

Chatfield Corners



Final Reserve Study Update
Project No. 18020

Prepared for
Chatfield Corners Metro District
Gypsum, Colorado

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Introduction

Borne Consulting has been commissioned by the Chatfield Corners Metro District to prepare a Reserve Study. The purpose of this Reserve Study update is to evaluate the common-area components for major repair, maintenance and replacement that are the responsibility of the District. 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/or replacement of the items to enable the District to establish an adequate level of reserve funds for the upkeep of the property. Major repair, maintenance and/or replacement items are defined as anything that costs over \$1,000.

Community Description

The Chatfield Corners Metro District consists of a raw water irrigation system that includes piping, pumps, ponds, and a pump house. Construction of the community started in 2002.

Measure of Reserve Fund Strength

0% - 30% Funded

Is considered to be “weak” financial fund strength. Associations that fall into this category may be subject to special assessments and deferred maintenance, which could lead to lower property values. If the Association is in this position, actions should be taken to improve the financial strength of the reserve fund.

31% - 69% Funded is considered a “fair” financial strength. The majority of Associations fall into this category. While this doesn’t represent financial strength and stability, the likelihood of special assessments and deferred maintenance is diminished. Effort should be taken to continue strengthening the financial positions of Associations in this category.

70% - 100% Funded is considered to be a “strong” financial reserve position. This indicates good financial strength and every attempt should be made to maintain this level.

For this study Chatfield Corners Metro District is within the 31% -69% funded, and is considered to have a “fair” funded reserve account.

Approach

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

Reference Material

The following references were provided to Borne Consulting for this Reserve Study by the client:

- 2017/18 financial information
- Historical expense and past capital project information

Additional Information

- Date of site visit: 6/19/18
- HOA's fiscal year: 1/2018- 12/31/2018
- Inflation Rate used: 3%
- Term of study in years: 20
- Number of Units: 220
- Definitions: UT = Unit, SF = Square Feet, LF = Linear Feet

Exclusions

Items not included in this Projection Update are:

- Non- common area components.
- District components 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 term of the Study.
- Normal operating items, i.e., taxes, insurance, snow plowing, utilities, cleaning and landscape maintenance, etc.

Disclaimer

This Reserve Study was prepared specifically for Chatfield Corners Metro District. 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. Borne Consulting does not guarantee, either explicitly or implied, that all repair and replacement items have been identified, the accuracy of the probable costs or the component lives.

In providing the opinions of probable replacement costs, the client understands that Borne Consulting 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 Borne Consulting's qualifications and experience. Borne Consulting makes no warranty, expressed or implied, as to the accuracy of such opinions as compared to actual bid or construction costs.

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

Chatfield Corners RA Detail Report by Category

Replace pumphouse siding - 2032

		1 UT	@ \$4,000.00
Asset ID	A01.1	Asset Cost	\$4,000.00
	Pumphouse	Percent Replacement	100%
	Siding and Trim	Future Cost	\$6,050.36
Placed in Service	August 2007		
Useful Life	25		
Replacement Year	2032		
Remaining Life	14		



Description: Pumphouse cement board siding.

Condition: Satisfactory condition.

Action(s):

- Cyclically replace the siding and trim every 25 years, starting in 2032.

Chatfield Corners RA Detail Report by Category

Replace pumphouse asphalt shingles - 2027

		1 UT	@ \$3,500.00
Asset ID	A01.2	Asset Cost	\$3,500.00
	Pumphouse	Percent Replacement	100%
	Asphalt Shingles	Future Cost	\$4,566.71
Placed in Service	August 2007		
Useful Life	20		
Replacement Year	2027		
Remaining Life	9		



Description: The pumphouse asphalt shingles.

Condition: Satisfactory condition.

Action(s):

- Cyclically replace the asphalt shingles every 20 years, starting in 2027.

Chatfield Corners RA Detail Report by Category

Replace 40hp irrigation pumps - 2030

		2 UT @ \$10,000.00	
Asset ID	B01.1	Asset Cost	\$20,000.00
	Pumps	Percent Replacement	100%
	Irrigation Pumps	Future Cost	\$28,515.22
Placed in Service	June 2018		
Useful Life	12		
Adjustment	12		
Replacement Year	2030		
Remaining Life	12		



Description: Two 40hp Worthington pumps with Baldor motors.

Condition: Good condition.

Action(s):

- Cyclically replace 40hp irrigation pumps and motors every 12 years, starting in 2030.

Chatfield Corners RA Detail Report by Category

Replace large control panel - 2022

		1 UT	@ \$25,000.00
Asset ID	B02.1	Asset Cost	\$25,000.00
	Pumps	Percent Replacement	100%
	Irrigation Pumps	Future Cost	\$28,137.72
Placed in Service	June 2007		
Useful Life	15		
Replacement Year	2022		
Remaining Life	4		



Description: Flowtronex control panel for large 40hp irrigation pumps.

Condition: Satisfactory condition.

Action(s):

- Cyclically replace control panel every 15 years, starting in 2022.

**Chatfield Corners
RA Detail Report by Category**

Replace 5hp monroe sump pumps - 2030

		2 UT	@ \$4,000.00
Asset ID	B01.2	Asset Cost	\$8,000.00
	Pumps	Percent Replacement	100%
	Sump Pumps	Future Cost	\$11,406.09
Placed in Service	June 2018		
Useful Life	12		
Adjustment	12		
Replacement Year	2030		
Remaining Life	12		



Description: Two 5hp monroe sump pumps.

Condition: Good condition.

Action(s):

- Cyclically replace 5hp sump pumps and motors every 12 years, starting in 2030.

**Chatfield Corners
RA Detail Report by Category**

Replace 20hp underdrain pumps - 2030

		2 UT	@ \$6,000.00
Asset ID	B01.3	Asset Cost	\$12,000.00
	Pumps	Percent Replacement	100%
	Underdrain Pumps	Future Cost	\$17,109.13
Placed in Service	June 2018		
Useful Life	12		
Adjustment	12		
Replacement Year	2030		
Remaining Life	12		

Description: Two 20hp underdrain pumps. Pumps are designed to pump irrigation water under the ponds back to the ponds.

Condition: Good condition.

Action(s):

- Cyclically replace 20hp under drain pumps and motors every 12 years, starting in 2030.

**Chatfield Corners
RA Detail Report by Category**

Repair Irrigation main lines and valves - 2018

		18,000 LF	@ \$50.00
Asset ID	C01.2	Asset Cost	\$4,500.00
	Irrigation Lines	Percent Replacement	.5%
	Irrigation Pumps	Future Cost	\$4,500.00
Placed in Service	June 2007		
Useful Life	1		
Replacement Year	2018		
Remaining Life	0		



Description: Irrigation main lines consisting of 1" up to 8" pvc and C900 pipe buried 4 feet deep.

Condition: Good condition.

Action(s):

- Cyclically repair irrigation lines and valves every year, starting in 2018.

**Chatfield Corners
RA Detail Report by Category**

Replace 8hp crane irrigation pumps - 2030

		2 UT	@ \$5,000.00
Asset ID	B01.4	Asset Cost	\$10,000.00
	Pumps	Percent Replacement	100%
	Irrigation Pumps	Future Cost	\$14,257.61
Placed in Service	June 2018		
Useful Life	12		
Adjustment	12		
Replacement Year	2030		
Remaining Life	12		

Description: Two 8hp underdrain pumps. Pumps are designed to pump water from irrigation ditch to ponds.

Condition: Good condition.

Action(s):

- Cyclically replace 8hp under drain pumps and motors every 12 years, starting in 2030.

Chatfield Corners RA Detail Report by Category

Replace Irrigation main lines - 2047

		18,000 LF	@ \$50.00
Asset ID	C01.1	Asset Cost	\$900,000.00
	Irrigation Lines	Percent Replacement	100%
	Irrigation Pumps	Future Cost	\$2,120,908.95
Placed in Service	June 2007		
Useful Life	40		
Replacement Year	2047		
Remaining Life	29		



Description: Irrigation main lines consisting of 1" up to 8" pvc and C900 pipe, buried 4 feet deep.

Condition: Good condition.

Action(s):

- Cyclically replace irrigation lines every 40 years, starting in 2047.

Chatfield Corners RA Detail Report by Category

Dredge irrigation ponds - 2031

		130,000 SF	@ \$1.00
Asset ID	D01.1	Asset Cost	\$130,000.00
	Ponds	Percent Replacement	100%
	Pond Liners	Future Cost	\$190,909.38
Placed in Service	June 2007		
Useful Life	12		
Adjustment	12		
Replacement Year	2031		
Remaining Life	13		



Description: Three irrigation ponds used for irrigation water storage.

Condition: Satisfactory condition. Ponds need to be dredged and relined.

Action(s):

- Cyclically dredge ponds every 12 years, starting in 2031. (This assumes ponds are dredged in 2018 and 2019 with new liner)

Chatfield Corners RA Detail Report by Category

Re-line one irrigation pond - 2018

		25,000 SF	@ \$2.00
Asset ID	D01.2	Asset Cost	\$50,000.00
	Ponds	Percent Replacement	100%
	Pond Liners	Future Cost	\$50,000.00
Placed in Service	June 2007		
Useful Life	25		
Adjustment	-14		
Replacement Year	2018		
Remaining Life	0		



Description: Three irrigation ponds used for irrigation water storage.

Condition: Satisfactory condition. Pond needs to be dredged and relined.
(Estimate from Scott Green is \$41k)

Action(s):

- Cyclically re-line pond every 25 years, starting in 2018.

Chatfield Corners RA Detail Report by Category

Re-line two irrigation ponds - 2019

			100,000 SF @ \$2.50
Asset ID	D01.3	Asset Cost	\$250,000.00
	Ponds	Percent Replacement	100%
	Pond Liners	Future Cost	\$257,500.00
Placed in Service	June 2007		
Useful Life	25		
Adjustment	-13		
Replacement Year	2019		
Remaining Life	1		



Description: Two irrigation ponds used for irrigation water storage.

Condition: Satisfactory condition. Ponds need to be dredged and relined.

Action(s):

- Cyclically re-line ponds every 25 years, starting in 2019.

**Chatfield Corners
RA Detail Report by Category**

Irrigation ditches - 2019

		1 UT	@ \$8,400.00
Asset ID	E01.1	Asset Cost	\$8,400.00
	Irrigation Ditches	Percent Replacement	100%
	Irrigation Ditches	Future Cost	\$8,652.00
Placed in Service	June 2007		
Useful Life	1		
Adjustment	11		
Replacement Year	2019		
Remaining Life	1		

Description: Irrigation ditch for raw water.

Condition: Satisfactor condition.

Action(s):

- Cyclically clean irrigation ditch every year, starting in 2019.

**Chatfield Corners
RA Detail Report by Category**

Replace the control clocks - 2020

Asset ID	D07.1	7 UT	@ \$1,200.00
	Ponds	Asset Cost	\$8,400.00
Landscaping and Irrigation		Percent Replacement	100%
Placed in Service	May 2007	Future Cost	\$8,911.56
Useful Life	7		
Adjustment	6		
Replacement Year	2020		
Remaining Life	2		

Description: Subsurface irrigation system with seven control clocks.

Condition: Good condition.

Action(s):

- Cyclically replace the control clocks for the irrigation system every 7 years, starting in 2020.

**Chatfield Corners
RA Annual Expenditure Spread Sheet**

Description	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Siding and Trim										
Replace pumphouse siding										
Siding and Trim Total:										
Asphalt Shingles										
Replace pumphouse asphalt shingles										4,567
Asphalt Shingles Total:										4,567
Irrigation Pumps										
Replace 40hp irrigation pumps										
Replace large control panel					28,138					
Irrigation Pumps Total:					28,138					
Sump Pumps										
Replace 5hp monroe sump pumps										
Sump Pumps Total:										
Underdrain Pumps										
Replace 20hp underdrain pumps										
Underdrain Pumps Total:										
Irrigation Pumps										
Repair Irrigation main lines and valves	4,500	4,635	4,774	4,917	5,065	5,217	5,373	5,534	5,700	5,871
Replace 8hp crane irrigation pumps										
Replace Irrigation main lines										
Irrigation Pumps Total:	4,500	4,635	4,774	4,917	5,065	5,217	5,373	5,534	5,700	5,871
Pond Liners										
Dredge irrigation ponds										
Re-line one irrigation pond	50,000									
Re-line two irrigation ponds		257,500								
Pond Liners Total:	50,000	257,500								
Irrigation Ditches										
Irrigation ditches		8,652	8,912	9,179	9,454	9,738	10,030	10,331	10,641	10,960
Irrigation Ditches Total:		8,652	8,912	9,179	9,454	9,738	10,030	10,331	10,641	10,960

**Chatfield Corners
RA Annual Expenditure Spread Sheet**

Description	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Landscaping and Irrigation										
Replace the control clocks			8,912							10,960
Landscaping and Irrigation Total:			8,912							10,960
Year Total:	54,500	270,787	22,597	14,096	42,657	14,955	15,403	15,865	16,341	32,358

**Chatfield Corners
RA Annual Expenditure Spread Sheet**

Description	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Siding and Trim										
Replace pumphouse siding					6,050					
Siding and Trim Total:					6,050					
Asphalt Shingles										
Replace pumphouse asphalt shingles										
Asphalt Shingles Total:										
Irrigation Pumps										
Replace 40hp irrigation pumps			28,515							
Replace large control panel										43,838
Irrigation Pumps Total:			28,515							43,838
Sump Pumps										
Replace 5hp monroe sump pumps			11,406							
Sump Pumps Total:			11,406							
Underdrain Pumps										
Replace 20hp underdrain pumps			17,109							
Underdrain Pumps Total:			17,109							
Irrigation Pumps										
Repair Irrigation main lines and valves	6,048	6,229	6,416	6,608	6,807	7,011	7,221	7,438	7,661	7,891
Replace 8hp crane irrigation pumps			14,258							
Replace Irrigation main lines										
Irrigation Pumps Total:	6,048	6,229	20,674	6,608	6,807	7,011	7,221	7,438	7,661	7,891
Pond Liners										
Dredge irrigation ponds				190,909						
Re-line one irrigation pond										
Re-line two irrigation ponds										
Pond Liners Total:				190,909						
Irrigation Ditches										
Irrigation ditches	11,289	11,628	11,976	12,336	12,706	13,087	13,480	13,884	14,300	14,729
Irrigation Ditches Total:	11,289	11,628	11,976	12,336	12,706	13,087	13,480	13,884	14,300	14,729

**Chatfield Corners
RA Annual Expenditure Spread Sheet**

Description	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
Landscaping and Irrigation										
Replace the control clocks							13,480			
Landscaping and Irrigation Total:							13,480			
Year Total:	17,337	17,857	89,680	209,853	25,563	20,098	34,180	21,322	21,961	66,458

**Chatfield Corners
RA Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2018	
Irrigation Pumps	
Repair Irrigation main lines and valves	4,500
Pond Liners	
Re-line one irrigation pond	50,000
Total for 2018	\$54,500
Replacement Year 2019	
Irrigation Pumps	
Repair Irrigation main lines and valves	4,635
Pond Liners	
Re-line two irrigation ponds	257,500
Irrigation Ditches	
Irrigation ditches	8,652
Total for 2019	\$270,787
Replacement Year 2020	
Irrigation Pumps	
Repair Irrigation main lines and valves	4,774
Irrigation Ditches	
Irrigation ditches	8,912
Landscaping and Irrigation	
Replace the control clocks	8,912
Total for 2020	\$22,597
Replacement Year 2021	
Irrigation Pumps	
Repair Irrigation main lines and valves	4,917
Irrigation Ditches	
Irrigation ditches	9,179
Total for 2021	\$14,096
Replacement Year 2022	
Irrigation Pumps	
Replace large control panel	28,138

**Chatfield Corners
RA Annual Expenditure Detail**

Description	Expenditures
<i>Replacement Year 2022 continued...</i>	
Irrigation Pumps	
Repair Irrigation main lines and valves	5,065
Irrigation Ditches	
Irrigation ditches	9,454
Total for 2022	\$42,657
Replacement Year 2023	
Irrigation Pumps	
Repair Irrigation main lines and valves	5,217
Irrigation Ditches	
Irrigation ditches	9,738
Total for 2023	\$14,955
Replacement Year 2024	
Irrigation Pumps	
Repair Irrigation main lines and valves	5,373
Irrigation Ditches	
Irrigation ditches	10,030
Total for 2024	\$15,403
Replacement Year 2025	
Irrigation Pumps	
Repair Irrigation main lines and valves	5,534
Irrigation Ditches	
Irrigation ditches	10,331
Total for 2025	\$15,865
Replacement Year 2026	
Irrigation Pumps	
Repair Irrigation main lines and valves	5,700
Irrigation Ditches	
Irrigation ditches	10,641
Total for 2026	\$16,341

**Chatfield Corners
RA Annual Expenditure Detail**

Description	Expenditures
Replacement Year 2027	
Asphalt Shingles	
Replace pumphouse asphalt shingles	4,567
Irrigation Pumps	
Repair Irrigation main lines and valves	5,871
Irrigation Ditches	
Irrigation ditches	10,960
Landscaping and Irrigation	
Replace the control clocks	10,960
Total for 2027	<u>\$32,358</u>
 Replacement Year 2028	
Irrigation Pumps	
Repair Irrigation main lines and valves	6,048
Irrigation Ditches	
Irrigation ditches	11,289
Total for 2028	<u>\$17,337</u>
 Replacement Year 2029	
Irrigation Pumps	
Repair Irrigation main lines and valves	6,229
Irrigation Ditches	
Irrigation ditches	11,628
Total for 2029	<u>\$17,857</u>
 Replacement Year 2030	
Irrigation Pumps	
Replace 40hp irrigation pumps	28,515
Sump Pumps	
Replace 5hp monroe sump pumps	11,406
Underdrain Pumps	
Replace 20hp underdrain pumps	17,109
Irrigation Pumps	
Repair Irrigation main lines and valves	6,416
Replace 8hp crane irrigation pumps	14,258

**Chatfield Corners
RA Annual Expenditure Detail**

Description	Expenditures
<i>Replacement Year 2030 continued...</i>	
Irrigation Ditches	
Irrigation ditches	11,976
Total for 2030	<u>\$89,680</u>
 Replacement Year 2031	
Irrigation Pumps	
Repair Irrigation main lines and valves	6,608
Pond Liners	
Dredge irrigation ponds	190,909
Irrigation Ditches	
Irrigation ditches	12,336
Total for 2031	<u>\$209,853</u>
 Replacement Year 2032	
Siding and Trim	
Replace pumphouse siding	6,050
Irrigation Pumps	
Repair Irrigation main lines and valves	6,807
Irrigation Ditches	
Irrigation ditches	12,706
Total for 2032	<u>\$25,563</u>
 Replacement Year 2033	
Irrigation Pumps	
Repair Irrigation main lines and valves	7,011
Irrigation Ditches	
Irrigation ditches	13,087
Total for 2033	<u>\$20,098</u>
 Replacement Year 2034	
Irrigation Pumps	
Repair Irrigation main lines and valves	7,221
Irrigation Ditches	
Irrigation ditches	13,480

**Chatfield Corners
RA Annual Expenditure Detail**

Description	Expenditures
<i>Replacement Year 2034 continued...</i>	
Landscaping and Irrigation	
Replace the control clocks	13,480
Total for 2034	<u>\$34,180</u>
 Replacement Year 2035	
Irrigation Pumps	
Repair Irrigation main lines and valves	7,438
Irrigation Ditches	
Irrigation ditches	13,884
Total for 2035	<u>\$21,322</u>
 Replacement Year 2036	
Irrigation Pumps	
Repair Irrigation main lines and valves	7,661
Irrigation Ditches	
Irrigation ditches	14,300
Total for 2036	<u>\$21,961</u>
 Replacement Year 2037	
Irrigation Pumps	
Replace large control panel	43,838
Irrigation Pumps	
Repair Irrigation main lines and valves	7,891
Irrigation Ditches	
Irrigation ditches	14,729
Total for 2037	<u>\$66,458</u>

**Chatfield Corners
RA Final Reserve Study Summary**

Report Date	November 14, 2018
Budget Year Beginning	January 01, 2018
Budget Year Ending	December 31, 2018

<i>Report Parameters</i>	
Inflation	3.00%
Interest Rate on Reserve Deposit	0.25%
2018 Beginning Balance	\$281,175.00

<i>Final Funding Model Summary of Calculations</i>	
Required Monthly Contribution	\$5,500.00
Average Net Monthly Interest Earned	<u> \$54.73</u>
Total Monthly Allocation to Reserves	\$5,554.73

**Chatfield Corners
RA Final Reserve Study Projection**

Beginning Balance: \$281,175

Year	Annual Contribution	Annual Interest	Annual Expenditures	Projected Ending Reserves	Fully Funded Reserves	Percent Funded
2018	66,000	657	54,500	293,332	1,057,325	27%
2019	69,300	150	270,787	91,995	891,249	10%
2020	72,765	272	22,597	142,435	974,859	14%
2021	76,403	425	14,096	205,167	1,067,622	19%
2022	80,223	515	42,657	243,249	1,133,450	21%
2023	84,235	686	14,955	313,215	1,227,663	25%
2024	88,446	865	15,403	387,123	1,322,124	29%
2025	92,869	1,055	15,865	465,181	1,416,834	32%
2026	97,512	1,256	16,341	547,608	1,511,794	36%
2027	102,388	1,428	32,358	619,065	1,591,976	38%
2028	107,507	1,652	17,337	710,887	1,687,939	42%
2029	112,882	1,888	17,857	807,801	1,784,156	45%
2030	118,527	1,958	89,680	838,605	1,814,631	46%
2031	124,453	1,742	209,853	754,947	1,739,920	43%
2032	130,675	2,003	25,563	862,062	1,850,617	46%
2033	137,209	2,293	20,098	981,467	1,967,672	49%
2034	144,070	2,566	34,180	1,093,922	2,071,963	52%
2035	151,273	2,890	21,322	1,226,763	2,190,045	56%
2036	158,837	3,231	21,961	1,366,870	2,308,441	59%
2037	166,779	3,481	66,458	1,470,671	2,384,805	61%