

Reserve Study
Project No. 10014.1

Prepared for
Miller Ranch Townhome Association
Edwards, Colorado

Prepared by
Bornengineering
8310 South Valley Highway, 3rd Floor
Englewood, Colorado 80112

November 18, 2010

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Miller Ranch Townhome Association

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November 18, 2010

Mr. Steve Stafford
Miller Ranch Townhome Association
c/o Slifer Management Company, Inc.
P.O. Box 2264
Edwards, Colorado 81632
E-mail: sstafford@slifermgmt.com
Phone: 970-926-7911

Re: Miller Ranch Townhome Association, Edwards, Colorado
Reserve Study – Project No. 10014.1

Dear Members of the Board of Directors:

Bornengineering has been commissioned by Slifer Management Company, Inc. to prepare a Reserve Study. The purpose of this Reserve Study is to evaluate the common-area components for major repair, maintenance and replacement items that are the responsibility of the Miller Ranch Townhome Association. This Study provides a limited-scope evaluation of the existing condition and remaining life of the common-area components. The Study also includes estimated costs for the major repair, maintenance and replacement items to enable the Association to establish an adequate level of reserve funds for the upkeep of the property.

Community Description

Miller Ranch Townhome Association consists of 7 buildings that house 49 townhome-style residences that were built between 2003 and 2004. The Association maintenance responsibilities consist of asphalt driveways, wood fencing, painting associated with garage doors, and exterior façade, and roofs.

Approach

To prepare this Reserve Study, Bornengineering has completed the necessary research, the component report, the cost estimates, the financial projections, and the projection interpretation.

The Study identifies each reserve component, estimates the quantities of the reserve components and assigns major action items to those components. A major action item is defined as anything estimated to be over \$1,000. Reserve cost estimates were determined from bids received from similar projects, unit costs obtained from projects of similar size and scope, past expenditures on similar work and cost estimating guides (RS Means, Walkers Builders Estimators Reference Book, Dodge Unit Cost Guide). We use typical useful lives and unit costs, presuming the systems were properly installed in compliance with local code requirements, manufacturer installation requirements and original construction documents. This Reserve Study is not intended to be a construction compliance assessment or maintenance manual. The Study was prepared based on visual observations. The Study comments on the locations, physical

description, the component condition, age, expected useful life, effective useful life, recommendations, and assigns action items to the components during the term of the Study.

The projections were assembled using the cash flow method. This method develops 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 a desired funding program is achieved.

The assigned action items and replacement costs for the component items are entered into our in-house projection software and the reserve projections include the following information:

- A summary page with general information about the Association and the projection summary results.
- The starting reserve fund balance and a projection starting date.
- Inflation factor, interest rate, tax rate (on interest earned), and loan rate if applicable.
- Monthly, bi-annual, annual, or special assessment contributions to the fund.
- A 30-year projection graph that displays the reserve fund balance and incorporates the assessment contribution, future estimated expenditures, inflation, interest, tax (on interest earned if applicable).
- A report detailing the estimated expenditures assigned to the individual reserve items.
- A chronological breakdown of the estimated reserve items in a calendar format.

There are three different reserve projections in the Study that were prepared in the following ways:

Existing Reserve Projection

The existing reserve projection is based upon current reserve fund contribution levels.

Preliminary Reserve Projection

The preliminary reserve projection is identical to the existing reserve projection except the reserve fund contributions are modified to allow the funds to cover the expenses over the term of the Study.

Final Reserve Projection

The final reserve projection is produced after the board of directors and/or management has had the opportunity to review and comment on the existing and preliminary reserve projections. Since the Study is to be a working plan that the Association will endorse and utilize, input is requested on the following items:

- Reserve items or estimated expenditures listed in the existing and preliminary projections.
- Timing of estimated expenditures listed in the existing and preliminary projections.
- Homeowner contributions, either through special assessments or regular assessments.

Note: Although costs for projects are beyond the control of Bornengineering, suggestions can be made for alternative materials or repair methods as requested by the Board of Directors or the Property Management Company.

Bornengineering recommends updating the Reserve Study annually or at least every two years

to account for changes in inflation, reserve account interest rates, product life and other variables.

Reference Material

The following references were provided to Bornengineering for this Reserve Study by the Management Company and/or the Board of Directors:

- March 2010 financial balance sheet
- Interest rate earned on invested capital funds
- Historical expense and past capital project information

Exclusions

Items not included in this Study are:

- Non-common or non-limited common area components.
- Association components with work that have estimated costs below the reserve component threshold amount of \$1,000.
- Long lasting items with estimated economic lives exceeding 30 years, such as sanitary sewers or building structural components. However, these items are included if they are known to have a fairly predictable anticipated useful life that falls within the span of the projection.
- Normal monthly operating items, i.e., taxes, insurance, snow plowing, utilities, cleaning and landscape maintenance, etc., are typically not funded by the reserve account.

Disclaimer

This Reserve Study was prepared specifically for Miller Ranch Townhome Association. The information contained within this document has been assembled in conjunction with the client and is intended to assist the client with its reserve planning and funding. Bornengineering has performed visual site observations of the project to identify components and action items. These observations are non-invasive in nature and do not include any testing, verification of the original intent of the designer, or compliance with industry standards. Bornengineering does not guarantee, either explicitly or implied, that all repair and replacement items have been identified, the accuracy of the probable costs or the product lives associated with these items.

In providing the opinions of probable replacement costs, the client understands that Bornengineering has no control over costs or the price of labor, equipment or materials, or over the contractor's method of pricing, and that the opinions of probable replacement costs provided herein are made on the basis of Bornengineering's qualifications and experience. Bornengineering makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to bid or actual costs.

All comments made are based on conditions seen at the time of this visual observation. We do not accept any responsibility for unknown or unknowable conditions within the existing site or structures.

If you have any questions regarding this report, please do not hesitate to contact our office.

Sincerely,

Bornengineering

A handwritten signature in black ink, appearing to read 'NLM', with a large, stylized flourish extending from the end of the signature.

Neil L. Mekelburg, P.E., R.S.
Principal

Reserve Study Component Report

A. Paving

A1. Asphalt Drives

Location: Driveways associated with detached garages for the townhome units.

Description: Estimated 10,340 square feet of 10 feet wide, presumed recycled bituminous asphalt pavement.

Condition: Good condition with low grade raveling/weathering noted.

Preventative Maintenance

Seal Coating protects asphalt from ultraviolet rays and water, which helps to slow the process of oxidation and raveling. The goal of seal coat is create a waterproof, protective coating that can increase the life of an Associations pavement and improve appearance. *Source: Rocky Mountain Pavement*

Crack seal is a long term, cost effective way to maintain the life of an Associations pavement. It seals the cracks from water intrusion and other damaging factors. Material is applied hot to crate a bond with the existing pavement as a defense against pavement deterioration. *Source: Rocky Mountain Pavement*

Corrective Maintenance

Asphalt overlays are an application of a layer of bituminous material to an existing surface. The benefits of asphalt overlays is that it adds structural strength to the existing surface, can improve drainage, re-establishes proper grade and smooth ride, and can be less expensive than complete removal and replacement. Asphalt milling may be needed in areas where curb and gutters are present. *Source: Rocky Mountain Pavement*

Conventional Patching repairs sub-grade failures by removing existing asphalt, possible excavation of subgrade material, possible addition of compacted fill material, and replacement of asphalt. The benefits to patchwork is that it stabilizes sub-grade material, re-establish proper drainage, and permanent and long lasting. *Source: Rocky Mountain Pavement*

Age: Varies.

Expected Useful Life: Indefinite with preventative and corrective maintenance.

Effective Useful Life: Indefinite with preventative and corrective maintenance.

Action(s):

- Cyclically seal coat and crack fill the asphalt surface every 3 years, starting in 2012.
- Mill and overlay and/or full depth patch replace the asphalt associated with the parking areas every 18 years, starting in 2027. Prior to this work, we recommend contacting an engineer to recommend the most cost-effective way to perform the work, i.e., some areas of the asphalt may need full depth patch replacement; and other areas may need to be milled and overlaid. Engineer evaluation fees have been included in this component.



B. Landscaping and Appurtenances

B1. Wood Fencing

Location: End townhome units adjacent to streets and common areas.

Description: 885 linear feet of 6-foot high, wood privacy fencing.

Condition: Good to fair condition with damaged and/or missing wood pickets noted.

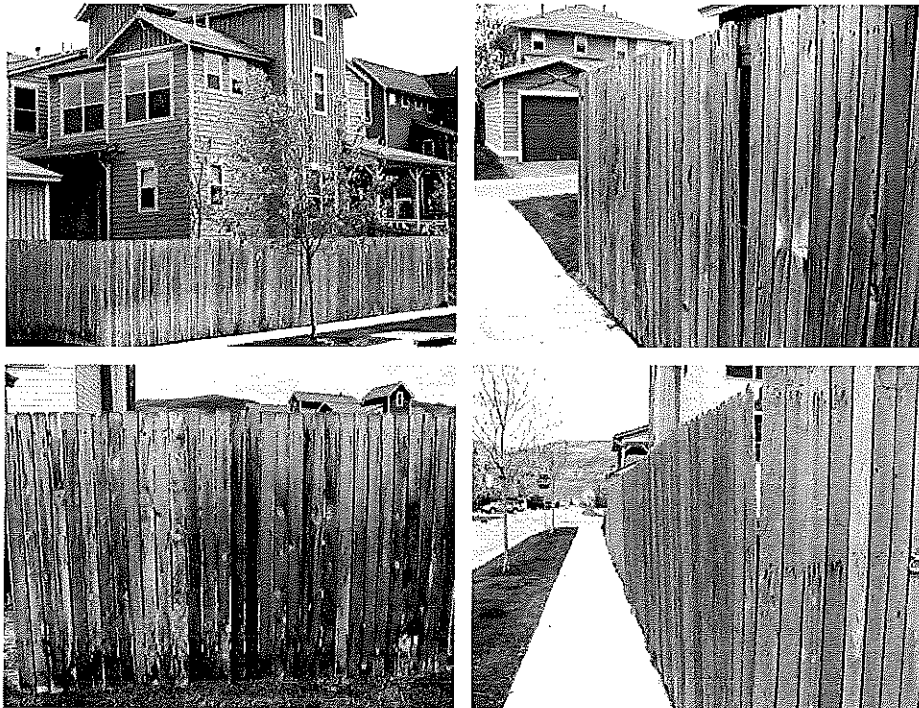
Age: Estimated 6 years old.

Expected Useful Life: 14 to 16 years with maintenance.

Effective Useful Life: 8 to 10 years.

Action(s):

- Cyclically stain or seal the wood fencing every 5 years, starting in 2011.
- Cyclically remove and replace approximately 1/3 of the wood fencing every 5 years, starting in 2016.



C. Façade

C1. Siding and Trim

Location: Exterior of townhome units and detached garages associated with the townhomes.

Description: Cementitious lap siding and hard board products installed as fascia, soffit, paneling, and window and door trim.

Condition: Good to fair condition. We noted several areas where the paint has deteriorated due to snow accumulation during the winter season. We were informed that all seven townhome buildings and detached garages associated with the townhomes will be completely painted by the end of the 2010 summer.

Age:

- Paint - Estimated 0 to 1 year old.
- Siding and Trim - Estimated 6 years old.

Expected Useful Life:

- Paint - 5 to 7 years.
- Siding and Trim - 30 to 40 years.

Effective Useful Life:

- Paint - 4 to 5 years.
- Siding and Trim - 24 to 34 years.

Action(s):

- Cyclically prep and paint the siding and trim and replace any damaged or deteriorated sections every 7 years, starting in 2017.
- Remove and replace the siding and trim in 2040.



C2. Metal Building Features

Location: Exterior of several townhome units.

Description: 2,580 square feet of 2-foot wide corrugated metal panels fastened to townhome framing components.

Condition: Good condition.

Age: Estimated 6 years old.

Expected Useful Life: 30 to 40 years.

Effective Useful Life: 24 to 34 years.

Action(s):

- Remove and replace metal paneling in 2040.
- Annually inspect the surface and fasteners along with repair any damaged paneling sections. This cost is not included in the Study because normally associations perform this as a maintenance item and the cost is considered an operating expense.



C3. Garage Doors

Location: At the vehicular entrances to the detached townhome garages.

Description: 5,488 square feet of 7-foot tall panelized metal garage doors.

Condition: The paint associated with the garage doors is in good condition. We were informed that the Association is only responsible for the painting of the garage doors.

Age:

- Paint - Estimated 0 to 1 year old.
- Garage Doors - estimated 6 years old.

Expected Useful Life:

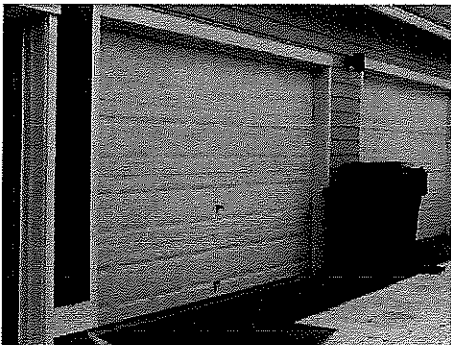
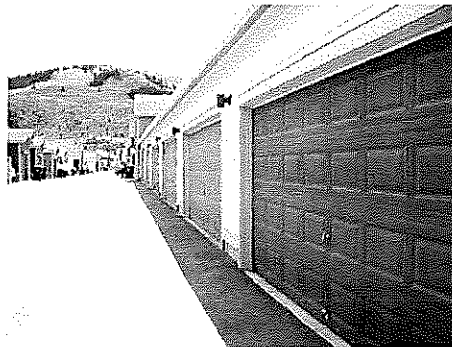
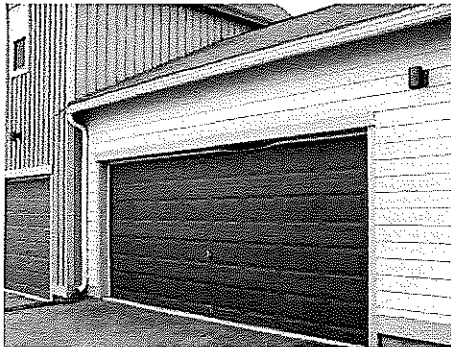
- Paint - 5 to 7 years.
- Garage Doors - 16 to 18 years.

Effective Useful Life:

- Paint - 4 to 5 years.
- Garage Doors - 10 to 12 years.

Action(s):

- Cyclically prep and paint the garage doors every 7 years, starting in 2017. The painting schedule is in correlation to the Siding and Trim component. The cost associated with this component is included in the cost of the Siding and Trim component.



D. Roofing

D1. Asphalt Shingled Roofs

Location: On the roofs of all the townhome buildings and detached garages associated with the townhomes.

Description: Estimated 853 squares of laminated asphalt shingles over a membrane.

Condition: The roofs appeared to be in good condition, based only on the visual characteristics of the shingle material.

Age: Estimated 6 years old.

Expected Useful Life: 15 to 20 years due to mountainous climate.

Effective Useful Life: 14 years.

Action(s):

- Cyclically remove and replace the asphalt shingled roofs every 20 years, starting in 2025.



D2. Gutters, Downspouts and Extensions

Location: At the roof edges of all the townhome buildings and detached garages associated with the townhomes.

Description: Estimated 2,303 linear feet of aluminum gutters, downspouts, and extensions.

Condition: Good to fair condition overall. We noted some areas where the arrangement of the downspout extensions is displacing landscaping materials and other locations where the current geometry is unsatisfactory for effectively conveying the stormwater discharge from the downspouts. We also note several gutters that were tilted and/or bent. We were informed by the Association that additional gutters will be installed at the top of the 2nd floor eaves at the time when additional heat tape is installed for each townhome unit. The Association would like to install the additional heat tape and gutters at a phasing schedule of two units per year.

Age: Estimated 6 years old.

Expected Useful Life: 15 years due to mountainous climate.

Effective Useful Life: 9 years due to mountainous climate.

Action(s):

- Cyclically prep and paint the gutters, downspouts, and extensions associated with driveway side of the detached garages. Also replace any damaged or deteriorated sections for all the gutters, downspouts, and extension regarding the detached garages and the townhome units every 5 years, starting in 2015. The painting schedule for this component is in correlation to the painting schedule for the Siding and Trim component of this Study. The cost for this component is included in the Siding and Trim component.
- Cyclically remove and replace gutters, downspouts, and extensions every 15 years, starting in 2020.



D3. Heat Tape

Location: Within the gutters and downspouts of several townhome units.

Description: Unknown brand, phasing, and quantity.

Condition: Good to fair condition based on information give to us from the Association stating that heat tape within the gutters and downspouts for the garages are not being used and/or does not have electrical connections available. We were informed by the Association that additional gutters and heat tape need to be installed for each townhome unit. In the May of 2010, the Association contracted a company to install gutters and downspouts on the eaves of a townhome roof, the top of the 2nd floor, along with heat tape. The Association would like to install the additional heat tape and gutters at a phasing schedule of two units a years at base cost of \$1400 for each unit. The base cost includes labor and electrical connection. A budget will be set for \$3000 per year, plus inflation, for the life of this Study. Budget could be used for repairing and/or additional installation of heat tape applications for various townhome units.

Age: Varies.

Expected Useful Life: 20 to 25 years.

Effective Useful Life: Varies.

Action(s):

- Cyclically inspect, repair and/or install additional heat tape cables for selected townhome units and detached garages every year, starting in 2011.



**Miller Ranch Townhome Association
Reserve Component Detail**

Description	Date in Service	Replacement Year	Useful	Adjustment Remaining	Units	Unit Cost	Current Cost	
Asphalt Drives								
Cyclically seal coat and crack fill	2012	2012	3	0	1	10,340 square feet	0.23	2,378
Engineering fees for asphalt evaluation	2027	2027	18	0	16	1 Unit	5,000.00	5,000
Mill and overlay and/or full depth patch..	2027	2027	18	0	16	5,170 square feet	1.58	8,169
Asphalt Drives - Total								<u>\$15,547</u>
Wood Fencing								
Cyclically remove and replace wood fe..	2016	2016	15	0	5	294 linear feet	23.11	6,817
Cyclically stain or seal	2011	2011	5	0	0	885 linear feet	3.39	3,000
Wood Fencing - Total								<u>\$9,817</u>
Siding and Trim								
Cyclically prep and paint the siding and..	2010	2017	7	0	6	103,061 square feet	0.99	102,030
Remove and replace	2004	2040	35	1	29	97,314 square feet	3.08	299,727
Siding and Trim - Total								<u>\$401,758</u>
Metal Building Features								
Remove and replace the metal paneling	2004	2040	35	1	29	2,580 square feet	8.12	20,950
Metal Building Features - Total								<u>\$20,950</u>
Garage Doors								
Cyclically paint the garage doors						<i>unfunded</i>		
Asphalt Shingled Roofs								
Remove and replace the asphalt shingl..	2004	2025	20	1	14	853 squares	400.00	341,200
Asphalt Shingled Roofs - Total								<u>\$341,200</u>
Gutters, Downspouts and Extensions								
Remove and replace gutters, downspo..	2004	2020	15	1	9	2,303 linear feet	8.55	19,691
Gutters, Downspouts and Extensions - Total								<u>\$19,691</u>
Heat Tape								
Repair and/or install additional heat ta..	2010	2011	1	0	0	1 Unit	3,000.00	3,000
Heat Tape - Total								<u>\$3,000</u>
Total Asset Summary								<u>\$811,961</u>

**Miller Ranch Townhome Association
Reserve Study Annual Expenditure Spread Sheet**

Description	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Asphalt Drives										
Cyclically seal coat and crack fill		2,450			2,677			2,925		
Engineering fees for asphalt evaluation Mill and overlay and/or full depth patch..										
Asphalt Drives Total:		2,450			2,677			2,925		
Wood Fencing										
Cyclically remove and replace wood fe..						7,903				
Cyclically stain or seal	3,000									
Wood Fencing Total:	3,000					7,903				
Siding and Trim										
Cyclically prep and paint the siding and.. Remove and replace							121,830			
Siding and Trim Total:							121,830			
Metal Building Features										
Remove and replace the metal paneling										
Metal Building Features Total:										
Garage Doors										
Cyclically paint the garage doors										
<i>unfunded</i>										
Asphalt Shingled Roofs										
Remove and replace the asphalt shingl..										
Asphalt Shingled Roofs Total:										25,692
Gutters, Downspouts and Extensions										
Remove and replace gutters, downspo..										
Gutters, Downspouts and Extensions Total:										25,692
Heat Tape										
Repair and/or install additional heat ta..	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914
Heat Tape Total:	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914
Year Total:	6,000	5,540	3,183	3,278	6,053	11,380	125,412	6,615	3,800	29,606

**Miller Ranch Townhome Association
Reserve Study Annual Expenditure Spread Sheet**

Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Asphalt Drives										
Cyclically seal coat and crack fill	3,196			3,492						4,170
Engineering fees for asphalt evaluation						8,024				
Mill and overlay and/or full depth patch..						13,108				
Asphalt Drives Total:	3,196			3,492		21,132				4,170
Wood Fencing										
Cyclically remove and replace wood fe..	9,161				10,620					
Cyclically stain or seal	4,032				4,674					
Wood Fencing Total:	13,193				15,294					
Siding and Trim										
Cyclically prep and paint the siding and..				149,835						
Remove and replace										
Siding and Trim Total:				149,835						
Metal Building Features										
Remove and replace the metal paneling										
Metal Building Features Total:										
Garage Doors										
Cyclically paint the garage doors										
Asphalt Shingled Roofs										
Remove and replace the asphalt shingl..					516,096					
Asphalt Shingled Roofs Total:					516,096					
Gutters, Downspouts and Extensions										
Remove and replace gutters; downspo..										
Gutters, Downspouts and Extensions Total:										
Heat Tape										
Repair and/or install additional heat ta..	4,032	4,153	4,277	4,406	4,538	4,674	4,814	4,959	5,107	5,261
Heat Tape Total:	4,032	4,153	4,277	4,406	4,538	4,674	4,814	4,959	5,107	5,261
Year Total:	20,421	4,153	4,277	157,733	520,633	19,968	25,946	4,959	5,107	9,431

**Miller Ranch Townhome Association
Reserve Study Annual Expenditure Spread Sheet**

Description	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Asphalt Drives										
Cyclically seal coat and crack fill			4,557			4,979			5,441	
Engineering fees for asphalt evaluation										
Mill and overlay and/or full depth patch..										
Asphalt Drives Total:			4,557		4,979				5,441	
Wood Fencing										
Cyclically remove and replace wood fe..	12,312				14,273					
Cyclically stain or seal					6,282					
Wood Fencing Total:	12,312				20,554					
Siding and Trim										
Cyclically prep and paint the siding and..	184,278						226,639			706,327
Remove and replace										
Siding and Trim Total:	184,278						226,639			706,327
Metal Building Features										
Remove and replace the metal paneling									49,369	49,369
Metal Building Features Total:									49,369	49,369
Garage Doors										
Cyclically paint the garage doors										
Asphalt Shingled Roofs										
Remove and replace the asphalt shingl..										
Asphalt Shingled Roofs Total:										
Gutters, Downspouts and Extensions										
Remove and replace gutters, downspo..					40,027					
Gutters, Downspouts and Extensions Total:					40,027					
Heat Tape										
Repair and/or install additional heat ta..	5,418	5,581	5,748	5,921	6,098	6,281	6,470	6,664	6,864	7,070
Heat Tape Total:	5,418	5,581	5,748	5,921	6,098	6,281	6,470	6,664	6,864	7,070
Year Total:	202,008	5,581	10,305	5,921	46,125	31,815	6,470	233,303	12,305	762,765

**Miller Ranch Townhome Association
Reserve Study Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2011	
Wood Fencing	
Cyclically stain or seal	3,000
Heat Tape	
Repair and/or install additional heat tape	3,000
Total for 2011	<u>\$6,000</u>
Replacement Year 2012	
Asphalt Drives	
Cyclically seal coat and crack fill	2,450
Heat Tape	
Repair and/or install additional heat tape	3,090
Total for 2012	<u>\$5,540</u>
Replacement Year 2013	
Heat Tape	
Repair and/or install additional heat tape	3,183
Total for 2013	<u>\$3,183</u>
Replacement Year 2014	
Heat Tape	
Repair and/or install additional heat tape	3,278
Total for 2014	<u>\$3,278</u>
Replacement Year 2015	
Asphalt Drives	
Cyclically seal coat and crack fill	2,677
Heat Tape	
Repair and/or install additional heat tape	3,377
Total for 2015	<u>\$6,053</u>
Replacement Year 2016	
Wood Fencing	
Cyclically remove and replace wood fencing	7,903
Heat Tape	
Repair and/or install additional heat tape	3,478
Total for 2016	<u>\$11,380</u>

**Miller Ranch Townhome Association
Reserve Study Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2017	
Siding and Trim	
Cyclically prep and paint the siding and trim and replace an..	121,830
Heat Tape	
Repair and/or install additional heat tape	3,582
Total for 2017	\$125,412
Replacement Year 2018	
Asphalt Drives	
Cyclically seal coat and crack fill	2,925
Heat Tape	
Repair and/or install additional heat tape	3,690
Total for 2018	\$6,615
Replacement Year 2019	
Heat Tape	
Repair and/or install additional heat tape	3,800
Total for 2019	\$3,800
Replacement Year 2020	
Gutters, Downspouts and Extensions	
Remove and replace gutters, downspouts and extensions	25,692
Heat Tape	
Repair and/or install additional heat tape	3,914
Total for 2020	\$29,606
Replacement Year 2021	
Asphalt Drives	
Cyclically seal coat and crack fill	3,196
Wood Fencing	
Cyclically remove and replace wood fencing	9,161
Cyclically stain or seal	4,032
Heat Tape	
Repair and/or install additional heat tape	4,032
Total for 2021	\$20,421

**Miller Ranch Townhome Association
Reserve Study Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2022	
Heat Tape	
Repair and/or install additional heat tape	4,153
Total for 2022	\$4,153
Replacement Year 2023	
Heat Tape	
Repair and/or install additional heat tape	4,277
Total for 2023	\$4,277
Replacement Year 2024	
Asphalt Drives	
Cyclically seal coat and crack fill	3,492
Siding and Trim	
Cyclically prep and paint the siding and trim and replace an..	149,835
Heat Tape	
Repair and/or install additional heat tape	4,406
Total for 2024	\$157,733
Replacement Year 2025	
Asphalt Shingled Roofs	
Remove and replace the asphalt shingled roofs	516,096
Heat Tape	
Repair and/or install additional heat tape	4,538
Total for 2025	\$520,633
Replacement Year 2026	
Wood Fencing	
Cyclically remove and replace wood fencing	10,620
Cyclically stain or seal	4,674
Heat Tape	
Repair and/or install additional heat tape	4,674
Total for 2026	\$19,968
Replacement Year 2027	
Asphalt Drives	
Engineering fees for asphalt evaluation	8,024

**Miller Ranch Townhome Association
Reserve Study Annual Expenditure Detail**

Description	Expenditures
<i>Replacement Year 2027 continued...</i>	
Mill and overlay and/or full depth patch replacement	13,108
Heat Tape	
Repair and/or install additional heat tape	4,814
Total for 2027	<u>\$25,946</u>
 Replacement Year 2028	
Heat Tape	
Repair and/or install additional heat tape	4,959
Total for 2028	<u>\$4,959</u>
 Replacement Year 2029	
Heat Tape	
Repair and/or install additional heat tape	5,107
Total for 2029	<u>\$5,107</u>
 Replacement Year 2030	
Asphalt Drives	
Cyclically seal coat and crack fill	4,170
Heat Tape	
Repair and/or install additional heat tape	5,261
Total for 2030	<u>\$9,431</u>
 Replacement Year 2031	
Wood Fencing	
Cyclically remove and replace wood fencing	12,312
Siding and Trim	
Cyclically prep and paint the siding and trim and replace an..	184,278
Heat Tape	
Repair and/or install additional heat tape	5,418
Total for 2031	<u>\$202,008</u>
 Replacement Year 2032	
Heat Tape	
Repair and/or install additional heat tape	5,581
Total for 2032	<u>\$5,581</u>

**Miller Ranch Townhome Association
Reserve Study Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2033	
Asphalt Drives	
Cyclically seal coat and crack fill	4,557
Heat Tape	
Repair and/or install additional heat tape	5,748
Total for 2033	<u>\$10,305</u>
Replacement Year 2034	
Heat Tape	
Repair and/or install additional heat tape	5,921
Total for 2034	<u>\$5,921</u>
Replacement Year 2035	
Gutters, Downspouts and Extensions	
Remove and replace gutters, downspouts and extensions	40,027
Heat Tape	
Repair and/or install additional heat tape	6,098
Total for 2035	<u>\$46,125</u>
Replacement Year 2036	
Asphalt Drives	
Cyclically seal coat and crack fill	4,979
Wood Fencing	
Cyclically remove and replace wood fencing	14,273
Cyclically stain or seal	6,282
Heat Tape	
Repair and/or install additional heat tape	6,281
Total for 2036	<u>\$31,815</u>
Replacement Year 2037	
Heat Tape	
Repair and/or install additional heat tape	6,470
Total for 2037	<u>\$6,470</u>
Replacement Year 2038	
Siding and Trim	
Cyclically prep and paint the siding and trim and replace an..	226,639

**Miller Ranch Townhome Association
Reserve Study Annual Expenditure Detail**

Description	Expenditures
<i>Replacement Year 2038 continued...</i>	
Heat Tape	
Repair and/or install additional heat tape	6,664
Total for 2038	\$233,303
Replacement Year 2039	
Asphalt Drives	
Cyclically seal coat and crack fill	5,441
Heat Tape	
Repair and/or install additional heat tape	6,864
Total for 2039	\$12,305
Replacement Year 2040	
Siding and Trim	
Remove and replace	706,327
Metal Building Features	
Remove and replace the metal paneling	49,369
Heat Tape	
Repair and/or install additional heat tape	7,070
Total for 2040	\$762,765

**Miller Ranch Townhome Association
Final Reserve Study Summary**

Report Date	November 18, 2010
Account Number	10014.1
Budget Year Beginning	January 01, 2011
Budget Year Ending	December 31, 2011
Total Units	49
Phase Development	1 of 1

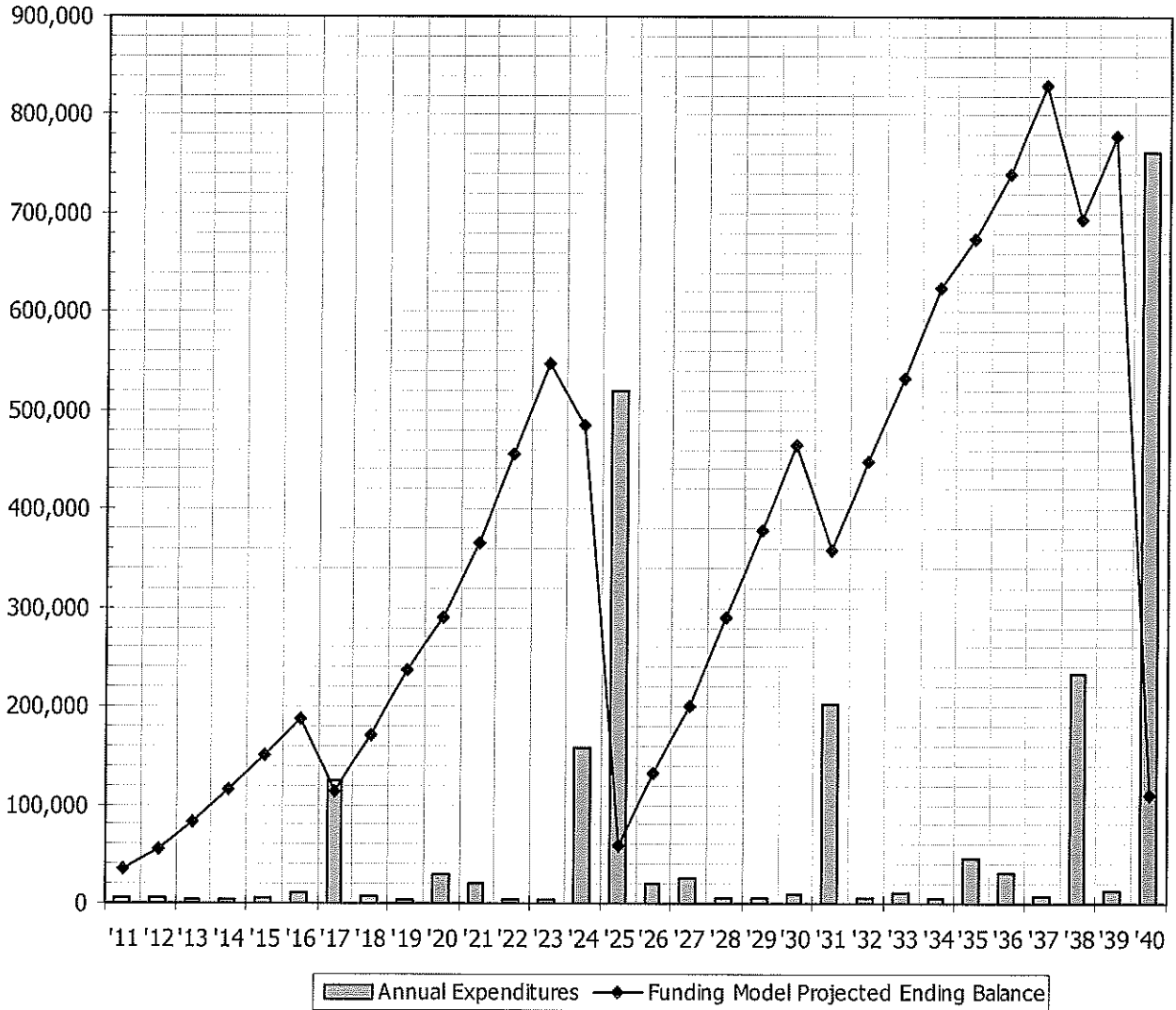
Inflation	3.00%
Interest Rate on Reserve Deposit	0.57%
Tax Rate on Interest	0.00%
Contingency	1.00%
2011 Beginning Balance	\$17,500.00

Year	Annual Contribution	Ave. Monthly Per Member	Percentage Increase
2011	23,000	39.12	15%
2012	26,450	44.98	15%
2013	30,417	51.73	15%
2014	34,980	59.49	15%
2015	40,227	68.41	15%
2016	46,261	78.68	15%
2017	53,200	90.48	15%
2018	61,180	104.05	15%
2019	70,358	119.66	15%
2020	80,911	137.60	15%
2021	93,048	158.24	15%
2022+	93,048	158.24	0%

Final Funding Model Summary of Calculations

Required Monthly Contribution <i>\$39.12 per unit monthly</i>	\$1,916.67
Average Net Monthly Interest Earned	\$11.40
Total Monthly Allocation to Reserves <i>\$39.35 per unit monthly</i>	\$1,928.07

Miller Ranch Townhome Association Final Reserve Study Projection Graph



**Miller Ranch Townhome Association
Final Reserve Study Projection**

Beginning Balance: \$17,500

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves
2011	23,000	137	6,000	34,637
2012	26,450	248	5,540	55,795
2013	30,417	395	3,183	83,425
2014	34,980	566	3,278	115,693
2015	40,227	751	6,053	150,618
2016	46,261	939	11,380	186,438
2017	53,200	513	125,412	114,740
2018	61,180	807	6,615	170,113
2019	70,358	1,168	3,800	237,838
2020	80,911	1,440	29,606	290,583
2021	93,048	1,832	20,421	365,042
2022	93,048	2,350	4,153	456,287
2023	93,048	2,871	4,277	547,929
2024	93,048	2,518	157,733	485,761
2025	93,048	88	520,633	58,264
2026	93,048	507	19,968	131,850
2027	93,048	893	25,946	199,845
2028	93,048	1,402	4,959	289,336
2029	93,048	1,912	5,107	379,189
2030	93,048	2,401	9,431	465,207
2031	93,048	1,792	202,008	358,038
2032	93,048	2,302	5,581	447,807
2033	93,048	2,788	10,305	533,338
2034	93,048	3,302	5,921	623,767
2035	93,048	3,589	46,125	674,278
2036	93,048	3,959	31,815	739,470
2037	93,048	4,477	6,470	830,525
2038	93,048	3,701	233,303	693,971
2039	93,048	4,183	12,305	778,897
2040	93,048	380	762,765	109,560