

AN ENGINEERED RESERVE FUND STUDY



By Clear Path Engineering Inc.

www.clearpathengineering.ca

403-289-8918

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FINAL REPORT

Chaparral Adult Village

Condominium Plan No. 9810287

Chaparral Pointe S.E.

MANAGED BY Condominium First Management Services Ltd.



Clear Path Engineering Inc. respectfully submits this report to the Board of Condominium First Management Services Ltd. Condominium Corporation.

Executive Summary

Chaparral Adult Village is comprised of forty-eight villa style units located at Chaparral Pointe S.E. Calgary.

This new reserve fund plan starts out with a healthy balance of \$310,382 in 2013. No major expenditures are expected to occur that will impact the reserve fund in a negative manner. Because of this, monthly contributions are able to stay consistent until about 2028, at which time reserve contributions will increase moderately. The suggested funding plan is summarized below.

Fiscal Year	Total Annual Contribution	Monthly Contribution Per Unit
FY 2013 - FY 2027	\$56,000	\$97
FY 2028 - 2031	\$61,000 - \$86,000	\$106 - \$149
FY 2033 - 2037	\$96,000	\$167

The following expenditures are anticipated for the coming 5-year period, based on normal industry replacement cycles and/or observed conditions.

- Repainting of exterior items (Particularly wooden trim).
- Partial repairs/replacement of some garage aprons.
- Replacement of paving.
- Re staining of wooden decks.
- Sealing/oiling of the asphalt pavement.
- Asphalt pavement repairs.

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1.0 Introduction

Clear Path Engineering Inc. (Clear Path) of Calgary was commissioned by the Board of Directors of Chaparral Adult Village Condominium in October 1, 2012 to carry out a Reserve Fund Study. The intent and scope of the study was outlined in a proposal to Carol Lloyd at Condominium First Management Services Ltd. The scope of work was to:

- Establish the common property components as outlined in the Condominium Plan and associated by-laws.
- Carry out a visual review of the common property components to form an opinion of their condition and assess the remaining life of the components.
- Review operation and maintenance history, major repairs and other investigative reports that may be available.
- Describe the usual repair and/or replacement for each common property item and estimate the replacement cost.
- Summarize the observations in a Component Assessment with the estimated replacement cost, normal life, and estimated remaining life for each common property component.
- Provide a Cash Flow Table based on the latest financial statements to illustrate the level of funding adequacy in the Reserve Fund.
- Provide an alternate approach as required to establish a healthier Reserve Fund.

Carol Lloyd at Condominium First Management Services provided the background information for the study which included:

- Previous Reserve Fund Study of November 2010.
- Financial Statements of 2009, 2010 and 2011.
- 2002 Registered By-Laws.
- Contact List of Board members and services providers for 2012.

2.0 Project Description

Chaparral Adult Village is a forty-eight townhouse complex located at **Chaparral Pointe S.E.** The roofs are clad with asphalt shingles and the facade of the building is comprised of vinyl siding with rock accents.

Raised decks are included with every unit as well as single or double garages.

Two refuse/storage buildings are located on site.



Key Project Data

Number of Units	48	Interest Rate on Investment	1.5%
Plan Number	9810287	Annual Inflation Rate	2.2%
Project Construction Completed	1998	Starting Balance in Reserve at start of FY13, i.e., Sep. 1, 2012.	\$310,382
Fiscal Year, FY, End	Aug. 31	Reserve Fund Plan Cycle	25 years
Start of this Plan	Sep. 1, 2012	Total Annual Contribution (FY13)	\$56,000

3.0 Component Assessment

This section discusses the common property components that are included in this Reserve Fund Study for Chaparral Adult Village Condominium. Table 1, the first page of Appendix A, provides the summary listing of the components and the estimated replacement costs and timing which forms the basis of the financial analysis discussed in Section 4.

The pages that follow describe observations during our site visits of November 7, 2012 and draw from our discussions with suppliers, contractors and the property managers.

Relevant points about each component are highlighted and any recommendations, if needed, are provided. As stated previously, the site visits consisted of strictly visual observations without any testing or subsurface investigations involved.

Quantity estimates for each item have been prepared via a quantity take-off process from available survey legal plan and field measurements. The quantities combined with available regional and local construction cost data are used to develop the estimated replacement cost, in 2012 dollars. It must be stressed that these are estimates and that tendered costs based on a detailed scope of work, specifications and drawings, if required, will vary.

The determination of normal life, remaining life and replacement costs is by its nature subjective. Every effort is made to make the values as close as possible based on experience and available empirical data. The 'real' life of a component can differ from the estimates because of the many variables at play such as climate, changes in service parameters, degree of regular maintenance etc.

A dynamic approach to the planning and administration of the reserve fund is necessary. This document provides one tool in the property management tool kit. At a minimum it should be reviewed annually as part of the regular budget preparation process to reflect changes in financial criteria, replacements and new information. A site review to verify component performance should be carried out at least every five years.

Each building component has a normal life based upon industry experience that presumes adequate levels of maintenance are delivered as needed. The components' present age and the condition at the time of the site visit lead to a determination of estimated remaining life for that component.

3.1 Building Exterior

(01 - 07) Asphalt Shingles, Flashing, Fascia, Soffits, Eavestrough & Downspouts.

01 Roof - Asphalt Shingles - Phase I. This item is for the total replacement of the asphalt roof shingles. Also included is related work such as minor repair of subsurface sheathing. According to information received, replacement of the roof occurred in 2011. Due to the size of the complex and the magnitude of the cost, we are phasing future replacement into three phases. Included as well, is the replacement of the metal flashing used along the build out of roof cupolas.

02 Roof - Asphalt Shingles - Phase II. Refer to Item 01.

03 Roof - Asphalt Shingles - Phase III. Refer to Item 01.

04 Fascia - Metal. This item provides funds for the replacement of metal

clad fascia boards which is located on the clad roof line overhangs.

05 Soffits - Metal. This item allocates funds for the replacement of metal soffits that are located on the underside of the roof overhangs.

06 Eavestrough & Downspouts. This cost item is allocated for the complete replacement of the metal eavestrough and downspouts. Poor drainage of the downspouts can create settlement issues. It's important to ensure that the pipes are leading away from the foundation walls. In several instances, it was noted that down pipes were too close to foundation walls.



3.1 Downspouts located too close to the foundation of the building.



3.2 Extensive peeling of paint on wood trim.

(08 - 14) Trim, Vinyl Siding, Stone, Parging, Exterior Paint.

07 Trim - Wood. This item provides funds for the partial replacement of wood trim which is located at the peaks of the roof, and surrounding windows and doors. Painting of the trim is provided for in Item 14.

08 Cladding - Vinyl Siding - Phase I. This item provides funds for the replacement of vinyl siding. Vinyl siding is used throughout the building units and appears to be in good condition. Long exposures to the sun can break down the vinyl. We recommend power washing early next year. Due to the size of the complex and the magnitude of the cost, we are dividing replacement over three phases.

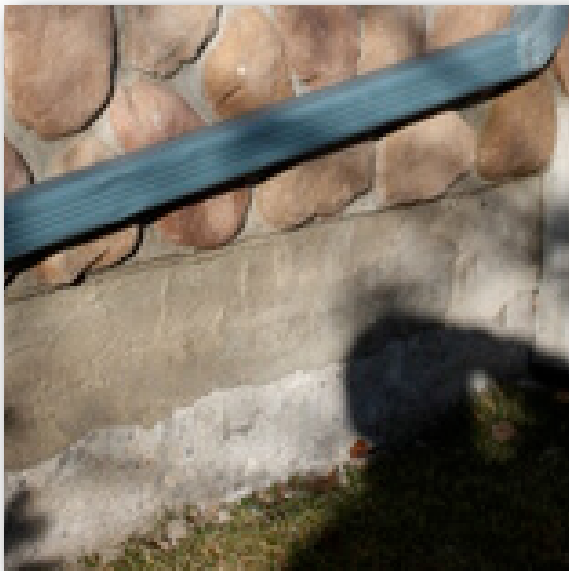
09 Cladding - Vinyl Siding - Phase II. Refer to Item 09.

10 Cladding - Vinyl Siding - Phase III. Refer to Item 09.

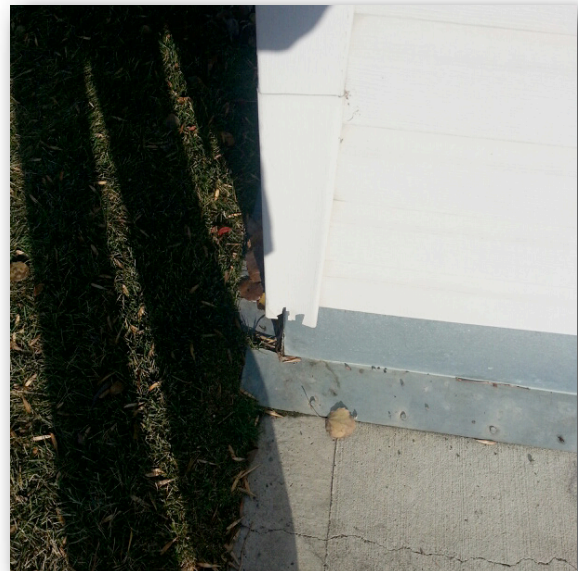
11 Cladding - Stone. This item provides funds for the partial replacement of the rock facing which is primarily located on the front sides of each building block and between each unit.

12 Parging. This item provides funds for the partial replacement of parging located on foundation walls above grade and below the vinyl cladding. Major break offs were observed on many of the buildings.

13 Painting - Exterior. This item provides funds for the repainting of exterior components including the wood trim and fascia. Wood trim around windows and doors are deteriorating and are in need of repainting. We have scheduled painting for spring/summer of 2013.



3.3 Parging break offs.



3.4 Minor damage to the vinyl siding on the north refuse building.

(15 - 20) Overhead Doors, Entry Doors, Windows, Patio Decking, Staining, Exterior Lighting.

14 Doors - Overhead - Side. This item provides funds for the replacement of the single overhead doors located on some units.

15 Doors - Overhead - Wide. This item provides funds for the replacement of double overhead doors located on units as well as the two refuse buildings.

16 Doors - Entry. This item provides funds for the replacement of the doors located at every unit entry.

17 Windows. This item provides funds for the replacement of exterior windows.

18 Patio Decking - Timber. This item provides funds for the repairs to the standard 8x12 wood patio decks located behind each unit. Any add ons to the decks are not a part of this fund or study.

19 Patio Deck - Staining. This item provides funds for the staining of the standard wood decks. We recommend staining in 2014.

20 Lighting - Exterior. This item provides funds for the standard light fixtures located at the main entry and balcony of each unit.



3.5 Balcony decks are worn and are in need of staining.



3.6 Standard exterior light fixtures.

3.2 Site Features

(21 - 25) Asphalt Pavement Sealing/Oiling & Repairs, Curbs, Steps, Garage Aprons.

21 Asphalt Pavement - Sealing/Oiling.

This item provides funds for the re sealing and oiling of the asphalt pavement on the internal roadway system. According to information received, top lifting was done in 2011. Re-sealing is anticipated for this year, in 2013.

22 Asphalt Pavement - Repairs. This item provides funds to the repairs of the asphalt pavement to maintain its lifecycle and function until the next overlay. Crack filling and areas where subgrade failure has occurred need to be repaired before any overlay or seal coat is applied.

23 Concrete - Cast-in-Place Curbs. This item provides funds for the partial replacement of the cast-in-place

concrete curbs. Cracks and break offs were observed in some areas.

24 Concrete - Pre-Cast Steps. This item provides funds for the replacement of pre-cast steps used to access each main entry of the unit. Some units have opted out of steps and instead, have installed ramps.

25 Concrete - Garage Aprons. This item provides funds for the partial replacement of the concrete garage aprons. There is a mixture of both single and double surfaces. Several cracks were consistently observed during the site visit. We have allowed for apron repairs or partial replacements every six years.



3.7 Some cracking in concrete driveway aprons.



3.8 Break offs to the cast in place concrete curbs.

(26 - 32) Fences, Privacy Fence, Refuse Buildings, Window Wells, Street Lamps.

26 Fence - Wood - North & East. This item provides funds for the repairs to the wood timber fence located on the north and east side of the property. Minor damage was observed at the east end of the property. According to information received, consideration of stripping all the wood fences and replacing it with vinyl fencing are anticipated.

27 Fence - Wood - South & West. This item provides funds for the repairs to the wood timber fence located on the south and west side of the property.

28 Fence - East Replacement. This item provides funds for the replacement of the entry fence on the east side of the property. Discussions with the Board indicate replacement in 2014.

29 Privacy Fence - Vinyl. This item provides funds for the replacement of

the vinyl privacy fences separating each units backyard. Holes were observed throughout several locations. According to information received, these are the original installations from 1998.

30 Refuse Buildings. This item provides some funds for the repairs to the two refuse buildings. Asphalt shingles, vinyl sidings and doors have already been accounted for in Items 1, 9 and 16 in this plan.

31 Window Wells. This item provides funds for the replacement of some of the corrugated galvanized metal window wells at each unit.

32 Lighting - Street Lamps. This item provides funds for the refurbishment of the high lamp post street lights located on the property.



3.9 The joint between driveways and pavement is in need of new sealant.



3.10 Typical asphalt paving of Chaparral Adult Village.

3.3 Allowances

(33 - 36) Landscape & Drainage, Underground Utilities, Plumbing, Electrical.

33 Landscape & Drainage. This item provides funds for major landscaping work. It includes regrading of landscaped surfaces for drainage purposes, replacement of trees and shrubs et cetera. Also included is regular upkeep and maintenance work.

34 Underground Utilities. This item is an allowance for the repair and replacement work on the underground utility lines from the property line to the building foundation wall. The scope of defects in the underground utility network are difficult to estimate. Nevertheless, we recommend that an allowance be in place to prepare for the repair of portions of these systems. Also included, is excavation work related to the utility lines and surface rehabilitation.

35 Plumbing. This item is for the replacement of various vertical and horizontal water and sewer lines and other plumbing components within walls and floors of the buildings. Experience shows that as building age, repairs are needed on water distribution and waste water collection lines and associated fixtures.

36 Electrical. This item is an allowance for the repair and replacement of small electrical components of the electrical distribution system such as breakers, panels, switches, et cetera. Experience shows that these types of expenditures are best covered through regular funding in short term cycles such as five years.



3.11 Settled area in the asphalt pavement resulting in poor drainage.



3.12 Settlement at the stairs of Unit 67.

(37 - 39) Contingency, Reserve Fund Update, Reserve Fund Study.

37 Contingency. This item is an allowance for unforeseen expenditures and cost increases.

38 Reserve Fund Update. This item provides funds for annual updates to the reserve fund plan. Annual reviews occur when there are changes to the components, costs or economies, i.e. inflation or interest rates. The Alberta Condominium Act requires that the general condominium ownership must be notified as such changes occur.

The amount budgeted in the study plan allows for the updating of the tables, issuing a revised or updated funding plan along with a letter summarizing the changes.

39 Reserve Fund Study. This item provides funds for the development of a full study report which includes a site review by one of our building specialists on a five year cycle.

The Alberta Condominium Act requires that a new study be prepared every five years minimum. The regulations also state that if there are changes in components, economies or new information is available, then funding plans should be updated. Clear Path can provide annual updates, which also fulfills a Board obligation of reporting on the status of the fund at the AGM for a nominal cost.

4.0 Financial Analysis

This section of the study report describes the financial assessment for Chaparral Adult Village Reserve Fund Study. The following tables and accompanying charts (Appendix A) make up the assessment. These are:

- Table 1 - Components, Estimated Expenditures & Replacement Schedule, Balances, and Contributions by Fiscal Year.
- Table 2 - Projected Cash Flow - Suggested Funding Plan

The starting balance for each fiscal year is the second column from the left in the projected cash flow table. The starting balance for FY 2013 (Sep 1, 2012) was \$310,382 according to the information provided.

The FY 2013 (Sep 1, 2012 - Aug 31, 2013) total contribution to the reserve fund is budgeted to be \$56,000.

The rate of inflation used in the calculations is 2.2%. This is an historic average in Alberta for the past twenty-five to thirty years. In this study, the rate of inflation is applied to the estimated expenditures in 2012 dollars. The rate of return on balances in the fund has been set at 1.5% and does not consider any other investment activities.

Table 1 - Components, Estimated Expenditures & Replacement Schedule, Balances, and Contributions by Fiscal Year

Table 1 lists all of the common property items for the this project. These are discussed in the Component Assessment of Section 3. This table is constructed on the visual review of the items, the **estimated replacement cost in today's dollars, the year built or replaced, normal life of that component and an estimate of the year due.**

This table is provided in two sheets. The first sheet shows the next ten years of the twenty-five year cycle and the second sheet shows the last fifteen years. Along the bottom of each sheet for each fiscal year are several rows. The first two rows show the total expenditures in each fiscal year with and without inflation.

Taken from the Projected Cash Flow Table 2, rows four and five show the starting balance and the total annual contribution respectively. Row six and row seven provide an average total annual contribution on a per unit per year and then per month basis. These are averages only and have not been computed with respect to actual unit factors.

The page following Table 1 is a graphic illustration of the expenditures and the fiscal years in which they occur. This provides a quick view of what can be expected going forward in terms of expenditures required from the reserve fund.

Table 2 - Projected Cash Flow - Suggested Funding Plan

Table 2 provides the suggested funding plan and estimated starting balances going forward. The starting balance for FY13 which started at September 1, 2012 was \$310,382, second column from the left. The third column from the left is the estimated expenditures in each fiscal year which is drawn from the previous Table 1. These expenditures are adjusted for inflation using the 2.2%

Higher cost expenditures are expected to occur throughout the twenty-five year cycle, but the costs are such that the reserve fund of Chaparral Adult Village will be able to handle. The highest anticipated cost is the asphalt shingles which are being replaced in three phases throughout the years of 2031 - 2033. Although this occurs years into the future, it starts to impact the reserve balance creating a deficiency. In order to deal with the deficit, contributions will need to be raised in order to keep the fund at a healthy balance.

Suggested Funding Plan:

Given the starting balance, total annual contributions can be held at \$56,000 up the end of FY2027. Starting at FY2028, contributions will increase to \$61,000 and level out at FY2032 at \$96,000 to the end of this twenty five year plan cycle, FY2037.

A summary of this is presented below:

Fiscal Year	Total Annual Contribution	Monthly Contribution Per Unit
FY 2013 - FY 2027	\$56,000	\$97
FY 2028 - 2031	\$61,000 - \$86,000	\$106 - \$149
FY 2033 - 2037	\$96,000	\$167

5.0 Closure

With the current reserve fund sitting at a balance of about \$310,382, annual contributions for the next fifteen years will stay consistent. An increase is not necessary until 2028 until 2037.

Within the next five years, a number of items are expected to need repair or replacement. This includes the repainting of the wood trim, the crack-fill of the garage aprons, and replacement of parging. Also included here is the re staining of the wood decks and sealing of the asphalt pavement.

We recommend implementing the suggested funding plan in order to maintain the common property components as well as keeping the reserve fund balance in a healthy state.

For future major component repairs or replacements, it may be prudent to seek the advice of professionals to assist in the selection of materials, preparation and management of major component contracts. The use of independent professionals provides owner and property managers with greater assurance that the right work is being done at a fair cost.

The Alberta Condominium Act requires that a reserve fund study is redone every five years minimum. The Act also requires that the plan be revisited annually, and updated when components change, component conditions change or economies change. An up-to-date and as relevant a plan as possible adds value to all unit owner investments and is Act compliant. We have provided a budget amount in this study and plan for annual updates and full studies every fifth year.

Clear Path Engineering would value a long standing working relationship with the Chaparral Adult Village Condominium Corporation. Our team looks forward to continuing to support the Board in its excellent stewardship and management of this project.

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Note to Readers

proviso

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parameters

- Clear Path Engineering Inc. has prepared this study as an independent professional service company. Neither Mr. Wouts nor any other individual engaged by Clear Path Engineering is an employee or agent of or otherwise associated with the project or any person who performs management or maintenance services.
- In issuing this report, Clear Path Engineering does not assume any of the duties or liabilities of the designers, builders, or owners of this condominium corporation. Owners, prospective purchasers, tenants, or others who rely on the contents of this report do so with the understanding as to the limitations of the visual site review, and understand that Clear Path Engineering cannot be held liable for damages they may suffer with respect to the purchase, ownership, use, or other interests they may have in the subject property.
- This report is not a detailed engineering examination of the building components. No attempt was made during the course of our site review to perform any direct maintenance on the building or to any of its components. The scope of this assignment did not include the physical inspection of underground storm and sanitary sewer, water distribution, nor shallow utilities such as electrical, telephone, or CATV systems.
- The items listed in this report are a representative list of items upon which stated opinions are based. This information is provided for the use of the condominium corporation and is in no way intended to be used by a third party who would have different requirements. Any recommendations made in the report should be checked for compliance with local municipal by-laws.

Clear Path Engineering Inc.

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Table 1 - Schedule of Expenditures, Starting Balances & Contributions of FY23 to FY37

Chaparral Adult Village

	Fiscal Years																								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Item Description	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037

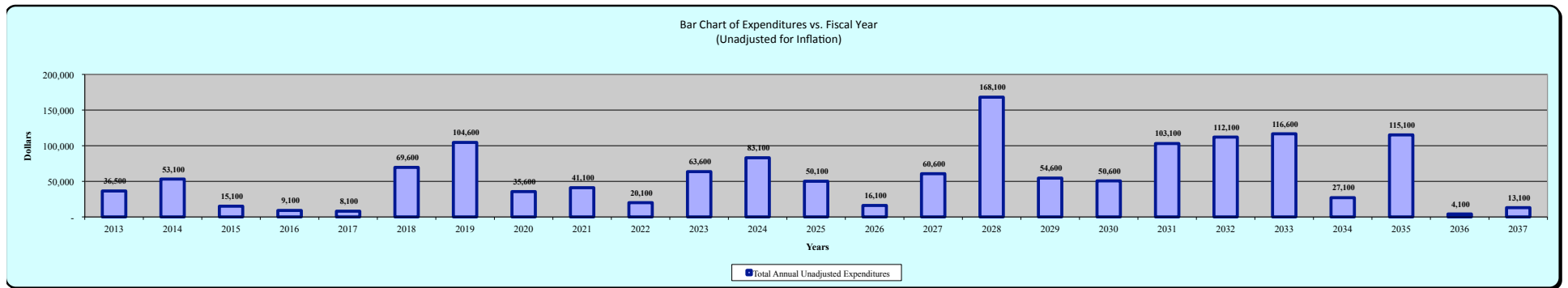


Table 2 - Projected Cash Flow - Suggested Funding Plan

Chaparral Adult Village							
FY Starting on Sep 1 of Previous Year Indicated	Starting Balance	Estimated Expenditures (Adjusted for Inflation @ 2.2%)	Interest Income @ 1.5%	Suggested Total Annual Contribution	Approximate Annual Per Unit	Approximate Monthly Per Unit	
2013	310,382	(36,500)	5,076	56,000	1,166.67	97.22	
2014	334,958	(54,268)	5,444	56,000	1,166.67	97.22	
2015	342,134	(15,772)	5,552	56,000	1,166.67	97.22	
2016	387,914	(9,714)	6,239	56,000	1,166.67	97.22	
2017	440,439	(8,837)	7,027	56,000	1,166.67	97.22	
2018	494,629	(77,600)	7,839	56,000	1,166.67	97.22	
2019	480,868	(119,189)	7,633	56,000	1,166.67	97.22	
2020	425,312	(41,458)	6,800	56,000	1,166.67	97.22	
2021	446,654	(48,916)	7,120	56,000	1,166.67	97.22	
2022	460,858	(24,449)	7,333	56,000	1,166.67	97.22	
2023	499,742	(79,062)	7,916	56,000	1,166.67	97.22	
2024	484,596	(105,575)	7,689	56,000	1,166.67	97.22	
2025	442,710	(65,050)	7,061	56,000	1,166.67	97.22	
2026	440,721	(21,364)	7,031	56,000	1,166.67	97.22	
2027	482,387	(82,184)	7,656	56,000	1,166.67	97.22	
2028	463,860	(232,987)	7,415	61,000	1,270.83	105.90	
2029	299,288	(77,341)	4,984	66,000	1,375.00	114.58	
2030	292,932	(73,251)	4,964	76,000	1,583.33	131.94	
2031	300,645	(152,537)	5,155	86,000	1,791.67	149.31	
2032	239,263	(169,501)	4,309	96,000	2,000.00	166.67	
2033	170,070	(180,184)	3,271	96,000	2,000.00	166.67	
2034	89,157	(42,799)	2,057	96,000	2,000.00	166.67	
2035	144,415	(185,778)	2,886	96,000	2,000.00	166.67	
2036	57,523	(6,763)	1,583	96,000	2,000.00	166.67	
2037	148,343	(22,085)	2,945	96,000	2,000.00	166.67	
Total		(1,933,163)	142,984	1,705,000	35,521	2,960	

