nor is RA responsible for, the structural integrity of the property including its conformity to specific governmental code requirements for fire, building, earthquake, and occupancy, or any physical defects that were not readily apparent during the inspection.

RA is not responsible for conditions that have changed between the time of inspection and the issuance of the report. RA does not investigate, nor assume any responsibility for any existence or impact of any hazardous materials, such as asbestos, urea-formaldehyde foam insulation, other chemicals, toxic wastes, environmental mold or other potentially hazardous materials or structural defects that are latent or hidden defects which may or may not be present on or within the property. RA does not make any soil analysis or geological study as part of its services; nor does RA investigate water, oil, gas, coal, or other subsurface mineral and use rights or such hidden conditions. RA assumes no responsibility for any such conditions. The Report contains opinions of estimated costs and remaining useful lives which are neither a guarantee of the actual costs of replacement nor a guarantee of remaining useful lives of any property element.

RA assumes, without independent verification, the accuracy of all data provided to it. You agree to indemnify and hold RA 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 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 director, officer, employee, affiliate, or agent of RA. Liability of RA 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 - RA completes the services in accordance with the Proposal. The Report represents a valid opinion of RA's findings and recommendations and is deemed complete. RA, however, considers any additional information made available to us within 6 months of issuing the Report if a timely request for a revised Report is made. RA retains the right to withhold a revised Report if payment for services was not tendered in a timely manner. All information received by RA and all files, work papers or documents developed by RA during the course of the engagement shall remain the property of RA and may be used for whatever purpose it sees fit.

Your Obligations - You agree to provide us access to the subject property for an on-site visual inspection You agree to provide RA all available, historical and budgetary information, the governing documents, and other information that we request and deem necessary to complete the Report. You agree to pay actual attorneys' fees and any other costs incurred to collect on any unpaid balance for RA's services.

Use of Our Report and Your Name - Use of this Report is limited to only the purpose stated herein. You hereby acknowledge that any use or reliance by you on the Report for any unauthorized purpose is at your own risk and you shall hold RA harmless from any consequences of such use. Use by any unauthorized third party is unlawful. The Report in whole or in part ***is not and cannot be used*** *as a design specification for design engineering purposes or as an appraisal.* You may show our Report in its entirety to the following third parties: members of your organization, your accountant, attorney, financial institution and property manager who need to review the information contained herein. Without the written consent of RA, you shall not disclose the Report to any other third party. The Report contains intellectual property developed by RA and ***shall not be reproduced or distributed to any party that conducts reserve studies without the written consent of RA.***

RA will include your name in our client lists. RA reserves the right to use property information to obtain estimates of replacement costs, useful life of property elements or otherwise as RA, in its sole discretion, deems appropriate.

Payment Terms, Due Dates and Interest Charges - Retainer payment is due upon authorization and prior to inspection. The balance is due net 30 days from the report shipment date. Any balance remaining 30 days after delivery of the Report shall accrue an interest charge of 1.5% per month. Any litigation necessary to collect an unpaid balance shall be venued in Milwaukee County Circuit Court for the State of Wisconsin.