

**NEW COLUMBIA OWNERS ASSOCIATION**  
**MAINTENANCE PLAN UPDATE**  
**RESERVE STUDY UPDATE**  
**LEVEL III: UPDATE WITH NO VISUAL SITE INSPECTION**  
**2011**

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**New Columbia Owners Association**

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**New Columbia Owners Association  
Maintenance Plan Update  
Reserve Study Update  
Disclosure Information  
2011**

We have conducted a Reserve Study update and maintenance plan update for the New Columbia Owners Association for the year beginning January 1, 2011 in accordance with guidelines established by Community Associations Institute and the American Institute of Certified Public Accountants.

This Reserve Study Update and Maintenance Plan Update is in compliance with the legislative changes made in 2007 to ORS Chapters 94 and 100.

We have no other involvement with the Association other than providing the Reserve Study.

**Article IV, Section 4.10.1.1 of the Association's Declaration states, "the Association shall be responsible for maintenance and repair of the Common Areas (including all improvements and any utilities thereon, to the extent such utilities are not maintained by governmental authorities). Maintenance of the Common Areas shall include maintaining, repairing, and replacing of grass, sod, trees, shrubs, and bushes in a neat, clean, and attractive condition and the maintenance and repair of all underground sprinkler systems."**

**Article IV, Section 4.10.1.2 of the Association's Declaration states, "In connection with the Conditions of Approval, as defined in Section 7.12.1, the Declarant has entered into, or will be entering into, maintenance agreements with the City of Portland for operation and maintenance of portions of the Property. Declarant may, at its election and from time to time, assign any or all such maintenance agreements to the Association and the Association shall accept such assignment without condition, shall faithfully perform all of its obligations thereunder, and shall indemnify Declarant from any claim, cause of action, damage, cost, or expense arising from the Association's performance under such maintenance agreement. Until such time as the operation and maintenance agreements are assigned to the Association, Declarant hereby reserves the right to enter any Lot or Common Area to perform any activity Declarant deems necessary to its performance under such agreements."**

**Article 7, Section 7.6 of the Association's Declaration states, "Each Owner shall maintain such Owner's Lot(s) and improvements thereon in a clean and attractive condition, in good repair and in such fashion as not to create a fire hazard. Such maintenance shall include, without limitation, painting, repair, replacement and care for roofs, gutters, downspouts, exterior building surfaces, walks and other exterior improvements and glass surfaces. In addition, each Owner shall keep all shrubs, trees, grass and plantings of every kind on such Owner's Lot neatly trimmed, properly cultivated and free of trash, weeds and other unsightly material. Damage caused by fire, flood, storm, earthquake, riot, vandalism, or other causes shall likewise be the responsibility of each Owner and shall be repaired within a reasonable period of time."**

**Article XII, Section 12.1 of the Association's Bylaws states, "The necessary work to maintain, repair or replace any improvements on the New Columbia Common Areas shall be the responsibility of the Association. The Association shall have the right, to be exercised by the Board of Directors, to have access to each Lot as may be necessary for the maintenance, repair or replacement of any improvements on the New Columbia Common Areas to make emergency repairs necessary for the public safety, or to abate any nuisance existing in any residence."**

Assumptions used for inflation, interest and other factors are detailed in PAGE 1-2. This reserve study incorporates a provision for income taxes by reducing the net amount of interest earned.

David T. Schwindt, the representative in charge of this report is a designated Reserve Study Specialist, Professional Reserve Analyst, and Certified Public Accountant licensed in the State of Oregon, Washington, California, and Arizona.

All information regarding the useful lives and costs of reserve components were derived by the vendors, the Association's prior reserve study provided by Donna Kelly of Housing Authority of Portland, and various construction pricing and scheduling manuals.

The terms RS Means, National Construction Estimator, Fannie Mae Expected Useful Life Tables and Forms refer to construction industry estimating databases that are used throughout the industry to establish cost estimates and useful life estimates for common building components and products. We suggest that the Association obtain firm bids for these

services.

We are not aware of any material issues which, if not disclosed, would cause a material distortion of this report.

Certain information such as the beginning balance of reserve funds and other information as detailed on the component detail reports were provided by Association representatives and are deemed to be reliable by us. This reserve study is a reflection of the information provided to us and cannot be used for the purpose of performing an audit, quality/forensic analysis, or background checks of historical records.

Onsite inspections should not be considered a project audit or quality inspection of Association property.

Physical Analysis:

New Projects generally include information provided by developers and/or refer to drawings.

Full onsite reserve studies generally include field measurements and do not include destructive testing. Drawings are usually not available for existing projects.

Onsite updates generally include observations of physical characteristics but do not include field measurements.

This reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair, or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair, or replacement of a reserve component.

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# New Columbia Owners Association

Portland, OR

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	Total Funded Assets	28	
	Total Unfunded Assets	<u>0</u>	
	Total Assets	28	

**NEW COLUMBIA OWNERS ASSOCIATION**

**MAINTENANCE PLAN UPDATE**

**2011**

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## **Executive Summary**

Regular maintenance of common elements is necessary to insure the maximum useful life and optimum performance of components. Of particular concern are items that may present a safety hazard to residents or guests if they are not maintained in a timely manner and components that perform a water-proofing function.

This maintenance plan is a cyclical plan that calls for maintenance at regular intervals. The frequency of the maintenance activity and the cost of the activity at the first instance follow a short descriptive narrative. This maintenance plan should be reviewed on an annual basis when preparing the annual operating budget for the Association

Checklists, developed by Reed Construction Data, Inc., can be photocopied or accessed from the RS Means web site:

<http://www.rsmeans.com/supplement/67346.asp>

They can be used to assess and document the existing condition of an association's common elements and to track the carrying out of planned maintenance activities.

## **New Columbia Owners Association Maintenance Plan Update 2011**

**Pursuant to Oregon State Statutes sections 94 and 100 requiring a maintenance plan as an integral part of the reserve study, the maintenance procedures are as follows:**

**The Board of Directors should refer to this maintenance plan each year when preparing the annual operating budget for the Association to ensure that annual maintenance costs are included in the budget for the years that they are scheduled.**

### **Landscape Irrigation System Upgrades**

Maintenance, upgrades and repairs to the landscape irrigation system should be anticipated with this type of component. These maintenance procedures will include replacement of the control mechanism, replacement of damaged piping, upgrading of sprinkler heads and valve components and any other work that is advised by repair professionals.

In recent years improvements have been made to this type of system which has increased the efficiency of the water distribution process. Such improvements can be expected to continue to be made and the owners of such systems are well advised to plan on periodic upgrades to maintain the efficiency of their systems.

Lawn irrigation systems also require periodic testing to insure proper operation. Sometimes this testing is mandated by ordinance or building codes. All such testing and any routine maintenance is assumed to be included in the operating budget.

All work on lawn irrigation systems must be performed by licensed contractors who specialize in this type of work.

The irrigation system is maintained by Rob Hamrick of TruGreen.

According to Rob, the clock and software for the irrigation system will need upgrades and/or replacement in 2014 for \$72,000.

This expense is included in the reserve study for the Association.

Cost: \$78,676                      Frequency: Every 10 years, beginning in 2014

### **Playground Equipment Maintenance**

The playground equipment should be visually inspected each year to check for loose or broken parts. Particular attention should be paid to any item which may present a safety hazard when children are playing on or around the equipment. Repair of any defective conditions should be completed immediately to insure safe operation and maximum useful life of these components.

Other maintenance to be expected will include cleaning, lubricating and touch up painting of exposed, painted surfaces to prevent rust and surface oxidation.



This work should be performed periodically throughout the year.

The expense for this maintenance is assumed to be included in the annual operating budget for the Association.

Cost: TBD                                      Frequency: Annually.

### **Common Area Lighting Maintenance**

Common area lighting maintenance will include inspecting all fixtures and the repair or replacement of any loose, broken or damaged items. Electrical connections must be sound and water-tight to prevent electrical shock hazards and to insure proper operation of the light fixtures.

Replacement of light bulbs will be ongoing as the bulbs burn out. If the fixtures require the use of lift equipment to facilitate replacement, it may be more economical to replace the bulbs on a scheduled basis as they approach the end of their estimated useful life rather than having to mobilize lift equipment every time a bulb might happen to burn out.

Light fixture maintenance is an ongoing activity that will occur frequently throughout the year.

The expense is assumed to be included in the annual operating budget for the Association.

Cost: TBD                                      Frequency: Bi-Weekly

### **Concrete Pavement Maintenance**

Maintenance of the concrete pavement will include cleaning and pressure washing the exposed surfaces to maintain appearances and to insure that the walking surfaces are free of slippery surface deposits that may create a safety hazard.

Cracks caused by settling or heaving of the ground should be examined and repaired to insure that no trip hazard is present on the walking surfaces. These cracks should be filled with a suitable concrete patching compound to prevent water intrusion below the surface of the concrete which can undermine the integrity of the base material, thereby causing further settling.

This cost is included in the reserve study as Concrete Pavement – Maintenance.

Cost: \$38,728                                      Frequency: Every 4 years, beginning in 2012

### **Asphalt Seal Coating – Alleys**

Maintenance of asphalt paving includes the periodic application of an asphalt emulsion sealer or “seal coat” as it is commonly known. This procedure is typically performed every 4-7 years depending on a variety of factors that can affect the useful life of the sealer.

Vehicle traffic is one such factor and Association’s that have asphalt paving that carries considerable vehicle traffic should consider a maintenance program that calls for seal coating of asphalt driving surfaces as frequently as every 4 years.

This maintenance procedure involves thoroughly cleaning all pavements, filling of any surface cracks and patching of any locally damaged pavement surfaces. The emulsion sealer is then applied, typically with a vehicle mounted spraying system or for small areas a roller application is sometimes used.

Parking area demarcation lines will need to be renewed each time that a seal coat is applied. The component expense includes the cost of this work as well as the seal coating cost.

This work should be performed by a licensed paving contractor.

This cost is included in the reserve study as Alleys – Asphalt – Seal Coating.

Cost: \$82,114              Frequency: Every 7 years beginning in 2013

**This maintenance plan is designed to preserve and extend the useful life of assets and is dependent upon proper inspection and follow up procedures.**

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**NEW COLUMBIA OWNERS ASSOCIATION**

**RESERVE STUDY UPDATE**

**LEVEL III: UPDATE WITH NO VISUAL SITE INSPECTION**

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## **New Columbia Owners Association Property Description**

New Columbia Owners Association is a Planned Unit Development (P.U.D.) that manages and maintains land and improvements for the owners of dwellings within the New Columbia development. The property is located in Portland, Oregon constructed in the year 2005. The Association is not responsible for the maintenance, repair and replacement of any part of the individual unit owners home or improvements on their private property.

The Association will maintain a variety of infrastructure improvements including but not limited to asphalt and concrete pavement, common area lighting, park areas and playground equipment and the lawn irrigation system.

The individual homeowners are responsible for all maintenance and repair of their homes.

This study uses information supplied by the Association's prior reserve study provided by Donna Kelly of Housing Authority of Portland, vendors, and various construction pricing and scheduling manuals to determine useful lives and replacement costs.

Funds will be accumulated in the replacement fund based on estimates of future need for repairs and replacement of common property components. Actual expenditures, investment income and provisions for income taxes however, may vary from estimated amounts and the variations may be material. Therefore, amounts accumulated in the replacement fund may not be adequate to meet future funding needs.

If additional funds are needed, the Association has the right, subject to board approval, to increase regular assessments or levy special assessments, or it may delay repairs or replacements until funds are available.

**New Columbia Owners Association**  
 Portland, OR  
**Cash Flow Method - Threshold Funding Model Summary**

Report Date	October 25, 2010
Account Number	2NEWCO
Budget Year Beginning	January 01, 2011
Budget Year Ending	December 31, 2011
Total Units	854

<i>Report Parameters</i>	
Inflation	2.50%
Annual Assessment Increase	3.50%
Interest Rate on Reserve Deposit	0.10%
Tax Rate on Interest	0.00%
Contingency	0.00%
2011 Beginning Balance	\$80,919.00

**Threshold Funding**  
 Fully Reserved Model Summary

- This study utilizes the cash flow method and the threshold funding model, which establishes a reserve funding goal that keeps the reserve balance above a specified dollar or percent funded amount. The threshold method assumes that the threshold method is funded with a positive threshold balance, therefore, "fully reserved."
- The following items were not included in the analysis because they have useful lives greater than 30 years: *Grading/drainage, foundation/footings, sanitary sewage and storm drains, telephone, cable, and Internet lines.*
- *This funding scenario begins with an initial contribution of \$74,000 in 2011 and increases 3.50% each year to for the remaining years of the study.* A minimum balance of \$62,385 is maintained.
- The purpose of this study is to insure that adequate replacement funds are available when components reach the end of their useful life. Components will be replaced as required, not necessarily in their expected replacement year. This analysis should be updated annually.

**Cash Flow Method - Threshold Funding Model Summary of Calculations**

Required Monthly Contribution	\$6,166.67
<i>\$7.22 per unit monthly</i>	
Average Net Monthly Interest Earned	<u>\$10.09</u>
Total Monthly Allocation to Reserves	\$6,176.75
<i>\$7.23 per unit monthly</i>	

**New Columbia Owners Association**  
 Portland, OR  
**Cash Flow Method - Threshold Funding Model Projection**

Beginning Balance: \$80,919

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves
2011	74,000	121		155,040
2012	76,590	98	98,530	133,199
2013	79,271	95	81,318	131,246
2014	82,045	98	77,536	135,853
2015	84,917	182		220,951
2016	87,889	208	60,369	248,680
2017	90,965	298		339,943
2018	94,149	391		434,483
2019	97,444	416	71,309	461,034
2020	100,854	324	192,197	370,015
2021	104,384	427		474,826
2022	108,038	534		583,398
2023	111,819	644		695,861
2024	115,733	608	151,085	661,117
2025	119,783	481	245,473	535,908
2026	123,976	496	107,585	552,794
2027	128,315	623		681,732
2028	132,806	410	343,551	471,397
2029	137,454	546		609,397
2030	142,265	399	287,329	464,733
2031	147,244		549,592	62,385
2032	152,398	82	63,152	151,712
2033	157,732	136	100,757	208,823
2034	163,252	170	127,052	245,194
2035	168,966	266	70,355	344,072
2036	174,880	340	98,921	420,371
2037	181,001	519		601,891
2038	187,336	538	165,836	623,929
2039	193,893	729		818,551
2040	200,679	731	196,714	823,247

Description	Date in Service	Replacement Year	Useful	Adjustment	Remaining	Units	Unit Cost	Current Cost
<b>Grounds Components</b>								
Alleys - Storm Drain Pavers	2005	2055	50	0	44	3,350 SF	27.01	90,483
Alleys - Storm Drain Pavers - Maintenance	2005	2016	10	1	5	1 TOTAL	15,757.12	15,757
Alleys Concrete Sidewalk - Partial Replac..	2005	2028	25	-2	17	6,660 SF	10.00	66,600
Concrete Pavement - Maintenance	2005	2012	4	3	1	94,000 SF	0.40	37,600
Concrete Sidewalk Partial Replacement - B..	2005	2028	25	-2	17	780 SF	10.00	7,800
Concrete Sidewalk Partial Replacement - B..	2005	2028	25	-2	17	1,080 SF	10.00	10,800
Concrete Sidewalk Partial Replacement - ..	2005	2028	25	-2	17	7,090 SF	10.00	70,900
Concrete Sidewalk Partial Replacement - P..	2005	2028	25	-2	17	3,208 SF	10.00	32,080
Irrigation System Upgrades	2005	2014	10	-1	3	1 Total	72,000.00	72,000
Grounds Components - Total								\$404,021
<b>Common Area Lighting</b>								
Exterior Lights - Pole only	2005	2025	20	0	14	20 Each	877.90	18,260
Exterior Lights Electrical - Ballasts	2005	2020	15	0	9	288 Each	135.06	38,897
Common Area Lighting - Total								\$57,158
<b>Asphalt Pavement</b>								
Alleys - Asphalt - Overlay	2005	2031	25	1	20	258,000 SF	1.30	335,400
Alleys - Asphalt - Seal Coat (I)	2005	2013	7	1	2	258,000 SF	0.30	77,400
Alleys - Asphalt - Seal Coat (II)	2031	2038	7	7	27	258,000 SF	0.33	85,140
Asphalt Pavement - Total								\$497,940
<b>Park &amp; Playground Equipment</b>								
Pocket - Picnic Tables	2005	2012	7	0	1	10 EA	2,926.32	29,263
Pocket Park - Argo	2005	2030	25	0	19	1 EA	4,389.48	4,389
Pocket Park - Bellatrix	2005	2030	25	0	19	1 EA	33,877.82	33,878
Pocket Park - Benches	2005	2012	7	0	1	20 EA	1,463.16	29,263
Pocket Park - Decorative Metal Fence	2005	2025	20	0	14	60 LF	58.53	3,512
Pocket Park - Double Shifter	2005	2030	25	0	19	1 EA	8,666.42	8,666
Pocket Park - Homestead	2005	2030	25	0	19	1 EA	24,367.27	24,367
Pocket Park - Play Structure	2005	2030	25	0	19	2 EA	38,267.30	76,535
Pocket Park - Rubber Tiles	2005	2025	20	0	14	10,800 SF	14.07	151,956
Pocket Park - Satellite Binocular	2005	2030	25	0	19	1 EA	2,189.11	2,189
Pocket Park - Spica	2005	2030	25	0	19	4 EA	3,089.52	12,358
Pocket Park - Supernova	2005	2030	25	0	19	1 EA	6,916.25	6,916
Pocket Park - Triple Shifter	2005	2030	25	0	19	1 EA	8,379.41	8,379
Pocket Park - Ziggy	2005	2030	25	0	19	1 EA	2,054.05	2,054
Park & Playground Equipment - Total								\$393,727
Total Asset Summary								\$1,352,845

**New Columbia Owners Association**  
**Portland, OR**  
**Component Summary By Group**

Description	Date in Service	Replacement Year	Useful	Adjustment	Remaining	Units	Unit Cost	Current Cost
<b>Capital</b>								
Alleys - Asphalt - Overlay	2005	2031	25	1	20	258,000 SF	1.30	335,400
Alleys - Storm Drain Pavers	2005	2055	50	0	44	3,350 SF	27.01	90,483
Alleys Concrete Sidewalk - Partial Replace..	2005	2028	25	-2	17	6,660 SF	10.00	66,600
Concrete Sidewalk Partial Replacement - B..	2005	2028	25	-2	17	780 SF	10.00	7,800
Concrete Sidewalk Partial Replacement - B..	2005	2028	25	-2	17	1,080 SF	10.00	10,800
Concrete Sidewalk Partial Replacement - ..	2005	2028	25	-2	17	7,090 SF	10.00	70,900
Concrete Sidewalk Partial Replacement - P..	2005	2028	25	-2	17	3,208 SF	10.00	32,080
Exterior Lights - Pole only	2005	2025	20	0	14	20 Each	877.90	18,260
Exterior Lights Electrical - Ballasts	2005	2020	15	0	9	288 Each	135.06	38,897
Irrigation System Upgrades	2005	2014	10	-1	3	1 Total	72,000.00	72,000
Pocket - Picnic Tables	2005	2012	7	0	1	10 EA	2,926.32	29,263
Pocket Park - Argo	2005	2030	25	0	19	1 EA	4,389.48	4,389
Pocket Park - Bellatrix	2005	2030	25	0	19	1 EA	33,877.82	33,878
Pocket Park - Benches	2005	2012	7	0	1	20 EA	1,463.16	29,263
Pocket Park - Decorative Metal Fence	2005	2025	20	0	14	60 LF	58.53	3,512
Pocket Park - Double Shifter	2005	2030	25	0	19	1 EA	8,666.42	8,666
Pocket Park - Homestead	2005	2030	25	0	19	1 EA	24,367.27	24,367
Pocket Park - Play Structure	2005	2030	25	0	19	2 EA	38,267.30	76,535
Pocket Park - Rubber Tiles	2005	2025	20	0	14	10,800 SF	14.07	151,956
Pocket Park - Satellite Binocular	2005	2030	25	0	19	1 EA	2,189.11	2,189
Pocket Park - Spica	2005	2030	25	0	19	4 EA	3,089.52	12,358
Pocket Park - Supernova	2005	2030	25	0	19	1 EA	6,916.25	6,916
Pocket Park - Triple Shifter	2005	2030	25	0	19	1 EA	8,379.41	8,379
Pocket Park - Ziggy	2005	2030	25	0	19	1 EA	2,054.05	2,054
Capital - Total								\$1,136,948
<b>Non-Capital</b>								
Alleys - Asphalt - Seal Coat (I)	2005	2013	7	1	2	258,000 SF	0.30	77,400
Alleys - Asphalt - Seal Coat (II)	2031	2038	7	7	27	258,000 SF	0.33	85,140
Alleys - Storm Drain Pavers - Maintenance	2005	2016	10	1	5	1 TOTAL	15,757.12	15,757
Concrete Pavement - Maintenance	2005	2012	4	3	1	94,000 SF	0.40	37,600
Non-Capital - Total								\$215,897
Total Asset Summary								\$1,352,845



**New Columbia Owners Association  
Annual Expenditure Detail**

Description	Expenditures
<i>No Replacement in 2011</i>	
<b>Replacement Year 2012</b>	
Concrete Pavement - Maintenance	38,540
Pocket - Picnic Tables	29,995
Pocket Park - Benches	29,995
<b>Total for 2012</b>	<b><u>\$98,530</u></b>
<b>Replacement Year 2013</b>	
Alleys - Asphalt - Seal Coat (I)	81,318
<b>Total for 2013</b>	<b><u>\$81,318</u></b>
<b>Replacement Year 2014</b>	
Irrigation System Upgrades	77,536
<b>Total for 2014</b>	<b><u>\$77,536</u></b>
<i>No Replacement in 2015</i>	
<b>Replacement Year 2016</b>	
Alleys - Storm Drain Pavers - Maintenance	17,828
Concrete Pavement - Maintenance	42,541
<b>Total for 2016</b>	<b><u>\$60,369</u></b>
<i>No Replacement in 2017</i>	
<i>No Replacement in 2018</i>	
<b>Replacement Year 2019</b>	
Pocket - Picnic Tables	35,654
Pocket Park - Benches	35,654
<b>Total for 2019</b>	<b><u>\$71,309</u></b>
<b>Replacement Year 2020</b>	
Alleys - Asphalt - Seal Coat (I)	96,662
Concrete Pavement - Maintenance	46,957
Exterior Lights Electrical - Ballasts	48,577
<b>Total for 2020</b>	<b><u>\$192,197</u></b>

**New Columbia Owners Association  
Annual Expenditure Detail**

Description	Expenditures
<i>No Replacement in 2021</i>	
<i>No Replacement in 2022</i>	
<i>No Replacement in 2023</i>	
<b>Replacement Year 2024</b>	
Concrete Pavement - Maintenance	51,832
Irrigation System Upgrades	99,253
<b>Total for 2024</b>	<b><u>\$151,085</u></b>
<b>Replacement Year 2025</b>	
Exterior Lights - Pole only	25,801
Pocket Park - Decorative Metal Fence	4,962
Pocket Park - Rubber Tiles	214,710
<b>Total for 2025</b>	<b><u>\$245,473</u></b>
<b>Replacement Year 2026</b>	
Alleys - Storm Drain Pavers - Maintenance	22,821
Pocket - Picnic Tables	42,382
Pocket Park - Benches	42,382
<b>Total for 2026</b>	<b><u>\$107,585</u></b>
<i>No Replacement in 2027</i>	
<b>Replacement Year 2028</b>	
Alleys Concrete Sidewalk - Partial Replacement	101,340
Concrete Pavement - Maintenance	57,213
Concrete Sidewalk Partial Replacement - Block 19 Common Gre..	11,869
Concrete Sidewalk Partial Replacement - Block 20 Common Gre..	16,433
Concrete Sidewalk Partial Replacement - Other common greens	107,883
Concrete Sidewalk Partial Replacement - Pedestrian Connections	48,814
<b>Total for 2028</b>	<b><u>\$343,551</u></b>
<i>No Replacement in 2029</i>	
<b>Replacement Year 2030</b>	
Pocket Park - Argo	7,017
Pocket Park - Bellatrix	54,159

**New Columbia Owners Association  
Annual Expenditure Detail**

Description	Expenditures
<b><i>Replacement Year 2030 continued...</i></b>	
Pocket Park - Double Shifter	13,855
Pocket Park - Homestead	38,955
Pocket Park - Play Structure	122,352
Pocket Park - Satellite Binocular	3,500
Pocket Park - Spica	19,756
Pocket Park - Supernova	11,057
Pocket Park - Triple Shifter	13,396
Pocket Park - Ziggy	3,284
<b>Total for 2030</b>	<b><u>\$287,329</u></b>
<b>Replacement Year 2031</b>	
Alleys - Asphalt - Overlay	549,592
<b>Total for 2031</b>	<b><u>\$549,592</u></b>
<b>Replacement Year 2032</b>	
Concrete Pavement - Maintenance	63,152
<b>Total for 2032</b>	<b><u>\$63,152</u></b>
<b>Replacement Year 2033</b>	
Pocket - Picnic Tables	50,379
Pocket Park - Benches	50,379
<b>Total for 2033</b>	<b><u>\$100,757</u></b>
<b>Replacement Year 2034</b>	
Irrigation System Upgrades	127,052
<b>Total for 2034</b>	<b><u>\$127,052</u></b>
<b>Replacement Year 2035</b>	
Exterior Lights Electrical - Ballasts	70,355
<b>Total for 2035</b>	<b><u>\$70,355</u></b>
<b>Replacement Year 2036</b>	
Alleys - Storm Drain Pavers - Maintenance	29,213
Concrete Pavement - Maintenance	69,708
<b>Total for 2036</b>	<b><u>\$98,921</u></b>

**New Columbia Owners Association  
Annual Expenditure Detail**

Description	Expenditures
<i>No Replacement in 2037</i>	
<b>Replacement Year 2038</b>	
Alleys - Asphalt - Seal Coat (II)	165,836
<b>Total for 2038</b>	<b><u>\$165,836</u></b>
<i>No Replacement in 2039</i>	
<b>Replacement Year 2040</b>	
Concrete Pavement - Maintenance	76,945
Pocket - Picnic Tables	59,884
Pocket Park - Benches	59,884
<b>Total for 2040</b>	<b><u>\$196,714</u></b>

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**New Columbia Owners Association  
Detail Report by Category**

Alleys - Storm Drain Pavers		3,350 SF	@ \$27.01
Asset ID	1005	Asset Cost	\$90,483.50
	Capital	Percent Replacement	100%
	Grounds Components	Future Cost	\$268,175.72
Placed in Service	July 2005		
Useful Life	50		
Replacement Year	2055		
Remaining Life	44		

This component provides funding for the replacement of the Storm Drain Pavers located in the Alleys. The New Columbia reserve study lists the useful life of the pavers at 25 years and estimates the cost to replace them at \$80,400 of \$24 per square feet.

Estimated useful life of the Storm Drain Pavers is based on the recommendations of John Manson a Senior Project Manager at the Housing Authority of Portland.

Area was provided in the Association's reserve study prior to 2007.

Alleys - Storm Drain Pavers - Maintenance		1 TOTAL	@ \$15,757.12
Asset ID	1031	Asset Cost	\$15,757.12
	Non-Capital	Percent Replacement	100%
	Grounds Components	Future Cost	\$17,827.73
Placed in Service	January 2005		
Useful Life	10		
Adjustment	1		
Replacement Year	2016		
Remaining Life	5		

This provision funds for the washing and vacuum cleaning of the Storm Drain Pavers once every 10 years.

The estimated cost and useful life of this component was provided by John Manson a Senior Project Manager at the Housing Authority of Portland.

**New Columbia Owners Association  
Detail Report by Category**

**Alleys Concrete Sidewalk - Partial Replacement**

		33,300 SF	@ \$10.00
Asset ID	1009	Asset Cost	\$66,600.00
	Capital	Percent Replacement	20%
	Grounds Components	Future Cost	\$101,339.78
Placed in Service	July 2005		
Useful Life	25		
Adjustment	-2		
Replacement Year	2028		
Remaining Life	17		

This provision funds for the partial replacement of 20% of the concrete sidewalk portion of the alleys every 25 years.

Since the expected useful life of a typical concrete sidewalk installation is greater than 30 years, this component only provides funding for the replacement of a percentage of the total amount of sidewalk area.

The New Columbia Capital Reserve Study prior to 2007 has indicated that there are approximately 33,300 square feet (SF) of alley sidewalk area.

Cost is based on per square feet estimates provided by Coast Pavement. The Association will need to firm up cost with a bid.

Useful life assumptions are based on accepted industry estimates as established by RS Means (RSM) and/or The National Construction Estimator (NCE).

**Concrete Pavement - Maintenance**

		94,000 SF	@ \$0.40
Asset ID	1030	Asset Cost	\$37,600.00
	Non-Capital	Percent Replacement	100%
	Grounds Components	Future Cost	\$38,540.00
Placed in Service	July 2005		
Useful Life	4		
Adjustment	3		
Replacement Year	2012		
Remaining Life	1		

This component provides funding for the periodic maintenance and repair of the concrete

**New Columbia Owners Association  
Detail Report by Category**

*Concrete Pavement - Maintenance continued...*

pavement surfaces.

Maintenance includes cleaning the exposed surfaces areas with a light pressure washing to remove dirt, and surface deposits that may create a slip hazard and repairing of cracks to eliminate trip hazards and to prevent water intrusion below the surface of the concrete.

Cost is based on per square feet estimates provided by Verhaalen, Painting, Inc.

Useful life assumptions are based on accepted industry estimates as established by RS Means (RSM) and/or The National Construction Estimator (NCE).

Area was provided in the Association's reserve study prior to 2007.

**Concrete Sidewalk Partial Replacement - Block 19 Common Green**

		3,900 SF	@ \$10.00
Asset ID	1006	Asset Cost	\$7,800.00
	Capital	Percent Replacement	20%
	Grounds Components	Future Cost	\$11,868.62
Placed in Service	July 2005		
Useful Life	25		
Adjustment	-2		
Replacement Year	2028		
Remaining Life	17		

This provision funds for the partial replacement of 20% of the concrete sidewalks portions of the Block 19 common green every 25 years.

Since the expected useful life of a typical concrete sidewalk installation is greater than 30 years, this component only provides funding for the replacement of a percentage of the total amount of sidewalk area.

The New Columbia Capital Reserve Study has indicated that there are approximately 3,900 square feet (SF) of sidewalk area at Block 19.

Cost is based on per square feet estimates provided by Coast Pavement. The Association will need to firm up cost with a bid.

Useful life assumptions are based on accepted industry estimates as established by RS Means (RSM) and/or The National Construction Estimator (NCE).

**New Columbia Owners Association  
Detail Report by Category**

**Concrete Sidewalk Partial Replacement - Block 20 Common Green**

		5,400 SF	@ \$10.00
Asset ID	1007	Asset Cost	\$10,800.00
	Capital	Percent Replacement	20%
	Grounds Components	Future Cost	\$16,433.48
Placed in Service	July 2005		
Useful Life	25		
Adjustment	-2		
Replacement Year	2028		
Remaining Life	17		

This provision funds for the partial replacement of 20% of the concrete sidewalks portions of the Block 20 common green every 25 years.

Since the expected useful life of a typical concrete sidewalk installation is greater than 30 years, this component only provides funding for the replacement of a percentage of the total amount of sidewalk area.

The New Columbia Capital Reserve Study has indicated that there are approximately 5,400 square feet (SF) of sidewalk area at Block 20.

Cost is based on per square feet estimates provided by Coast Pavement. The Association will need to firm up cost with a bid.

Useful life assumptions are based on accepted industry estimates as established by RS Means (RSM) and/or The National Construction Estimator (NCE).

**Concrete Sidewalk Partial Replacement - Other common greens**

		35,450 SF	@ \$10.00
Asset ID	1008	Asset Cost	\$70,900.00
	Capital	Percent Replacement	20%
	Grounds Components	Future Cost	\$107,882.73
Placed in Service	July 2005		
Useful Life	25		
Adjustment	-2		
Replacement Year	2028		
Remaining Life	17		

This provision funds for the partial replacement of 20% of the concrete sidewalks portions of



**New Columbia Owners Association  
Detail Report by Category**

*Concrete Sidewalk Partial Replacement - Other common greens continued...*

the other common greens every 25 years.

Since the expected useful life of a typical concrete sidewalk installation is greater than 30 years, this component only provides funding for the replacement of a percentage of the total amount of sidewalk area.

The New Columbia Capital Reserve Study has indicated that there are approximately 35,450 square feet (SF) of sidewalk area at the other common greens.

Cost is based on per square feet estimates provided by Coast Pavement. The Association will need to firm up cost with a bid.

Useful life assumptions are based on accepted industry estimates as established by RS Means (RSM) and/or The National Construction Estimator (NCE).

**Concrete Sidewalk Partial Replacement - Pedestrian Connections**

		16,040 SF	@ \$10.00
Asset ID	1010	Asset Cost	\$32,080.00
	Capital	Percent Replacement	20%
	Grounds Components	Future Cost	\$48,813.51
Placed in Service	July 2005		
Useful Life	25		
Adjustment	-2		
Replacement Year	2028		
Remaining Life	17		

This provision funds for the partial replacement of 20% of the concrete sidewalks portions of the public pedestrian connections every 25 years.

Since the expected useful life of a typical concrete sidewalk installation is greater than 30 years, this component only provides funding for the replacement of a percentage of the total amount of sidewalk area.

The New Columbia Capital Reserve Study has indicated that there are approximately 16,040 square feet (SF) of sidewalk areas at pedestrian connections.

Cost is based on per square feet estimates provided by Coast Pavement. The Association will need to firm up cost with a bid.

Useful life assumptions are based on accepted industry estimates as established by RS Means



**New Columbia Owners Association  
Detail Report by Category**

<b>Exterior Lights - Pole only</b>		208 Each	@ \$877.90
Asset ID	1002	Asset Cost	\$18,260.32
	Capital	Percent Replacement	10%
	Common Area Lighting	Future Cost	\$25,801.35
Placed in Service	July 2005		
Useful Life	20		
Replacement Year	2025		
Remaining Life	14		

This provision funds for the partial replacement of exterior common area lighting poles. The expected useful life of the component is greater than the scope of this reserve study. This provision is a contingency for replacement of the poles due to accidents or vandalism.

Note: This component provides funding for the poles only, one of three parts included in the common area lighting.

The New Columbia Reserve Study provided by Donna Kelley provided a quantity of 208 light poles.

The estimated cost to replace the poles was taken from the New Columbia Reserve Study.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

<b>Exterior Lights Electrical - Ballasts</b>		288 Each	@ \$135.06
Asset ID	1003	Asset Cost	\$38,897.28
	Capital	Percent Replacement	100%
	Common Area Lighting	Future Cost	\$48,577.37
Placed in Service	July 2005		
Useful Life	15		
Replacement Year	2020		
Remaining Life	9		

This component provides funding for the replacement of exterior common area lighting ballasts.

The New Columbia Reserve Study lists the useful life of the ballasts at 60,000 of continuous use, assuming that the lights should only be on 50% of the time, it was calculated to give them a useful life of 14 years.

The New Columbia Reserve Study provided by Donna Kelley provided a quantity of 288 ballasts light.

**New Columbia Owners Association  
Detail Report by Category**

*Exterior Lights Electrical - Ballasts continued...*

Note: This component provides funding for the ballasts only.

The cost to replace the ballasts is based on an estimate provided by John Manson a Senior Project Manager at the Housing Authority of Portland.

**Common Area Lighting - Total Current Cost** **\$57,158**

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**New Columbia Owners Association  
Detail Report by Category**

<b>Alleys - Asphalt - Overlay</b>		258,000 SF	@ \$1.30
Asset ID	1028	Asset Cost	\$335,400.00
	Capital	Percent Replacement	100%
	Asphalt Pavement	Future Cost	\$549,591.95
Placed in Service	July 2005		
Useful Life	25		
Adjustment	1		
Replacement Year	2031		
Remaining Life	20		

This component provides funding for asphalt overlay.

Area was provided in the Association's reserve study prior to 2007.

Cost is based on per square feet estimates provided by Coast Pavement. The Association will need to firm up cost with a bid.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

<b>Alleys - Asphalt - Seal Coat (I)</b>		258,000 SF	@ \$0.30
Asset ID	1029	Asset Cost	\$77,400.00
	Non-Capital	Percent Replacement	100%
	Asphalt Pavement	Future Cost	\$81,318.37
Placed in Service	July 2005		
Useful Life	7		
Adjustment	1		
Replacement Year	2013		
Remaining Life	2		

Maintenance of asphalt paving includes the periodic application of an asphalt emulsion sealer or "seal coat" as it is commonly known. This procedure is typically performed every 4-7 years depending on a variety of factors that can affect the useful life of the sealer.

Vehicle traffic is one such factor and Associations that have asphalt paving that carries considerable vehicle traffic should consider a maintenance program that calls for seal coating of asphalt driving surfaces as frequently as every 4 years.

This maintenance procedure involves thoroughly cleaning all pavements, filling of any surface cracks and patching of any locally damaged pavement surfaces. The emulsion sealer is then applied, typically with a vehicle mounted spraying system or for small areas a roller

**New Columbia Owners Association  
Detail Report by Category**

*Alleys - Asphalt - Seal Coat (I) continued...*

application is sometimes used. Asphalt contractors recommend seal coating immediately after performing an overlay (skim coat). This will help insure the prevention of water penetration which can lead to damage and deterioration.

Parking area demarcation lines will need to be renewed each time that a seal coat is applied. The component expense includes the cost of this work as well as the seal coating cost.

Cost is based on per square feet estimates provided by Coast Pavement. The Association will need to firm up cost with a bid.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

Area was provided in the Association's reserve study prior to 2007.

Alleys - Asphalt - Seal Coat (II)		258,000 SF	@ \$0.33
Asset ID	1032	Asset Cost	\$85,140.00
	Non-Capital	Percent Replacement	100%
	Asphalt Pavement	Future Cost	\$165,835.69
Placed in Service	July 2031		
Useful Life	7		
Adjustment	7		
Replacement Year	2038		
Remaining Life	27		

This provision provides funding for seal coating of the asphalt alleys every 7 years after the overlay scheduled in the year 2031.

Maintenance of asphalt paving includes the periodic application of an asphalt emulsion sealer or “seal coat” as it is commonly known. This procedure is typically performed every 4-7 years depending on a variety of factors that can affect the useful life of the sealer.

Vehicle traffic is one such factor and Associations that have asphalt paving that carries considerable vehicle traffic should consider a maintenance program that calls for seal coating of asphalt driving surfaces as frequently as every 4 years.

This maintenance procedure involves thoroughly cleaning all pavements filling of any surface cracks and patching of any locally damaged pavement surfaces. The emulsion sealer is then applied, typically with a vehicle mounted spraying system or for small areas a roller application is sometimes used. Asphalt contractors recommend seal coating immediately after

**New Columbia Owners Association  
Detail Report by Category**

*Alleys - Asphalt - Seal Coat (II) continued...*

performing an overlay (skim coat). This will help insure the prevention of water penetration which can lead to damage and deterioration.

Parking area demarcation lines will need to be renewed each time that a seal coat is applied. The component expense includes the cost of this work as well as the seal coating cost.

Cost is based on per square feet estimates provided by Coast Pavement. The Association will need to firm up cost with a bid.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

Area was provided in the Association's reserve study prior to 2007.

**Asphalt Pavement - Total Current Cost** **\$497,940**

**New Columbia Owners Association  
Detail Report by Category**

<b>Pocket - Picnic Tables</b>		10 EA	@ \$2,926.32
Asset ID	1015	Asset Cost	\$29,263.20
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	\$29,994.78
Placed in Service	July 2005		
Useful Life	7		
Replacement Year	2012		
Remaining Life	1		

This component provides funding for the replacement of the picnic tables located in Pocket Park

According to the Association, some picnic tables are damaged and will need replacement in 2012.

The New Columbia Reserve Study provided by Donna Kelley provided an estimated cost of \$26,000 to replace these picnic tables. There are 10 picnic tables.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

<b>Pocket Park - Argo</b>		1 EA	@ \$4,389.48
Asset ID	1021	Asset Cost	\$4,389.48
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	\$7,017.24
Placed in Service	July 2005		
Useful Life	25		
Replacement Year	2030		
Remaining Life	19		

This component provides funding for the replacement of the Argo piece of the Kompan Play Equipment located in Pocket Park.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided a cost of \$3,900 to replace the argo.



**New Columbia Owners Association  
Detail Report by Category**

**Pocket Park - Bellatrix**

		1 EA	@ \$33,877.82
Asset ID	1020	Asset Cost	\$33,877.82
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	\$54,158.78
Placed in Service	July 2005		
Useful Life	25		
Replacement Year	2030		
Remaining Life	19		

This component provides funding for the replacement of the Bellatrix piece of the Kompan Play Equipment located in Pocket Park.

The New Columbia Reserve Study provided by Donna Kelley provided an estimated cost of \$30,100 to replace Bellatrix piece.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

**Pocket Park - Benches**

		20 EA	@ \$1,463.16
Asset ID	1014	Asset Cost	\$29,263.20
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	\$29,994.78
Placed in Service	July 2005		
Useful Life	7		
Replacement Year	2012		
Remaining Life	1		

This component provides funding for the replacement of the benches located in Pocket Park.

According to the Association, some benches will need replacement in 2012.

The New Columbia Reserve Study provided by Donna Kelley provided an estimated cost of \$26,000 to replace benches.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

**New Columbia Owners Association  
Detail Report by Category**

<b>Pocket Park - Decorative Metal Fence</b>		60 LF	@ \$58.53
Asset ID	1016	Asset Cost	\$3,511.80
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	\$4,962.08
Placed in Service	July 2005		
Useful Life	20		
Replacement Year	2025		
Remaining Life	14		

This component provides funding for the replacement of the decorative metal fence located in Pocket Park.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided an area of 60 lineal feet with an estimated cost of \$52 per lineal feet to replace the fence.

<b>Pocket Park - Double Shifter</b>		1 EA	@ \$8,666.42
Asset ID	1023	Asset Cost	\$8,666.42
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	\$13,854.57
Placed in Service	July 2005		
Useful Life	25		
Replacement Year	2030		
Remaining Life	19		

This component provides funding for the replacement of the Double Shifter piece of the Kompan Play Equipment located in Pocket Park.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided an estimated cost of \$7,700 to replace the double shifter.

**New Columbia Owners Association  
Detail Report by Category**

<b>Pocket Park - Homestead</b>		1 EA	@ \$24,367.27
Asset ID	1025	Asset Cost	\$24,367.27
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	\$38,954.74
Placed in Service	July 2005		
Useful Life	25		
Replacement Year	2030		
Remaining Life	19		

This component provides funding for the replacement of the Homestead piece of the Kompan Play Equipment located in Pocket Park.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided an estimated cost of \$21,650 to replace the homestead piece.

<b>Pocket Park - Play Structure</b>		2 EA	@ \$38,267.30
Asset ID	1018	Asset Cost	\$76,534.60
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	\$122,352.05
Placed in Service	July 2005		
Useful Life	25		
Replacement Year	2030		
Remaining Life	19		

This component provides funding for the replacement of the play structure piece of the Hags Play Equipment located in Pocket Park.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided a quantity of 2 play structure. An estimated cost of \$68,000 was provided to replace the two play structures.

**New Columbia Owners Association  
Detail Report by Category**

<b>Pocket Park - Rubber Tiles</b>		10,800 SF	@ \$14.07
Asset ID	1017	Asset Cost	\$151,956.00
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	\$214,709.85
Placed in Service	July 2005		
Useful Life	20		
Replacement Year	2025		
Remaining Life	14		

This component provides funding for the replacement of the rubber tiles located in Pocket Park.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided an area of 10,800 square feet of rubber tiles. An estimated cost of \$12.50 per square feet was provided to replace the rubber tiles.

<b>Pocket Park - Satellite Binocular</b>		1 EA	@ \$2,189.11
Asset ID	1026	Asset Cost	\$2,189.11
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	\$3,499.62
Placed in Service	July 2005		
Useful Life	25		
Replacement Year	2030		
Remaining Life	19		

This component provides funding for the replacement of the Satellite Binocular piece of the Kompan Play Equipment located in Pocket Park.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided a cost of \$1,945 to replace the satellite binocular.

**New Columbia Owners Association  
Detail Report by Category**

<b>Pocket Park - Spica</b>		4 EA	@ \$3,089.52
Asset ID	1019	Asset Cost	\$12,358.08
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	\$19,756.25
Placed in Service	July 2005		
Useful Life	25		
Replacement Year	2030		
Remaining Life	19		

This component provides funding for the replacement of the Spica piece of the Kompan Play Equipment located in Pocket Park.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley a quantity of four spica. An estimated cost of \$2,745 was provided to replace each spica.

<b>Pocket Park - Supernova</b>		1 EA	@ \$6,916.25
Asset ID	1022	Asset Cost	\$6,916.25
	Capital	Percent Replacement	100%
	Park & Playground Equipment	Future Cost	\$11,056.66
Placed in Service	July 2005		
Useful Life	25		
Replacement Year	2030		
Remaining Life	19		

This component provides funding for the replacement of the Super Nova piece of the Kompan Play Equipment located in Pocket Park.

Useful life assumption is based on estimates established on RS Means and/or the National Estimator.

The New Columbia Reserve Study provided by Donna Kelley provided a cost of \$6,145 to replace the supernova.



# Additional Disclosures

## Levels of Service

The following three categories describe the various types of Reserve Studies, from exhaustive to minimal.

**I. Full:** A Reserve Study in which the following five Reserve Study tasks are performed:

- Component Inventory
- Condition Assessment (based upon on-site visual observations)
- Life and Valuation Estimates
- Fund Status
- Funding Plan

**II. Update, With-Site-Visit/On-Site Review:** A Reserve Study update in which the following five Reserve Study tasks are performed:

- Component Inventory (verification only, not quantification)
- Condition Assessment (based on on-site visual observations)
- Life and Valuation Estimates
- Fund Status
- Funding Plan

**III. Update, No-Site-Visit/Off Site Review:** A Reserve Study update with no on-site visual observations in which the following three Reserve Study tasks are performed:

- Life and Valuation Estimates
- Fund Status
- Funding Plan

## Terms and Definitions

**CASH FLOW METHOD:** A method of developing a Reserve Funding Plan 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:** The individual line items in the Reserve Study, developed or updated in the Physical Analysis. These elements form the building blocks for the Reserve Study. Components typically are: 1) Association responsibility, 2) with limited Useful Life expectancies, 3) predictable Remaining Useful Life expectancies, 4) above a minimum threshold cost, and 5) as required by local codes.

**COMPONENT INVENTORY:** The task of selecting and quantifying Reserve Components. This task can be accomplished through on-site visual observations, review of association design and organizational documents, a review of established association precedents, and discussion with appropriate association representative(s) of the association or cooperative.

**COMPONENT METHOD:** A method of developing a Reserve Funding Plan where the total contribution is based on the sum of contributions for individual components. See "Cash Flow Method."

**CONDITION ASSESSMENT:** The task of evaluating the current condition of the component based on observed or reported characteristics.

**CURRENT REPLACEMENT COST:** See "Replacement Cost."

**DEFICIT:** An actual (or projected) Reserve Balance less than the Fully Funded Balance. The opposite would be a Surplus.

**EFFECTIVE AGE:** The difference between Useful Life and Remaining Useful Life. Not always equivalent to chronological age, since some components age irregularly. Used primarily in computations.

**FINANCIAL ANALYSIS:** The portion of a Reserve Study where current status of the Reserves (measured as cash or Percent Funded) and a recommended Reserve contribution rate (Reserve Funding Plan) are derived, and the projected Reserve income and expense over time is presented. The Financial Analysis is one of the two parts of a Reserve Study.

**FULLY FUNDED:** 100% Funded. When the actual (or projected) Reserve balance is equal to the Fully Funded Balance.



FULLY FUNDED BALANCE (FFB): Total Accrued Depreciation. An indicator against which Actual (or projected) Reserve balance can be compared. The Reserve balance that is in direct proportion to the fraction of life “used up” of the current Repair or Replacement cost. This number is calculated for each component, then summed together for an association total. Two formulae can be utilized, depending on the provider’s sensitivity to interest and inflation effects. Note: Both yield identical results when interest and inflation are equivalent.

$$\text{FFB} = \text{Current Cost} \times \text{Effective Age} / \text{Useful Life}$$

or

$$\text{FFB} = (\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) + [(\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) / (1 + \text{Interest Rate}) ^ \text{Remaining Life}] - [(\text{Current Cost} \times \text{Effective Age} / \text{Useful Life}) / (1 + \text{Inflation Rate}) ^ \text{Remaining Life}]$$

FUND STATUS: The status of the reserve fund as compared to an established benchmark such as per-cent funding.

The Association appears to be adequately funded as the threshold method.

FUNDING GOALS: Independent of methodology utilized, the following represent the basic categories of Funding Plan goals:

Baseline Funding: Establishing a Reserve funding goal of keeping the Reserve cash balance above zero.

Full Funding: Setting a Reserve funding goal of attaining and maintaining Reserves at or near 100% funded.

Statutory Funding: Establishing a Reserve funding goal of setting aside the specific minimum amount of Reserves required by local statutes.

Threshold Funding: Establishing a Reserve funding goal of keeping the Reserve balance above a specified dollar or Percent Funded amount. Depending on the threshold, this may be more or less conservative than “Fully Funding.”

FUNDING PLAN: An association’s plan to provide income to a Reserve fund to offset anticipated expenditures from that fund.

FUNDING PRINCIPLES:

- Sufficient Funds When Required
- Stable Contribution Rate over the Years
- Evenly Distributed Contributions over the Years
- Fiscally Responsible

LIFE AND VALUATION ESTIMATES: The task of estimating Useful Life, Remaining Useful Life, and Repair or Replacement Costs for the Reserve components.

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.

**PHYSICAL ANALYSIS:** The portion of the Reserve Study where the Component Inventory, Condition Assessment, and Life and Valuation Estimate tasks are performed. This represents one of the two parts of the Reserve Study.

**REMAINING USEFUL LIFE (RUL):** Also referred to as “Remaining Life” (RL). The estimated time, in years, that a reserve component can be expected to continue to serve its intended function. Projects anticipated to occur in the initial year have “zero” Remaining Useful Life.

**REPLACEMENT COST:** The cost of replacing, repairing, or restoring a Reserve Component to its original functional condition. The Current Replacement Cost would be the cost to replace, repair, or restore the component during that particular year.

**RESERVE BALANCE:** Actual or projected funds as of a particular point in time that the association has identified for use to defray the future repair or replacement of those major components which the association is obligated to maintain. Also known as Reserves, Reserve Accounts, Cash Reserves. Based upon information provided and not audited.

**RESERVE PROVIDER:** An individual that prepares Reserve Studies.

**RESERVE STUDY:** A budget planning tool which identifies the current status of the Reserve fund and a stable and equitable Funding Plan to offset the anticipated future major common area expenditures. The Reserve Study consists of two parts: the Physical Analysis and the Financial Analysis. “Our budget and finance committee is soliciting proposals to update our Reserve Study for next year’s budget.”

**RESPONSIBLE CHARGE:** A reserve specialist in responsible charge of a reserve study shall render regular and effective supervision to those individuals performing services which directly and materially affect the quality and competence rendered by the reserve specialist. A reserve specialist shall maintain such records as are reasonably necessary to establish that the reserve specialist exercised regular and effective supervision of a reserve study of which he was in responsible charge. A reserve specialist engaged in any of the following acts or practices shall be deemed not to have rendered the regular and effective supervision required herein: