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BEFORE THE ARIZONA CORPORATION COMMISSION

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Arizona Corporation Commission
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IN THE MATTER OF THE APPLICATION OF CHAPARRAL CITY WATER COMPANY FOR A DETERMINATION OF THE CURRENT FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY AND FOR INCREASE IN ITS RATES AND CHARGES BASED THEREON	DOCKET NO. W-02113A-13-0118 **SUPPLEMENT TO APPLICATION**

Through this filing, Chaparral City Water Company ("CCWC") submits the following in conjunction with its request for a SIB mechanism:

1. SIB Eligibility Report dated August 7, 2013 (Attachment 1). This document has been labeled as Exhibit CC-1 and will be adopted by a CCWC witness as part of the testimony in this proceeding.
2. SIB Table I dated August 21, 2013 (Attachment 2). This document has been labeled as Exhibit CC-2 and will be adopted by a CCWC witness as part of the testimony in this proceeding. This table supersedes the prior SIB Table I submitted as Exhibit ICC-6 to the Direct Testimony of Mr. Ian Crooks.
3. SIB Table II dated August 21, 2013 (Attachment 3). This document has been labeled as Exhibit CC-3 and will be adopted by a CCWC witness as part of the testimony in this proceeding.

4. Amended pages 24-25 to the Direct Testimony of Ms. Sheryl Hubbard and amended pages 1 through 3 of Schedule H-3 to CCWC's Application (Attachment 4). These revised pages replace the corresponding pages in CCWC's original Application.

RESPECTFULLY SUBMITTED this 22nd day of August, 2013.

LEWIS AND ROCA, LLP

By _____
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ORIGINAL and thirteen (13) copies
of the foregoing filed
this 22nd day of August, 2013, with:

The Arizona Corporation Commission
Utilities Division – Docket Control
1200 W. Washington Street
Phoenix, Arizona 85007

Copy of the foregoing hand-delivered
this 22nd day of August, 2013, to:

Steve Olea
Utilities Division
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

Lyn Farmer
Chief Administrative Law Judge, Hearing Division
Arizona Corporation Commission
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Phoenix, AZ 85007

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Legal Department
Arizona Corporation Commission
1200 W. Washington Street
Phoenix, Arizona 85007

Copy of the foregoing mailed
this 22nd day of August, 2013, to

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ATTACHMENT 1

SIB ELIGIBILTY REPORT

(Exhibit CC-1)

EPCOR Water (USA) Inc.

Chaparral City Water Company/Fountain Hills

PWS ID No. 07-017

August 7, 2013

Introduction

EPCOR Water is submitting this report as **Exhibit CC-1** for the direct testimony of Ian Crooks, dated April 26, 2013. The intent of this report is to support EPCOR's SIB application for its Chaparral/Fountain Hills water district. Included in this report are a brief system introduction followed by detailed project justifications for asset replacement projects. Each project is accompanied by the corresponding **SIB Plant Table I.**

EPCOR Water supplies water to approximately 13,600 customers in Fountain Hills and a portion of Scottsdale. This area of EPCOR's water districts is also known as the Chaparral City Water Company (CCWC). The water system is served by surface water and one groundwater well via eight storage tanks and eight pumping stations. The distribution system comprises of about 220 miles of pipe, 3,020 distribution main valves, and 1,600 hydrants and hydrant valves.

Fountain Hills is a somewhat new town; the first residents began living there in 1972 and the town was incorporated in 1989. While the mains are expected to be in relatively good condition based on their age, the distribution system is in need of a comprehensive replacement program for many of the other existing assets. System valves are exhibiting exorbitant corrosion and many are broken and leaking. The service lines were installed (by the original developer) to serve more than one meter per line and many have been found to be leaking. Most of the hydrants are old models which cannot be repaired or maintained because parts are not available. Finally, most of the meters are reaching or have surpassed their useful life and are not providing accurate readings.

In the past five years, approximately $2.9M was spent replacing services, meters, hydrants and valves. This is only a small portion of the total items that need to be replaced, and only addressed the egregious infrastructure failures. The previous owner of this system had been attempting to sell the system for several years and it is obvious that sufficient capital was not spent during this period. The capital needed to properly manage the assets of this system needs to be increased to ensure proper working order of the system assets and to ensure less water outages and lower lost water. Table A shows the number of assets replaced from 2007 to 2012 and the associated costs.

Table B summarizes the recommended estimated project quantities and spending per category by year for the next five years. It is estimated that a total of about $8.9M needs to be spent over

the next five years, with an average spend of $1.8M per year. These costs are expected to vary by year, depending on field conditions, business requirements, and staff availability. The recommended number of replacements is higher than historical amounts, but this is due to not having had a replacement program in place; in the past, assets were replaced when there was a noticeable failure such as water surfacing. In some cases the previous owner simply tried to patch or plug leaking infrastructure which has been ineffective. Having this type of reactive approach is often more expensive as replacements usually occur in an emergency situation, sometimes requiring an unnecessary interruption in water service as well as water losses, and requiring overtime-paid staff and paying a premium for parts if not readily available. This is a very expensive, inefficient way to operate. EPCOR has a planned replacement approach to asset management for the future. This approach varies depending on the type of asset.

- For meter replacements, EPCOR is relying on industry-wide studies, our local experiences, and our own meter BMP plan to replace meters that are 12 years and older.

- For service line and valve replacements, EPCOR is using an industry standard Nessie Curve that relies on age of infrastructure and historic failures to help predict the amount of asset failure we will experience in the future.

- Finally, the asset management approach for hydrants in this district is to begin replacing hydrants that are failing and hydrants that we can no longer maintain due to parts not being available.

Note that the timing of service line replacements and meter replacements don't necessarily coincide. This is because the meters located in the service line replacement areas won't necessarily be ready for replacement at the time of the service line replacements, and vice versa. Additionally, the meters are being replaced according to meter route, and the service lines are being replaced by street. However, when service lines are replaced, the meters on that street will be tested according to EPCOR's meter testing program, and if they are found to meet the requirements for replacement, they will be replaced at the time of the service line replacements; these meters will then *not* be replaced again under the meter replacement schedule.

The remainder of this report will give a detailed explanation of the replacements planned for the

next five years. Section 1 gives an overview of the condition of existing services. Historical service replacements are presented in tabular format and have been plotted on maps. Future service line replacement projects are broken down by year and a project justification, map, and cost estimate are provided for each project. Section 2 describes the condition of existing valves. Previous valve maintenance records and replacements are provided in the historical tabular data. Future valve replacement projects are broken down by year and include a project justification, map, and cost estimate for each project. Section 3 explains the need for replacement of hydrants. Previous hydrant repairs and replacements are listed in the historical data table. Future hydrant replacement projects are divided up by year and include justification, maps, and cost estimates. Section 4 describes the necessity for replacing customer meters. Each project year includes a set of meter routes scheduled for meter replacement, including justification, a map of the routes, and cost estimates.

Table A
Historical Replacements

	2008		2009		2010		2011		2012		Total	
	units	cost	units	cost	units	cost	units	cost	units	cost	units	cost
Services	155	$ 493,870	129	$ 393,038	134	$ 462,791	144	$ 639,078	128	$ 456,257	690	$ 2,445,034
Meters	102	$ 8,670	19	$ 6,715	121	$ 10,285	137	$ 11,645	80	$ 6,800	519	$ 44,115
Hydrants	18	$ 28,800	37	$ 59,200	19	$ 30,400	52	$ 83,200	45	$ 72,000	171	$ 273,600
Valves	0	$ -	0	$ -	0	$ -	3	$ 25,854	4	$ 13,065	7	$ 38,919
Total		$ 531,340		$ 458,953		$ 503,476		$ 759,777		$ 548,122		$ 2,801,668

Table B
Planned Replacements

	2014		2015		2016		2017		2018		Total	
	units	cost	units	cost	units	cost	units	cost	units	cost	units	cost
Services	247	$ 958,558	221	$ 857,656	256	$ 993,485	260	$ 1,009,008	231	$ 896,465	1,215	$ 4,715,172
Meters	1,507	$ 314,989	1,357	$ 317,509	1,327	$ 277,493	1,588	$ 328,953	1,418	$ 306,835	7,197	$ 1,545,779
Hydrants	41	$ 92,726	35	$ 79,157	37	$ 83,680	37	$ 83,679	36	$ 81,418	186	$ 420,660
Valves	95	$ 453,491	103	$ 495,043	88	$ 436,776	74	$ 353,676	89	$ 430,795	449	$ 2,169,781
Total		$ 1,819,764		$ 1,749,365		$ 1,791,434		$ 1,775,316		$ 1,715,513		$ 8,851,392

SECTION 1 – SERVICES

1.1 Overview

Based on the current customer count in EPCOR's Fountain Hills district, there should be about 13,600 active services. Most of these service lines were installed between 1970 and 1980. Replacement of service lines is a priority for a number of reasons, including the age of the service lines, the material of the pipe, and the fact that many of the service lines were constructed to feed more than one customer.

1.2 Nessie Curve

A "Nessie Curve" is a graphical representation of the annual replacements needs for a particular water system. The curve uses historical replacement data and statistical analysis to determine when an asset is likely to need replacement. The end of an asset's useful life is when it is considered economically efficient to replace it; this is to say when replacement becomes less expensive than the cost of replacement or repairs in the future. Failure to replace assets when it is economical to do so can be disastrous in the future, when demographic and economic conditions may have changed. According to the American Water Works Association (AWWA) "there will be a three-fold increase in the repair costs by the year 2030 despite a concurrent increase of three and a half times in annual investments to replace pipes." (Reinvesting in Drinking Water Infrastructure, AWWA, May 2001)

The "gap analysis", which was developed by the Water Infrastructure Network (WIN), estimates the amount of increased spending that will be required by utility providers in order to keep up with needed infrastructure replacements in the coming years. The AWWA estimates that buried drinking water infrastructure will need investments totaling more than $1 trillion nationwide in the next 25 years. (Buried No Longer: Confronting America's Water Infrastructure Challenge, AWWA, 2012)

Exhibit 1-1 is the Nessie curve which was developed specifically for the service lines in EPCOR's Fountain Hills district. Exhibit 1-2 shows the same data in tabular format. The curve shows that indeed the cost of replacement will be the highest in 2030, as predicted by AWWA. It also shows that in the next seven years, from 2014 through 2020, approximately $7.2M should

be spent on service line replacements, or about $1M per year. This equates to about 259 service replacements per year.

Exhibit 1-1 – Service Line Nessie Curve

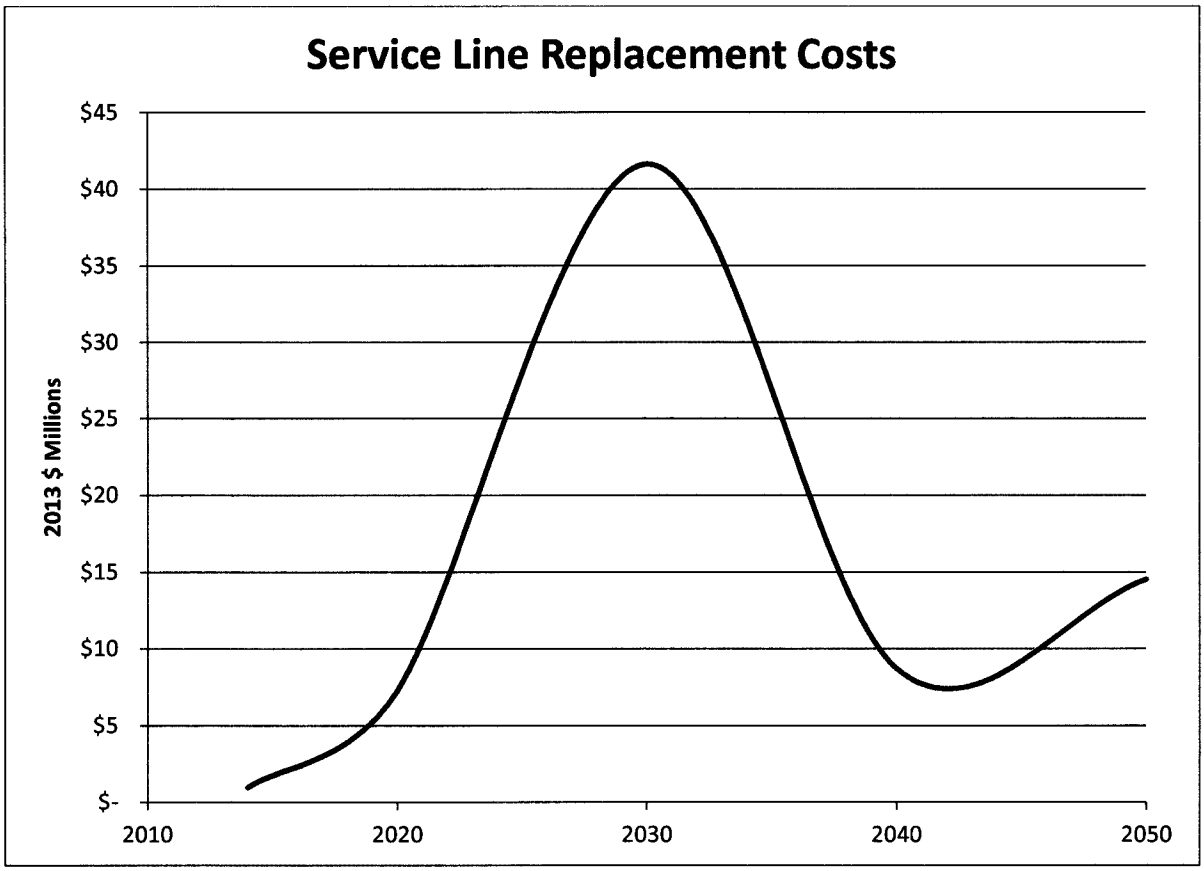


Exhibit 1-2 Nessie Curve Table

Time Frame	Number of Services to be Installed	Cost to Replace Services	Number of Service Replacements per Year	Cost per Year
today-2020	1,813	$ 7,291,309	259	$ 1,041,616
2020-2030	10,353	$ 41,630,459	1,035	$ 4,163,046
2030-2040	2,172	$ 8,735,336	217	$ 873,534
2040-2050	3,619	$ 14,550,200	362	$ 1,445,020

1.3 Service Lines Serving Multiple Customers

When the original developer of Fountain Hills constructed the water system, single service lines to serve two (or more) properties were installed; a single service was installed from the water main to a common property boundary at the curb line where a manifold was installed splitting the service line to feed two residential meters. So, throughout the system, the majority of the branched services are ¾" services supplying two ¾" meters, and in some cases, 1" services supplying two 1" meters. This causes problems with pressure and flow for the customers, as well as for EPCOR employees to terminate or shut-off service to a single customer. Service lines serving more than one customer should be replaced with one service line per customer. Exhibit 1-3 shows a 2" service supplying four meters.

Exhibit 1-3 – 2" service supplying four meters

1.4 Service Line Material

The material that was used when the majority of the service lines were installed was polyethylene pipe (poly pipe). The use of this poly pipe is not appropriate in this region or for the system pressures in Fountain Hills. The soil conditions and high system pressures cause a high number of service line failures and leaks which contribute to unnecessary water loss and service disruption. The water from many service line leaks never surface because of the porous soil and can go undetected for a long time. The failure of these poly pipe lines is a rising problem in this district, and based on historical failure data, EPCOR believes a more aggressive service replacement program is needed. Exhibits 1-4 and 1-5 are pictures of poly pipe service lines that were recently found in the Fountain Hills system. Note the indentation in Exhibit 1-4 on the left where a rock wore away the pipe, eventually causing the line to split left to right.

Exhibit 1-4 – Black poly service line material failure

Exhibit 1-5 – Black poly service line material failure

Exhibit 1-6 is a picture of a leaking service line that was discovered during a scheduled maintenance and replacement project. Although it was only 18" below the ground surface, there was no indication of the leak at ground level. When the service line was uncovered, it was discovered that it had been previously plugged with a screw to fix an old leak.

Exhibit 1-6 – Leaking service line, previously repaired with a screw

1.5 Service Line Replacements

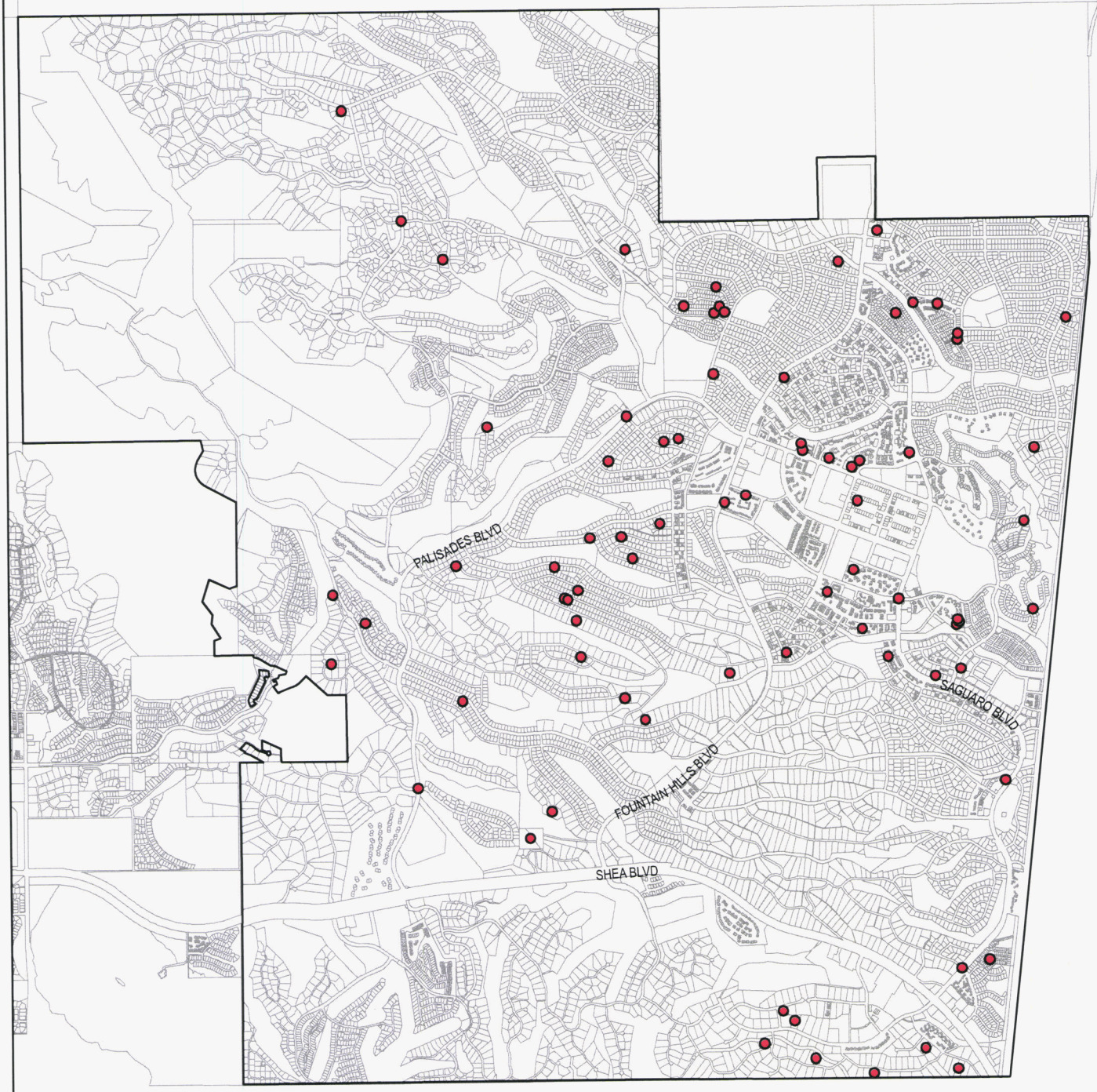
Over the past five years, 690 service lines were replaced because they had knowingly failed, which is an average of 138 service line failures per year. Note that this doesn't include service lines which are unknowingly leaking. The total cost to replace these 690 service lines was $2.5M. Historical service line replacements are shown in the following tab, **Historical Data**, which includes tables as well as maps showing the locations of the replacements. The data includes only service line replacements between 2007 and 2012; replacements prior to 2007 are not included.

Replacement of service lines requires that EPCOR replace each of the single branched service lines with two new ¾" or 1" copper services, *i.e.*, one service line for each metered customer. The water system has approximately 12,600 residential accounts classified as ¾" and 1" meters, and of those, EPCOR estimates that 3,050 dual-feed poly pipe services remain, which translates to the installation of 6,100 new single-feed copper services. EPCOR's plan going forward is to increase the rate of replacement and target a replacement rate of approximately 250 services per year at an annual cost of about $0.9M per year, for a total of $4.7 million over five years.

Service line replacement projects are described in the following tabs labeled **2014, 2015, 2016, 2017,** and **2018**. Tables I, 1-1 through Table I, 1-5 provide a detailed description of each service line replacement project. The tables are broken down by year, so there is a separate table for each year from 2014 (Table I, 1-1) through 2018 (Table I, 1-5). Each project addresses a set of service line replacements that will occur within a defined area. Each project can also be tied to a map showing the parcel where the proposed service line will be replaced. A detailed cost estimate for each project is also provided.

Fountain Hills District
2007 Service Line
Repairs and Replacements

EPCOR WATER
2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027



79 Repairs and Replacements

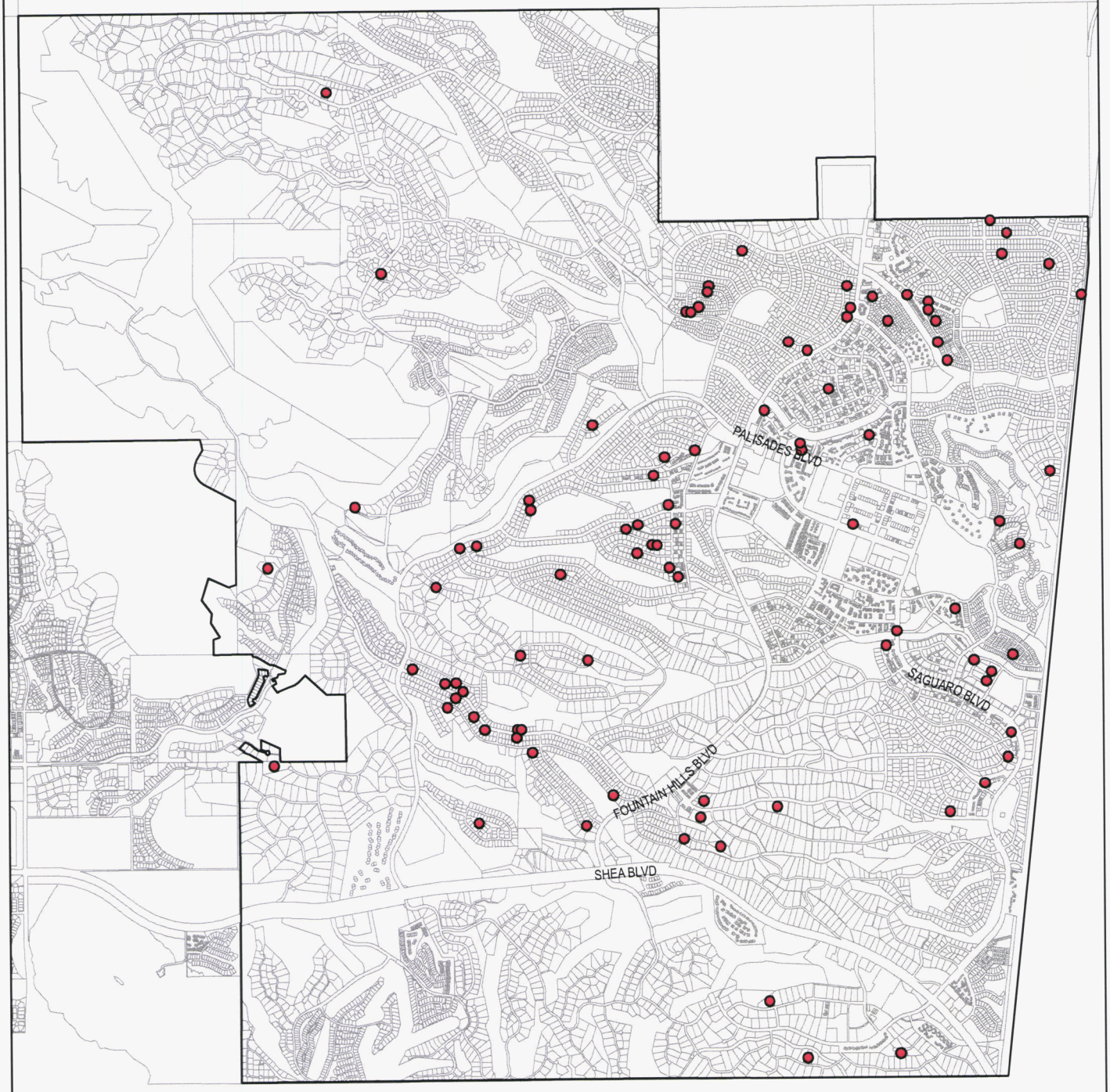
Certificate of Convenience & Necessity

N

1 inch = 3,500 feet

Fountain Hills District
2008 Service Line
Repairs and Replacements

EPCOR WATER
2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027



95 Repairs and Replacements

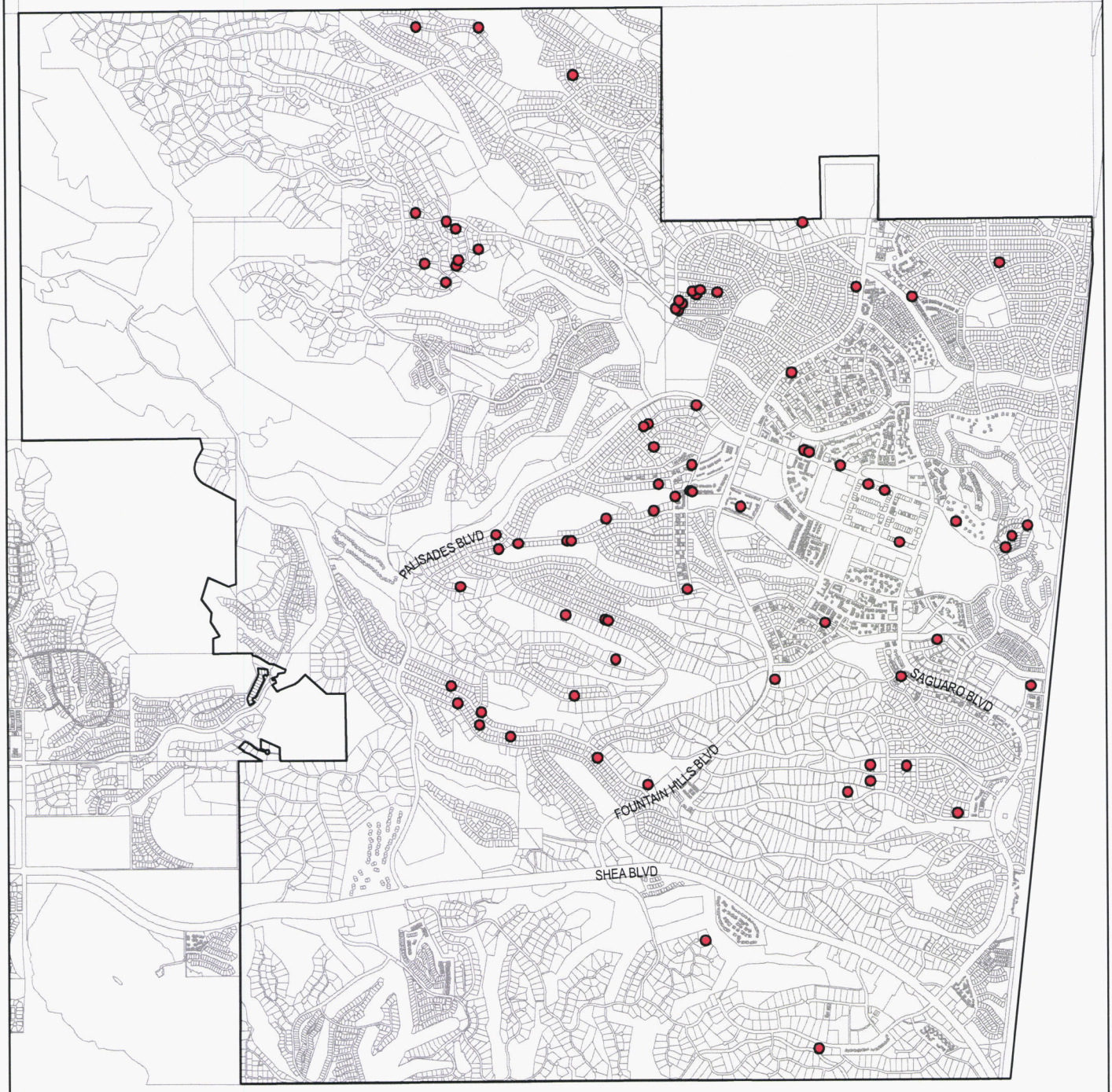
Certificate of Convenience & Necessity

N

1 inch = 3,500 feet

Fountain Hills District
2009 Service Line
Repairs and Replacements

EPCOR WATER
2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027



78 Repairs and Replacements

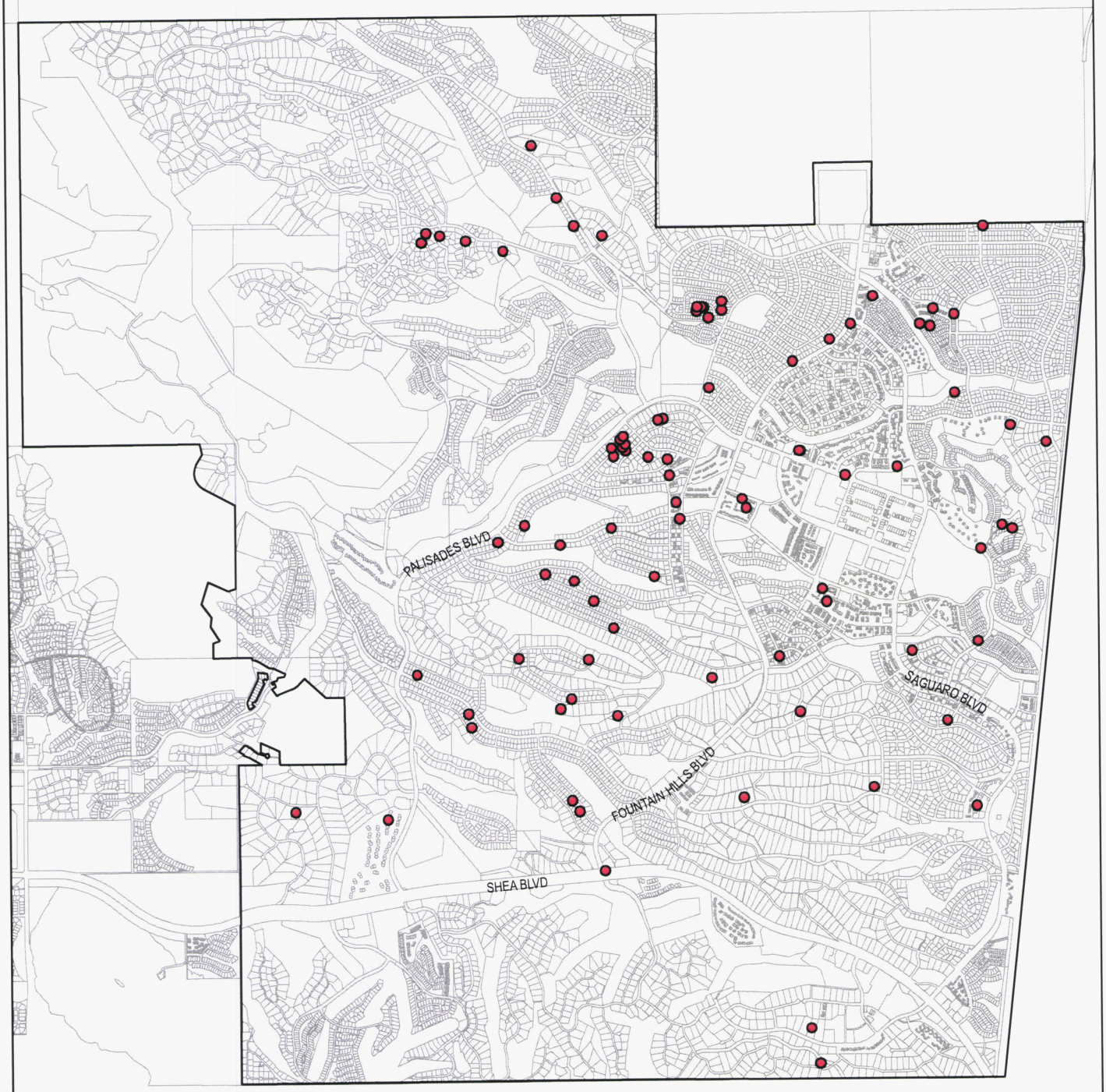
Certificate of Convenience & Necessity

N

1 inch = 3,500 feet

Fountain Hills District
2010 Service Line
Repairs and Replacements

EPCOR WATER
2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027



100 Repairs and Replacements

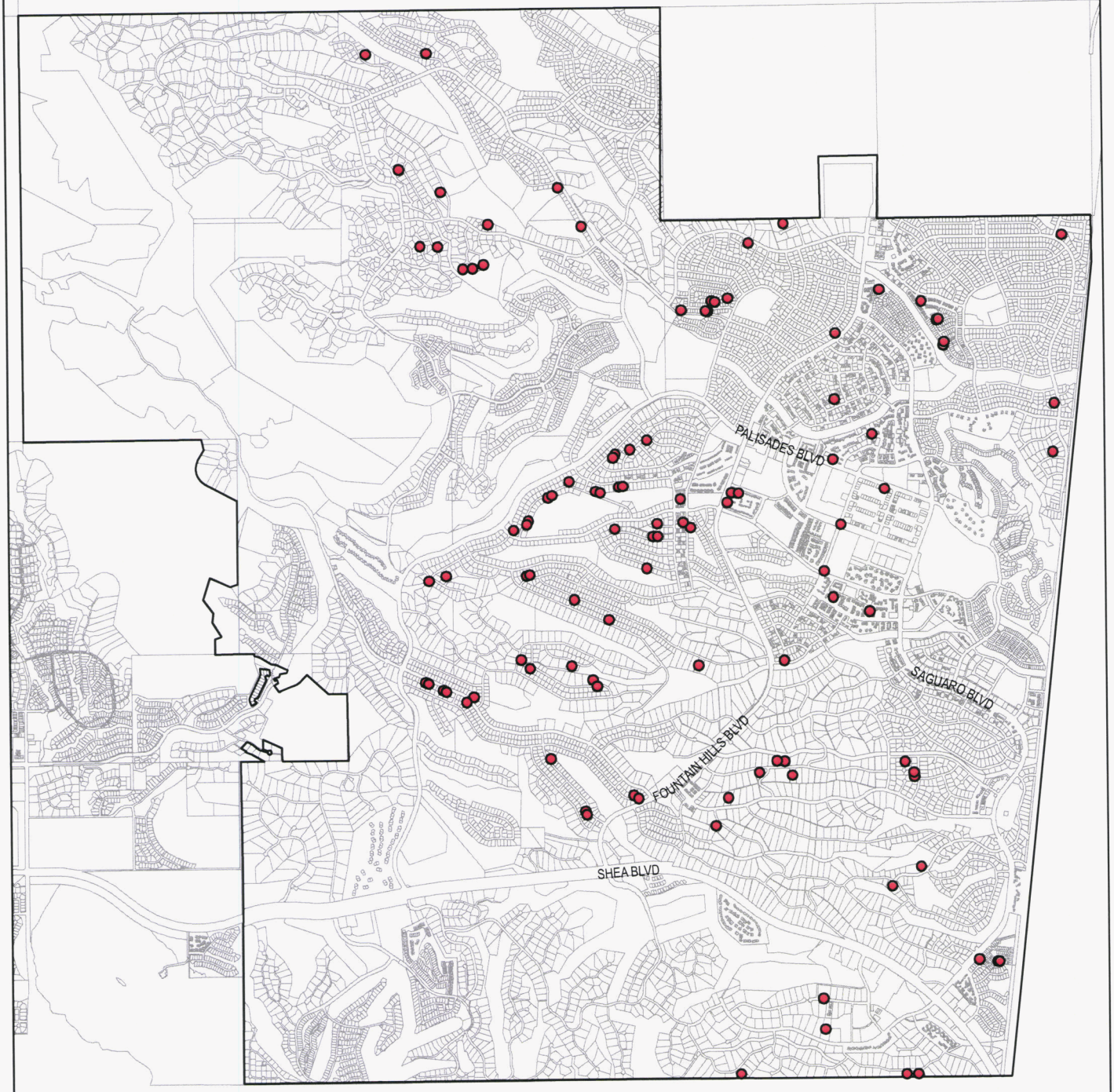
Certificate of Convenience & Necessity

N

1 inch = 3,500 feet

Fountain Hills District
2011 Service Line
Repairs and Replacements

EPCOR WATER
2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027



115 Repairs and Replacements

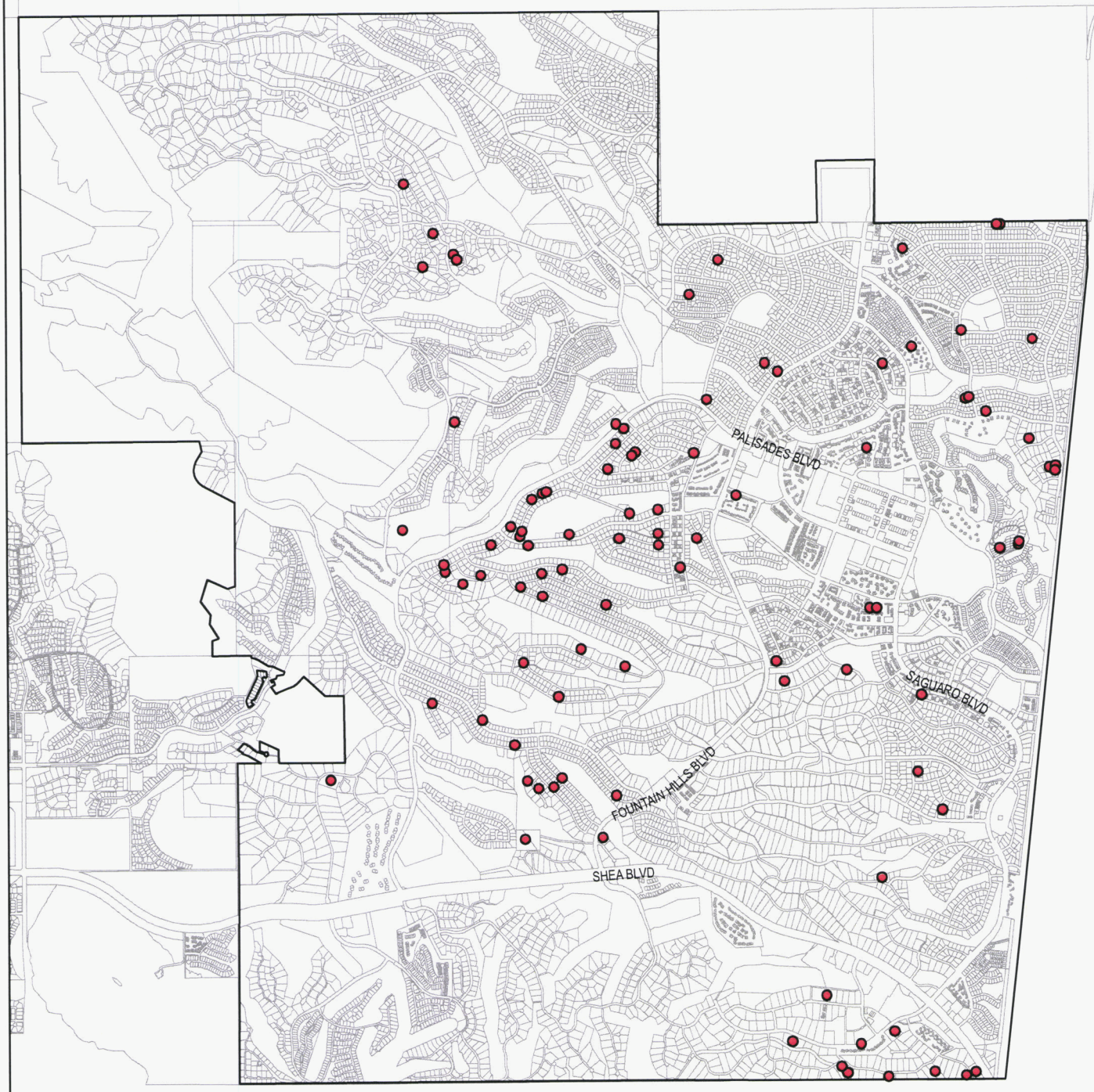
Certificate of Convenience & Necessity

N

1 inch = 3,500 feet

Fountain Hills District
2012 Service Line
Repairs and Replacements

EPCOR WATER
2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027



109 Repairs and Replacments

Certificate of Convenience & Necessity

N

1 inch = 3,500 feet

Services & Mains - Replacements and Repairs 2007-2012

Job Addresses	Report Date	BlueStake #	Scope of Work	Invoice	Date Completed	Cost
15779 Tumbleweed Dr	1/3/07	2007010300225	4-1" poly service line replacements	4040	1/5/07	6,943.36
15211 Rusty Nail CT	1/7/07	53534290	6" main replacement	4041	1/7/07	GWO
17318 Alta Loma	1/7/07	2007010800412	2-1" poly service line replacements	4042	1/9/07	6,122.31
14736 Paradise Dr	1/8/07	2007010801472	plugged 1" copper service line	4044	1/9/07	2,458.87
16145 Glendora	1/10/07	2007011001084	2-1" poly service line replacement	4043	1/11/07	5,105.18
15818-15824 Eagle Crest Rd	1/15/07	2007011700638	2- 1" poly service line replacements	4045	1/18/07	5,606.61
17034 Calle Del Oro	1/23/07	N/A	1-1/2" poly service line repair	N/A	1/23/07	N/A
16208 Rosetta Dr #34	1/22/07	2007012300216	2- 1" poly service line replacements	4047	1/24/07	3,417.38
16647-16657 Gunsight Dr	12/28/06	N/A	1-1/2" service line repair and meter raised	N/A	1/28/07	N/A
15619 Cholla Dr	1/29/07	2007012901354	2-1" poly service line replacements	4048	1/30/07	3,226.44
16616 Palisades Blvd	2/1/07	2007020100663	1" poly service line replacement	4049	2/2/07	2,697.52
15655 Greystone Dr	2/2/07	2007020201234	2-1" poly service line replacements	4052	2/6/07	2,016.26
17031 El Lago # 2172	2/7/07	N/A	Repaired 3/4" copper line off a 2" copper manifold	N/A	2/12/07	N/A
16800 El Lago # 2022	2/9/07	2007020900854	Repaired 1" copper service line	4117	2/12/07	2,934.05
15944 Lantana Ln	2/9/07	2007020900840	3- 1" poly service line replacements	4116	2/12/07	5,796.49
16405 Monaco Dr	2/13/07	N/A	1" poly service line repair	N/A	2/13/07	N/A
14637 Olympic Way	2/26/07	2007022600524	1" poly service line abandonment	4118	2/26/07	2,403.96
Mira Vista & Eagle Mtn Pkwy	3/3/07	N/A	12" C-900 main break		3/5/07	GWO
9814 Talon tr	3/5/07	N/A	Repaired 2" ARV	N/A	3/7/07	N/A
16528 Gunsight Dr #103	3/6/07	2007030700028	Repair 1" pvc service	4119	3/7/07	1,774.54
12602 Via Del Sol	3/15/07	N/A	Replaced 1" angle meter stop	N/A	3/20/07	N/A
Boulder & Rock Valley Pl	3/19/07	2007031901131	6" Main and valve repair	207968A	3/21/07	3,842.64
Saguaro & Palmer	3/19/07	2007031901708	8" ACP Main replacement	4120	3/21/07	GWO
16510 Palisades Blvd # 11	3/27/07	2007032701017	1" poly service line abandonment	4142	3/27/07	2,051.70
15821 Jericho Dr	4/2/07	N/A	Repaired 1" poly service	N/A	4/2/07	N/A
Saguaro & El Lago	4/3/07	2007040400100	1" poly service line abandonment	4144	4/4/07	5,788.56
Trevino & Fountain Hills Blvd	4/3/07	N/A	Replaced ARV	N/A	4/9/07	N/A
15840 Echo Hill Dr	4/6/07	2007040601212	2 - 1" poly service line replacement	4143	4/9/07	7,666.50
13404 La Montana Dr	4/5/07	2007040501318	6" Valve replacement	N/A	4/10/07	GWO
Monterey & Saguaro	4/11/07	2007041100436	1" poly service line replacement	4145	4/12/07	2,557.09
15912 Ocotillo Dr	4/11/07	2007041100037	1" poly service line replacement	4234	4/12/07	4,802.16
15221 Palomino	4/12/07	2007041200423	2-1" poly service line replacements	4146	4/13/07	10,544.91
Vista & Palisades	4/16/07	2007041600244	replaced packing plate on 6" valve	4201	4/17/07	6,321.18
11056 Saguaro Blvd	4/18/07	2007041800085	1" poly service abandonment	4208	4/18/07	15,084.94
14429 Calle Del Oro	4/19/07	2007042000139	1" poly service line replacement	4203	4/19/07	2,266.44
14423 Calle Del Oro	4/19/07	2007042000139	1"poly service line replacement	4204	4/21/07	2,240.00
16805 El Lago	4/23/07	N/A	2" PVC main repair	N/A	4/24/07	N/A
17105 Shea Blvd	4/23/07	2007042400229	6" main replacement	GWO	4/29/07	GWO
17031 El Lago # 1173	5/2/07	2007050200898	2" poly service line replacement	4202	5/3/07	7,985.71
16725 Palisades	5/21/07	2007052101058	1"poly service line replacement	4263	5/22/07	3,987.78
14606 Glenpoint	5/22/07	2007052200228	1" poly service line replacement	4265	5/23/07	5,166.75
16033 Ponderosa Dr	5/26/07	2007052900273	1" poly service line replacement	4262	5/29/07	3,095.11
LOT 17, Summit at Crestview	5/15/07	N/A	Hit line by contractor, Bluestakes not correct	4206	5/29/07	3,658.63
13641 Catclaw Ct	3/27/07	N/A	Relocate 1" copper service	N/A	5/31/07	N/A
16733 Last Trail	6/5/07	2007060500244	1" poly service line replacement	4264	6/6/07	5,878.84
12041 Lamont Dr	6/8/07	2007060800684	1" poly service line replacement	4267	6/9/07	2,978.22
17188 Kirk Ln	6/23/07	56625012	1" poly service line abandonment	4266	6/23/07	2,569.68
14652 Yerba Buena Wy	6/26/07	2007062700236	2" poly service line replacement	4272	6/28/07	4,537.22
16734 La Montana Dr	6/29/07	2007062900940	2" poly service line abandonment	4270	7/2/07	3,095.22
16201 Cholla Dr	6/29/07	2007062900482	2-1" poly service line replacements	4269	7/2/07	3,472.55
16728 Parkview	7/1/07	2007070200043	1" poly service line replacement	N/A	7/3/07	N/A
16330 Powderhorn Dr	7/10/07	2007071001195	1" poly service line replacement	4271	7/11/07	5,123.33
9048 Firebrick Dr	7/11/07	2007071101276	1" poly service line abandonment	4273	7/12/07	1,618.25
16405 Monaco Dr	7/23/07	2007072400393	1" poly service line replacement	N/A	7/24/07	N/A
16514 Leo Dr	7/24/07	2007072401439	1" poly service line replacement	12011	7/25/07	7,098.70
15203 Verbena Dr	7/26/07	2007072600100	1" poly service line replacement	12010	7/27/07	5,296.65
Zapata & Sierra Madre Dr	7/29/07	2007073000169	1" poly service line replacement	12028	7/30/07	5,349.07
16510 Palisades Blvd # 1	7/29/01	57267935	1" poly service line replacement	12029	7/31/07	3,694.65
14635 El Pueblo Blvd	7/31/07	2007073100596	1" poly service line replacement	12027	8/1/07	5,200.97
16203 Glendora	8/2/07	2007080201715	1" poly service line replacement	12026	8/3/07	5,735.82
14053 Hampstead Dr	8/7/07	2007080700352	1" poly service line abandonment	12032	8/8/07	7,712.84
15016 Stratford Cr	8/7/07	2007080700268	2-1" poly service line replacement	12033	8/8/07	9,029.70
16355 Palisades Dr	8/8/07	2007080801951	8" P.V.C. water main break	N/A	8/9/07	GWO
17407 Brantly Dr	8/13/07	2007081300628	2-1"poly service line replacement	12035	8/14/07	7,244.42
12005 Panorama Dr	8/20/07	2007082000223	2-1" poly service line replacements	12036	8/21/07	7,357.51
15641 Sycamore Dr	8/21/07	2007082101460	1" poly service line replacement	12037	8/22/07	5,955.54
15547 Thistle Dr	8/22/07	2007082201547	1" poly service line replacement	12038	8/23/07	2,386.99
13624 Saguaro Blvd	8/28/07	2007082800240	1" poly service line replacement	4333	8/29/07	2,624.00
16154 Glendora Dr	6/15/07	2007062100647	1" poly service line replacement	4334	8/30/07	3,333.29
16219 Maria Ct	9/1/07	57917984	1" poly service line abandonment	4335	9/1/07	4,523.16
Water Treatment Plant	9/2/07	N/A	1" copper service line abandonment	12034	9/2/07	536.33
15613 Cholla Dr	9/1/07	2007090400037	1" poly service line replacement	4336	9/4/07	3,511.64
14205 Fountain Hills blvd	9/10/07	N/A	1" copper service repair	4338	9/11/07	1,366.21
16754 Glenbrook Blvd	9/11/07	2007091100384	1" poly service line replacement	4337	9/12/07	3,118.01
15703 El Lago Blvd	9/18/07	2007091800194	1" poly service line replacement	4339	9/19/07	5,412.38
Lost Hills & Palisades	9/19/07	2007091900115	1" poly service line replacement	4340	9/20/07	6,737.08
16415 Tombstone	9/27/07	N/A	1"poly service line replacement	4343	9/28/07	2,190.07
9224 Firebrick Dr	9/28/07	2007092800116	1" poly service line abandonment	4342	9/29/07	5,821.35
16282 Chiquita Dr	10/5/07	2007100500984	1" poly service line replacement	4344	10/6/07	3,690.79
12617 Sumac Dr	10/13/07	2007101600164	1" poly service line replacement	4351	10/15/07	4,466.61
16146 Glenpoint	10/11/07	2007101101194	1" poly service line replacement	4345	10/15/07	3,046.66
12576 Red Sky Dr	10/26/07	2007102600561	1" copper service replacement	4346	10/27/07	2,234.18
15968 Lost Hills Dr	11/16/07	2007111600299	2-1" poly service line replacement	4347	11/19/07	6,209.63

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15825 Sunburst Dr	11/27/07	2007112700278	2-1" poly service line replacements	4348	11/28/07	7,398.97
11873 Saguaro Dr	11/30/07	2007120400412	1" poly service line replacement		12/4/07	
15029 Zapata Dr	12/4/07	2007120400238	1" poly service line replacement		12/5/07	
11035 Garland Circle	12/5/07	2007120590155	2" galvinized blow off replacement		12/11/07	
17031 El Lago	12/17/07	2007121701106	2" poly service line abandonment		12/18/07	
16426 Saguaro Blvd	12/26/07	2007122600429	2-11/2" poly service line replacements	4405	12/28/07	6,449.08
14619 Love Ct	1/10/08	2008011001131	1" poly service abandonment	4406	1/10/08	2,531.44
17014 Calle Del Sol	1/14/08	2008011400648	2-1" poly service line replacements	4408	1/15/08	8,016.55
16134 Glenpoint	1/16/08	2008011601472	1" poly service line replacement	4411	1/17/08	6,344.14
16704 Ave Of The Ftns	1/21/08	2008012100254	1" poly service line replacement	4412	1/22/08	6,129.34
16041 Venetian Ln	1/22/08	2008012201147	1" poly service line replacement	4452	1/23/08	6,949.32
15201 Sage Dr	2/9/08	2008021200214	2-1" poly service line replacements	4444	2/13/08	7,023.75
13421 Clifftop Dr	2/27/08	609524515	6" main repair & replacement	4402	2/28/08	11,162.33
15422 Palomino Dr	3/4/08	2008030300528	2-1" poly service line replacements	4447	3/6/08	8,727.91
16133 Glenpoint	3/10/08	N/A	2-1" poly service line replacements	4413	3/10/08	6,967.53
15215 Palmetto Dr	3/21/08	2008032400729	2-1" poly service line replacements	4477	3/23/08	7,215.07
15020 Palomino Dr	3/26/08	2008032600265	2-1" poly service line replacements	4448	3/28/08	11,844.75
16110 Kingstree	3/28/08	2008032801291	2-1" poly service line replacements	4456	4/2/08	10,218.39
17026 Kingstree	4/7/08	2008040401092	2-1" poly service line replacements	4457	4/10/08	11,578.17
14272 Fountain hills blvd	4/16/08	2008041801271	2-1" poly service line replacements	4453	4/18/08	4,866.11
17240 Malta Dr	4/22/08	2008042200186	1" poly service line abandonment	4451	4/25/08	6,135.22
16064 Lost Hills Dr	4/23/08	2008042400096	2-1" poly service line replacements	4458	4/25/08	8,690.97
14849 Kingsway # 121	5/23/08	2008052300937	1" poly service line abandonment	208525AA	5/24/08	1,820.50
14570 Corrine Dr	5/24/08	N/A	1" copper service line repair	208526AA	5/26/08	2,452.00
15145 Mustang Dr	5/27/08	2008052700662	2-1" poly service line replacements	4478	5/29/08	8,098.11
16812 Lamplighter	5/27/08	2008052700611	Replaced meter manifold for 8 3/4" meters	4479	5/30/08	3,025.19
17219 Alta Loma	5/30/08	2008053001077	2-1" poly service line replacements	4480	6/2/08	7,960.59
14039 Sheffield	6/5/08	2008060501028	repaired 2-1" copper service lines	4486	6/6/08	1,173.16
14240 Yerba Buena Wy	6/16/08	2008061800007	2-1" poly service line replacements	4482	6/18/08	4,695.27
14724 Golden Eagle blvd	6/18/08	2008061800029	1" poly service line abandonment	4483	6/18/08	4,340.36
11844 Tower Dr	6/23/08	2008062300925	1" poly service line abandonment	4484	6/23/08	1,056.79
15716 Jackrabbit Ln	6/24/08	N/A	Replaced 1" meter stop	N/A	6/24/08	N/A
16010 El Lago Blvd	7/3/08	2008070700321	2-1" poly service line replacements	4490	7/7/08	5,215.99
16741 Westby Dr	7/3/08	N/A	2" Manifold repair that feeds 5 meters	208593AA	7/8/08	328.00
15013 Pampas Pl	7/5/08	2008070700294	4-1" poly service line replacements	4489	7/9/08	8,015.33
10805 Buffalo	7/6/08	2008070700957	2-1" poly service line replacements	208591AA	7/10/08	4,856.59
Sunridge Dr & Sundown Dr	7/9/08	2008070900106	12" C-900 Main repair	4492	7/10/08	4,934.34
12808 Mimosa Dr	7/7/08	2008070700947	1" poly service line replacements	4488	7/11/08	4,118.47
16500 Leo Dr	7/7/08	2008070900598	2-1" poly service line replacements	208592AA	7/11/08	2,523.50
17423 Tejon Dr	7/9/08	2008071400251	2-1" poly service line replacements	4491	7/15/08	455.40
16111 Kingstree	7/16/08	2008071600700	2-1" poly service line replacements	4506	7/17/08	4,257.85
16115 Venetian Ln	7/16/08	2008071600867	2" galvanized blowoff line replacement	4505	7/18/08	3,776.00
13037 Mimosa Dr	7/19/08	63399214	1" poly service line replacement	208599AA	7/21/08	3,575.00
15903 El Lago Blvd	7/21/08	2008072300693	2-1" poly service line replacements	208597AA	7/22/08	5,734.60
12633 Mimosa Dr	7/28/08	2008072800944	2-1" poly service line replacements	4507	7/29/08	5,196.16
17031 El Lago Blvd	7/29/08	2008072900283	1 1/2" poly service line replacement`	4509	7/31/08	9,766.60
17214 Baca Dr	8/4/08	2008080400218	2-1" poly service line replacements	4508	8/5/08	4,658.24
15903 Brodiea Dr	8/6/08	2008080600486	2-1" poly service line replacements	208636AA	8/7/08	4,379.50
15475 Cavern Dr	8/11/08	N/A	2-1" poly service line replacements	208637AA	8/12/08	6,819.16
15447 Greystone Dr	8/11/08	2008081201287	2-1" poly service line replacements	208639AA	8/13/08	3,882.31
14825 Fairlynn	8/12/08	2008081300309	1" copper service line repair	4522	8/13/08	547.44
10818 Kino Ct	8/13/08	2008081301203	1"copper service line repair	4519	8/13/08	1,392.13
11606 Saguaro Dr	8/11/08	2008081201296	2-1" poly service line replacements	208640AA	8/15/08	3,191.53
16510 Palisades Blvd # 48	8/15/08	2008081500437	1" poly service line replacements	4521	8/15/08	4,261.28
15504 Cavern Dr	8/18/08	N/A	2-1" poly service line replacements	208638AA	8/18/08	3,484.55
11409 Buffalo Dr	8/18/08	2008081800332	2-1" poly service line replacements	208641AA	8/19/08	4,597.42
16455 Ave Of The FTN	8/18/08	N/A	Fire hydrant replacement	4518	8/19/08	3,597.22
11860 Tower Dr	8/19/08	2008081900793	2-1" poly service line replacements	4527	8/19/08	3,573.42
16510 Palisades Blvd # 17	8/19/08	2008081900501	2-1" poly service line replacements	4520	8/19/08	3,610.71
15205 Palomino Dr	8/20/08	N/A	2-1" poly service line replacements	208646AA	8/20/08	7,406.00
17038 Parlin Dr	8/18/08	2008081800848	replaced 6" fire hydrant valve	208647AA	8/22/08	4,612.23
17581 San Marcus	8/22/08	N/A	Cleaned up vegetation around vault	4523	8/22/08	422.88
15319 Palomino Dr	8/21/08	2008082100971	2-1" poly service line replacements	208648AA	8/23/08	6,476.16
15421 Palomino Dr	8/22/08	2008082200162	2-1" poly service line replacements	208649AA	8/23/08	7,640.43
16431 Fairlynn	8/25/08	N/A	1" copper service line repair	4526	8/25/08	807.67
16340 Tombstone	8/25/08	2008082500367	2-1" poly service line replacements	208700	8/25/08	4,886.21
12028 Falcon Dr	8/30/08	2008090200050	1" poly service line abandonment	4525	9/2/08	787.3
14808 Yerba Buena	8/30/08	2008090200015	2" poly service line replacement	4524	9/2/08	7,695.59
17246 El Pueblo Blvd	8/31/08	2008090200095	1" poly service line replacement	208696	9/2/08	1,503.73
16012 Primrose Dr	9/2/08	2008090200052	1" poly service line abandonment	208698	9/3/08	4,874.57
17304 Alta Loma	9/2/08	2008090300029	2-1" poly service line replacements	208702	9/3/08	2,688.00
15215 Palisades	9/9/08	2008090901096	2-1" poly service line replacements	208699	9/9/08	5,852.56
15209 Ridgeway Dr	9/12/08	2008091600110	2-1" poly service line replacements	4537	9/16/08	4,669.88
15935 Jericho Ln	9/17/08	2008091800770	2-1" poly service line replacements	4539	9/18/08	4,127.20
15430 Palomino	9/15/08	N/A	2-1" poly service line replacements	4536	9/18/08	6,603.26
15934 Sunflower	9/16/08	N/A	2-1" poly service line replacements	4540	9/19/08	4,168.41
15403 Redrock	9/17/08	N/A	replaced fire hydrant	4538	9/19/08	2,452.63
16118 Glendora	9/23/08	2008092300344	2-1" poly service line replacements	4548	9/23/08	6,838.79
16837 Lunar Ln	9/26/08	2008092600903	2-1" poly service line replacements	4549	9/27/08	5,892.22
15304 Verbina	9/30/08	N/A	2-1" poly service line replacements	208701	9/30/08	3,679.73
16314 Arrow	9/30/08	N/A	1" poly service line abandonment	208697	9/30/08	4,458.84
14924 Mayan Dr	10/1/08	2008100101110	2-1" poly service line replacements	4555	10/2/08	6,122.89
15134 Palomino Dr	10/2/08	2008100300075	2-1" poly service line replacements	4552	10/3/08	8,838.28

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15214 Palomino Dr	10/3/08	2008100600895	2-1" poly service line replacements	4553	10/6/08	11,330.79
17414 Flat Rock Dr	10/6/08	2008100700030	2-1" poly service line replacements	208745AA	10/8/08	3,454.14
16101 Glendora	10/15/08	2008101500303	2-1" poly service line replacements	4564	10/15/08	7,227.87
14620 Fountain hills blvd	10/15/08	2008101600046	2-1" poly service line replacements	4565	10/16/08	4,058.92
12223 Tower Dr	10/20/08	2008102100733	2-1" poly service line replacements	208748AA	10/21/08	3,913.52
15832 Jericho Dr	10/20/08	2008102201149	2-1" poly service line replacements	N/A	10/22/08	4,414.41
15945 Jericho Dr	10/21/08	2008102201147	2-1" poly service line replacements	N/A	10/23/08	3,887.07
15263 Palomino	10/26/08	2008102700391	2-1" poly service line replacements	N/A	10/27/08	5,831.40
14531 Sierra Alegre	10/31/08	N/A	1-1"copper service line and locate main	208747AA	10/31/08	8,957.87
14531 Sierra Alegre	10/31/08	N/A	dug down to main to locate buried valve	208744AA	10/31/08	2,385.45
17138 Amhurst Dr	10/16/08	2008110301064	2" poly service line replacement	208791AA	11/3/08	2,499.17
15709 Greystone Dr	10/29/08	2008110600099	2-1" poly service line replacements	208792AA	11/6/08	2,862.54
Kiwanas & Saguaro	11/10/08	N/A	1" poly service line abandonment	4566	11/11/08	13,007.27
12032 Organpipe Cr	11/12/08	2008111200226	6" main repair & replacement (GWO)	208795AA	11/13/08	4,746.84
14830 Rhoads Ct	11/18/08	N/A	1" copper service line repair	4567	11/19/08	3,110.61
15805 Mustang Dr	11/18/08	2008111900878	2-1" poly service line replacements	4577	11/19/08	6,840.59
14424 Yerba Buena	11/24/08	N/A	1" poly service line abandonment	208797AA	11/25/08	414.68
17020 Calle Del Oro (irrigation)	11/24/08	2008112400891	2" poly service line replacement	208800AA	12/2/08	4,657.18
17020 Calle Del Oro (service)	11/24/08	2008112400891	2" poly service line replacement	208799AA	12/2/08	5,023.83
17019 Calle Del Oro	11/24/08	2008112400891	2" poly service line replacement	208798AA	12/2/08	4,898.90
14640 Fountain Hills Blvd	12/8/08	2008120800598	1" poly service line abandonment	4576	12/9/08	2,446.81
Sunridge Dr & Palisades	12/10/08	2008121000272	12" water main repair	4575	12/10/08	2,544.92
15604 Chicory Dr	12/9/08	2008121500709	2-1" poly service line replacements	4578	12/16/08	5,301.42
16409 Kingstree Blvd	12/15/08	2008121500103	2-1" poly service line replacements	4579	12/17/08	11,511.79
16109 Glendora	12/18/09	2008121900119	2-1" poly service line replacements	4580	12/19/08	8,651.10
13600 FTN Hills Blvd *501*	12/31/08	2008123100488	1" copper service repair	4587	12/31/08	3,428.97
15951 Lost Hills	1/1/09	2008122200672	2-1" poly service line replacements	4586	1/2/09	7,894.31
12845 La Ronda Ct	1/7/09	2009010700862	2-1" poly service line replacements	4602	1/8/09	7,575.42
16510 Palisades Dr # 20	1/8/09	N/A	1-1" poly service line replacement	4601	1/9/09	3,764.62
16821 Aspen Dr	1/7/09	2009010700610	2-1" poly service line replacements	4603	1/15/09	2,430.41
15002 Pampas Pl	1/12/09	N/A	repaired 1" poly service line	N/A	1/15/09	N/A
15626 Sunburst Dr	2/4/09	2009020400616	2-1" poly service line replacements	208848	2/6/09	4,183.27
16636 Kingstree Blvd	2/11/09	2009021100778	1" poly service line replacement	208847	2/12/09	6,138.70
15341 Verbena	3/2/09	N/A	1" poly service line repair	N/A	3/2/09	N/A
16251 Palomino	3/4/09	N/A	1" poly service line repair	N/A	3/5/09	N/A
16110 Gleneagle Dr	3/19/09	2009031900672	2-1" poly service line replacements	4627	3/20/09	8,338.00
16312 Sullivan Dr	3/19/09	2009031900702	1" poly service line replacement	4626	3/23/09	2,715.00
15804 Greystone Dr	3/23/09	2009032300499	2-1" poly service line replacements	208897	3/24/09	5,146.44
14824 Fountain Hills Blvd	3/23/09	N/A	1" Poly service line abandonment	4625	3/25/09	2,144.00
16127 Star Gaze Trl	5/1/09	2009050100157	replaced 1" copper service line	208931	5/5/09	1,527.01
15941 Sunflower Dr	5/13/09	2009051400033	2-1"poly service line replacements	4634	5/15/09	6,846.03
16542 Lost Arrow	5/21/09	2009052200407	2-1" poly service line replacements		5/25/09	5,160.40
15617 Sycamore Dr	5/27/09	2009052700670	2-1" poly service line replacements	4641	5/28/09	4,881.98
15020 Elena Dr	5/29/09	2009052900628	2-1" poly service line replacements	4640	6/1/09	8,277.94
15030 Elena Dr	6/1/09	2009060101131	2-1" poly service line replacements	4642	6/2/09	5,549.38
15307 Palomino Blvd	6/13/09	06132009-1226	2-1" poly service line replacements	4638	6/15/09	6,820.49
15731 Palomino Blvd	6/16/09	2009061600655	2-1" poly service line replacements	4639	6/22/09	6,820.49
15247 Pelican Dr	6/30/09	2009062900463	2-1" poly service line replacements	4644	7/3/09	5,549.22
14629 Glenpoint Dr	7/1/09	2009070100643	2-1" poly service line replacements	4645	7/6/09	8,183.00
15740 E Sycamore	7/6/09	N/A	1" poly service line repair	4669	7/6/09	550.08
17214 Alta Loma	7/3/09	2009070201078	2-1" poly service line replacements	4646	7/7/09	5,183.47
15748 El Lago Blvd	7/2/09	N/A	2-1" poly service line replacements	4647	7/8/09	6,165.57
15734 Sycamore Dr	7/6/09	2009070700268	2-1" poly service line replacements		7/10/09	
16510 Palidades blvd # 37	7/7/09	2009070700951	2-1" poly service line replacements	4649	7/13/09	6,381.48
15245 N Alvarado Dr	7/9/09	2009070900027	2-1" poly service line replacements	4648	7/14/09	6,851.91
15038 E Sierra Madre	7/11/09	N/A	1" poly service line replacement	4651	7/15/09	6,111.62
Windyhill & Aspen	7/7/09	2009070700153	1" poly service line replacement	4650	7/16/09	5,283.96
15248 Sage Dr	7/17/09	2009071700231	2-1" poly service line replacements	n/a	7/20/09	4,332.95
16034 Tumbleweed Dr	7/17/09	2009072000076	2-1" poly service line replacements	4653	7/24/09	4,829.09
15225 Alvarado Dr	7/20/09	2009072000576	2-1" poly service line replacements	4654	7/27/09	7,191.85
16733 Palisades Blvd	7/22/09	2009072300486	2-1" poly service line replacements	4656	7/28/09	6,087.50
15409 Palomino	7/23/09	N/A	2-1" poly service line replacements	4652	7/28/09	10,356.35
15617 El Lago Blvd	7/23/09	2009072300276	2-1" poly service line replacements	4655	7/29/09	4,839.66
16724 Emerald	7/28/09	2009072800142	1" poly service line replacement	4657	8/4/09	7,229.35
16729 Emerald	7/29/09	2009072800142	2-1" poly service line replacements	4658	8/6/09	5,633.05
17320 Alta Loma	8/3/09	2009080300495	2-1" poly service line replacements	4659	8/7/09	6,942.14
13227 N Mimosa dr	8/4/09	2009080500014	2-1" poly service line replacements	4665	8/7/09	1,539.17
11835 Desert Vista	8/4/09	2009080400964	1- 1 1/2" copper service line repair	4661	8/10/09	3,533.22
15443 E El Lago	8/11/09	2009081100556	2-1" poly service line replacements	4663	8/12/09	4,399.60
15335 E Palisades	8/11/09	2009081100137	2-1" poly service line replacements	4662	8/13/09	5,664.79
16813 E Palisades	8/11/09	2009081200430	1-1" poly service line replacement	572	8/14/09	7,700.33
17006 Colony dr	8/12/09	8122009927	2-1" poly service line replacements	4672	8/15/09	3,287.27
15202 San Diego Cir	8/13/09	8122009930	2-1" poly service line replacements	4664	8/16/09	7,082.00
13600 Fountain hills Blvd	8/15/09	8152009104	1" poly service line replacement		8/18/09	
15264 Palomino Blvd	8/15/09	81520090156	2-1" poly service line replacements	4671	8/19/09	10,460.02
16624 Palisades Blvd	8/17/09	2009081800303	2-1" poly service line replacements	209015	8/20/09	2,755.70
15146 Palomino blvd	8/18/09	2009081800338	2-1" poly service line replacements	4675	8/21/09	10,835.56
15121 Panco Villa Pl	8/18/09	2009081800646	2-1" poly service line replacements	209014	8/21/09	7,970.63
14940 Zapata Dr	8/18/09	2009081900005	2-1" poly service line replacements	209013	8/24/09	6,885.92
16145 Glenpoint	8/23/09	82320091138	2-1" poly service line replacements	209012	8/26/09	7,624.72
STAGHORN & SUNRIDGE	8/24/09	2009082400378	6" PVC main repair	4666	8/26/09	13,007.59
14211 Fountain Hills Blvd #2	8/25/09	2009082500473	2-1" poly service line replacements	209011	8/28/09	8,459.42
15625 E EL Lago	8/29/09	2009083100003	2-1" poly service line replacements	4673	9/2/09	10,181.28

Services & Mains - Replacements and Repairs 2007-2012

Job Addresses	Report Date	BlueStake #	Scope of Work	Invoice	Date Completed	Cost
11217 N Pheasant Plz	9/6/09	09062009-1135A	2-1" poly service line replacements	209022	9/9/09	5,569.58
17036 E Kingstree Blvd	9/14/09	2009091400550	2-1" poly service line replacements	209023	9/18/09	10,416.39
15156 E Mustang Dr	9/16/09	2009091600024	2-1" poly service line replacements	4678	9/18/09	4,817.13
13013 N Panorama Dr	9/19/09	09192009-0937A	2" poly service line replacement	209024	9/22/09	6,824.19
16825 E Hawk Dr	9/21/09	2009092100544	2-1" poly service line replacements		9/24/09	
16117 Glenpoint	9/27/09	9272009823P	2-1" poly service line replacements	209048	9/30/09	8,612.65
Hampstead & Balsam	10/1/09	N/A	4" ACP Main repair	4679	10/1/09	693.85
16013&16007 Glendora	10/2/09	2009100200770	2-1" poly service line replacements	209051	10/5/09	6,941.62
16014&16008 Glendora	10/2/09	2009100200770	2-1" poly service line replacements	209050	10/5/09	6,186.31
12608 Mountainside	10/2/09	10022009-744P	1" poly service line replacement	4681	10/5/09	4,791.53
13013 Panorama Dr	10/3/09	10032009-0239P	2" poly service line replacement	209049	10/6/09	2,190.81
16414 Scorpion Dr	10/6/09	N/A	1" poly service line replacement	209052	10/8/09	1,019.77
16840 Ave of The Fountains	10/8/09	N/A	1" poly service line replacement	209053	10/12/09	3,271.93
17031 Kiwanis	10/13/09	N/A	4" pvc main repair	209055	10/14/09	1,111.80
15900 Palomino	10/13/09	2009101300501	2-1" poly service line replacements	209054	10/15/09	4,317.09
15927&15931 Tumbleweed	10/17/09	10172009133A	2-1" poly service line replacements	209056	10/19/09	7,782.61
13450 Mountainside	10/23/09	N/A	1" copper service repair	4685	10/23/09	528.93
16539 Saguaro Blvd	10/28/09	N/A	1 1/2" poly serviceline replacement	4686	11/2/09	3,289.91
15934 El Lago Blvd	11/8/09	N/A	1" poly serviceline replacement w/ 1" copper		11/11/09	
Rosetta Dr. #54	11/10/09	N/A	Abandon 1" poly service line	209060	11/14/09	5,159.14
14806 Yerba Buena	11/13/09	N/A	2" poly service line replacement	209062	11/16/09	4,946.51
Gunsight & saguaro	11/20/09	N/A	Replace valve can and concrete ring	209059	11/23/09	646.35
16540 E. Gunsight Dr #1006	1/8/10	2010010800541	Replaced PVC w/ PVC into complex	N/A	1/9/10	N/A
Pepperwood Apartments	1/9/10	N/A	4" Main Line Replace w\ 2" Service Line	#4699	1/11/10	$4,931.17
16020-16028 Sunflower	1/14/10	N/A	Replace existing 1" Poly w/ 1" Copper	#4700	1/14/10	$3,688.09
14620 Yerba Buena Way	1/26/10	2010012600715	Replaced existing 2" service line	#4703	2/1/10	$5,017.38
Kipling	2/5/10	N/A	Raise Valve box and monument in street	#4704	2/10/10	$893.88
10714 Deerskin Dr	2/15/10	N/A	Install New 1" service line	#4705	2/18/10	$3,067.77
12627 El Lago Blvd	2/18/10	N/A	Fix 2" Service line	#4706	2/22/10	$1,016.59
16918 Colony Dr	2/19/10	2010021900498	Abandon service at corp	#4710	2/23/10	$2,691.70
10915 Mountain Vista	2/22/10	N/A	Cancel exsiting service and relocate new service	#4711-A	3/4/10	$2,988.43
15683 Golden Eagle Blvd	2/10/10	N/A	1" poly service line/Bandaid w/1"x3" Clamp	N/A	3/11/10	N/A
11035 N Arista Ln	3/8/10	N/A	New 1" Service Line	4712	3/11/10	3,120.65
16282 E Chiquita Dr #101	3/18/10	2010031800410	Replaced Short side service line	4714	3/19/10	$1,902.70
15926 Genoa Way	3/25/10	2010032500090	Raise Valve box and monument in street	4716	3/26/10	$726.10
16510 Palisades #5	3/25/10	2010032500027	Replace existing 1" Poly w/ 1" Copper	4715	3/29/10	$5,639.20
17032 Cascade	3/25/10	2010032500812	Replace hydrant bury and hydrant	N/A	3/30/10	N/A
15811 Tumbleweed Dr	3/31/10	2010033100115	Replce Existing Service w/ 1" & 3/4" copper lines and move meters back to the curb	4718	4/5/10	$6,607.23
15820 Tumbleweed Dr	3/31/10	N/A	Replce Existing Service w/ 1" & 3/4" copper lines and move meters back to the curb	4719	4/5/10	$3,279.04
13204 MountainSide	4/5/10	N/A	Dig up meter & rebiuld Copper manifold for 4 meters	4720	4/6/10	$1,496.86
16258 Kingstree Blvd	4/6/10	2010040600569	Replace existing service line w/ 1" Copper 66' long. Replace and adjust 2 valve box's and covers. Disconnect existing service	4722	4/14/10	$16,137.24
16020 E Primrose	4/21/10	N/a	Replace poly line w/ 3/4" copper line. Move boxes to curb	4724	4/27/10	$7,949.74
17208 E Baca	4/27/10	N/A	Patch Back only repair work on service by CCWC	4725	4/27/10	$609.32
15626 E Sunburst	4/27/10	N/A	Patch only service replacemnet was done by CCWC	4723	4/27/10	$778.58
15206 Lorma Ln	5/2/10	2010050300744	Replace with new 1" copper service 6.5 ft deep	4727	5/6/10	$7,863.95
Fire Ridge Way	5/10/10	N/A	Repair 8" Main 14' Deep and locate and and adjust valve boxes	4728	5/19/10	$28,854.30
15534 Chicory Dr	5/20/10	N\A	New saddle & corp. Install 1" copper service line 20'	4730	5/20/10	$1,798.75
15719 Chicory Dr	5/13/10	2010051300775	R& R 1" service line X2	209181	5/30/10	$5,336.86
15748 Eagle Crest Rd	6/9/10	N/A	Replace existing 1" Poly w/ 1" Copper X 2	209208	6/16/10	$2,982.08
17034 Calle Del Oro	6/12/10	N/A	R&R 1.5" service line	209209	6/18/10	$3,731.04
16510 Palisades Blvd	5/27/10	n	Replace 1" copper line with existing Service	4731	6/22/10	$4,632.58
14035 hampstead dr	6/26/10	2010062800017	Replace existing 1" Poly w/ 3/4" Copper X 2	4736	6/28/10	$7,262.26
16516 Inca Ave	6/28/10	2010062800101	Replace Existing 1" Poly w/ 1" Copper	209229	6/28/10	$2,746.18
15808 Sycamore Dr	7/1/10	2010070100398	Replace Exsiting 1" Poly w/ 1" Copper	209230	7/2/10	$4,447.20
13623 Bittersweet Way	7/3/10	199777	Replace Exsicisting 1"poly w/ @ new coppers	4737-A	7/3/10	$8,011.62
15683 Golden Eagle Blvd	7/8/10	2010070800415	Replace old 1"poly w/ 1"copper	4738	7/8/10	$2,681.78
15609 El Lago Blvd	7/8/10	201007080018	Replace Existing 1" Poly w/ 1" Copper	210231	7/8/10	$8,253.35
13227 Mimosa Dr	7/13/10	2010071300359	Replace existing 1"poly w/ 1"copper	4739	7/15/10	$5,864.94
12636-12642 Sumac	7/20/10	N/A	Replaced existing 1"poly w/ 2 new coppers	4740	7/21/10	$5,919.82
14440 Fountain Hills Blvd	7/21/10	N/A	Repair 1" Service line	N/A	7/21/10	N/A
14250 Fountain Hills Blvd	7/21/10	N/A	Repair 1 " Service Line	N/A	7/21/10	N/A
14440 Fountain Hills Blvd	7/21/10	N/A	Repair Fire Hydrant	N/A	7/22/10	N/A
14250 Fountain Hills Blvd	7/26/10	2010072600516	Repair 1" Service line	N/A	7/27/10	N/A
13254 Vandalia Way	8/2/10	2010080200328	Replace 1" poly w/ 2 new coopers	4745	8/4/10	$8,993.46
16710 La Montana	7/16/10	N/A	R& R 1" service line	210243	8/9/10	$8,097.59
15708 Greystone Dr	7/18/10	N/A	R& R 1" service line	210244	8/9/10	$3,678.94
16740 Kingstree	7/21/10	N/A	R& R 1" service line	210245	8/9/10	$7,939.00
16153 Cholla Dr	7/29/10	2010072900822	Replace existing 1" poly w/ 2 cooper lines	210246	8/9/10	$2,897.16
Sunridge Dr	7/28/10	2010072800567	Abandon service at corp	4744	8/11/10	$21,029.15
16204 Glendora Dr	8/2/10	2010080200026	R& R 1" service line	210248	8/17/10	$5,120.60
17061 Sagauro Blvd	8/3/10	2010080300031	Abandon 3/4" Service line	210247	8/17/10	$5,098.24
11630 Sycamore Dr	8/10/10	N/A	R& R 1" service line	210249	8/17/10	$4,200.47
16403 Monaco Dr	8/16/10	2010081700012	R&R 1" Service Line	210270	8/17/10	$2,563.10
Ledford & Saguaro Blvd	8/23/10	N/A	Dig up & Abondon 3/4" service line	210271	8/23/10	$2,242.60
16740 Palisades Blvd	8/23/10	2010082300678	Replace 2" service with a 1" coper service	4751	8/25/10	$6,322.26
16215 Glenpoint Dr	8/9/10	2010080900587	Replace existing 1"poly w/ 1"copper and 3/4" copper	4748	8/26/10	$8,867.44
15248 Mustang Dr	8/16/10	2010081600124	R&R 3/4" poly with copper	4749	8/26/10	$6,301.65
15510 Golden Eagle Blvd	8/28/10	N/A	Replace existing 1" service line	4752	8/31/10	$13,736.27
15860 Ponderosa Dr	8/28/10	N/A	Replace 3/4" copper line	4753	9/2/10	$9,942.18

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Job Addresses	Report Date	BlueStake #	Scope of Work	Invoice	Date Completed	Cost
15032 Palomino Blvd	9/3/10	2010090300025	R&R 1" Water Service Line	210292	9/3/10	$8,398.80
Palomino Blvd & Bucking Bronco	9/8/10	n	R&R Water Valve Can Assembly / Collars	210295	9/8/10	$1,623.14
16522 Sagauro Blvd	9/8/10	2010090800370	Replace 1.5" copper service lines X2	4754	9/9/10	$6,888.55
16532 Leo Dr	9/9/10	N/A	Replace 1" service copper line	4755	9/13/10	$3,997.61
15356 Verbena	9/15/10	N/A	replace 1: and 3/4" copper service lines	4761	9/16/10	$3,744.87
11032 Pinto	9/18/10	N/A	R&R Meter Stop	210294	9/18/10	$367.20
16120 Glendora Dr	9/17/10	2010091700324	Replace 1" and 3/4" copper service line	4760	9/20/10	$5,564.17
11010 Saguaro Blvd	9/20/10	N/A	Dig up and abandon 3/4" service line	210293	9/20/10	$2,519.32
16141 Glendora Dr	9/17/10	2010091700332	Replace 1" service copper line	4759	9/21/10	$7,665.77
15239 Zapata Dr	9/21/10	N/A	Install 1" copper service line	4757	9/22/10	$1,809.40
15223 Elena Dr	9/22/10	2010092200510	Replace 1" copper line with existing Service	4758	9/23/10	$7,151.22
15835 Tumbleweed Dr	9/2/10	2010090100774	R7R 1" Water Service Line	210291	9/30/10	$7,303.57
16009 & 16005 Tumbleweed	9/21/10	N/A	R&R 1" Service lines	210299	9/30/10	$6,103.00
16131 & 16127 Gleneagle Dr	10/5/10	2010100600020	R&R 1: Service lines	210297	10/6/10	$6,225.55
11612 Quinto	10/10/10	NA	Replace !" Service Line	4765	10/10/10	$3,738.16
16119 Gleneagle Dr	10/12/10	2010101200646	Repair and Replace 1" & 3\4" Copper Service	4764	10/14/10	$5,792.55
15843 Tumbleweed Dr	10/13/10	2010101300412	R&R 1" Service Lines	210302	10/14/10	$4,661.86
15844 & 15852 Tumbleweed Dr	10/15/10	2010101300412	R&R 1" Service Lines	210303	10/15/10	$3,703.95
14849 Kings Way	10/13/10	2010101300630	Replace 1" and 3/4" copper service lines	4766	10/20/10	$4,992.87
Panorama Dr / Teal Dr	10/21/10	2010102100605	Discontinue 1" Service	4769	10/22/10	$2,478.87
14040 La Casa Dr	10/8/10	N/A	R & R 1" Service line	210300	10/25/10	$2,625.76
13650 El Pueblo	10/26/10	N/A	R & R 1" Service Line	210308	10/26/10	$2,200.02
15611 Sunburst Dr	10/25/10	2010102500132	Replace 1" Service line with copper	4768	10/27/10	$8,664.80
Panorama Dr & Vista Del Lago	10/4/10	2010100400712	Repair 12" Main. Abondon 1" Service	4767	10/28/10	$11,602.33
15805-15813 El Lago Blvd	10/26/10	N/A	Replace 1" & 3/4" copper service lines	4772	10/29/10	$14,770.05
Alamosa & Del Cambre	10/28/10	N/A	Locate And Discontinue 1" service	4773	11/1/10	$2,223.43
15251 Palomino Blvd	11/3/10	2010110300452	Replace 1" & 3/4" copper service lines	4780	11/8/10	$7,722.05
15943 Echo Hill Dr	11/5/10	2010110800606	Replace 1" copper line with existing Service	4782	11/9/10	$3,817.67
Palomino & Winchester	11/10/10	N/a	Raise Valve box and monument in street X2	4778	11/10/10	$1,048.38
Chicory & Cholla	11/11/10	N/A	Raise Valve box and monument in street	4779	11/11/10	$471.40
15240 Alvarado Dr	11/11/10	104502	Replace 1" poly w/ 1" copper sevice line	4781	11/12/10	$8,354.22
13816 N Arrowweed Dr	11/18/10	n/a	Replace 1" copper line with existing Service	4783	11/19/10	$4,576.71
12627 La Montana	11/24/10	N/A	Replace Main Line To Repair	4784	11/26/10	$2,723.67
11004-11012 Pinto Dr	11/29/10	N/A	Replace 1" & 3/4" copper service lines	4785	12/1/10	$9,884.11
15625 Golden Eagle Blvd	12/7/10	2010120700057	Replace 1" Service line with copper	4787	12/7/10	$3,815.15
14625 F.H. Blvd	12/8/10	N/A	Repair and replace PVC line to Meters	4789	12/8/10	$777.93
12627 La Montana #105	12/9/10	N/A	repair PVC line broken by tree roots	4786	12/10/10	$2,245.67
F.H Blvd & Shea Blvd	12/10/10	N/A	Replace 1" Service line with copper	4788	12/10/10	$5,335.58
17308-17310 Alta Loma	12/20/10	N/A	Replace 1" & 3/4" copper service lines	4792	12/20/10	$6,994.33
15224 Zapata Dr	12/21/10	N/A	Dig up line find Corp & turn off	4793	12/21/10	$3,507.03
17313 Alta Loma	12/22/10	N/A	Replace existing service line w/ 1" Copper	#4698	12/22/10	$2,385.66
17008-17014 Calle Del Sol	12/27/10	2010122700387	Replace 1" & 3/4" copper service lines	4794	12/29/10	$5,184.79
15447 Greystone Dr	12/27/10	2010122700557	Replace 1" copper line with existing Service	4795	12/29/10	$5,058.92
15210 E Sage Dr	1/3/11	2011010300529	Repair & Replace 1" and 3/4" copper service	4797	1/4/11	$6,713.26
15451 Cavern	1/3/11	N/A	Repair &Replace 1" & 3/4" coppser service line	4796	1/6/11	$7,499.93
17008 Calle Del Sol	12/29/10	N/A	Repair & Replaced 1" & 3/4" copper service line	4794	1/6/11	$5,184.79
15431 Greystone	12/29/10	N/A	Repair & Replace 1" copper service line	4795	1/6/11	$5,058.92
9690 Baylor Dr	1/11/11	2011011100100	Replace compression gasket, landscape	4800	1/11/11	$608.60
17233 Kirk Ln	1/11/11	2011011100096	Repair & Replace 3/4" copper service x 2	4799	1/12/11	$7,528.69
Bahia Dr / El Pueblo Blvd	1/13/11	N/A	Replace 2 Valves on Bahia Dr	4802	2/2/11	$19,489.00
15240 Bahia Dr	1/14/11	2011011400439	Replace Valve In Street	4802	2/2/11	$0.00
16330 Bluejay	1/27/11	N/A	Replace 3/4" copper service line x 2	4801	2/2/11	$6,018.65
16741 Westby	1/14/11	N/A	Replace and rebuild manifold for 6 units	4804	2/3/11	$2,167.85
16647 Paradox Dr	1/23/11	2011012400012	Repair & Replaced 1" copper service line x 2	4803	2/3/11	$8,576.02
16416 Silver Hawk	1/28/11	N/A	Repair & Replace 1" and 3/4" copper service	4806	2/3/11	$4,272.29
Ryan & Daniel	2/2/11	N/A	Replace Two Valve Box's + Concrete per TOFH	4807	2/3/11	$1,747.93
16410 Emerald Dr	2/10/11	2011021000478	Replace 2 1" copper service lines	4809	2/22/11	$17,858.13
Fontana Way & Bonita Dr	2/27/11	2011022800070	Replaced Hydrant and Shoe	N/A	2/28/11	By Insure
17442 El Pueblo Blvd	3/5/11	N/A	R&R Hit Firehydrant	4811	3/7/11	$6,738.40
17442 El Pueblo Blvd	3/7/11	N/A	Replace (2) 1" copper service lines	4813	3/7/11	$4,425.12
15114 Marathon	3/4/11	N/A	Replace Poly service with Copper service	4810	3/8/11	522.86
16724 Gunsight Dr #119	3/4/11	2011030400685	Repair & Replace 2 3/4" copper service lines	4812	3/8/11	$10,630.81
15710 Telegraph Dr	3/11/11	2011031000772	Abandon existing & install new 1" Copper service	4814	3/11/11	$5,214.38
15531 Cavern	3/12/11	N/A	Ran 2 new 3/4" service lines not on Blow Off Line	4815	3/14/11	$11,004.56
16230 Chiquita	4/7/11	2011040700121	Replace 1" poly with 1" copper service line	4816	4/8/11	$3,483.23
16538 Saguaro Blvd	4/26/11	2011042600235	Replace two 3/4" cooper service lines 65'	4817	4/27/11	$12,438.47
16119 Cholla Dr	5/3/11	2011052300285	Replace poly/w 2 3/4" cooper service lines	4818	5/4/11	$5,271.62
15629 Tacony Dr	5/6/11	2011050600029	Replace 1" poly w/ one 3/4" &1" cooper service line	4819	5/6/11	$8,068.17
15740 Sycamore Dr	5/5/11	2011050500602	Repair & Replace poly with 1" & 3/4" cooper Lines	4820	5/9/11	$6,699.76
15719 Telegraph Dr	5/12/11	2011051200437	Repair and cancel existing unused service	4821	5/13/11	$6,165.01
16803 Nicklaus Dr	5/12/11	2011051200516	Cancel Service on fire line. Install new 1" & 3/4"	4822	5/16/11	$6,639.49
14440 Fountain Hills Blvd	5/17/11	2011051700343	Replace existing 1" poly w/ 1"cooper service line	4823	5/17/11	$6,050.34
15618 Cavern Dr	5/23/11	2011052300644	Replaced 1"poly w/ 1" copper service line	4824	5/24/11	$5,272.15
15936 Lantana Ln	5/24/11	2011052400316	Repaired service line w/ band aid	N/A	5/24/11	N/A
13031 Mountainside dr	5/25/11	N/A	Moved Meter down hill. New meter stop	N/A	5/25/11	N/A
15711 Golden Eagle Blvd	5/24/11	N/A	Repaired service line w/ band aid	N/A	5/25/11	N/A
14849 n Kings Way	6/1/11	2011060100412	replace new 3/4" service lines	4828	6/2/11	$5,871.58
Ave of Ftns & La Montana	6/2/11	ELM #326051	Replace existing Landscaping Service with 1 new 2" copper	4830	6/3/11	$9,905.00
16208 Rosetta dr	6/6/11	2011060600017	Replace 1" copper service line	4829	6/6/11	$2,936.57
12028 Chama Dr	6/8/11	N/A	Repair & Replace existing poly w/ 1" Copper	4827	6/9/11	$2,813.52
15852 Ponderosa	6/13/11	N/A	Install 1" Copper Service Line new Build	4825	6/13/11	$5,399.47
16813 Palisades blvd	6/14/11	N/A	Dig up corp and cancel existing service	4826	6/15/11	$2,614.04
17438 Dull Knife	6/22/11	N/A	Repair & Replace 3/4" copper service	4832	6/23/11	$6,789.18

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Job Addresses	Report Date	BlueStake #	Scope of Work	Invoice	Date Completed	Cost
15630 Tacony dr	6/27/11	2011602700570	Dig Up Hydrant, replace and plug wepp holes at bottom of shoe	N/A	6/28/11	N/A
15617 E Golden Eagle Blvd	6/27/11	2011062800012	Repair and replace 1" poly with 1" & 3/4" copper service line, Move meter box to curb	4833	6/29/11	$5,395.33
Desert Canyon Golf Course	6/24/11	N/A	Pot Hole 4 Water Valve & Tie in. Install Tapping Sleeve & Valve. Install Vault & Meter. Pave	4834	7/1/11	$26,818.93
16210 Kingstree blvd	7/14/11	2011071500328	Dig & find Corp. Turn off corp. Install new service straight to box. Move box to curb	4835	7/18/11	$10,998.74
15836-15843 Mustang	7/19/11	N/A	Repair & Replace 2 3/4" copper service. Move meter box's to curb. Main line Shut down	4836	7/21/11	$8,935.15
Augusta Ct	7/19/11	N/A	Cut in a 4" tee and valve for golf course meter	4851	7/25/11	$8,204.61
16019 Glendora Dr	7/21/11	2011072100016	Repair & Replace poly with 2 3/4" cooper Lines	4837	7/26/11	$8,869.72
15119 Sage Dr	7/28/11	2011072800625	Digg up & Cancel existing Service line	4840	8/2/11	$3,711.39
15803 Tumbleweed Dr	7/28/11	2011072800914	Repair & Replace existing service 1" & 3/4" copper service. Relocate meter boxes	4841	8/2/11	$8,943.73
16843 Last Trail Dr	7/31/11	201107310037	Repair & Replace existing service 1" & 3/4" copper service.	4842	8/2/11	$5,342.36
11225 N Pheasant Plaza	8/2/11	2011080200219	Repair & Replace existing service with new 3/4" copper service	4843	8/3/11	$6,188.44
Royal Ct / Kingstree Blvd	8/2/11	2011080200391	Dig up & find leak in water main line. Install 4" x 12" Bandaid & backfill	4846	8/3/11	$3,745.89
11225 Amhurst	8/3/11	2011080300423	R&R 4" gate valve, can & lid Poor concrete collar	4845	8/4/11	$6,365.99
16327 Emerald Dr	8/12/11	N/A	R&R 1 " & Add 1" Copper serivce line	210325	8/12/11	$6,897.00
16223 Glenpoint Dr	8/13/11	ELM #357359	replaced 1" poly service with a 1" copper and a 3/4" copper service	4848	8/15/11	$8,819.30
Mustang Dr	8/15/11	N/A	R&R (1) 1" copper service. Move meter box to street	210326	8/19/11	$5,490.45
12020 Hawk Dr	8/18/11	N/A	replaced 2" manifold that feed 7 - 3/4" meters	4847	8/25/11	$4,981.22
13038 Mountainside Dr	8/22/11	2011082200243	replaced 1" poly service with a 1" copper and a 3/4" copper service	4849	8/26/11	$4,690.10
15633 Cholla Dr	8/24/11	N/A	R&R Copper Serivce	210327	8/26/11	$2,783.30
15101 Pancho Villa	8/27/11	N/A	replaced 1" poly service with a 1" copper and a 3/4" copper service	4850	8/29/11	$6,952.53
15201 Zapata Dr	9/8/11	2011090800287	R&R (1) 1" Copper Service	210331	9/12/11	$4,043.50
15135 Palomino Blvd	9/2/11	N/A	R&R 1" Service & Install 1 new 1" Service	210328	9/19/11	$7,556.35
11206 Teller Dr	9/12/11	N/A	R&R (1) 1" Service, Hot Tap Install (1) 1" Service	210330	9/19/11	$3,840.00
15452 - 15458 Chicory Dr	9/15/11	N/A	R&R (1) 1" Service, Hot Tap Install (1) 1" Service	210332	9/19/11	$4,087.10
15023 Elena Ct	9/3/11	N/A	R&R 1" Service Line And install 2" Air relief	4854	9/20/11	$1,431.55
14015 Sheffield Ct	9/19/11	2011091900747	Repair & Replace (1) 1" & (1) 3/4" Copper Services	4861	9/20/11	$4,022.87
15232 Palomino Blvd	9/8/11	N/A	R&R 2 short side 30' 3/4" & 2 long side 58' 3/4" copper service. Move boxes & Re-landscape river rock	4853	9/21/11	$16,500.94
16276 Chiquita Dr	9/5/11	N/A	Repair & Replace Existing Service W/ (1) 1" & (1) 3/4" copper serice	4855	9/22/11	$7,530.97
14416 - 14418 Yerba buena way	9/15/11	2011091500446	R&R (1) 1" and install (1) 1" copper service Move to street	210334	9/22/11	$3,296.30
15244 - 12524 Carmelita Ct	9/16/11	2011091600216	R&R (1) 1" and install (1) 1" copper service	210333	9/22/11	$3,375.60
16133 - 16129 E Glendora Dr	9/12/11	2011091200043	Remove & Replace (1) 1" & (1) 3/4" copper services	4856	9/23/11	$6,531.44
17006 Yerba Buena	9/14/11	N/A	Replace (1) 2" Copper Serive	4859	9/23/11	$5,800.88
E Oakwood	9/14/11	N/A	Remove and replace (2) 2" copper services	4860	9/23/11	$4,542.62
16356 Emerald Dr	9/15/11	2011091500024	Repair & Replace (2) 1" copper services. Move meter box to curb	4858	9/23/11	$6,668.10
16524 Laser Dr	9/29/11	2011093000019	R&R Existing landscape service w/ 1" copper service 40' long	4862	10/3/11	$6,801.94
15808 Jerricho	4/10/11	N/A	R&R (1) 3/4" & install (1) 1" copper service	4863	10/5/11	$6,981.90
15491 E Telegraph	10/6/11	2011100600121	R&R Existing 1" poly service W/ (2) 3/4" copper service	4864	10/6/11	$6,573.52
15930 - 15940 Jericho Dr	10/24/11	2011102400591	R&R (1) 1" & Hot Tap (1) 1" Copper Serive. Move to Curb	210338	10/6/11	$7,354.90
15919 Echo Hill Dr	10/7/11	2011100700504	R&R (1) 1" Water Service / Hot Tap Install (1) 1" Copper Service	210335	10/10/11	$3,960.55
16217 Powderhorn Dr	10/7/11	2011100900499	R&R (1) 1" existing poly w/ copper service	4865	10/10/11	$3,672.80
13227 Mimosa Dr	11/3/11	2011110300040	Locate Abandon Leaking Water Service	210341	10/11/11	$3,174.55
10848 - 10842 Pinto Dr	10/10/11	378770	R&R (2) 3/4" copper service Move to curb Shut down Main	4866	10/12/11	$10,180.17
El Lago Blvd & La Montana Dr	10/12/11	379516	Abandon existing Leaking 1" poly service	4867	10/12/11	$5,013.09
15809 / 15817 Sunflower Dr	10/10/11	2011101100739	R&R (1) 1" Service, Hot Tap Install (1) 1" Service	210337	10/19/11	$8,472.44
16135 & 16141 Gleneagle Dr	10/14/11	2011101400430	R&R (1) 1" Service, Hot Tap Install (1) 1" Service	210336	10/19/11	$7,513.45
15724 - 15732 Cavern Dr	10/31/11	2011103100954	R&R existing service w/ (1) 1" & (1) 3/4" Copper service short side	4871	11/1/11	$4,982.05
16528 Gunsight Dr	10/30/11	2011103100027	Watermain Repair on P.V.C. Line at end of parking lot	210340	11/2/11	$2,467.20
16616 Palisades Blvd	11/8/11	N/A	Contract for relocation of 14 water services	4869	11/8/11	$28,022.00
15312 Sierra Madre Dr	11/14/11	2011111400134	R&R existing service w/ (1) 1" & (1) 3/4" Copper service short side	4873	11/15/11	$7,399.70
11259 N Pinto Dr	10/18/11	2011101900287	R&R existing service w/ (1) 1" & (1) 3/4" Copper service short side, Shut Down	4882	11/20/11	$8,384.73
Fountain Hills Blvd & Kingstree Blvd	11/17/11	2011111600517	Locate Valves & Main Lines. Install new Valve Cans & Collars	4876	11/25/11	$22,174.14
15652 Cabrillo Dr	11/24/11	N/A	R&R existing 2 services W/ 2 new 1" Copper service. Move boxes to curb	4877	11/28/11	$8,505.44
16315 Glenbrook Blvd	11/21/11	N/A	Hot Tap install (1) 1" Water Service Remove Existing u branch	210343	11/29/11	$4,457.00
16724 Ave of the Ftns	11/22/11	2011111600386	Locate Existing Main to turn water on Back fill compact & Pave	210342	11/29/11	$2,430.98
15239 E Carmelita Ct	12/5/11	2011120500336	R&R (1) 1" Water Service	210344	12/13/11	$7,391.40
15426 El Lago Blvd	12/2/11	2011120200390	R&R service with new 1" copper service	4884	12/16/11	$8,465.64
15051 - 15105 Palomino Blvd	12/6/11	2011120500662	R&R (2) 3/4" copper service Jack Hammer through Solid Slurry Main Shut Down	4883	12/16/11	$7.397.80
15255 Glenbrook	9/12/11	N/A	Pave & Sawcut from CCWC work	210346	12/20/11	$372.52
16540 Gunsight	9/12/11	N/A	Pave & Sawcut from CCWC work	210345	12/20/11	$372.52
16129 Keota Dr	12/15/11	2011121500070	R&R existing 2 services W/ 2 new 1" Copper service. Move boxes to curb	4885	12/21/11	$6,065.00
15451-15443 Cavern Dr	12/27/10	2010122700568	Replace 1" & 3/4" copper service lines	4796	12/30/11	$7,499.93
15610 Cerro Alto Dr	12/22/11	2011122200324	Dig Down Find Leak. Cancel Services	4886	1/3/12	$2,307.51
14030 El Pueblo Blvd	12/29/11	2011122700583	Install (2) new 1" Copper service for upgrade @ 72' long	4887	1/3/12	$9,629.10
15917 Ponderosa Dr	12/30/11	2012010300304	R&R existing poly service W/ (2) 1" Copper Service. Move Boxes To Curb	4890	1/3/12	$9,329.38
11811 Spotted Horse	6/29/12	2012070200012	R&R existing Poly Service W/ (1) 1" Copper Service (Long Side)	4958	7/5/12	$6,970.00

Services & Mains - Replacements and Repairs 2007-2012

Job Addresses	Report Date	BlueStake #	Scope of Work	Invoice	Date Completed	Cost
15045 E Golden Eagle	7/3/12	483794	replaced hit fire hydrant (invoiced insurance Co. state farm $8,513.23)	4960	7/5/12	$7,395.73
15609 Thistle	7/6/12	2012070600145	R&R existing Poly Service W/ (2) 1" Copper Service (Short Side)	4963	7/6/12	$5,265.00
14464 N Fountain Hills Blvd	7/9/12	2012070301416	replaced hit fire hydrant (invoiced insurance Co. Gieco $7,950.10)	4962	7/9/12	$7,830.10
15784 E Primrose	7/6/12	2012070600148	R&R existing Poly Service W/ (2) 1" Copper Service (Short Side)	4964	7/10/12	$5,265.00
15229 E Marigold ct	7/9/12	2012070900036	R&R existing Poly Service W/ (1) 1" Copper Service (Short Side)	4965	7/11/12	$4,805.00
16602 Saguaro Blvd	7/11/12	N/A	R&R existing Poly Service W/ (1) 1" Copper Service (Short Side)	4968	7/12/12	$4,805.00
16734 Almont Dr	7/12/12	2012071200119	R&R existing Poly Service W/ (1) 1" Copper Service (Short Side)	4967	7/13/12	$4,805.00
15076 N Escondido	7/13/12	2012071300536	R&R existing Poly Service W/ (2) 1" Copper Service (Short Side)	4966	7/16/12	$5,265.00
15812 Mustang	7/21/12	2012072300010	R&R existing Poly Service W/ (2) 1" Copper Service (Short Side)	4969	7/23/12	$5,265.00
15828 Greystone	7/22/12	2012072300011	R&R existing service w/ (2) 1" copper service lines (Long Side)	4970	7/24/12	$7,565.00
15121 Panch Villa	7/20/12	2012072300537	R&R existing Poly Service W/ (1) 1" Copper Service (Short Side)	4971	7/25/12	$4,805.00
13024 Ryan Way	7/24/12	2012072400682	R&R existing Poly Service W/ (1) 1" Copper Service (Short Side)	4972	7/25/12	$4,805.00
15626 El Lago	8/9/12	2012080900071	R&R existing Poly Service W/ (1) 1" Copper Service (Short Side)	4978	8/10/12	$4,805.00
15227 Zapata Dr	8/14/12	2012081400289	R&R existing Poly Service W/ (1) 1" Copper Service (Short Side)	4977	8/16/12	$4,805.00
15417 Palisades	8/20/12	2012082000026	R&R existing Poly Service W/ (1) 1" Copper Service (Short Side)	4979	8/21/12	$4,805.00
16548 Laser Dr	8/22/12	2012082100667	R&R existing Poly Service W/ (1) 1" Copper Service (Long Side)	4980	8/23/12	$6,970.00
16739 EL Lago	8/23/12	2012082300202	2" PVC Main repair (2" tee split)	4984	8/24/12	$2,257.19
15840 Cavern Dr	8/23/12	2012082201020	R&R existing Poly Service W/ (1) 1" Copper Service (Short Side)	4983	8/25/12	$4,805.00
17221 and 17223 Alta Loma	8/25/12	507842	R&R existing service w/ (2) 1" copper service lines (Long Side)	4982	8/27/12	$8,390.00
16064 Lost Hills	8/24/12	2012082400008	Abandon 1" poly service line, Install new 1" copper service	4985	8/27/12	$5,353.70
17034 and 17030 Aloe Dr	8/27/12	2012082700006	R&R existing service w/ (2) 1" copper service lines (Long Side)	4981	8/28/12	$7,565.00
16532 and 15646 Greystone	9/12/12	2012091101191	R&R existing service w/ (2) 1" copper service lines (Long Side)	4987	9/13/12	$7,565.00
15540 and 15532 Cavern Dr	9/15/12	517087	R&R existing service w/ (2) 1" copper service lines (Long Side)	4989	9/17/12	$8,390.00
17228 and 17234 Baca Dr	9/17/12	2012091201015	R&R existing Poly Service W/ (2) 1" Copper Service (Short Side)	4992	9/18/12	$5,265.00
15446 El Lago	9/17/12	2012091700553	R&R existing Poly Service W/ (1) 1" Copper Service (Long Side)	4988	9/19/12	$10,000.00
16643 and 16659 Last Trail	9/19/12	2012091800591	R&R existing Poly Service W/ (2) 1" Copper Service (Short Side)	4990	9/21/12	$5,265.00
13448 and 13456 El Pueblo	9/19/12	2012091800251	R&R existing Poly Service W/ (2) 1" Copper Service (Short Side)	4991	9/21/12	$5,265.00
16216 Rosita (lot 30-31)	9/21/12	N/A	R&R existing Poly Service W/ (2) 1" Copper Service (Short Side)	4994	9/24/12	$6,060.00
13100 Sunridge Canyon Dr	9/26/12	N/A	New 6" fireline and fire hydrant. (invoiced sunridge golf club 24,767.42)	4993	9/26/12	$0.00
14645 Club Mirage	10/1/12	N/A	R&R existing Poly Service W/ (1) 1" Copper Service (Long Side)	5002	10/3/12	$3,286.17
15865 &15833 Palisades	10/4/12	2012100301069	R&R existing Poly Service W/ (2) 1" Copper Service (Short Side)	5000	10/5/12	$5,265.00
15857&15869 Ponderosa Dr	October 19,2012	2012101900775	R&R existing Poly Service W/ (2) 1" Copper Service (Short Side)	CCWC	10/23/12	N/A
15435 E Cavern Dr	10/25/12	2012102500257	repaired 1" poly service	CCWC	10/25/12	N/A
16441 Saguaro Blvd	10/28/12	N/A	Abandon 1" poly service line.	5001	10/28/12	$3,938.10
17303 Vallecito Dr	10/30/12	2012103000281	Replace 6" Butterfly valve with a 6" gate valve	CCWC	10/31/12	N/A
17406 Brantley Dr	10/31/12	N/A	repaired 1" poly service	CCWC	10/31/12	N/A
17337 Vallecito Dr	10/30/12	2012103000171	Replace 6" Butterfly valve with a 6" gate valve	CCWC	11/1/12	N/A
11223 N Teller Dr	10/30/12	2012103000198	R&R existing service w/ (2) 1" copper service lines (Long Side)	CCWC	11/3/12	N/A
14214 N Fountain Hills Blvd	11/5/12	2012110500641	R&R existing Poly Service W/ (2) 1" Copper Service (Short Side)	CCWC	11/5/12	N/A
15437 E Chicory	11/5/12	2012110500693	repaired 1" poly service	CCWC	11/7/12	N/A
15943 Lantana Dr	11/5/12	N/A	R&R existing Poly Service W/ (1) 1" Copper Service (Short Side)	5005	11/10/12	$4,805.00
17122 Grande Blvd	11/26/12	2012112600544	repaired 1" poly service	CCWC	11/26/12	N/A
15481 Telegraph Dr	11/26/12	2012112600552	R&R existing Poly Service W/ (1) 1" Copper Service (Long Side)	CCWC	11/27/12	N/A
11215 Pinto Dr	11/20/12	2012112000631	repaired 1" poly service	CCWC	11/27/12	N/A
17100 Calaveras	11/28/12	N/A	Replaced 2" curb stop	CCWC	11/28/12	N/A
14410 E Teakwood	11/29/12	N/A	Replaced 2" PJ X PJ 90	CCWC	11/29/12	N/A
15955 E Jericho Dr	12/1/12	2012120400195	repaired 1" poly service	CCWC	12/4/12	N/A
15336 Verbena Dr	12/3/12	N/A	repaired 1" poly service	CCWC	12/5/12	N/A
14254 N Isben Dr	11/29/12	N/A	Replaced 1" curb stop	CCWC	12/5/12	N/A
16739 EL Lago (Desert Horizon)	11/27/12	N/A	Installed new 6" main and moved 13 services to curb side	5010	12/6/12	$29,411.18
16805 E El Lago Blvd	11/30/12	N/A	Rebuilt meter manifold from main to the meters. (split in 1.50" tee)	CCWC	12/6/12	N/A
12022 Chama Dr	12/5/12	2012120600742	Installed new 1" service line and meter	CCWC	12/11/12	N/A
12050 Arroyo Vista	12/13/12	2012121300472	R&R existing service w/ (2) 1" copper service lines (Long Side)	5014	12/18/12	$7,565.00
15302 E Lotus Ln	12/19/12	2012121900407	R&R existing Poly Service W/ (1) 1" Copper Service (Short Side)	5015	12/19/12	$5,265.00

Chaparral City Water Company – PWS ID No. 07-017

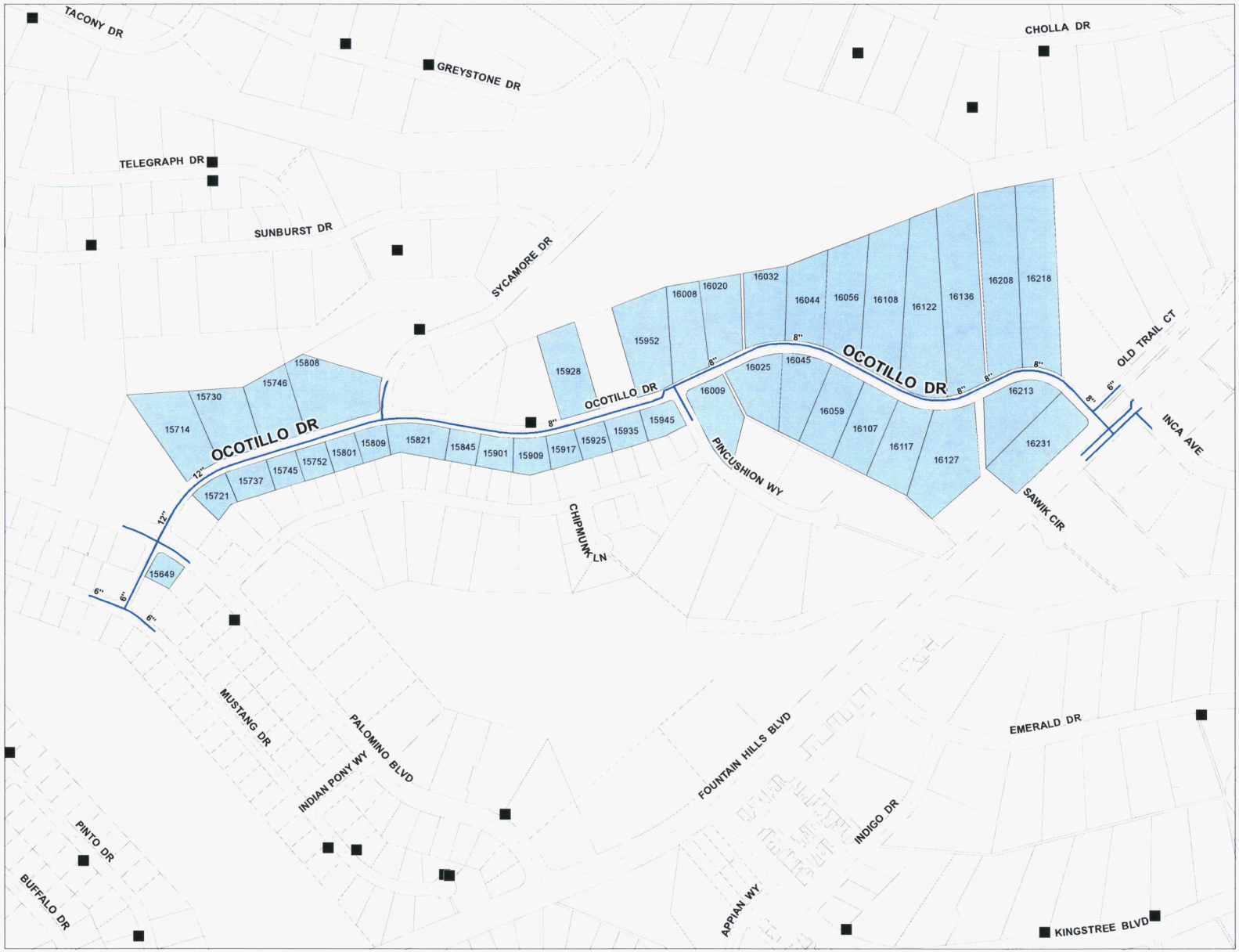
SIB PLANT TABLE I, 1-1

2014 Service Line Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
S-1	333	service lines	40	¾" & 1"	Copper	$3,881	Ocotillo	12/2014	n/a	$155,232	Replace 40 residential services (3/4" or 1") on Ocotillo between Mustang and Fountain Hills Blvd. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed about 40 years ago, in 1974. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-1 in Exhibit CC-1 for the locations of the replacements.
S-2	333	service lines	105	¾" & 1"	Copper	$3,881	Mustang	12/2014	n/a	$407,484	Replace 105 residential services (3/4" or 1") on Mustang between Palisades and Fountain Hills Blvd. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed about 38 years ago, in 1976. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-2 in Exhibit CC-1 for the locations of the replacements.

S-3	333	service lines	13	¾" & 1"	Copper	$3,881	Spotted Horse	12/2014	n/a	$50,450	Replace 13 residential services (3/4" or 1") on Spotted Horse between Mustang and Westridge. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed about 35 years ago, in 1979. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-3 in Exhibit CC-1 for the locations of the replacements.
S-4	333	service lines	37	¾" & 1"	Copper	$3,881	Buffalo	12/2014	n/a	$143,590	Replace 37 residential services (3/4" or 1") on Buffalo between Mustang and Fountain Hills Blvd. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed about 38 years ago, in 1976. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-4 in Exhibit CC-1 for the locations of the replacements.
S-5	333	service lines	9	¾" & 1"	Copper	$3,881	Garland	12/2014	n/a	$34,927	Replace 9 residential services (3/4" or 1") on Garland between Buffalo and Palatial. The services are branched black poly lines (one service for two customers) that are failing at a high rate. The services are located on a short dead-end street off of Buffalo, which is scheduled for service line replacements in the same year (project S-4). Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-5 in Exhibit CC-1 for the locations of the replacements.
S-6	333	service lines	43	¾" & 1"	Copper	$3,881	Pinto	12/2014	n/a	$166,874	Replace 43 residential services (3/4" or 1") on Pinto between Palomino and Fountain Hills Blvd. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed about 38 years ago, in 1976. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-6 in Exhibit CC-1 for the locations of the replacements.
Total			**247**							**$958,558**	



2014

Project No: S-01 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Ocotillo

project desciption:

Replace 40 residential services (3/4" or 1") on Ocotillo between Mustang and Fountain Hills Blvd.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

130 65 0 130 260 390 520

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 S-1**	Project Location: See project maps

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
40	3/4" or 1" service	3500	Contractor material and labor to replace 40 residential services (3/4" or 1") on Ocotillo between Mustang and Fountain Hills Blvd.	$ 140,000
40	service	28	Company labor for field oversight and management of construction*	$ 1,120
Subtotal				$ 141,120
General Overhead Rate on Labor and Capital (10%)				$ 14,112
Total Estimated Cost				**$ 155,232**

*Company labor includes the salary for one employee for approximately one hour at a rate of $28/hour.

2014

Project No: S-02 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Mustang

project desciption:

Replace 105 residential services (3/4" or 1") on Mustang between Palisades and Fountain Hills Blvd.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

190 95 0 190 380 570 760

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

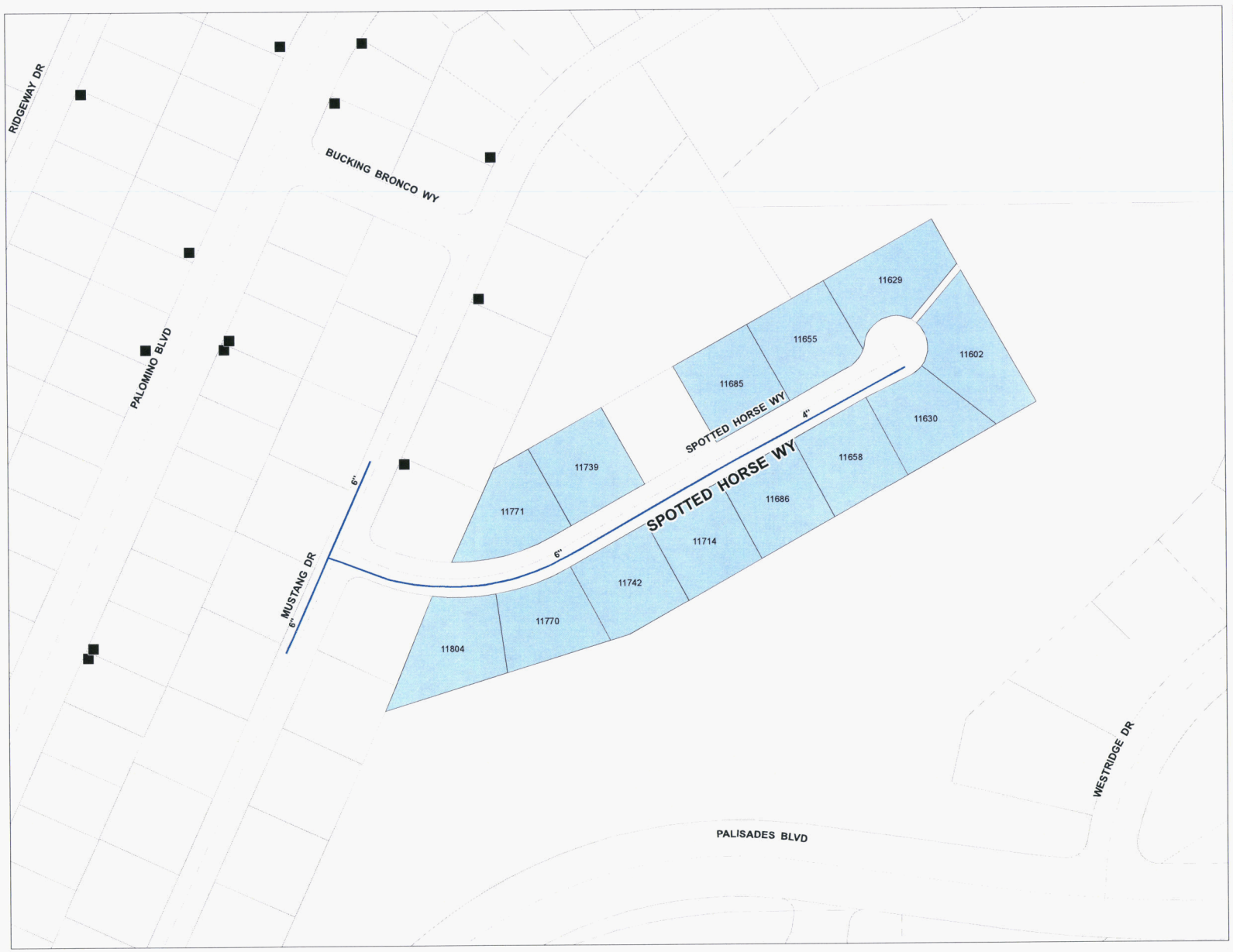
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 S-2**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
105	3/4" or 1" service	3500	Contractor material and labor to replace 105 residential services (3/4" or 1") on Mustang between palisades and Fountain Hills Blvd.	$ 367,500
105	service	28	Company labor for field oversight and management of construction	$ 2,940
Subtotal				$ 370,440
General Overhead Rate on Labor and Capital (10%)				$ 37,044
Total Estimated Cost				**$ 407,484**



2014

Project No: S-03 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Spotted Horse

project desciption:

Replace 13 residential services (3/4" or 1") on Spotted Horse between Mustang and Westridge.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

50 25 0 50 100 150 200
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 S-3**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
13	3/4" or 1" service	3500	Contractor material and labor to replace 13 residential services (3/4" or 1") on Spotted Horse between Paslisades and Fountain Hills Blvd.	$ 45,500
13	service	28	Company labor for field oversight and management of construction	$ 364
Subtotal				$ 45,864
General Overhead Rate on Labor and Capital (10%)				$ 4,586
Total Estimated Cost				**$ 50,450**

2014

Project No: S-04 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Buffalo

project desciption:

Replace 37 residential services (3/4" or 1")
on Buffalo
between Mustang and Fountain Hills Blvd.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 S-4**	Project Location: See project maps

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
37	3/4" or 1" service	3500	Contractor material and labor to replace 37 residential services (3/4" or 1") on Buffalo between Palisades and Fountain Hills Blvd.	$ 129,500
37	service	28	Company labor for field oversight and management of construction	$ 1,036
Subtotal				$ 130,536
General Overhead Rate on Labor and Capital (10%)				$ 13,054
Total Estimated Cost				**$ 143,590**

2014

Project No: S-05 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Garland

project desciption:

Replace 9 residential services (3/4" or 1")
on Garland
between Buffalo and Palatial.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

50 25 0 50 100 150 200
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions • Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 S-5**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
9	3/4" or 1" service	3500	Contractor material and labor to replace 9 residential services (3/4" or 1") on Garland between Palisades and Fountain Hills Blvd.	$ 31,500
9	service	28	Company labor for field oversight and management of construction	$ 252
Subtotal				$ 31,752
General Overhead Rate on Labor and Capital (10%)				$ 3,175
Total Estimated Cost				**$ 34,927**

2014

Project No: S-06 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Pinto

project desciption:

Replace 43 residential services (3/4" or 1") on Pinto between Palomino and Fountain Hills Blvd.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

90 45 0 90 180 270 360

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 S-6**	Project Location: See project maps

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
43	3/4" or 1" service	3500	Contractor material and labor to replace 43 residential services (3/4" or 1") on Pinto between Palomino and Fountain Hills Blvd.	$ 150,500
43	service	28	Company labor for field oversight and management of construction	$ 1,204
Subtotal				$ 151,704
General Overhead Rate on Labor and Capital (10%)				$ 15,170
Total Estimated Cost				**$ 166,874**

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 1-2

2015 Service Line Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
S-7	333	service lines	44	¾" & 1"	Copper	$3,881	Sycamore	12/2015	n/a	$170,755	Replace 44 residential services (3/4" or 1") on Sycamore between Thistle and Ocotillo. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1974 and will be 41 years old in 2015. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-7 in Exhibit CC-1 for the locations of the replacements.
S-8	333	service lines	13	¾" & 1"	Copper	$3,881	Winchester	12/2015	n/a	$50,450	Replace 13 residential services (3/4" or 1") on Winchester between Sunburst and Palomino. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority due to their vicinity to the other projects being completed this year, and also because these services are in a very high pressure area (>120 psi), and are therefore more susceptible to failure. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-8 Exhibit CC-1 for the locations of the replacements.

S-9	333	service lines	31	¾" & 1"	Copper	$3,881	Ridgeway	12/2015	n/a	$120,305	Replace 31 residential services (3/4" or 1") on Ridgeway between Palisades and Winchester. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1976 and will be 39 years old in 2015. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-9 Exhibit CC-1 for the locations of the replacements.
S-10	333	service lines	54	¾" & 1"	Copper	$3,881	Sunburst	12/2015	n/a	$209,563	Replace 54 residential services (3/4" or 1") on Sunburst between Palisades and Sycamore. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority due to their vicinity to the other projects being completed this year, and also because these services are in a very high pressure area (>120 psi), and are therefore more susceptible to failure. Additionally, homes on this street a very large, and are therefore expected to use more water, which reduces meter accuracy faster. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-10 Exhibit CC-1 for the locations of the replacements.
S-11	333	service lines	28	¾" & 1"	Copper	$3,881	Burro	12/2015	n/a	$108,662	Replace 28 residential services (3/4" or 1") on Burro between Palomino and Pinchushion. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1978 and will be 37 years old in 2015. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-11 Exhibit CC-1 for the locations of the replacements.
S-12	333	service lines	26	¾" & 1"	Copper	$3,881	Greystone	12/2015	n/a	$100,901	Replace 26 residential services (3/4" or 1") on Greystone between Sunburst and Sycamore. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are in the vicinity of the other service line replacements for 2015 and will be about 29 years old. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-12 Exhibit CC-1 for the locations of the replacements.

S-13	333	service lines	25	¾" & 1"	Copper	$3,881	Telegraph	12/2015	n/a	$97,020	Replace 25 residential services (3/4" or 1") on Telegraph between Greystone and Sunburst. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are in the vicinity of the other service line replacements for 2015 and will be about 29 years old. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-13 Exhibit CC-1 for the locations of the replacements.
Total			**221**							**$857,656**	

2015

Project No: S-07 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Sycamore

project desciption:

Replace 44 residential services (3/4" or 1") on Sycamore between Thistle and Ocotillo.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

175 87.5 0 175 350 525 700

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

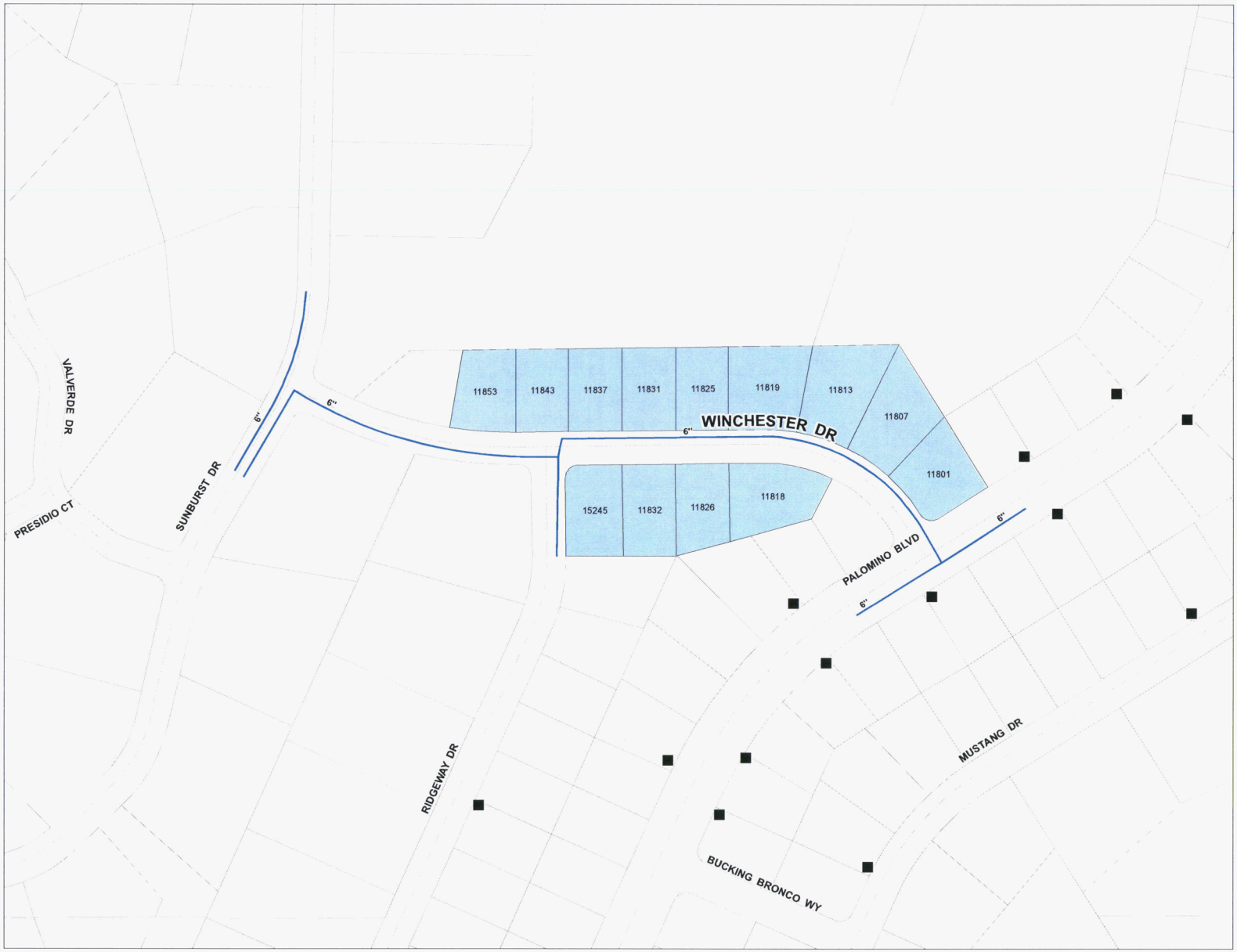
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 S-7**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
44	3/4" or 1" service	3500	Contractor material and labor to replace 44 residential services (3/4" or 1") on Sycamore between Thistle and Ocotillo.	$ 154,000
44	service	28	Company labor for field oversight and management of construction	$ 1,232
Subtotal				$ 155,232
General Overhead Rate on Labor and Capital (10%)				$ 15,523
Total Estimated Cost				**$ 170,755**



2015

Project No: S-08 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Winchester

project desciption:

Replace 13 residential services (3/4" or 1") on Winchester between Sunburst and Palomino.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

50 25 0 50 100 150 200

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 S-8**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
13	3/4" or 1" service	3500	Contractor material and labor to replace 13 residential services (3/4" or 1") on Winchester between Thistle and Ocotillo.	$ 45,500
13	service	28	Company labor for field oversight and management of construction	$ 364
Subtotal				$ 45,864
General Overhead Rate on Labor and Capital (10%)				$ 4,586
Total Estimated Cost				**$ 50,450**

2015

Project No: S-09 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Ridgeway

project desciption:

Replace 31 residential services (3/4" or 1")
on Ridgeway
between Palisades and Winchester.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 S-9**	Project Location: See project maps

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
31	3/4" or 1" service	3500	Contractor material and labor to replace 31 residential services (3/4" or 1") on Ridgeway between Palisades and Winchester.	$ 108,500
31	service	28	Company labor for field oversight and management of construction	$ 868
Subtotal				$ 109,368
General Overhead Rate on Labor and Capital (10%)				$ 10,937
Total Estimated Cost				**$ 120,305**

2015

Project No: S-10 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Sunburst

project desciption:

Replace 54 residential services (3/4" or 1") on Sunburst between Palisades and Sycamore.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

210 105 0 210 420 630 840
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

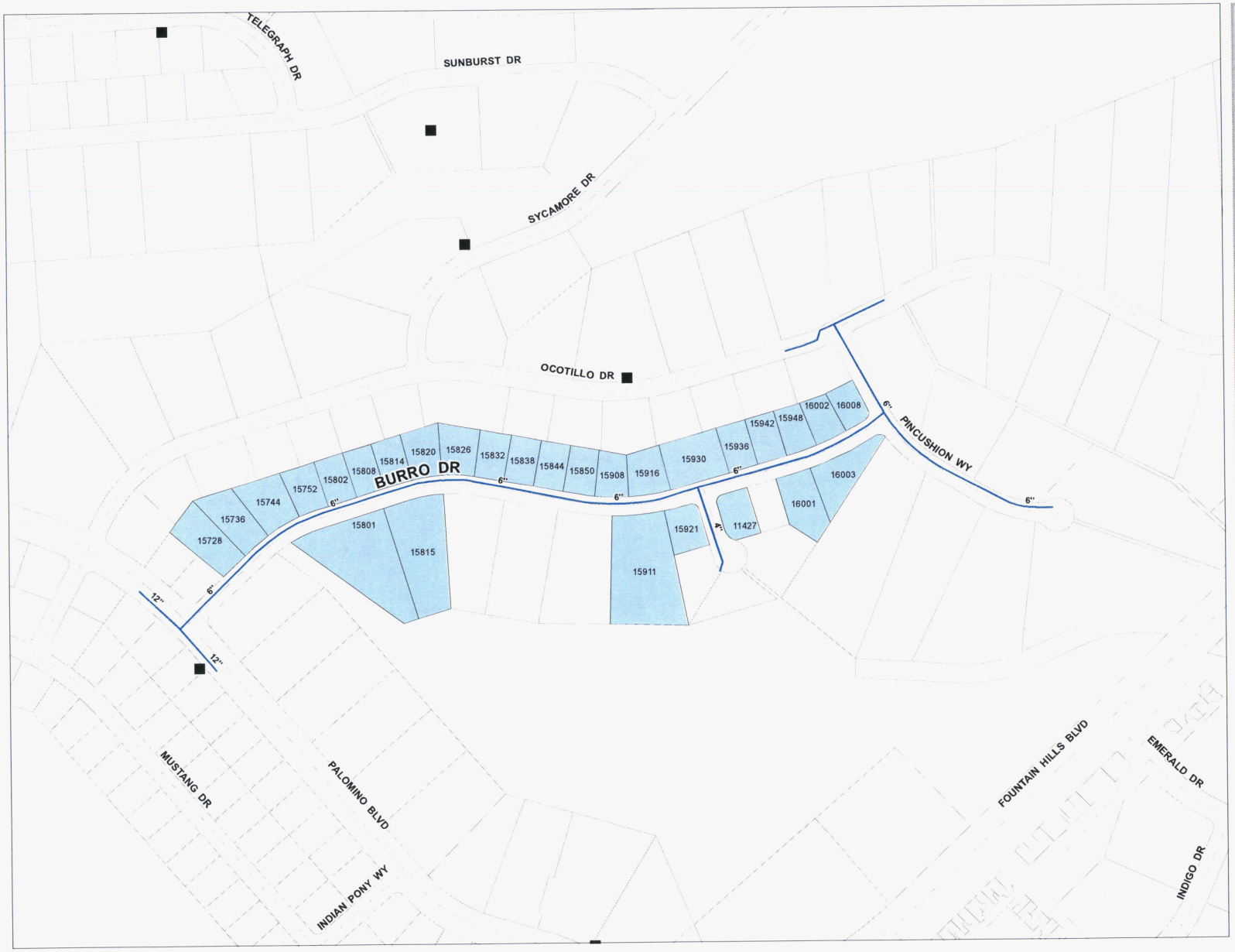
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 S-10**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
54	3/4" or 1" service	3500	Contractor material and labor to replace 54 residential services (3/4" or 1") on Sunburst between Palisades and Sycamore.	$ 189,000
54	service	28	Company labor for field oversight and management of construction	$ 1,512
Subtotal				$ 190,512
General Overhead Rate on Labor and Capital (10%)				$ 19,051
Total Estimated Cost				**$ 209,563**



2015

Project No: S-11 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Burro

project desciption:

Replace 28 residential services (3/4" or 1") on Burro between Palomino and Pincushion.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

90 45 0 90 180 270 360
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 S-11**	Project Location: See project maps

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
28	3/4" or 1" service	3500	Contractor material and labor to replace 28 residential services (3/4" or 1") on Burro between Palomino and Pincushion.	$ 98,000
28	service	28	Company labor for field oversight and management of construction	$ 784
Subtotal				$ 98,784
General Overhead Rate on Labor and Capital (10%)				$ 9,878
Total Estimated Cost				**$ 108,662**

2015

Project No: S-12 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Greystone

project desciption:

Replace 26 residential services (3/4" or 1") on Greystone between Sunburst and Sycamore.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

130 65 0 130 260 390 520

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

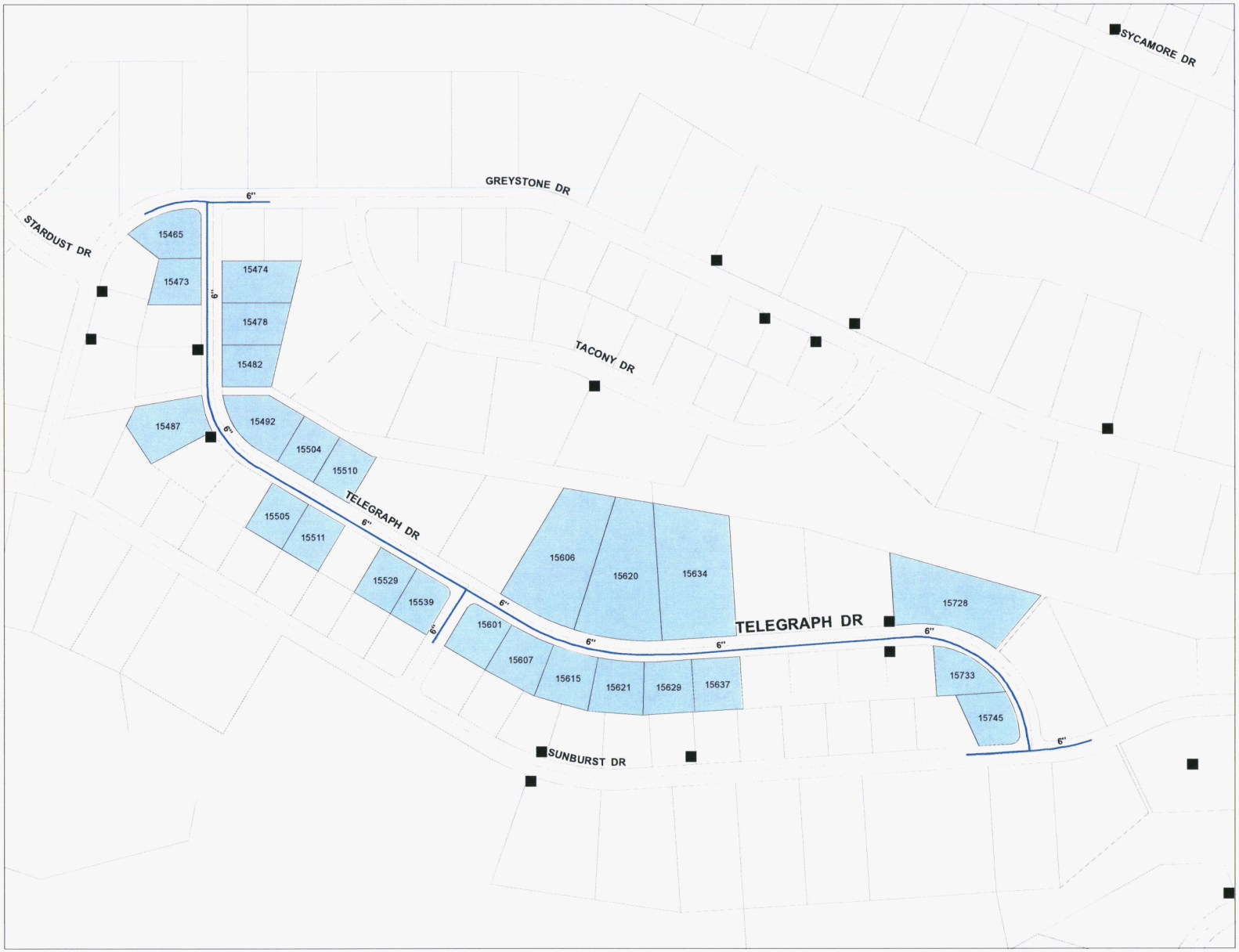
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 S-12**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
26	3/4" or 1" service	3500	Contractor material and labor to replace 26 residential services (3/4" or 1") on Greystone between Sunburst and Sycamore.	$ 91,000
26	service	28	Company labor for field oversight and management of construction	$ 728
Subtotal				$ 91,728
General Overhead Rate on Labor and Capital (10%)				$ 9,173
Total Estimated Cost				**$ 100,901**



2015

Project No: S-13 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Telegraph

project desciption:

Replace 25 residential services (3/4" or 1")
on Telegraph
between Greystone and Sunburst.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water Preliminary Cost Estimate				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 S-13**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
25	3/4" or 1" service	3500	Contractor material and labor to replace 25 residential services (3/4" or 1") on Telegraph between Greystone and Sunburst.	$ 87,500
25	service	28	Company labor for field oversight and management of construction	$ 700
Subtotal				$ 88,200
General Overhead Rate on Labor and Capital (10%)				$ 8,820
Total Estimated Cost				**$ 97,020**

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 1-3

2016 Service Line Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
S-14	333	service lines	95	¾" & 1"	Copper	$3,881	Cholla	12/2016	n/a	$368,676	Replace 95 residential services (3/4" or 1") on Cholla between Chicory and Fountain Hills Blvd. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1973 and will be 43 years old in 2016. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-14 Exhibit CC-1 for the locations of the replacements.
S-15	333	service lines	49	¾" & 1"	Copper	$3,881	Chicory	12/2016	n/a	$190,159	Replace 49 residential services (3/4" or 1") on Chicory between Sycamore and Thistle. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1974 and will be approximately 42 years old in 2016. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-15 Exhibit CC-1 for the locations of the replacements.

S-16	333	service lines	26	¾" & 1"	Copper	$3,881	Verbena	12/2016	n/a	$100,901	Replace 26 residential services (3/4" or 1") on Verbena between Sage and El Lago. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1978 and will be approximately 38 years old in 2016. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No.S-16 Exhibit CC-1 for the locations of the replacements.
S-17	333	service lines	56	¾" & 1"	Copper	$3,881	El Lago	12/2016	n/a	$217,325	Replace 56 residential services (3/4" or 1") on El Lago between Palisades and Fountain Hills Blvd. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1979 and will be approximately 37 years old in 2016. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-17 Exhibit CC-1 for the locations of the replacements.
S-18	333	service lines	30	¾" & 1"	Copper	$3,881	Cavern	12/2016	n/a	$116,424	Replace 30 residential services (3/4" or 1") on Cavern between Palisades and El Lago. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1979 and will be approximately 37 years old in 2016. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-18 in Exhibit CC-1 for the locations of the replacements.
Total			**256**							**$993,485**	

2016

Project No: S-14 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Cholla

project desciption:

Replace 95 residential services (3/4" or 1") on Cholla between Chicory and Fountain Hills Blvd.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

190 95 0 190 380 570 760

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions • Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 S-14**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
95	3/4" or 1" service	3500	Contractor material and labor to replace 95 residential services (3/4" or 1") on Cholla between Chicory and Fountain Hills Blvd.	$ 332,500
95	service	28	Company labor for field oversight and management of construction	$ 2,660
Subtotal				$ 335,160
General Overhead Rate on Labor and Capital (10%)				$ 33,516
Total Estimated Cost				**$ 368,676**

2016

Project No: S-15 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Chicory

project desciption:

Replace 49 residential services (3/4" or 1") on Chicory between Sycamore and Thistle.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

100 50 0 100 200 300 400

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

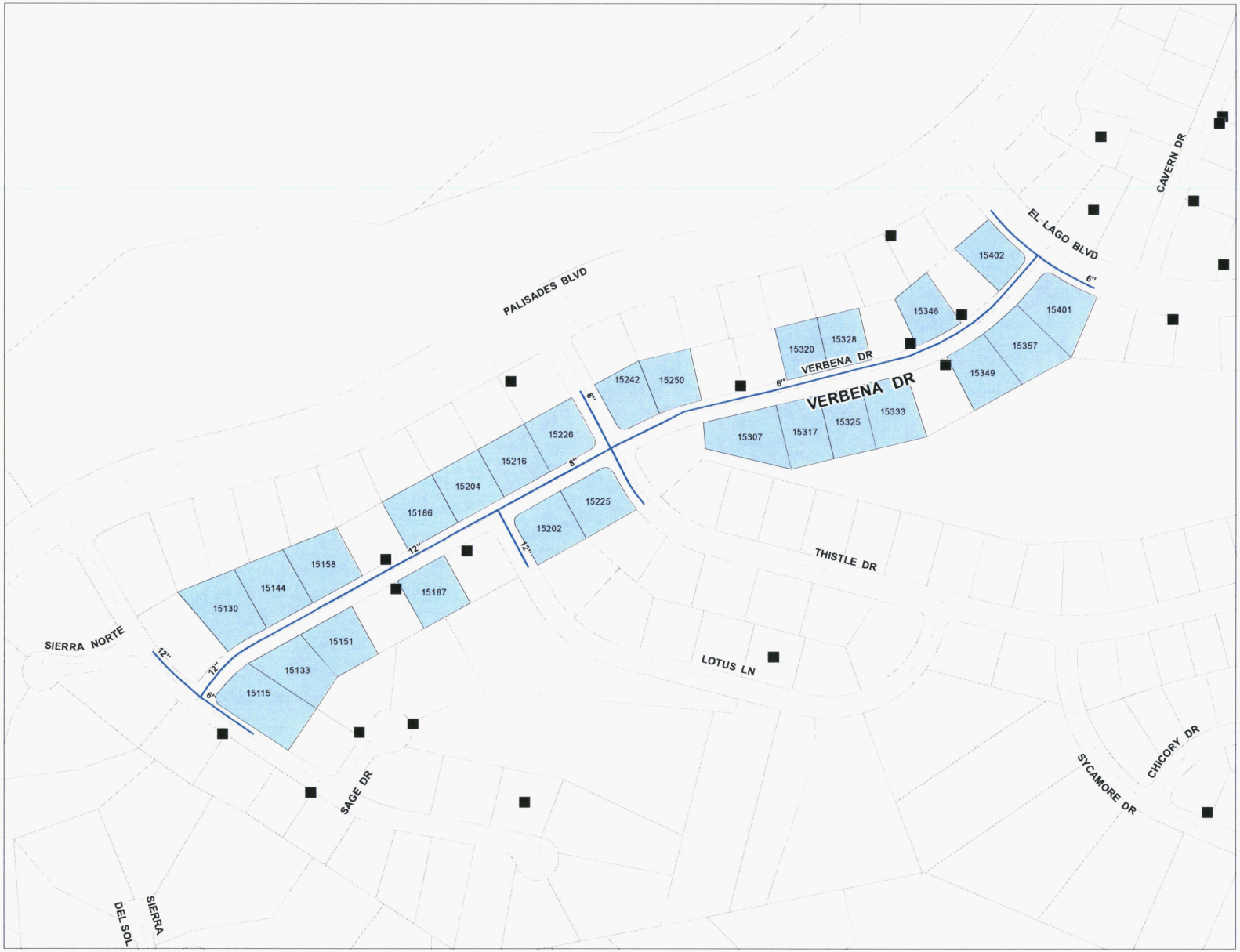
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 S-15**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
49	3/4" or 1" service	3500	Contractor material and labor to replace 49 residential services (3/4" or 1") on Chicory between Sycamore and Thistle.	$ 171,500
49	service	28	Company labor for field oversight and management of construction	$ 1,372
Subtotal				$ 172,872
General Overhead Rate on Labor and Capital (10%)				$ 17,287
Total Estimated Cost				**$ 190,159**



2016

Project No: S-16 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Verbena

project desciption:

Replace 26 residential services (3/4" or 1") on Verbena between Sage and El Lago.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

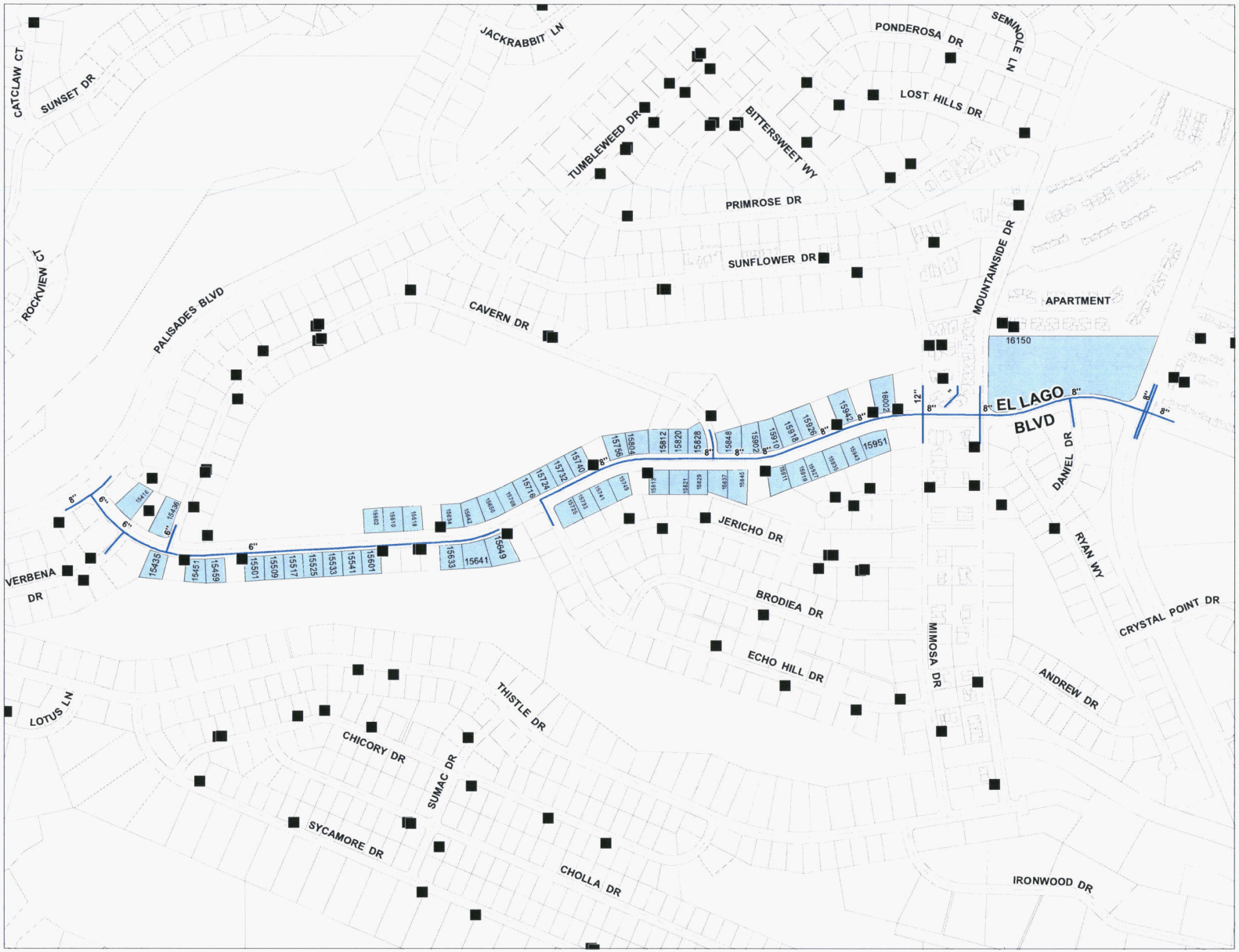
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 S-16**	Project Location: See project maps

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
26	3/4" or 1" service	3500	Contractor material and labor to replace 26 residential services (3/4" or 1") on Verbena between Sage and El Lago.	$ 91,000
26	service	28	Company labor for field oversight and management of construction	$ 728
Subtotal				$ 91,728
General Overhead Rate on Labor and Capital (10%)				$ 9,173
Total Estimated Cost				**$ 100,901**



2016

Project No: S-17 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

El Lago

project desciption:

Replace 56 residential services (3/4" or 1")
on El Lago
between Palisades and Fountain Hills Blvd.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

180 90 0 180 360 540 720
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 S-17**	Project Location: See project maps

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
56	3/4" or 1" service	3500	Contractor material and labor to replace 56 residential services (3/4" or 1") on El Lago between Palisades and Fountain Hills Blvd.	$ 196,000
56	service	28	Company labor for field oversight and management of construction	$ 1,568
Subtotal				$ 197,568
General Overhead Rate on Labor and Capital (10%)				$ 19,757
Total Estimated Cost				**$ 217,325**

2016

Project No: S-18 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Cavern

project desciption:

Replace 30 residential services (3/4" or 1") on Cavern between Palisades and El Lago.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

100 50 0 100 200 300 400
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 S-18**	Project Location: See project maps

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
30	3/4" or 1" service	3500	Contractor material and labor to replace 30 residential services (3/4" or 1") on Cavern between Palisades and El Lago.	$ 105,000
30	service	28	Company labor for field oversight and management of construction	$ 840
Subtotal				$ 105,840
General Overhead Rate on Labor and Capital (10%)				$ 10,584
Total Estimated Cost				**$ 116,424**

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 1-4

2017 Service Line Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
S-19	333	service lines	56	¾" & 1"	Copper	$3,881	Mimosa	12/2017	n/a	$217,325	Replace 56 residential services (3/4" or 1") on Mimosa between Sunflower and Thistle. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1975 and will be approximately 42 years old in 2017. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-19 in Exhibit CC-1 for the locations of the replacements.
S-20	333	service lines	34	¾" & 1"	Copper	$3,881	Mountainside	12/2017	n/a	$131,947	Replace 34 residential services (3/4" or 1") on Mountainside between Palisades and Thistle. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1975 and will be 42 years old in 2017. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-20 in Exhibit CC-1 for the locations of the replacements.

S-21	333	service lines	31	¾" & 1"	Copper	$3,881	Echo Hill	12/2017	n/a	$120,305	Replace 31 residential services (3/4" or 1") on Echo Hill between El Lago and Mimosa. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1979 and will be 38 years old in 2017. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-21 in Exhibit CC-1 for the locations of the replacements.
S-22	333	service lines	84	¾" & 1"	Copper	$3,881	El Pueblo	12/2017	n/a	$325,987	Replace 84 residential services (3/4" or 1") on El Pueblo between Fountain Hills Blvd and Caliente. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1972 and will be 45 years old in 2017. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-22 in Exhibit CC-1 for the locations of the replacements.
S-23	333	service lines	55	¾" & 1"	Copper	$3,881	Oro Grande, Pampas	12/2017	n/a	$213,444	Replace 55 residential services (3/4" or 1") on Oro Grande and Pampas between Calle del Prado and Tejon. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1974 and will be approximately 43 years old in 2017. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-23 in Exhibit CC-1 for the locations of the replacements.
Total			**260**							**$1,009,008**	

2017

Project No: S-19 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Mimosa

project desciption:

Replace 56 residential services (3/4" or 1") on Mimosa between Sunflower and Thistle.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

110 55 0 110 220 330 440
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

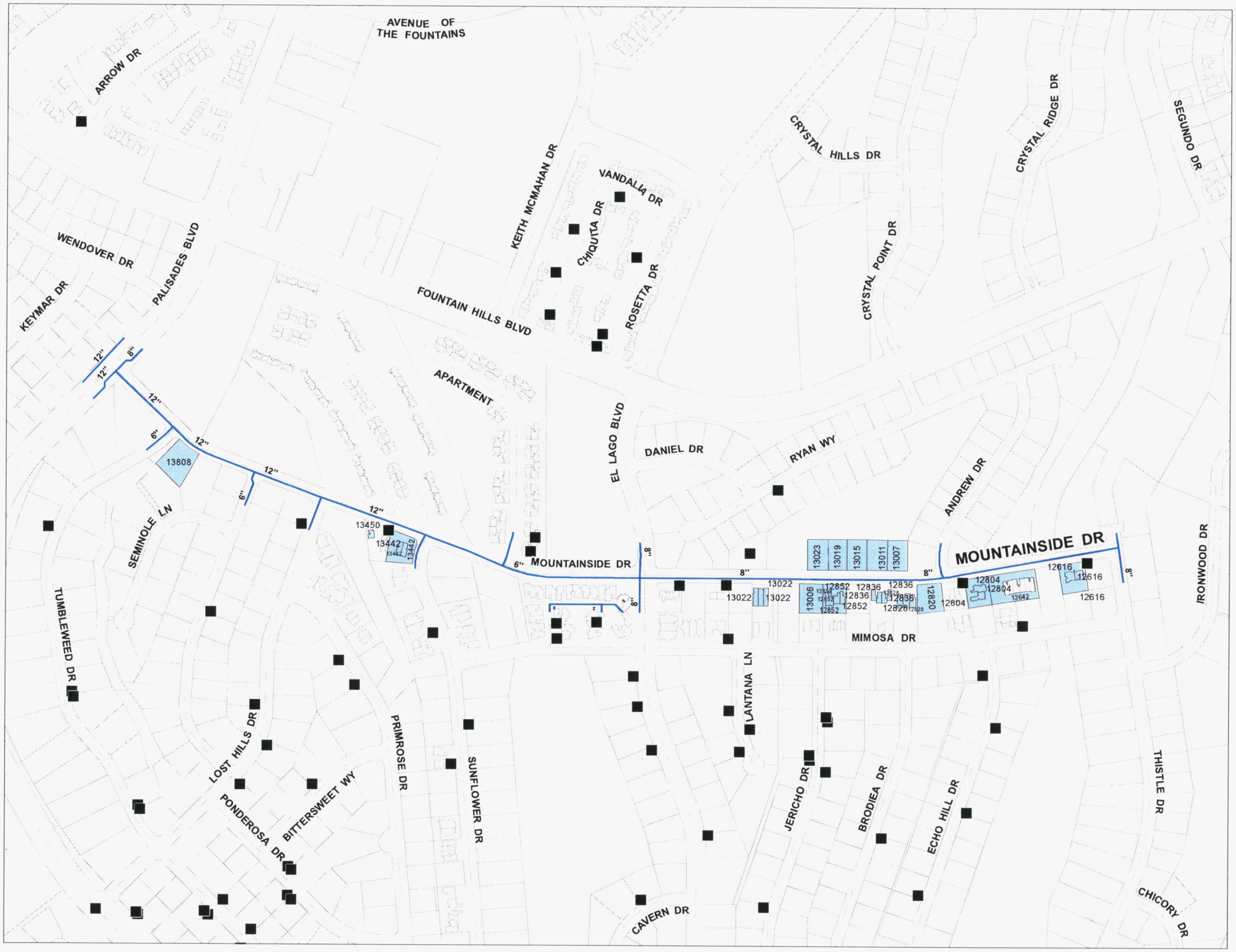
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 S-19**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
56	3/4" or 1" service	3500	Contractor material and labor to replace 56 residential services (3/4" or 1") on Mimosa between Sunflower and Thistle.	$ 196,000
56	service	28	Company labor for field oversight and management of construction	$ 1,568
Subtotal				$ 197,568
General Overhead Rate on Labor and Capital (10%)				$ 19,757
Total Estimated Cost				**$ 217,325**



2017

Project No: S-20 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Mountainside

project description:

Replace 34 residential services (3/4" or 1") on Mountainside between Palisades and Thistle.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

150 75 0 150 300 450 600
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 S-20**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
34	3/4" or 1" service	3500	Contractor material and labor to replace 34 residential services (3/4" or 1") on Mountainside between Palisades and Thistle.	$ 119,000
34	service	28	Company labor for field oversight and management of construction	$ 952
Subtotal				$ 119,952
General Overhead Rate on Labor and Capital (10%)				$ 11,995
Total Estimated Cost				**$ 131,947**

2017

Project No: S-21 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Echo Hill

project desciption:

Replace 31 residential services (3/4" or 1") on Echo Hill between El Lago and Mimosa.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

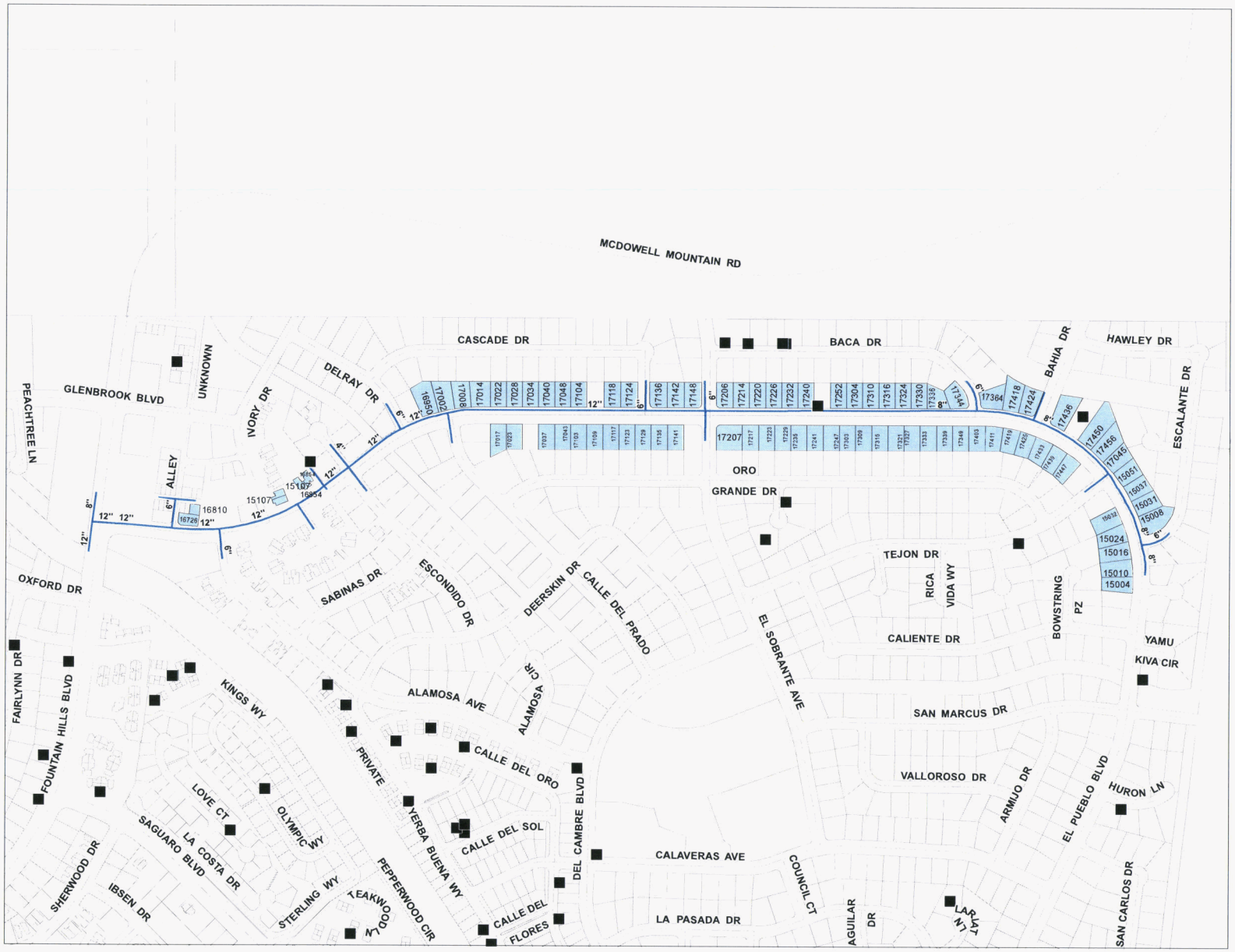
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 S-21**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
31	3/4" or 1" service	3500	Contractor material and labor to replace 31 residential services (3/4" or 1") on Echo Hill between El Lago and Mimosa.	$ 108,500
31	service	28	Company labor for field oversight and management of construction	$ 868
Subtotal				$ 109,368
General Overhead Rate on Labor and Capital (10%)				$ 10,937
Total Estimated Cost				**$ 120,305**



2017

Project No: S-22 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

El Pueblo

project desciption:

Replace 84 residential services (3/4" or 1") on El Pueblo between Fountain Hills Blvd and Caliente.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

175 87.5 0 175 350 525 700

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

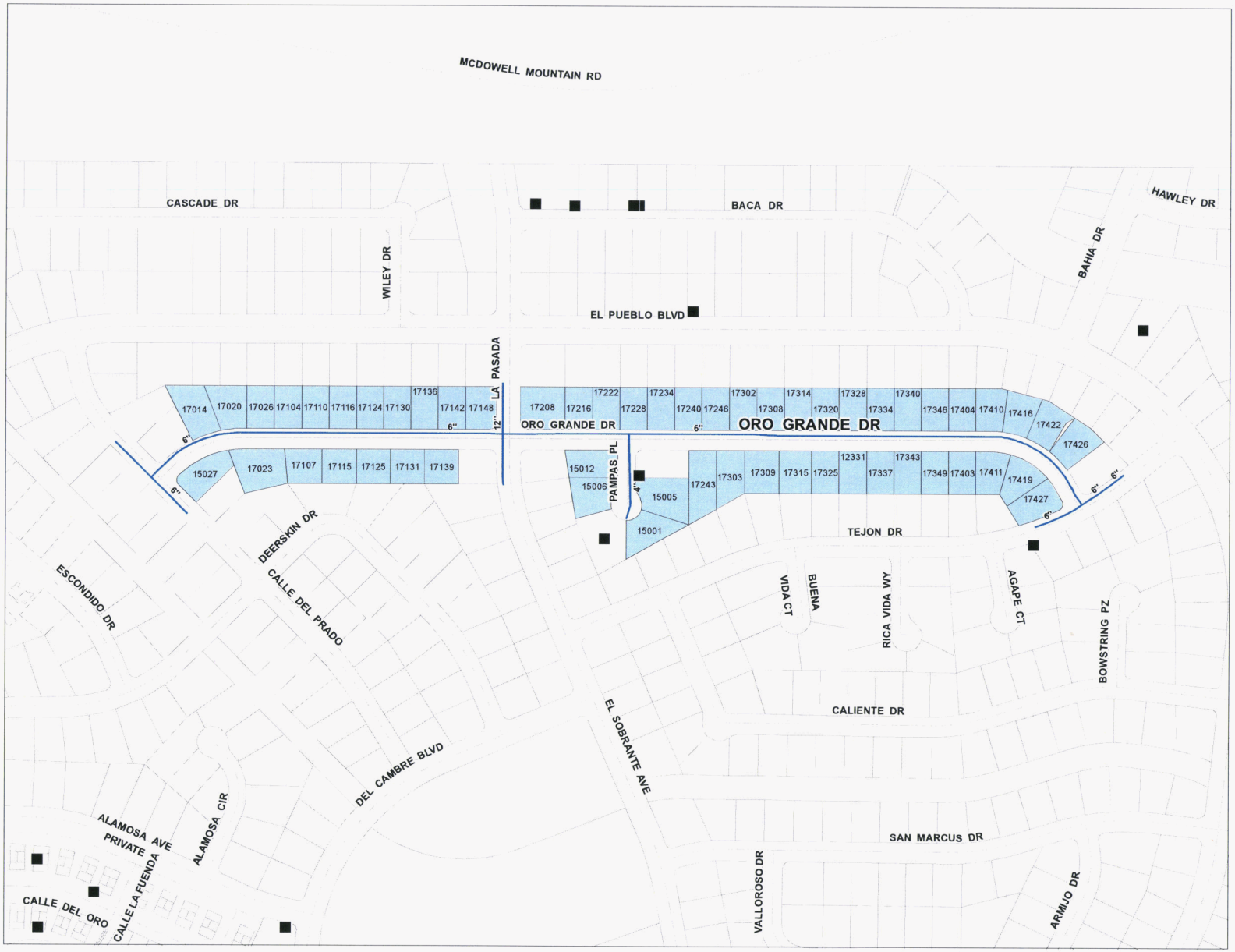
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 S-22**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
84	3/4" or 1" service	3500	Contractor material and labor to replace 84 residential services (3/4" or 1") on El Pueblo between Fountain Hills and Caliente.	$ 294,000
84	service	28	Company labor for field oversight and management of construction	$ 2,352
Subtotal				$ 296,352
General Overhead Rate on Labor and Capital (10%)				$ 29,635
Total Estimated Cost				**$ 325,987**



2017

Project No: S-23 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Oro Grande

project desciption:

Replace 55 residential services (3/4" or 1") on Oro Grande and Pampas between Calle del Prado and Tejon.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

100 50 0 100 200 300 400
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 S-23**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
55	3/4" or 1" service	3500	Contractor material and labor to replace 55 residential services (3/4" or 1") on Oro Grande and Pampas between Calle del Prado and Tejon.	$ 192,500
55	service	28	Company labor for field oversight and management of construction	$ 1,540
Subtotal				$ 194,040
General Overhead Rate on Labor and Capital (10%)				$ 19,404
Total Estimated Cost				**$ 213,444**

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 1-5

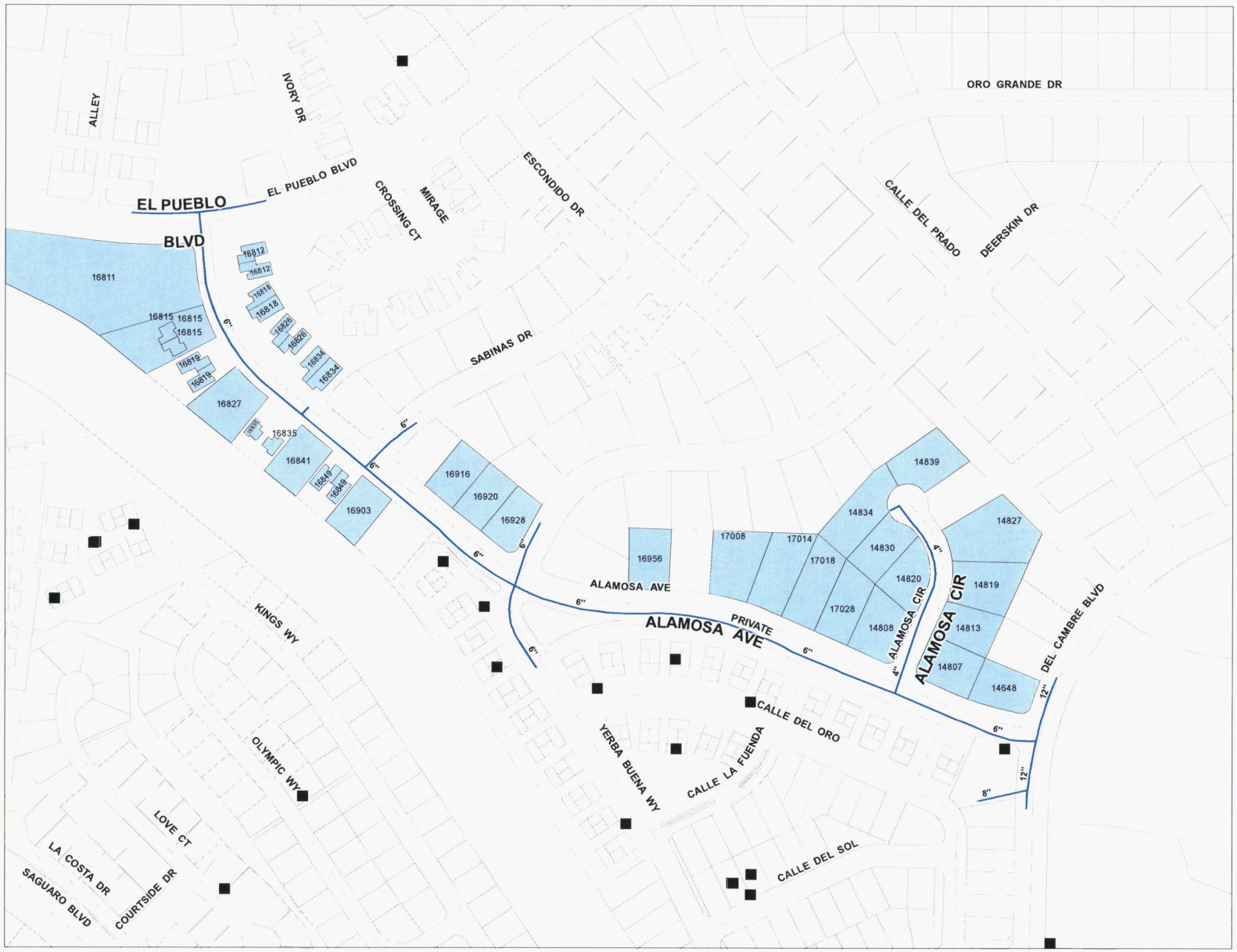
2018 Service Line Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
S-24	333	service lines	39	¾" & 1"	Copper	$3,881	Alamosa	12/2018	n/a	$151,351	Replace 39 residential services (3/4" or 1") on Alamosa between El Pueblo and Del Cambre. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1972 and will be 46 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-24 in Exhibit CC-1 for the locations of the replacements.
S-25	333	service lines	41	¾" & 1"	Copper	$3,881	Caliente Bowstring	12/2018	n/a	$159,113	Replace 41 residential services (3/4" or 1") on Caliente and Bowstring between Tejon and El Pueblo. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1973 and will be 45 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-25 in Exhibit CC-1 for the locations of the replacements as well as the location of historical replacements in the area.

S-26	333	service lines	24	¾" & 1"	Copper	$3,881	El Sobrante	12/2018	n/a	$93,139	Replace 24 residential services (3/4" or 1") on El Sobrante between Baca and Calvaras. The services are branched black poly lines (one service for two customers) that are failing at a high rate These services are a priority because they were installed in 1972 and will be 46 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-26 in Exhibit CC-1 for the locations of the replacements.
S-27	333	service lines	22	¾" & 1"	Copper	$3,881	Mirage Crossing	12/2018	n/a	$85,378	Replace 22 residential services (3/4" or 1") on Mirage Crossing between El Pueblo and Alamosa. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services will be 27 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-27 in Exhibit CC-1 for the locations of the replacements.
S-28	333	service lines	30	¾" & 1"	Copper	$3,881	Calle Del Prado	12/2018	n/a	$116,424	Replace 30 residential services (3/4" or 1") on Calle Del Prado between El Pueblo and Del Cambre. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1973 and will be 45 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-28 in Exhibit CC-1 for the locations of the replacements.
S-29	333	service lines	39	¾" & 1"	Copper	$3,881	Tejon, Buena Vida, Rica Vida, and Agave	12/2018	n/a	$151,351	Replace 39 residential services (3/4" or 1") on Tejon, Buena Vida, Rica Vida, and Agave between El Sobrante and El Pueblo. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1977 and will be approximately 46 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-29 in Exhibit CC-1 for the locations of the replacements.

S-30	333	service lines	36	¾" & 1"	Copper	$3,881	Deerskin	12/2018	n/a	$139,709	Replace 36 residential services (3/4" or 1") on Deerskin between Alamosa and Del Cambre. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1973 and will be 45 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-30 for the locations of the replacements.
Total			**231**							**$896,465**	



2018

Project No: S-24 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Alamosa

project desciption:

Replace 39 residential services (3/4" or 1") on Alamosa between El Pueblo and Del Cambre.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2018 S-24**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
39	3/4" or 1" service	3500	Contractor material and labor to replace 39 residential services (3/4" or 1") on Alamosa between El Pueblo and Del Cambre.	$ 136,500
39	service	28	Company labor for field oversight and management of construction	$ 1,092
Subtotal				$ 137,592
General Overhead Rate on Labor and Capital (10%)				$ 13,759
Total Estimated Cost				**$ 151,351**

2018

Project No: S-25 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Caliente

project desciption:

Replace 41 residential services (3/4" or 1") on Caliente and Bowstring between Tejon and El Pueblo.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

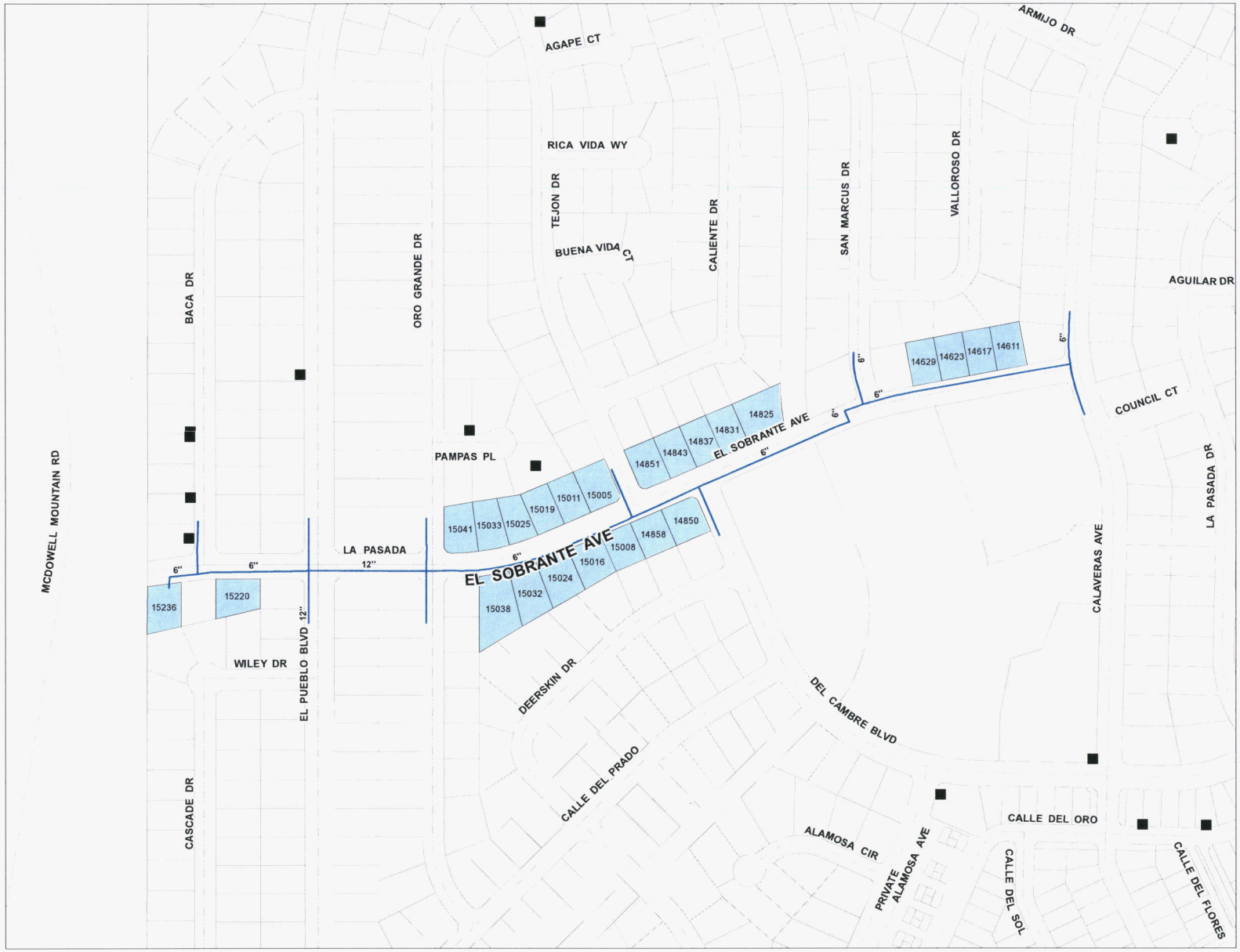
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2018 S-25**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
41	3/4" or 1" service	3500	Contractor material and labor to replace 41 residential services (3/4" or 1") on Caliente and Bowstring between Tejon and El Pueblo.	$ 143,500
41	service	28	Company labor for field oversight and management of construction	$ 1,148
Subtotal				$ 144,648
General Overhead Rate on Labor and Capital (10%)				$ 14,465
Total Estimated Cost				**$ 159,113**



2018

Project No: S-26 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

El Sobrante

project desciption:

Replace 24 residential services (3/4" or 1") on El Sobrante between Baca and Calaveras.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

100 50 0 100 200 300 400
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

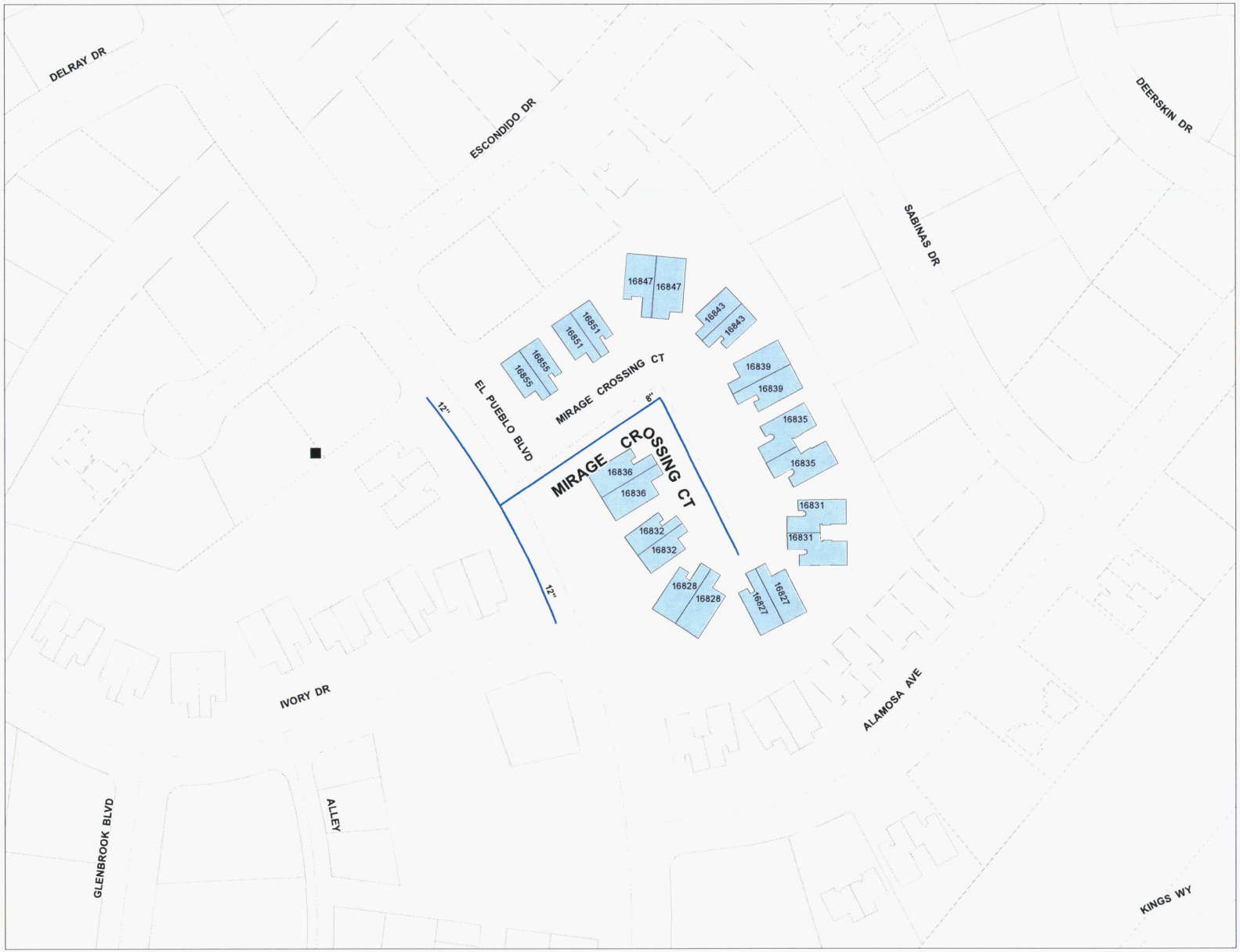
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2018 S-26**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
24	3/4" or 1" service	3500	Contractor material and labor to replace 24 residential services (3/4" or 1") on El Sobrante between Baca and Calvaras.	$ 84,000
24	service	28	Company labor for field oversight and management of construction	$ 672
Subtotal				$ 84,672
General Overhead Rate on Labor and Capital (10%)				$ 8,467
Total Estimated Cost				**$ 93,139**



2018

Project No: S-27 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Mirage Crossing

project desciption:

Replace 22 residential services (3/4" or 1")
on Mirage Crossing
between El Pueblo and Alamosa.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

40 20 0 40 80 120 160
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2018 S-27**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
22	3/4" or 1" service	3500	Contractor material and labor to replace 22 residential services (3/4" or 1") on Mirage Crossing between El Pueblo an Alamosa.	$ 77,000
22	service	28	Company labor for field oversight and management of construction	$ 616
Subtotal				$ 77,616
General Overhead Rate on Labor and Capital (10%)				$ 7,762
Total Estimated Cost				**$ 85,378**

2018

Project No: S-28 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Calle Del Prado

project desciption:

Replace 30 residential services (3/4" or 1") on Calle Del Prado between El Pueblo and Del Cambre.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

70 35 0 70 140 210 280
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2018 S-28**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
30	3/4" or 1" service	3500	Contractor material and labor to replace 30 residential services (3/4" or 1") on Calle Del Prado between El Pueblo and Del Cambre.	$ 105,000
30	service	28	Company labor for field oversight and management of construction	$ 840
Subtotal				$ 105,840
General Overhead Rate on Labor and Capital (10%)				$ 10,584
Total Estimated Cost				**$ 116,424**

2018

Project No: S-29 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Tejon

project desciption:

Replace 39 residential services (3/4" or 1") on Tejon, Buena Vida, Rica Vida, and Agape between El Sobrante and El Pueblo.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

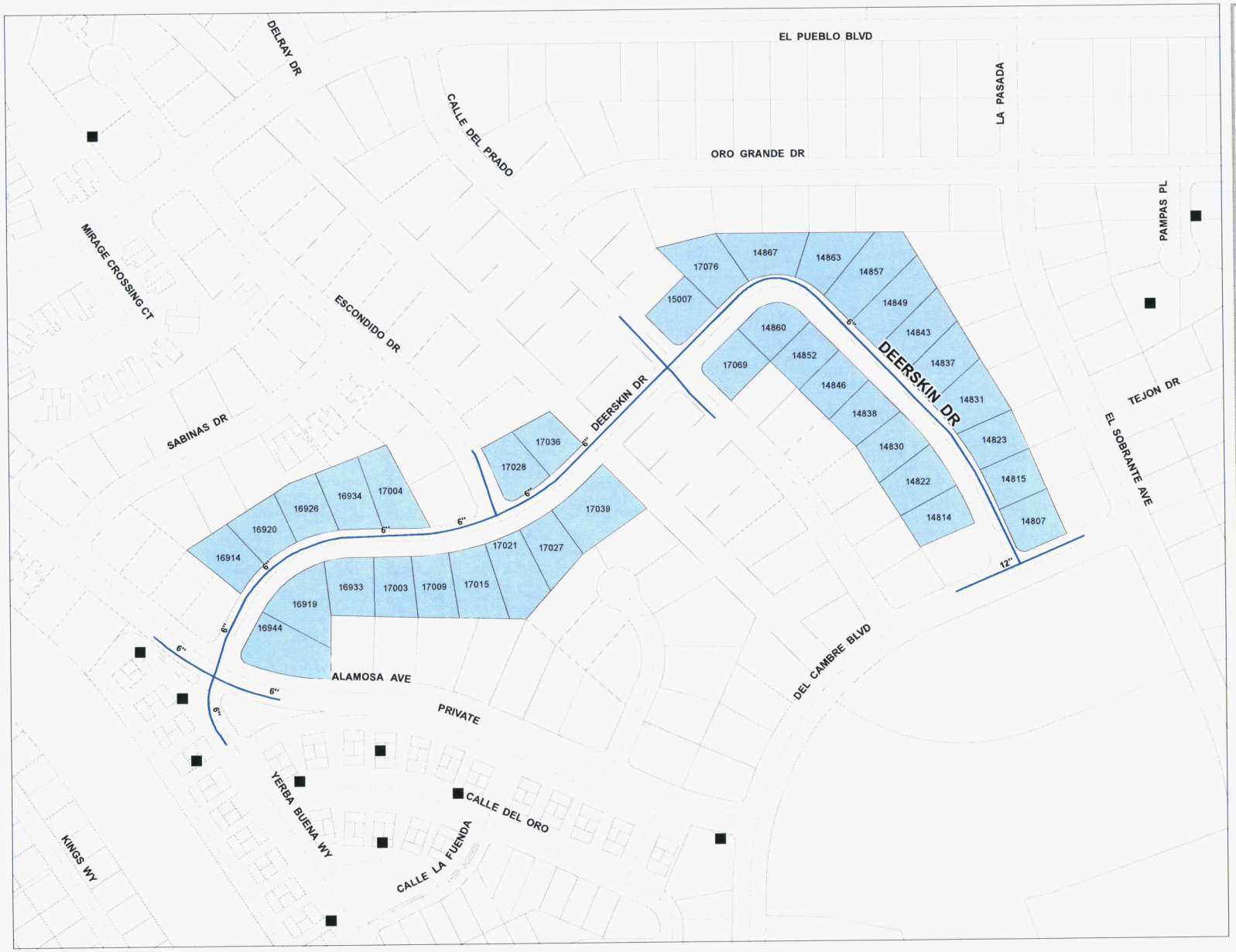
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2018 S-29**	Project Location: See project maps	

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
39	3/4" or 1" service	3500	Contractor material and labor to replace 39 residential services (3/4" or 1") on Tejon, Buena Vida, Rica Vida, and Agave between El Sobrante and El Pueblo.	$ 136,500
39	service	28	Company labor for field oversight and management of construction	$ 1,092
Subtotal				$ 137,592
General Overhead Rate on Labor and Capital (10%)				$ 13,759
Total Estimated Cost				**$ 151,351**



2018

Project No: S-30 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Deerskin

project desciption:

Replace 36 residential services (3/4" or 1") on Deerskin between Alamosa and Del Cambre.

Legend

- Service Previously Replaced
- Service to be Replaced
- Water Main

N

75 37.5 0 75 150 225 300

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2018 S-30**	Project Location: See project maps

Project Description:
Replace inferior branched black poly residential service lines with separate individual copper service lines to reduce water leaks and emergency repairs.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
36	3/4" or 1" service	3500	Contractor material and labor to replace 36 residential services (3/4" or 1") on Deerskin between Alamosa and Del Cambre.	$ 126,000
36	service	28	Company labor for field oversight and management of construction	$ 1,008
Subtotal				$ 127,008
General Overhead Rate on Labor and Capital (10%)				$ 12,701
Total Estimated Cost				**$ 139,709**

SECTION 2 – VALVES

2.1 Overview

The Fountain Hills system contains about 4,600 distribution system valves; most of the valves in the system are butterfly valves. When the majority of Fountain Hills was developed, the owner of the water system (also the land developer) installed butterfly valves because they cost less than gate valves; however, gate valves are much better suited for installation in distribution systems. The operating gate of a butterfly valve stays in the flow stream at all times, with gears rotating the gate from open, parallel to the flow, to closed, perpendicular to flow. In addition, many of these valves have reached or exceeded their intended lifetime, and are constructed with a cast iron operating gate with no rubberized epoxy coating like current valves have. Therefore, the combination of the operating gate located in the flow stream and exposed iron creates an ideal environment for the accumulation of tuberculation on the valve components, which seizes the valve in the open or closed position or prevents the valve from operating properly. Exhibits 2-1 through 2-4 are pictures of butterfly valves replaced in the Fountain Hills system.

Exhibit 2-1 – Butterfly valve showing operating nut

Exhibit 2-2 – Accumulation of tuberculation on the butterfly operating gate

Exhibit 2-3 – Accumulation of tuberculation on the butterfly operating gate

Exhibit 2-4 – New gate valve installed to replace old butterfly valve

In June of 2013, an EPCOR operations crew set out to maintain a series of valves. Of the 18 valves that were turned, five were broken and inoperable. The remaining valves suffered from corrosion and while they could be turned, most could not be closed properly, making it impossible to shut down the main in an emergency. This example showed that 28% percent of the valves were broken, but 100% would need to be replaced to maintain system reliability.

2.2 Nessie Curve

As described in Section 1, a "Nessie Curve" is a graphical representation of the annual replacements needs for a particular water system. It is based on when the assets were installed and how long they are expected to last. The end of their useful life is when it is considered economically efficient to replace the assets; this is to say when replacement becomes less expensive than he cost of replacement or repairs in the future. Failure to replace assets when it is economical to do so can cause a disaster in the future, when demographic and economic conditions may have changed. According to the American Water Works Association (AWWA) "there will be a three-fold increase in the repair costs by the year 2030 despite a concurrent increase of three and a half times in annual investments to replace pipes." (Reinvesting in Drinking Water Infrastructure, AWWA, May 2001)

The "gap analysis", which was developed by the Water Infrastructure Network (WIN), estimates the amount of increased spending that will be required by utility providers in order to keep up with needed infrastructure replacements in the coming years. The AWWA estimates that buried drinking water infrastructure will need investments totaling more than $1 trillion nationwide in the next 25 years. (Buried No Longer: Confronting America's Water Infrastructure Challenge, AWWA, 2012)

Exhibit 2-5 is the Nessie curve which was developed specifically for the valves in EPCOR's Fountain Hills district. Exhibit 2-6 shows the same data in tabular format. The curve shows that most of the system valves will need to be replaced by 2020. It also shows that in the next seven years, from 2014 through 2020, approximately $3.6M should be spent on valve replacements, or about $0.5M per year. This equates to about 97 valve replacements per year.

Exhibit 2-5 – Valve Nessie Curve

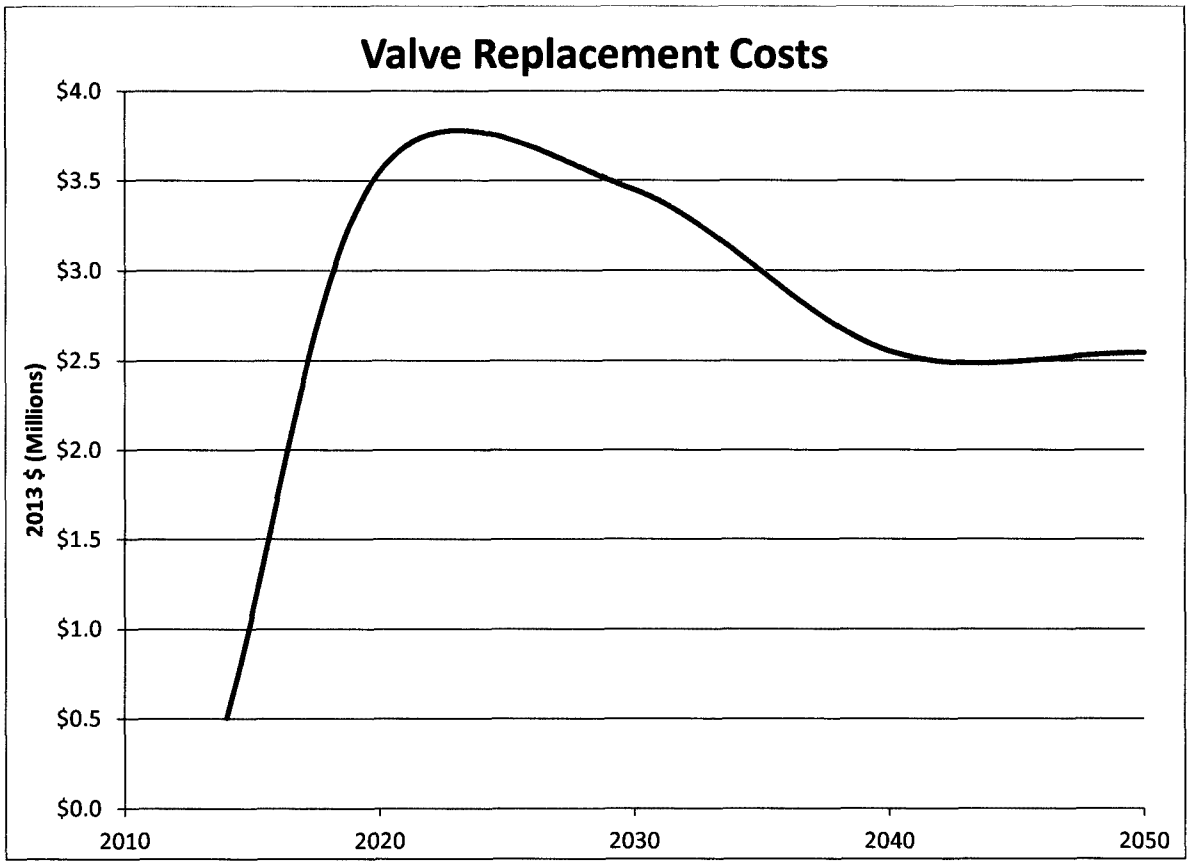


Exhibit 2-6 - Nessie Curve Table

Time Frame	Number of Valves to be Replaced	Cost to Replace Valves	Number of Valve Replacements per Year	Cost per Year
today-2020	676	$ 3,553,754	97	$ 507,679
2020-2030	657	$ 3,451,785	66	$ 345,178
2030-2040	487	$ 2,556,702	49	$ 255,670
2040-2050	485	$ 2,548,487	48	$ 254,849

2.3 Valve Replacements

Historically, the valves were tested and replaced if found broken in coordination with the Town of Fountain Hills street improvement program, during main break repairs, or during fire hydrant maintenance. In the following tab, **Historical Data**, historical valve maintenance records show which valves were tested between 2007 and 2012. Many valves were considered to be in good condition if they were operable; however, many operable valves still showed considerable amounts of tuberculation.

In order to improve system reliability and reduce customer service disruption, more valves need to be tested and replaced when necessary. EPCOR plans to systematically test and replace valves by first targeting the oldest sections of the system where there are primarily butterfly valves as well as system critical valves. The goal is to replace close to 100 valves per year under this plan. The investment over five years for valve replacements is estimated at $2.2M.

Valve replacement projects are described in the following tabs labeled **2014, 2015, 2016, 2017,** and **2018**. Tables I, 2-1 through Table I, 2-5 provide a detailed description of each valve replacement project. The tables are broken down by year, so there is a separate table for each year from 2014 (Table I, 2-1) through 2018 (Table I, 2-5). Each project addresses a set of valve replacements that will occur within a defined area. Each project can also be tied to a map showing the proposed valve replacements as well as any valves in the vicinity that have been replaced since 2007 (note that valve replacements that occurred prior to 2007 are not shown on these maps). A detailed cost estimate for each project is also provided.

Valves - Maintenance and Repairs 2007-2012

Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
Dixie Mine Trail		6	14	1/4/07	need to raise valve box.	18	Gate
Kim Dr		6	16	1/4/07	need to raise valve box.	17	Gate
Dixie Mine Trail		16	9	1/4/07	need to remove rocks in valve box.	N/A	Gate
Cerro Alto		14	1	1/30/07		14	Gate
Cerro Alto		14	2	1/30/07		17	Gate
Golden Eagle		14	24	1/30/07		24	Gate
Golden Eagle		14	22	1/30/07		14	Gate
Golden Eagle		14	21	1/30/07		19	Gate
Cerro Alto		14	20	1/30/07		16	Gate
Golden Eagle		14	4	1/30/07		24	Gate
Golden Eagle		14	3	1/30/07		14	Gate
Golden Eagle		14	5	1/30/07		16	Gate
Golden Eagle		14	6	1/30/07		19	Gate
Golden Eagle		14	7	1/30/07		24	Gate
Golden Eagle		14	8	1/30/07		19	Gate
Golden Eagle		14	9	1/30/07		18	Gate
Golden Eagle		14	12	1/30/07		18	Gate
Golden Eagle		14	11	1/30/07		18	Gate
Golden Eagle		14	10	1/30/07		18	Gate
Edgewater Ct		13	23	1/30/07		25	Gate
Edgewater Dr		13	22	1/30/07		25	Gate
Edgewater Dr		13	21	1/30/07		25	Gate
Edgewater Dr		13	16	1/30/07		25	Gate
Golden Eagle		13	15	1/30/07		18	Gate
Golden Eagle		13	17	1/30/07		32	Gate
Golden Eagle		13	25	1/30/07		25	Gate
Golden Eagle		13	28	1/30/07		18	Gate
Golden Eagle		13	19	1/30/07		32	Gate
Edgewater Dr		13	20	1/30/07		18	Gate
Edgewater Dr		13	24	1/30/07		18	Gate
Edgewater Ct		13	11	1/30/07		18	Gate
Golden Eagle		13	14	1/30/07		17	Gate
Golden Eagle		14	25	1/30/07	good condition, need to raise valve box.	24	Gate
Golden Eagle		14	23	1/30/07	good condition, need to raise valve box.	17	Gate
Golden Eagle		13	26	1/30/07		18	Gate
Fountain Hills Blvd		77	29	2/6/07		20	Gate
Fountain Hills Blvd		77	26	2/6/07		20	Gate
Fountain Hills Blvd		77	24	2/6/07		20	Gate
Fountain Hills Blvd		77	38	2/6/07	need to center valve box	N/A	N/A
Centipede		6	6	2/7/07	valve does not shut down 100%	18	butterfly
Saguaro Blvd		140	24	2/8/07		18	Gate
Overlook Ct		16	1	2/26/07		16	Gate
Kipling Dr		16	17	2/26/07		17	Gate
Ruskin Ln		16	33	2/26/07		17	Gate
Kim Dr		16	28	2/26/07		17	Gate
Kim Dr		16	38	2/26/07		17	Gate
Kim Dr		16	21	2/26/07		17	Gate
Overlook Ct		16	15	2/26/07		16	Gate
Jamaica		26	1	2/27/07		17	Gate
Boxcar		5	7	2/27/07		17	Gate
Aspen		5	10	2/27/07		17	butterfly
Sunridge		54	43	3/2/07	BROKEN VALVE	N/A	N/A
Sunridge		54	24	3/2/07		39	Gate
Sunridge		54	25	3/2/07		40	Gate
Sunridge		54	26	3/2/07		27	Gate
Sunridge		54	28	3/2/07		40	Gate
Sunridge		54	29	3/2/07		40	Gate
Sunridge		54	30	3/2/07		38	Gate
Sunridge		54	31	3/2/07		38	Gate
Sunridge		54	32	3/2/07		26	Gate
Sunridge		54	33	3/2/07		38	Gate
Sunridge		54	35	3/2/07		38	Gate
Sunridge		54	36	3/2/07		26	Gate
Sunridge		54	37	3/2/07		20	Gate
Sunridge		54	39	3/2/07		38	Gate
Sunridge		54	40	3/2/07		37	Gate
Sunridge		54	41	3/2/07		38	Gate
Sunridge		54	42	3/2/07		39	Gate
Sunridge		54	44	3/2/07		39	Gate
Sunridge		54	45	3/2/07		38	Gate
Sunridge		65	1	3/2/07		39	Gate

Valves - Maintenance and Repairs 2007-2012

Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
Sunridge		65	2	3/2/07		40	Gate
Sunridge		34	24	3/5/07	BROKEN VALVE	N/A	N/A
Sunridge		34	29	3/5/07	BROKEN VALVE	N/A	N/A
Sunridge		14	15	3/5/07		22	Gate
Sunridge		14	16	3/5/07		26	Gate
Sunridge		24	5	3/5/07		26	Gate
Sunridge		24	7	3/5/07		24	Gate
Sunridge		24	6	3/5/07		24	Gate
Sunridge		24	11	3/5/07		26	Gate
Sunridge		34	18	3/5/07		26	Gate
Sunridge		34	20	3/5/07		26	Gate
Sunridge		34	21	3/5/07		22	Gate
Sunridge		34	26	3/5/07		26	Gate
Sunridge		34	27	3/5/07		26	Gate
Sunridge		34	28	3/5/07		36	Gate
Sunridge		34	31	3/5/07		24	Gate
Sunridge		34	32	3/5/07		37	Gate
Sunridge		34	33	3/5/07		25	Gate
Sunridge		34	37	3/5/07		24	Gate
Sunridge		34	36	3/5/07		20	Gate
Sunridge		34	35	3/5/07		28	Gate
Sunridge		44	1	3/5/07		37	Gate
Sunridge		44	20	3/5/07		38	Gate
Sunridge		44	19	3/5/07		38	Gate
Sunridge		44	17	3/5/07		37	Gate
Sunridge		44	14	3/5/07		36	Gate
Sunridge		44	18	3/5/07		37	Gate
Sunridge		44	15	3/5/07		26	Gate
Sunridge		44	9	3/5/07		38	Gate
Sunridge		44	8	3/5/07		18	Gate
Sunridge		44	11	3/5/07		38	Gate
Sunridge		44	10	3/5/07		38	Gate
Sunridge		44	13	3/5/07		37	Gate
Sunridge		44	10	3/5/07		38	Gate
Sunridge		54	10	3/5/07		27	butterfly
Sunridge		54	2	3/5/07		38	Gate
Sunridge		54	4	3/5/07		28	Gate
Sunridge		54	3	3/5/07		38	Gate
Sunridge		54	5	3/5/07		27	Gate
Sunridge		54	6	3/5/07		38	Gate
Sunridge		14	17	3/5/07	Need to realign valve box	N/A	N/A
Sunridge		35	19	3/9/07		20	Gate
Sunridge		46	1	3/9/07		16	Gate
Robin		46	11	3/9/07		16	Gate
Jojba Ln		65	43	3/12/07		18	Gate
Desert Canyon Dr		65	18	3/12/07		18	Gate
Mesquite Ln		65	8	3/12/07		18	Gate
Mesquite Ln		65	12	3/12/07		18	Gate
Mesquite Ln		65	16	3/12/07		20	Gate
Mesquite Ln		75	1	3/12/07		20	Gate
Mesquite Ln		75	5	3/12/07		20	Gate
Sierra Madre Dr		35	16	3/13/07		19	Gate
Shadow Canyon Dr		54	1	3/13/07		21	Gate
Shadow Canyon Dr		43	24	3/13/07		21	Gate
Shadow Canyon Dr		43	11	3/13/07		20	Gate
Shadow Canyon Dr		43	19	3/13/07		20	Gate
Gecko Ct		43	10	3/13/07		20	Gate
Gecko Ct		43	9	3/13/07		20	Gate
Sunset		65	40	3/13/07		18	Gate
Jojba Ln		65	31	3/13/07		18	Gate
Jojba Ln		65	42	3/13/07		18	Gate
Staghorn		54	53	3/14/07		19	Gate
Honeysuckle		54	47	3/14/07		18	Gate
Honeysuckle		54	50	3/14/07		19	Gate
Honeysuckle		64	1	3/14/07		20	Gate
Quartz Ct		54	5	3/14/07		20	Gate
Deer Trail Ct		54	1	3/14/07		20	Gate
Shadow Canyon Dr		43	1	3/14/07		20	Gate
Shadow Canyon Dr		43	2	3/14/07		21	Gate
Mariposa		43	18	3/14/07		19	Gate
Sunridge		54	10	3/14/07		20	Gate

Valves - Maintenance and Repairs 2007-2012

Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
Sunridge Dr		54	37	3/14/07	Needs to have extension installed	20	Gate
Desert Canyon Dr		65	3	3/15/07		20	Gate
Staghorn		54	57	3/15/07		20	Gate
Elena Dr		45	1	3/15/07		20	Gate
Sunridge Dr		64	22	3/15/07		19	Gate
Sage Brush		54	11	3/15/07		18	Gate
Creosote Court		54	17	3/15/07		18	Gate
Staghorn		55	2	3/15/07		18	Gate
Staghorn and Sagebrush		54	23	3/15/07		20	Gate
Desert Flower Dr		54	56	3/15/07		18	Gate
Sunridge Dr		54	20	3/15/07	Valve too deep for key	NA	NA
Sunridge		74	6	3/16/07		20	Gate
Rhoads Ct and Sunridge		84	25	3/16/07		20	Gate
Fairy Duster		74	17	3/16/07		18	Gate
Arrow			0	3/21/07		16	Gate
Chama Drive		408	22	3/23/07		18	Gate
Stancrest		67	52	3/23/07		16	butterfly
Fountain Hills Blvd		97	29	3/26/07		18	Gate
La Montana		78	58	3/28/07	Broken Closed Valve	16	Gate
Rocky Mountain Plaza		26	15	3/28/07		16	Butterfly
Cerro Alto		24	25	3/29/07		20	Gate
Cabrillo		34	39	3/29/07		21	Gate
Fountain Hills Blvd		77	0	4/6/07		18	Gate
Deerskin		49	53	4/6/07		20	Gate
Grandview		84	4	4/9/07		21	Gate
Grandview		94	60	4/9/07		20	Gate
Gunsight		99	34	4/9/07		21	Gate
Gunsight		99	33	4/9/07		20	Gate
Gunsight		109	1	4/9/07		21	Gate
Kingstree		129	43	4/9/07		17	Gate
Grandview		83	20	4/9/07		21	Gate
Sunridge		94		4/11/07		21	Gate
Sunridge		84	7	4/11/07		19	Gate
Sunridge gulf club		84		4/11/07		20	Gate
Manzanita		84	32	4/11/07		22	Gate
Sunridge gulf club		84		4/11/07	valve is burried, need to locate		
Valley Dr		129	33	4/12/07		21	Gate
Windchime		129	37	4/12/07		20	Gate
Rand Dr		119	21	4/12/07		21	butterfly
Malta		119	36	4/13/07		16	Butterfly
Lamont		109	12	4/13/07		16	butterfly
Golden Eagle		25	8	4/16/07		18	butterfly
Boulder Dr		26	19	4/18/07		16	Gate
Via Del Oro		100	27	4/18/07		20	Gate
Via Del Oro		100	28	4/18/07		20	Gate
Sunridge Dr		74	1	4/20/07		18	Gate
Fairlynn		58	7	4/23/07		20	Gate
Sabinas		49	35	4/26/07		18	Gate
Eagle Blvd		140	15	4/26/07		19	Gate
Santa Maria		24	14	4/26/07		18	Gate
Rosita		70	19	4/26/07		21	Gate
Marathon		4	19	4/26/07		18	Gate
De Anza		69	38	4/26/07		21	Gate
Golden Eagle		13	1	4/26/07	need to locate valve		
Palisades		76	3	4/27/07		16	butterfly
Broken Bow		173	37	4/27/07		16	butterfly
Mayan		44	2	4/27/07		16	butterfly
Calle Del Sol		59	50	4/27/07	need to locate valve		
Shadow Canyon Dr		54----	1	5/1/07		18	Gate
Cactus Wren		54	16	5/3/07		18	Gate
Palisades		79	19	5/7/07		19	Gate
San Andres Dr		14	26	5/8/07		19	Gate
Santa Maria		24	14	5/9/07		18	Gate
Cavern Dr		75	24	5/9/07		18	Gate
Calle Del Prado		49	45	5/9/07		18	Gate
Calle Del Oro		59	74	5/9/07		17	Gate
Saguaro Blvd		59	29	5/9/07		21	Gate
Saguaro Blvd		109	25	5/14/07		15	butterfly
Tower Dr		110	38	5/14/07		20	Gate
Tower Dr		120	1	5/14/07	need to locate valve		
Saguaro Blvd		120	16	5/14/07	Valve is broken half open		butterfly

Valves - Maintenance and Repairs 2007-2012

Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
Rand Dr		129	16	5/18/07		19	Gate
Saguaro Blvd		99	33	5/18/07		18	butterfly
Malta		119	31	5/18/07		16	Gate
Malta		130	6	5/18/07	Rocks in valve box		
Pepperwood Circle		59	9	5/23/07	could not locate valve		
Pepperwood Circle		59	40	5/23/07		17	butterfly
Enterprise Dr		109	32	5/25/07	could not turn valve		
Saguaro Blvd		109	23	5/25/07		17	Gate
Saguaro Blvd		109	24	5/25/07		18	Gate
Enterprise Dr		109	33	5/25/07		17	butterfly
Enterprise Dr		109	35	5/25/07		17	butterfly
Colony Dr		109	43	5/25/07		19	Gate
Saguaro Blvd		120	28	5/25/07		19	Gate
Desert Vista Dr		120	30	5/25/07		19	Gate
Desert Vista Dr		110	42	5/25/07		19	Gate
Saguaro Blvd		120	3	5/25/07		19	Gate
Oakwood		59	43	5/29/07		19	Gate
Nicklaus		150	6	5/29/07		16	butterfly
Palisades Blvd		78	69	5/30/07	could not locate valve		
Palisades Blvd		78	36	5/30/07		22	butterfly
Palisades Blvd		78	2	5/30/07		19	Gate
Palisades Blvd		78	7	5/30/07		19	Gate
Palisades Blvd		78	30	5/30/07		17	Gate
Palisades Blvd		78	39	5/30/07		17	Gate
Via Del Sol		100	13	6/5/07		19	Gate
Via Del Sol		100	12	6/5/07		20	Gate
Via Del Sol		100	20	6/5/07		20	Gate
Via Del Oro		100	21	6/5/07		20	Gate
Via La Playa		100	23	6/5/07		20	Gate
Via De Penasco		110	43	6/5/07		20	Gate
Saguaro Blvd		120	18	6/5/07	need to have valve box cleaned out		
La Pasada		60	13	6/8/07		18	butterfly
Teal Dr		110	15	6/8/07		16	butterfly
Bursage Dr		66	41	6/12/07		19	Gate
Sierra Madre Dr		35	5	6/12/07		21	Gate
Sierra Madre Dr		35	8	6/12/07		21	Gate
Sierra Madre Dr		35	3	6/12/07		18	Gate
Sierra Madre Dr		34	41	6/12/07		18	Gate
Sierra Madre Dr		34	42	6/12/07		21	Gate
Sierra Madre Dr		34	43	6/12/07		21	Gate
Sierra Madre Dr		34	44	6/12/07		21	Gate
Sierra Madre Dr		35	4	6/12/07	valve key broke off in valve can		
Buffalo Dr		125	7	6/13/07		20	Gate
Saguaro Blvd		130	18	6/19/07		20	Gate
Saguaro Blvd		130	17	6/19/07	need to locate valve		
Shea Blvd		179	18	6/20/07		17	Gate
Shea Blvd		190	5	6/20/07		16	Gate
Shea Blvd		190	4	6/20/07	need to locate valve		
Shea Blvd		179	29	6/21/07		18	Gate
Shea Blvd		179	32	6/22/07		17	Gate
Shea Blvd		179	33	6/22/07	need to locate valve		
Technology		179	2	6/25/07		20	Gate
Four Peaks Way		166	5	6/25/07		21	Gate
Four Peaks Way		166	6	6/25/07		18	Gate
Saguaro Blvd		178	16	6/25/07	valve very hard to turn	16	butterfly
Tombstone		177	19	6/26/07		19	Gate
Saguaro Blvd		178	4	6/26/07		18	Gate
Saguaro Blvd		179	10	6/26/07		20	Gate
Tombstone		178	3	6/26/07		16	butterfly
Powderhorn		187	5	6/26/07		19	Gate
Tombstone		177	14	6/27/07		19	Gate
Powderhorn		177	8	6/27/07		17	butterfly
Red Mountain Tr		177	23	6/28/07		19	Gate
Red Mountain Tr		177	24	6/28/07		19	butterfly
Last Trail Dr		178	13	6/28/07		18	butterfly
Leo Dr		188	6	6/28/07		19	Gate
Desperado		188	3	6/28/07		20	Gate
Powderhorn Dr		187	7	6/28/07		17	Gate
Firebrick Dr		189	5	6/28/07		19	Gate
Last Trail Dr		189	4	6/28/07		20	Gate
Last Trail Dr		189	2	6/28/07		21	Gate

Valves - Maintenance and Repairs 2007-2012

Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
Last Trail Dr		188	10	6/28/07		21	Gate
Powderhorn Dr		177	25	6/28/07	needs valve box cleaned out		
Powderhorn Dr		187	8	6/28/07	needs valve box cleaned out		
Firebrick Dr		189	14	6/29/07		19	Gate
Firebrick Dr		189	13	6/29/07		19	Gate
Laser Dr		178	22	7/5/07		19	Gate
Laser Dr		178	28	7/5/07		19	Gate
Laser Dr		178	30	7/5/07		19	Gate
Technology		178	17	7/5/07		16	butterfly
Firebrick Dr		179	17	7/5/07		18	Gate
Saguaro Blvd		178	10	7/6/07		17	butterfly
Shea Blvd		179	28	7/13/07	raised valve box and poured concrete ring	19	Gate
Cabrillo		34	38	7/18/07		21	Gate
Bradford Dr		48	2	7/20/07		16	butterfly
Saguaro Blvd		119	50	7/20/07		19	Gate
Mimosa Dr		97	3	7/26/07		20	Gate
Ridgeway Dr		104	53	7/27/07		18	butterfly
Jacklin Dr		138	4	7/27/07		19	Gate
Kingstree Blvd		128	17	8/6/07		17	butterfly
Palisades		67	5	8/7/07	could not operate valve (rocks in box)		
Palisades		57	1	8/7/07		20	Gate
Palisades		66	25	8/7/07		19	Gate
Palisades		67	6	8/7/07		19	Gate
Palisades		66	36	8/7/07		17	Gate
Palisades		67	7	8/7/07		19	Gate
Escalante		40	28	8/27/07		18	butterfly
Cholla Dr		106	18	8/27/07		19	butterfly
Calaveras		60	18	8/28/07		18	butterfly
Calaveras		59	54	8/28/07		18	butterfly
Lark Ct		56	6	8/28/07		19	Gate
Lark Ct		56	1	8/28/07		19	Gate
Sundown Dr		45	13	8/28/07		19	Gate
Sundown Dr		45	5	8/28/07		18	Gate
Wildcat Ct		45	12	8/28/07		18	Gate
Chaparral way		45	14	8/28/07		19	Gate
Sundown Dr		55	7	8/28/07		19	Gate
Balsam		47	35	8/28/07		17	butterfly
Fayette Dr		48	6	8/28/07		17	butterfly
Fayette Dr		48	8	8/28/07	need to clean out valve box (S/O GENERATED)		
El Sobrante		50	14	8/28/07	need to locate valve		
Baca Dr		70	1	8/29/07		18	butterfly
Grande Blvd		70	1	8/30/07		19	Gate
Grande Blvd		69	56	8/30/07		21	Gate
Grande Blvd		69	55	8/30/07		20	Gate
De Anza		69	38	8/30/07		17	butterfly
Fayette Dr		47	1	8/30/07		17	butterfly
De Anza		69	21	8/30/07		19	Gate
Fayette Dr		47	2	8/30/07	valve box covered need to locate		
Aloe		69	45	8/30/07	valve box needs cleaned out (S/O GENERATED)		
Grande Blvd		69	52	8/30/07	valve box needs cleaned out (S/O GENERATED)		
Stancrest Dr		67	57	9/21/07		18	Gate
Stancrest Dr		67	52	9/21/07		18	Gate
Charlton crt		67	51	9/21/07	need to locate valve		
Wendover Dr		67	28	9/21/07	need to locate valve		
Wendover Dr		67	44	9/21/07	need to locate valve		
Keymar Dr		67	47	9/21/07	need to locate valve		
145th way		93	23	9/26/07		24	Gate
145th way		93	19	9/26/07		25	Gate
145th way		93	20	9/26/07		24	Gate
145th way		93	21	9/26/07		25	Gate
145th way		93	14	9/26/07		25	Gate
145th way		93	15	9/26/07		25	Gate
145th way		93	16	9/26/07		24	Gate
145th way		93	10	9/26/07		24	Gate
145th way		93	11	9/26/07		25	Gate
145th way		93	12	9/26/07		24	Gate
Corrine		93	52	9/26/07		25	Gate
Corrine		93	51	9/26/07		25	Gate
Corrine		93	50	9/26/07		24	Gate
145th way		83	23	9/26/07		24	Gate
145th way		83	24	9/26/07		25	Gate

Valves - Maintenance and Repairs 2007-2012

Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
145th way		83	29	9/26/07		25	Gate
145th way		83	26	9/26/07		25	Gate
145th way		83	28	9/26/07		26	Gate
145th way		83	25	9/26/07		24	Gate
145th way		83	32	9/26/07		24	Gate
145th way		83	31	9/26/07		24	Gate
145th way		93	22	9/26/07		25	Gate
145th way		93	24	9/26/07		25	Gate
146th way		93		9/26/07	valve did not have a # assigned on map	24	Gate
Charter Oak		93	2	10/1/07		25	Gate
Charter Oak		93	3	10/1/07		25	Gate
Charter Oak		93	4	10/1/07		25	Gate
Charter Oak		93	5	10/1/07		25	Gate
Via Linda		103	12	10/1/07		24	Gate
145th way		103	9	10/1/07		25	Gate
145th way		103	4	10/1/07		25	Gate
145th way		103	8	10/1/07		24	Gate
145th way		103	6	10/1/07		24	Gate
145th way		103	5	10/1/07		24	Gate
Wethersfield		103	2	10/1/07		25	Gate
Kingstree Blvd		137	2	10/4/07	could not remove valve lid		
Kingstree Blvd		127	10	10/4/07	need to replace valve box		
Aloe Dr		69	45	10/9/07		18	butterfly
Grande Blvd		69	52	10/9/07		18	butterfly
Fayette Dr		48	8	10/9/07	replaced valve box (new)	18	butterfly
Mustang Dr		104	25	10/12/07		18	butterfly
Saguaro Blvd		130	9	10/30/07		20	Gate
Yaqui Court		119	8	10/30/07	replaced 6" gate valve	20	Gate
Cerro Alto		24	25	11/1/07		18	Gate
El Lago	17031	99	55	1/9/08		18	Gate
El Lago	17031	99	64	1/9/08		18	Gate
El Lago	17031	99	61	1/9/08		19	Gate
El Lago	17031	99	68	1/9/08		18	Gate
Kiwanis Dr	16910	109	8	1/9/08		18	Gate
Saguaro Blvd	12608	99	27	1/9/08		18	Gate
El Lago	17031	99	58	1/9/08	need to locate valve		
Laser Dr	16508	178	30	1/11/08		18	Gate
Technology	16815	168	13	1/11/08		18	Gate
Technology	16815	168	14	1/11/08		18	Gate
Laser Dr	16508	178	28	1/11/08	need to locate valve		
Technology	16731	178	7	1/11/08	need to locate valve		
Laser Dr	16509	178	26	1/15/08		18	Gate
Aspen Dr	16654	5	14	1/31/08		17	Gate
Aspen Dr	15249	5	16	1/31/08		17	Gate
Greenvalley	15003	4	25	1/31/08		17	Gate
Sourdough	15208	5	1	1/31/08		20	Gate
Fountain Hills Blvd	13700	77	85	2/12/08		18	Gate
Fountain Hills Blvd	13700	77	86	2/12/08		18	Gate
Fountain Hills Blvd	13700	77	87	2/12/08		18	Gate
Fountain Hills Blvd	13700	77	88	2/12/08		18	Gate
Fountain Hills Blvd	13700	77	89	2/12/08		18	Gate
Fountain Hills Blvd	13700	77	90	2/12/08		18	Gate
Calico Dr		70	34	2/15/08		18	Gate
El Pueblo		50	54	2/15/08		23	Butterfly
El Pueblo		60	50	2/15/08		19	Gate
El Pueblo		60	47	2/15/08		24	Butterfly
El Pueblo		60	46	2/15/08		17	Butterfly
El Pueblo		60	42	2/15/08		17	Butterfly
El Pueblo		60	43	2/15/08		25	Gate
El Pueblo		70	40	2/15/08		16	Gate
El Pueblo		70	42	2/15/08		15	Butterfly
El Pueblo		70	45	2/15/08		25	Gate
El Pueblo		70	43	2/15/08		25	Gate
El Pueblo		70	44	2/15/08		16	Butterfly
El Pueblo		70	33	2/15/08		26	Gate
El Pueblo		70	35	2/15/08		26	Butterfly
El Pueblo		70	36	2/15/08		18	Butterfly
El Pueblo		50	52	2/15/08		18	Butterfly
El Pueblo		50	53	2/15/08		18	Butterfly
San Carlos		60	48	2/15/08		18	Butterfly
Ashbrook Dr		68	52	2/19/08		18	Butterfly

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
Ashbrook Dr	16710	68	52	2/19/08		19	Butterfly
Fountain Hills Blvd		77	25	2/19/08		18	Gate
Fountain Hills Blvd		77	85	2/19/08		17	Butterfly
Saguaro Blvd		69	57	2/21/08	fire line valve, good condition	17	Gate
Cambria Dr	13806	69	16	2/21/08		25	Gate
Fayette Dr		58	34	2/21/08		25	Gate
Hamilton	13862	69	11	2/21/08		21	Gate
Isben Dr	16820	69	10	2/21/08		21	Gate
La Montana Dr	16912	79	34	2/21/08		17	Butterfly
Saguaro Blvd		79	33	2/21/08		26	Gate
Saguaro Blvd		58	49	2/21/08		18	Butterfly
Sterling wy		59	28	2/21/08		15	Butterfly
Isben Dr	16820	69	9	2/21/08	need to locate valve		
Saguaro Blvd		79	32	2/21/08	Replaced: May-2009		
Saguaro Blvd		69	20	2/21/08	Replaced: May-2009		
Saguaro Blvd	12052	109	28	2/21/08	Replaced: May-2009		
Saguaro Blvd	14422	59	27	2/21/08	Replaced: May-2009		
Verde River Dr		109	5	2/29/08	Broken		
Saguaro Blvd		89	56	2/29/08	Replaced: May-2009		
Bayfield	14005	68	47	6/4/08		18	Butterfly
Powderhorn	16101	187	4	6/13/08		21	Gate
Aspen Dr - 16821		5	15	1/14/09		21	Gate
Tower Dr - 11870		110	38	1/14/09		20	Gate
Aspen Dr - 15249		5	17	1/14/09		21	Gate
Britt Ct - 16906		69	30	1/15/09		18	Gate
Laney Dr - 16906		79	47	1/15/09		18	Gate
Peso Pl - 16921		79	45	1/15/09		18	Gate
Woodside Dr - 13820		69	26	1/15/09		18	Gate
Woodside Dr - 16938		79	41	1/15/09		18	Gate
Woodside Dr -13636		79	46	1/15/09		18	Gate
Woodside Dr -13810		69	31	1/15/09		18	Gate
De Anza Dr - 16906		69	36	1/16/09		18	Gate
De Anza Dr - 17028		69	50	1/16/09		18	Gate
Del Cambre Ave -14200		59	77	1/16/09		20	Gate
De Anza Dr - 17002		69	38	1/16/09		18	Gate
La Casa Dr - 17020		69	45	1/16/09		18	Gate
La Casa Dr - 14051		69	47	1/16/09		18	Gate
Del Cambre Ave -14410		59	64	1/16/09		18	Gate
Via Del Oro - 17409		100	14	1/23/09		20	Gate
Via Del Oro - 17433		100	13	1/23/09		20	Gate
Via Del Sol - 12646		100	12	1/23/09		20	Gate
Via Del Sol - 12618		100	22	1/23/09		20	Gate
Via Del Oro - 17378		100	20	1/23/09		20	Gate
Penasco Via De -12423		110	43	1/23/09		20	Gate
Via Del Oro - 17366		100	21	1/23/09		20	Gate
Via la Playa - 12441		100	23	1/23/09		20	Gate
Gleneagle - 16002		47	7	1/27/09		20	Gate
Corrine & 145th way		83	22	1/28/09		18	Gate
Sweetwater - 14414		83	30	1/28/09		18	Gate
Sweetwater - 14570		83	27	1/28/09		18	Gate
145th way - 13123		83	34	1/28/09		18	Gate
Palisades blvd - 16415		78	16	1/28/09		20	Butterfly
Sierra Madre Dr - 15338		35	13	1/28/09		20	Gate
Palisades blvd - 16545		78	36	1/28/09		20	Gate
Chicory Dr - 15738		96	13	1/29/09		20	Gate
Glenpoint Dr - 16102		47	18	1/29/09		20	Gate
Thistle Dr - 15707		96	22	1/29/09		20	Gate
Glendora Dr - 14606		47	21	1/29/09		20	Gate
Thistle Dr - 15707		96	20	1/29/09		20	Gate
Thistle Dr - 15707		96	21	1/29/09		20	Gate
San Carlos Dr - 17516		60	52	1/30/09		17	Butterfly
El Pueblo - 17506		70	39	1/30/09		20	Gate
Calaveras - 17006		59	61	1/30/09		20	Gate
Calaveras - 17030		59	60	1/30/09		18	Gate
Huron - 14647		50	56	1/30/09		20	Gate
El Pueblo - 17432		60	44	1/30/09	need to locate valve		
El Pueblo blvd - 17508		50	48	1/30/09	need to locate valve		
Calle Del Oro - 17006		49	42	1/30/09	need to raise valve can	20	Gate
San Carlos Dr - 14432		60	51	1/30/09	valve does not shut down 100%	18	Butterfly
El Pueblo - 17502		60	49	1/30/09	valve does not shut down 100%	17	Butterfly
Quail Ridge Dr - 17360		110	15	2/10/09		18	Gate

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
Colony Dr - 12036		109	39	2/10/09		20	Gate
Saguaro Blvd - 11849		119	53	2/10/09		17	Butterfly
Enterprise Dr - 12010		109	37	2/10/09		17	Butterfly
Panorama Dr - 13013		90	6	2/11/09		20	Gate
Palisades Dr - 16743		79	13	2/11/09		17	Butterfly
Palisades Dr - 16821		80	14	2/11/09		17	Butterfly
Palisades Dr - 16847		79	17	2/11/09		17	Butterfly
Palisades Dr - 16900		89	53	2/11/09		20	Gate
Palisades Dr - 16700		78	54	2/11/09		17	Butterfly
Palisades Dr - 16354		78	7	2/17/09		18	Gate
Palisades Dr - 16640		78	48	2/17/09		17	Butterfly
Palisades Dr - 16602		78	39	2/17/09		17	Butterfly
Via Del Oro - 17330		100	27	2/17/09		20	Gate
Panorama/El Lago n/w/c		100	31	2/17/09		20	Gate
Via Del Oro - 17306		100	28	2/17/09		20	Gate
Palisades Dr - 16536		78	72	2/17/09	valve box needs realigned		
Firebrick Blvd - 9238		179	15	2/20/09		20	Gate
Firebrick Blvd - 9409		179	10	2/20/09		17	Gate
Firebrick Blvd - 9015		189	13	2/20/09		20	Gate
Mimosa Dr - 13227		77	20	2/25/09		20	Gate
Mimosa Dr - 13227		77	23	2/25/09		20	Gate
Palisades Blvd - 16510		78	30	2/26/09	could not locate		
Palisades Blvd - 16354		78	2	2/26/09	could not locate		
Palisades Blvd - 16510		78	31	2/26/09		38	Gate
Palisades Blvd - 16332		67	38	2/26/09		19	Gate
Panorama Dr - 12050		109	?	3/6/09		20	Gate
Teal Dr - 16819		99	74	3/6/09		18	Gate
Widgeon Crt - 16819		99	77	3/6/09		20	Gate
Eider Crt - 16819		109	49	3/6/09		20	Gate
Pintail Crt - 16819		109	46	3/6/09		20	Gate
Canyon View Ln - 9933		165	22	3/9/09		20	Gate
Redrock Dr - 15327		135	13	3/10/09		20	Gate
Palisaides		114	21	3/17/09		36	gate
palisadies 11820		114	7	3/17/09		20	gate
Palisades-16168		67	15	3/17/09		17	Butterfly
Palisades-16000 #1		67	7	3/17/09		20	Gate
Sunburst-15033		94	28	3/17/09		20	gate
Palisades-14100		104	45	3/17/09		20	Gate
Palisades-12190		104	34	3/17/09		20	Gate
Palisades-13810		67	37	3/17/09		17	Gate
Palisades Dr - 11500		114	14	3/18/09		20	Gate
Crestview-11210		124	22	3/18/09		20	Gate
Palisades-10600		134	10	3/18/09		20	Gate
Powderhorn-16101		187	3	3/18/09		20	Gate
Weathersfield-14402		103	1	3/18/09	need to locate valve		
Mountain vista-10603		134	7	3/19/09		23	Gate
Trevino-16664		168	2	3/20/09		18	Butterfly
Trevino-16534		148	5	3/20/09		17	Butterfly
Trevino-16608		168	1	3/20/09	valve box full of dirt		
EL Lago-16410		88	53	3/23/09		20	Gate
Ashbrook-16735		69	1	3/25/09		20	Gate
EL Lago-16540		98	78	3/26/09		20	Gate
EL Lago-16739		99	20	3/26/09		20	Gate
persido-12220		105	1	3/26/09		18	Gate
Keota-16147		137	10	3/31/09		18	Butterfly
lema circl-17056		169	9	3/31/09		17	Butterfly
lema circle-17006		169	7	3/31/09		20	Gate
Kingstree-16143		137	5	3/31/09		17	Butterfly
keota-16129		137	10	3/31/09		20	Gate
monterey dr-16919		169	2	3/31/09		18	Butterfly
Nicklaus dr-16410		148	1	3/31/09		17	Butterfly
Kingstree-16223		137	6	3/31/09	need to locate valve		
Cabrillo 15122		34	39	4/8/09		20	Gate
14368 desert fox				4/8/09		20	Gate
10846 buffalo		136	28	4/9/09		18	Butterfly
11251 Pinto dr		125	12	4/9/09		20	Gate
16014 GlenBrook Blvd		47	5	4/9/09		20	Gate
9808 Rough Circle		169	10	4/10/09		20	Gate
16950 EL pueblo		39	20	4/10/09	need to locate valve		
17002 EL pueblo		39	21	4/10/09	valve did not close all the way	38	Butterfly
16934 Delray Dr		39	23	4/10/09	valve did not close all the way	17	Butterfly

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16538 Westwind		88	1	4/13/09		20	Gate
13023 northstar		88	?	4/13/09		20	Gate
12625 El Lago Blvd		99	44	4/13/09		20	Gate
16724 El Lago		99	78	4/13/09		20	Gate
13830 sunset Dr		65	47	4/13/09		26	Gate
13806 sunset Dr		65	49	4/13/09		20	Gate
13634 sunset Dr		65	50	4/13/09		26	Gate
Shea & Palisades		144	14	4/13/09		18	Gate
17020 Kiwans		99	48	4/13/09	need to locate valve		
17105 Alta Vista Dr		79	61	4/14/09		26	Gate
17105 Alta Vista Dr		79	60	4/14/09		20	Gate
12605 Saguaro blvd		99	36	4/14/09		20	Gate
14944 Grandview		84	5	4/14/09		20	Gate
14949 grandview		84	4	4/14/09		20	Gate
13001 La Montana Dr		88	19	4/14/09		15	Butterfly
13204 Mountainside		67	23	4/14/09		21	Gate
14644 Love Ct		49	19	4/14/09		20	Gate
13700 FTN Hills Blvd		77	90	4/14/09		20	Gate
11801 Winchester		115	7	4/14/09		20	Gate
16605 Ave Of The Fountain		88	13	4/14/09	*need to locate valve*		
16211 Fountain hills Blvd		117	10	4/15/09		24	Butterfly
16122 Ocatillo Dr		117	7	4/15/09		24	Butterfly
11636 Old Trail Ct		117	16	4/15/09		20	Gate
15033 E Sunburst Dr		94	29	4/15/09		20	Gate
13799 FTN Hills Blvd		77	30	4/21/09		20	Gate
16800 EL Lago Blvd		98	55	4/27/09		20	Gate
16631 El Lago Blvd		98	49	4/27/09		20	Gate
16631 El Lago Blvd		98	48	4/27/09		20	Gate
16606 El Lago Blvd		98	45	4/27/09		17	Butterfly
16644 El Lago Blvd		98	53	4/27/09		18	Butterfly
15009 Palomino		104	29	4/30/09		20	Gate
Aspen Dr & Windyhill		4	30	4/30/09		20	Gate
Aspen Dr & Windyhill		4	31	4/30/09		20	Gate
16009 Pincushion		117	3	4/30/09		17	Butterfly
11021 Pinto Dr		126	29	5/5/09		18	Gate
Pinto Dr		126	30	5/5/09		18	Gate
Saguaro & Shea		179	33	5/7/09		20	Gate
17053 Shea Blvd		179	33	5/7/09		20	Gate
16431 Jacklin Dr		138	5	5/11/09		20	Gate
16557 Nelson Dr		148	7	5/11/09	valve broken open		
12008 Organ Pipe		107	5	5/12/09		18	Gate
15902 Sunflower Dr		76	11	5/15/09		17	Butterfly
16012 Sunflower Dr		77	15	5/15/09		17	Butterfly
15950 Sunflower Dr		77	16	5/15/09		20	Gate
15902 Sunflower Dr		76	10	5/15/09		20	Gate
16825 Shea Blvd		169	45	5/15/09		20	Gate
16825 Shea Blvd		169	37	5/15/09		38	Gate
9617 Saguaro Blvd		179	46	5/15/09		20	Gate
16755 Shea Blvd		168	8	5/15/09		20	Gate
11230 Saguaro Blvd		130	13	5/15/09	need to locate valve		
11832 Saguaro Blvd		119	50	5/18/09		17	Butterfly
11682 Saguaro Blvd		119	58	5/18/09		37	Gate
11624 Saguaro Blvd		120	18	5/18/09		20	Gate
11624 Saguaro Blvd		120	19	5/18/09		38	Gate
11230 Saguaro Blvd		130	12	5/18/09		38	Gate
11230 Saguaro Blvd		130	11	5/18/09		17	Butterfly
11634 Saguaro Blvd		120	19	5/18/09		38	Gate
11684 Saquaro Blvd		119	60	5/18/09		17	Butterfly
9024 Fireridge Tr		185	6	5/19/09		20	Gate
15641 Norte Vista		24	18	5/19/09		20	Gate
11056 Saguaro Blvd		130	17	5/19/09		17	Butterfly
17210 Saguaro Blvd		130	19	5/19/09		17	Butterfly
10817 Pinto Dr		136	8	5/19/09		20	Gate
16733 Saguaro Blvd		179	17	5/22/09		20	Gate
16845 Saguaro Blvd		179	1	5/22/09		20	Gate
16820 Saguaro Blvd		179	2	5/22/09		18	Gate
16534 Arroyo Vista Dr		108	8	5/22/09		25	Butterfly
16534 Arroyo Vista Dr		108	9	5/22/09		17	Butterfly
16540 Arroyo Vista Dr		108	12	5/22/09		25	Butterfly
16429 Arroyo Vista Dr		108	5	5/22/09		25	Butterfly
16429 Arroyo Vista Dr		108	6	5/22/09		25	Butterfly

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16453 La Montana		98	7	5/22/09		18	Butterfly
11430 Saquaro Blvd		120	16	5/26/09	BAD- Broken	n/a	n/a
17100 Shea Blvd		179	24	5/26/09	could not locate		
12545 Saquaro Blvd		99	32	5/26/09	could not locate		
11430 Saquaro Blvd		120	17	5/26/09	could not locate, Covered in Asphalt		
17134 Saquaro Blvd		140	3	5/26/09		17	Butterfly
10643 Indian Wells		140	24	5/26/09		17	Butterfly
10642 Indian Wells		140	23	5/26/09		20	Gate
10643 Indian Wells		140	21	5/26/09		25	Butterfly
11402 Saqauro Blvd		130	9	5/26/09		17	Butterfly
11445 Saquaro Blvd		120	21	5/26/09		20	Gate
11653 Saquaro Blvd		120	28	5/26/09		16	Butterfly
14410 Saquaro Blvd		59	29	5/26/09		20	Gate
11419 Saquaro Blvd		130	10	5/26/09		20	Gate
9840 Ledford		170	6	5/26/09		20	Gate
9840 Ledford		170	2	5/26/09		20	Gate
9750 montery		169	19	5/26/09		20	Gate
11806 Saquaro Blvd		119	56	5/26/09		17	Butterfly
11660 Saquaro Blvd		120	8	5/26/09		20	Gate
11623 Desert Vista		120	22	5/26/09	Need Valve Trailer		
14615 Saquaro Blvd		58	51	5/26/09	Need Valve Trailer		
13430 Saquaro Blvd		79	62	5/26/09	Need Valve Trailer		
11806 Saquaro Blvd		119	55	5/26/09	Need Valve Trailer		
11660 Saquaro Blvd		120	9	5/26/09	Need Valve Trailer		
10643 Indian Wells		140	22	5/26/09	Valve is covered by Asphalt in street		
16820 Saguaro Blvd		69	9	5/27/09	Coould Not Locate		
14626 Fountain Hills Blvd		58	35	5/27/09		38	Gate
14612 Saquaro Blvd		58	50	5/27/09		20	Gate
14612 Saquaro Blvd		58	49	5/27/09		20	Gate
14422 Saquaro Blvd		59	28	5/27/09		20	Gate
14244 Saquaro Blvd		59	31	5/27/09		20	Gate
14218 Saquaro Blvd		59	34	5/27/09		20	Gate
16820 Saguaro Blvd		69	10	5/27/09		20	Gate
Grande Blvd & Saquaro		69	19	5/27/09		38	Gate
12848 Saquaro Blvd		n/a	n/a	5/29/09	Can not Locate. Not on Map		
11679 Saquaro Blvd		120	3	5/29/09		20	Gate
12034 Saquaro Blvd		109	52	5/29/09		20	Gate
12020 Saquaro Blvd		109	21	5/29/09	Need Valve Trailer		
16820 Ibsen		69	8	5/29/09	Needs to be Vaced Out		
14536 Gecko Court		43	9	6/1/09		20	Gate
14610 Shadow Canyon		43	11	6/1/09		20	Gate
14536 Gecko Court		43	7	6/1/09		26	Gate
14536 Gecko Court		43	6	6/1/09	Need Valve Trailer		
14536 Gecko Court		43	8	6/1/09	Need Valve Trailer		
14610 Shadow Canyon		43	12	6/1/09	Need Valve Trailer		
14610 Shadow Canyon		43	13	6/1/09	Zone Brake In Closed Postion		
14610 Shadow Canyon		43	14	6/1/09	Zone Brake In Closed Postion		
10401 Saquaro Blvd		150	20	6/4/09		20	Gate
Ftn Hills Middle School		38	20	6/4/09		18	Gate
11063 Indian Wells		130	15	6/4/09		18	Gate
10646 Indian Wells		140	15	6/4/09		20	Gate
14458 Fountian Hills Blvd		58	38	6/8/09	fair	18	Gate
14440 Fountain Hills Blvd		58	39	6/8/09		18	Gate
14648 Fountian Hills Blvd		48	51	6/8/09		18	Gate
14818 Fountian Hills Blvd		48	44	6/8/09		18	Gate
Ftn Hills Middle School		38	22	6/8/09		20	Gate
15202 Fountain Hills Blvd		n/a	n/a	6/8/09	Need Valve Trailer		
N/E/C Shea & Ftn Hills Blvd		136	16	6/15/09		54	Butterfly
N/E/C Shea & FTNHills Blvd		136	17	6/15/09		20	Gate
16108 Emerald Drive		127	18	6/15/09		17	Butterfly
Emerald Wash on FTN Hills		136	19	6/15/09		20	Gate
16919 Trojan Ct		129	5	6/15/09		20	Gate
N/E/C Shea & Ftn Hills Blvd		136	18	6/15/09	Need Valve Trailer		
14242 Fountian Hills Blvd		58	17	6/17/09	Could not Locate		
14280 Fountian Hills Blvd		58	27	6/17/09	Could Not Locate		
14266 Fountian Hills Blvd		58	24	6/17/09		18	Gate
15503 Palomino Blvd		115	26	6/18/09	Closed, Zone Brake		
15415 Palomino Blvd		115	24	6/18/09	Could not locate		
15415 Palomino Blvd		115	23	6/18/09		20	Gate
15337 Palomino Blvd		115	17	6/18/09		20	Gate
15337 Palomino Blvd		115	16	6/18/09		20	Gate

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
15251 Palomino Blvd		115	8	6/18/09		20	Gate
15251 Palomino Blvd		115	9	6/18/09		20	Gate
13834 Fountain Hills Blvd		67	40	6/23/09	Could Not Locate		
Fountain Hills Blvd		97	21	6/23/09	Could Not Locate		
12615-1 Fountain Hills Blvd		97	24	6/23/09	Could Not Locate		
16207 Sawik Circle		117	15	6/23/09	Damaged, Full of dirt, Bad		
14012 Fountain Hills Blvd		67	43	6/23/09		20	Gate
14214 Fountain Hills Blvd		58	18	6/23/09		18	Gate
12615 Fountain Hills Blvd		97	23	6/23/09		20	Gate
12615 Fountain Hills Blvd		97	22	6/23/09		56	Butterfly
12615 Fountain Hills Blvd		97	40	6/23/09		56	Butterfly
15258 Fountain Hills Blvd		97	39	6/23/09		20	Gate
16211 Inca Ave		117	13	6/23/09		20	Gate
12,000 Fountain Hills Blvd		108	27	6/23/09		20	Gate
12,000 Fountain Hills Blvd		108	26	6/23/09		56	Butterfly
12,000 Fountain Hills Blvd		108	25	6/23/09		56	Butterfly
17306 Niblick Way		140	19	6/29/09		17	Butterfly
15144 Ridgeway Drive		104	50	6/29/09		20	Gate
12095 Fountain Hills Blvd		117	17	6/29/09		17	Butterfly
13834 Fountain Hills Blvd		67	40	6/29/09		17	Butterfly
15133 Box Car Dr		4	34	6/30/09	Doesn't close fully, some leak by	20	Butterfly
16510 Palisades		78	78	7/13/09	BAD- Broken Head		
16510 Palisades		78	81	7/13/09		20	Gate
16510 Palisades		78	76	7/13/09		20	Gate
16510 Palisades		78	75	7/13/09		20	Gate
16510 Palisades		78	77	7/13/09		20	Gate
16510 Palisades		78	74	7/13/09		20	Gate
16341 GlennBrook Blvd		37	25	8/1/09		17	Butterfly
17301 Desert Vista Dr		120	35	8/10/09	Doesn't excist	n/a	n/a
17301 Desert Vista Dr		110	42	8/10/09		20	Gate
17301 Desert Vista Dr		120	33	8/10/09		38	Gate
Tioga/Desert Vista Dr		110	40	8/10/09		17	Butterfly
17301 Desert Vista Dr		120	34	8/10/09		28	Gate
Tioga/Desert Vista Dr		110	41	8/10/09	Good, Needs to be raised 5"	38	Gate
14310 Charter Oak Dr		92	1	8/11/09		20	Gate
14310 Charter Oak Dr		93	2	8/11/09		26	Gate
10848 Appian Way		137	19	8/13/09	Can not locate		
Colony Dr & Enterprise Dr		109	30	8/13/09		17	Butterfly
Colony Dr & Panorama Dr		109	40	8/13/09		20	Gate
17028 Deerskin Drive		49	53	8/17/09	Damaged, Full of dirt, Bad		
Zapata Dr & San Blas Ct		44	36	8/19/09		26	Gate
Zapata Dr & San Blas Ct		44	35	8/19/09		26	Gate
Pancho Villa Pl & Zapata Dr		44	32	8/19/09		26	Gate
15051 San Blas Ct		44	29	8/19/09		20	Gate
15175 Zapata Dr		44	37	8/19/09		20	Gate
14989 Zapata Dr		45	4	8/19/09		20	Gate
15029 Staghorn Dr		54	57	8/24/09		20	Gate
14225 Desert Flower Dr		54	56	8/24/09		20	Gate
14235 Honeysuckle Dr		54	50	8/24/09		20	Gate
14419 Honeysuckle Dr		54	47	8/24/09		20	Gate
14249 Staghorn Dr		54	53	8/24/09		20	Gate
Honeysuckle Dr & Staghorn Dr		54	48	8/24/09		20	Gate
Honeysuckle Dr & Staghorn Dr		54	49	8/24/09		20	Gate
Staghorn Dr & Desert flower Dr		54	55	8/24/09		20	Gate
Staghorn Dr & Desert flower Dr		54	54	8/24/09		20	Gate
Sunridge Dr & Staghorn Dr		54	36	8/24/09		26	Gate
15024 Ridgway Dr		104	53	8/25/09		20	Gate
15121 Marathon Dr		4	17	8/26/09		20	Gate
15017 Marathon Dr		4	15	8/26/09		20	Gate
15307 Palomino Blvd		115	15	8/27/09		17	Butterfly
15200 Desert Canyon Dr		65	3	9/4/09		20	Gate
15314 Desert Canyon Dr		65	18	9/4/09		20	Gate
16826 Alamosa		49	25	9/4/09		20	Gate
15314 Desert Canyon Dr		65	17	9/4/09	Good. Zone Break, Painted Red	38	Gate
Palomino & Bucking Bronco Way		115	2	9/8/09		20	Gate
Palisades & Palomino		104	30	9/8/09		20	Gate
Winchester Dr & Palomino Blvd		115	9	9/8/09		20	Gate
15009 Palomino Blvd		104	29	9/9/09		20	Gate
15205 Palomino Blvd		115	3	9/9/09		20	Gate
15105 Palomino Blvd		104	52	9/9/09		20	Gate
Mustang Dr & Bucking Bronco		115	5	9/16/09		20	Gate

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Wild Horse Way & Mustang Dr		115	18	9/16/09		20	Gate
Wild Horse Way & Mustang Dr		115	20	9/16/09		20	Gate
15248 Mustang Dr		115	21	9/16/09		20	Gate
15248 Mustang dr		115	22	9/16/09	Valve needs working	n/a	n/a
15900 Golden Eagle Park		56	22	9/24/09	can not locate	n/a	n/a
16000 Golden Eagle Blvd		66	40	9/24/09	can not locate	n/a	n/a
Golden Eagle & Boulder		36	24	9/24/09		18	Butterfly
14990 Golden Eagle Blvd		46	21	9/24/09		18	Gate
15741 Eagle Crest Dr		36	29	9/24/09		20	Gate
15100 Golden eagle Blvd		46	35	9/24/09	Valve needs working	n/a	n/a
16710 Oxford Dr		48	38	9/30/09		20	butterfly
16835 Alamosa Dr		49	26	10/2/09	can't locate	n/a	n/a
Yerba Buena & Alamosa Dr		49	38	10/2/09	can't locate	n/a	n/a
16807 Alamosa dr		49	29	10/2/09		16	Butterfly
16429 Paradox Dr		4	9	10/9/09	Broken Open	n/a	n/a
16429 Paradox Dr		4	10	10/9/09		14	Gate
16429 Paradox Dr		4	8	10/9/09		18	Butterfly
16615 parqadox dr		4	6	10/9/09		20	Gate
Golden Eagle & Paradox		14	28	10/9/09		26	Gate
Indian Pony & Palamino		126	16	10/13/09		38	Gate
16341 Glenbrook blvd		37	25	10/19/09	fair	17	Butterfly
Zaharias & Indian Wells		130	15	10/28/09		24	gate
16729 Emerald Dr		128	9	10/28/09		20	Gate
15606 Sunburst Dr		116	1	10/29/09		20	Gate
12900 Fountain Hills Blvd		87	36	11/2/09		20	Gate
16811 Hawk		109	18	11/2/09		17	Butterfly
12020 Saguaro		109	19	11/2/09		20	Gate
12609 Gunsight Dr		98	33	11/2/09		17	Butterfly
13001 Fountain Hills Blvd		87	41	11/2/09		26	Gate
13225 Fountain Hills Blvd		87	43	11/2/09		20	Gate
13001-2 Fountai Hills Blvd		87	42	11/2/09		20	Gate
13001 Fountain Hills Blvd		87	40	11/2/09		20	Gate
12840 Fountain Hills Blvd		97	29	11/2/09		20	Gate
12900 Fountain Hills Blvd		87	35	11/2/09		50	Gate
16811 Malta		109	18	11/4/09		21	Gate
15827 Norte Vista		24	15	11/9/09		20	Gate
16001 Norte Vista		24	13	11/9/09		22	Gate
15617 Santa Maria Place		24	14	11/9/09		23	Gate
10401 Saguaro Blvd		150	12	11/13/09	Broken closed ?	n/a	n/a
10401 Saguaro Blvd		150	14	11/13/09	Broken closed ?	n/a	n/a
10401 Saguaro Blvd		150	15	11/13/09	Broken closed ?	n/a	n/a
Barnes & Indian Wells		140	12	11/13/09	can't locate	n/a	n/a
11011 Indian Wells		140	8	11/13/09		20	gate
Zaharias & Indian Wells		130	16	11/13/09		18	Butterfly
11005 Indian Wells		140	9	11/13/09		26	Gate
Barnes & Indian Wells		140	13	11/13/09		14	Gate
10401 saguaro		150	10	11/13/09		23	Gate
17309 Indian wells		140	14	11/13/09		20	Gate
16540 Gunsight		98	31	11/13/09		16	Butterfly
16714 Gunsight		98	20	11/13/09		37	Butterfly
16734 Gunsight		109	2	11/13/09		17	Butterfly
Aveda Vida Buena		77	50	11/13/09		29	Gate
Aveda Vida Buena		77	54	11/13/09		28	Gate
Avenda Vida Buena		77	52	11/13/09		25	Gate
Avenda Vida Buena		77	53	11/13/09		28	Gate
Avenda Vida Buena		77	59	11/13/09		28	Gate
Niblick Way & Eagle Ln		140	20	11/13/09	Need Longer Key	n/a	n/a
10601 Eagle Ln		150	1	11/13/09	Need Longer Key	n/a	n/a
10601 Eagle Ln		150	2	11/13/09	Need Longer Key	n/a	n/a
Eagle Ln & Indian Wells Dr		140	16	11/13/09	Need Longer Key	n/a	n/a
Eagle Ln & Indian Wells Dr		140	18	11/13/09	Need Longer Key	n/a	n/a
Eagle Ln & Indian Wells Dr		140	17	11/13/09	Need Longer Key	n/a	n/a
16714 Gunsight		98	21	11/13/09	need to locate valve	n/a	n/a
05-231 Paul Nordin Pkwy		99	2	11/16/09		18	Gate
16517 Gunsight		98	32	11/17/09		18.5	Gate
12412 Saguaro		99	4	11/17/09		17	Butterfly
Sundance & Pinto		126	26	11/23/09		19	Gate
Sundance & Pinto		126	27	11/23/09		19	Gate
11007 Buffalo		136	2	11/23/09		19	Gate
Buffalo & Sun Dance		126	28	11/23/09	Valve nut broken	n/a	n/a
Shea & Beeline		190	8	11/25/09		46	Gate

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
Shea & Beeline		190	7	11/25/09		48	Gate
montrose & new market		57	27	11/30/09		13	Gate
15118 Desert Willow		164	26	1/4/10		21	Gate
11040 Teller Dr		129	41	1/4/10		17	Butterfly
16255 Kingstree Blvd		127	36	1/4/10	Need to Locate	N/A	N/A
11238 Teller Dr		129	6	1/5/10	Need to Locate	N/A	N/A
16057 Ponderosa Dr		77	5	1/7/10		18	Butterfly
13806 Mountainside Dr		67	23	1/7/10		20	Gate
Saguaro & Pepperwood		59	39	1/9/10		20	Gate
Pepperwood Circle		59	40	1/9/10		20	Gate
Teakwood		59	12	1/12/10	Poor	20	Gate
Mountainside Dr & Ponderosa Dr		77	8	1/14/10	Broken	N/A	N/A
Lost Hills Dr & Ponderosa Dr		76	20	1/14/10		18	Butterfly
Seminole Dr & Ponderosa Dr		77	6	1/14/10		18	Butterfly
Seminole Dr & Ponderosa Dr		77	7	1/14/10		18	Butterfly
15951 Ponderosa Dr		66	32	1/14/10		21	Gate
16017 Ponderosa Dr		67	25	1/14/10		20	Gate
16045 Seminole Dr		67	24	1/14/10		20	Gate
15301 Palomino Dr		115	15	1/19/10		20	Gate
14480 Charter Oaks Dr H\H		93	9	1/19/10	Good/ Zone Break	26	Gate
12550 145th Way H\H		93	24	1/19/10	Good/ Zone Break	26	Gate
11014 Inca		129	47	1/25/10		17	Butterfly
16107 Kingstree		137	2	1/25/10	Need Valve Truck	N/A	N/A
16362 Arrow Dr		68	10	1/28/10	Doesn't Exciste	N/A	N/A
16357-1 Arrow Dr		68	5	1/28/10		20	Gate
16362 Arrow Dr		68	9	1/28/10		17	Butterfly
16362 Arrow Dr		68	8	1/28/10		14	Gate
16362 Arrow Dr		68	6	1/28/10		17	Butterfly
16362 Arrow Dr		68	7	1/28/10		17	Butterfly
16357-2 Arrow Dr		68	4	1/28/10		17	Butterfly
16336 Arrow Dr		68	55	1/28/10		17	Butterfly
16336 Arrow Dr		68	54	1/28/10		20	Gate
15917 Ponderosa Dr		66	29	2/1/10		20	Gate
15869 Ponderosa Dr		76	28	2/1/10		19	Butterfly
15816 Ponderosa Dr		76	22	2/1/10		21	Gate
16235 Stancrest		67	52	2/2/10		17	Butterfly
16269 Coventry		67	57	2/2/10		17	Butterfly
15717 Eagle Rock Dr		36	30	2/9/10		21.5	Gate
15822 Kipling		16	33	2/11/10		17	Butterfly
10401 Saguaro Blvd		150	11	2/12/10		20	Gate
10401 Saguaro Blvd		150	13	2/12/10		20	Gate
10401 Saguaro Blvd		150	14	2/16/10	Broken Closed, Spins	N/A	N/A
10401 Saguaro Blvd		150	12	2/16/10	Broken, Spins	N/A	N/A
10401 Saguaro Blvd		150	15	2/16/10	Broken, Spins	N/A	N/A
10401 Saguaro Blvd		150	16	2/16/10		20	Gate
16421 Emerald		128	1	2/23/10		17	Butterfly
16523 Emerald		128	6	2/23/10		17	Butterfly
16639 Emerald		128	8	2/23/10	Need Valve Trailer	N/A	N/A
14440 Fountain Hills Blvd		58	39	2/24/10		20	Gate
14621 Cholula Dr		23	2	2/25/10		26	Gate
Tabasco DR & Cholula Dr		23	6	2/25/10		26	Gate
Tabasco DR & Cholula Dr		23	5	2/25/10		26	Gate
Tabasco DR & Cholula Dr		23	4	2/25/10		26	Gate
14801 Cholula Dr		23	8	2/25/10		19	Gate
14603 Cholula Dr		23	9	2/25/10		18	Gate
14703 Cholula Dr		23	1	2/25/10		18	Gate
14719 Cholula Dr		23	3	2/25/10		18	Gate
16003 Tabasco Blvd		23	7	2/25/10		18	Gate
16027 Tabasco Blvd		14	19	2/25/10		19	Gate
14833 Cholula Dr		24	1	2/25/10		19	Gate
17434 Tejon Dr		50	29	2/26/10	Bad. Frozen	N/A	N/A
15051 El Pueblo Blvd		40	31	2/26/10		17	Butterfly
Oro Grande Blvd & Tejon Dr		50	30	2/26/10		17	Butterfly
Oro Grande Blvd & Tejon Dr		50	31	2/26/10		17	Butterfly
14661 Armino Dr		50	40	3/1/10	Can't Locate	N/A	N/A
17227 Vallecito Dr		70	21	3/1/10		17	Butterfly
17219 Vallecito Dr		70	20	3/1/10		17	Butterfly
12248 Panorama Dr		110	3	3/1/10		18	Butterfly
16610 Hawk Dr		118	12	3/2/10	Can't Locate	N/A	N/A
17024 Cascade Dr		39	32	3/2/10	Can't Locate	N/A	N/A
17124 Rockwood		179	63	3/2/10		20.5	Gate

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
17152 Rockwood		180	6	3/2/10		21	Gate
16657 Hawk Dr		118	19	3/2/10		17	Butterfly
16239 Emerald Dr		127	31	3/2/10		17	Butterfly
15231 Delray Dr		39	17	3/2/10		20	GAte
Tejon Dr & Caliente Dr		50	33	3/3/10	Abandon/ Closed	N/A	N/A
17118 Cascade Dr		39	33	3/3/10	Can't Locate	N/A	N/A
Tejon Dr & Caliente Dr		50	4	3/3/10		17	Butterfly
Tejon Dr & Caliente Dr		50	3	3/3/10		17	Butterfly
17340 Tejon Dr		50	16	3/3/10		17	Butterfly
Tejon Dr & Caliente Dr		50	34	3/3/10		20	Gate
17464 Tejon Dr		50	29	3/3/10	Stuck/Bad/Frozen	N/A	N/A
15847 Greystone		106	8	3/4/10		19.5	Gate
15971 Greystone		106	9	3/4/10		21	Gate
14815 Delgado Dr		43	25	3/11/10		20	Gate
14820 Delgado Dr		44	7	3/11/10		20	Gate
15711 Greystone		106	6	3/12/10		20	Gate
15807 Greystone		106	7	3/12/10		21	Gate
17127 Fontana Way		79	52	3/12/10		20	Gate
17035 Fontana Way		79	51	3/12/10		20	Gate
17212 Fontana Way		80	6	3/12/10		20	Gate
17239 Fontana Way		80	11	3/12/10		20	Gate
15469 Greystone		105	21	3/12/10		20	Gate
15513 Greystone		105	27	3/15/10		20	Gate
17335 Sunscape Dr		90	22	3/15/10		20	Gate
13611 Bonita Way		79	53	3/15/10		20	Gate
17330 Fontana Way		80	13	3/15/10		20	Gate
12824 Via Del Sol		100	11	3/15/10		20	Gate
12821 Vis Del Sol		100	10	3/15/10		26	Gate
11029 Valley Dr		129	30	3/16/10		17	Butterfly
11031 Zephyr Dr		129	25	3/16/10		17	Butterfly
Amhurst Dr & Zephyr Dr		129	24	3/16/10		17	Butterfly
Amhurst Dr & Zephyr Dr		129	26	3/16/10		17	Butterfly
17108 Zephyr Dr		139	12	3/16/10		17	Butterfly
15209 Ridgeway		105	10	3/16/10		20	Gate
15001 Oxford		48	34	3/18/10	Can't Locate	N/A	N/A
15006 Maple Dr		47	15	3/18/10		17	Butterfly
15481 Telegraph Rd		105	28	3/18/10		20	Butterfly
15621 Telegraph Rd		115	2	3/18/10		20	Butterfly
16000-1 FireRock Country Club Dr		146	35	3/22/10		20	Gate
16000-2 FireRock Country Club Dr		146	31	3/22/10		20	Gate
16000 FireRock Country Club Dr		146	30	3/22/10		20	Gate
16000 FireRock Country Club Dr		146	32	3/22/10		20	Gate
16000 FireRock Country Club Dr		146	33	3/22/10		20	Gate
16000 FireRock Country Club Dr		146	34	3/22/10		20	Gate
15317 Stardust		105	17	3/24/10		18	Gate
9009 Summerhill Blvd		183	26	3/25/10		20	Gate
9404 Aerie Cliff		173	7	3/25/10		20	Gate
9218 Aerie Cliff		173	20	3/25/10		20	Gate
9224 Summerhill Blvd		173	21	3/25/10		20	Gate
9440 Summerhill Blvd		173	31	3/25/10		20	Gate
9415 Solitude Canyon		173	6	3/25/10		20	Gate
17229 Diamente Dr		100	6	3/26/10		20	Gate
16807 Alamosa Ave		49	7	3/26/10		17	Butterfly
15529 Sycamore		95	14	3/29/10	Broke Open	N/A	N/A
15413 Thistle		95	11	3/29/10		19.5	Gate
15646 Sycamore		96	10	3/29/10		20	Gate
15746 Sycamore		106	15	3/29/10		20	Gate
15434 Sycamore		95	12	3/29/10		17	Butterfly
15906 Sycamore		106	12	3/29/10		20	Gate
16641 Cromwell		118	6	4/5/10		17	Butterfly
12049 Lamplighter		109	12	4/5/10		17	Butterfly
16642 Inca		118	18	4/5/10		17	Butterfly
16442 Cromwell		118	7	4/5/10		17	Butterfly
16312 Sullivan		118	1	4/5/10	Need Valve Trailer	N/A	N/A
11836 Tower Dr		120	1	4/7/10	Need to Locate	N/A	N/A
17114 Parlin		129	17	4/8/10		17	Butterfly
16921 Siracco Dr		119	16	4/8/10		20	Gate
11251 Sirocco Dr		119	14	4/8/10		19	Gate
17134 Parlin		130	8	4/8/10		17	Butterfly
16743 Parlin		119	7	4/9/10		17	Butterfly
12076 Chama		108	17	4/12/10		17	Butterfly

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13310 Manzinita		74	32	4/20/10		20	Gate
13518 Manzinita		74	8	4/20/10		20	Gate
12052 Chama Dr		108	29	4/28/10		17	Butterfly
Black Bird Dr		37	9	4/28/10		36	Gate
Black Bird Dr		37	4	4/28/10		36	Gate
13600 Foutain Hills Blvd		77	24	4/30/10		20	Gate
13600 Foutain Hills Blvd		77	25	4/30/10		26	Gate
13600 Foutain Hills Blvd		77	26	4/30/10		20	Gate
13700-1 Fountain Hills Blvd		77		4/30/10		18	Gate
13700-2 Fountain Hills Blvd		77		4/30/10		18	Gate
13700-3 Fountain Hills Blvd		77		4/30/10		18	Gate
15114 Greene Valley Dr		4	16	5/7/10		17	Butterfly
14965 Aspen Dr		4	26	5/7/10		17	Butterfly
15009 Marathon Dr		4	14	5/7/10		17	Butterfly
Shadow Ridge & Fireridge Trail		186	10	5/10/10	Broke Burried	28	Gate
16219 Tombstone Ave		177	19	5/10/10		20	Gate
16219 Tombstone Ave		177	18	5/10/10		26	Gate
12205 Fountain Hills Blvd		108	20	5/10/10		20	Gate
Fireridge Trail		185	8	5/10/10		24	Gate
Fireridge Trail		185	9	5/10/10		25	Gate
Fireridge Trail		185	7	5/10/10		24	Gate
16335 Tombstone Ave		178	3	5/10/10	Need To Locate	N/A	N/A
16540 Chama		108	10	5/10/10	Need To locate	N/A	N/A
12005 Chama		108	22	5/10/10	Need Valve Trailer	N/A	N/A
10827 Sonoran Vista		134	21	5/12/10		19.5	Gate
10929 Somoran Vista		134	20	5/12/10		18	Gate
10841 Mountain Vista Court		134	16	5/12/10		18	Gate
10927 Mountain Vista Court		134	7	5/12/10		18	Gate
10737 Mopuntain Vista Court		134	11	5/12/10		18	Gate
14822 Valley Vista Dr		134	100	5/13/10		20	GAte
16731 Technology Dr		178	17	5/13/10		20	Gate
16815-5 Technology Dr		168	14	5/13/10		20	Gate
16751 Technology Dr		168	13	5/13/10		20	Gate
16749 Technology Dr		168	10	5/13/10		20	Gate
Laser & Technology		178	20	5/13/10		26	Gate
Laser & Technology		178	18	5/13/10		26	Gate
Laser & Technology		178	19	5/13/10		26	Gate
16751 Technology Dr		168	12	5/13/10		26	Gate
16751 Technology Dr		168	11	5/13/10		26	Gate
10603 Skyline		134	9	5/13/10	Need Valve Trailer	N/A	N/A
14900 Valley Vista Dr		134	9	5/13/10	Need Valve Trailer	N/A	N/A
10735 Skyline Dr		134	3	5/13/10	Need Valve Trailer	N/A	N/A
10721 Skyline Dr		134	5	5/13/10	Need Valve Trailer	N/A	N/A
16820 Saguaro Blvd		69	8	5/17/10		17	Butterfly
16852 La Montana		79	5	5/17/10	Need To Locate	N/A	N/A
16810 La Montana		79	9	5/17/10	Need Valve Trailer	N/A	N/A
16912 La Montana		79	35	5/17/10	Need Valve Trailer	N/A	N/A
15704 Lark Ct		56	6	5/18/10		20	Gate
12241 Fountain Hills Blvd		107	11	5/18/10		17	Butterfly
9611 Cirrus Ct		173	30	5/18/10		20.5	Gate
9628 Cirrus Ct		163	8	5/18/10		20	Gate
15602 Sundown		45	13	5/18/10	Need Valve Trailer	N/A	N/A
17006 Calle Del Sol		59	50	5/24/10		20	Gate
17022 Calle Del Flores		59	67	5/24/10		20	Gate
17038 Calle Del Sol		59	47	5/24/10	Need to Locate	N/A	N/A
17300 - FP1 Calaveras Ave		60	18	5/27/10		17	Butterfly
14605 Calaveras Ave		59	54	5/27/10		17	Butterfly
15354 Sundown		55	7	5/27/10		20	Gate
15510 Palo Brea Ct		45	5	5/27/10		20	Gate
15410 Wildcat Ct		45	12	5/27/10		20	Gate
17300 Calaveras Ave		60	17	5/27/10	Need Valve Trailer	N/A	N/A
16106 Carmel Dr		47	32	5/28/10		17	Butterfly
15212 Maple De		37	14	5/28/10		17	Butterfly
14645 Fountain Hills Blvd		48	56	5/28/10		20	Gate
11002 Vista Dr		124	32	5/28/10		20	Gate
14645 Fountain Hills Blvd		58	52	5/28/10		20	Gate
15326 Hillside Dr		135	9	5/28/10		20	Gate
15202 Hillside Dr		135	7	5/28/10		20	Gate
15202 Hillside Dr		170	15	5/28/10		20	Gate
17233 Kirk Ln		170	12	5/28/10		20	Gate
9804 Sunrise Circle		169	22	5/28/10		20	Gate

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17144 Hillcrest Dr		170	12	5/28/10		20	Gate
17216 Hillcrest Dr		170	16	5/28/10		20	Gate
14645-1 Fountain Hills Blvd		48	54	5/28/10		20	Gate
14645-2 Fountain Hills Blvd		48	57	5/28/10		20	Gate
14645-3 Fountain Hills Blvd		58	53	5/28/10		20	Gate
17144 Hillcrest Dr		170	18	5/28/10	Need Valve Trailer	N/A	N/A
14645 Fountain Hills Blvd		48	52	5/28/10	Need Valve Trailer	N/A	N/A
17206 Gorden Dr		70	9	5/28/10	Need Valve Trailer	N/A	N/A
17120 Hillcrest Dr		169	26	5/28/10	Need Vlave Trailer	N/A	N/A
16407 Firerock Maintance Yard		167	1000	6/2/10		20	Gate
16248 Ridgeline Dr		167	3000	6/2/10		21	Gate
10432 Northridge		167	4000	6/2/10		21	Gate
16332 Ridgeline		167	2000	6/2/10	Need Valve Trailer	N/A	N/A
16836 Mirage Crossing Ct		49	24	6/9/10		20	Gate
15124 Sundown		44	38	6/10/10		20	Gate
15214 Sundown		54	20	6/10/10		20	Gate
15254 Sundown		55	3	6/10/10	Need Valve Trailer	N/A	N/A
15609 Sunridge		34	19	6/14/10		20	Gate
15422 Peakview		55	11	6/16/10		21	Gate
15054 Sundown		44	30	6/16/10		21	Gate
15350 Peakview Ct		55	10	6/16/10		21	Gate
15448 Peakview Ct		55	12	6/16/10		21	Gate
17204 Sonoran Way		180	2	6/16/10		20	Gate
17124 Sonoran Way		179	52	6/16/10		20	Gate
14601 La Costa Dr		59	21	6/16/10		20	Gate
14614 Love Ct		59	4	6/16/10		14	Gate
14614 Love Ct		59	3	6/16/10		20	Gate
14601 La Costa Dr		59	22	6/16/10		14	Gate
14457 La Costa Dr		59	19	6/18/10	Need To Locate	N/A	N/A
16888 Sterling Way		59	14	6/18/10	Need To Locate	N/A	N/A
14662 Kings Way		49	30	6/18/10	Need To Locate	N/A	N/A
14849 Kings Way		49	14	6/18/10	Need To Locate	N/A	N/A
14910 Kings Way		49	9	6/18/10	Need To Locate	N/A	N/A
15325 Sundown		55	6	6/21/10		21	Gate
15604 Chaparral Way		45	14	6/21/10		21	Gate
14513 Lark Ct		56	1	6/21/10	Need Valve Truck	N/A	N/A
16621 GreenBier Lane		148	14	6/25/10		20	Butterfly
15804 Cactus Dr		56	62	6/28/10		20	Gate
16856 Parkview		89	14	6/28/10		20	Gate
17422 Oro Grande		40	32	6/28/10		17	Butterfly
15030 Pancho Villa Place		44	31	6/28/10		20	Gate
14231 Silverado Dr		60	3	6/28/10		17	Butterfly
15610 Mustabg Dr		126	2	6/28/10		20	Gate
15124 Sundown Dr		44	38	6/28/10		20	Gate
9725 Azure Ct		164	36	6/28/10		20	Gate
Midland Dr / Stancrest Dr		67	53	6/29/10		17	Butterfly
Fountian Hills Blvd / Hampstead Dr		67	13	6/29/10		38	Gate
Midland Dr / Stancrest Dr		67	54	6/29/10		17	Butterfly
9715 Azure Ct		174	40	6/29/10		20	Gate
Stancrest / Hampstead		57	38	6/30/10	Broken	N/A	N/A
Hyde Park Pl / Fayette Dr		57	35	6/30/10		38	Gate
Hyde Park Pl / Fayette Dr		57	36	6/30/10		17	Butterfly
Hyde Park Pl / Vern Place		57	31	6/30/10		17	Butterfly
14404 Fayette Dr		57	37	6/30/10	Need to Locate	N/A	N/A
16258 Hyde Park Pl		57	30	6/30/10	Need To Locate	N/A	N/A
Hyde Park Pl / Vern Place		57	32	6/30/10	Need Vac Truck	N/A	N/A
11253 Buffalo		125	7	7/6/10	Need Valve Trailer	N/A	N/A
14458 Sherwood Dr		58	45	7/6/10	Need Valve Truck	N/A	N/A
14458 Sherwood Dr		58	44	7/6/10	Need Valve Truck	N/A	N/A
14625 Olympic Way		59	5	7/14/10		21	Gate
14625 Olympic Way		49	31	7/14/10		21	GAte
Greystone & Sycamore		106	11	7/18/10		21	Butterfly
15709 Greystone		106	4	7/18/10		21	Gate
Palisades & La Montana		78	55	7/18/10		21	Gate
16726 La Montana		79	51	7/18/10		21	Gate
Cambria / La Montana		79	12	7/18/10		21	Gate
16742 Cambria		79	11	7/18/10		26	Gate
16852 Hamilton		79	5	7/18/10		21	Gate
15403 Redrock		135	13	7/28/10		20	Gate
15414 Westridge Dr		125	3	7/28/10		18	Gate
144th way		103	11	8/5/10		20	Gate

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15248 mustabg dr		115	21	8/17/10		20	Gate
Bucking Bronco & Mustang		115	5	8/17/10		20	Gate
15150 Mustang Dr		115	6	8/18/10		20	Gate
15254 Mustang Dr		115	22	8/18/10		20	Gate
Wild Horse Way & Mustang Dr		115	20	8/18/10		20	Gate
Wild Horse Way & Mustang Dr		115	18	8/18/10		20	Gate
15244 Westridge Dr		125	1	8/27/10		26	Butterfly
15152 Westridge Dr		124	30	8/27/10		26	Butterfly
15959 Centipede Dr		16	45	8/27/10		20	Gate
16416 Leo Dr		178	4	8/30/10		17	Butterfly
15978 Eagle Rock Dr		36	38	9/30/10		20	Gate
15926 Eagle Rock Dr		46	21	9/30/10		20	Gate
15926 Eagle Rock Dr		46	29	9/30/10		20	Gate
15208 Eagle Feather Ridge		37	6	9/30/10		20	Gate
Rica Vida & Tejon		50	17	10/4/10		25	Gate
15550 Tacony Dr		106	1	10/20/10		20	Gate
13218 El Pueblo Blvd		90	24	10/25/10		24	Gate
13426 El Pueblo Blvd		90	26	10/25/10	Need Valve Trailer	N/A	N/A
15834 Thristle Dr		96	14	10/26/10		20	Gate
Telegraph Dr & Sunburst Dr		116	6	10/26/10		20	Gate
Whitestone Way & Sunburst Dr		115	32	10/27/10		20	Gate
Whitestone Way & Sunburst Dr		115	31	10/27/10		20	Gate
15507 Chicory Dr		95	17	10/27/10		17	Butterfly
15816 Cactus Wren		46	17	11/1/10		20	Gate
15724 Cactus Wren		46	16	11/1/10		20	Gate
16009 Ocotillo		117	2	11/3/10		20	Gate
16066 Pincushin		117	5	11/3/10		20	Gate
15725 Princess Ct		36	30	11/8/10		20	Gate
Bucking Bronco /Palomino Blvd		115	20	11/9/10		20	Gate
15234 Bahia Dr		40	22	11/10/10	Broken Closed, Spins	N/A	N/A
Bahia Dr / El Pueblo Blvd		40	26	11/10/10	Broken Closed, Spins	N/A	N/A
Hawley Dr / Bahia Dr		40	27	11/10/10	Broken Closed, Spins	N/A	N/A
Bucking Bronco / Palomino Blvd		115	1	11/10/10		20	Gate
15009 Palomino Blvd		104	29	11/10/10		20	Gate
Palomino Blvd / Palisades		104	30	11/10/10		20	Gate
Palomino Blvd / Palisades		104	53	11/10/10		20	Gate
16203 Glenview Place		57	10	11/16/10		20	Gate
16144 Glenview Place		57	8	11/16/10		20	Gate
16144 Glenview Place		57	9	11/16/10		20	Gate
16126 Glenview Place		57	7	11/16/10		20	Gate
16032 Glenview Place		57	6	11/16/10		20	Gate
16218 Glenview Place		57	11	11/16/10		20	Gate
16218 Glenview Place		57	12	11/16/10		20	Gate
14604 Glendora Dr		47	21	11/22/10		20	Gate
16144 Glendora Dr		47	25	11/22/10		20	Gate
Gleneagle DR / Glendora Dr		47	26	11/22/10		20	Gate
Gleneagle DR / Glendora Dr		47	24	11/22/10		20	Gate
16130 Gleneagle Dr		47	27	11/22/10		20	Gate
Glenpoint Dr / Glendora Dr		47	22	11/22/10		20	Gate
Glenpoint Dr / Glendora Dr		47	23	11/22/10		20	Gate
16102 Glenpoint Dr		47	18	11/22/10		20	Gate
16142 Glenpoint Dr		47	29	11/22/10		20	Gate
16142 Glenpoint Dr		47	28	11/22/10		20	Gate
16234 Glenpoint		47	39	11/22/10		20	Gate
Glenpoint Dr / Glendora Dr		47	40	11/22/10		20	Gate
Glenpoint Dr / Glendora Dr		47	41	11/22/10		20	Gate
11013 Pinto Dr		126	30	12/1/10		20	Gate
10817 Pinto Dr		136	8	12/1/10		20	Gate
Puma Dr / Pinto Dr		136	6	12/1/10		20	Gate
Pinto Dr / F.H. Blvd		136	11	12/1/10		20	Gate
11612 Dawn Ridge Ct		119	29	12/8/10		20	Gate
13204 Mountainside dr		87	12	12/9/10		20	Gate
13039 Ryan Way		87	60	12/9/10		20	Gate
13001 Ryan Way		87	61	12/9/10		20	Gate
12835 Ryan Way		97	39	12/9/10		20	Gate
16116 Andrew Dr		97	35	12/9/10		20	Gate
12608 Mountainside Dr		97	4	12/9/10		20	Gate
12852 Mountainside Dr		87	19	12/9/10		20	Gate
17153 Malta		119	37	12/9/10		21	Gate
14410 Saguaro Blvd		59	8	12/14/10		20	Gate
14815 Eagle Mountain Blvd		163	22	12/17/10		20	Gate

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
16509 Laser Dr		178	26	1/2/11		19	Gate
Tepee Dr & Boulder Dr		26	17	1/4/11		17	Butterfly
Tepee Dr & Boulder Dr		26	18	1/4/11		25	Butterfly
Rocky Mountian Pl & Boulder Dr		26	13	1/4/11		17	Butterfly
Rocky Mountian Pl & Boulder Dr		26	14	1/4/11		17	Butterfly
Saguaro Blvd / Montery Dr		169	13	1/6/11		17	Butterfly
Shea Blvd / Saguaro Blvd		179	42	1/6/11		38	Gate
Shea Blvd / Saguaro Blvd		179	41	1/6/11		38	Gate
Shea Blvd / Saguaro Blvd		179	45	1/6/11		20	Gate
16434 Arroyo Vista		108	4	1/12/11		21	Gate
15240 Bahia Dr		40	22	1/18/11	Good, New	20	Gate
Bahia Dr / El Pueblo Blvd		40	26	1/18/11	Good, New	20	Gate
Bahia Dr / El Pueblo Blvd		40	21	1/18/11	Good, New	20	Gate
16431 Los siete Ct		98	78	1/19/11		20	Gate
La Montana / Los Siete Ct		98	11	1/19/11		20	Gate
17516 San Paulo Place		60	52	1/20/11		21	Gate
15930 Eagle Rock Dr		46	34	1/21/11		20	Gate
15827 Norte Vista Dr		24	15	1/21/11		20	Gate
15654 Eagle View Ct		26	3	1/21/11		20	Gate
15625 Eagle View Ct		26	2	1/21/11		20	Gate
15207 Eagle Feather Ridge		37	6	1/21/11		20	Gate
15955 Eagle Rock Dr		46	29	1/21/11		20	Gate
15880 Eagle Rock Dr		36	38	1/21/11		20	Gate
15811 Eagle Rock Dr		36	37	1/21/11		20	Gate
15758 Eagle Rock Dr		36	32	1/21/11		20	Gate
15717 Eagle Rock Dr		36	30	1/21/11		20	Gate
15824 Eagle Crest Rd		46	36	1/21/11		20	Gate
15804 Eagle Crest Rd		36	21	1/21/11		20	Gate
15725 Eagle Crest Rd		36	29	1/21/11		20	Gate
17511 Calico		60	59	1/24/11		17	Butterfly
17458 Santa Rosa Lane		60	56	1/24/11		17	Butterfly
15031 El Pueblo Blvd		50	41	1/25/11		17	Butterfly
14411 Aguilar		60	26	1/25/11		21	Gate
16132 Glenbrook Blvd		37	10	1/26/11		20	Gate
16006 Balsam Dr		47	12	1/26/11		20	Gate
16219 Glenbrook Blvd		37	17	1/26/11		17	Butterfly
16219 Glenbrook Blvd		37	19	1/26/11		17	Butterfly
16219 Glenbrook Blvd		37	18	1/26/11		14	Gate
16407 Glenbrook Blvd		38	1	1/26/11		17	Butterfly
16407 Glenbrook Blvd		38	2	1/26/11		17	Butterfly
16407 Glenbrook Blvd		38	3	1/26/11		14	Gate
16443 Glenbrook Blvd		48	1	1/26/11		20	Gate
Glenbrook Blvd /Mayflower Dr		38	5	1/26/11		17	Butterfly
Glenbrook Blvd /Mayflower Dr		38	4	1/26/11		17	Butterfly
15232 Silver Hawk Ct		38	10	1/26/11		17	Butterfly
15232 Silver Hawk Ct		38	28	1/26/11		14	Gate
Pelican Dr / Silver Hawk Ct		38	11	1/26/11		17	Butterfly
16522 Glenbrook Blvd		38	9	1/26/11		17	Butterfly
16522 Glenbrook Blvd		38	8	1/26/11		17	Butterfly
16612 Glenbrook Blvd		38	13	1/26/11		17	Butterfly
16612 Glenbrook Blvd		38	14	1/26/11		17	Butterfly
14231 Augilar Dr		60	28	1/27/11		21	Gate
11018 Appian Way		127	25	1/27/11		17	Butterfly
10848 Appian Way		137	19	1/27/11		17	Butterfly
15604 Audubon		36	42	1/27/11		38	Gate
15627 Boulder		26	19	1/27/11		26	Gate
17130 La Pasada		60	1	1/31/11	Fair	17	Butterfly
12211 Colony Dr		109	43	1/31/11		20	Gate
17232 La Pasada Dr		60	13	1/31/11		20	Gate
17205 La Jara		60	9	2/7/11		20	Gate
14231 Silverado Dr		60	3	2/7/11		20	Gate
18150 Tombstone Ave		177	15	2/7/11		21	Gate
Saguaro & Tombstone Ave		177	16	2/7/11		21	Gate
Saguaro & Tombstone Ave		177	17	2/7/11		40	Gate
16122 Tombstone Ave		177	14	2/8/11		21	Gate
Emerald Dr & Frisco Dr		127	34	2/10/11		17	Butterfly
Emerald Dr & Frisco Dr		127	33	2/10/11		17	Butterfly
16421 Emerald Dr		128	1	2/10/11		17	Butterfly
15236 Lotus		95	5	2/10/11		20	Gate
9310 Powderhorn Dr		177	8	2/14/11		21	Gate
15254 Ivory Dr		39	3	2/23/11		17	Butterfly

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
16810 Glenbrook Blvd		39	8	2/23/11		20	Gate
16352 Trevino Dr		147	23	2/23/11		21	Gate
15254 Ivory Dr		39	2	2/23/11	Need to Locate	N/A	N/A
15107 El Pueblo Dr		49	20	2/24/11	Burried	N/A	N/A
15006 Windyhill Rd		4	28	2/28/11	Fair	17	Butterfly
15042 Windyhill Rd		4	29	2/28/11	Need Valve Trailer	N/A	N/A
15114 Marathon Dr		4	16	3/2/11	Fair	17	Butterfly
15009 Marathon Dr		4	14	3/2/11		17	Butterfly
15149 Marathon Dr		4	19	3/2/11		17	Butterfly
14965 Aspan Dr		4	25	3/2/11		17	Butterfly
16679 Paradox Dr		4	2	3/2/11		20	Gate
15043 Greenvalley		4	24	3/2/11		17	Butterfly
16421 Paradox Dr		4	8	3/2/11		17	Butterfly
16679 Paradox Dr		4	3	3/2/11	Need to Locate Valve	N/A	N/A
16615 Paradox Dr		4	7	3/2/11	Valve Broken	N/A	N/A
16651 Boxcar Dr		5	4	3/3/11		18	Butterfly
16605 Boxcar Dr		5	7	3/3/11		18	Butterfly
16615 Aspen Dr		5	10	3/3/11		17	Butterfly
16644 Aspen Dr		5	14	3/3/11		17	Butterfly
15605 Scorpion Dr		6	3	3/4/11		17	Butterfly
15648 Grassland		6	12	3/4/11		17	Butterfly
15249 Aspen Dr		5	16	3/4/11		18	Butterfly
15529 Centipede Dr		5	21	3/4/11		20	Gate
15529 Centipede Dr		5	19	3/4/11		20	Gate
15603 Centipede Dr		6	1	3/4/11		17	Butterfly
15208 Aspen Dr		5	1	3/4/11		20	Gate
15208 Aspen Dr		5	2	3/4/11		20	Gate
15657 Centipede Dr		6	2	3/4/11	Need Valve Trailer	N/A	N/A
16613 Kim Dr		6	17	3/9/11		18	Butterfly
16601 Grassland		6	6	3/9/11		20	Gate
16445 Dixie Mine Trail		6	14	3/9/11		18	Butterfly
16445 Dixie Min Trail		6	15	3/9/11		18	Butterfly
14045 Kendall		68	20	3/10/11		18	Butterfly
17404 Calaveras Dr		60	34	3/11/11		19	Gate
Cavern Dr		76	7	3/12/11		21	Gate
Cavern Dr		85	15	3/12/11		21	Gate
16704 Saguaro Blvd		178	16	3/15/11		20	Gate
16424 N Kim Dr		6	16	3/15/11		18	Butterfly
16803 Stoneridge Ct		6	24	3/16/11	Need to Locate	N/A	N/A
16858 Stoneridge Ct		6	23	3/17/11		17	Butterfly
16447 Boulder Dr		6	28	3/17/11		17	Butterfly
11227 N Amhurst Dr		129	3	3/18/11		17	Butterfly
14818 Fountain Hills BLvd		48	44	3/23/11		20	Gate
13829 Sunflower		66	9	3/23/11		21	Gate
15212 Maple Dr		37	14	3/23/11		18	Gate
14834 Briarwood Dr		48	24	3/23/11	Need Valve Trailer	N/A	N/A
17418 El Pueblo Blvd		40	24	3/28/11	Fair	17	Butterfly
17418 El Pueblo Blvd		40	25	3/28/11	Fair	18	Butterfly
14519 Edgewater Ct		13	11	3/28/11		19	Gate
16209 Edgewater Dr		13	24	3/28/11		18	Gate
14611 Golden Eagle Blvd		13	9	3/28/11		17	Butterfly
14510 Golden Eagle Blvd		3	14	3/28/11		17	Butterfly
17442 El Pueblo Blvd		40	27	3/28/11		17	Butterfly
14725 Golden Eagle Blvd		13	28	3/28/11		17	Butterfly
16229 Edgewater Dr		13	20	3/28/11	Need To Locate	N/A	N/A
15107 El Pueblo Blvd		49	20	3/28/11	Need To Locate	N/A	N/A
14805 Cerra Alto Dr		14	1	3/29/11	Fair	17	Butterfly
16050 San Andres		14	26	3/29/11		21	Gate
14855 San Andres		14	27	3/29/11		21	Gate
16208 Sunridge Dr		14	14	3/29/11		21	Gate
16209 Maria Ct		14	13	3/29/11		21	Gate
12233 Falcon		109	6	3/30/11	Fair	19	Gate
12007 Falcon		109	45	3/30/11		22	Gate
16659 LaST Trail Dr		188	10	4/4/11		21	Gate
15034 Ridgeway Dr		104	47	4/5/11		20	Gate
Jeep Trail		83	2	4/7/11	Closed	20	Gate
Jeep Trail		83	7	4/7/11	Closed	20	Gate
12430 Alley Dr		99	24	4/7/11		19	Gate
145th way & Larkspur Dr		93	24	4/7/11		20	Gate
145th way & Jeep trail		83	33	4/7/11		20	Gate
Jeep Trail		83	4	4/7/11		20	Gate

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
Jeep Trail		83	3	4/7/11		20	Gate
Jeep Trail		83	5	4/7/11		20	Gate
Jeep Trail		83	6	4/7/11		20	Gate
14518 Jeep Trail		83	8	4/7/11		20	Gate
14678 Jeep Trail		83	9	4/7/11		20	Gate
16405 Heather Dr		58	2	4/11/11		18	Gate
16006 Carmel		47	12	4/11/11		17	Butterfly
14852 Golden Eagle Blvd		14	20	4/12/11		17	Butterfly
16615 Chama Dr		98	16	4/12/11		17	Butterfly
16307 Fountain hills Blvd		97	19	4/18/11		17	Butterfly
14012 Fountain Hills Blvd		67	43	4/18/11		20	Gate
16436 Desert Sage		98	6	4/18/11		20	Gate
16401 Shea Blvd		147	22	4/18/11	Need To Locate	N/A	N/A
15206 Rusty Nail ct		15	6	4/19/11	Fair	17	Butterfly
16455-4 Ave of Ftn		78	21	4/19/11		17	Butterfly
Wild Horse Way & Palomino Blvd		115	16	4/19/11		21	Gate
Wild Horse Way & Palomino Blvd		115	17	4/19/11		21	Gate
16428 Golden Eagle Blvd		15	2	4/19/11		17	Butterfly
16204 Cerro Alto Dr		14	34	4/19/11		18	Butterfly
15303 Two Gun Cir		15	12	4/19/11		18	Butterfly
15013 Golden Eagle Blvd		14	30	4/19/11	Need To Locate	N/A	N/A
15045 Golden Eagle Blvd		14	35	4/19/11	Need To Locate	N/A	N/A
15329 Golden Eagle Blvd		15	13	4/20/11		17	Butterfly
15445 Richwood Ave		15	19	4/20/11	Need To Locate	N/A	N/A
12040 Saguaro Blvd		109	52	4/21/11		20	Gate
12040 Saguaro Blvd		109	53	4/21/11		20	Gate
12040 Saguaro Blvd		109	54	4/21/11		20	Gate
15417 Golden Eagle Blvd		15	18	4/21/11		21	Gate
15714 Tepee Dr		16	16	4/22/11		17	Butterfly
16405 Palo Verde		15	1	4/22/11		21	Gate
15839 Kim Dr		16	28	4/25/11	Fair	17	Butterfly
15855 Richwood Ave		16	47	4/25/11		20	Gate
16239 Boulder		16	42	4/25/11		17	Butterfly
15959 Centipede Dr		16	45	4/25/11		17	Butterfly
16035 Overlook Ct		16	1	4/25/11		17	Butterfly
15803 Richwood Ave		16	24	4/25/11		17	Butterfly
15745 Kipling Dr		16	17	4/25/11		17	Butterfly
15822 Kipling Dr		16	33	4/25/11		17	Butterfly
16027 Tabasco Cr		14	19	4/25/11		21	Gate
16003 Tabasco Cr		23	7	4/25/11		21	Gate
14603 Cholula Dr		23	5	4/25/11		20	Gate
14703 Cholula Dr		23	1	4/25/11		20	Gate
14711 Cholula Dr		23	3	4/25/11		20	Gate
14759 Cholula Dr		23	8	4/25/11		20	Gate
14825 Cholula Dr		24	1	4/25/11		20	Gate
15720 Cervantes Ct		16	14	4/25/11	Need To Locate	N/A	N/A
16405 Dixie Mine Trl		16	9	4/25/11	Need Vacuum	N/A	N/A
16049 Boulder Dr		16	35	4/26/11		17	Butterfly
16202 Boulder Dr		16	38	4/26/11		17	Butterfly
15629 Cabrillo Dr		24	19	4/26/11		21	Gate
15804 Cerro Alto Dr		24	25	4/26/11		21	Gate
16012 Cerro Alto Dr		24	22	4/26/11		21	Gate
15841 Cerro Alto Dr		24	23	4/26/11		21	Gate
14902 Cholula Dr		24	8	4/26/11		20	Gate
15645 Cholula Dr		24	26	4/26/11		20	Gate
16001 Sunridge Dr		24	9	4/26/11		20	Gate
15641 Norte Vista Dr		24	18	4/26/11		22	Gate
15837 Aspen Dr		25	9	4/27/11	broken Valve	N/A	N/A
Leo Dr & Saguaro Blvd		178	5	4/27/11	Fair	40	Butterfly
16416 Saguaro Blvd		178	4	4/27/11	Fair	17	Butterfly
Last Trail Dr & Saguaro Blvd		178	12	4/27/11	Fair	17	Butterfly
Technology Dr & Saguaro Blvd		179	3	4/27/11	Fair	40	Butterfly
15633 Eagles Nest Dr		25	19	4/27/11		17	Butterfly
15827 Norte Vista Dr		24	15	4/27/11		22	Gate
15617 Santa Maria Pl		24	14	4/27/11		22	Gate
16001 Norte Vista Dr		24	13	4/27/11		22	Gate
15625 Eagle View Ct		26	2	4/27/11		20	Gate
15657 Eagle View Ct		26	3	4/27/11		20	Gate
Leo Dr & Saguaro Blvd		178	2	4/27/11		20	Gate
15811 Eagle Nest Dr		25	12	4/27/11	Need Valve Trailer	N/A	N/A
15615 Jamaica Ln		26	1	4/28/11		17	Butterfly

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
15551 Jamaica Ln		25	20	4/28/11		17	Butterfly
15453 Golden Eagle Blvd		25	8	4/28/11		22	Gate
15405 Aspen Dr		25	16	4/28/11	Need To Locate	N/A	N/A
15305 Aspen Dr		25	4	4/28/11	Need To Locate	N/A	N/A
17433 Via Del Oro		100	13	5/5/11		21	Gate
15628 Tepee Dr		16	2	5/9/11		17	Butterfly
15554 Tepee Dr		15	20	5/9/11		17	Butterfly
16852 La Montana		79	5	5/10/11		21	Gate
16500 Leo Dr		188	5	5/11/11		20	Gate
15605 Golden Eagle Blvd		26	6	5/16/11		17	Butterfly
15657 Golden Eagle Blvd		35	1	5/17/11		17	Butterfly
15415 Castillo		34	1	5/23/11		18	Butterfly
15619 Boulder Dr		26	19	5/23/11		17	Butterfly
15651 Boulder Dr		26	16	5/23/11		17	Butterfly
14919 Avila Dr		34	11	5/23/11		17	Butterfly
14910 Corona Dr		34	2	5/23/11		19	Gate
14947 Sierra Madre Dr		34	30	5/23/11		17	Butterfly
15919 Rocky Mountain Place		26	15	5/23/11		17	Butterfly
15263 Castillo Dr		34	9	5/23/11		18	Butterfly
15203 Castillo Dr		34	34	5/24/11		18	Butterfly
15239 Zapata Dr		34	53	5/24/11		18	Butterfly
16009 Lantana Ln		87	14	5/24/11		20	Gate
15024 Tequesta Ct		34	49	5/24/11		21	Gate
15445 Sunridge Dr		34	19	5/24/11		21	Gate
15020 Sierra Madre Dr		34	23	5/24/11		21	Gate
15220 Zamora		34	17	5/24/11	Need Valve Truck	N/A	N/A
15030 Pancho Villa Place		44	31	5/25/11		21	Gate
15449 Cabrillo Dr		34	38	5/25/11		23	Gate
15121 Cabrillo Dr		34	39	5/25/11		23	Gate
15233 Alvarado Dr		34	45	5/25/11		21	Gate
15610 Cerro Alto Dr		35	1	5/25/11		21	Gate
15725 Princess Ct		36	5	5/25/11		20	Gate
15745 Princess Ct		36	11	5/25/11		20	Gate
15620 Sierra Madre Dr		35	19	5/25/11		20	Gate
15420 Sierra Madre Dr		35	16	5/25/11		20	Gate
15045 Elena Dr		45	1	5/25/11		18	Butterfly
15203 San Diego Cirlce		35	12	5/25/11		18	Butterfly
15306 Sierra Madre Dr		35	10	5/25/11		18	Butterfly
15101 Pancho Villa		34	48	5/25/11		20	Gate
15034 Los Mochos Ct		34	50	5/25/11		19	Gate
15211 Elena Dr		35	6	5/25/11		19	Gate
15614 Sierra Madre		36	7	5/25/11	Need To Locate	N/A	N/A
15201 Zapata Dr		34	45	5/25/11	Need Valve Trailer	N/A	N/A
15240 Sierra Madre Dr		35	4	5/25/11	Vavle Broken	N/A	N/A
15002 Toluca Cirlce		34	22	5/26/11		18	Butterfly
15215 San Tomas Pl		35	15	5/26/11		18	Butterfly
15338 Sierra Madre Dr		35	13	5/27/11		19	Gate
15244 Blackbird		37	5	5/31/11		17	Butterfly
16249 Glenbrook Blvd		37	20	5/31/11		17	Butterfly
16341 Glenbrook Blvd		37	27	5/31/11		17	Butterfly
16642 Glenbrook Blvd		38	15	5/31/11	Need To Locate	N/A	N/A
Ave of Ftns & La Montana		88	26	6/2/11		38	Butterfly
Ave of Ftns & La Montana		88	24	6/2/11		27	Gate
Ave of Ftns & La Montana		88	18	6/2/11		38	Butterfly
14807 Del Cambre Blvd		50	8	6/9/11		17	Butterfly
15231 Del Ray Dr		39	17	6/9/11		18	Butterfly
16811 ivory Dr		39	12	6/9/11		21	Gate
15637 Golden Eagle Blvd		36	1	6/9/11		21	Gate
15201 Boulder Dr		36	24	6/9/11		22	Gate
15423 Blackbird dr		37	1	6/9/11		21	Gate
15249 Alley		39	5	6/9/11		21	Gate
15026 Alley		39	15	6/9/11		20	Butterfly
15225 Fountain Hills Blvd		38	24	6/9/11		21	Gate
15107 El Pueblo Blvd		49	20	6/9/11	Need To Locate	N/A	N/A
16755 Fountain Hills Blvd		39	1	6/9/11	Need To Locate	N/A	N/A
17208 Baca Dr		40	1	6/15/11	Fair	17	Butterfly
17124 El Puebo Blvd		39	35	6/15/11	Fair	17	Butterfly
17208 Oro Grande Dr		40	11	6/15/11		21	Gate
17104 Oro Grande Dr		39	38	6/15/11		20	Gate
17308 Oro Grande Dr		40	19	6/15/11		17	Butterfly
17346 Oro Grande Dr		40	18	6/15/11		17	Butterfly

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
17206 El Pueblo Blvd		40	7	6/15/11		17	Butterfly
17002 El Pueblo Blvd		39	20	6/15/11	Need To Locate	N/A	N/A
17040 El Pueblo Blvd		39	36	6/15/11	Need To Locate	N/A	N/A
17228 Oro Grande Dr		40	13	6/15/11	Need To Locate	N/A	N/A
17024 Cascade Dr		39	32	6/15/11	Need To Locate	N/A	N/A
17318 Baca Dr		40	16	6/15/11	Need Vac Truck	N/A	N/A
17240 El Pueblo Blvd		40	14	6/15/11	Need Valve Trailer	N/A	N/A
14536 Gecko Ct		43	9	6/21/11		20	Gate
14628 Gecko Ct		43	10	6/21/11		21	Gate
14516 Shadow Canyon Dr		43	2	6/21/11		21	Gate
14426 Shadow Canyon Dr		43	1	6/21/11		21	Gate
14638 Shadow Canyon Dr		43	19	6/21/11		18	Butterfly
14806 Shadow Canyon Dr		43	24	6/21/11		22	Gate
14833 Shadow Canyon Dr		54	1	6/21/11		19	Gate
14734 Mariposa		43	18	6/21/11	Need To Locate	N/A	N/A
15035 Mayan Dr		44	2	6/22/11	Fair	18	Butterfly
14937 Zapata Dr		44	21	6/22/11		20	Gate
15015 Zapata Dr		44	25	6/22/11		20	Gate
14984 Aztec		44	28	6/22/11		20	Gate
14975 Mayan Dr		44	22	6/22/11		20	Gate
14925 Mayan Dr		44	16	6/22/11		20	Gate
15206 Mayan Dr		44	1	6/22/11		18	Butterfly
14815 Delgado Dr		43	25	6/22/11		18	Butterfly
14820 Delgado Dr		44	7	6/22/11		18	Butterfly
14610 Shadow Canyon Dr		43	11	6/22/11		20	Gate
14626 Deer Trail Ct		53	1	6/22/11		22	Gate
14526 Quartz Ct		53	5	6/22/11	Need Valve Trailer	N/A	N/A
15051 San Blas Ct		44	29	6/23/11		20	Gate
15116 Zapata Dr		44	34	6/23/11		22	Gate
14989 Zapata Dr		45	4	6/23/11		20	Gate
15004 Sundown Dr		44	30	6/23/11		21	Gate
15124 Sundown Dr		44	38	6/23/11		21	Gate
15214 Sundown Dr		54	20	6/23/11		21	Gate
15175 Zapata Dr		44	37	6/23/11	Need Valve Trailer	N/A	N/A
15244 Sundown Dr		55	3	6/23/11	Need Valve Trailer	N/A	N/A
14902 Sunridge Dr		44	12	6/24/11		20	Gate
15630 Tacony Dr		106	3	6/27/11		20	Gate
15805 Kim Dr		16	21	6/27/11		17	Butterfly
15816 Cactus Wren Ct		46	17	6/28/11		21	Gate
15724 Cactus Wren Ct		46	16	6/28/11		20	Gate
15544 Sundown Dr		45	13	6/28/11		20	Gate
15410 Wildcat Ct		45	12	6/28/11		20	Gate
15434 Sundown Dr		55	9	6/28/11		20	Gate
15354 Sundown Dr		55	7	6/28/11		20	Gate
15422 Peakview Ct		55	11	6/28/11		20	Gate
15422 Peakview Ct		55	17	6/28/11		20	Gate
15448 Peakview Ct		55	12	6/28/11		20	Gate
15350 Peakview Ct		55	10	6/28/11		20	Gate
15254 Sundown Dr		55	6	6/28/11		20	Gate
14990 Golden Eagle Blvd		46	21	6/28/11		20	Gate
15510 Palo Brea Ct		45	5	6/28/11		20	Gate
15712 Robin Dr		46	11	6/28/11		21	Gate
15614 Robin Dr		46	1	6/28/11		21	Gate
Sundown Dr & Wildcat Ct		45	9	6/28/11		27	Gate
Sundown Dr & Wildcat Ct		45	9	6/28/11		20	Gate
Sundown Dr & Wildcat Ct		45	11	6/28/11		27	Gate
15512 Chaparral Way		45	14	6/28/11	Need Valve Trailer	N/A	N/A
Panorama & El Lago Blvd		100	31	6/29/11		22	Gate
15100 Golden Eagle Blvd		46	35	6/29/11	Need Valve Trailer	N/A	N/A
16065 Overlook Ct		15	23	7/11/11	Fair	17	Butterfly
15638 Sunridge Dr		24	12	7/11/11		20	Gate
16755 Nicklaus Dr		17	17	7/12/11		17	Butterfly
15051 Escondido Dr		39	28	7/22/11		19	Gate
17118 Cascade Dr		39	33	7/28/11		17	Butterfly
17416 Oro Grande Dr		40	32	7/28/11		17	Butterfly
15305 Aspen Dr		25	4	7/29/11	Valve frozen open	N/A	N/A
17031 El Lago Blvd		99	70	8/1/11		14	Gate
17031 El Lago Blvd		99	69	8/1/11		20	Gate
Gunsight Dr & Saguaro Blvd		109	5	8/2/11		38	Gate
16740 Gunsight Dr		109	3	8/2/11		20	Gate
16740 Gunsight Dr		109	1	8/2/11		17	Butterfly

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
16740 Gunsight Dr		109	2	8/2/11		20	Gate
16657 Gunsight Dr		108	42	8/2/11		28	Gate
16657 Gunsight Dr		98	20	8/2/11		38	Gate
Inca & Amhurst		129	2	8/4/11		26	Gate
Inca & Amhurst		129	1	8/4/11		20	Gate
Teller & Amhurst		129	8	8/4/11		17	Butterfly
Pleasant Plaza & Amhurst		129		8/4/11	New	20	14
16657 Gunsight Dr		108	44	8/5/11		28	Gate
16657Gunsight Dr		98	78	8/5/11		20	Gate
16657 Gunsight Dr		109	3	8/5/11		17	Butterfly
14856 Fayette Dr		48	6	8/15/11		17	Butterfly
14874 Fayette Dr		48	8	8/15/11		18	Butterfly
14890 Fayette Dr		48	11	8/15/11		18	Butterfly
15965 Bainbridge Ave		47	2	8/15/11		18	Butterfly
16014 Glenbrook Blvd		47	5	8/15/11		18	Butterfly
15012 Maple Dr		47	15	8/15/11		17	Butterfly
16284 Balsam Dr		47	35	8/15/11		17	Butterfly
16106 Carmel Dr		47	32	8/15/11		17	Butterfly
16306 Carmel Dr		47	33	8/15/11	Valve frozen open	N/A	N/A
16520 Fayette Dr		48	27	8/16/11		18	Butterfly
16604 Oxford Dr		48	21	8/16/11		18	Butterfly
16440 Bradford Dr		48	2	8/16/11		17	Butterfly
14608 Winston Ln		58	34	8/16/11		21	Gate
16522 Oxford Dr		48	19	8/16/11		18	Butterfly
14634 Fairlynn Dr		48	59	8/16/11		17	Butterfly
15001 Stratford Cir		48	34	8/16/11		18	Butterfly
14662 Fairlynn Dr		48	50	8/16/11	Need To Locate	N/A	N/A
15028 Greenhurst Ave		48	16	8/16/11	Need Vac Trailer	N/A	N/A
15248 Mustang Dr		115	21	8/17/11		20	Gate
Palomino Blvd & Wild Horse Way		115	17	8/17/11		20	Gate
14849 Kings Way		49	9	8/17/11		21	Gate
14615 Fountain Hills Blvd		58	51	8/17/11		17	Butterfly
16815 Alamosa Ave		49	7	8/22/11		17	Butterfly
14648 Fountain Hills Blvd		48	51	8/22/11		17	Butterfly
El Lago Blvd & Mountainside Dr		87	10	8/23/11		25	Butterfly
12852 Mountainside Dr		81	18	8/23/11		24	Butterfly
14629 Winston Lane		48	26	8/25/11		17	Butterfly
14844 Greenhurst Ave		48	22	8/25/11		17	Butterfly
16604 Ocford Dr		48	21	8/29/11		18	Butterfly
10620 Indian Wells Dr		139	17	8/29/11		17	Butterfly
16538 Northstar		88	57	8/30/11		20	Gate
13023 Northstar		88	56	8/30/11		20	Gate
16540 Villas Estates #25		88	54	8/30/11		17	Butterfly
16540 Villas Estates #16		88	53	8/30/11		18	Butterfly
16560 Villa Estates #8		88	55	8/30/11		17	Butterfly
Palisades Blvd & Ridgeway Dr		104	37	9/1/11		38	Gate
Palisades Blvd & Ridgeway Dr		104	39	9/1/11		20	Gate
Palisades Blvd & Ridgeway Dr		104	38	9/1/11		38	Gate
Palisades Blvd & Palomino Blvd		104	31	9/1/11		38	Gate
Palisades Blvd & Palomino Blvd		104	36	9/1/11		38	Gate
Palisades Blvd & Palomino Blvd		104	53	9/1/11		20	Gate
Palisades Blvd & Palomino Blvd		104	30	9/1/11		20	Gate
Palomino Blvd & Bucking Bronco Blvd		115	1	9/1/11		20	Gate
Palisades Blvd & Mustang Dr		104	25	9/1/11		20	Gate
Hampstead Dr & Palisades Blvd		67	12	9/2/11	broken Valve	N/A	N/A
Hampstead Dr & Stancrest Rd		57	38	9/2/11	broken Valve	N/A	N/A
Hampstead Dr & Palisades Blvd		67	13	9/2/11		37	Butterfly
Hampstead Dr & Stancrest Rd		57	39	9/2/11		17	Butterfly
Hampstead Dr & Stancrest Rd		57	40	9/2/11		37	Butterfly
Fayette Dr & Hyde Park Dr		57	35	9/2/11		37	Butterfly
Fayette Dr & Hyde Park Dr		57	36	9/2/11		17	Butterfly
Fayette Dr & Bainbridge Ave		57	16	9/2/11		37	Butterfly
Fayette Dr & Bainbridge Ave		57	17	9/2/11		17	Butterfly
Fayette Dr & Balsam Dr		47	38	9/2/11		37	Butterfly
Fayette Dr & Balsam Dr		47	37	9/2/11		37	Butterfly
16800 El Lago Blvd		99	67	9/7/11		20	Gate
16800 El Lago Blvd		99	71	9/7/11		20	Gate
16800 El Lago Blvd		99	72	9/7/11		20	Gate
16800 El Lago Blvd		99	19	9/7/11		20	Gate
16800 El Lago Blvd		99	16	9/7/11		20	Gate
16800 El Lago Blvd		99	23	9/7/11		20	Gate

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16800 El Lago Blvd		99	19	9/7/11		20	Gate
16410 Westwind Ct		88	58	9/7/11		20	Gate
15507 Bainbridge Ave		46	37	9/21/11		20	Gate
16616 Palisades Blvd		78	72	9/22/11		20	Gate
17204 Sonoran Way		180	2	9/26/11		20	Gate
17124 Sonoran Way		179	52	9/29/11		20	Gate
17124 Rockwood Pl		179	63	10/3/11		21	Gate
17216 Kensington Pl		180	4	10/3/11		20	Gate
17136 Kensington Pl		179	67	10/3/11		20	Gate
17233 Rockwood Dr		180	6	10/3/11		20	Gate
17109 Grande Blvd		69	55	10/3/11		20	Gate
17109 Grande Blvd		69	56	10/3/11		20	Gate
17109 Grande Blvd		69	57	10/10/11		20	Gate
17120 Hillcrest Dr		169	26	10/17/11		20	Gate
17220 Hillcrest Dr		170	16	10/17/11		21	Gate
17216 Hillcrest Dr		170	17	10/17/11		21	Gate
15611 Mustang Dr		126	28	10/20/11	Broken Valve Open	N/A	N/A
15610 Mustang Dr		126	2	10/20/11		23	Gate
15612 Mustang Dr		126	27	10/20/11		21	Gate
Mustang Dr & Pinto Dr		115	29	10/20/11		20	Gate
Mustang Dr & Pinto Dr		115	30	10/20/11		22	Gate
11245 Pinto Dr		125	13	10/20/11		21	Gate
11245 Pinto Dr		125	12	10/20/11		20	Gate
15203 Escondido Dr		49	32	10/20/11		17	Butterfly
16927 Sabinas Dr		49	35	10/20/11		20	Gate
16834 Alamosa Ave		49	25	10/20/11		17	Butterfly
16836 Mirage Crossing Ct		49	24	10/20/11		23	Gate
17028 Deerskin Dr		49	53	10/20/11	Need Trailer	N/A	N/A
16934 Deerskin Dr		49	36	10/20/11	Need Trailer	N/A	N/A
16849 Alamosa Ave		49	29	10/20/11	Valve Frozen Open	N/A	N/A
14457 La Costa Dr		59	19	10/26/11	Fair	22	Gate
14625 Olympic Way		59	5	10/26/11		20	Gate
14849 Kings Way		49	14	10/26/11		20	Gate
14614 Kings Way		59	6	10/26/11		20	Gate
14658 Kings Way		49	30	10/26/11		20	Gate
14601 La Costa Dr		59	21	10/26/11		19	Gate
13217 El Pueblo Blvd		90	24	10/26/11		24	Gate
16888 Sterling Way		59	14	10/26/11	Need Trailer	N/A	N/A
13246 El Pueblo Blvd		90	26	10/26/11	Need Trailer	N/A	N/A
16035 Overlook Ct		16	1	11/9/11		17	Butterfly
15225 Glenbrook Blvd		38	24	11/10/11		17	Butterfly
Kingstree & Fountain Hills Blvd		127	5	11/16/11		37	Gate
Kingstree & Fountain Hills Blvd		127	6	11/16/11		47	Gate
Kingstree & Fountain Hills Blvd		127	4	11/16/11		56	Butterfly
Kingstree & Fountain Hills Blvd		127	7	11/16/11		37	Gate
16525 Ave of the Ftns		88	10	11/29/11		20	Gate
16525 Ave of the Ftns		88	9	11/29/11		20	Gate
16525 La Montana		88	15	11/29/11		27	Gate
16525 La Montana		88	16	11/29/11		38	Gate
16525 La Montana		88	13	11/29/11		38	Gate
16525 La Montana		88	12	11/29/11		38	Gate
16525 La Montana		88	76	11/29/11		38	Gate
16525 La Montana		88	77	11/29/11		25	Gate
16605 La Montana		88	19	11/29/11		17	Butterfly
16525 La Montana		88	14	11/29/11		17	Butterfly
Post Office		88	13	11/29/11	Need To Locate	N/A	N/A
14614 Love Ct		59	3	12/1/11		23	Gate
14644 Love Ct		49	19	12/1/11		21	Gate
17031 El Lago Blvd		99	55	12/1/11		17	Butterfly
17020 El Lago Blvd		99	51	12/1/11		18	Butterfly
12645 Saguaro Blvd		99	48	12/1/11	Need To Locate	N/A	N/A
11832 Saguaro Blvd		119	50	12/2/11		17	Butterfly
11679 Saguaro Blvd		120	3	12/2/11	Need Valve Trailer	N/A	N/A
12220 Teal Dr		109	46	12/5/11		20	Gate
Duncan Donuts		78	1	12/8/11		20	Gate
Duncan Donuts		78	5	12/8/11		20	Gate
Duncan Donuts		77	76	12/8/11		20	Gate
15030 Calle Del Prado		49	45	12/9/11		17	Butterfly
15006 Calle Del Prado		49	48	12/9/11		17	Butterfly
14806 Calle Del Prado		49	56	12/9/11		17	Butterfly
17001 Alamosa Ave		49	40	12/9/11	Need To Locate	N/A	N/A

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
14837 Deerskin Dr		49	52	12/9/11	Need Vac Truck	N/A	N/A
16402 Crystal Point Dr		88	7	12/15/11	Need To Locate	N/A	N/A
16540 Gunsight Dr		108	44	12/19/11		20	Gate
16615 Gunsight Dr		109	4	12/19/11		20	Gate
17030 Alamosa Ave		49	66	12/20/11	Need To Locate	N/A	N/A
14648 Del Cambre Ave		49	59	12/20/11	Need To Locate	N/A	N/A
17005 Alamosa Ave		49	41	12/20/11	Need Vac Truck	N/A	N/A
16929 Nickalus Dr		149	11	12/27/11		17	Butterfly
Leo Dr & Powderhorn Dr				12/27/11		20	Gate
16500 Leo Dr		188	4	12/27/11		20	Gate
16500 Leo Dr		188	5	12/27/11		20	Gate
16532 Leo Dr		188	6	12/27/11		20	Gate
16532 Leo Dr		188	7	12/27/11		20	Gate
9016 Desperado Ct		188	3	12/27/11		20	Gate
16245 Powderhorn Dr		187	8	12/27/11		20	Gate
16101 Powderhorn Dr		187	4	12/27/11		20	Gate
16329 Powderhorn Dr		177	25	12/27/11		20	Gate
16113 Powderhorn Dr		187	6	12/27/11		20	Gate
10409 Nickalus Dr		150	6	12/27/11		17	Butterfly
10437 Nickalus Dr		149	21	12/27/11		20	Gate
16801 Nickalus Dr		149	5	12/27/11	Need Vac Trailer	N/A	N/A
10203 Nickalus Dr		149	15	12/27/11	Need Valve Trailer	N/A	N/A
13227 Mimosa Dr		77	21	12/28/11		20	Gate
13227 Mimosa Dr		77	20	12/28/11		20	Gate
13227-2 Mimosa Dr		77	23	12/28/11		20	Gate
13227 Mimosa Dr		87	1	12/28/11		20	Gate
13227 Mimosa Dr		87	3	12/28/11		20	Gate
13227 Mimosa Dr		87	2	12/28/11		20	Gate
13227 Mimosa Dr		87	5	12/28/11		20	Gate
13227-1 Mimosa Dr		87	5	12/28/11		20	Gate
16714 Nickalus Dr		148	12	12/28/11		17	Butterfly
Nickalus Dr & Indian Wells		149	25	12/28/11		20	Gate
9032 Firebrick Dr		189	11	12/28/11		20	Gate
9032 Firebrick Dr		189	12	12/28/11		20	Gate
9017 Firebrick Dr		189	14	12/28/11		22	Gate
9096 Firebrick Dr		189	5	12/28/11		20	Gate
9096 Firebrick Dr		189	6	12/28/11		20	Gate
16821 Last Trail Dr		189	2	12/28/11		20	Gate
16821 Last Trail Dr		189	1	12/28/11		20	Gate
16565 Saguaro Blvd		178	13	12/28/11		17	Butterfly
16923 Last Trail Dr		189	4	12/28/11		17	Butterfly
16923 Last Trail Dr		189	3	12/28/11		17	Butterfly
9015 Firebrick Dr		189	13	12/28/11		20	Gate
9238 Firebrick Dr		179	15	12/28/11		20	Gate
9408 Firebrick Dr		179	10	12/29/11		17	Butterfly
16820 Saguaro Blvd		179	2	12/29/11		20	Gate
16216 Tombstone Ave		177	19	12/29/11		19	Gate
16234 Red Mountain Trail		177	23	12/29/11		20	Gate
16211 Red Mountain Trail		177	24	12/29/11		20	Gate
16602 Saguaro Blvd		178	14	12/29/11		20	Gate
9253 Firebrick Dr		179	17	12/29/11		20	Gate
9253 Firebrick Dr		179	18	12/29/11		20	Gate
16335 Tombstone Trail		178	3	12/29/11	Need Valve Trailer	N/A	N/A
16508 Laser Dr		178	28	1/2/12		19	Gate
14971 Summit Dr		104	11	1/10/12		20	Gate
17340 Grande Blvd		70	49	1/11/12		17	Butterfly
17218 Grande Blvd		70	11	1/11/12		17	Butterfly
Del Cambre Ave & Grande Blvd		70	6	1/11/12		17	Butterfly
Arrowhead Dr & Grande Blvd		70	15	1/11/12		17	Butterfly
Saguaro Blvd & Leo Dr		178	5	1/12/12		17	Butterfly
Gunsight Dr & Saguaro Blvd		109	4	1/13/12	Fair	17	Butterfly
Shea Blvd & Valley Vista Dr		144	3	1/18/12	Doesn't Exist. Never Put In	N/A	N/A
15025 Camelview Dr		184	10	1/18/12		26	Gate
Palisades Blvd & Valley Vista Dr		134	10	1/18/12		20	Gate
Valley Vista Dr & Skyline Dr		144	8	1/18/12		26	Gate
Valley Vista Dr & Skyline Dr		144	10	1/18/12		26	Gate
Valley Vista Dr & Skyline Dr		144	9	1/18/12		26	Gate
Valley Vista Dr		144	7	1/18/12		26	Gate
Valley Vista Dr		144	6	1/18/12		26	Gate
Valley Vista Dr		144	5	1/18/12		21	Gate
Valley Vista Dr		144	4	1/18/12		25	Gate

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Shea Blvd		144	15	1/18/12		20	Gate
Shea Blvd		144	24	1/18/12		20	Gate
Shea Blvd		144	25	1/18/12		20	Gate
Shea Blvd & Valley Vista Dr		144	1	1/18/12		20	Gate
15036 Camelview Dr		184	11	1/18/12		20	Gate
Shea Blvd		144	23	1/18/12		20	Gate
Palisades Blvd & Valley Vista Dr		144	12	1/18/12		39	Gate
Palisades Blvd & Valley Vista Dr		144	13	1/18/12		39	Gate
Valley Vista Dr & Palisades Blvd		144	29	1/18/12		50	Gate
Palisades Blvd & Valley Vista Dr		144	11	1/18/12	Good. Was Closed/ Now Open	26	Gate
Camelview Dr		184	9	1/18/12	Good/ Closed Red Cap	26	Gate
Skyline Dr		134	2	1/19/12		26	Gate
Skyline Dr		134	4	1/19/12		26	Gate
Skyline Dr		134	3	1/19/12		20	Gate
Skyline Dr		134	5	1/19/12		20	Gate
Skyline Dr & Mountain Vista Ct		134	6	1/19/12		26	Gate
Skyline Dr & Mountain Vista Ct		134	7	1/19/12		26	Gate
Skyline Dr & Mountain Vista Ct		134	8	1/19/12		26	Gate
Skyline Dr		134	9	1/19/12		20	Gate
Skyline Dr		134	26	1/19/12		28	Gate
Skyline Dr		134	27	1/19/12		26	Gate
Mountain Vista Ct		134	11	1/19/12		20	Gate
Mountain Vista Ct & Sonora Vista		134	12	1/19/12		28	Gate
Mountain Vista Ct & Sonora Vista		134	13	1/19/12		26	Gate
Mountain Vista Ct & Sonora Vista		134	14	1/19/12		26	Gate
Mountain Vista Ct		134	16	1/19/12		20	Gate
Mountain Vista Ct		134	15	1/19/12		28	Gate
Mountain Vista Ct		134	18	1/19/12		20	Gate
Mountain Vista Ct		134	17	1/19/12		26	Gate
Sonora Vista		134	21	1/19/12		20	Gate
Sonora Vista		134	28	1/19/12		26	Gate
Sonora Vista		134	20	1/19/12		20	Gate
Sonora Vista		134	19	1/19/12		26	Gate
Palisades Blvd		134	24	1/19/12		26	Gate
Palisades Blvd		134	31	1/19/12		20	Gate
13227 Eagle Ridge Dr		83	17	1/19/12		28	Gate
13228 Eagle Ridge Dr		83	15	1/19/12		28	Gate
Palisades Blvd		134	30	1/19/12		38	Gate
Palisades Blvd		134	29	1/19/12		50	Gate
Palisades Blvd		134	25	1/19/12	Good/ Closed Red Cap	26	Gate
13225 Eagle Ridge Dr		83	14	1/23/12		38	Gate
13226 Eagle Ridge Dr		83	13	1/23/12		38	Gate
Shea Blvd		145	29	1/23/12		20	Gate
Shea Blvd		145	28	1/23/12		26	Gate
9236 Horizon Trail		177	11	1/23/12		28	Gate
16628 Saguaro Blvd		178	31	1/23/12		14	Gate
13225 Eagle Ridge Dr		83	16	1/23/12		20	Gate
Shea Blvd		145	27	1/23/12		72	Gate
9237 Horizon Trail		177	9	1/23/12	Need Vac Truck	N/A	N/A
9238 Horizon Trail		177	10	1/23/12	Need Vac Truck	N/A	N/A
Holiday Inn & Paul Nordin Parkway		99	5	1/24/12		20	Gate
16907 Augusta Ct		139	29	1/24/12		15	Gate
Desert Canyon & Golden Eagle Blvd		56	14	1/24/12		20	Gate
Desert Canyon & Golden Eagle Blvd		56	15	1/24/12		28	Gate
16354 Palisades Blvd		78	3	1/25/12		15	Gate
16355 Palisades Blvd		78	4	1/25/12		21	Gate
Summer Hill Blvd & Lake Meter		164	37	1/25/12		38	Gate
Summer Hill Blvd & Lake Meter		164	36	1/25/12		38	Gate
Summer Hill Blvd & Lake Meter		164	38	1/25/12		38	Gate
Golden Eagle Blvd & F.H. High School		66	42	1/26/12	Fair	38	Gate
F.H. High School & Palisades Blvd		67	58	1/26/12		38	Gate
F.H. High School & Palisades Blvd		67	59	1/26/12		38	Gate
Golden Eagle Blvd & F.H. High School		66	43	1/26/12		38	Gate
Golden Eagle Blvd & F.H. High School		66	37	1/26/12		20	Gate
Golden Eagle Blvd & F.H. High School		66	39	1/26/12		38	Gate
Golden Eagle Blvd & F.H. High School		66	40	1/26/12		19	Gate
16761 Technology Dr		178	17	1/30/12		20	Gate
16502 Saguaro Blvd		178	10	1/30/12		21	Gate
16416 Saguaro Blvd		178	4	1/30/12	Good, New Valve Can	20	Gate
16749-1 Technology Dr		168	10	1/30/12	Need To Locate	N/A	N/A
16731 Technology Dr		168	14	1/30/12	Need Valve Trailer	N/A	N/A

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
15426 Mustang Dr		125	9	2/3/12		17	Butterfly
Mustang Dr & Wild Horse Way		115	18	2/3/12		20	Gate
Mustang Dr & Wild Horse Way		115	20	2/3/12		20	Gate
11010 Saguaro Blvd		130	24	2/4/12		20	Gate
11010 Saguaro Blvd		130	25	2/5/12		18	Gate
11010 Saguaro Blvd		130	26	2/6/12		19	Gate
11010 Saguaro Blvd		130	27	2/7/12		20	Gate
13227-3 Mimosa Dr		77	22	2/7/12		20	Gate
15035 Staghorn Dr		54	57	2/7/12		20	Gate
11010 Saguaro Blvd		140	2	2/7/12	Good. Fire System Shut off	15	Gate
11010 Saguaro Blvd		130	28	2/7/12	Good. Fire System Shut off	14	Gate
14902 Sunridge Dr		44	12	2/8/12		20	Gate
16203 Powderhorn Dr		187	7	2/13/12		20	Gate
17218 Alta Loma		90	15	2/15/12		20	Gate
17212 Alta Loma		90	11	2/15/12		20	Gate
17210 Vista Del Lago		90	3	2/15/12		20	Gate
13013-6 Panorama Dr		89	66	2/15/12		20	Gate
13013 Panorama Dr		89	61	2/15/12		20	Gate
13013-5 Panorama Dr		89	62	2/15/12		20	Gate
13013-4 Panorama Dr		89	64	2/15/12		20	Gate
Vista Del Lago		90	5	2/17/12		26	Gate
Vista Del Lago		90	4	2/17/12		26	Gate
13013-2 Panorama Dr		90	4	2/17/12		20	Gate
9048 Firebrick Dr		189	12	2/17/12		20	Gate
17225 Shea Blvd		190	6	2/17/12		28	Gate
17225 Shea Blvd		190	7	2/17/12		38	Gate
17205 Shea Blvd		189	17	2/17/12		20	Gate
17205 Shea Blvd		189	16	2/17/12		20	Gate
Panorama Dr & Vista Del Lago		90	8	2/21/12		26	Gate
Panorama Dr & Vista Del Lago		90	7	2/21/12		20	Gate
La Ronda Ct & Alta Loma		90	12	2/21/12		12	Gate
La Ronda Ct & Alta Loma		90	13	2/21/12		20	Gate
Alta Loma		90	9	2/21/12		20	Gate
Alta Loma		90	10	2/21/12		20	Gate
17303 Alta Loma		90	18	2/21/12		20	Gate
17314 Alta Loma		90	17	2/21/12		20	Gate
17322 Alta Loma		90	16	2/21/12		20	Gate
14431 El Pueblo Blvd		60	40	2/22/12		17	Butterfly
16838 Ave of The Fountain		89	28	2/23/12		20	Gate
16871 Ave of The Ftn		89	17	2/24/12		20	Gate
15743 Jericho Dr		86	9	2/24/12		17	Butterfly
11205 Garland Cir		125	4	3/2/12		20	Gate
11205 Garland Cir		125	5	3/2/12		20	Gate
17224 Grande Blvd		70	12	3/5/12		17	Butterfly
17224 Grande Blvd		70	11	3/5/12		17	Butterfly
Fountain Hills Blvd & Pinto Dr		136	10	3/5/12		38	Gate
13013 Panorama Dr		89	70	3/6/12		25	Gate
13013 Panorama Dr		89	69	3/6/12		20	Gate
17332 San Marcus Dr		50	25	3/6/12		17	Butterfly
17332 San Marcus Dr		50	24	3/6/12		17	Butterfly
13013 Panorama Dr		89	59	3/6/12		25	Gate
13013 Panorama Dr		89	63	3/6/12		20	Gate
13013 Panorama Dr		89	65	3/6/12		20	Gate
13013 Panorama Dr		89	67	3/6/12		20	Gate
13013 Panorama Dr		89	60	3/6/12	Need To Locate	N/A	N/A
16748 Emerald Dr		129	49	3/7/12		18	Butterfly
Fountain Hills Blvd & Pinto Dr		136	11	3/7/12		20	Gate
Fountain Hills Blvd & Pinto Dr		136	10	3/7/12		38	Gate
Fountain Hills Blvd & Muskrat Ln		136	14	3/7/12		38	Gate
Fountain Hills Blvd & Muskrat Ln		136	13	3/7/12		20	Gate
10653 Muskrat Ln		136	12	3/7/12	New	20	Gate
17404 La Pasada Dr		60	32	3/9/12	Fair	17	Butterfly
14451 El Pueblo Blvd		60	45	3/9/12		17	Butterfly
14451 El Pueblo Blvd		60	46	3/9/12		17	Butterfly
14451 El Pueblo Blvd		60	47	3/9/12		25	Butterfly
17404 La Pasada Dr		60	33	3/9/12	Need Vac Truck	N/A	N/A
16649 Nicklaus Dr		148	11	3/12/12		18	Butterfly
17434 La Pasada Dr		60	41	3/12/12		17	Butterfly
17434 La Pasada Dr		60	42	3/12/12		17	Butterfly
17434 La Pasada Dr		60	43	3/12/12		17	Butterfly
San Marcus Dr & El Sobrante Ave		50	13	3/12/12	Need To Locate	N/A	N/A

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
17342 San Marcus Dr		50	22	3/12/12	Need To Locate	N/A	N/A
San Marcus Dr & El Sobrante Ave		50	11	3/12/12	Need Valve Trailer	N/A	N/A
San Marcus Dr & El Sobrante Ave		50	12	3/12/12	Need Valve Trailer	N/A	N/A
17342 San Marcus Dr		50	23	3/12/12	Need Valve Trailer	N/A	N/A
14621 El Pueblo Blvd		60	49	3/14/12	Fair	17	Butterfly
15414 Jojoba Ln		65	43	3/14/12		21	Gate
15248 Mustang Dr		115	22	3/14/12		22	Gate
14627 Armino Dr		60	36	3/14/12		17	Butterfly
16611 Laser Dr		178	22	3/14/12		20	Gate
16731 Technology Dr		178	17	3/14/12		20	Gate
14621 El Pueblo Blvd		60	48	3/14/12		17	Butterfly
16508 Laser Dr (Alley)		178	30	3/14/12		20	Gate
14627 Armino Dr		60	37	3/14/12	Need To Locate	N/A	N/A
14637 El Sobrante Ave		50	14	3/14/12	Need Vac Truck	N/A	N/A
Del Cambre Blvd & El Sobrante Ave		50	6	3/14/12	Need Valve Trailer	N/A	N/A
Del Cambre Blvd & El Sobrante Ave		50	7	3/14/12	Need Valve Trailer	N/A	N/A
16731 Technology Dr		168	14	3/14/12	Need Valve Trailer	N/A	N/A
14836 El Sobrante Ave		50	10	3/14/12	Need Valve Trailer	N/A	N/A
17006 Calle Del Oro		49	42	3/19/12		20	Gate
14209 Calle Del Oro		59	74	3/19/12		20	Gate
10811 Kino Dr		135	17	3/20/12		20	Gate
9015 Lava Bluff		186	3	3/20/12		20	Gate
16151 Maple Dr		37	14	3/21/12		18	Butterfly
17431 Caliente Dr		50	36	3/22/12		17	Butterfly
17431 Caliente Dr		50	35	3/22/12		17	Butterfly
17302 Vallorosa Dr		50	28	3/22/12	Need Valve Trailer	N/A	N/A
17302 Vallorosa Dr		50	27	3/22/12	Need Valve Trailer	N/A	N/A
16276-3 La Vida Buena		87	49	3/23/12		20	Gate
16276-2 La Vida Buena		77	45	3/23/12		20	Gate
Chiquita Dr & Piedra Blanca Dr		77	48	3/23/12		20	Gate
Chiquita Dr & Piedra Blanca Dr		77	46	3/23/12		20	Gate
Chiquita Dr & Piedra Blanca Dr		77	47	3/23/12		20	Gate
14647 El Pueblo Blvd		50	56	3/26/12	Fair	17	Butterfly
16239 Emerald Dr		127	31	3/26/12		17	Butterfly
17326 Calaveras Ave		60	19	3/26/12		20	Gate
17326 Calaveras Ave		60	20	3/26/12		17	Butterfly
14647 El Pueblo Blvd		60	50	3/26/12		20	Gate
17330 Vallorosa Dr		50	26	3/26/12		17	Butterfly
17326 Calaveras Ave		60	21	3/26/12	Need Vac Truck	N/A	N/A
17412 San Marcus Dr		50	39	3/26/12	Need Vac Truck	N/A	N/A
17412 San Marcus Dr		50	38	3/26/12	Need Vac Truck	N/A	N/A
17412 San Marcus Dr		50	37	3/26/12	Need Vac Truck	N/A	N/A
Palomino Blvd & Wild Horse Way		115	16	3/27/12		20	Gate
Palomino Blvd & Winchester Dr		115	9	3/27/12		21	Gate
Palomino Blvd & Winchester Dr		115	8	3/27/12		20	Gate
15307 Palomino Blvd		115	15	3/27/12		20	Gate
17303 Caliente Dr		50	21	3/27/12		17	Butterfly
17339 Caliente Dr		50	20	3/27/12		17	Butterfly
17339 Caliente Dr		50	19	3/27/12		17	Butterfly
14826 Caliente Dr		50	5	3/27/12		20	Gate
14826 Caliente Dr		50	3	3/27/12		20	Gate
14826 Caliente Dr		50	4	3/27/12		20	Gate
15420 Sierra Madre Dr		35	16	3/28/12		20	Gate
16525 Laser Dr		178	26	3/28/12		20	Gate
16508 Laser Dr		178	28	3/28/12		20	Gate
17412 Tejon Dr		50	32	3/29/12		17	Butterfly
17412 Tejon Dr		50	34	3/29/12		18	Butterfly
17412 Tejon Dr		50	33	3/29/12		20	Gate
15414-1 F.H. Middle School		38	22	3/29/12		20	Gate
15414-2 F.H. Middle School		38	20	3/29/12		20	Gate
15414-3 F.H. Middle School		38	28	3/29/12		20	Gate
15414-4 F.H. Middle School		38	29	3/29/12		20	Gate
15414-5 F.H. Middle School		38	31	3/29/12		20	Gate
15414-6 F.H. Middle School		38	32	3/29/12		20	Gate
15414-7 F.H. Middle School		38	30	3/29/12		20	Gate
17340 Tejon Dr		50	15	3/29/12		17	Butterfly
17340 Tejon Dr		50	17	3/29/12		20	Gate
15008 El Sobrante Ave		50	1	3/29/12		17	Butterfly
15008 El Sobrante Ave		50	2	3/29/12		17	Butterfly
17434 Tejon Dr		50	30	3/29/12		17	Butterfly
17434 Tejon Dr		50	31	3/29/12		17	Butterfly

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16450-5 Ave of the Fountains		78	77	3/29/12		20	Gate
16450-4 Ave of the Fountains		78	76	3/29/12		20	Gate
16450-3 Ave of the Fountains		78	75	3/29/12		20	Gate
16450-2 Ave of the Fountains		78	74	3/29/12		20	Gate
16450-1 Ave of the Fountains		78	73	3/29/12		20	Gate
16445 Palisades Blvd		78	33	3/29/12		20	Gate
14629 El Sobrante Ave		50	57	3/29/12		17	Butterfly
14629 El Sobrante Ave		50	58	3/29/12		20	Gate
16811 El Lago Blvd		99	23	3/29/12		17	Butterfly
16811 El Lago Blvd		99	80	3/29/12		17	Butterfly
17340 Tejon Dr		50	16	3/29/12	Need Vac Truck	N/A	N/A
17434 Tejon Dr		50	29	3/29/12	Need Valve Trailer	N/A	N/A
14410 Golden Eagle Blvd		13	1	3/29/12	Valve Was Closed-Good	20	Gate
12237 Falcon Dr		110	6	3/30/12		19	Gate
14629 El Sobrante Ave		50	58	4/4/12		20	Gate
15848 Sycamore Dr		106	12	4/12/12	Fair	19	Gate
Santa Rosa Ln & San Carlos		60	57	4/12/12		16	Gate
15741 Cholla Dr		96	12	4/12/12		17	Butterfly
15741 Cholla Dr		96	11	4/12/12		17	Butterfly
11057 Buffalo Dr		125	14	4/19/12		20	Gate
Sundance Way & Buffalo Dr		125	15	4/19/12		20	Gate
11245 Buffalo Dr		125	8	4/19/12		20	Gate
Graceland Cir & Buffalo Dr		125	5	4/19/12		20	Gate
14909 Rhoads Ct		84	26	4/19/12		20	Gate
14950 Sunridge Dr		84	25	4/19/12		20	Gate
14200 Del Cambre Ave		59	77	4/23/12	Fair	19	Gate
15611 Palisades Blvd		76	3	4/23/12	Fair	23	Gate
14410 Del Cambre Ave		59	64	4/23/12		18	Gate
14410 Del Cambre Ave		59	63	4/23/12		18	Gate
14201 Del Cambre Ave		59	78	4/23/12	Need To Locate	N/A	N/A
14202 Del Cambre Ave		59	79	4/23/12	Need To Locate	N/A	N/A
14232 Yerba Buena Way		59	72	4/24/12	Fair, Valve was off	19.5	Gate
C.A.P.				4/24/12		3	Butterfly
C.A.P.				4/24/12		3	Butterfly
C.A.P.				4/24/12		3	Butterfly
C.A.P.				4/24/12		3	Butterfly
14232 Yerba Buena Way		59	73	4/24/12	Need Valve Trailer	N/A	N/A
17022 Calle Del Flores		59	67	4/27/12	Fair	18.5	Gate
17005 Calle La Fuenda		59	49	4/30/12	Need To Locate	N/A	N/A
17005 Calle La Fuenda		59	45	4/30/12	Need To Locate	N/A	N/A
17054 Calle Del Oro		49	64	4/30/12	Need To Locate	N/A	N/A
17006 Calle Del Flores		59	68	5/2/12	Need To Locate	N/A	N/A
15411 Blackbird Dr		36	1	5/4/12	Broken Open	N/A	N/A
17030 Calaveras Ave		59	60	5/4/12		20	Gate
17030 Calaveras Ave		59	59	5/4/12		20	Gate
15473 Blackbird Dr		36	42	5/4/12		18	Butterfly
15244 Blackbird		37	5	5/4/12		17	Butterfly
Blackbird Dr & Boulder Dr		26	21	5/4/12		35	Butterfly
Blackbird Dr & Boulder Dr		26	20	5/4/12		24	Butterfly
Blackbird Dr & Boulder Dr		26	22	5/4/12		35	Butterfly
Blackbird Dr & Audobon Pl		36	41	5/4/12		12	Butterfly
Blackbird Dr & RES		37	2	5/4/12		48	Butterfly
Blackbird Dr & RES		37	3	5/4/12		36	Butterfly
Blackbird Dr & RES		37	4	5/4/12		36	Butterfly
Blackbird Dr & Glenbrook Dr		37	9	5/4/12		36	Butterfly
Yerba Buena Way & Calle Del Flores		59	69	5/4/12	Need To Locate	N/A	N/A
Yerba Buena Way & Calle Del Flores		59	70	5/4/12	Need To Locate	N/A	N/A
Calle Del Oro & Calle Del Flores		59	65	5/4/12	Need To Locate	N/A	N/A
Calle Del Oro & Calle Del Flores		59	66	5/4/12	Need To Locate	N/A	N/A
Calle Del Sol & Yerba Buena Way		59	51	5/7/12		19	Gate
14607 Del Cambre		59	58	5/7/12		19	Gate
14607 Del Cambre		59	57	5/7/12		37	Butterfly
17034 Calle Del Oro		49	70	5/7/12		19	Gate
Calle Del Sol & Yerba Buena Way		59	52	5/7/12	Valve Trailer Needed	N/A	N/A
Calle Del Sol & Yerba Buena Way		59	53	5/7/12	Valve Trailer Needed	N/A	N/A
14250 Yerba Buena Way		59	71	5/8/12		20	Gate
Calle Del Oro & Yerba Buena Way		59	75	5/8/12		19	Gate
Del Cambre Ave		59	76	5/8/12	Need Valve Trailer	N/A	N/A
15869 Ponderosa Dr		76	28	5/10/12		19	Gate
16945 El Lago Blvd		99	78	5/11/12		20	Gate
16945 El Lago Blvd		99	79	5/11/12		14	Gate

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Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
16945 El Lago Blvd		99	41	5/11/12		14	Gate
12605 El Lago Blvd		99	44	5/11/12		20	Gate
12605 El Lago Blvd		99	40	5/11/12		20	Gate
12605 El Lago Blvd		99	39	5/11/12		20	Gate
12605 El Lago Blvd		99	43	5/11/12		20	Gate
12605 El Lago Blvd		99	42	5/11/12		20	Gate
17020 El Lago Blvd		99	46	5/11/12		20	Gate
17020 El Lago Blvd		99	45	5/11/12		20	Gate
12605-1 El Lago Blvd		99	49	5/11/12		17	Butterfly
12605-1 El Lago Blvd		99	50	5/11/12		17	Butterfly
El Lago Blvd & Teal Dr		99	71	5/11/12		20	Gate
El Lago Blvd & Teal Dr		99	72	5/11/12		20	Gate
Panorama Dr & El Lago Blvd		100	31	5/11/12		20	Gate
Panorama Dr & El Lago Blvd		100	32	5/11/12		20	Gate
17042 Calle Del Sol		59	47	5/11/12	Need To Locate	N/A	N/A
12605-1 El Lago Blvd		99	48	5/11/12	Need Valve Trailer	N/A	N/A
17042 Calle Del Oro		49	68	5/14/12		20	Gate
17042 Calle Del Oro		49	69	5/14/12		20	Gate
Calle Del Sol & Calle Del Oro		59	48	5/14/12		26	Gate
Calle Del Sol & Calle Del Oro		59	49	5/14/12	Need Valve Trailer	N/A	N/A
Parkview Plat 208		89	49	5/16/12	Raised & Monumented, Good	20	Gate
Parkview Plat 208		89	48	5/16/12	Raised & Monumented, Good	20	Gate
Parkview Plat 208		89	44	5/16/12	Raised & Monumented, Good	20	Gate
Parkview Plat 208		89	43	5/16/12	Raised & Monumented, Good	20	Gate
16304 Bainbridge Ave		57	19	5/17/12	Fair	17	Butterfly
16715 Saguaro Blvd		58	51	5/17/12		20	Gate
14440 Fountain Hills Blvd		58	39	5/17/12		20	Gate
14440 Fountain Hills Blvd		58	40	5/17/12		36	Butterfly
14440 Fountain Hills Blvd		58	41	5/17/12		36	Butterfly
16715 Saguaro Blvd		58	35	5/17/12	Need To Locate	N/A	N/A
14464 Fountain Hills Blvd		58	38	5/17/12	Need Vac Truck	N/A	N/A
16715 Saguaro Blvd		58	36	5/17/12	Need Valve Trailer	N/A	N/A
16715 Saguaro Blvd		58	37	5/17/12	Need Valve Trailer	N/A	N/A
14440 Fountain Hills Blvd		58	42	5/17/12	Need Valve Trailer	N/A	N/A
17006 Calaveras Ave		59	61	5/22/12		19	Gate
17006 Calaveras Ave		59	57	5/22/12	Need To Locate	N/A	N/A
16424 Montrose Dr		57	22	5/22/12	Need Valve Trailer	N/A	N/A
14214 Fountain Hills Blvd		58	19	5/23/12		36	Butterfly
14214 Fountain Hills Blvd		58	20	5/23/12		17	Butterfly
14280 Fountain Hills Blvd		58	28	5/23/12		30	Gate
14266 Fountain Hills Blvd		58	25	5/23/12		20	Butterfly
14242 Fountian Hills Blvd		58	17	5/23/12		17	Butterfly
14242 Fountian Hills Blvd		58	16	5/23/12		17	Butterfly
14214 Fountain Hills Blvd		58	18	5/23/12	Need To Locate	N/A	N/A
14280 Fountain Hills Blvd		58	27	5/23/12	Need To Locate	N/A	N/A
14218 Springmont Dr		57	29	5/23/12	Need To Locate	N/A	N/A
14218 Springmont Dr		57	28	5/23/12	Need To Locate	N/A	N/A
14266 Fountain Hills Blvd		58	26	5/23/12	Need To Locate	N/A	N/A
14266 Fountain Hills Blvd		58	24	5/23/12	Need Valve Trailer	N/A	N/A
17006 Calle Del Sol		59	50	5/25/12		17	Butterfly
16448 Fairlynn Dr		58	6	5/29/12		17	Butterfly
16334 Montrose		57	25	6/13/12	Need valve trailer		Butterfly
16334 Montrose		57	26	6/13/12	Need valve trailer		Butterfly
16334 Montrose		57	27	6/13/12	Need valve trailer		Butterfly
16208 Montrose		57	15	6/13/12	Need valve trailer		Butterfly
16208 Montrose		57	14	6/13/12	Need valve trailer		Butterfly
16208 Montrose		57	13	6/13/12	Need valve trailer		Butterfly
16258 Hyde Park		57	31	6/14/12		19	Gate
16258 Hyde Park		57	30	6/14/12	Need valve trailer		Gate
16258 Hyde Park		57	32	6/14/12	Need valve trailer		Gate
16566 Fayette Dr		58	30	6/19/12		17	Butterfly
16566 Fayette Dr		58	29	6/19/12		17	Butterfly
16566 Fayette Dr		58	31	6/19/12	Need valve trailer		Butterfly
16408 Fairlynn		58	7	6/27/12		17	Butterfly
16408 Fairlynn		58	8	6/27/12		17	Butterfly
16418 Fairlynn		58	9	6/27/12		14	Gate
16418 Fairlynn		58	10	6/27/12		17	Butterfly
16362 Montrose Dr		58	23	6/27/12		17	Butterfly
16362 Montrose Dr		58	22	6/27/12		17	Butterfly
16362 Montrose Dr		58	21	6/27/12		17	Butterfly
16334 Montrose		57	25	7/9/12	need vac truck	N/A	N/A

Valves - Maintenance and Repairs 2007-2012

Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
16220 Hyde Park Dr		57	34	7/10/12		17	Butterfly
16220 Hyde Park Dr		57	33	7/11/12		17	Butterfly
15229 Marigold		65	13	7/12/12		38	Gate
15229 Marigold		65	14	7/13/12		38	Gate
15229 Marigold		65	15	7/14/12		19	Gate
16428 Bainbridge		58	15	7/15/12		17	Gate
16428 Bainbridge		58	13	7/16/12		17	Gate
16428 Bainbridge		58	12	7/17/12	need vac truck	N/A	N/A
16324 Springfield		57	23	7/19/12		17	Butterfly
16208 Bainbridge		57	18	7/20/12		18	Gate
16324 Springfield		57	24	7/20/12		25	Butterfly
16208 Bainbridge		57	17	7/21/12	need vac truck	N/A	N/A
16208 Bainbridge		57	16	7/22/12		36	Gate
14235 Honey Suckle Dr		54	50	7/30/12		20	Gate
14235 Honey Suckle Dr		54	51	7/30/12		26	Gate
14235 Honey Suckle Dr		54	52	7/30/12		20	Gate
15056 Staghorn Dr		54	48	7/30/12		26	Gate
15056 Staghorn Dr		54	49	7/30/12		20	Gate
15056 Staghorn Dr		54	53	7/30/12		20	Gate
14231 Desert Flower Dr		54	54	7/30/12		20	Gate
14231 Desert Flower Dr		54	56	7/30/12		20	Gate
15035 Staghorn		54	55	7/30/12		20	Gate
15035 Staghorn		54	57	7/30/12		20	Gate
14425 Honey Suckle Dr		54	47	7/30/12		20	Gate
15816 Primrose		76	22	7/31/12		20	Gate
Sunridge Dr		54	35	8/1/12		38	Gate
Sunridge Dr		54	36	8/1/12		28	Gate
Sunridge Dr		54	37	8/1/12		20	Gate
Sunridge Dr		54	32	8/1/12		38	Gate
Sunridge Dr		54	33	8/1/12		28	Gate
Sunridge Dr		54	34	8/1/12		38	Gate
Sunridge Dr		54	20	8/1/12		20	Gate
Sunridge Dr		54	24	8/1/12		38	Gate
Sunridge Dr		54	25	8/1/12		38	Gate
Sunridge Dr		54	26	8/1/12		26	Gate
Sunridge Dr		54	30	8/1/12		38	Gate
Sunridge Dr		54	10	8/1/12		18	Butterfly
Sunridge Dr		54	39	8/1/12		38	Gate
Sunridge Dr		54	40	8/1/12		38	Gate
Sunridge Dr		54	41	8/1/12		38	Gate
Sunridge Dr		54	42	8/1/12		38	Gate
Sunridge Dr		54	43	8/1/12		26	Gate
Sunridge Dr		54	44	8/1/12		38	Gate
Sunridge Dr		54	45	8/1/12		38	Gate
Sunridge Dr		54	31	8/1/12	need vac truck		
14504 Cresote Court		54	15	8/2/12		26	Gate
15133 Staghorn Dr		54	21	8/2/12		26	Gate
15133 Staghorn Dr		54	22	8/2/12		20	Gate
15133 Staghorn Dr		54	23	8/2/12		20	Gate
14511 Sagebrush Ln		54	12	8/2/12		20	Gate
14511 Sagebrush Ln		54	13	8/2/12		26	Gate
14511 Sagebrush Ln		54	14	8/2/12		26	Gate
14511 Sagebrush Ln		54	11	8/2/12		20	Gate
15136 Staghorn Dr		54	19	8/2/12		26	Gate
15136 Staghorn Dr		54	20	8/2/12		26	Gate
14504 Cresote Court		54	16	8/2/12	need vac truck		
14504 Cresote Court		54	17	8/2/12	need vac truck		
15136 Staghorn Dr		54	18	8/2/12	need vac truck		
Yerba Buena & Calle Del Flores		59	68	8/6/12		20	Gate
Yerba Buena & Calle Del Flores		59	69	8/6/12		20	Gate
Yerba Buena & Calle Del Flores		59	70	8/6/12		28	Gate
11040 Saguaro Dr		130	18	8/6/12		21	Gate
15211 Staghorn Dr		55	1	8/14/12		20	Gate
15211 Staghorn Dr		55	2	8/14/12		20	Gate
14423 Century Dr		56	53	8/16/12	Buried		
15703 Cactus Dr		56	36	8/16/12		24	Gate
15703 Cactus Dr		56	37	8/16/12		24	Gate
15703 Cactus Dr		56	38	8/16/12		24	Gate
15703 Cactus Dr		56	39	8/16/12		24	Gate
15702 Cactus Dr		56	44	8/16/12		20	Gate
15625 Hedgehog Ct		56	45	8/16/12		14 ?	Gate

Valves - Maintenance and Repairs 2007-2012

Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
15625 Hedgehog Ct		56	46	8/16/12		21	Gate
15625 Hedgehog Ct		56	47	8/16/12		20	Gate
15625 Hedgehog Ct		56	43	8/16/12		20	Gate
15723 Cactus Dr		56	49	8/16/12		20	Gate
14423 Century Dr		56	51	8/16/12		20	Gate
14423 Century Dr		56	52	8/16/12		20	Gate
15765 Cactus Dr		56	62	8/16/12		20	Gate
15765 Cactus Dr		56	63	8/16/12		19	Gate
15765 Cactus Dr		56	64	8/16/12		20	Gate
15765 Cactus Dr		56	65	8/16/12		20	Gate
15737 Cactus Dr		56	71	8/16/12		20	Gate
14425 Buckthorn Ct		56	70	8/16/12		20	Gate
15618 Cactus Dr		56	77	8/16/12		18	Gate
15723 Cactus Dr		56	48	8/16/12	need vac truck		
15723 Cactus Dr		56	50	8/16/12	need vac truck		
16734 Gunsight Dr		99	34	8/20/12		20	Gate
16734 Gunsight Dr		99	33	8/20/12		20	Gate
16724 Gunsight Dr		98	22	8/20/12		18	Butterfly
13835 Mesquite Ln		65	12	8/21/12		20	Gate
13815 Mesquite Ln		65	16	8/21/12		20	Gate
14017 Mesquite Ln		65	8	8/21/12		19	Gate
Chuparosa & Mesquite Ln		65	9	8/21/12		39	Gate
Chuparosa & Mesquite Ln		65	10	8/21/12		20	Gate
Chuparosa & Mesquite Ln		65	11	8/21/12		38	Gate
Fairyduster & Mesquite		75	2	8/21/12		38	Gate
Fairyduster & Mesquite		75	3	8/21/12		39	Gate
Fairyduster & Mesquite		75	4	8/21/12		20	Gate
15512 Acacia way		65	32	8/21/12		20	Gate
15544 Acacia Way		55	13	8/21/12		25	Gate
15532 Acacia Way		55	14	8/21/12		20	Gate
15532 Acacia Way		55	15	8/21/12	Need valve trailer		
15532 Acacia Way		55	16	8/21/12	Need valve trailer		
15532 Acacia Way		55	17	8/21/12	Need valve trailer		
Cholla Dr		96	6	8/27/12		38	Gate
Chicory Dr		96	3	8/27/12		36	Gate
Chicory Dr		96	15	8/27/12		37	Gate
Cerro Alto Dr		14	32	8/27/12		17	Butterfly
Cerro Alto Dr		14	33	8/27/12		17	Butterfly
Cerro Alto Dr		14	2	8/27/12		21	Gate
Sunridge Dr		34	20	8/27/12		24	Gate
Sunridge Dr		34	18	8/27/12		25	Gate
Sunridge Dr		14	17	8/27/12		22	Gate
Sunridge Dr		14	8	8/27/12		26	Gate
Cerro Alto Dr		24	24	8/27/12		22	Gate
15627 N Boulder Drive		26	17	8/27/12		17	Butterfly
16050 N Boulder Drive		16	37	8/27/12		17	Butterfly
15844 Boulder Drive		26	14	8/27/12		17	Butterfly
13806 Sunset Dr		65	49	8/27/12		20	Gate
15852 Brittlebush Lane		56	27	8/27/12		20	Gate
Mayflower		48	25	8/27/12		17	Butterfly
Mayflower		48	3	8/27/12		17	Butterfly
Mayflower		48	4	8/27/12		17	Butterfly
Mayflower		48	5	8/27/12		17	Butterfly
13806 Sunset Dr		65	50	8/27/12	need vac truck		
15622 Sycamore Dr		96	9	8/28/12	Broken operating nut		
15831 Sycamore Dr		106	13	8/28/12		36	Gate
15831 Sycamore Dr		106	14	8/28/12		36	Gate
15843 Cholla Dr		106	17	8/28/12		25	Gate
15843 Cholla Dr		106	18	8/28/12		26	Gate
16000 Thistle Dr		97	11	8/28/12		26	Gate
16000 Thistle Dr		97	10	8/28/12		36	Gate
16236 Boulder Dr		16	41	8/28/12		17	Butterfly
13710 Sunridge Dr		74	10	8/28/12		38	Butterfly
13710 Sunridge Dr		74	11	8/28/12		38	Butterfly
13710 Sunridge Dr		74	12	8/28/12		25	Butterfly
Eagle Mountain PKWY & Shea Blvd		143	10	8/28/12		40	Gate
Eagle Mountain PKWY & Shea Blvd		143	11	8/28/12		40	Gate
Eagle Mountain PKWY & Shea Blvd		143	12	8/28/12		40	Gate
15209 Sunset Dr		74	12	8/28/12		27	Gate
15209 Sunset Dr		74	16	8/28/12		36	Butterfly
13510 Sunset Dr		75	7	8/28/12		26	Butterfly

Valves - Maintenance and Repairs 2007-2012

Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
13510 Sunset Dr		75	8	8/28/12		26	Butterfly
13510 Sunset Dr		75	9	8/28/12		20	Butterfly
15622 Sycamore Dr		96	8	8/28/12	Unable to locate		
16042 Lost Hills		77	2	8/29/12	Could not turn		
Eagle Mountain PKWY & Summerhill		164	1	8/29/12		18	Butterfly
Eagle Mountain PKWY & Summerhill		164	36	8/29/12		37	Butterfly
Eagle Mountain PKWY & Summerhill		164	37	8/29/12		37	Butterfly
Eagle Mountain PKWY & Summerhill		164	38	8/29/12		37	Butterfly
Ponderosa & Lost Hills		76	20	8/29/12		19	Butterfly
Ponderosa & Lost Hills		66	30	8/29/12		19	Butterfly
Ponderosa & Lost Hills		66	31	8/29/12		19	Butterfly
15944 Primrose		76	25	8/29/12		19	Butterfly
15944 Primrose		76	26	8/29/12		19	Butterfly
16042 Lost Hills		77	3	8/29/12		39	Gate
16064 Lost Hills		77	10	8/29/12		37	Gate
16064 Lost Hills		77	11	8/29/12		37	Gate
14740 Lookout Ledge		183	32	8/30/12		18	Gate
10627 Arista Lane		143	4	8/30/12	Need valve trailer		
16613 Centipede Dr		6	17	9/5/12		20	Gate
13410 Granite Way		75	11	9/18/12		21	Gate
15446 Jojoba		65	42	9/18/12		20	Gate
Sunset Dr & Mesquite Lane		75	6	9/18/12		38	Butterfly
Sunset Dr & Rockview Court		75	14	9/18/12		25	Gate
Sierra Madre & Cerro Alto Dr		35	3	9/18/12		26	Butterfly
Sierra Madre & Sunridge Dr		34	26	9/18/12		26	Gate
15121 Alvarado Dr		34	40	9/18/12		22	Butterfly
15611 CabrilloDr		24	20	9/18/12		22	Butterfly
15831 Sycamore Dr		106	13	9/18/12		36	Butterfly
15976 Sycamore Dr		106	10	9/18/12		36	Butterfly
Desert Canyon & Sunridge Dr		65	3	9/19/12		20	Gate
Saguaro & Hawk		109	21	9/25/12		17	Butterfly
15410 Acacia Way		65	24	9/27/12		21	Gate
15410 Acacia Way		65	23	9/27/12		38	Butterfly
14442 Prickly Pear Ct		56	66	9/27/12		21	Butterfly
15856 Bursage		66	41	10/2/12		20	Butterfly
15832 Bursage		66	44	10/2/12		21	Butterfly
13850 Sunset Dr		65	44	10/3/12		21	Gate
15524 Desert Canyon Dr		65	35	10/8/12		20	Butterfly
15434 Acacia Way		65	25	10/8/12		21	Gate
15434 Acacia Way		65	29	10/8/12		36	Gate
15434 Acacia Way		65	28	10/8/12		21	Gate
15434 Acacia Way		65	26	10/8/12		39	Gate
15434 Acacia Way		65	27	10/8/12		38	Gate
15735 Brittlebush Lane		56	34	10/8/12		27	Butterfly
15735 Brittlebush Lane		56	35	10/8/12		20	Butterfly
15756 Brittlebush Lane		56	32	10/8/12		21	Butterfly
15756 Brittlebush Lane		56	33	10/8/12		27	Butterfly
15756 Brittlebush Lane		56	77	10/8/12		20	Butterfly
15828 Brittlebush Lane		56	28	10/8/12		18	Gate
15828 Brittlebush Lane		56	29	10/8/12		20	Gate
15828 Brittlebush Lane		56	30	10/8/12		24	Gate
15828 Brittlebush Lane		56	31	10/8/12		24	Gate
14441 Agave Dr		56	60	10/8/12		21	Gate
14441 Agave Dr		56	61	10/8/12		21	Gate
Jojoba & Sunset Dr		65	40	10/8/12		21	Gate
15248 Mustang Dr		115	22	10/9/12		20	Gate
15749 Cactus Dr		56	67	10/9/12		20	Gate
15749 Cactus Dr		56	68	10/9/12		20	Gate
15749 Cactus Dr		56	69	10/9/12		21	Gate
15737 Cactus Dr		56	71	10/9/12		20	Gate
Desert Canyon & Sunridge Dr		65	3	10/9/12		21	Gate
15704 Yucca Dr		56	54	10/9/12		18	Gate
15704 Yucca Dr		56	55	10/9/12		25	Gate
15704 Yucca Dr		56	56	10/9/12		21	Gate
15704 Yucca Dr		56	57	10/9/12		21	Gate
15704 Sundown Dr		56	3	10/9/12		21	Gate
15704 Sundown Dr		56	5	10/9/12		20	Gate
15704 Sundown Dr		56	6	10/9/12		21	Gate
15248 Mustang Dr		115	21	10/9/12	Need valve trailer		
15150 Mustang Dr		115	5	10/9/12	Need valve trailer		
Desert Canyon & Sunridge Dr		65	1	10/9/12	Need valve trailer		

Valves - Maintenance and Repairs 2007-2012

Location	Address #	Map Page	Valve #	Date	General comments	Turns	Type
Desert Canyon & Sunridge Dr		65	2	10/9/12	Need valve trailer		
15704 Sundown Dr		56	2	10/9/12	Need valve trailer		
15704 Sundown Dr		56	4	10/9/12	Need valve trailer		
16510 Palisades		78	?	10/16/12		20	Gate
16510 Palisades		78	?	10/16/12		20	Gate
16510 Palisades		78	?	10/16/12		20	Gate
9140 Flying Butte		183	1	10/16/12		21	Gate
9627 Longfeather		164	2	10/17/12		18	Butterfly
9615 Longfeather		164	37	10/17/12		18	Butterfly
14012 Vallecito		70	27	10/18/12		17	Butterfly
14012 Vallecito		70	28	10/18/12		17	Butterfly
16002 Gleneagle Dr		47	7	10/18/12		21	Gate
14012 Vallecito		70	26	10/18/12	Need valve trailer		
12441 Via LA Playa		100	23	10/22/12		20	Gate
17227 Vallecito		70	21	10/30/12		17	Butterfly
14013 Rosita		70	27	10/30/12		17	Butterfly
14013 Rosita		70	28	10/30/12		17	Butterfly
16728 Galatea Dr		68	50	11/13/12		17	Butterfly
16728 Galatea Dr		68	48	11/13/12		17	Butterfly
16728 Galatea Dr		68	49	11/13/12		17	Butterfly
15012 Vermillion Dr		174	28	11/14/12		20	Gate
15012 Vermillion Dr		174	29	11/14/12		20	Gate
15012 Vermillion Dr		174	30	11/14/12		20	Gate
15012 Vermillion Dr		174	31	11/14/12		20	Gate
14004 Sheffield Ct		68	37	11/19/12		20	Gate
14004 Sheffield Ct		68	38	11/19/12		17	Butterfly
14004 Sheffield Ct		68	39	11/19/12		17	Butterfly
17506 El Lago Blvd		50	45	11/30/12		17	Butterfly
14005 Sussex Pl		68	47	12/6/12		17	Butterfly
14005 Sussex Pl		68	46	12/6/12		14	Gate
14005 Edgeworth Dr		68	41	12/6/12		23	Butterfly
14005 Edgeworth Dr		68	42	12/6/12		17	Butterfly
14005 Edgeworth Dr		68	43	12/6/12		24	Butterfly
14005 Edgeworth Dr		68	44	12/6/12		17	Butterfly
14021 Sheffield ct		68	40	12/6/12		17	Butterfly
14407 N La Pasada Dr		60	32	12/10/12		17	Butterfly
14407 N La Pasada Dr		60	33	12/10/12		17	Butterfly
14661 Armijo Dr		50	40	12/10/12		17	Butterfly
17412 E San Marcus		50	38	12/10/12		17	Butterfly
17412 E San Marcus		50	39	12/10/12		17	Butterfly
14637 N El Soberante		50	14	12/10/12		17	Butterfly
14025 Edgeworth Dr		68	45	12/10/12		17	Butterfly
17054 Calle Del Oro		49	64	12/10/12		20	Gate
17005 Calle Del Fuenda		59	45	12/10/12		20	Gate
17005 Calle Del Fuenda		59	46	12/10/12		20	Gate
15926 Genoa Way		136	25	12/10/12		21	Gate
Kingstree & Appian way		127	25	12/10/12		17	Butterfly
11209 Pinto		126	25	12/10/12		20	Gate
16014 Venetian Way		137	19	12/10/12		17	Butterfly
12005 Fountain Hills Blvd		108	22	12/11/12		17	Butterfly
16739 El Lago Blvd		99	22	12/13/12		21	Gate
9804 Sunrise Circle		169	22	12/13/12		18	Butterfly
16352 Arrow Dr		68	7	12/26/12		17	Butterfly
16352 Arrow Dr		68	6	12/26/12		17	Butterfly
16352 Arrow Dr		68	9	12/26/12	Need valve trailer		
15322 Sunburst Dr		105	12	12/27/12		20	Gate
10811 Kino Court		135	17	7/28/210		20	Gate

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 2-1

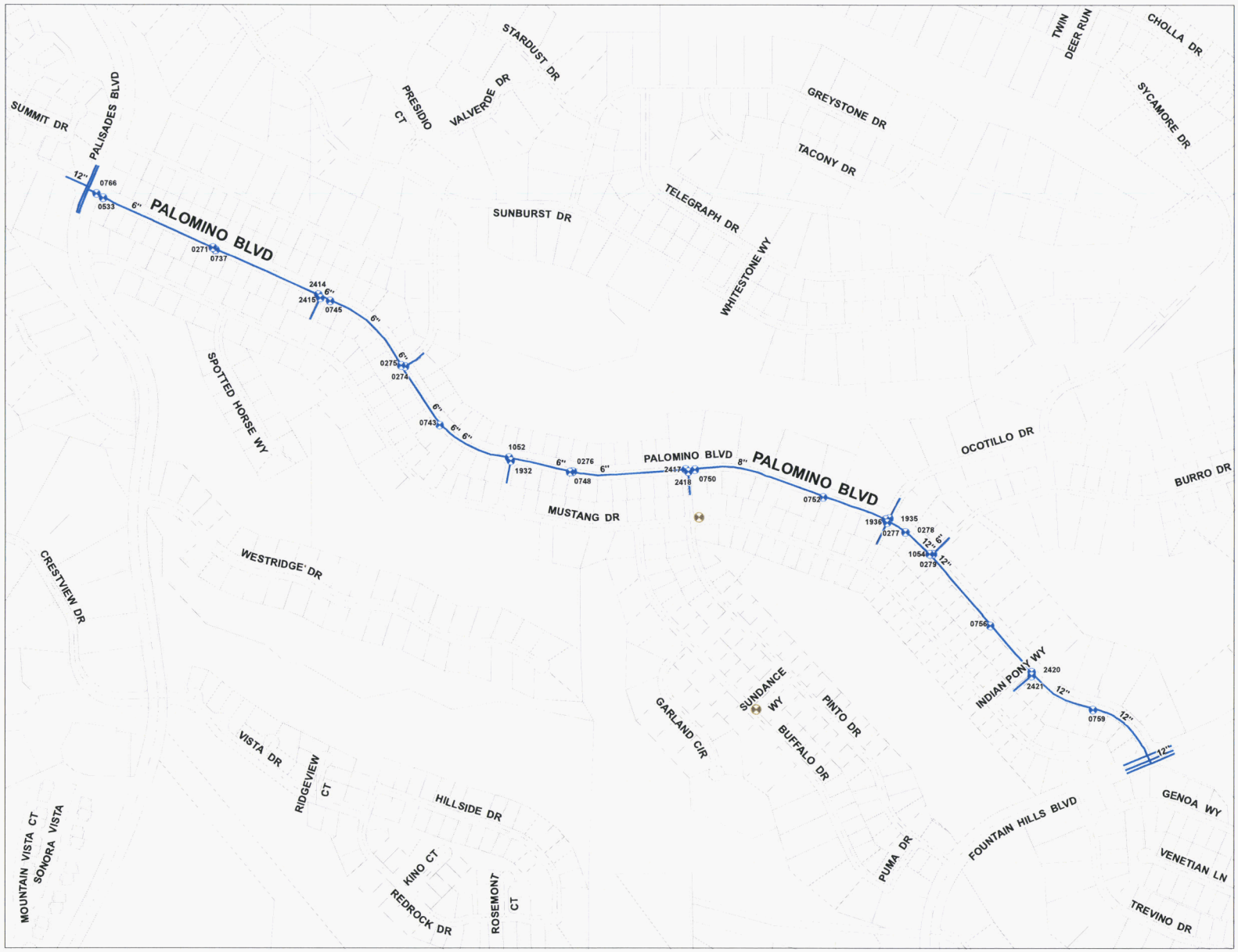
2014 Valve Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
V-1	331	gate valves	28	23-6" 1-8" 4-12"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201 12"-$6,173	Palomino	12/2014	n/a	$136,862	Replace 23-6", 1-8", 4-12" valves (28 total) on Palomino between Palisades and Fountain Hills Blvd. Distribution system valves that are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves are a priority because they were installed in 1976 and will be 38 years old in 2014. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-1 in Exhibit CC-1 shows the location of these valves.
V-2	331	gate valves	34	31-6" 1-4" 2-12"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651 12"-$6,173	Mustang	12/2014	n/a	$160,952	Replace 31-6", 1-4", and 2-12" valves (34 total) on Mustang between Palisades and Fountain Hills Blvd. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves are a priority because they were installed in 1977 and will be 37 years old in 2014. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-2 in Exhibit CC-1 shows the location of these valves.

V-3	331	gate valves	1	6"	cast iron with rubberized epoxy coating	$4,651	Spotted Horse	12/2014	n/a	$4,651	Replace 1-6" valve on Spotted Horse between Mustang and Westridge. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. This valve is a priority because it was installed in 1979 and will be 35 years and is needed in order to operate the only hydrants on this street. Replacing valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-3 in Exhibit CC-1 shows the location of this valve.
V-4	331	gate valves	10	6"	cast iron with rubberized epoxy coating	$4,651	Buffalo	12/2014	n/a	$46,508	Replace 10-6" valves on Buffalo between Mustang and Fountain Hills Blvd. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves are a priority because they were installed in 1976 and will be 38 years old in 2014. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-4 in Exhibit CC-1 shows the location of these valves.
V-5	331	gate valves	1	6"	cast iron with rubberized epoxy coating	$4,651	Garland	12/2014	n/a	$4,651	Replace 1-6" valve on Garland between Buffalo and Palatial. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. This valve is suffering from corrosion and is the only way to isolate Garland Circle. Replacing valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-5 in Exhibit CC-1 shows the location of this valve.
V-6	331	gate valves	10	6"	cast iron with rubberized epoxy coating	$4,651	Pinto	12/2014	n/a	$46,508	Replace 10-6" valves on Pinto between Palomino and Fountain Hills Blvd. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves are a priority because they were installed in 1976 and will be 38 years old in 2014. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-6 in Exhibit CC-1 shows the location of these valves.

V-7	331	gate valves	11	6-6" 4-8"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201	Ocotillo	12/2014	n/a	$53,359	Replace 6-6" and 4-8" valves (10 total) on Ocotillo between Mustang and Fountain Hills Blvd. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves are a priority because they were installed in 1974 and will be 40 years old in 2014. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-7 in Exhibit CC-1 shows the location of these valves.
Total			**95**							**$453,491**	



2014

Project No: V-01 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Palomino

project desciption:

Replace 23-6", 1-8", 4-12" valves (28 total) on Palomino between Palisades and Fountain Hills Blvd.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

200 100 0 200 400 600 800
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 V-1**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
23	6" Valve	4200	Contractor material and labor to replace 23-6" valves on Palomino between Palisades and Fountain Hills Blvd.	$ 96,600
1	8" Valve	4700	Contractor material and labor to replace 1-8" valves on Palomino between Palisades and Fountain Hills Blvd.	$ 4,700
4	12" Valve	5500	Contractor material and labor to replace 4-12" valves on Palomino between Palisades and Fountain Hills Blvd.	$ 22,000
23	6" Valve	28	Company labor for field oversight and construction management*	$ 644
1	8" Valve	28	Company labor for field oversight and construction management*	$ 28
4	12" Valve	112	Company labor for field oversight and construction management*	$ 448
Subtotal				$ 124,420
General Overhead Rate on Labor and Capital (10%)				$ 12,442
Total Estimated Cost				**$ 136,862**

*Company labor includes the salary for one employee at a rate of $28/hour for one hour with the exception of 12" valves, which require one employee for four hours.

2014

Project No: V-02 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Mustang

project desciption:

Replace 31-6", 1-4", 2 - 12" valves (34 total) on Mustang between Palisades and Fountain Hills Blvd.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

190 95 0 190 380 570 760

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 V-2**	Project Location: See project maps

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
31	6" Valve	4200	Contractor material and labor to replace 31-6" valves on Mustang between Palisades and Fountain Hills Blvd.	$ 130,200
1	4" Valve	4000	Contractor material and labor to replace 1-4" valves on Mustang between Palisades and Fountain Hills Blvd.	$ 4,000
2	12" Valve	5500	Contractor material and labor to replace 2 - 12" valves on Mustang between Palisades and Fountain Hills Blvd.	$ 11,000
31	6" Valve	28	Company labor for field oversight and construction management	$ 868
1	4" Valve	28	Company labor for field oversight and construction management	$ 28
2	12" Valve	112	Company labor for field oversight and construction management	$ 224
Subtotal				$ 146,320
General Overhead Rate on Labor and Capital (10%)				$ 14,632
Total Estimated Cost				**$ 160,952**

2014

Project No: V-03 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Spotted Horse

project desciption:

Replace 1-6" valves
on Spotted Horse
between Mustang and Westridge.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

50 25 0 50 100 150 200
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

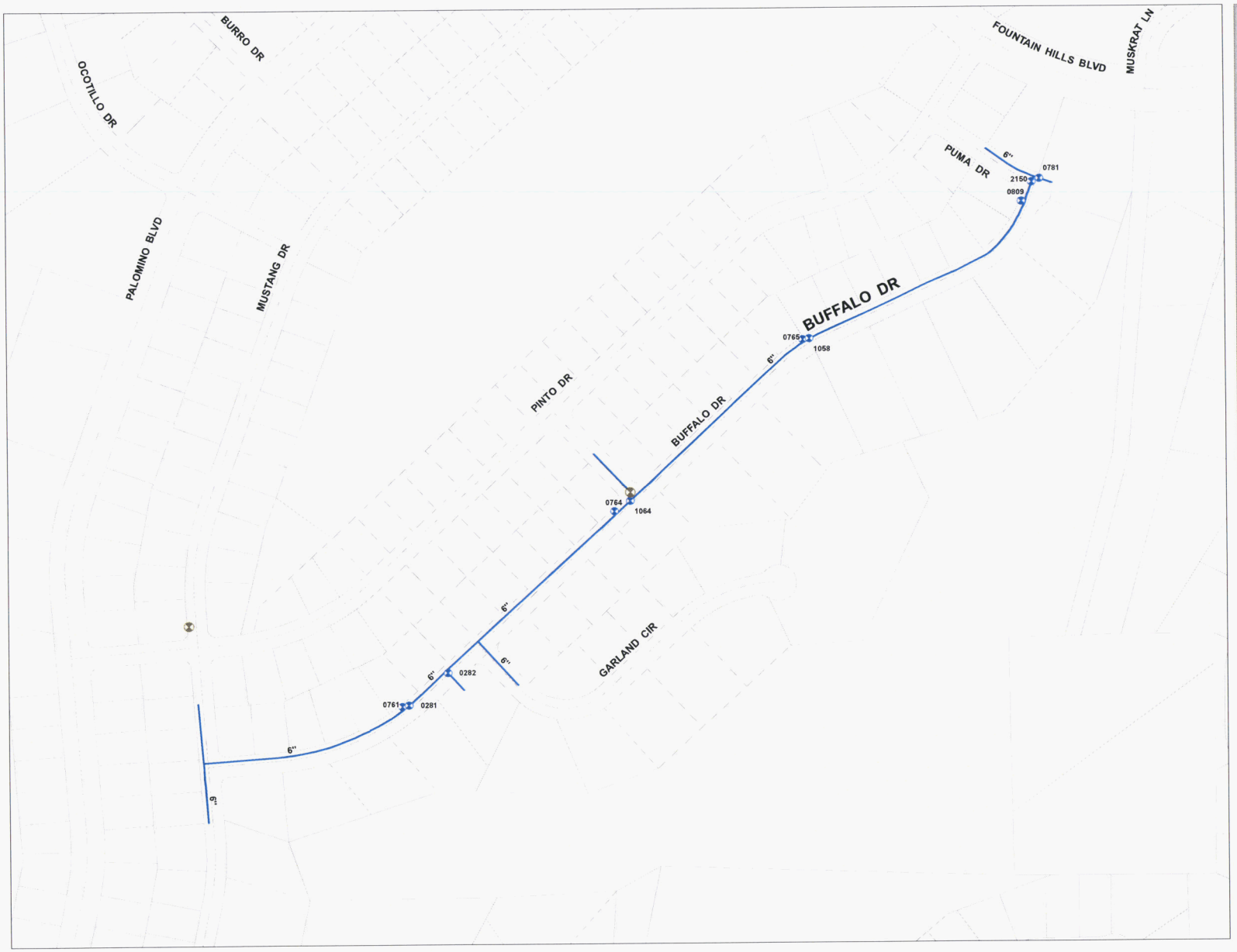
EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 V-3**	Project Location: See project maps

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
1	6" Valve	4200	Contractor material and labor to replace 1-6" valves on Spotted Horse between Mustang and Westridge.	$ 4,200
1	6" Valve	28	Company labor for field oversight and construction management	$ 28
Subtotal				$ 4,228
General Overhead Rate on Labor and Capital (10%)				$ 423
Total Estimated Cost				**$ 4,651**



2014

Project No: V-04 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Buffalo

project desciption:

Replace 10-6" valves
on Buffalo
between Mustang and Fountain Hills Blvd.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 V-4**	Project Location: See project maps

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
10	6" Valve	4200	Contractor material and labor to replace 10-6" valves on Buffalo between Mustang and Fountain Hills Blvd.	$ 42,000
10	6" Valve	28	Company labor for field oversight and construction management	$ 280
Subtotal				$ 42,280
General Overhead Rate on Labor and Capital (10%)				$ 4,228
Total Estimated Cost				**$ 46,508**

2014

Project No: V-05 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Garland

project desciption:

Replace 1-6" valve
on Garland
between Buffalo and Palatial.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

50 25 0 50 100 150 200
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

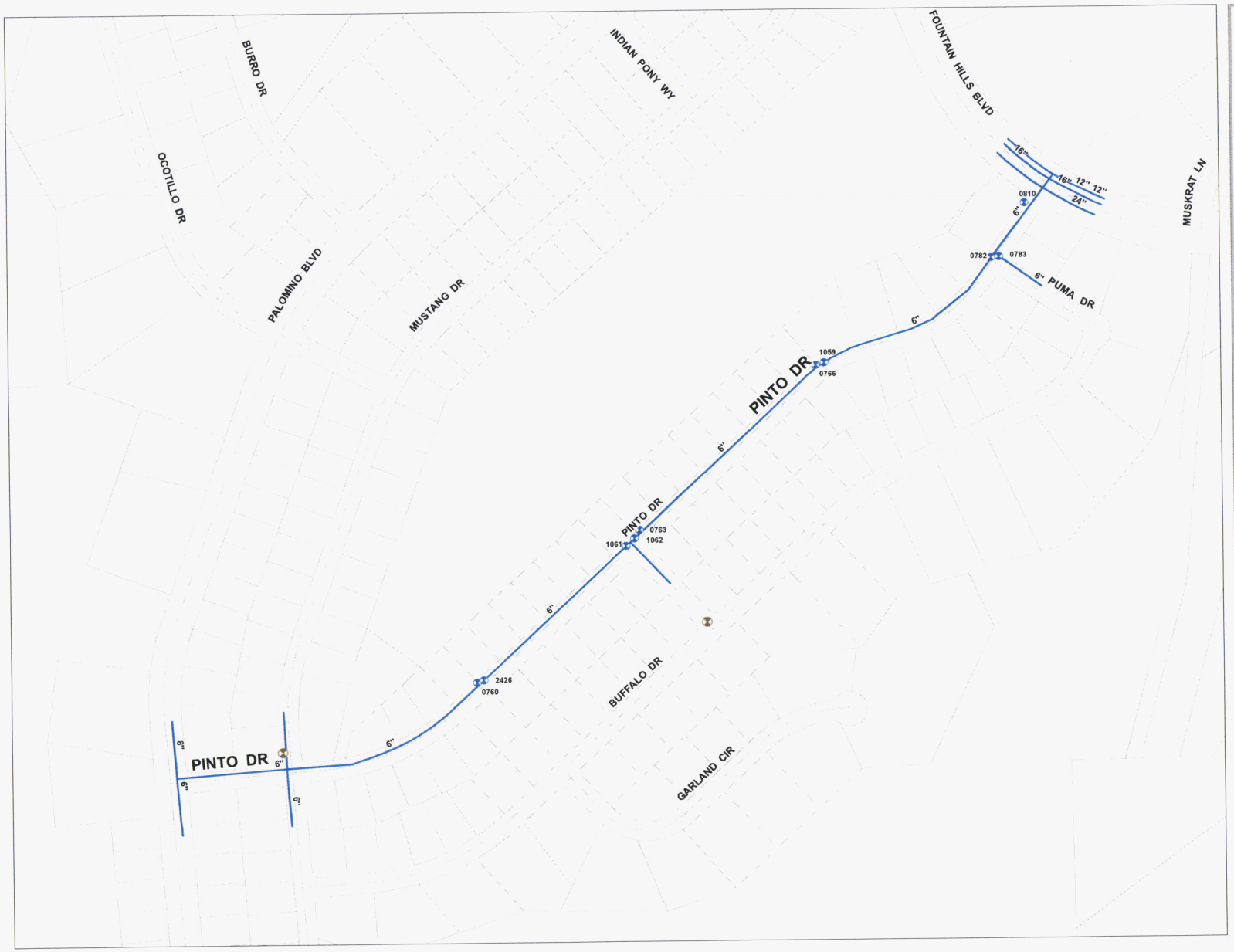
EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 V-5**	Project Location: See project maps

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
1	6" Valve	4200	Contractor material and labor to replace 1-6" valve on Garland between Buffalo and Palatial.	$ 4,200
1	6" Valve	28	Company labor for field oversight and construction management	$ 28
Subtotal				$ 4,228
General Overhead Rate on Labor and Capital (10%)				$ 423
Total Estimated Cost				**$ 4,651**



2014

Project No: V-06 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Pinto

project desciption:

Replace 10-6" valves
on Pinto
between Palomino and Fountain Hills Blvd.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

90 45 0 90 180 270 360
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

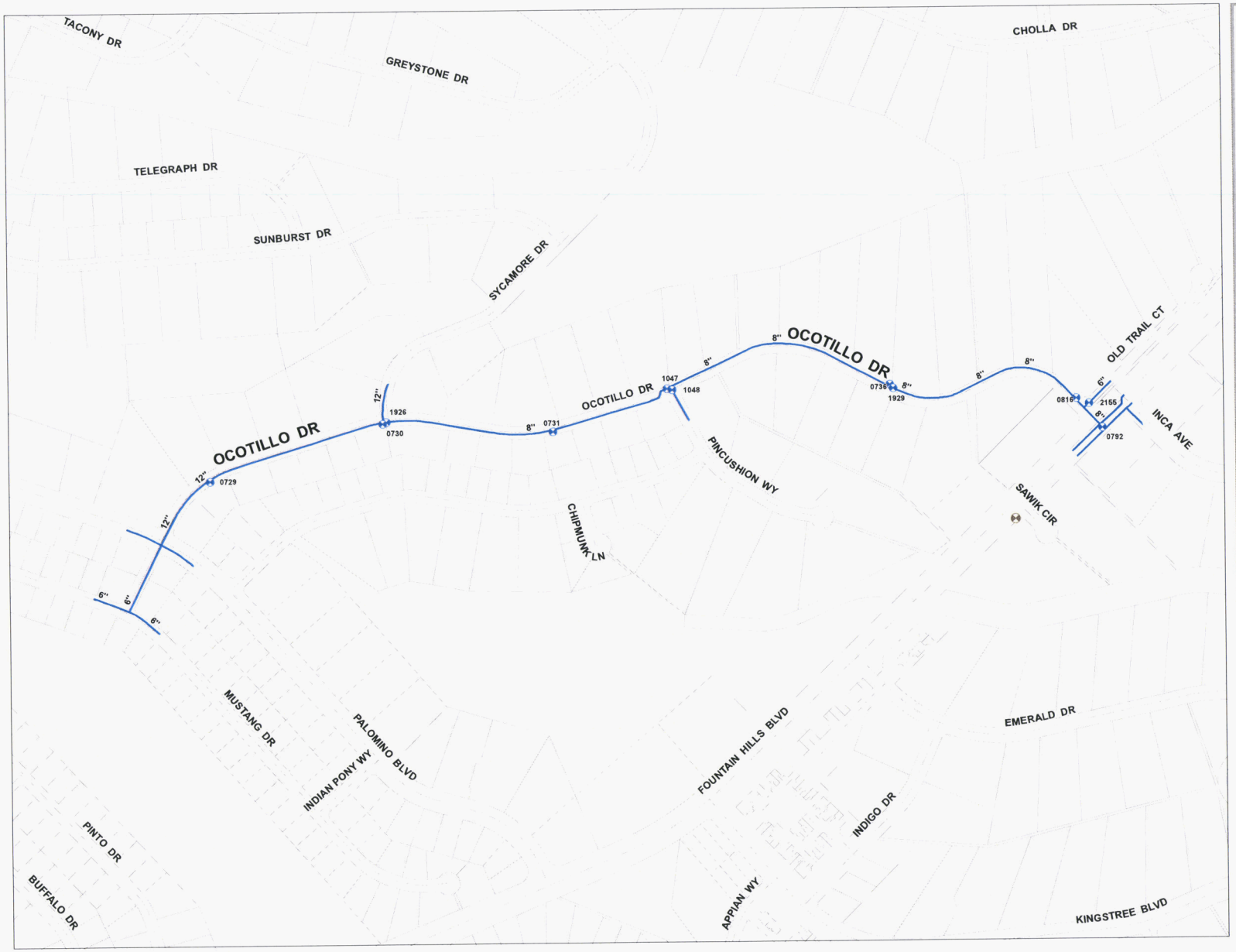
EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 V-6**	Project Location: See project maps

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
10	6" Valve	4200	Contractor material and labor to replace 10-6" valves on Pinto between Palomino and Fountain Hills Blvd.	$ 42,000
10	6" Valve	28	Company labor for field oversight and construction management	$ 280
Subtotal				$ 42,280
General Overhead Rate on Labor and Capital (10%)				$ 4,228
Total Estimated Cost				**$ 46,508**



2014

Project No: V-07 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Ocotillo

project desciption:

Replace 7-6", 4-8" valves (11 total)
on Ocotillo
between Mustang and Fountain Hills Blvd.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

130 65 0 130 260 390 520
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 V-7**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
7	6" Valve	4200	Contractor material and labor to replace 7-6" on Ocotillo between Mustang and Fountain Hills Blvd	$ 29,400
4	8" Valve	4700	Replace 4-8" valves on Ocotillo between Mustang and Fountain Hills Blvd	$ 18,800
7	6" Valve	28	Company labor for field oversight and construction management	$ 196
4	8" Valve	28	Company labor for field oversight and construction management	$ 112
Subtotal				$ 48,508
General Overhead Rate on Labor and Capital (10%)				$ 4,851
Total Estimated Cost				**$ 53,359**

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 2-2

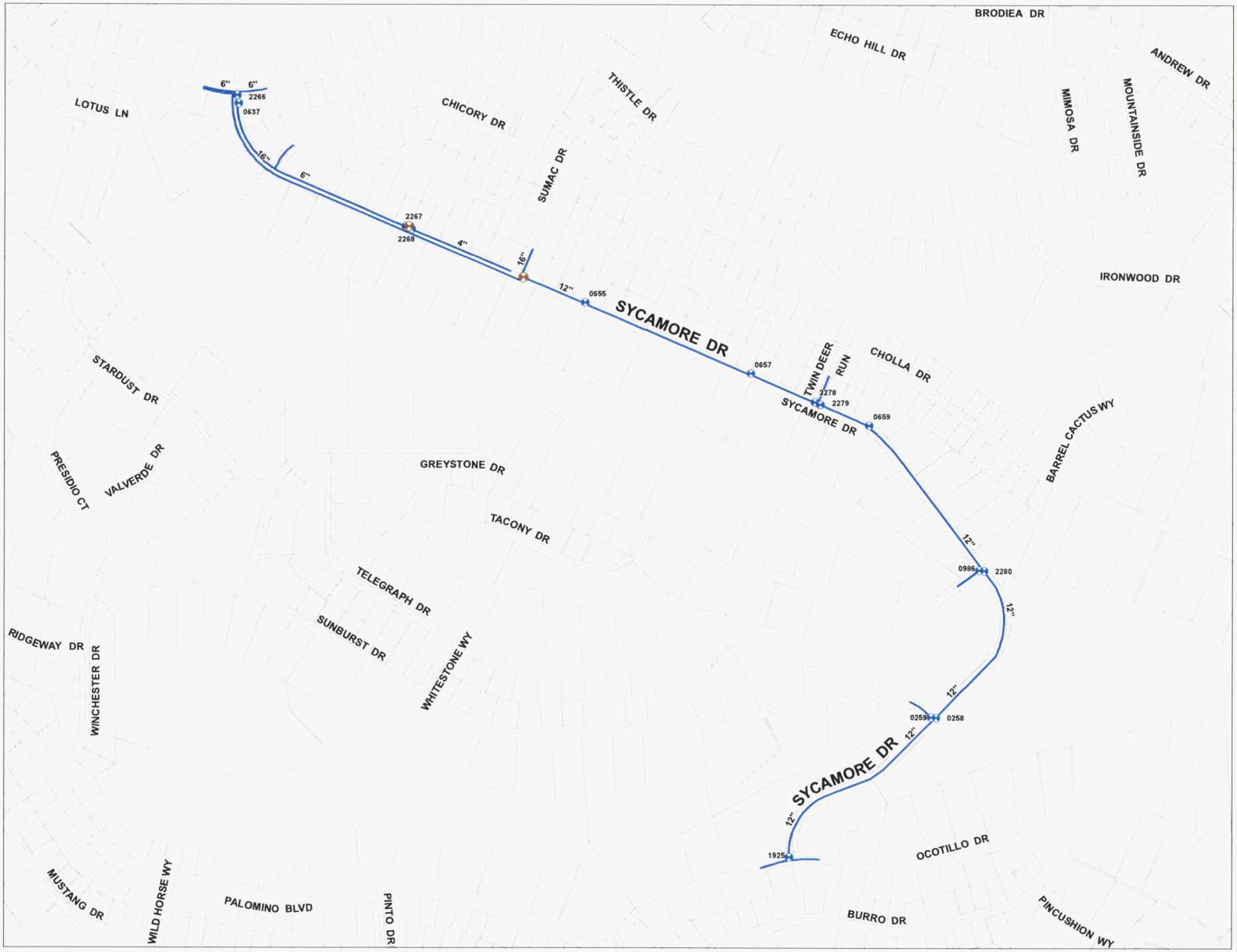
2015 Valve Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
V-8	331	gate valves	14	1-4" 9-6" 4-12"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651 12"-$6,173	Sycamore	12/2015	n/a	$70,981	Replace 1-4", 9-6", 4-12" valves (14 total) on Sycamore between Thistle and Ocotillo. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed around 1976 and will be approximately 39 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-8 in Exhibit CC-1 shows the location of these valves.
V-9	331	gate valves	6	6"	cast iron with rubberized epoxy coating	$4,651	Winchester	12/2015	n/a	$27,905	Replace 6-6" valves on Winchester between Sunburst and Palomino. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves will be 17-39 years old and are located in a high pressure area. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-9 in Exhibit CC-1 shows the location of these valves.

V-10	331	gate valves	9	6"	cast iron with rubberized epoxy coating	$4,651	Ridgeway	12/2015	n/a	$41,857	Replace 9-6" valves on Ridgeway between Palisades and Winchester. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed around 1976 and will be approximately 39 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-10 in Exhibit CC-1 shows the location of these valves.
V-11	331	gate valves	18	6"	cast iron with rubberized epoxy coating	$4,651	Sunburst	12/2015	n/a	$83,714	Replace 18-6" valves on Sunburst between Palisades and Sycamore. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves will be approximately 17-29 years old and are located in a high pressure area. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-11 in Exhibit CC-1 shows the location of these valves.
V-12	331	gate valves	15	6"	cast iron with rubberized epoxy coating	$4,651	Greystone	12/2015	n/a	$69,762	Replace 15-6" valve on Greystone between Sunburst and Sycamore. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves will be approximately 29 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-12 in Exhibit CC-1 shows the location of these valves.
V-13	331	gate valves	8	6"	cast iron with rubberized epoxy coating	$4,651	Telegraph	12/2015	n/a	$37,206	Replace 8-6" valves on Telegraph between Greystone and Sunburst. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves will be approximately 29 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-13 in Exhibit CC-1 shows the location of these valves.
V-14	331	gate valves	4	6"	cast iron with rubberized epoxy coating	$4,651	Tacony	12/2015	n/a	$18,603	Replace 4-6" valves on Tacony between Greystone and Telegraph. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves will be approximately 29 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-14 in Exhibit CC-1 shows the location of these valves.

V-15	331	gate valves	11	5-6" 1-8" 5-12"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201 12"-$6,173	Mimosa	12/2015	n/a	$59,321	Replace 5-6", 1-8", and 5-12" (11 total) valves on Mimosa between Sunflower and Thistle. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1976 and will be 39 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-15 in Exhibit CC-1 shows the location of these valves.
V-16	331	gate valves	18	1-4" 13-6" 4-8"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651 8"-$5,201	Cholla	12/2015	n/a	$85,694	Replace 1-4", 13-6", and 4-8" (18 total) valves on Cholla between Chicory and Fountain Hills Blvd. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed around 1975 and will be approximately 40 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-16 in Exhibit CC-1 shows the location of these valves.
Total			**103**							**$495,043**	



2015

Project No: V-08 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Sycamore

project desciption:

Replace 1-4", 9-6", 4-12" valves (14 total) on Sycamore between Thistle and Ocotillo.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

175 87.5 0 175 350 525 700

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

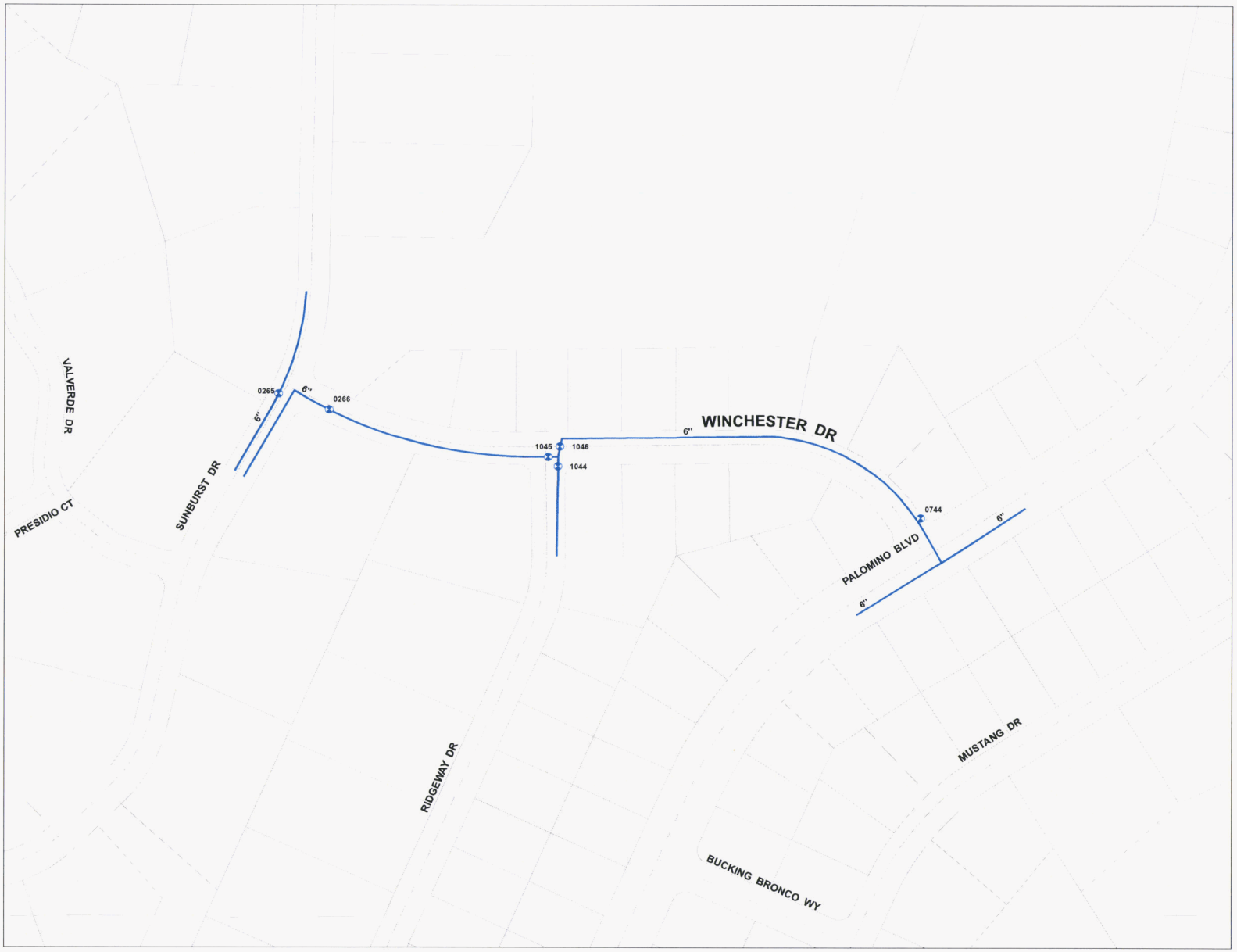
EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 V-8**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
1	4" Valve	4000	Contractor material and labor to replace 1-4" valves on Sycamore between Thistle and Ocotillo.	$ 4,000
9	6" Valve	4200	Contractor material and labor to replace 10-6" valve on Sycamore between Thistle and Ocotillo.	$ 37,800
4	12" Valve	5500	Replace 4-12" valves on Sycamore between Thistle and Ocotillo.	$ 22,000
1	4" Valve	28	Company labor for field oversight and construction management	$ 28
9	6" Valve	28	Company labor for field oversight and construction management	$ 252
4	12" Valve	112	Company labor for field oversight and construction management	$ 448
Subtotal				$ 64,528
General Overhead Rate on Labor and Capital (10%)				$ 6,453
Total Estimated Cost				**$ 70,981**



2015

Project No: V-09 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Winchester

project desciption:

Replace 6 - 6" valves
on Winchester
between Sunburst and Palomino.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

50 25 0 50 100 150 200
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 V-9**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
6	6" Valve	4200	Contractor material and labor to replace 6 - 6" valves on Winchester between Sunburst and Palomino.	$ 25,200
6	6" Valve	28	Company labor for field oversight and construction management	$ 168
Subtotal				$ 25,368
General Overhead Rate on Labor and Capital (10%)				$ 2,537
Total Estimated Cost				**$ 27,905**

2015

Project No: V-10 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Ridgeway

project desciption:

Replace 9 - 6" valves
on Ridgeway
between Palisades and Winchester.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 V-10**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
9	6" Valve	4200	Contractor material and labor to replace 9 - 6" valves on Ridgeway between Palisades and Winchester.	$ 37,800
9	6" Valve	28	Company labor for field oversight and construction management	$ 252
Subtotal				$ 38,052
General Overhead Rate on Labor and Capital (10%)				$ 3,805
Total Estimated Cost				**$ 41,857**

2015

Project No: V-11 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Sunburst

project desciption:

Replace 18 - 6" valves
on Sunburst
between Palisades and Sycamore.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

210 105 0 210 420 630 840
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 V-11**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
18	6" Valve	4200	Contractor material and labor to replace 18 - 6" valves on Sunburst between Palisades and Sycamore.	$ 75,600
18	6" Valve	28	Company labor for field oversight and construction management	$ 504
Subtotal				$ 76,104
General Overhead Rate on Labor and Capital (10%)				$ 7,610
Total Estimated Cost				**$ 83,714**

2015

Project No: V-12 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Greystone

project desciption:

Replace 15 - 6" valves
on Greystone
between Sunburst and Sycamore.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

130 65 0 130 260 390 520
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

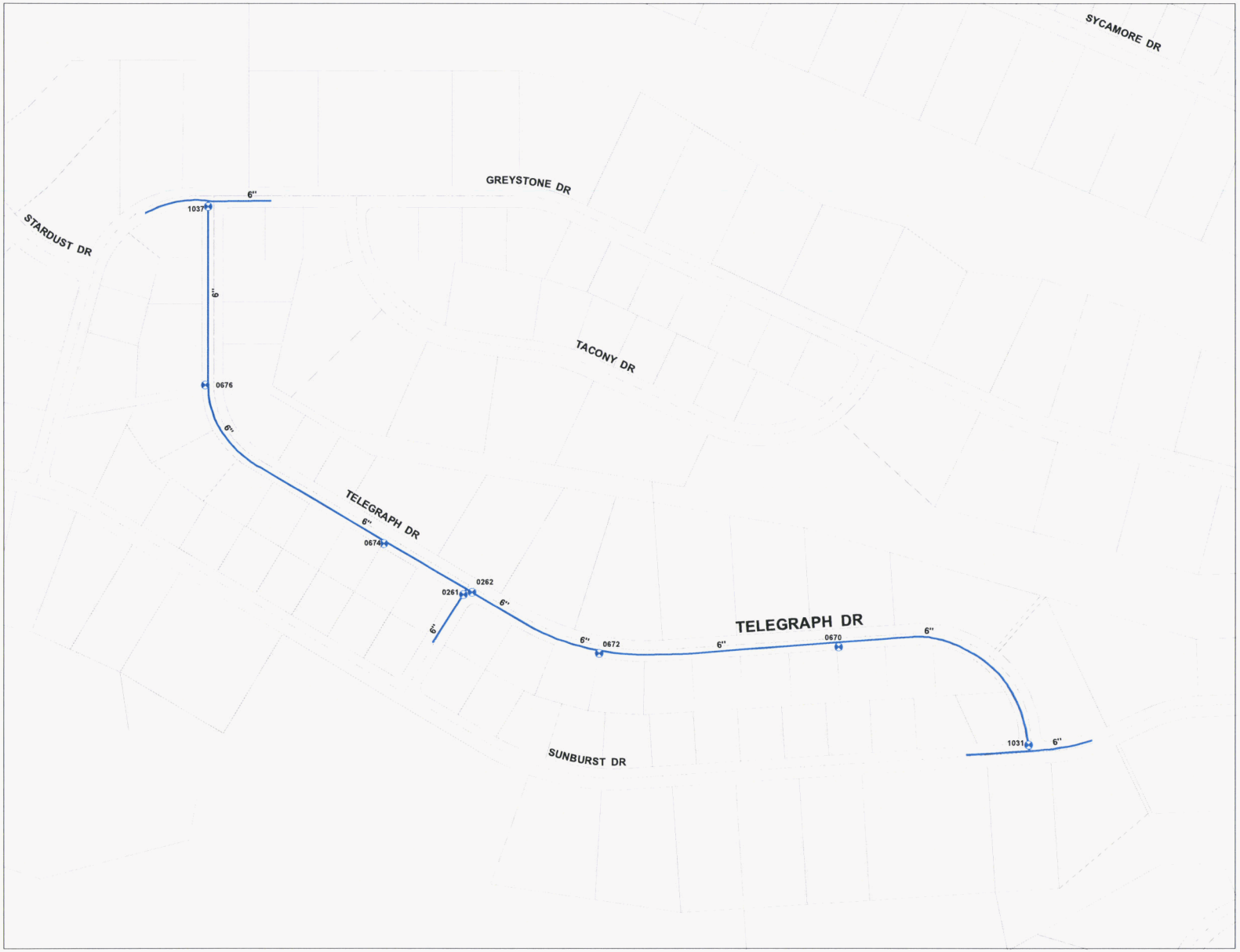
EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 V-12**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
15	6" Valve	4200	Contractor material and labor to replace 15 - 6" valves on Greystone between Sunburst and Sycamore.	$ 63,000
15	6" Valve	28	Company labor for field oversight and construction management	$ 420
Subtotal				$ 63,420
General Overhead Rate on Labor and Capital (10%)				$ 6,342
Total Estimated Cost				**$ 69,762**



2015

Project No: V-13 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Telegraph

project desciption:

Replace 8 - 6" valves
on Telegraph
between Greystone and Sunburst.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 V-13**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
8	6" Valve	4200	Contractor material and labor to replace 8 - 6" valves on Telegraph between Greystone and Sunburst.	$ 33,600
8	6" Valve	28	Company labor for field oversight and construction management	$ 224
Subtotal				$ 33,824
General Overhead Rate on Labor and Capital (10%)				$ 3,382
Total Estimated Cost				**$ 37,206**

2015

Project No: V-14 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Tacony

project desciption:

Replace 4 - 6" valves
on Tacony
between Greystone and Telegraph.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

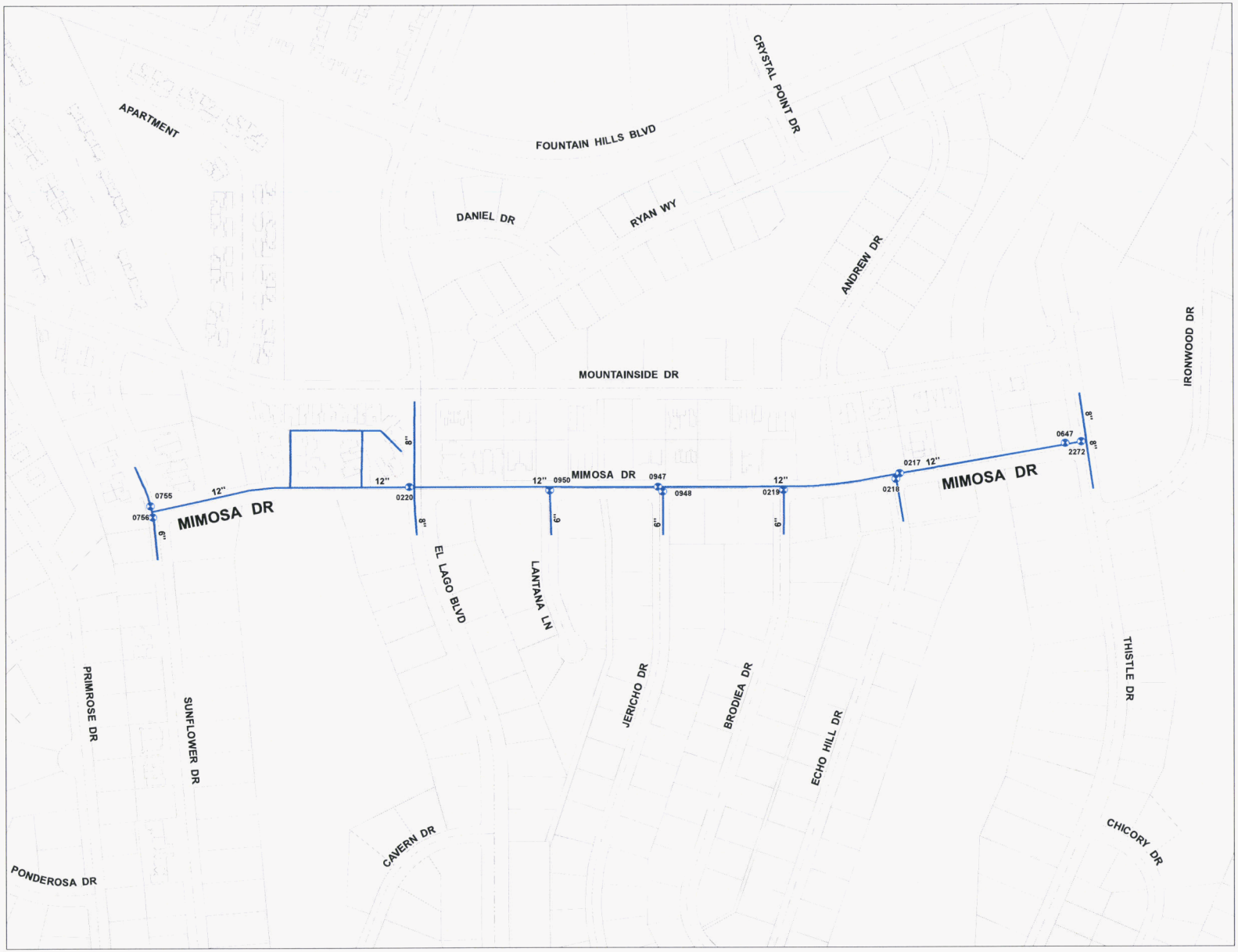
EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 V-14**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
4	6" Valve	4200	Contractor material and labor to replace 4 - 6" valves on Tacony between Greystone and Telegraph.	$ 16,800
4	6" Valve	28	Company labor for field oversight and construction management	$ 112
Subtotal				$ 16,912
General Overhead Rate on Labor and Capital (10%)				$ 1,691
Total Estimated Cost				**$ 18,603**



2015

Project No: V-15 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Mimosa

project desciption:

Replace 5-6", 1-8", 5-12" valves (11 total)
on Mimosa
between Sunflower and Thistle.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

110 55 0 110 220 330 440
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 V-15**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
5	6" Valve	4200	Contractor material and labor to replace 5-6", 1-8", 5-12" valves on Mimosa between Sunflower and Thistle.	$ 21,000
1	8" Valve	4700	Contractor material and labor to replace 5-6", 1-8", 5-12" valves on Mimosa between Sunflower and Thistle.	$ 4,700
5	12" Valve	5500	Contractor material and labor to replace 5-6", 1-8", 5-12" valves on Mimosa between Sunflower and Thistle.	$ 27,500
5	6" Valve	28	Company labor for field oversight and construction management	$ 140
1	8" Valve	28	Company labor for field oversight and construction management	$ 28
5	12" Valve	112	Company labor for field oversight and construction management	$ 560
Subtotal				$ 53,928
General Overhead Rate on Labor and Capital (10%)				$ 5,393
Total Estimated Cost				**$ 59,321**

2015

Project No: V-16 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Cholla

project desciption:

Replace 1 - 4", 13 - 6" & 4 – 8" (18 total) valves on Cholla
between Chicory and Fountain Hills Blvd.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

190 95 0 190 380 570 760
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water Preliminary Cost Estimate			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 V-16**	Project Location: See project maps

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
1	4" Valve	4000	Contractor material and labor to replace 1 - 4" valves on Cholla between CHicory and Fountain Hills Blvd.	$ 4,000
13	6" Valve	4200	Contractor material and labor to replace 13 - 6" valves on Cholla between Chicory and Fountain Hills Blvd.	$ 54,600
4	8" Valve	4700	Contractor material and labor to replace 4 – 8" valves on Cholla between Chicory and Fountain Hills Blvd.	$ 18,800
1	4" Valve	28	Company labor for field oversight and construction management	$ 28
13	6" Valve	28	Company labor for field oversight and construction management	$ 364
4	8" Valve	28	Company labor for field oversight and construction management	$ 112
Subtotal				$ 77,904
General Overhead Rate on Labor and Capital (10%)				$ 7,790
Total Estimated Cost				**$ 85,694**

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 2-3

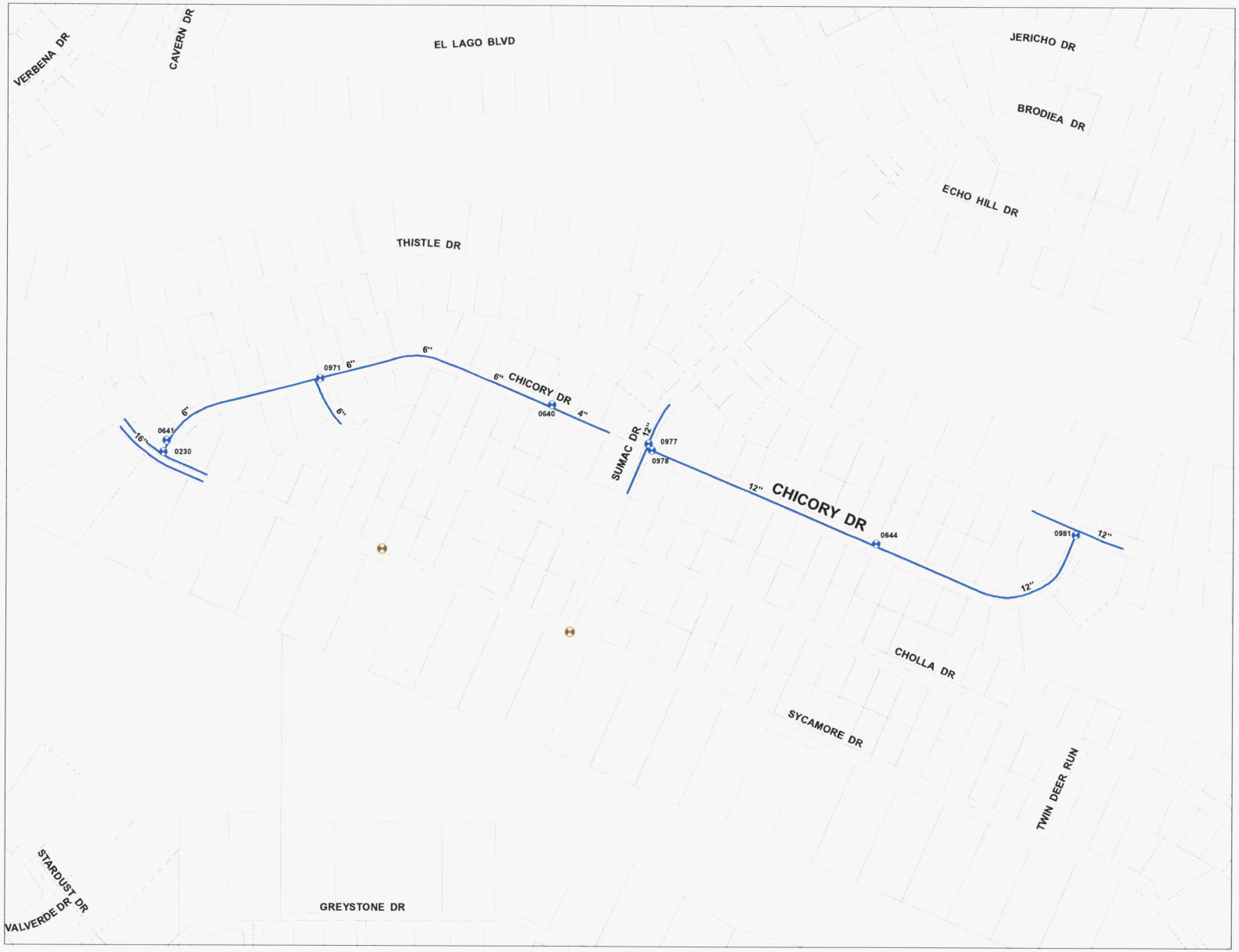
2016 Valve Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
V-17	331	gate valves	8	5-6" 3-12"	cast iron with rubberized epoxy coating	6"-$4,651 12"-$6,173	Chicory	12/2016	n/a	$41,744	Replace 5-6" and 3-12" (8 total) valves on Chicory between Sycamore and Thistle. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1974 and will be 42 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-17 in Exhibit CC-1 shows the location of these valves.
V-18	331	gate valves	6	5-6" 1-8"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201	Verbena	12/2016	n/a	$28,433	Replace 5-6" and 1-8" (6 total) valves on Verbena between Sage and El Lago. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed around 1977 and will be approximately 39 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-18 in Exhibit CC-1 shows the location of these valves.

V-19	331	gate valves	12	9-6" 3-12"	cast iron with rubberized epoxy coating	6"-$4,651 12"-$6,173	Sage	12/2016	n/a	$60,377	Replace 9-6" and 3-12" (12 total) valves on Sage between Palisades and Stardust. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed between 1975 and 1989 and will be approximately 27 to 41 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-19 in Exhibit CC-1 shows the location of these valves.
V-20	331	gate valves	6	3-6" 3-12"	cast iron with rubberized epoxy coating	6"-$4,651 12"-$6,173	Ironwood	12/2016	n/a	$32,472	Replace 3-6" and 3-12" (6 total) valves on Ironwood between Thistle and Fountain Hills Blvd. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These were installed in 1973 and will be 43 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-20 in Exhibit CC-1 shows the location of these valves.
V-21	331	gate valves	19	1-4" 11-6" 5-8" 2-12"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651 8"-$5,201 12"-$6,173	Thistle	12/2016	n/a	$93,940	Replace 1-4", 11-6", 5-8", and 2-12" (19 total) valves on Thistle between Palisades and Mountainside Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed around 1976 and will be approximately 40 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-21 in Exhibit CC-1 shows the location of these valves.
V-22	331	gate valves	21	10-6" 11-8"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201	El Lago	12/2016	n/a	$103,717	Replace 10-6" and 11-8" (21 total) valves on El Lago between Palisades and Fountain Hills Blvd Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed around 1979 and will be approximately 37 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-22 in Exhibit CC-1 shows the location of these valves.

V-23	331	gate valves	16	13-6" 3-8"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201	Sunflower	12/2016	n/a	$76,063	Replace 13-6" and 3-8" (16 total) valves on Sunflower between Cactus and Mountainside. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed between 1975 and 1995 and will be approximately 21 to 41 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-23 in Exhibit CC-1 shows the location of these valves.
Total			**88**							**$436,776**	



2016

Project No: V-17 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Chicory

project desciption:

Replace 5 - 6" & 3 – 12" (8 total) valves on Chicory between Sycamore and Thistle.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

100 50 0 100 200 300 400

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 V-17**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
5	6" Valve	4200	Contractor material and labor to replace 5 - 6" valves on Chicory between Sycamore and Thistle.	$ 21,000
3	12" Valve	5500	Contractor material and labor to replace 3 – 12" valves on Chicory between Sycamore and Thistle.	$ 16,500
5	6" Valve	28	Company labor for field oversight and construction management	$ 140
3	12" Valve	112	Company labor for field oversight and construction management	$ 336
Subtotal				$ 37,976
General Overhead Rate on Labor and Capital (10%)				$ 3,798
Total Estimated Cost				**$ 41,774**

2016

Project No: V-18 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Verbena

project desciption:

Replace 5 - 6" & 1 – 8" (6 total)
on Verbena
between Sage and El Lago.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 V-18**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
5	6" Valve	4200	Contractor material and labor to replace 5 - 6" valves on Verbana between Sage and El Lago.	$ 21,000
1	8" Valve	4700	Contractor material and labor to replace 1 – 8" valves on Verbana between Sage and El Lago.	$ 4,700
5	6" Valve	28	Company labor for field oversight and construction management	$ 140
1	8" Valve	8	Company labor for field oversight and construction management	$ 8
Subtotal				$ 25,848
General Overhead Rate on Labor and Capital (10%)				$ 2,585
Total Estimated Cost				**$ 28,433**

2016

Project No: V-19 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Sage

project desciption:

Replace 9 - 6" and 3 -12" (12 total) valves on Sage
between Palisades and Stardust.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

75 37.5 0 75 150 225 300
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

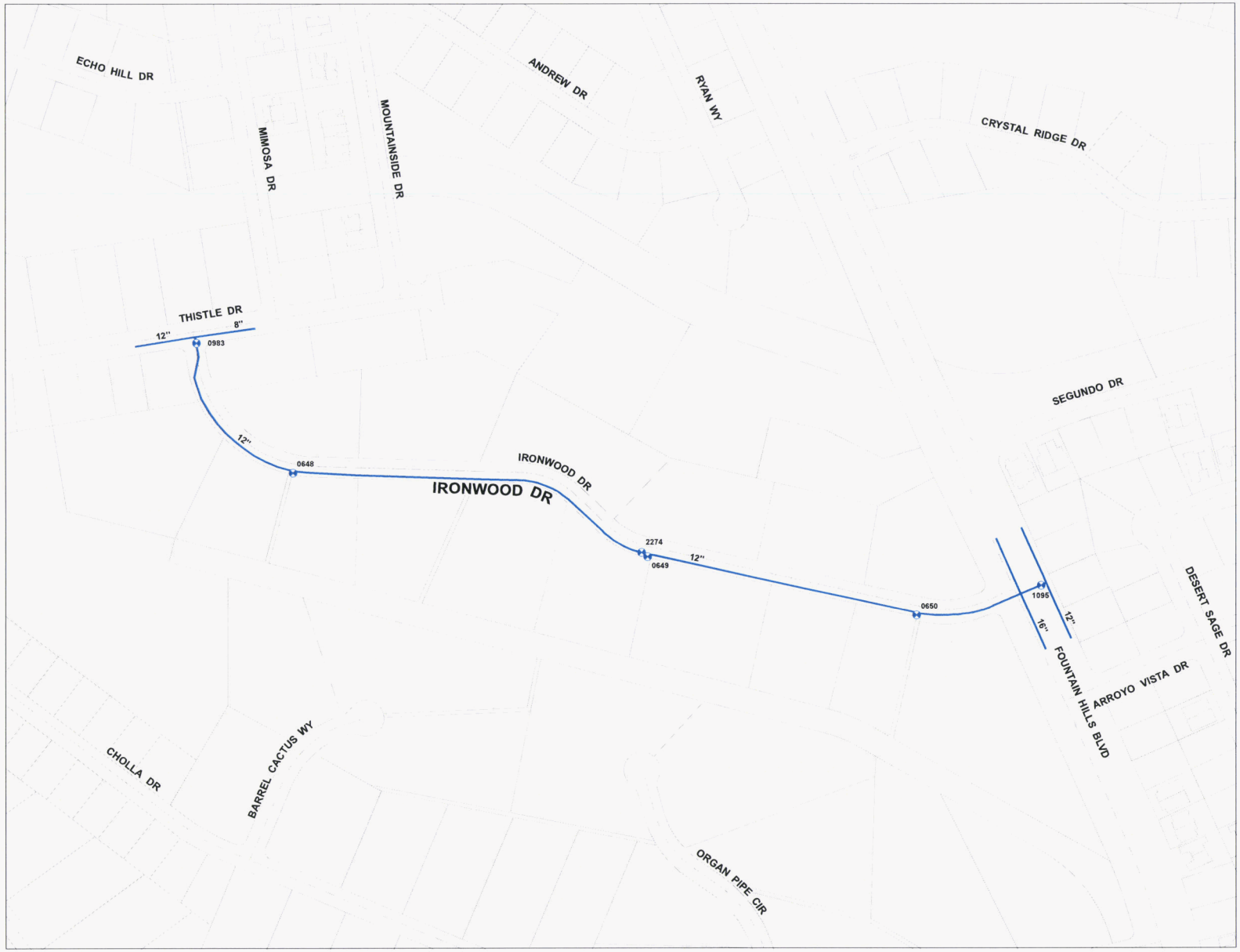
EPCOR Water Preliminary Cost Estimate				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 V-19**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
9	6" Valve	4200	Contractor material and labor to replace 9 - 6" valves on Sage between Palisades and Stardust.	$ 37,800
3	12" Valve	5500	Contractor material and labor to replace 3 -12" valves on Sage between Palisades and Stardust.	$ 16,500
9	6" Valve	28	Company labor for field oversight and construction management	$ 252
3	12" Valve	112	Company labor for field oversight and construction management	$ 336
Subtotal				$ 54,888
General Overhead Rate on Labor and Capital (10%)				$ 5,489
Total Estimated Cost				**$ 60,377**



2016

Project No: V-20 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Ironwood

project desciption:

Replace 3 - 6", 3-12" valves (6 total)
on Ironwood
between Thistle and Fountain Hills Blvd.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 V-20**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
3	6" Valve	4200	Contractor material and labor to replace 3 - 6" on Ironwood between Thistle and Fountain Hills Blvd.	$ 12,600
3	12" Valve	5500	Contractor material and labor to replace 3-12" valves on Ironwood between Thistle and Fountain Hills Blvd.	$ 16,500
3	6" Valve	28	Company labor for field oversight and construction management	$ 84
3	12" Valve	112	Company labor for field oversight and construction management	$ 336
Subtotal				$ 29,520
General Overhead Rate on Labor and Capital (10%)				$ 2,952
Total Estimated Cost				**$ 32,472**

2016

Project No: V-21 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Thistle

project desciption:

Replace 1 - 4", 11 - 6", 5 - 8", 2-12" (19 total) valves on Thistle
between Palisades and Mountainside.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

190 95 0 190 380 570 760
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water Preliminary Cost Estimate				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 V-21**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
1	4" Valve	4000	Contractor material and labor to replace 1 - 4" valves on Thistle between Palisades and Mountainside.	$ 4,000
11	6" Valve	4200	Contractor material and labor to replace 11 - 6" valves on Thistle between Palisades and Mountainside.	$ 46,200
5	8" Valve	4700	Contractor material and labor to replace 5 - 8" valves on Thistle between Palisades and Mountainside.	$ 23,500
2	12" Valve	5500	Contractor material and labor to replace 2-12" valves on Thistle between Palisades and Mountainside.	$ 11,000
1	4" Valve	28	Company labor for field oversight and construction management	$ 28
11	6" Valve	28	Company labor for field oversight and construction management	$ 308
5	8" Valve	28	Company labor for field oversight and construction management	$ 140
2	12" Valve	112	Company labor for field oversight and construction management	$ 224
Subtotal				$ 85,400
General Overhead Rate on Labor and Capital (10%)				$ 8,540
Total Estimated Cost				**$ 93,940**

2016

Project No: V-22 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

El Lago

project desciption:

Replace 10 - 6", 11 - 8" (21 total) valves
on El Lago
between Palisades and Fountain Hills Blvd.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

180 90 0 180 360 540 720
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 V-22**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
10	6" Valve	4200	Contractor material and labor to replace 10 - 6" valves on El Lago between Palisades and Fountain Hills Blvd.	$ 42,000
11	8" Valve	4700	Contractor material and labor to replace 11 - 8" valves on El Lago between Palisades and Fountain Hills Blvd.	$ 51,700
10	6" Valve	28	Company labor for field oversight and construction management	$ 280
11	8" Valve	28	Company labor for field oversight and construction management	$ 308
Subtotal				$ 94,288
General Overhead Rate on Labor and Capital (10%)				$ 9,429
Total Estimated Cost				**$ 103,717**

2016

Project No: V-23 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Sunflower

project desciption:

Replace 13 - 6", 3 - 8" (16 total) valves on Sunflower between Cactus and Mountainside.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

110 55 0 110 220 330 440

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 V-23**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
13	6" Valve	4200	Contractor material and labor to replace 13 - 6" valves on Sunflower between Cactus and Mountainside.	$ 54,600
3	8" Valve	4700	Contractor material and labor to replace 3 - 8" valves on Sunflower between Cactus and Mountainside.	$ 14,100
13	6" Valve	28	Company labor for field oversight and construction management	$ 364
3	8" Valve	28	Company labor for field oversight and construction management	$ 84
Subtotal				$ 69,148
General Overhead Rate on Labor and Capital (10%)				$ 6,915
Total Estimated Cost				**$ 76,063**

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 2-4

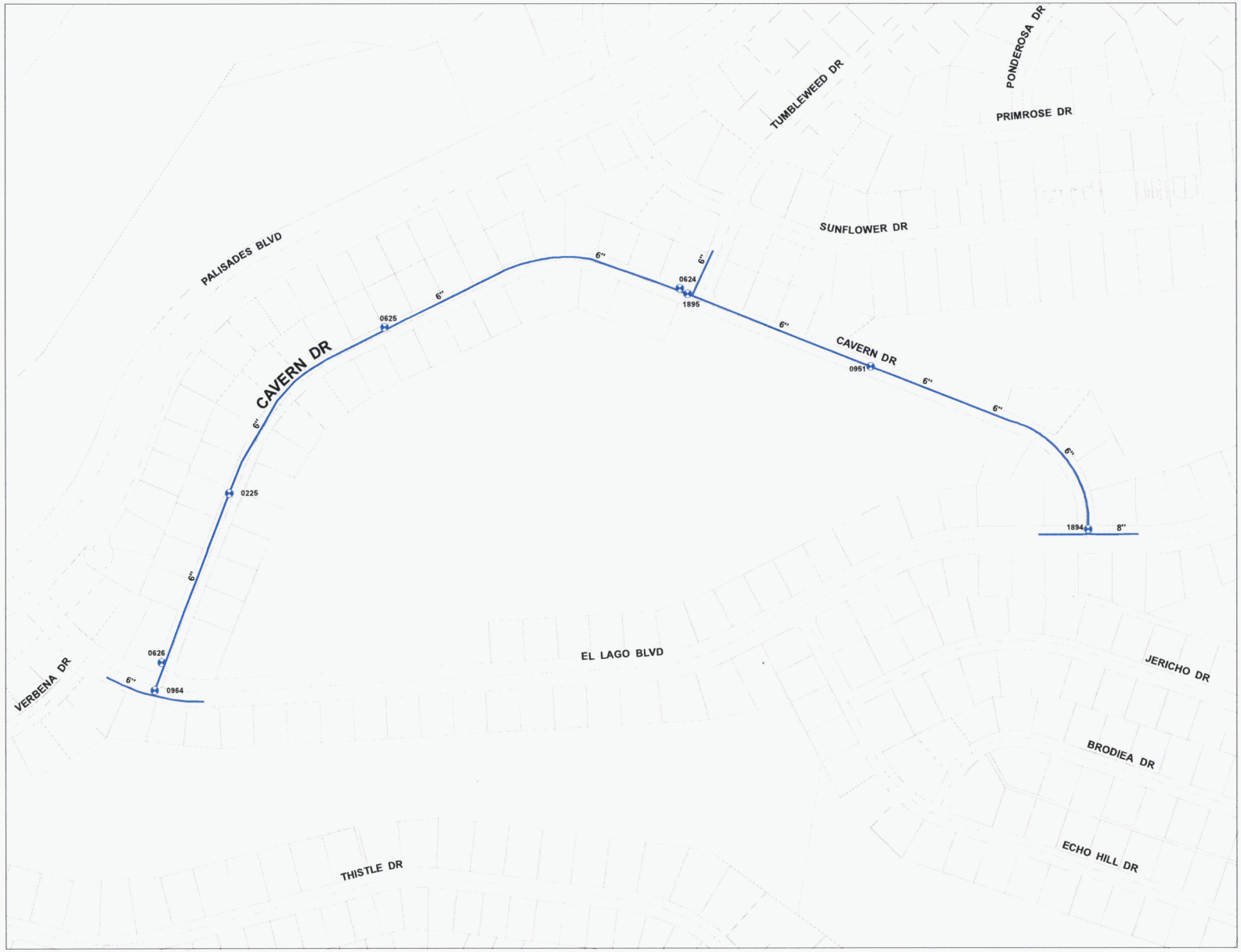
2017 Valve Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
V-24	331	gate valves	8	6"	cast iron with rubberized epoxy coating	$4,651	Cavern	12/2017	n/a	$37,206	Replace 8-6" valves on Cavern between Palisades and El Lago. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1979 and will be 38 years old in 2017. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-24 in Exhibit CC-1 shows the location of these valves.
V-25	331	gate valves	7	4-6" 3-8"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201	Jackrabbit	12/2017	n/a	$34,206	Replace 4-6" and 3-8" (7 total) valves on Jackrabbit between Palisades and Sunflower. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1997. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-25 in Exhibit CC-1 shows the location of these valves.

V-26	331	gate valves	16	9-6" 4-8" 3-12"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201 12"-$6,173	Mountain-side	12/2017	n/a	$81,180	Replace 9-6", 4-8", and 3-12" (16 total) valves on Mountainside between Palisades and Thistle Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1978 and will be 39 years old in 2017. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-26 in Exhibit CC-1 shows the location of these valves.
V-27	331	gate valves	6	4-6" 2-8"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201	Echo Hill	12/2017	n/a	$29,005	Replace 4-6" and 2-8" (6 total) valves on Echo Hill between El Lago and Mimosa. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1979 and will be 38 years old in 2017. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-27 in Exhibit CC-1 shows the location of these valves.
V-28	331	gate valves	14	6"	cast iron with rubberized epoxy coating	$4,651	Tumble-weed	12/2017	n/a	$65,111	Replace 14-6" valves on Tumbleweed between Cavern and Mountainside. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed between 1975 and 1990 and will be 27 to 42 years old in 2017. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-28 in Exhibit CC-1 shows the location of these valves.
V-29	331	gate valves	14	6"	cast iron with rubberized epoxy coating	$4,651	Ponderosa	12/2017	n/a	$65,111	Replace 14-6" valves on Pondersoa between Primrose and Mountainside Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed between 1975 and 1989 and will be 28 to 42 years old in 2017. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-29 in Exhibit CC-1 shows the location of these valves.

V-30	331	gate valves	9	6"	cast iron with rubberized epoxy coating	$4,651	Lantana, Jericho, Brodiea	12/2017	n/a	$41,857	Replace 9-6" valves on Lantana, Jericho, and Brodiea between El Lago and Mimosa. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1979 and will be 38 years old in 2017. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-30 in Exhibit CC-1 shows the location of these valves.
Total			**74**							**$353,676**	



2017

Project No: V-24 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Cavern

project desciption:

Replace 8 - 6" valves
on Cavern
between Palisades and El Lago.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

100 50 0 100 200 300 400
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

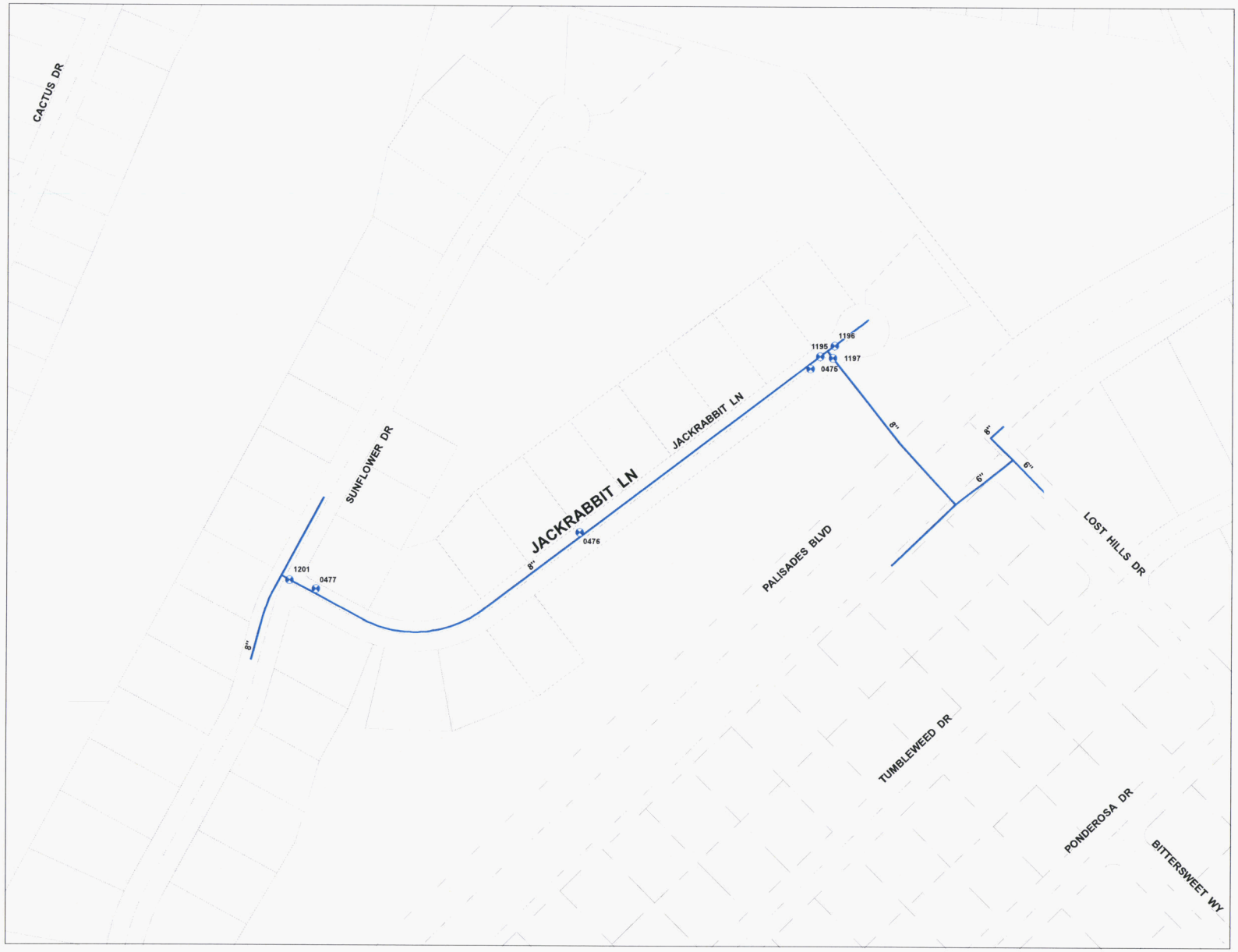
EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 V-24**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
8	6" Valve	4200	Contractor material and labor to replace 8 - 6" valves on Cavern between Palisades and El Lago.	$ 33,600
8	6" Valve	28	Company labor for field oversight and construction management	$ 224
Subtotal				$ 33,824
General Overhead Rate on Labor and Capital (10%)				$ 3,382
Total Estimated Cost				**$ 37,206**



2017

Project No: V-25 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Jackrabbit

project desciption:

Replace 4 - 6", 3 - 8" (7 total) valves
on Jackrabbit
between Sunflower and Palisades.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

60 30 0 60 120 180 240
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

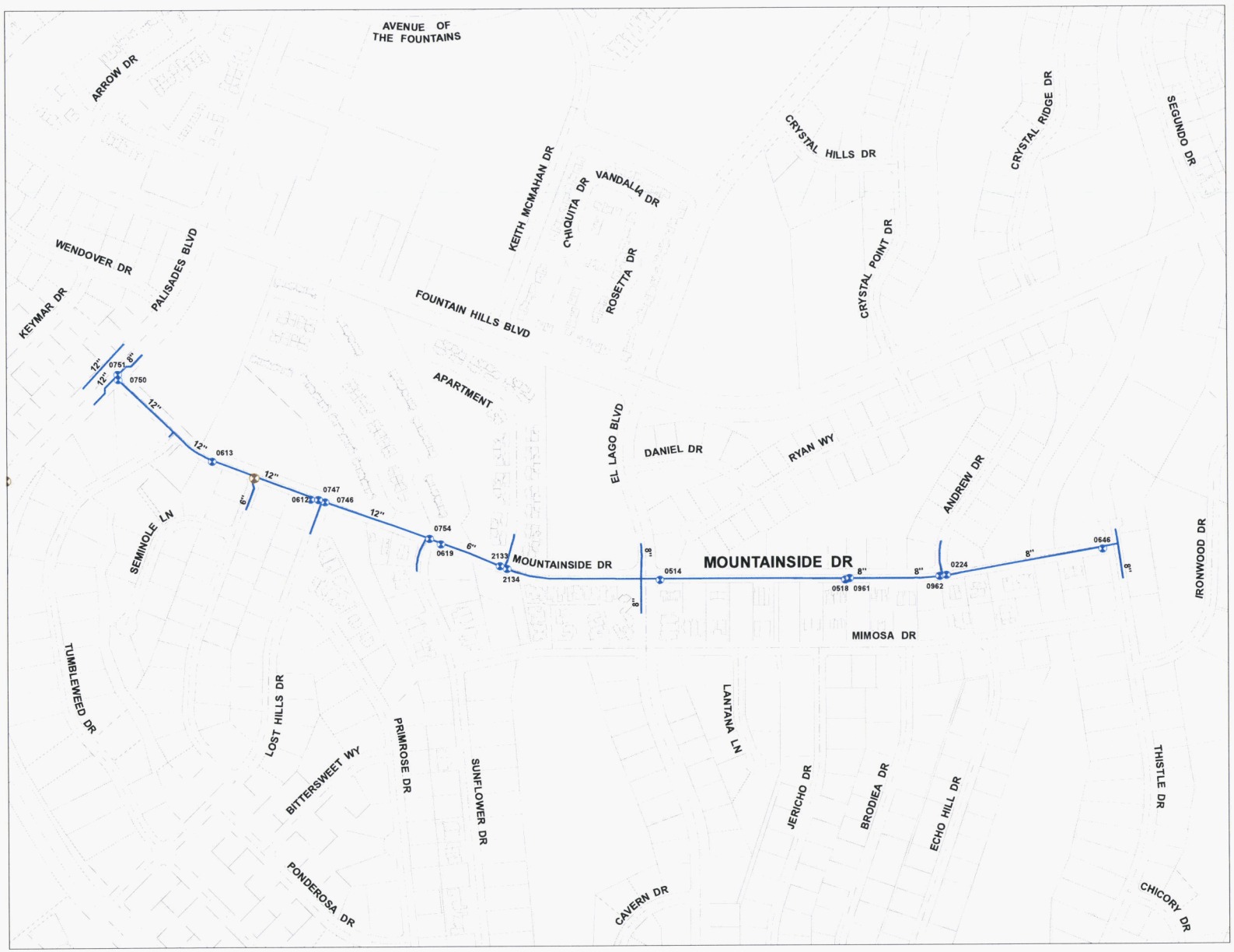
EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 V-25**	Project Location: See project maps

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
4	6" Valve	4200	Contractor material and labor to replace 4 - 6" valves on Jackrabbit between Palisades and Sunflower.	$ 16,800
3	8" Valve	4700	Contractor material and labor to replace 3 - 8" valves on Jackrabbit between Palisades and Sunflower.	$ 14,100
4	6" Valve	28	Company labor for field oversight and construction management	$ 112
3	8" Valve	28	Company labor for field oversight and construction management	$ 84
Subtotal				$ 31,096
General Overhead Rate on Labor and Capital (10%)				$ 3,110
Total Estimated Cost				**$ 34,206**



2017

Project No: V-26 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Mountainside

project desciption:

Replace 9 - 6", 4 - 8", 3 – 12" (16 total) valves on Mountainside between Palisades and Thistle.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

150 75 0 150 300 450 600

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

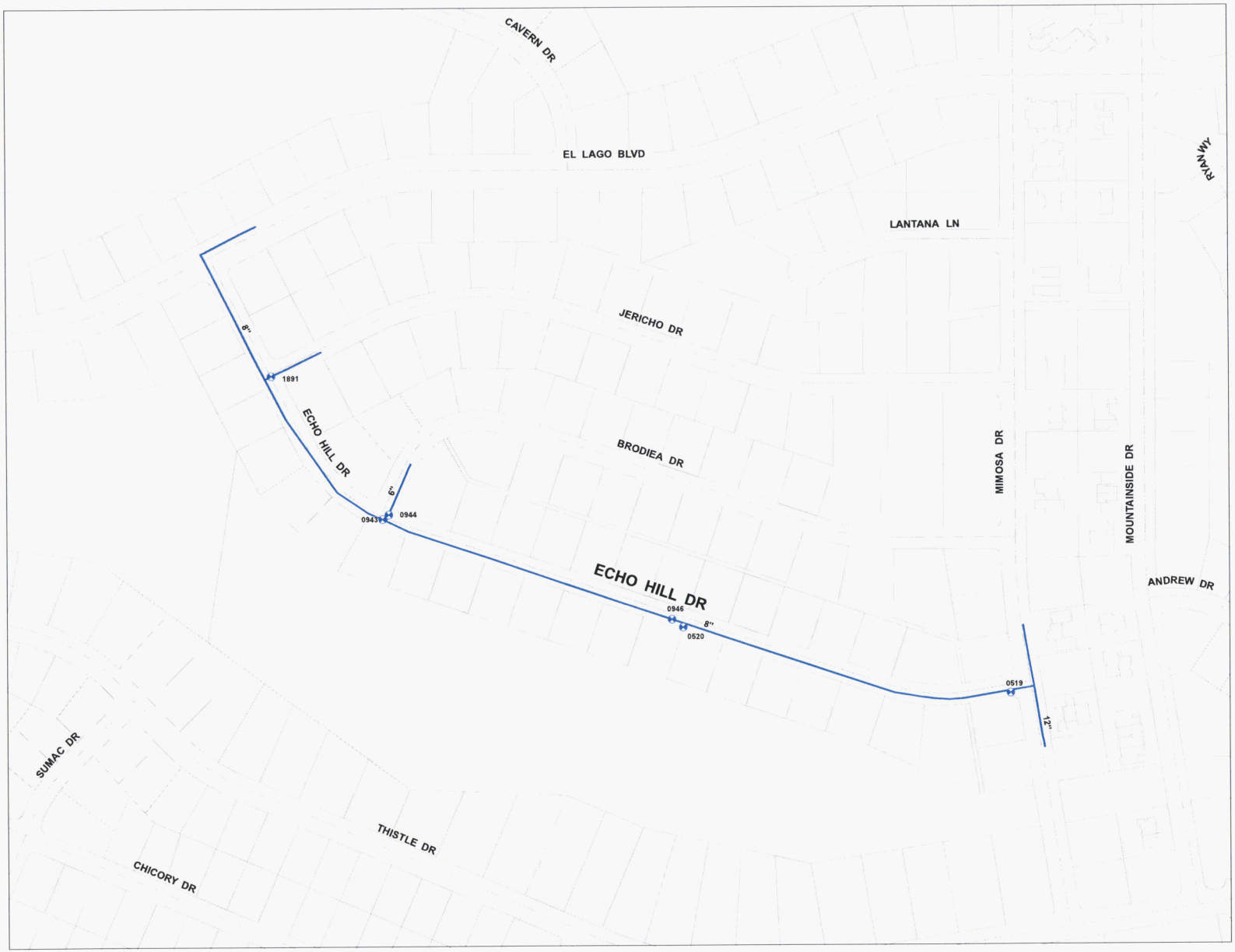
EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 V-26**	Project Location: See project maps

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
9	6" Valve	4200	Contractor material and labor to replace 9 - 6" valves on Mountainside between Palisades and Thistle.	$ 37,800
4	8" Valve	4700	Contractor material and labor to replace 4 - 8" valves on Mountainside between Palisades and Thistle.	$ 18,800
3	12" Valve	5500	Contractor material and labor to replace 3 – 12"valves on Mountainside between Palisades and Thistle.	$ 16,500
9	6" Valve	28	Company labor for field oversight and construction management	$ 252
4	8" Valve	28	Company labor for field oversight and construction management	$ 112
3	12" Valve	112	Company labor for field oversight and construction management	$ 336
Subtotal				$ 73,800
General Overhead Rate on Labor and Capital (10%)				$ 7,380
Total Estimated Cost				**$ 81,180**



2017

Project No: V-27 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Echo Hill

project desciption:

Replace 4 - 6", 2 - 8" (6 total) valves
on Echo Hill
between El Lago and Mimosa.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

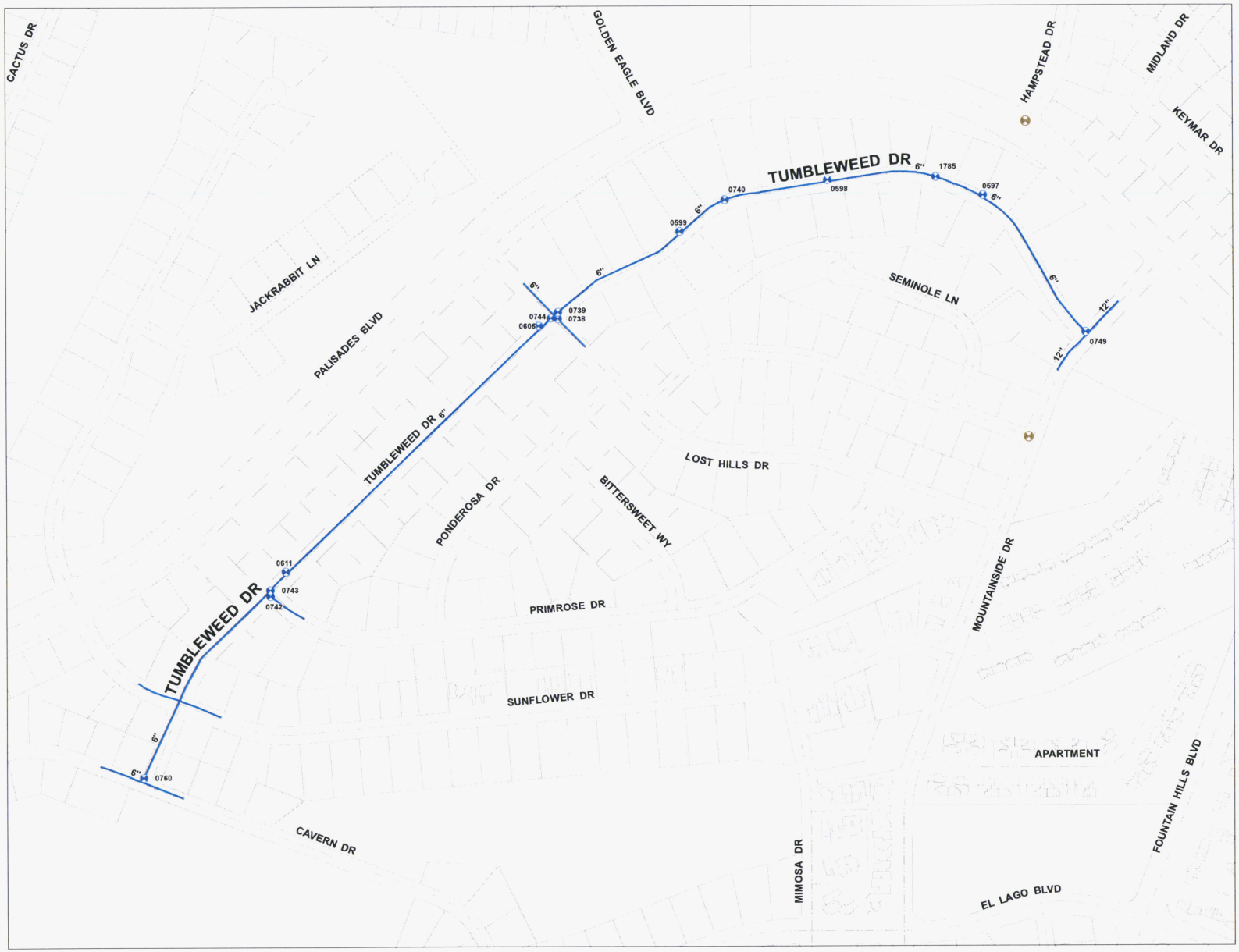
EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 V-27**	Project Location: See project maps

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
4	6" Valve	4200	Contractor material and labor to replace 4 - 6" valves on Echo Hill between El Lago and Mimosa.	$ 16,800
2	8" Valve	4700	Contractor material and labor to replace 2 - 8" valves on Echo Hill between El Lago and Mimosa.	$ 9,400
4	6" Valve	28	Company labor for field oversight and construction management	$ 112
2	8" Valve	28	Company labor for field oversight and construction management	$ 56
Subtotal				$ 26,368
General Overhead Rate on Labor and Capital (10%)				$ 2,637
Total Estimated Cost				**$ 29,005**



2017

Project No: V-28 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Tumbleweed

project desciption:

Replace 14 - 6" valves
on Tumbleweed
between Cavern and Mountainside.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

120 60 0 120 240 360 480
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

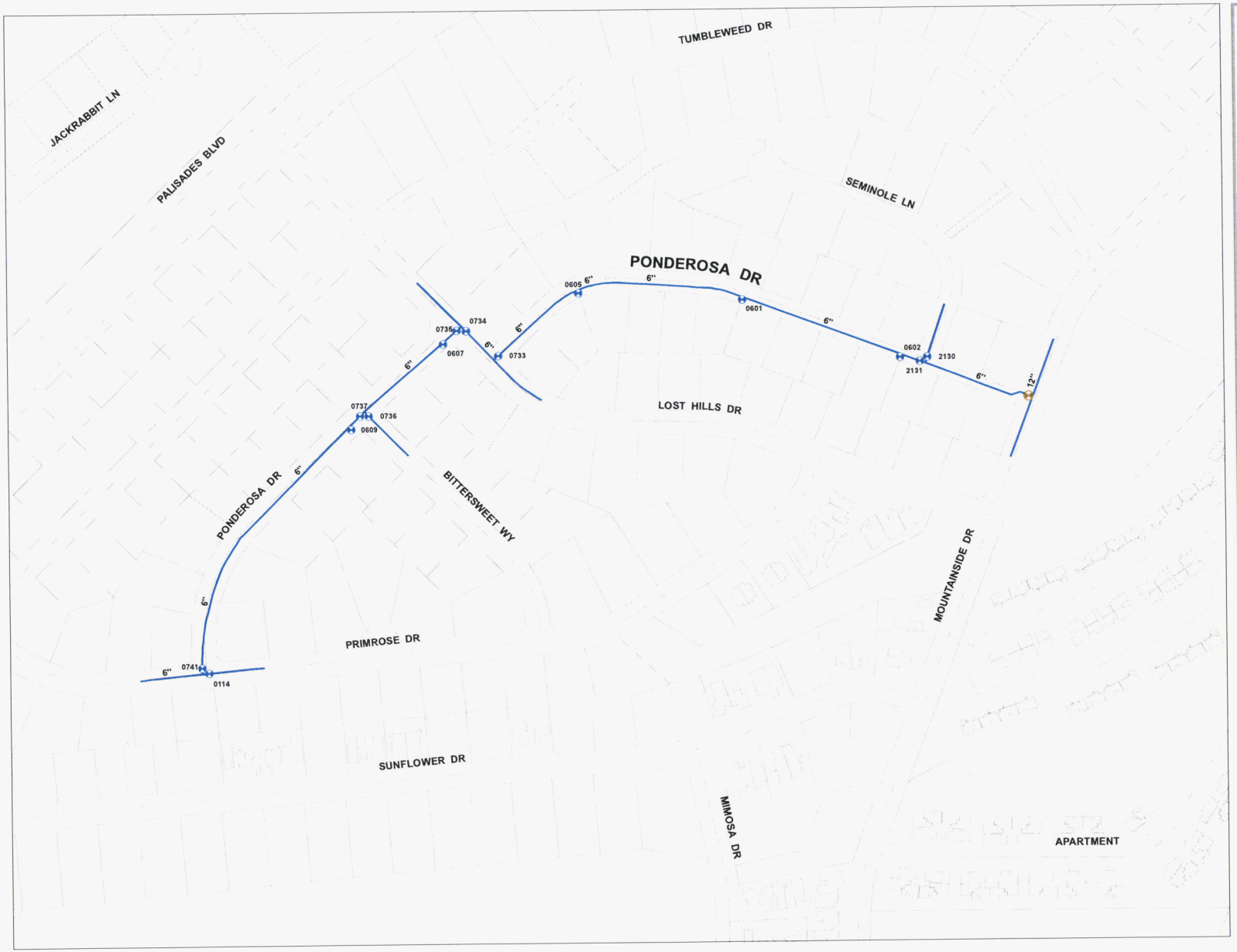
EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 V-28**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
14	6" Valve	4200	Contractor material and labor to replace 14 - 6" valves on Tumbleweed between Cavern and Mountainside.	$ 58,800
14	6" Valve	28	Company labor for field oversight and construction management	$ 392
Subtotal				$ 59,192
General Overhead Rate on Labor and Capital (10%)				$ 5,919
Total Estimated Cost				**$ 65,111**



2017

Project No: V-29 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Ponderosa

project desciption:

Replace 14 - 6" valves
on Ponderosa
between Primrose and Mountainside.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

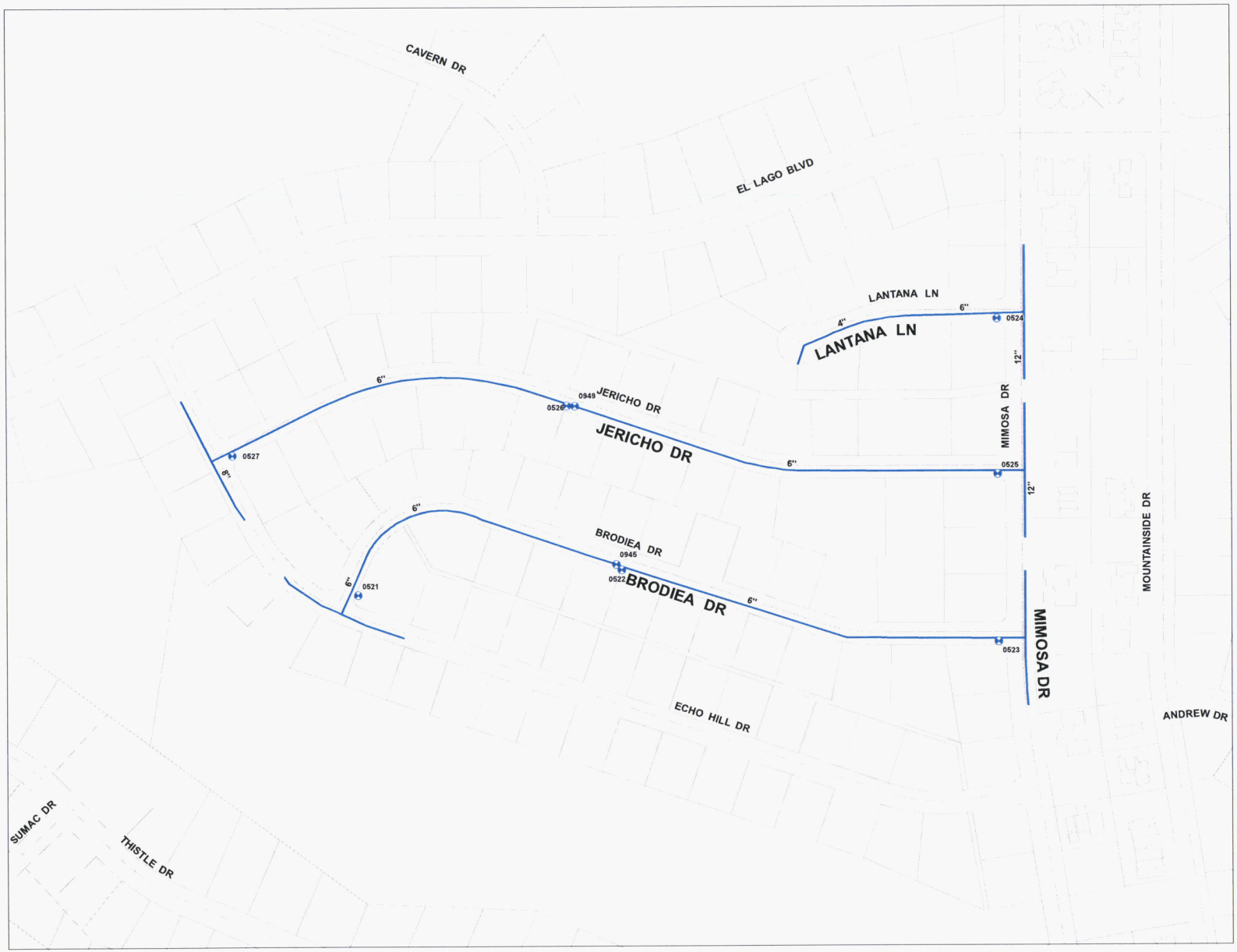
EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 V-29**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
14	6" Valve	4200	Contractor material and labor to replace 14 - 6" valves on Ponderosa between Primrose and Mountainside.	$ 58,800
14	6" Valve	28	Company labor for field oversight and construction management	$ 392
Subtotal				$ 59,192
General Overhead Rate on Labor and Capital (10%)				$ 5,919
Total Estimated Cost				**$ 65,111**



2017

Project No: V-30 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Lantana

project desciption:

Replace 9 - 6" valves
on Lantana, Jericho, Brodiea
between El Lago and Mimosa.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 V-30**	Project Location: See project maps

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
9	6" Valve	4200	Contractor material and labor to replace 9 - 6" valves on Lantana, Jericho, Brodiea between El Lago and Mimosa.	$ 37,800
9	6" Valve	28	Company labor for field oversight and construction management	$ 252
Subtotal				$ 38,052
General Overhead Rate on Labor and Capital (10%)				$ 3,805
Total Estimated Cost				**$ 41,857**

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 2-5

2018 Valve Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
V-31	331	gate valves	33	1-4" 19-6" 5-8" 8-12"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651 8"-$5,201 12"-$6,173	El Pueblo	12/2018	n/a	$168,186	Replace 1-4", 19-6", 5-8", 8-12" (33 total) valves on El Pueblo between Fountain Hills Blvd and Escalante. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1973 and will be 45 years old in 2018. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-31 in Exhibit CC-1 shows the location of these valves.
V-32	331	gate valves	13	1-4" 12-6"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651	Oro Grande	12/2018	n/a	$60,240	Replace 1-4" and 12-6" (13 total) valves on Oro Grande between Calle del Prado and Tejon. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1974 and will be 44 years old in 2018. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-32 in Exhibit CC-1 shows the location of these valves.

V-33	331	gate valves	16	1-4" 14-6" 1-12"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651 12"-$6,173	Alamosa	12/2018	n/a	$75,715	Replace 1-4", 14-6", and 1-12" (16 total) valves on Alamosa between Del Cambre and El Pueblo. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1972 and will be 46 years old in 2018. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-33 in Exhibit CC-1 shows the location of these valves.
V-34	331	gate valves	11	2-4" 9-6"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651	Caliente, Yuma Kiva	12/2018	n/a	$50,719	Replace 2-4" and 9-6" (11 total) valves on Caliente and Yuma Kiva between Tejon and El Pueblo. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1973 and will be 45 years old in 2018. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-34 in Exhibit CC-1 shows the location of these valves.
V-35	331	gate valves	16	15-6" 1-12"	cast iron with rubberized epoxy coating	6"-$4,651 12"-$6,173	El Sobrante	12/2018	n/a	$75,935	Replace 15-6" and 1-12" (16 total) valves on El Sobrante between Baca and Calvaras. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1972 and will be 6 years old in 2018. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-35 in Exhibit CC-1 shows the location of these valves.
Total			**89**							**$430,795**	

2018

Project No: V-31 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

El Pueblo

project desciption:

Replace 1 - 4", 19-6", 5-8", 8-12" valves (33 total) on El Pueblo between Fountain Hills Blvd and Escalante.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

175 87.5 0 175 350 525 700
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

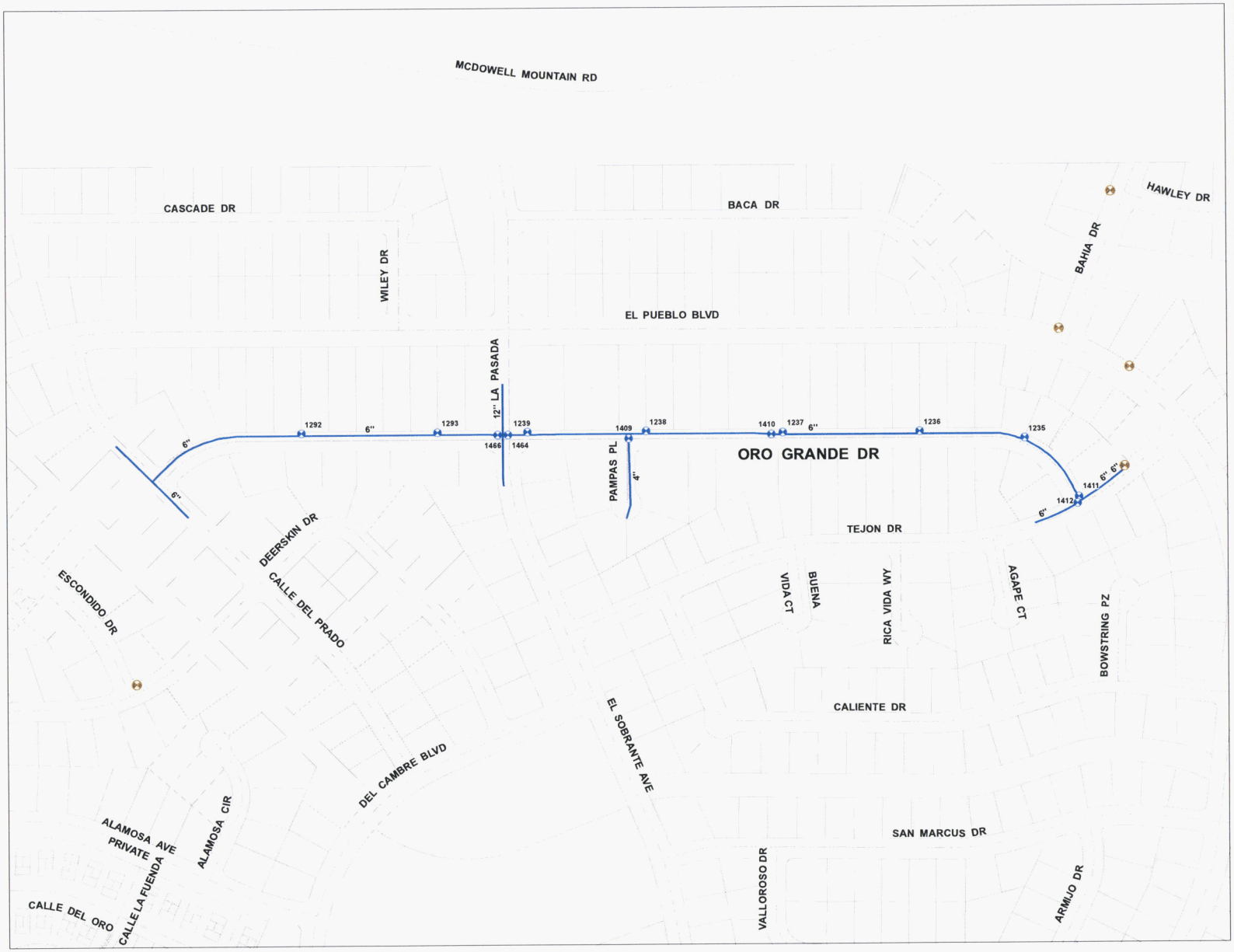
EPCOR Water Preliminary Cost Estimate				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 V-31**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
1	4" Valve	4000	Contractor material and labor to replace 1 - 4" valves on El Pueblo between Fountain Hills Blvd and Escalante.	$ 4,000
19	6" Valve	4200	Contractor material and labor to replace 19-6" valves on El Pueblo between Fountain Hills Blvd and Escalante.	$ 79,800
5	8" Valve	4700	Contractor material and labor to replace 5-8"valves on El Pueblo between Fountain Hills Blvd and Escalante.	$ 23,500
8	12" Valve	5500	Contractor material and labor to replace 8-12" valves on El Pueblo between Fountain Hills Blvd and Escalante.	$ 44,000
1	4" Valve	28	Company labor for field oversight and construction management	$ 28
19	6" Valve	28	Company labor for field oversight and construction management	$ 532
5	8" Valve	28	Company labor for field oversight and construction management	$ 140
8	12" Valve	112	Company labor for field oversight and construction management	$ 896
Subtotal				$ 152,896
General Overhead Rate on Labor and Capital (10%)				$ 15,290
Total Estimated Cost				**$ 168,186**



2018

Project No: V-32 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Oro Grande

project desciption:

Replace 1 - 4", 12 - 6" valves (13 total)
on Oro Grande
between Calle del Prado and Tejon.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

100 50 0 100 200 300 400
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 V-32**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
1	4" Valve	4000	Contractor material and labor to replace 1 - 4" valves on Oro Grande between Calle del Prado and Tejon.	$ 4,000
12	6" Valve	4200	Contractor material and labor to replace 12 - 6" valves on Oro Grande between Calle del Prado and Tejon.	$ 50,400
1	4" Valve	28	Company labor for field oversight and construction management	$ 28
12	6" Valve	28	Company labor for field oversight and construction management	$ 336
Subtotal				$ 54,764
General Overhead Rate on Labor and Capital (10%)				$ 5,476
Total Estimated Cost				**$ 60,240**

2018

Project No: V-33 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Alamosa

project desciption:

Replace 1 - 4", 14 - 6", 1 - 12" valves (16 total) on Alamosa
between El Pueblo and Del Cambre.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 V-33**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
1	4" Valve	4000	Contractor material and labor to replace 1 - 4" valves on Alamosa between Del Cambre and El Pueblo	$ 4,000
14	6" Valve	4200	Contractor material and labor to replace 14 - 6" valves on Alamosa between Del Cambre and El Pueblo	$ 58,800
1	12" Valve	5500	Contractor material and labor to replace 1 - 12" valves on Alamosa between Del Cambre and El Pueblo	$ 5,500
1	4" Valve	28	Company labor for field oversight and construction management	$ 28
14	6" Valve	28	Company labor for field oversight and construction management	$ 392
1	12" Valve	112	Company labor for field oversight and construction management	$ 112
Subtotal				$ 68,832
General Overhead Rate on Labor and Capital (10%)				$ 6,883
Total Estimated Cost				**$ 75,715**

2018

Project No: V-34 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Caliente

project desciption:

Replace 2 - 4", 9 – 6" valves (11 total) on Caliente and Yamu Kiva between Tejon and El Pueblo.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

N

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 V-34**	Project Location: See project maps

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
2	4" Valve	4000	Contractor material and labor to replace 2 - 4" valves on Caliente and Yuma Kiva between Tejon and El Pueblo.	$ 8,000
9	6" Valve	4200	Contractor material and labor to replace 9 – 6" valves on Caliente and Yuma Kiva between Tejon and El Pueblo.	$ 37,800
2	4" Valve	28	Company labor for field oversight and construction management	$ 56
9	6" Valve	28	Company labor for field oversight and construction management	$ 252
Subtotal				$ 46,108
General Overhead Rate on Labor and Capital (10%)				$ 4,611
Total Estimated Cost				**$ 50,719**

2018

Project No: V-35 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

El Sobrante

project desciption:

Replace 1 - 12", 15 - 6" valves (16 total) on El Sobrante and La Pasada between Baca and Calaveras.

Legend

- Valves previously replaced
- Valves to be replaced
- Water Main

100 50 0 100 200 300 400
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/5/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 V-35**	Project Location: See project maps	

Project Description:

Replace old distribution system iron butterfly valves that are not operable due to age and natural build-up of minerals on internal components with new industry standard gate valves with expoxy and rubberized internal components to prevent build-up.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
15	6" Valve	4200	Contractor material and labor to replace 15 - 6" valves on El Sobrante between Baca and Calvaras.	$ 63,000
1	12" Valve	5500	Contractor material and labor to replace 1 - 12" valves on El Sobrante between Baca and Calvaras.	$ 5,500
15	6" Valve	28	Company labor for field oversight and construction management	$ 420
1	12" Valve	112	Company labor for field oversight and construction management	$ 112
Subtotal				$ 69,032
General Overhead Rate on Labor and Capital (10%)				$ 6,903
Total Estimated Cost				**$ 75,935**

SECTION 3 - HYDRANTS

3.1 Overview

EPCOR's Fountain Hills distribution system contains approximately 1,600 fire hydrants. Most of the hydrants in the system are Dresser hydrants, Models 300 and 500. Due to the age of these hydrants, numerous repairs have been necessary. However, repair parts for these specific hydrants are not available. Therefore, when a hydrant needs to be repaired, EPCOR has no choice but to replace the hydrant entirely.

EPCOR plans to replace Dresser hydrants with AVK wet barrel hydrants. Wet barrel hydrants have the numerous advantages, including the simplicity in construction and all the mechanical parts are above ground and therefore are easily accessible for repairs. They can be easily raised or lowered to a desired height and the caps cannot be easily removed without the proper tools, making it more difficult for others to tamper with them. EPCOR has been satisfied with the quality of the AVK brand hydrants and therefore plans to replace all Dresser hydrants with AVK wet barrel hydrants.

3.2 Hydrant Replacements

Due to the problems with shutting down hydrants in order to replace them, it is important to replace the Dresser model hydrants that are known to be in poor condition before they fail in order to minimize any potential disruption in service to customers. Historical data shows that the older the hydrant, the more likely it is to fail, and so it is reasonable to replace the oldest Dresser hydrants first. In the following tab, **Historical Data**, historical hydrant replacements from 2007 through 2012 are listed; replacements prior to 2007 are not included.

On average, during the past five years, 34 hydrants per year were replaced when they were found not to be operational by either EPCOR employees or the Town of Fountain Hills Fire Department. There are many hydrants in the system that still need to be replaced and it is recommended that approximately 35 hydrants be replaced per year in order to keep up with all of the hydrants that need to be replaced. The fire hydrant replacement cost over five years is estimated at $0.4M.

Hydrant replacement projects are described in the following tabs labeled **2014, 2015, 2016, 2017,** and **2018**. Tables I, 3-1 through Table I, 3-5 provide a detailed description of each hydrant

replacement project. The tables are broken down by year, so there is a separate table for each year from 2014 (Table I, 3-1) through 2018 (Table I, 3-5). Each project addresses a set of hydrant replacements that will occur within a defined area. Each project can also be tied to a map showing the proposed hydrant replacements as well as any hydrants in the vicinity that have been replaced since 2007. A detailed cost estimate for each project is also provided.

Hydrants - Replacements 2007-2012

Address	Scope of Work	Type	Date Inspected	Date Repaired
15651 Centipede	replaced dresser with AVK W/B	AVK	1/4/2007	2/8/07
11002 Saguaro Blvd	replaced waterous with AVK W/B	AVK	1/31/2007	2/8/07
15609 Sunridge Dr	replaced AVK with AVK W/B	AVK	2/21/2007	2/23/07
15200 Desert Canyon	replaced mueller with AVK W/B	AVK	3/20/2007	3/20/07
16450 Palisades	replaced clow with AVK W/B	AVK	3/21/2007	3/21/07
12005 Chama Dr	replaced dresser with AVK W/B	AVK	3/21/2007	3/23/07
16235 Stancrest Dr	replaced dresser with AVK W/B	AVK	3/22/2007	3/23/07
12840 Fountain Hills Blvd	replaced dresser with AVK W/B	AVK	3/26/2007	3/26/07
13404 La Montana	replaced waterous with AVK W/B	AVK	3/28/2007	3/28/07
15934 Rocky Mountain Plaza	replaced dresser with AVK W/B	AVK	3/26/2007	3/28/07
15121 Cabrillo Dr	replaced AVK with AVK W/B	AVK	3/21/2007	3/29/07
14911 Rhoads Court	replaced AVK with AVK W/B	AVK	3/29/2007	3/29/07
16308 Arrow Dr	replaced waterous with AVK W/B	AVK	3/20/2007	4/4/07
16833 Kingstree Blvd	replaced dresser with AVK W/B	AVK	4/4/2007	4/4/07
15453 Golden Eagle Blvd	replaced dresser with AVK W/B	AVK	4/9/2007	4/16/07
15627 Boulder Dr	replaced dresser with AVK W/B	AVK	4/4/2007	4/18/07
16448 Fairlynn	replaced dresser with AVK W/B	AVK	4/4/2007	4/23/07
16927 Sabinas	replaced waterous with AVK W/B	AVK	3/29/2007	4/26/07
10646 Eagle Blvd	replaced dresser with AVK W/B	AVK	4/12/2007	4/26/07
15617 Santa Maria	replaced AVK with AVK W/B	AVK	3/23/2007	4/26/07
9236 Broken Bow	replaced waterous with AVK W/B	AVK	3/30/2007	4/27/07
15035 Mayan	replaced waterous with AVK W/B	AVK	4/11/2007	4/27/07
14827 Shadow Canyon	replaced clow with AVK W/B	AVK	4/11/2007	5/1/07
15724 Cactus Wren	replaced clow with AVK W/B	AVK	4/11/2007	5/3/07
16813 Palisades	replaced AVK with AVK W/B	AVK	4/4/2007	5/7/07
16050 San Andres Dr	replaced mueller with AVK W/B	AVK	4/4/2007	5/8/07
15617 Santa Maria	replaced dresser with AVK W/B	AVK	4/4/2007	5/9/07
15524 Cavern Dr	replaced waterous with AVK W/B	AVK	4/24/2007	5/9/07
15030 Calle Del Prado	replaced dresser with AVK W/B	AVK	4/2/2007	5/9/07
17131 Rand Dr	replaced dresser with AVK W/B	AVK	4/12/2007	5/18/07
14247 Oakwood	replaced dresser with AVK W/B	AVK	4/24/2007	5/29/07
10409 Nicklaus Dr	replaced dresser with AVK W/B	AVK	4/24/2007	5/29/07
17224 La Pasada Dr	replaced dresser with AVK W/B	AVK	4/24/2007	6/8/07
17360 Teal Dr	replaced waterous with AVK W/B	AVK	6/7/2007	6/8/07
15220 Sierra Madre	replaced waterous with AVK W/B	AVK	4/11/2007	6/12/07
11245 Buffalo Dr	replaced waterous with AVK W/B	AVK	6/13/2007	6/13/07
17115 Shea Blvd	replaced AVK with clow W/B	CLOW	6/21/2007	7/13/07
15457 Cabrillo Dr	replaced AVK with clow W/B	CLOW	4/16/2007	7/18/07
15018 Bradford Dr	replaced dresser with AVK W/B	AVK	3/22/2007	7/20/07
11832 Saguaro Blvd	replaced dresser with AVK W/B	CLOW	5/14/2007	7/20/07
11010 Kingstree Blvd	replaced waterous with AVK W/B	AVK	6/14/2007	8/6/07
16002 Balsam Dr	replaced waterous with AVK W/B	AVK	8/10/2007	8/21/07
15053 Escalante Dr	replaced dresser with AVK W/B	AVK	6/7/2007	8/27/07
15843 Cholla Dr	replaced dresser with AVK W/B	AVK	6/29/2007	8/27/07
11452 Yaqui Court	replaced dresser with AVK W/B	AVK	8/14/2007	10/30/07
11410 Saguaro Blvd	replaced dresser with AVK W/B	AVK	9/1/2007	10/30/07
15818 Cerro Alto Dr	replaced dresser with AVK W/B	AVK	11/1/2007	11/2/07
14648 Fountain hills blvd	replaced dresser with AVK W/B	AVK	11/27/2007	12/5/07
16509 Laser Dr	replaced Dresser with Avk wet barrel	AVK	1/15/2008	1/16/08
9841 Jagged Circle	replaced clow with Avk wet barrel	AVK	1/16/2008	1/17/08
15604 Audubon Pl	replaced Dresser with Avk wet barrel	AVK	1/18/2008	1/22/08
17216 Hillcrest	replaced clow with Avk wet barrel	AVK	1/25/2008	1/25/08
15003 Greenvalley	replaced waterous with Avk wet barrel	AVK	1/31/2008	2/13/08
15006 Maple Dr	replaced Dresser with Avk wet barrel	AVK	3/28/2007	4/10/08
16728 Bayfield	replaced Dresser with Avk wet barrel	AVK	4/1/2008	4/15/08
10929 Sonoran Vista	replaced Dresser with Avk wet barrel	AVK	5/8/2008	5/13/08
12609 La Montana Dr	replaced Dresser with Avk wet barrel	AVK	5/8/2008	5/13/08

Hydrants - Replacements 2007-2012

Address	Scope of Work	Type	Date Inspected	Date Repaired
12844 Mountainside	replaced Dresser with Avk wet barrel	AVK	5/8/2008	5/14/08
15026 Ivory	replaced Dresser with Avk wet barrel	AVK	5/8/2008	5/22/08
14005 Bayfield Dr	replaced Dresser with Avk wet barrel	AVK	5/8/2008	6/4/08
15239 Zapata Dr	replaced waterous with Avk wet barrel	AVK	5/12/2008	6/12/08
16101 Powderhorn	replaced waterous with Avk wet barrel	AVK	5/30/2008	6/13/08
16309 Nicklaus	replaced Dresser with Avk wet barrel	AVK	6/1/2008	6/23/08
17450 El Pueblo	replaced Dresser with Avk wet barrel	AVK	6/3/2008	6/26/08
14005 Bayfield Dr	replaced Dresser with Avk wet barrel	AVK	6/28/2008	6/28/08
16525 Ave Of the Ftns	repaired hit clow wet barrel	Clow	7/1/2008	7/9/08
15722 Jackrabbit Dr	replace clow with AVK wet barrel	AVK	12/29/2008	1/5/09
14205 Honeysuckle Dr	replace clow with AVK wet barrel	AVK	1/2/2009	1/8/09
17034 Calle Del Oro	replace dresser with AVK wet barrel	AVK	1/16/2009	1/21/09
15707 Thistle Dr	replace dresser with AVK wet barrel	AVK	1/29/2009	2/10/09
16249 Glenbrook blvd	replace dresser with AVK wet barrel	AVK	3/5/2009	3/9/09
Eastridge & Grandview	replace clow with AVK wet barrel	AVK	3/9/2009	3/11/09
14617 Gecko Ln	replace clow with AVK wet barrel	AVK	3/10/2009	3/12/09
11500 Palisades Dr	replace clow with AVK wet barrel	AVK	3/18/2009	3/20/09
16000 #7 Palisades	replace watrous with AVK wet barrel	AVK	3/18/2009	3/20/09
10805 buffalo	replaced waterous with AVK wet barrel	AVK	4/6/2009	4/7/09
11245 buffalo	replaced waterous with AVK wet barrel	AVK	4/6/2009	4/8/09
11003 buffalo	replaced waterous with AVK wet barrel	AVK	4/6/2009	4/8/09
16014 Glenbrook	replaced dresser with AVK wet barrel	AVK	4/9/2009	4/9/09
11251 Pinto Dr	replaced dresser with AVK wet barrel	AVK	4/9/2009	4/9/09
9808 Rough Circle	replaced dresser with AVK wet barrel	AVK	3/31/2009	4/10/09
14644 Love Ct	replaced waterous with AVK wet barrel	AVK	3/30/2009	4/14/09
13700 FTN Hills Blvd	replaced waterous with AVK wet barrel	AVK	4/13/2009	4/14/09
13799 FTN Hills Blvd	replaced waterous with AVK wet barrel	AVK	4/21/2009	4/21/09
15009 Palomino Dr	replaced waterous with AVK wet barrel	AVK	4/16/2009	4/30/09
11021 Pinto Dr	replaced waterous with AVK wet barrel	AVK	5/1/2009	5/5/09
17053 Shea Blvd	replaced waterous with AVK wet barrel	AVK	5/7/2009	5/7/09
16431 Jacklin Dr	replaced dresser with AVK wet barrel	AVK	4/16/2009	5/11/09
16557 Nelson Dr	replaced dresser with AVK wet barrel	AVK	3/31/2009	5/11/09
12008 Organ Pipe Dr	replaced dresser with AVK wet barrel	AVK	4/9/2009	5/12/09
15641 Norte Vista	replaced AVK with AVK wet barrel	AVK	5/14/2009	5/19/09
11684 Saquaro Blvd	replaced dresser with AVK wet barrel	AVK	5/18/2009	6/8/09
17306 Niblick Way	replaced dresser with AVK wet barrel	AVK	6/23/2009	6/29/09
11801 Winchester	replaced waterous with AVK wet barrel	AVK	4/14/2009	6/30/09
15133 Box Car Dr	replaced waterous with AVK wet barrel	AVK	5/4/2009	6/30/09
17028 Deerskin Drive	replaced dresser with AVK wet barrel	AVK	8/15/2009	8/17/09
15024 Ridgeway Dr	replaced waterous with AVK wet barrel	Avk	4/16/2009	8/25/09
N/E Corner Shea Blvd & Fountain Hills Blvd	replaced AVK with AVK wet barrel	AVK	6/15/2009	8/28/09
16710 Oxford Dr	replaced dresser with AVK wet barrel	Avk	9/16/2009	9/30/09
16341 Glenbrook Blvd	replaced dresser with AVK wet barrel	AVK	7/31/2009	10/19/09
16729 Emerald Dr	replaced waterous with AVK wet barrel	AVK	4/30/2009	10/29/09
15606 Sunburst Dr	replaced waterous with AVK wet barrel	AVK	4/14/2009	10/29/09
16811 Malta	replaced dresser with AVK wet barrel	AVK	11/2/2009	11/4/09
Teakwood	Replaced Dresser/Dry Barrel w\ Avk Wet Barrel	AVK	1/9/2010	1/12/10
15307 Palomino Blvd	Replaced Waterous/Dry Barrel w/ Avk Wet Barrel	AVK	1/19/2010	2/8/10
15822 Kipling	Replaced Dresser/Dry Barrel w\ Avk Wet Barrel	AVK	1/27/2010	2/11/10
14440 Fountain Hills Blvd	Replaced Avk/Wet Barrel w/ Avk Wet Barrel	AVK	2/10/2010	2/24/10
17464 Tejon Dr	Replaced Dresser/Dry Barrel w\ Avk Wet Barrel	AVK	2/26/2010	3/19/10
17406 Flat Rock Dr	Replaced Dresser/Dry Barrel w\ Avk Wet Barrel	Avk	3/15/2010	3/24/10
110029Valley Dr	Replaced Dresser/Dry Barrel w\ Avk Wet Barrel	AVK	3/16/2010	3/25/10
13611 Bonita Way	Stem replaced by Steve W/ Mueller	Mueller	3/15/2010	3/31/10
16743 Parlin	Replaced Dresser/Dry Barrel w\ Avk Wet Barrel	AVK	4/5/2010	4/9/10
12052 Chama Dr	Replaced Dresser /Dry Barrel w/ Avk Wet Barrel	AVK	4/15/2010	4/28/10
15034 Ridgeway	Replaced Clow / Dry Barrel / Clow Wet Barrel	Clow	4/24/2010	5/3/10

Hydrants - Replacements 2007-2012

Address	Scope of Work	Type	Date Inspected	Date Repaired
16621 GreenBriar Lane	Replaced Dresser/Dry Barrel w\ Avk Wet Barrel	AVK	6/15/2010	6/25/10
15124 Sundown Dr	Replaced Clow / Dry Barrel w/Avk Wet Barrel	Avk	6/10/2010	6/28/10
15507 Chicory Dr	Replaced Dresser/Dry Barrel w\ Avk Wet Barrel	Avk	10/26/2010	10/27/10
10817 Pinto Dr	Replaced Waterous/Dry Barrel w/ Avk Wet Barrel	AVK	12/1/2010	12/2/10
11612 Dawn Ridge Ct	Replaced Dresser/Dry Barrel w\ Avk Wet Barrel	AVK	12/8/2010	12/8/10
17153 Malta Dr	Replaced Dresser/Dry Barrel w\ Avk Wet Barrel	AVK	12/9/2010	12/27/10
17000 Malta Dr	Replaced Dresser/Dry Barrel w\ Avk Wet Barrel	Avk	12/7/2010	12/27/10
17102 Malta Dr	Replaced Dresser/Dry Barrel w\ Avk Wet Barrel	AVK	12/7/2010	12/27/10
16948 Shea Blvd	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	1/4/2011	1/6/11
Eagle Nest	Replaced Clow Wet Barrel w/ Clow Wet Barrel	Clow	12/1/2010	1/6/11
16434 Arroyo Vista	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	12/29/2010	1/12/11
17511 Calico	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	1/18/2011	1/24/11
17458 Santa Rosa Lane	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	1/20/2011	1/24/11
15031 El Pueblo Blvd	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	1/13/2011	1/25/11
14231 Augilar Dr	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	1/25/2011	1/27/11
17232 La Pasada Dr	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	1/25/2011	1/31/11
15236 Lotus	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	2/8/2011	2/10/11
Fontana Way & Bonita Dr	Replaced Waterous Dry Barrel w/ Avk Wet Barrel	Avk	2/27/2011	2/28/11
15605 Scorpion Dr	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	3/4/2011	3/5/11
16601 Grassland	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	3/5/2011	3/9/11
17404 Calaveras Dr	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	3/11/2011	3/11/11
16704 Saguaro Blvd	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	3/15/2011	3/15/11
16424 N Km Dr	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	3/9/2011	3/15/11
16659 Last Trail Dr	Replaced Waterous Dry Barrel w/ Avk Wet Barrel	Avk	3/10/2011	4/4/11
16405 Heather Dr	Replaced Dresser Dry Barrel w/ Avk Wet Barrel	Avk	3/8/2011	4/11/11
16006 Carmel	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	3/23/2011	4/11/11
14852 Golden Eagel Blvd	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	3/29/2011	4/12/11
14012 Fountain Hills Blvd	Replaced Waterous Dry Barrel w/ Avk Wet Barrel	Avk	3/23/2011	4/18/11
16644 Aspen Dr	Replaced Waterous Dry Barrel w/ Avk Wet Barrel	Avk	4/1/2011	4/18/11
16436 Desert Sage	Replaced Waterous Dre Barrel w/ Avk Wet Barrel	Avk	4/5/2011	4/18/11
17433 Via Del Oro	Replaced Clow Wet Barrel w/ Clow Wet Barrel	Avk	5/5/2011	5/6/11
16852 La Montana	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	4/7/2011	5/10/11
15628 Tepee Dr	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	5/9/2011	5/10/11
16500 Leo Dr	Replaced Waterous Dry Barrel w/ Avk Wet Barrel	Avk	4/18/2011	5/11/11
15630 Tacony Dr	Replaced Waterous Dre Barrel w/ Avk Wet Barrel	Avk	4/18/2011	6/27/11
15805 Kim Dr	Replaced Dresser dry barrel w/ Avk Wet Barrel	Avk	4/25/2011	6/27/11
15638 Sunridge Dr	Replaced Waterous dry barrel w/ Clow Wet Barrel	Clow	4/28/2011	7/11/11
16065 Overlock Ct	Replaced Dresser dry barrel w/ Clow Wet Barrel	Clow	4/20/2011	7/11/11
16755 Nicklaus Dr	Replaced Dresser dry barrel w/ Clow Wet Barrel	Clow	5/11/2011	7/12/11
15051 Escondido Dr	Replaced Dresser dry barrel w/ Clow Wet Barrel	Clow	6/15/2011	7/22/11
17118 Cascade Dr	Replaced Dresser dry barrel w/ Clow Wet Barrel	Clow	6/15/2011	7/28/11
17416 oro grande dr	Replaced Dresser dry barrel w/ Clow Wet Barrel	Clow	6/15/2011	7/28/11
15305 Aspen Dr	Replaced Dresser dry barrel w/ Clow Wet Barrel	Clow	4/28/2011	7/29/11
14856 Fayette Dr	Replaced Waterous dry barrel w/ Clow Wet Barrel	Clow	8/15/2011	8/16/11
14629 Winston Lane	Replaced Dresser dry barrel w/ Clow Wet Barrel	Clow	8/16/2011	8/25/11
14844 Greenhurst Ave	Replaced Dresser dry barrel w/ Clow Wet Barrel	Clow	8/16/2011	8/25/11
16604 Oxford Dr	Replaced Dresser dry Barrel w/ Clow Wet Barrel	Clow	8/16/2011	8/29/11
17233 Rockwood Dr	Replaced Waterous dry barrel w/ Clow Wet Barrel	Clow	10/3/2011	10/4/11
17109 Grande Blvd	Replaced Waterous dry barrel w/ Clow Wet Barrel	Clow	10/10/2011	10/10/11
16035 Overlock Ct	Replaced Dresser dry barrel w/ Clow Wet Barrel	Clow	11/7/2011	11/9/11
17433 Dull Knife	Replace Dresser dry barrel w/clow wet barrel	Clow	11/8/2011	11/11/11
17406 Flatrock Dr	Replace Dresser dry barrel w/clow wet barrel	Clow	11/8/2011	11/14/11
13421 Clifftop Dr	Replace Dresser dry barrel w/clow wet barrel	Clow	11/8/2011	11/14/11
13456 El PUEBLO Dr	Replace Dresser dry barrel w/clow wet barrel	CLOW	11/12/2011	11/25/11
12220 Teal Dr	Replaced Waterous dry barrel w/ Clow Wet Barrel	Clow	12/6/2011	12/6/11
14806 Calle Del Prado	Replace Dresser dry barrel w/clow wet barrel	Clow	12/9/2011	12/15/11
Gunsight Dr & Saguaro Blvd	Replace from valve to new Hydrant	Clow	19-Jan-12	1/13/12

Hydrants - Replacements 2007-2012

Address	Scope of Work	Type	Date Inspected	Date Repaired
10735 Skyline Dr	Replaced Jones Wet W/ Clow Wet Barrel	Clow	19-Jan-12	1/30/12
16416 Saguaro Blvd	Replaced Dresser Dry W/ Clow Wet Barrel	Clow	29-Dec-11	1/31/12
16502 Saguaro Blvd	Replaced Dresser Dry W/ Clow Wet Barrel	Clow	29-Dec-11	1/31/12
13225 N Eagel Ridge Dr	Replaced Clow Dry w/ Clow Wet Barrel	Clow	23-Jan-12	1/31/12
13227-3 Mimosa Dr	Replaced Waterous Dry W/ Clow Wet Barrel	Clow	28-Dec-11	2/7/12
15035 Staghorn Dr	Replaced Clow Dry w/ Clow Wet Barrel	Clow	27-Dec-11	2/7/12
14902 Sunridge Dr	Replaced Clow Dry w/ Clow Wet Barrel	Clow	8-Feb-12	2/8/12
16203 Powderhorn Dr	Replaced Waterous Dry W/ Clow Wet Barrel	Clow	27-Dec-11	2/13/12
16825 Ave of The Ftns	Replaced Clow Wet w/ Clow Wet Barrel	Clow	24-Feb-12	2/24/12
11205 Garland Cir	Replaced Waterous Dry W/ Clow Wet Barrel	Clow	24-Feb-12	3/2/12
16748 Emerald Dr	Replaced Dresser Dry W/ Clow Wet Barrel	Clow	7-Mar-12	3/7/12
10653 Muskrat Lane	Replaced Waterous Dry W/ Clow Wet Barrel	Clow	24-Feb-12	3/7/12
16649 Nicklaus Dr	Replaced Dresser Dry W/ Clow Wet Barrel	Clow	22-Feb-12	3/12/12
15414 Jojoba Ln	Replaced Clow Dry w/ Clow Wet Barrel	Clow	14-Mar-12	3/14/12
15248 Mustang Dr	Replaced Waterous Dry W/ Clow Wet Barrel	Clow	24-Feb-12	3/14/12
17006 Calle Del Oro	Replaced Dresser Dry W/ Clow Wet Barrel	Clow	19-Mar-12	3/19/12
10811 Kino Dr	Replaced Clow Dry w/ Clow Wet Barrel	Clow	5-Mar-12	3/20/12
9015 Lava Bluff	Replaced Clow Dry w/ Clow Wet Barrel	Clow	13-Mar-12	3/20/12
15214 Maple Dr	Replaced Dresser Dry W/ Clow Wet Barrel	Clow	19-Mar-12	3/21/12
16239 Emerald Dr	Replaced Clow Dry w/ Clow Wet Barrel	Clow	26-Mar-12	3/26/12
15420 Sierra Madre Dr	Replaced Waterous Dry W/ Clow Wet Barrel	Clow	6-Mar-12	3/28/12
12237 Falcon Dr	Replaced Waterous Dry W/ Clow Wet Barrel	Clow	12-Mar-12	3/30/12
17412 Tejon Dr	Replaced Dresser Dry W/ Clow Wet Barrel	Clow	29-Mar-12	4/2/12
17300 Four Peaks School	Replaced Waterous Dry W/ Clow Wet Barrel	Clow	29-Mar-12	4/4/12
15848 Sycamore Dr	Replaced Dresser Dry W/ Avk Wet Barrel	Avk	11-Apr-12	4/12/12
15741 Cholla Dr	Replaced Dresser Dry W/ Avk Wet Barrel	Avk	11-Apr-12	4/12/12
15611 Palisades Blvd	Replaced Waterous Dry W/ Avk Wet Barrel	Avk	12-Apr-12	4/23/12
14410 Del Cambre Ave	Replaced Waterous Dry W/ Clow Wet Barrel	Clow	23-Apr-12	4/23/12
14200 Del Cambre Ave	Replaced Waterous Dry W/ Clow Wet Barrel	Clow	23-Apr-12	4/23/12
15423 Blackbird Dr	Replaced Dresser Dry W/ Clow Wet Barrel	Clow	5-Apr-12	5/4/12
15869 Ponderosa Dr	Replaced Waterous Dry W/ Clow Wet Barrel	Clow	12-Apr-12	5/10/12
17006 Calle Del Sol	Replaced Waterous Dry W/ Avk Wet Barrel	Avk	7-May-12	5/25/12
16362 Montrose Dr	Replaced Dresser Dry W/ Avk Wet Barrel	AVK	25-Jun-12	6/27/12
15816 Primrose	Replaced Dresser Dry W/ Avk Wet Barrel	AVK	11-Jul-12	7/31/12
Hawk & Saguaro	Replaced Dresser Dry W/ Avk Wet Barrel	AVK	13-Sep-12	9/19/12
17303 Vallecito	Replaced Dresser Dry W/ Avk Wet Barrel	AVK	18-Oct-12	10/31/12
17337 Vallecito	Replaced Dresser Dry W/ Avk Wet Barrel	AVK	18-Oct-12	11/1/12
15012 Vermillion	Replaced AVK Dry W/ Avk Wet Barrel	Avk	14-Nov-12	11/14/12
17506 Algonquin Ct	Replaced Dresser Dry W/ Avk Wet Barrel	AVK	27-Nov-12	11/30/12
17506 El Pueblo	Replaced Dresser Dry W/ Avk Wet Barrel	AVK	30-Nov-12	11/30/12
14004 Sheffield Ct	Replaced Dresser Dry W/ Avk Wet Barrel	AVK	19-Nov-12	12/6/12
11209 Pinto Dr	Replaced Waterous Dry W/ Avk Wet Barrel	AVK	10-Dec-12	12/12/12
16739 El Lago Blvd	Replaced Waterous Dry W/ Avk Wet Barrel	AVK	13-Dec-12	12/13/12
15322 Sunburst Dr	Replaced Waterous Dry W/ Avk Wet Barrel	AVK	20-Dec-12	12/27/12

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 3-1

2014 Hydrant Replacements

Information to be included with DSIC-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
H-1	335	hydrants	8	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Palomino	12/2014	n/a	$18,093	Replace 8 fire hydrants on Palomino between Palisades and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and are approximately 35 years old. These are Dresser hydrants, for which we can no longer obtain repair parts. Three hydrants on this street have already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-1 in Exhibit CC-1 which shows the locations of the future replacements.
H-2	335	hydrants	10	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Mustang	12/2014	n/a	$22,616	Replace 10 fire hydrants on Mustang between Palisades and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and are 37 years old. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-2 in Exhibit CC-1 which shows the locations of the future replacements.

H-3	335	hydrants	1	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Spotted Horse	12/2014	n/a	$2,262	Replace 1 fire hydrant on Spotted Horse between Mustang and Westridge. The fire hydrant is in deteriorating condition and is 34 years old. This is a Dresser hydrant, for which we can no longer obtain repair parts. Replacing the hydrant will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacement is for existing customers and not related to new growth. See the map for Project H-3 in Exhibit CC-1 which shows the location of the future replacement.
H-4	335	hydrants	1	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Buffalo	12/2014	n/a	$2,262	Replace 1 fire hydrant on Buffalo between Mustang and Puma. The fire hydrant is in deteriorating condition and is 37 years old. This is a Dresser hydrant, for which we can no longer obtain repair parts. The other 3 hydrants on this street have already needed replacement. Replacing the hydrant will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacement is for existing customers and not related to new growth. See the map for Project H-4 in Exhibit CC-1 which shows the location of the future replacement.
H-5	335	hydrants	10	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Sunburst	12/2014	n/a	$22,616	Replace 10 fire hydrants on Sunburst between Palisades and Sycamore. The fire hydrants are in deteriorating condition and 2 hydrants on this street have already needed replacement. These are Dresser hydrants, for which we can no longer obtain repair parts. Two hydrants on this street have already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-5 in Exhibit CC-1 which shows the locations of the future replacements.
H-6	335	hydrants	4	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Burro, Pincushion	12/2014	n/a	$9,046	Replace 4 fire hydrants on Burro and Pincushion between Palomino and Ocotillo. The fire hydrants are in deteriorating condition and are approximately 37 years old. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-6 in Exhibit CC-1 which shows the locations of the future replacements.
H-7	335	hydrants	7	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Ocotillo	12/2014	n/a	$15,831	Replace 7 fire hydrants on Ocotillo between Mustang and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and are approximately 39 years old. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-7 in Exhibit CC-1 which shows the locations of the future replacements.
Total			**41**							**$92,726**	

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EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2014 H-7**	Project Location: See project maps

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
7	hydrant	2000	Material and equipment replace 7 fire hydrants on Ocotillo between Mustang and Fountain Hills Blvd.	$ 14,000
7	hydrant	56	Estimated average labor cost to replace a hydrant	$ 392
Subtotal				$ 14,392
General Overhead Rate on Labor and Capital (10%)				$ 1,439
Total Estimated Cost				**$ 15,831**

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 3-2

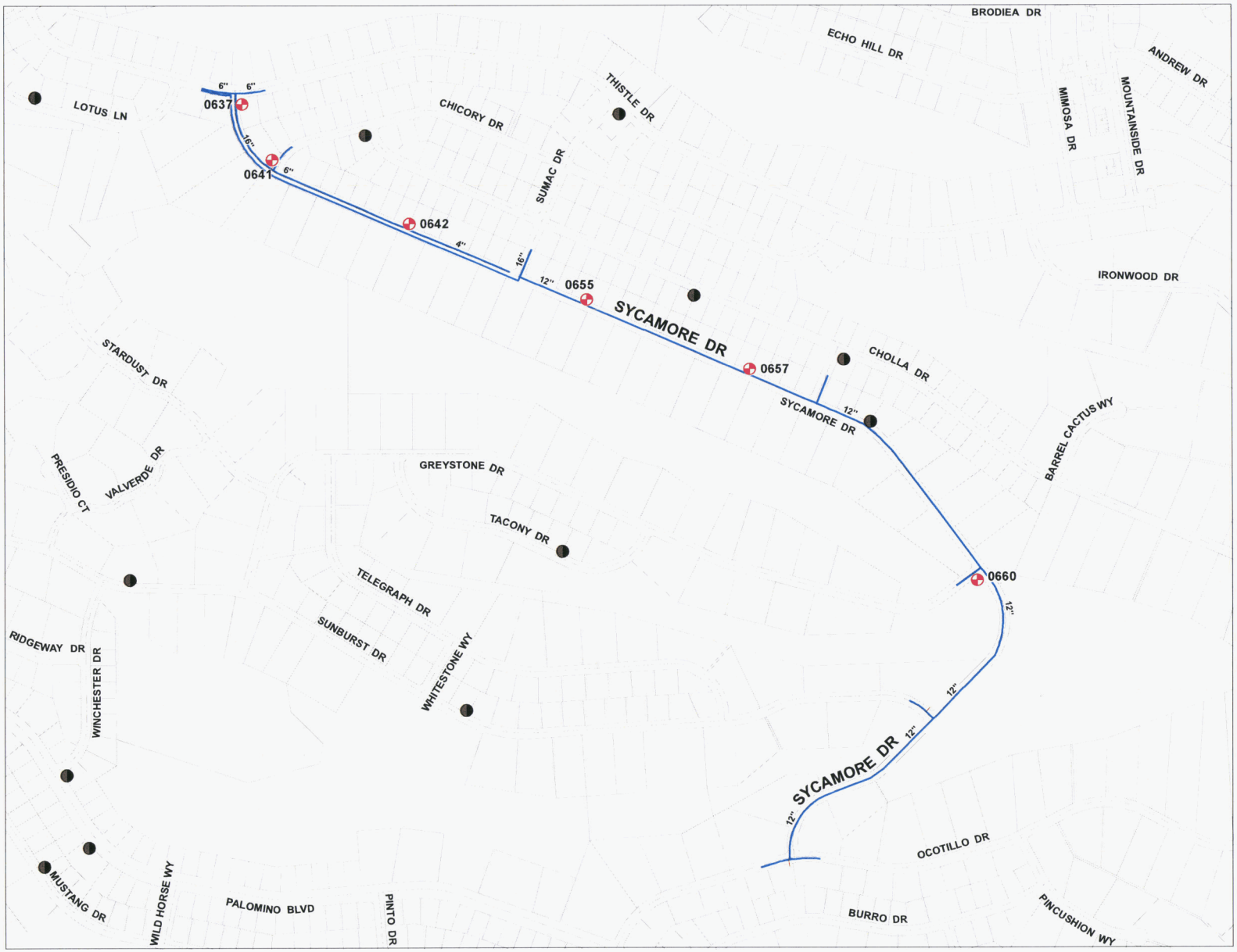
2015 Hydrant Replacements

Information to be included with DSIC-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
H-8	335	hydrants	6	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Sycamore	12/2015	n/a	$13,570	Replace 6 fire hydrants on Sycamore between Thistle and Ocotillo. The fire hydrants are in deteriorating condition and will be 41 years old in 2015. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-8 in Exhibit CC-1 which shows the locations of the future replacements.
H-9	335	hydrants	6	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Ridgeway	12/2015	n/a	$13,570	Replace 6 fire hydrants on Ridgeway between Palisades and Winchester. The fire hydrant is in deteriorating condition and will be 39 years old in 2015. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-9 in Exhibit CC-1 which shows the locations of the future replacements.

H-10	335	hydrants	6	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Greystone	12/2014	n/a	$13,570	Replace 6 fire hydrants on Greystone between Sunburst and Sycamore. The fire hydrant is in deteriorating condition and will be 29 years old in 2015. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-10 in Exhibit CC-1 which shows the location of the future replacements.
H-11	335	hydrants	4	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Telegraph	12/2014	n/a	$9,046	Replace 4 fire hydrants on Telegraph between Greystone and Sunburst. The fire hydrant is in deteriorating condition and will be 29 years old in 2015. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-11 in Exhibit CC-1 which shows the location of the future replacements.
H-12	335	hydrants	1	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Tacony	12/2015	n/a	$2,262	Replace 1 fire hydrant on Tacony between Greystone and Telegraph. The fire hydrant is in deteriorating condition and will be 29 years old in 2015. This is a Dresser hydrant, for which we can no longer obtain repair parts. The other hydrant on this street has already needed replacement Replacing the hydrant will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacement is for existing customers and not related to new growth. See the map for Project H-12 in Exhibit CC-1 which shows the locations of the future replacement.
H-13	335	hydrants	8	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Mimosa	12/2015	n/a	$18,093	Replace 8 fire hydrants on Mimosa between Sunflower and Thistle. The fire hydrants are in deteriorating condition and will be approximately 37 years old in 2015. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-13 in Exhibit CC-1 which shows the locations of the future replacements.

H-14	335	hydrants	4	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Cholla	12/2015	n/a	$9,046	Replace 4 fire hydrants on Cholla between Chicory and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and will be 42 years old in 2015. These are Dresser hydrants, for which we can no longer obtain repair parts. Four hydrants on this street have already needed replacement. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-14 in Exhibit CC-1 which shows the locations of the future replacements.
Total			**35**							**$79,157**	



2015

Project No: H-08 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Sycamore

project desciption:

Replace 6 fire hydrants on Sycamore between Thistle and Ocotillo.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

175 87.5 0 175 350 525 700

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

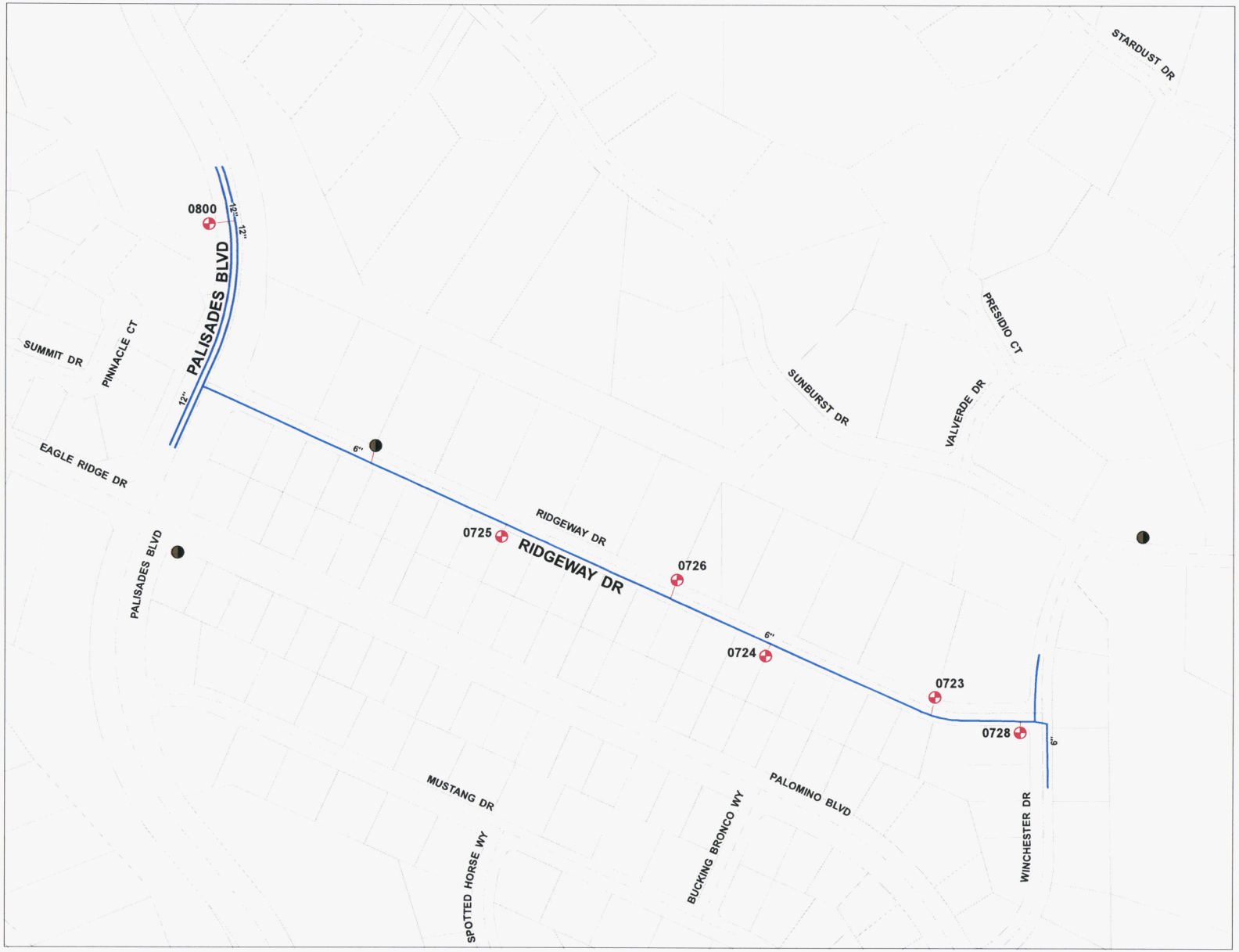
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 H-8**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
6	hydrant	2000	Replace 6 fire hydrants on Sycamore between Thistle and Ocotillo.	$ 12,000
6	hydrant	56	Estimated average labor cost to replace a hydrant	$ 336
Subtotal				$ 12,336
General Overhead Rate on Labor and Capital (10%)				$ 1,234
Total Estimated Cost				**$ 13,570**



2015

Project No: H-09 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Ridgeway

project desciption:

Replace 6 fire hydrants on Ridgeway between Palisades and Winchester.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

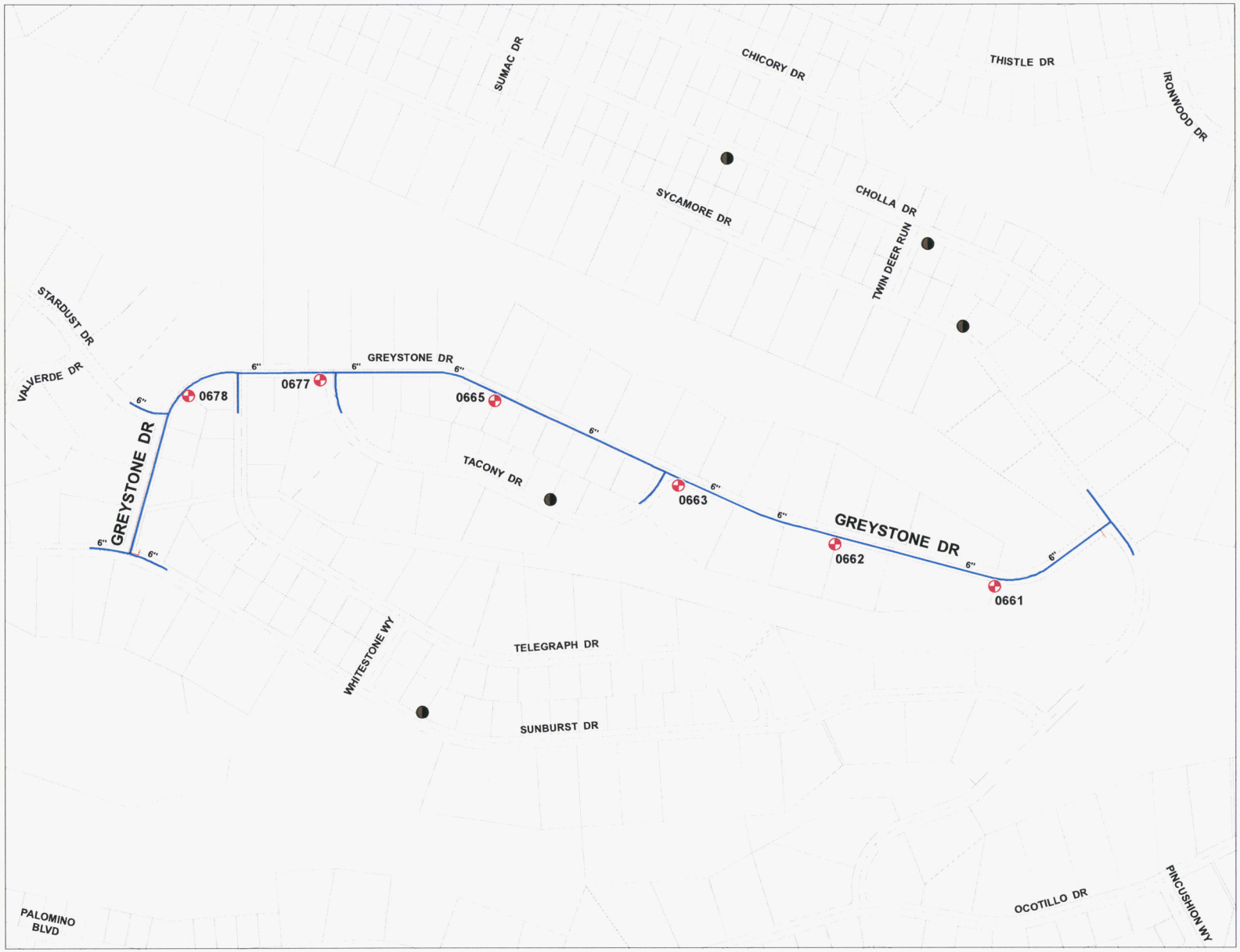
EPCOR Water 2013 • prepared by Engineering Mapping Solutions • Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 H-9**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
6	hydrant	2000	Replace 6 fire hydrants on Ridgeway between Palisades and Winchester.	$ 12,000
6	hydrant	56	Estimated average labor cost to replace a hydrant	$ 336
Subtotal				$ 12,336
General Overhead Rate on Labor and Capital (10%)				$ 1,234
Total Estimated Cost				**$ 13,570**



2015

Project No: H-10 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Greystone

project desciption:

Replace 6 fire hydrants on Greystone between Sunburst and Sycamore.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

130 65 0 130 260 390 520

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

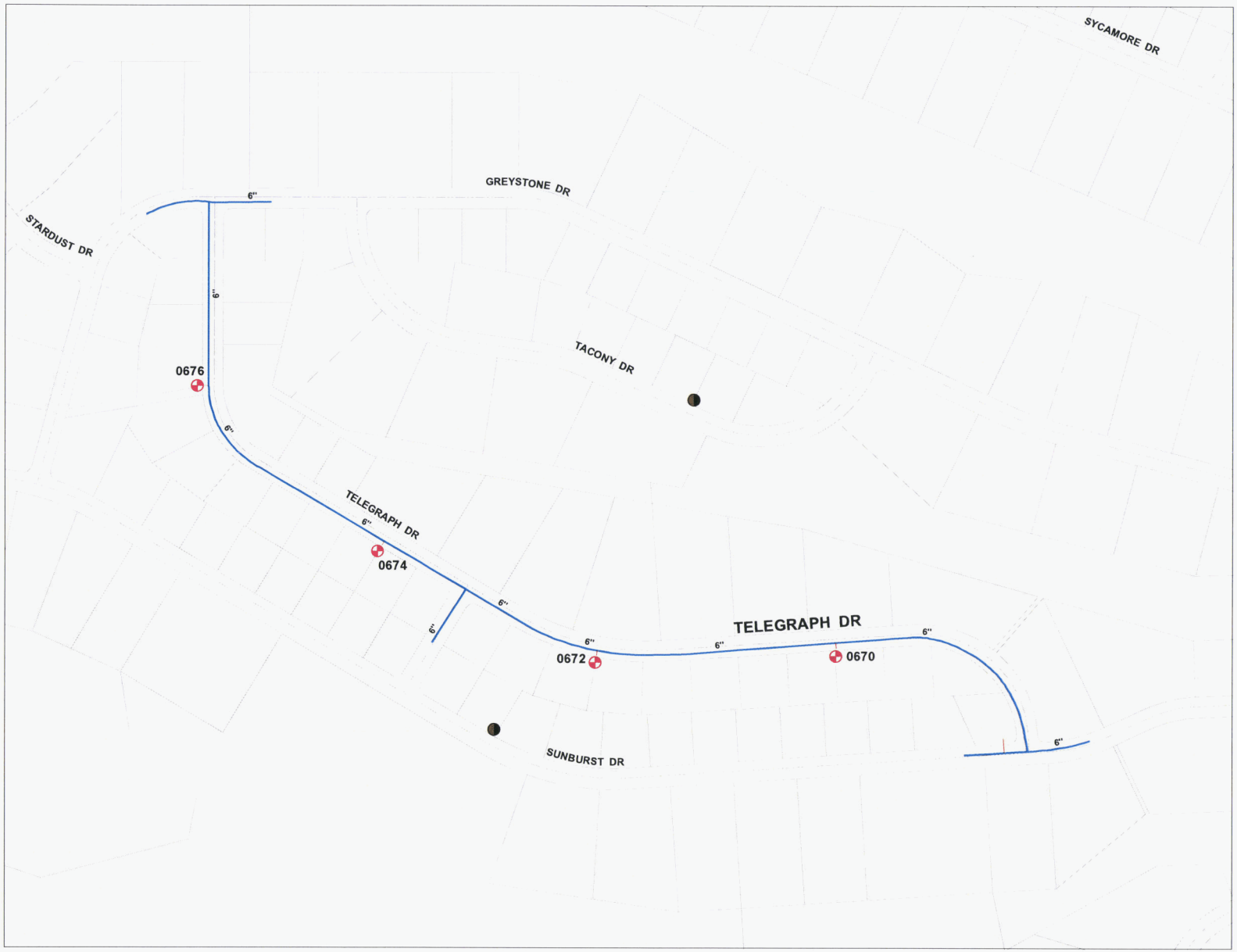
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 H-10**	Project Location: See project maps

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
6	hydrant	2000	Replace 6 fire hydrants on Greystone between Sunburst and Sycamore.	$ 12,000
6	hydrant	56	Estimated average labor cost to replace a hydrant	$ 336
Subtotal				$ 12,336
General Overhead Rate on Labor and Capital (10%)				$ 1,234
Total Estimated Cost				**$ 13,570**



2015

Project No: H-11 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Telegraph

project desciption:

Replace 4 fire hydrants on Telegraph between Greystone and Sunburst.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

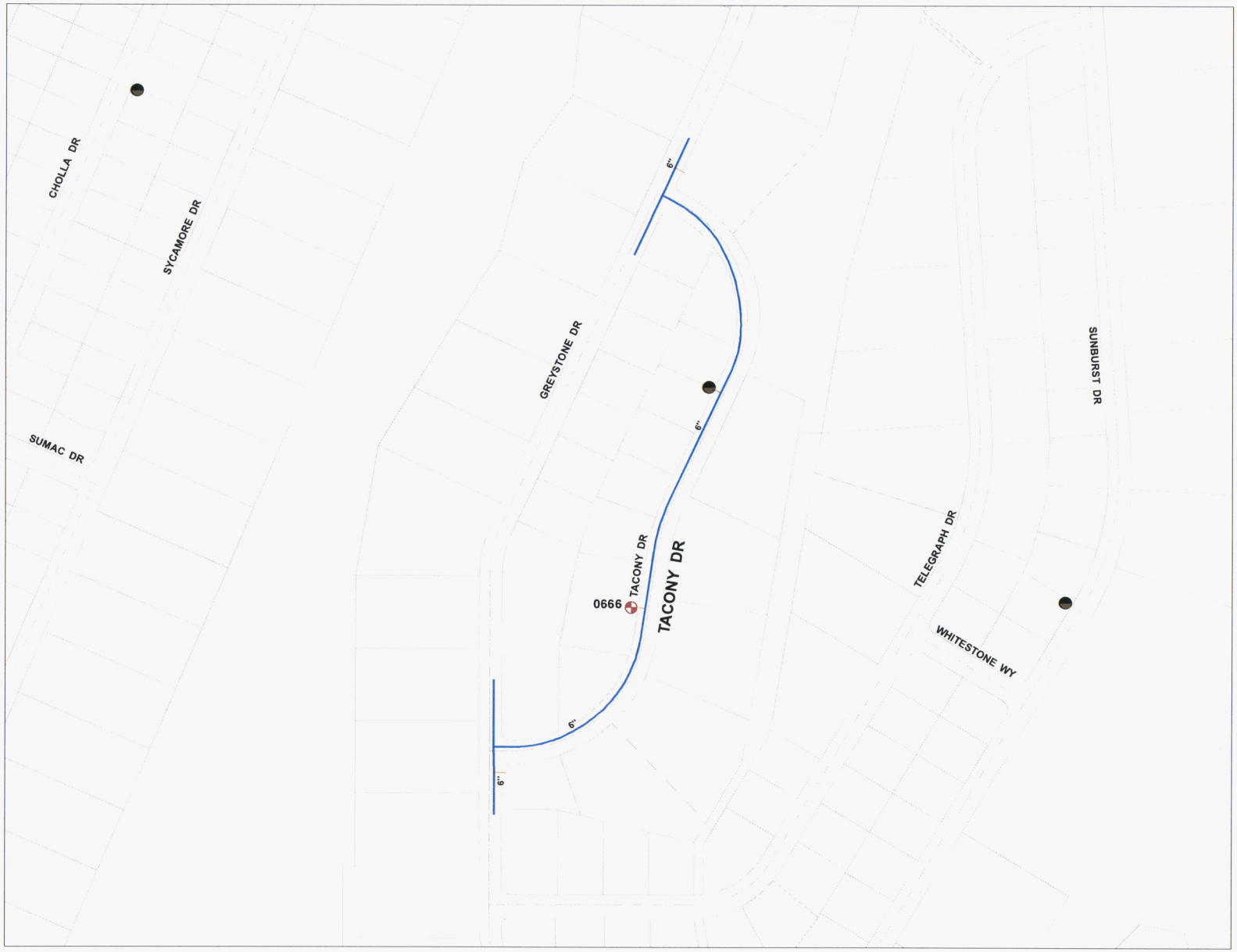
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 H-11**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
4	hydrant	2000	Replace 4 fire hydrants on Telegraph between Greystone and Sunburst.	$ 8,000
4	hydrant	56	Estimated average labor cost to replace a hydrant	$ 224
Subtotal				$ 8,224
General Overhead Rate on Labor and Capital (10%)				$ 822
Total Estimated Cost				**$ 9,046**



2015

Project No: H-12 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Tacony

project desciption:

Replace 1 fire hydrant on Tacony between Greystone and Telegraph.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 H-12**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
1	hydrant	2000	Replace 1 fire hydrant on Tacony between Greystone and Telegraph.	$ 2,000
1	hydrant	56	Estimated average labor cost to replace a hydrant	$ 56
Subtotal				$ 2,056
General Overhead Rate on Labor and Capital (10%)				$ 206
Total Estimated Cost				**$ 2,262**

2015

Project No: H-13 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Mimosa

project desciption:

Replace 8 fire hydrants on Mimosa between Sunflower and Thistle.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

110 55 0 110 220 330 440

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 H-13**	Project Location: See project maps

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
8	hydrant	2000	Replace 8 fire hydrants on Mimosa between Sunflower and Thistle.	$ 16,000
8	hydrant	56	Estimated average labor cost to replace a hydrant	$ 448
Subtotal				$ 16,448
General Overhead Rate on Labor and Capital (10%)				$ 1,645
Total Estimated Cost				**$ 18,093**

2015

Project No: H-14 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Cholla

project desciption:

Replace 4 fire hydrants on Cholla between Chicory and Fountain Hills Blvd.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

190 95 0 190 380 570 760

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 H-14**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
4	hydrant	2000	Replace 4 fire hydrants on Cholla between Chicory and Fountain Hills Blvd.	$ 8,000
4	hydrant	56	Estimated average labor cost to replace a hydrant	$ 224
Subtotal				$ 8,224
General Overhead Rate on Labor and Capital (10%)				$ 822
Total Estimated Cost				**$ 9,046**

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 3-3

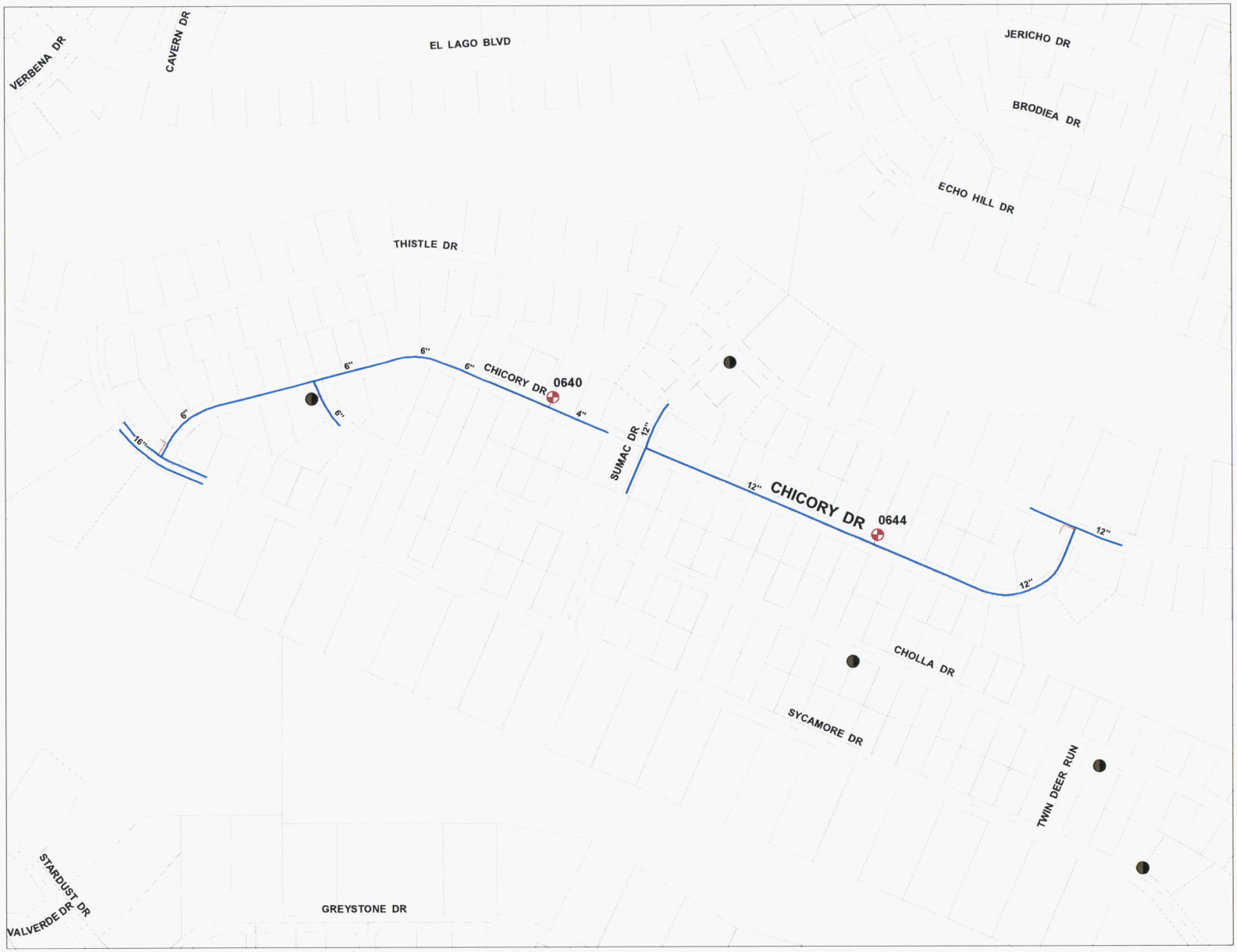
2016 Hydrant Replacements

Information to be included with DSIC-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
H-15	335	hydrants	2	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Chicory	12/2016	n/a	$4,523	Replace 2 fire hydrants on Chicory between Sycamore and Thistle. The fire hydrants are in deteriorating condition and will be 41 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-15 in Exhibit CC-1 which shows the locations of the future replacements.
H-16	335	hydrants	3	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Verbena	12/2016	n/a	$6,785	Replace 3 fire hydrants on Verbena between Sage and El Lago. The fire hydrants are in deteriorating condition and will be 40 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-16 in Exhibit CC-1 which shows the locations of the future replacements.

H-17	335	hydrants	5	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Sage, Stardust	12/2016	n/a	$11,308	Replace 5 fire hydrants on Sage and Stardust between Palisades and Greystone. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-17 in Exhibit CC-1 which shows the locations of the future replacements.
H-18	335	hydrants	1	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Sierra Norte	12/2016	n/a	$2,262	Replace 1 fire hydrant on Sierra Norte between Palisades and Sage. This is a Dresser hydrant, for which we can no longer obtain repair parts. Replacing the hydrant will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacement is for existing customers and not related to new growth. See the map for Project H-18 in Exhibit CC-1 which shows the location of the future replacement.
H-19	335	hydrants	3	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Ironwood	12/2016	n/a	$6,785	Replace 3 fire hydrants on Ironwood between Thistle and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and will be 43 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-19 in Exhibit CC-1 which shows the location of the future replacements.
H-20	335	hydrants	5	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Thistle	12/2016	n/a	$11,308	Replace 5 fire hydrants on Thistle between Palisades and Mountainside. The fire hydrants are in deteriorating condition and will be 40 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-20 in Exhibit CC-1 which shows the locations of the future replacements.
H-21	335	hydrants	10	n/a	Cast Iron/ AVK Wet Barrel	$2,262	El Lago	12/2016	n/a	$22,616	Replace 10 fire hydrants on El Lago between Palisades and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and will be approximately 37 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-21 in Exhibit CC-1 which shows the locations of the future replacements.

H-22	335	hydrants	1	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Cavern	12/2016	n/a	$2,262	Replace 1 fire hydrant on Cavern between Palisades and El Lago. The fire hydrant is in deteriorating condition and will be 36 years old in 2016. This is a Dresser hydrant, for which we can no longer obtain repair parts. The other hydrant on this street already needed replacement. Replacing the hydrant will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacement is for existing customers and not related to new growth. See the map for Project H-22 in Exhibit CC-1 which shows the location of the future replacement.
H-23	335	hydrants	4	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Mountain-side	12/2016	n/a	$9,046	Replace 4 fire hydrants on Mountainside between Palisades and Thistle. The fire hydrants are in deteriorating condition and will be 40 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-23 in Exhibit CC-1 which shows the locations of the future replacements.
H-24	335	hydrants	3	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Echo Hill	12/2016	n/a	$6,785	Replace 3 fire hydrants on Echo Hill between El Lago and Mimosa. The fire hydrants are in deteriorating condition and will be approximately 37 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-24 in Exhibit CC-1 which shows the locations of the future replacements.
Total			**37**							**$83,680**	



2016

Project No: H-15 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Chicory

project desciption:

Replace 2 fire hydrants on Chicory between Sycamore and Thistle.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

100 50 0 100 200 300 400
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

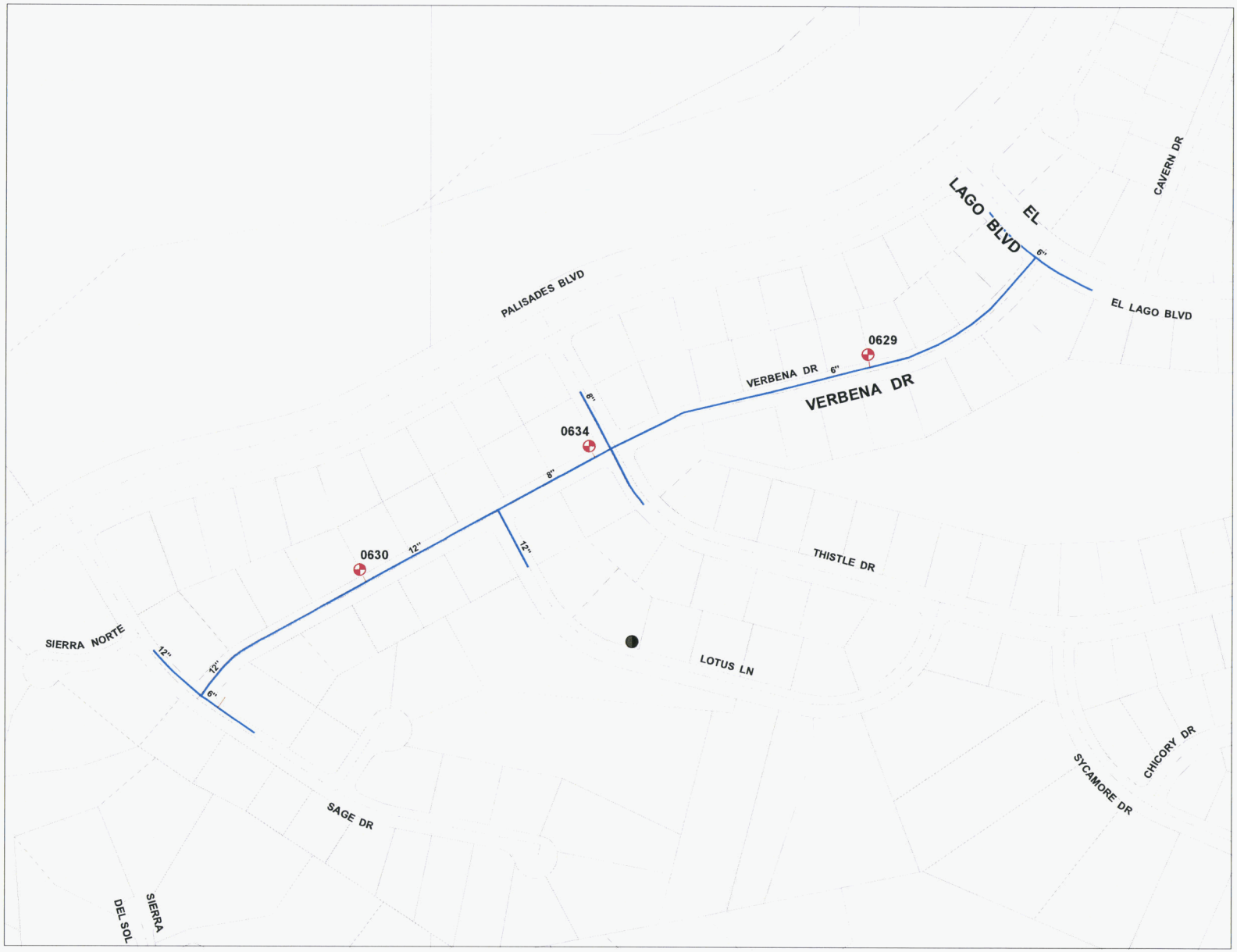
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 H-15**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
2	hydrant	2000	Replace 2 fire hydrants on Chicory between Sycamore and Thistle.	$ 4,000
2	hydrant	56	Estimated average labor cost to replace a hydrant	$ 112
Subtotal				$ 4,112
General Overhead Rate on Labor and Capital (10%)				$ 411
Total Estimated Cost				**$ 4,523**



2016

Project No: H-16 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Verbena

project desciption:

Replace 3 fire hydrants on Verbena between Sage and El Lago.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

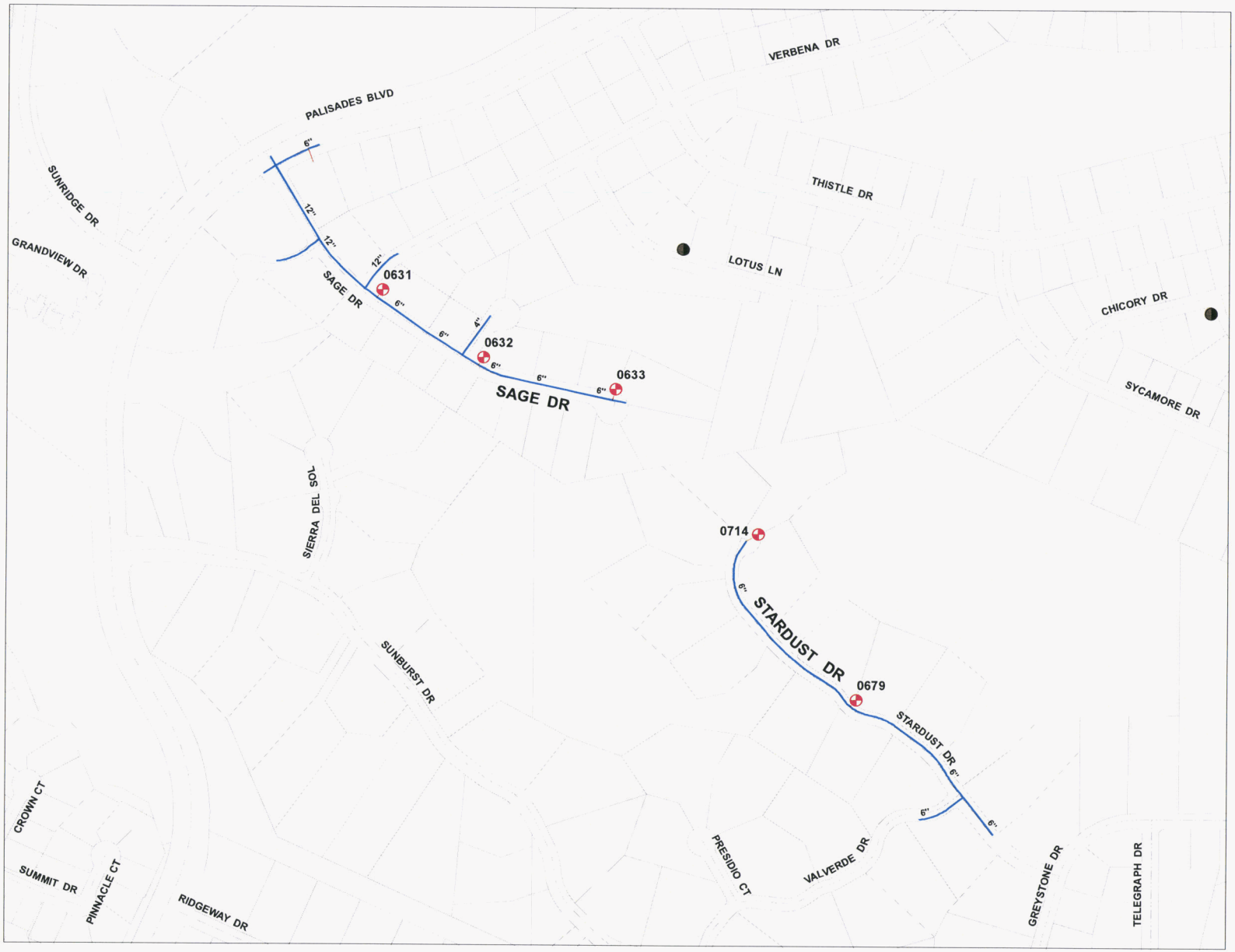
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 H-16**	Project Location: See project maps

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
3	hydrant	2000	Replace 3 fire hydrants on Verbana between Sage and El Lago.	$ 6,000
3	hydrant	56	Estimated average labor cost to replace a hydrant	$ 168
Subtotal				$ 6,168
General Overhead Rate on Labor and Capital (10%)				$ 617
Total Estimated Cost				**$ 6,785**



2016

Project No: H-17 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Sage

project desciption:

Replace 5 fire hydrants on Sage and Stardust between Palisades and Greystone.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

110 55 0 110 220 330 440

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

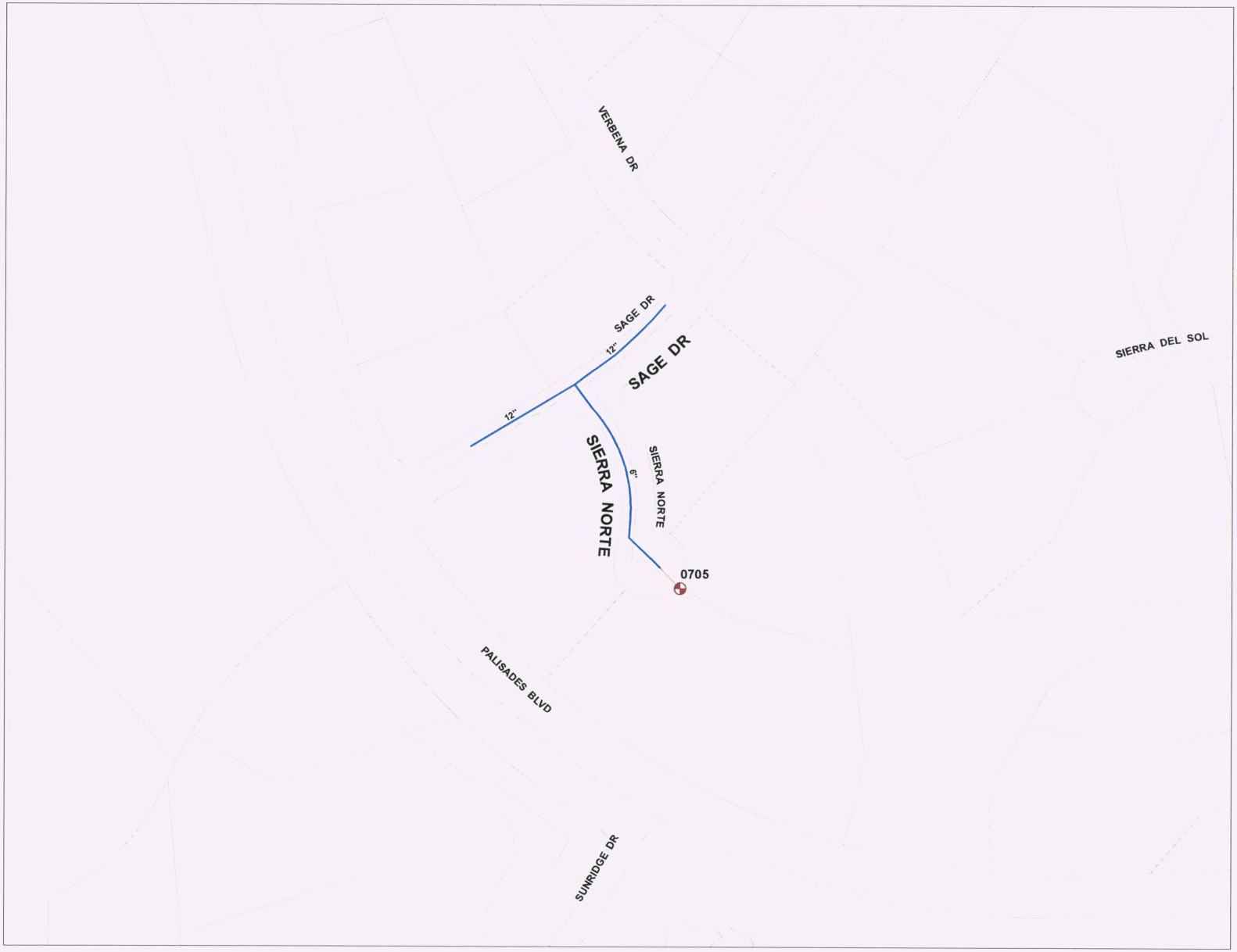
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 H-17**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
5	hydrant	2000	Replace 5 fire hydrants on Sage and Stardust between Palisades and Greystone.	$ 10,000
5	hydrant	56	Estimated average labor cost to replace a hydrant	$ 280
Subtotal				$ 10,280
General Overhead Rate on Labor and Capital (10%)				$ 1,028
Total Estimated Cost				**$ 11,308**



2016

Project No: H-18 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Sierra Norte

project desciption:

Replace 1 fire hydrant on Sierra Norte between Sage and Palisades.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

40 20 0 40 80 120 160

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

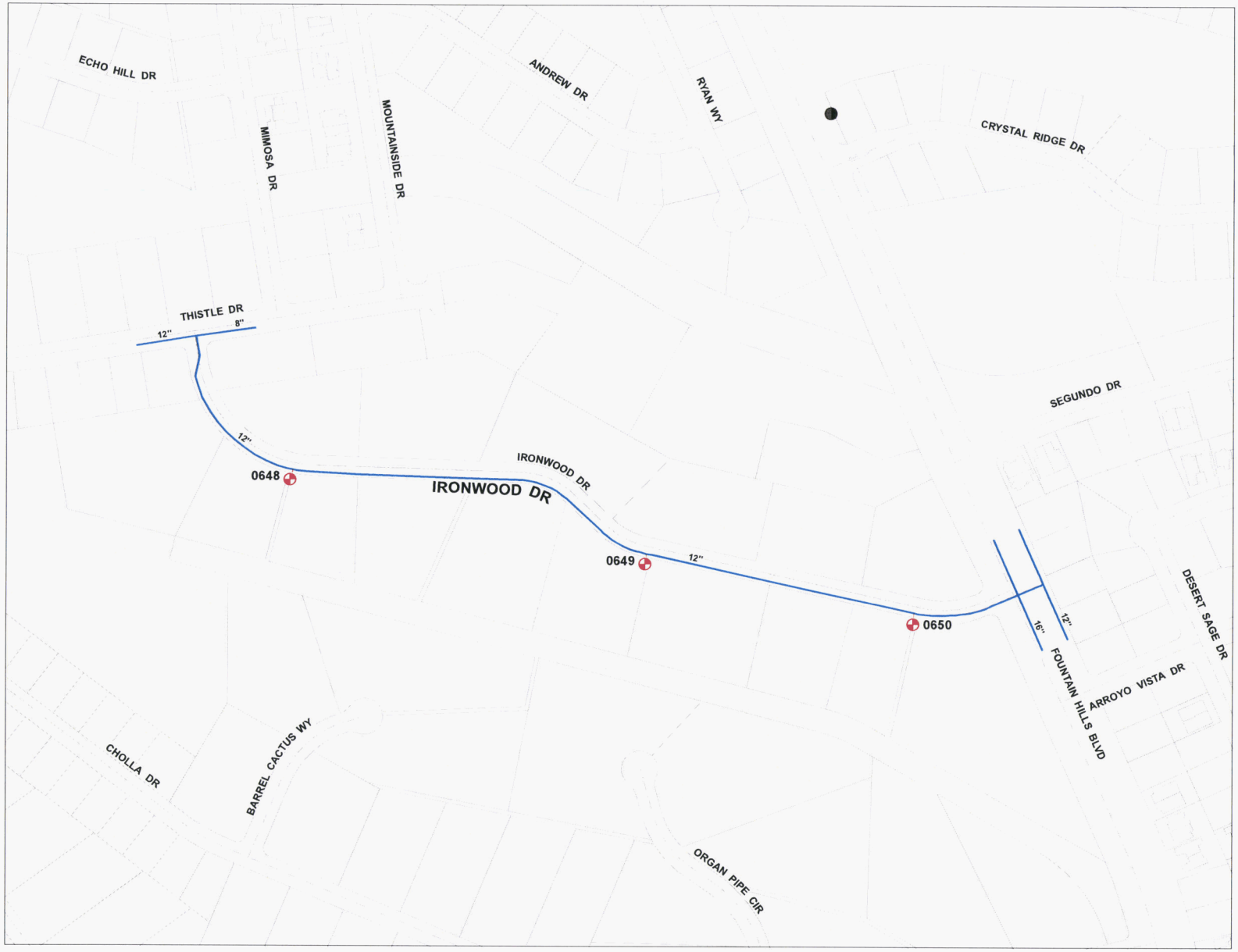
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 H-18**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
1	hydrant	2000	Replace 1 fire hydrant on Sierra Norte between Palisades and Sage.	$ 2,000
1	hydrant	56	Estimated average labor cost to replace a hydrant	$ 56
Subtotal				$ 2,056
General Overhead Rate on Labor and Capital (10%)				$ 206
Total Estimated Cost				**$ 2,262**



2016

Project No: H-19 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Ironwood

project desciption:

Replace 3 fire hydrants on Ironwood between Thistle and Fountain Hills Blvd.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

80 40 0 80 160 240 320
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

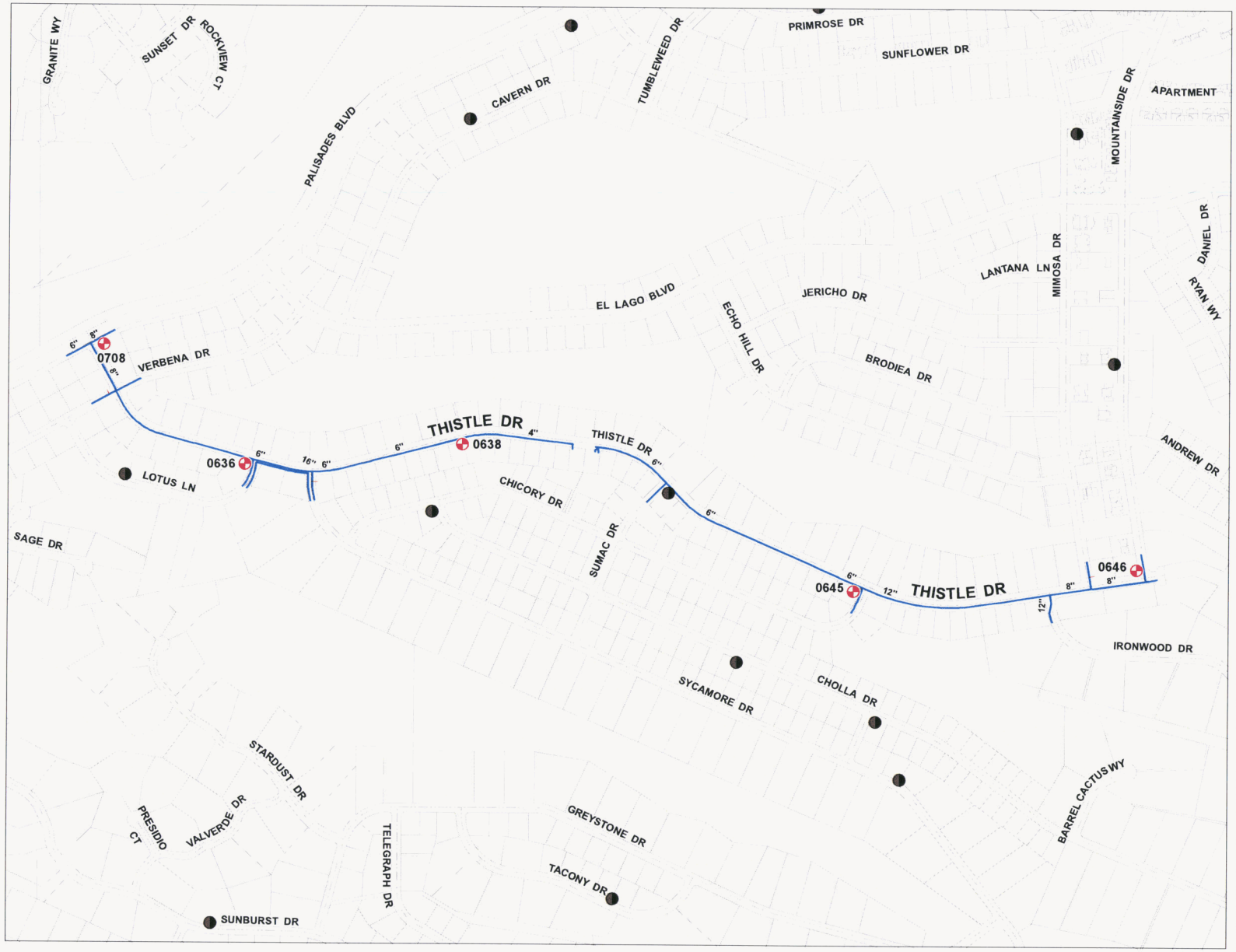
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 H-19**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
3	hydrant	2000	Replace 3 fire hydrants on Ironwood between Thistle and Fountain Hills Blvd.	$ 6,000
3	hydrant	56	Estimated average labor cost to replace a hydrant	$ 168
Subtotal				$ 6,168
General Overhead Rate on Labor and Capital (10%)				$ 617
Total Estimated Cost				**$ 6,785**



2016

Project No: H-20 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Thistle

project desciption:

Replace 5 fire hydrants on Thistle between Palisades and Mountainside.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

190 95 0 190 380 570 760

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

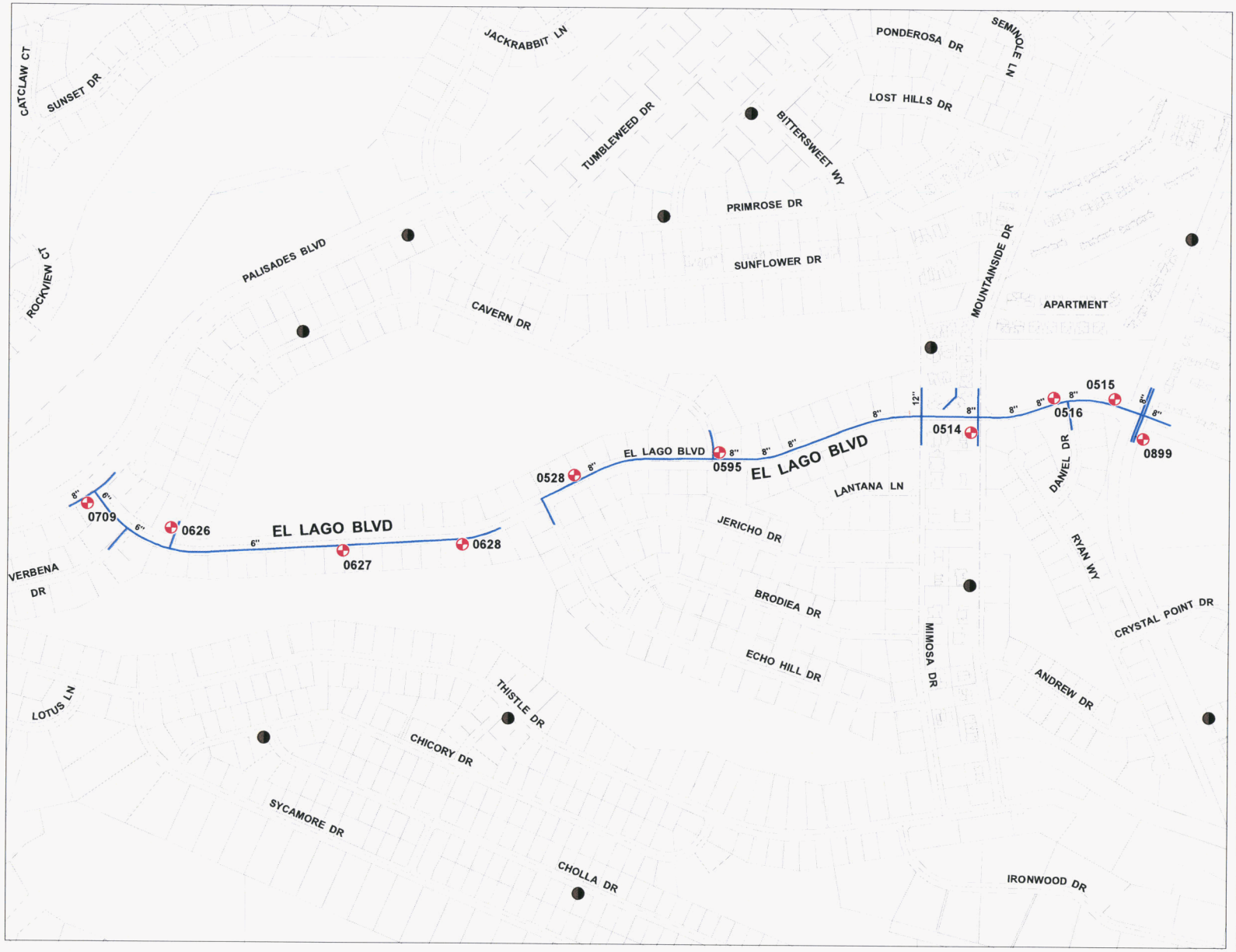
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2015 H-20**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
5	hydrant	2000	Replace 5 fire hydrants on Thistle between Palisades and Mountainside.	$ 10,000
5	hydrant	56	Estimated average labor cost to replace a hydrant	$ 280
Subtotal				$ 10,280
General Overhead Rate on Labor and Capital (10%)				$ 1,028
Total Estimated Cost				**$ 11,308**



2016

Project No: H-21 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

El Lago

project desciption:

Replace 10 fire hydrants on El Lago between Palisades and Fountain Hills Blvd.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

180 90 0 180 360 540 720

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

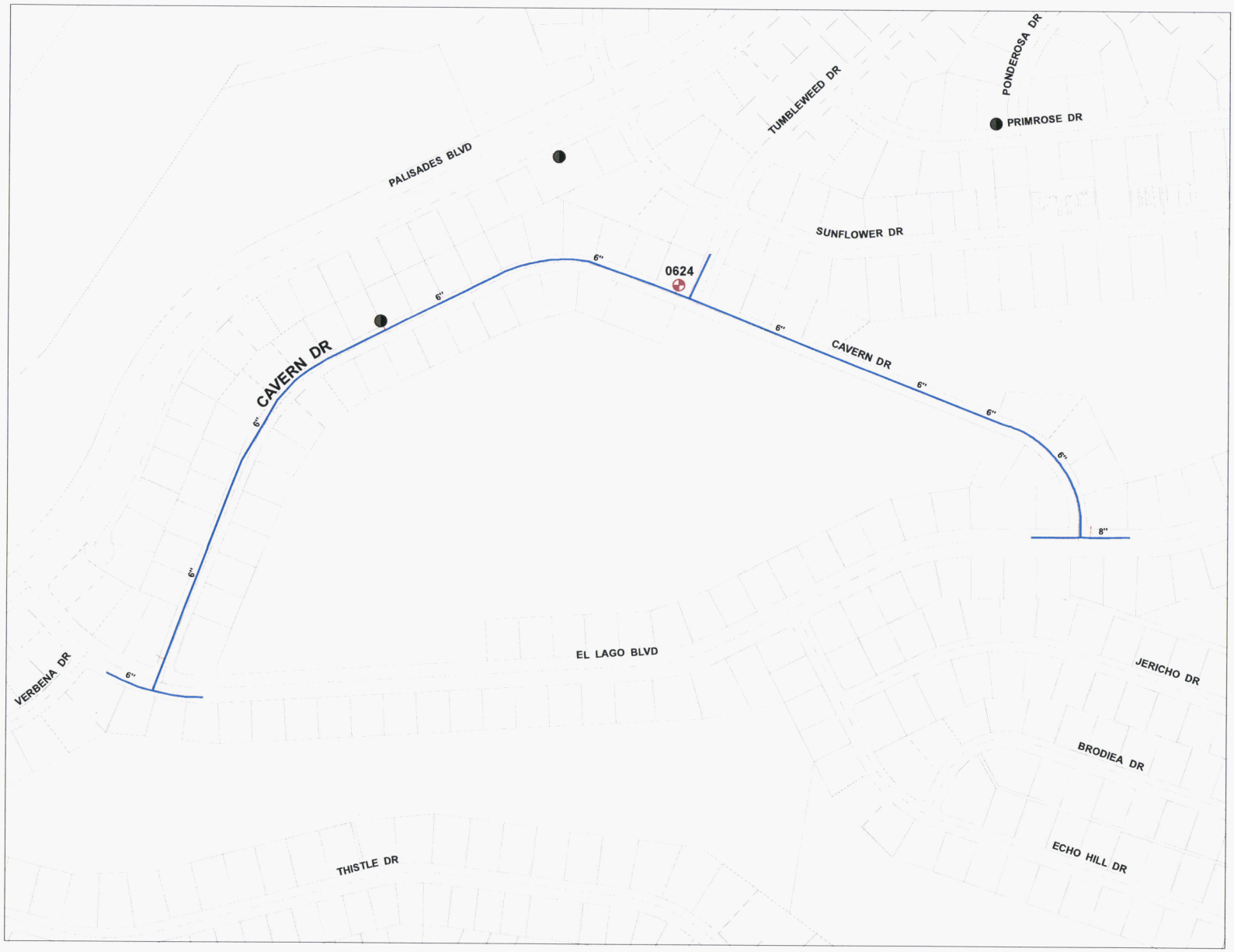
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 H-21**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
10	hydrant	2000	Replace 10 fire hydrants on El Lago between Palisades and Fountain Hills Blvd.	$ 20,000
10	hydrant	56	Estimated average labor cost to replace a hydrant	$ 560
Subtotal				$ 20,560
General Overhead Rate on Labor and Capital (10%)				$ 2,056
Total Estimated Cost				**$ 22,616**



2016

Project No: H-22 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Cavern

project desciption:

Replace 1 fire hydrant on Cavern between Palisades and El Lago.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

100 50 0 100 200 300 400

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

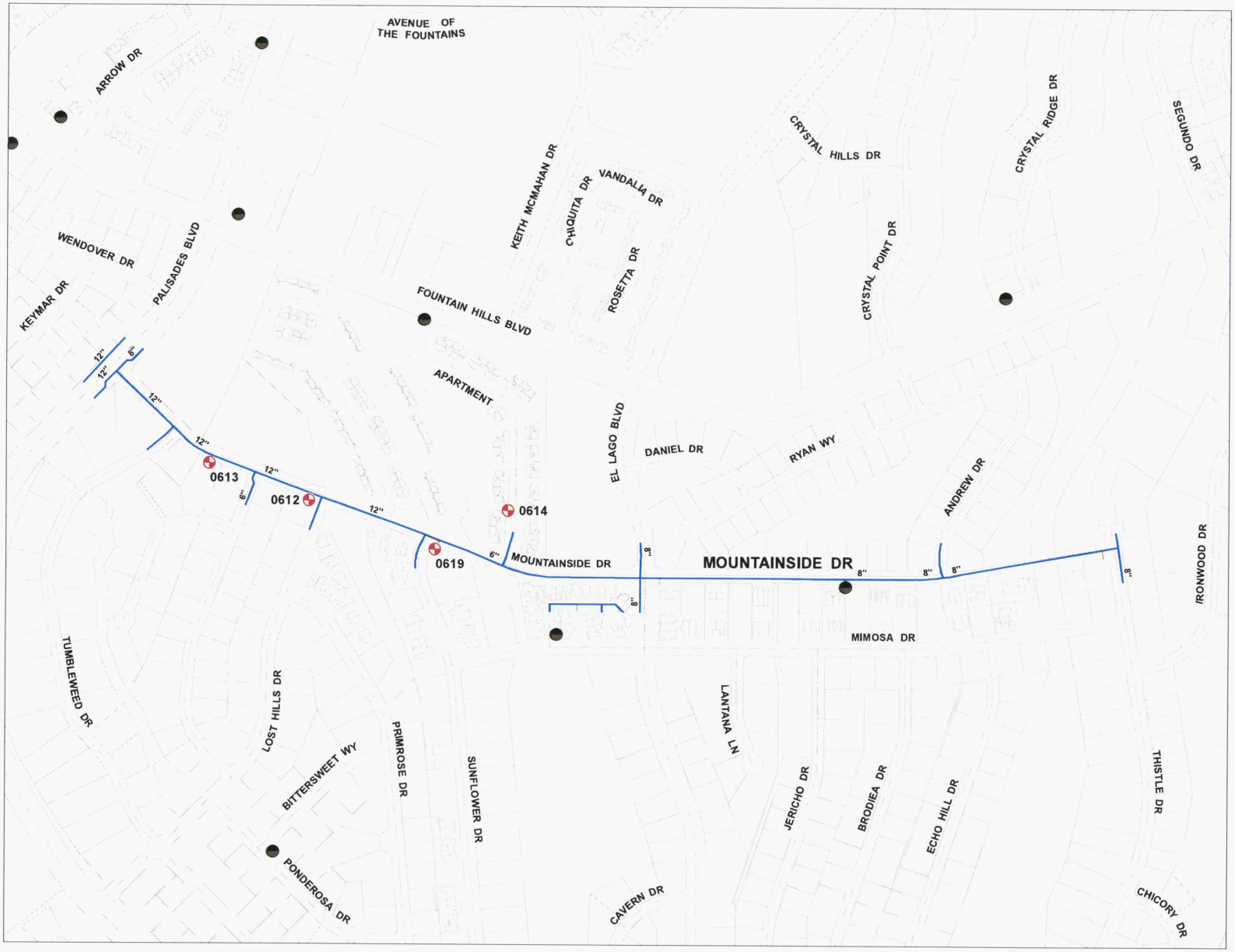
EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 H-22**	Project Location: See project maps	

h

Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
1	hydrant	2000	Replace 1 fire hydrant on Cavern between Palisades and El Lago.	$ 2,000
1	hydrant	56	Estimated average labor cost to replace a hydrant	$ 56
Subtotal				$ 2,056
General Overhead Rate on Labor and Capital (10%)				$ 206
Total Estimated Cost				**$ 2,262**



2016

Project No: H-23 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Mountainside

project desciption:

Replace 4 fire hydrants on Mountainside between Palisades and Thistle.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

150 75 0 150 300 450 600

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 H-23**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
4	hydrant	2000	Replace 4 fire hydrants on Mountainside between Palisades and Thistle.	$ 8,000
4	hydrant	56	Estimated average labor cost to replace a hydrant	$ 224
Subtotal				$ 8,224
General Overhead Rate on Labor and Capital (10%)				$ 822
Total Estimated Cost				**$ 9,046**

2016

Project No: H-24 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Echo Hill

project desciption:

Replace 3 fire hydrants on Echo Hill between El Lago and Mimosa.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2016 H-24**	Project Location: See project maps

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
3	hydrant	2000	Replace 3 fire hydrants on Echo Hill between El Lago and Mimosa.	$ 6,000
3	hydrant	56	Estimated average labor cost to replace a hydrant	$ 168
Subtotal				$ 6,168
General Overhead Rate on Labor and Capital (10%)				$ 617
Total Estimated Cost				**$ 6,785**

Chaparral City Water Company – PWS ID No. 07-017

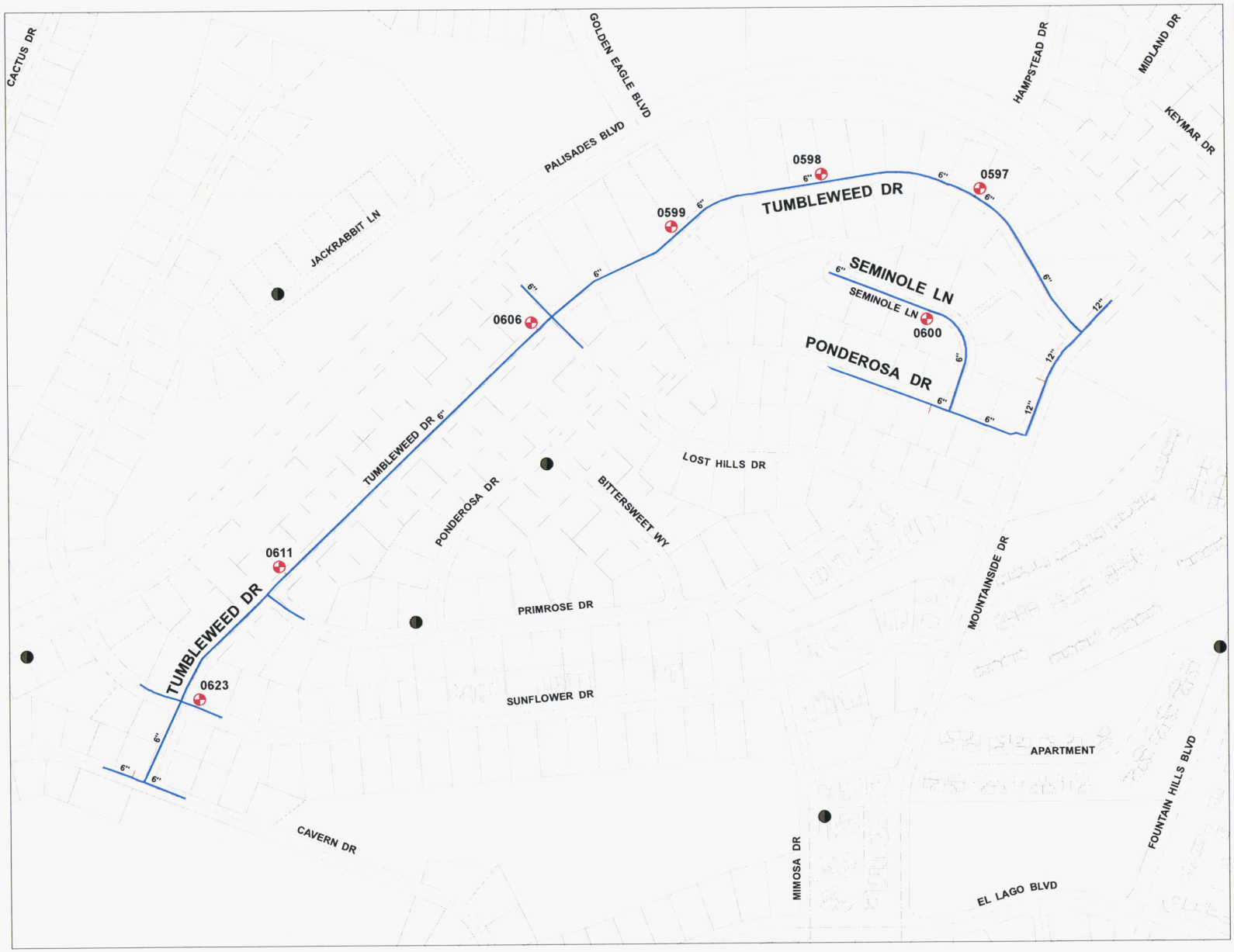
SIB PLANT TABLE I, 3-4

2017 Hydrant Replacements

Information to be included with DSIC-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
H-25	335	hydrants	7	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Tumble-weed, Seminole	12/2017	n/a	$15,831	Replace 7 fire hydrants on Tumbleweed and Seminole between Cavern and Mountainside. The fire hydrants are in deteriorating condition and will be about 40 years old in 2017. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-25 in Exhibit CC-1 which shows the locations of the future replacements.
H-26	335	hydrants	9	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Sunflower, Primrose	12/2017	n/a	$20,354	Replace 9 fire hydrants on Sunflower and Primrose between Cactus and Mountainside. The fire hydrants are in deteriorating condition and will be about 40 years old in 2017. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-26 in Exhibit CC-1 which shows the locations of the future replacements.

H-27	335	hydrants	4	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Ponderosa	12/2017	n/a	$9,046	Replace 4 fire hydrants on Ponderosa between Primrose and Mountainside. The fire hydrants are in deteriorating condition and will be about 31 years old in 2017. These are Dresser hydrants, for which we can no longer obtain repair parts. Two hydrants have already needed replacement on this street. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-27 in Exhibit CC-1 which shows the locations of the future replacements.
H-28	335	hydrants	11	n/a	Cast Iron/ AVK Wet Barrel	$2,262	El Pueblo	12/2017	n/a	$24,878	Replace 11 fire hydrants on El Pueblo between Fountain Hills Blvd and Escalante. The fire hydrants are in deteriorating condition and will be about 42 years old in 2017. These are Dresser hydrants, for which we can no longer obtain repair parts. Four hydrants have already needed replacement on this street. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-28 in Exhibit CC-1 which shows the locations of the future replacements.
H-29	335	hydrants	6	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Oro Grande	12/2017	n/a	$13,570	Replace 6 fire hydrants on Ironwood between Calle del Prado and Tejon. The fire hydrants are in deteriorating condition and will be 44 years old in 2017. These are Dresser hydrants, for which we can no longer obtain repair parts. Two hydrants have already needed replacement on this street. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-29 in Exhibit CC-1 which shows the location of the future replacements.
Total			**37**							**$83,679**	



2017

Project No: H-25 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Tumbleweed

project desciption:

Replace 7 fire hydrants on Tumbleweed and Seminole between Cavern and Mountainside.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

120 60 0 120 240 360 480

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

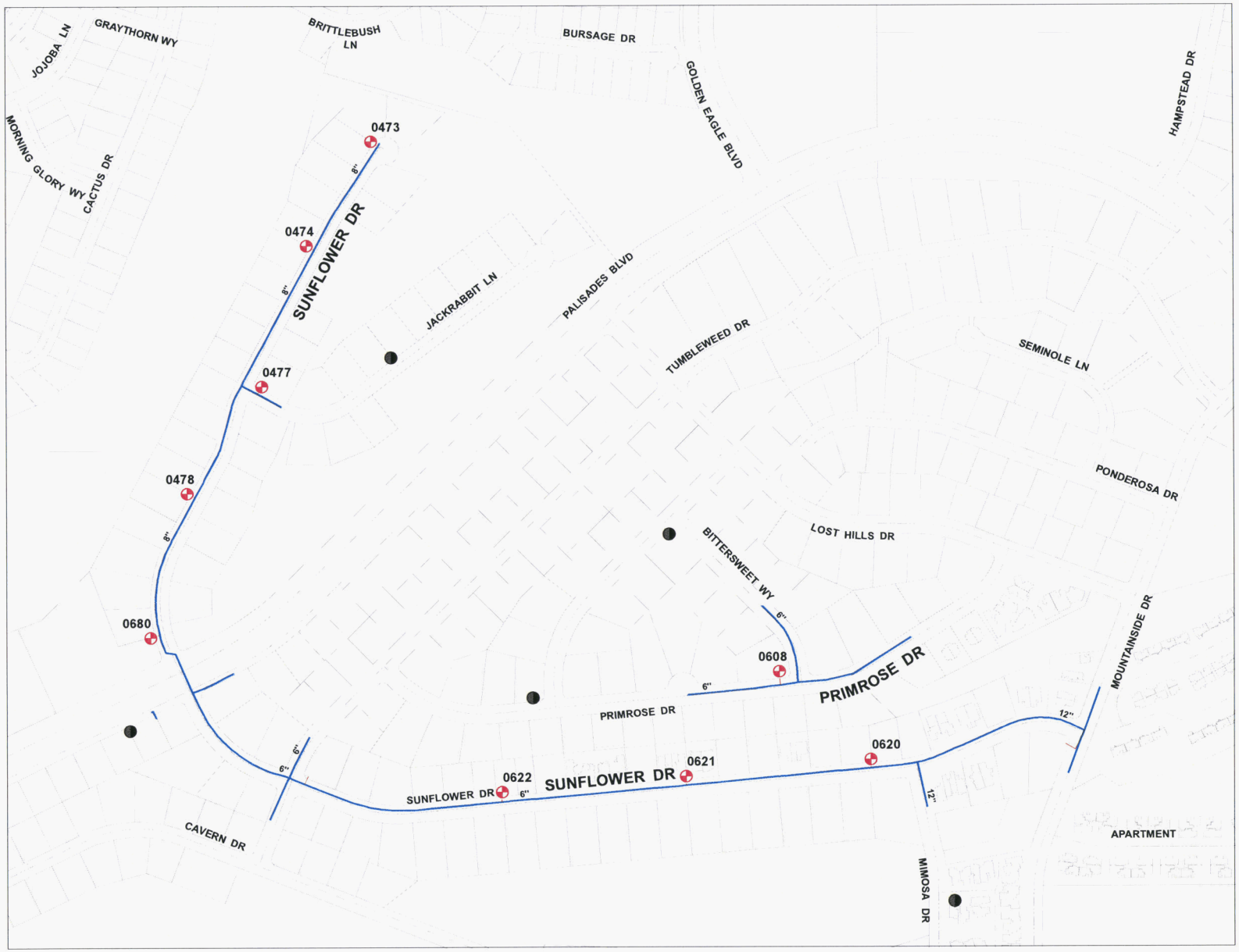
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 H-25**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
7	hydrant	2000	Replace 7 fire hydrants on Tumbleweed and Seminole between Cavern and Mountainside.	$ 14,000
7	hydrant	56	Estimated average labor cost to replace a hydrant	$ 392
Subtotal				$ 14,392
General Overhead Rate on Labor and Capital (10%)				$ 1,439
Total Estimated Cost				**$ 15,831**



2017

Project No: H-26 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Sunflower

project desciption:

Replace 9 fire hydrants on Sunflower and Primrose between Cactus and Mountainside.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

110 55 0 110 220 330 440

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

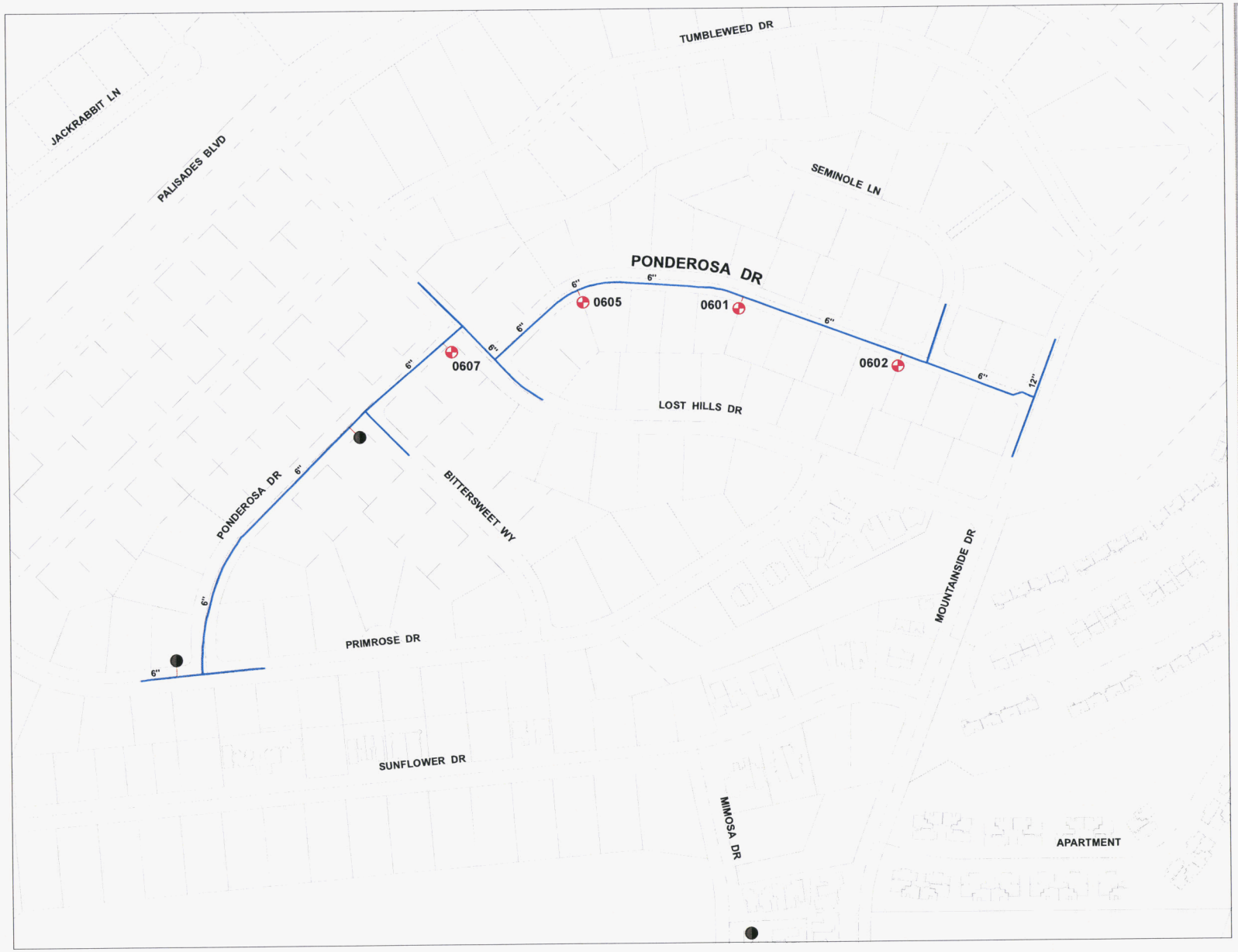
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 H-26**	Project Location: See project maps

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
9	hydrant	2000	Replace 9 fire hydrants on Sunflower and Primrose between Cactus and Mountainside	$ 18,000
9	hydrant	56	Estimated average labor cost to replace a hydrant	$ 504
Subtotal				$ 18,504
General Overhead Rate on Labor and Capital (10%)				$ 1,850
Total Estimated Cost				**$ 20,354**



2017

Project No: H-27 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Ponderosa

project desciption:

Replace 4 fire hydrants on Ponderosa between Primrose and Mountainside.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

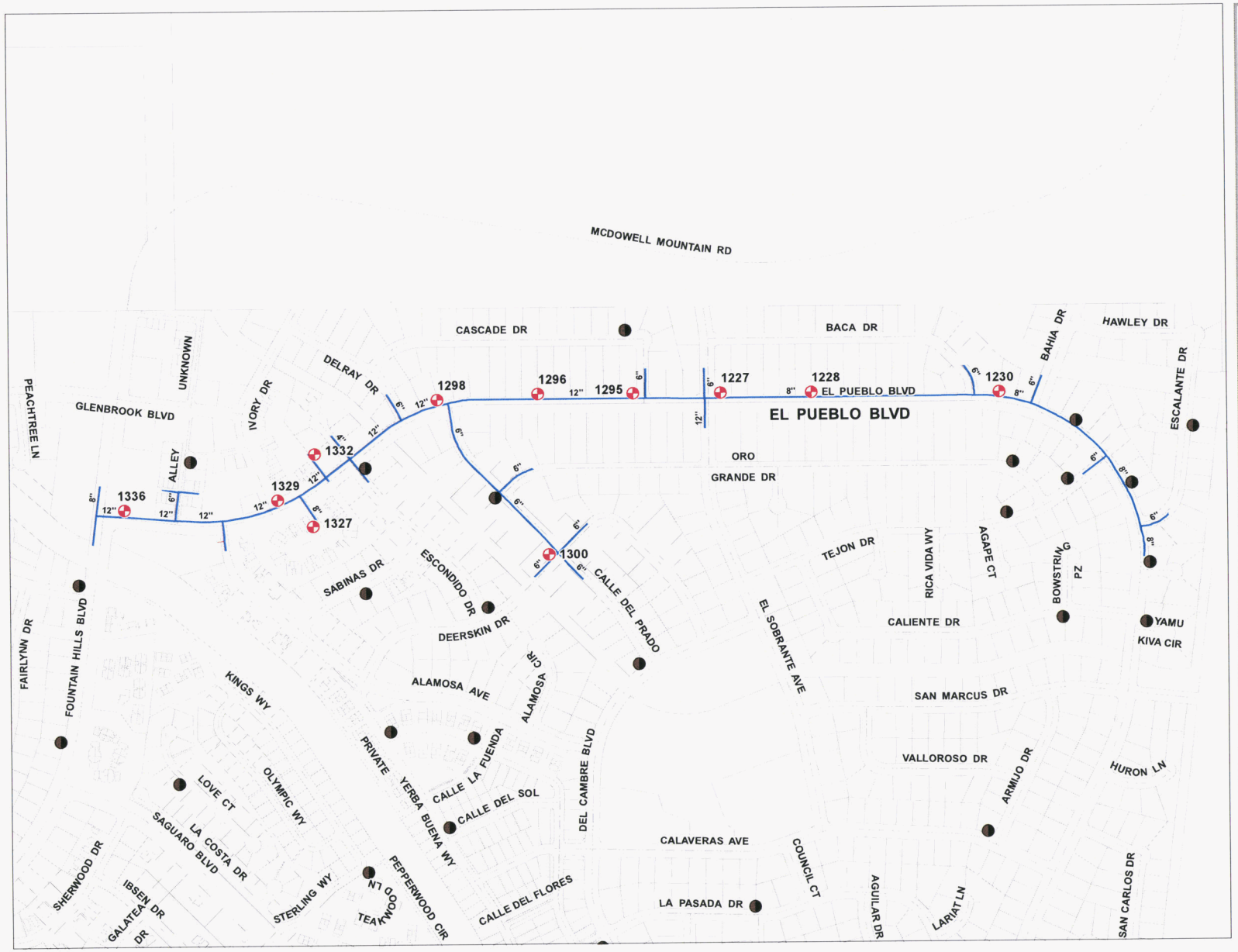
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 H-27**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
4	hydrant	2000	Replace 4 fire hydrants on Ponderosa between Primrose and Mountainside	$ 8,000
4	hydrant	56	Estimated average labor cost to replace a hydrant	$ 224
Subtotal				$ 8,224
General Overhead Rate on Labor and Capital (10%)				$ 822
Total Estimated Cost				**$ 9,046**



2017

Project No: H-28 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

El Pueblo

project desciption:

Replace 11 fire hydrants on El Pueblo between Fountain Hills Blvd and Escalante.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

175 87.5 0 175 350 525 700

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

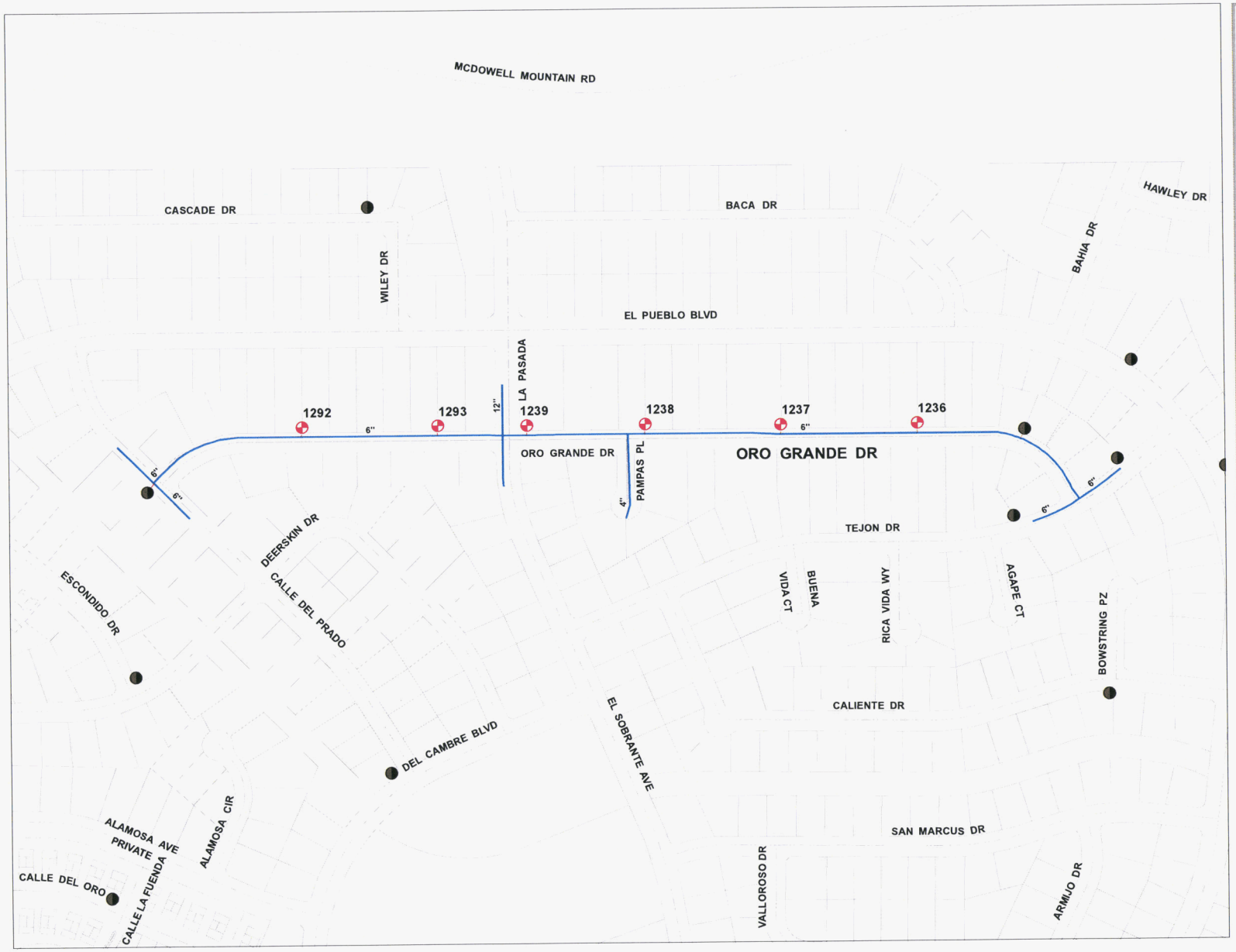
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 H-28**	Project Location: See project maps

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
11	hydrant	2000	Replace 11 fire hydrants on El Pueblo between Fountain Hills Blvd and Escalante.	$ 22,000
11	hydrant	56	Estimated average labor cost to replace a hydrant	$ 616
Subtotal				$ 22,616
General Overhead Rate on Labor and Capital (10%)				$ 2,262
Total Estimated Cost				**$ 24,878**



2017

Project No: H-29 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Oro Grande

project desciption:

Replace 6 fire hydrants on Oro Grande between Calle del Prado and Tejon.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

100 50 0 100 200 300 400

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2017 H-29**	Project Location: See project maps

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
6	hydrant	2000	Replace 6 fire hydrants on Oro Grande between Calle del Prado and Tejon.	$ 12,000
6	hydrant	56	Estimated average labor cost to replace a hydrant	$ 336
Subtotal				$ 12,336
General Overhead Rate on Labor and Capital (10%)				$ 1,234
Total Estimated Cost				**$ 13,570**

Chaparral City Water Company – PWS ID No. 07-017

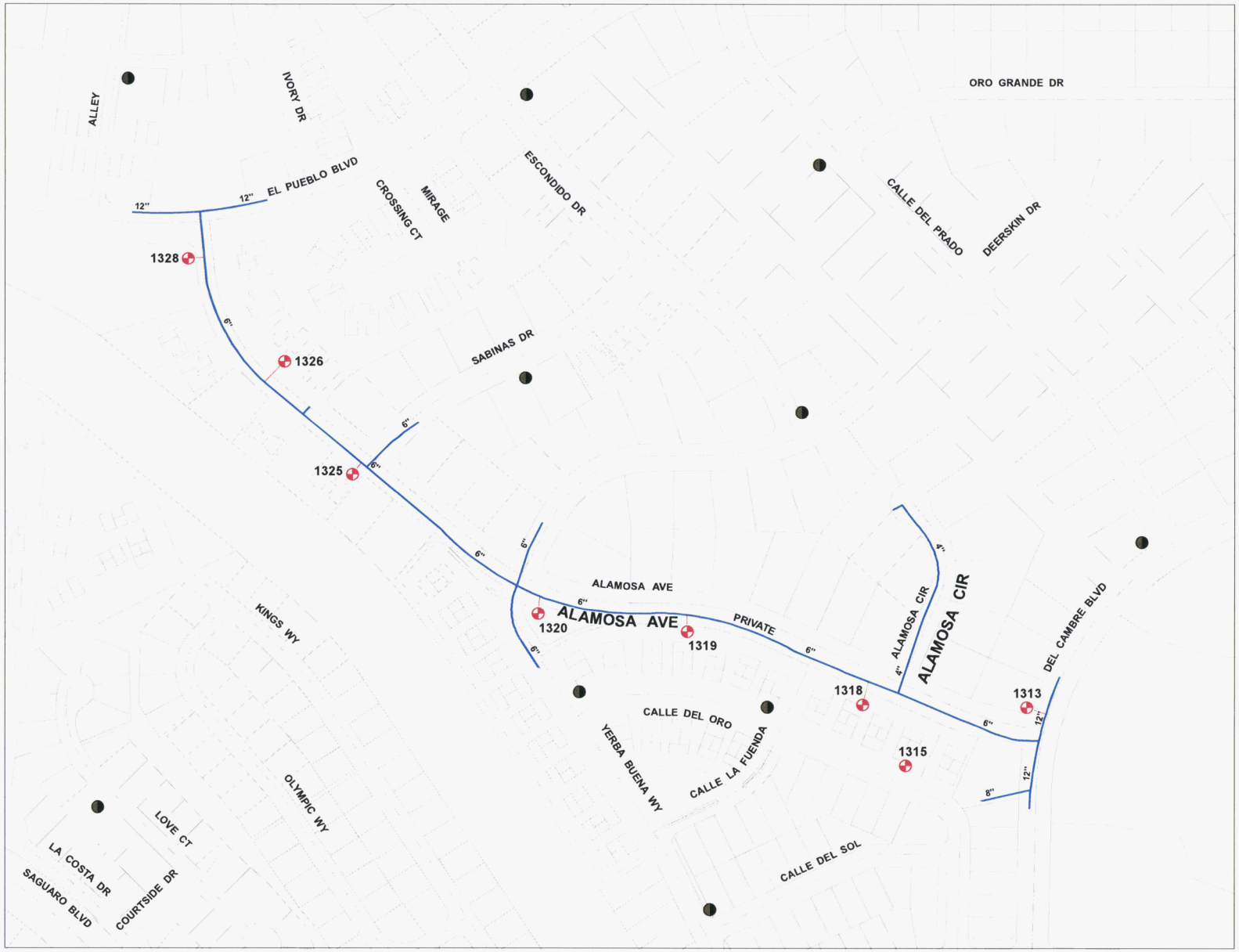
SIB PLANT TABLE I, 3-5

2018 Hydrant Replacements

Information to be included with DSIC-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
H-30	335	hydrants	8	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Alamosa	12/2018	n/a	$18,093	Replace 8 fire hydrants on Alamosa between Del Cambre and El Pueblo. The fire hydrants are in deteriorating condition and will be about 46 years old in 2018. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrants on this street already needed replacement. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-30 in Exhibit CC-1 which shows the locations of the future replacements.
H-31	335	hydrants	4	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Caliente, Tejon	12/2018	n/a	$9,046	Replace 4 fire hydrants on Caliente and Tejon between El Sobrante and El Pueblo. The fire hydrants are in deteriorating condition and will be about 45 years old in 2018. These are Dresser hydrants, for which we can no longer obtain repair parts. Four hydrants on this street have already needed replacement. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-31 in Exhibit CC-1 which shows the locations of the future replacements.

H-32	335	hydrants	6	n/a	Cast Iron/ AVK Wet Barrel	$2,262	El Sobrante	12/2018	n/a	$13,570	Replace 6 fire hydrants on El Sobrante between Baca and Calvaras. The fire hydrants are in deteriorating condition and will be about 46 years old in 2018. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-32 in Exhibit CC-1 which shows the locations of the future replacements.
H-33	335	hydrants	13	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Palisades	12/2018	n/a	$29,401	Replace 13 fire hydrants on Palisades between Sage and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and will be about 40 years old in 2018. These are Dresser hydrants, for which we can no longer obtain repair parts. Three hydrants have already needed replacement on this street. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-33 in Exhibit CC-1 which shows the locations of the future replacements.
H-34	335	hydrants	5	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Fountain Hills Blvd.	12/2018	n/a	$11,308	Replace 5 fire hydrants on Fountain Hills Blvd between Palomino and Inca. The fire hydrants are in deteriorating condition and will be 41 years old in 2017. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-34 in Exhibit CC-1 which shows the location of the future replacements.
Total			**36**							**$81,418**	



2018

Project No: H-30 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Alamosa

project desciption:

Replace 8 fire hydrants on Alamosa between El Pueblo and Del Cambre.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

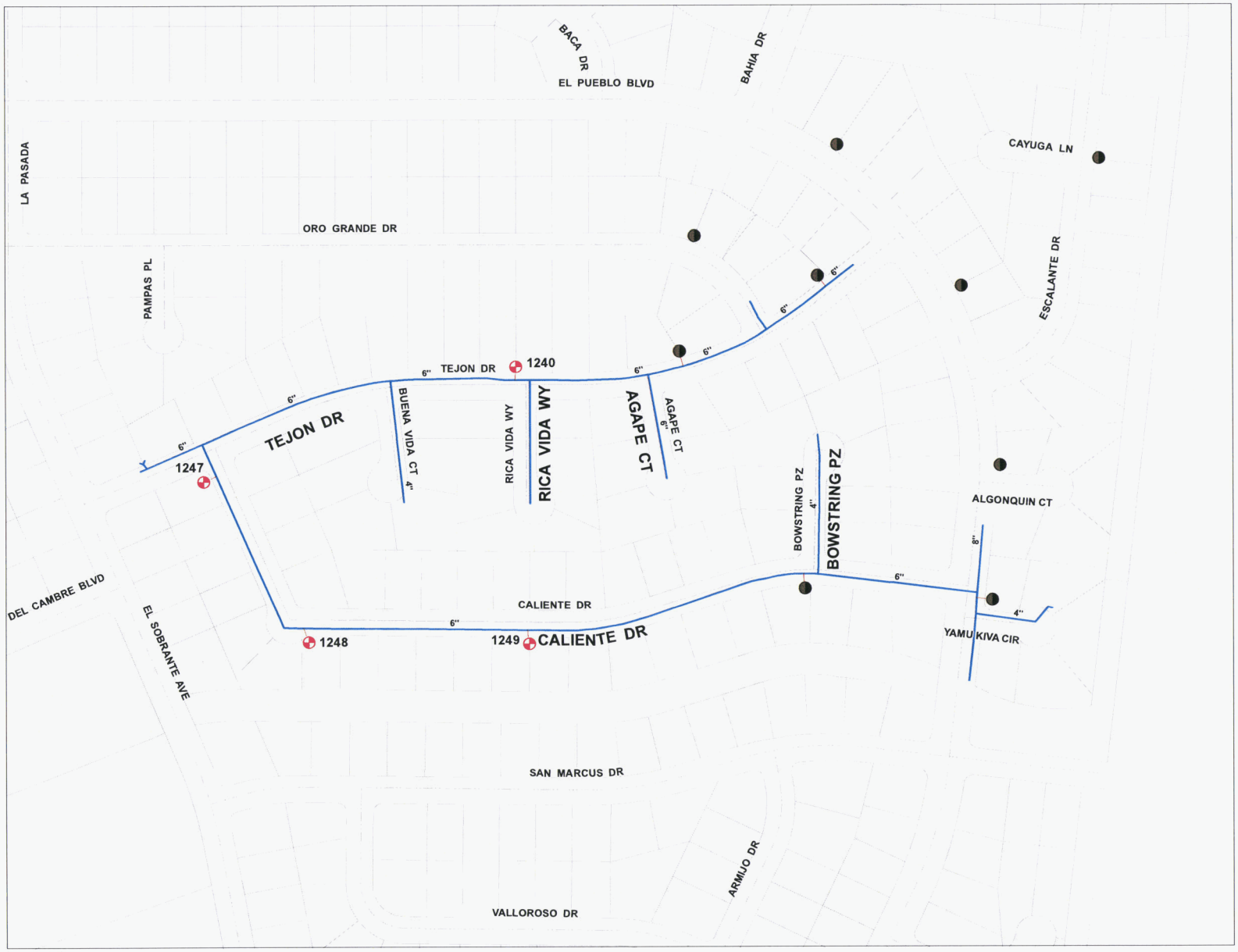
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2018 H-30**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
8	hydrant	2000	Replace 8 fire hydrants on Alamosa between Del Cambre and El Pueblo.	$ 16,000
8	hydrant	56	Estimated average labor cost to replace a hydrant	$ 448
Subtotal				$ 16,448
General Overhead Rate on Labor and Capital (10%)				$ 1,645
Total Estimated Cost				**$ 18,093**



2018

Project No: H-31 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Caliente

project desciption:

Replace 4 fire hydrants on Caliente and Tejon between El Sobrante and El Pueblo.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

80 40 0 80 160 240 320

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

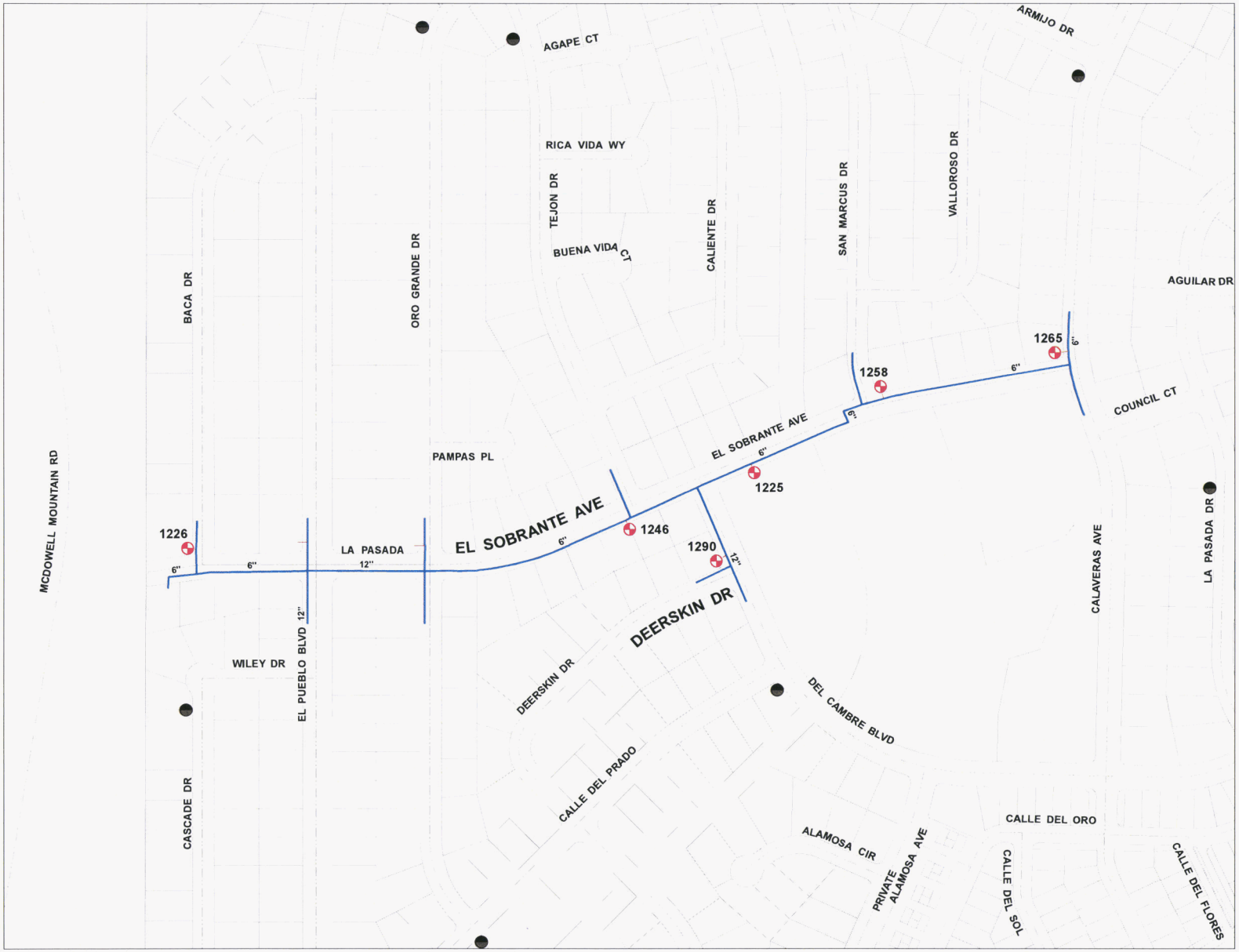
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2018 H-31**	Project Location: See project maps

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
4	hydrant	2000	Replace 4 fire hydrants on Caliente and Tejon between El Sobrante and El Pueblo.	$ 8,000
4	hydrant	56	Estimated average labor cost to replace a hydrant	$ 224
Subtotal				$ 8,224
General Overhead Rate on Labor and Capital (10%)				$ 822
Total Estimated Cost				**$ 9,046**



2018

Project No: H-32 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

El Sobrante

project desciption:

Replace 6 fire hydrants on El Sobrante between Baca and Calaveras.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

100 50 0 100 200 300 400

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

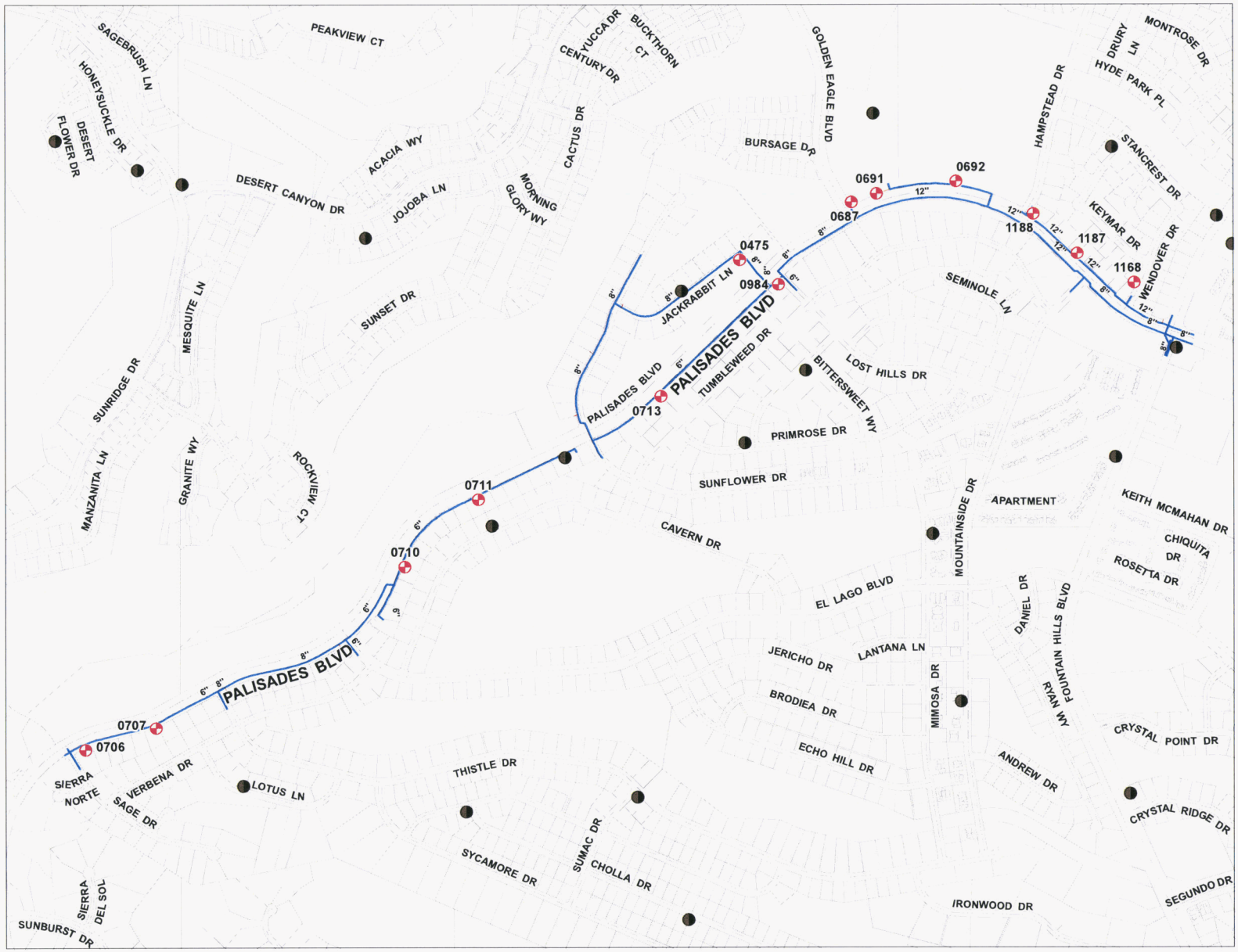
EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2018 H-32**	Project Location: See project maps

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
6	hydrant	2000	Replace 6 fire hydrants on El Sobrante between Baca and Calvaras.	$ 12,000
6	hydrant	56	Estimated average labor cost to replace a hydrant	$ 336
Subtotal				$ 12,336
General Overhead Rate on Labor and Capital (10%)				$ 1,234
Total Estimated Cost				**$ 13,570**



2018

Project No: H-33 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Palisades

project desciption:

Replace 13 fire hydrants on Palisades between Sage and Fountain Hills Blvd.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

250 125 0 250 500 750 1,000

scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water_2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2018 H-33**	Project Location: See project maps

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
13	hydrant	2000	Replace 13 fire hydrants on Palisades between Sage and Fountain Hills Blvd.	$ 26,000
13	hydrant	56	Estimated average labor cost to replace a hydrant	$ 728
Subtotal				$ 26,728
General Overhead Rate on Labor and Capital (10%)				$ 2,673
Total Estimated Cost				**$ 29,401**

2018

Project No: H-34 • PWSID: 07-017

Chaparral District

Fountain Hills

project area:

Fountain Hills

project desciption:

Replace 5 fire hydrants on Fountain Hills between Palomino and Inca.

Legend

- Hydrants previously replaced
- Hydrants to be replaced
- Water Main

N

90 45 0 90 180 270 360
scale in feet

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

EPCOR WATER

created: 8/2/2013

EPCOR Water 2013 • prepared by Engineering Mapping Solutions - Phoenix, AZ

EPCOR Water **Preliminary Cost Estimate**				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Year and Number: **2018 H-34**	Project Location: See project maps	

Project Description:
Replace non-functioning and unservicable old fire hydrants that repair parts are no longer available with new wet barrell fire hydrants.

Materials & Labor

Quantity	Unit	Avg $/Unit	Description	Estimated Item Cost
5	hydrant	2000	Replace 5 fire hydrants on Fountain Hills between Palomino and Inca.	$ 10,000
5	hydrant	56	Estimated average labor cost to replace a hydrant	$ 280
Subtotal				$ 10,280
General Overhead Rate on Labor and Capital (10%)				$ 1,028
Total Estimated Cost				**$ 11,308**

SECTION 4 - METERS

4.1 Overview

The Fountain Hills system has approximately 13,000 residential and commercial customer accounts. The weighted average meter age in the system is 10.2 years. The past 5-year average annual meter replacement rate was 104 meters per year; at this rate, it will take over a 130 years to replace all of the meters in the system.

A recent analysis of billing data revealed approximately 21,750 meter reads of zero for active accounts between August 2011 and June 2013. Many of these are duplicate customers, meaning that these customers have had meter reads of zero, or broken meters, for multiple billing cycles. A total of 3,268 unique active customers have had at least one meter read of zero during this time frame. This could account for significant portion of the non-revenue water in this district. A more aggressive meter replacement program is needed to address this issue.

4.2 Best Management Practices

The Arizona Department of Water Resources' (ADWR) Modified Non-Per Capita Conservation Program (MNPCCP) is one of the regulatory programs for large municipal water providers in Active Management Areas. It is a performance-based program (Best Management Practice or BMP) that participating water providers use to implement water conservation measures that result in water use efficiency in their service areas. ADWR's BMP for meter replacement and testing requires 2" and smaller meters be replaced at a minimum of every 15 years.

EPCOR has a BMP program in place for some of its other districts. The program is a good guideline for structuring a program in districts which do not have the required BMP program. EPCOR plans to adopt the following BMP for its Fountain Hills district:

Meter Repair and/or Replacement Tariff – BMP 4.2

PURPOSE

A program for the Company to systematically assess all in-service water meters (including Company production meters) in its water service area to identify under-registering meters and to repair or replace them (Modified Non-Per Capita Conservation Program Best Management

Practice Category 4: Physical System Evaluation and Improvement 4.2 Meter Repair and/or Replacement Program).

REQUIREMENTS

The requirements of this tariff are governed by Rules of the Arizona Corporation Commission and were adapted from the Arizona Department of Water Resources' Required Public Education Program and Best Management Practices in the Modified Non-Per Capita Conservation Program.

1. The Company will test, repair, or replace water meters in accordance with its meter testing and replacement guidelines, which include, but are not limited to, usage and length of time in service, as appropriate and necessary to maintain acceptable water meter accuracy.
2. The Company will test all meters that have caused a meter reading complaint to be filed with the Arizona Corporation Commission.
3. Meters larger than 2-inch shall be tested for one of the following reasons:
   a. A meter reading complaint is filed with the Company by a customer or Arizona Corporation Commission Staff,
   b. A meter has been in service for five years.
4. The test will be accomplished by one of the following:
   a. Having the meter pulled and having a Company Technician physically inspect each meter and its fittings for leaks, registers which may have become loose or are not properly attached to the meter and could be under-registering or other broken parts which need repair.
   b. Utilizing equipment to verify that all electronic components are within manufacturer specifications and are operating properly.
5. In addition, meters shall be randomly selected for flow testing utilizing a flow through detector testing meter.
6. All replacement water meters shall register in gallons in increments equal to or less than as follows:
   a. All new 1-inch and smaller meters that are installed will register usage in 1 gallon increments,
   b. All new 1-1/2-inch through 4-inch meters that are installed will register in 10 gallon increments, and

c. All new 6-inch and larger meters that are installed will register in 100 gallon increments.

7. The Company shall keep records on the number of meters that were replaced and make this information available to the Commission upon request.

4.3 Industry Standards

EPCOR contacted other water utilities around the country to find out what their standard for meter replacement has been. Most of these utilities believe that replacing meters every 10 to 15 years is appropriate. Different studies around the country determined that a 10 to 20 year range is acceptable; however, there is no exact age that determines the time when a meter should be replaced. A meter's accuracy is dependent on many factors including water quality, water temperature, the flow rate passing through the meter, and the quantity of water that passes through the meter. Taking these factors into consideration, comparing the Fountain Hills system to another system such as the City of Scottsdale, which has similar water composition and temperature as well as similar flow rates, seems appropriate. The City of Scottsdale developed a meter program in 2011 in which it was determined that meters should be replaced after 12 to 15 years from the manufacture date. Based on studies and other utilities' standards, EPCOR has determined that the 15 year range is appropriate for meter replacement in its Fountain Hills district.

4.4 Meter Replacements

EPCOR plans to substantially increase the annual meter replacement program. The program will target meter routes with the oldest meters first, as well as in critical areas where there have been instances of zero read meters. Prior to replacing the meters in a specific route, 10% of the meters will be tested for accuracy. If these meters do not meet the accuracy requirements described in our meter testing program, all of the meters in the route will be replaced; otherwise another meter route will be considered and tested for replacement need. A copy of the Company's meter testing and replacement guidelines is included in the following tab, **Meter Testing**.

EPCOR plans to replace an average of 1,439 meters per year over the next five years and continue at this pace until the all meters in the system are replaced. Exhibit 4-1 is a table showing EPCOR's plan for replacing meters for the next 10 years.

Meter replacement projects for the next five years are described in the following tabs labeled **2014, 2015, 2016, 2017,** and **2018**. Tables I, 4-1 through Table I, 4-5 provide a detailed description of each meter replacement project. The tables are broken down by year, so there is a separate table for each year from 2014 (Table I, 4-1) through 2018 (Table I, 4-5). Each project addresses a set of meter replacements that will occur within a defined meter route. Each project can also be tied to a map showing the proposed meter replacements. A detailed cost estimate for each project is also provided.

Exhibit 4-1 - Ten Year Meter Replacement Schedule

Proposed Replacement Year	Zone	Average Meter Age (Replacement Year - Installation Year)	Meters in Route	# Meters To Replace	5/8"	3/4"	1"	1½"	2"	Meters Replaced To Date
2014	08	16	495	495	345	143	3	1	3	495
2014	09	13	820	820	613	197	8	2	0	1315
2014	87	13	192	192	176	8	5	3	0	1507
2015	63	15	773	773	8	760	3	2	0	2280
2015	98	14	584	584	133	432	7	11	1	2864
2016	10	16	739	739	664	64	5	6	0	3603
2016	23	15	119	119	102	1	8	8	0	3722
2016	36	15	124	124	123	1	0	0	0	3846
2016	68	14	345	345	133	201	11	0	0	4191
2017	03	15	143	143	116	1	7	19	0	4334
2017	04	16	744	744	669	63	6	4	2	5078
2017	17	16	424	424	333	91	0	0	0	5502
2017	31	16	277	277	217	60	0	0	0	5779
2018	12	17	241	241	215	23	0	1	2	6020
2018	13	16	334	334	189	143	1	0	1	6354
2018	20	17	302	302	189	83	21	8	1	6646
2018	44	16	285	285	254	31	0	0	0	6639
2018	96	16	256	256	83	168	0	4	1	6895
2019	22	19	268	268	217	41	0	9	1	7373
2019	29	19	142	142	137	5	0	0	0	7515
2019	14	17	424	424	323	99	2	0	0	7939
2019	02	17	405	405	372	31	2	0	0	8344
2020	37	18	338	338	124	209	3	1	1	8984
2020	19	18	169	169	124	42	3	0	0	9153
2020	15	18	457	457	294	150	3	10	0	9610
2020	05	18	481	481	428	53	0	0	0	10091
2021	01	19	211	211	199	9	2	1	0	10,302
2021	21	18	302	302	242	60	0	0	0	10604
2021	16	18	501	501	383	117	1	0	0	11105
2021	11	18	463	463	427	33	0	2	1	11568
2022	97	19	231	231	4	226	1	0	0	11799
2022	42	19	108	108	108	0	0	0	0	11907
2022	91	18	132	132	54	57	14	7	0	12039
2022	90	18	303	303	79	157	31	35	1	12342
2022	45	18	58	58	51	2	0	3	2	12400
2022	99	18	46	46	5	22	0	1	18	12446
2022	28	18	225	225	179	32	5	9	0	12671
2022	25	18	206	206	3	203	0	0	0	12877
2023	62	16	210	210	201	6	0	2	1	7105
2023	27	18	417	417	1	404	8	2	2	13204
2023	30	17	151	151	0	150	0	0	1	13445
2023	07	16	5	5	1	3	1	0	0	13450
2023	06	15	57	57	0	47	10	0	0	13507
	Total	16.8	13507	13507	8518	4628	171	151	39	
COMPLETED or IN-PROGRESS ROUTES BELOW										
2013	24	10	166	166	120	22	11	13	0	661
2013	69	14.3	100	100	36	64	0	0	0	8039

FIELD OPERATIONS STANDARD OPERATING PRACTICIES		Effective Date: Revised Date:	
SOP Name: **WATER METER TESTING AND REPLACEMENT GUIDELINES**			SOP# **CFO-XXX**
TYPE: Accuracy Validation	DIVISION: Field Operations	ACTIVITY DEFINITIONS:	

OBJECTIVE

The objective of this document is to provide consistent practice and procedure for testing water meters for accurate measurement.

GOAL

The goal is to have a uniform water meter testing and replacement program.

SCOPE

The policy shall apply to all EPCOR Water employees and all contractors working on behalf of EPCOR Water, performing water meter testing and/or replacement. All personnel performing water meter tests will comply with the procedures in CFO-312, Small Meter Testing and CFO-315, Large Water Meter Testing.

SUPPORT GUIDANCE DOCUMENTS

1. Meter Requests Procedures
2. Hydrant Meter Requests Procedures
3. Water Meter Testing SOPs, CFO-312 Small Meter Testing, CFO-315 Large Meter Testing

PROCEDURE

Water meters provided by EPCOR Water will be in compliance with the specifications and tolerances established for meters by the American Water Works Association (AWWA), the Arizona Corporation Commission (ACC), and the New Mexico Public Regulation Commission (PRC). This practice will address four water meter test requests; first is a customer request, which could also be submitted through the ACC or PRC on behalf of a customer's complaint; second are meters replaced through the meter replacement program; third is testing of fire hydrant meters; and fourth is testing commercial meters 3" and larger. This practice will also identify required documentation and filing for all meter testing.

Customer Requested Meter Tests

1. Meter tests requested by customers will be accepted through the EPCOR Water Customer Service Center (CSC) or the local Customer Service Representative (CSR). EPCOR Water customers will be informed that if the meter test results are within 3% accuracy, they will be charged the current tariff rate for the meter test and the meter will be reinstalled at their location. The Customer Service Manager will determine if the fee should be waived. However, if the customer's meter is older than 6 years and is not testing within compliance guidelines (more than 3% accuracy), it will be replaced with a new AMR meter. The CSR will ask the customer if they would like to witness the meter test at a local EPCOR Water facility and schedule a date and time.

2. The CSC or CSR will create a Meter Test (MTEST) Service Order which schedules the Field Service Representative (FSR) to remove the customer's meter from their location. The FSR will submit a meter request to the Inventory Control Staff to receive a new meter to temporarily install during the meter test.

3. The FSR will proceed to the customer's location to remove the meter and install the temporary meter until the meter test is completed. The FSR will complete the MTEST service order with Backoffice Review for the local CSR, document all new meter information, (e.g. serial number, transponder I.D., current read, etc.), and attach a Meter Routing Tag (manila color) to the customer's meter for identification and tracking. The meter test will be completed as soon as possible to meet customer expectations.

4. The FSR will deliver the meter to the local Operations Facility for meter testing. If the customer has requested to be present during testing, the meter will be tested at the scheduled date and time. An EPCOR Water employee will perform the meter test and complete the Meter Test Report. If the meter test results are within compliance guidelines (less than 3% accuracy), the meter will be reinstalled at the customer's location. However, if the customer's meter is older than 6 years and is not testing within compliance guidelines (more than 3% accuracy), it will be replaced with a new AMR meter. The meter test results will be delivered to the CSR, recommend the meter for reinstallation or replacement. The CSR will notify the customer of the meter test results and provide the customer with a copy of the Meter Test Report if requested. The CSR will create a Meter Change-out (MTRCH) service order for the FSR to receive the customer's meter from the Inventory Control Staff to reinstall/replace the meter at the customer's location. The FSR will complete the MTRCH service order with Backoffice Review for the local CSR. The Inventory Control Staff will file the original paper copy of the Meter Test Report for one (1) year and an electronic (scan) copy indefinitely. The temporary meter will be returned to the Inventory Control Staff to be placed back in inventory.

5. If the meter does not test within compliance guidelines (more than 3% accuracy), the temporary meter will remain at the customer location at no cost to the customer and since the meter information was entered previously, no further action is required. The CSR will notify the customer of the results and explain refund procedures if the meter test indicates the meter ran fast. 99.99%

of the time, meters run slow. The old meter will be stored in the warehouse for six (6) months before disposal as scrap metal, or as long as required if the account is under review by the ACC.

6. In the event the meter is not within compliance guidelines and the meter proved to be running fast, the CSR will submit a request for the customer's account to be adjusted for a period not exceeding three (3) months preceding the removal of the meter for testing. The customer's account will be adjusted in accordance with Standard Adjustment Guidelines.

Meter Replacement Program

1. The replacement schedule for EPCOR water meters will be developed based on age, usage and length of time in service. The Field Operations Manager will establish and verify the meter service date by the meter serial number when developing the meter replacement schedule. The replacement schedule will identify meter routes targeted for replacement by calendar year based upon the above criteria.

2. In January of each calendar year the Field Operations Manager will schedule testing for a 10% random sample of meters in the routes scheduled for replacement in that calendar year as a means to validate replacement selection.

3. The Field Operations Supervisor will coordinate with the CSR to create Meter Periodic Change-out (MCPTC) Service Orders to replace meters. Field Operations staff is assigned to replace the selected meters and will complete a service order for each meter location and attach a completed meter routing tag to each meter. The completed service orders or read sequence form are delivered to the local CSR for processing. All old replacement meters will be delivered to the recycle bin for disposal.

4. The Utility Worker or Meter Reader will record all meter test results in the Meter Test database located on the network drive:

   F:\Common\Data Warehouse\Central Division\Operations Activity\Monthly Reports\Operational Data\Meters\Sun City Meter Test Database.xls

   The data base will track the meter serial number, test date, test result, meter reading, meter manufacture, size, and who performed the test. There is a separate tab for customer requests, meter replacement program, and hydrant meter.

5. Once meters are tested, the meters will be scheduled for scrap metal recycling.

Large Commercial Meter Tests

1. All large commercial meters (≥3") will be tested on an annual basis. Compound meters will be tested semi-annually due to low flow chambers high usage patterns. If current staff unavailable, meter tests will be performed by a meter test contractor within required time frame. Any meter

test that fails will be repaired/replaced by the contractor or replaced by EPCOR Water employee as required. All contractor meter test reports will be recorded and filed by the local Operations Supervisor. Field Operations staff will record all meter test results in the Meter Test database located on the network drive:

F:\Data\Common\Data Warehouse\Central Division\Operations Activity\Monthly Reports\Operational Data\Meters\Sun City Meter Test Database.xls

Hydrant Meter Tests

2. Customer requested hydrant meter testing will follow the same procedures as outlined in section "**Customer Requested Meter Tests**". A temporary hydrant meter will be installed at the customer location until the meter test is completed. In the event the hydrant meter does not pass inspection, the hydrant meter will be tagged for repair or disposal.

3. All hydrant meters returned from field will be inspected for damage and repaired as needed. The hydrant meters will then be tested for accuracy. If the hydrant meter does not pass testing after repairs, the hydrant meter will be scheduled for recycling for scrap metal.

4. The Inventory Control Staff will record all meter test results in the Meter Test database located on the network drive:

   F:\Data\Common\Data Warehouse\Central Division\Operations Activity\Monthly Reports\Operational Data\Meters\Sun City Meter Test Database.xls

   The database will track the meter serial number, test date, test result, meter reading, meter manufacture, size, and who performed the test. There is a separate tab for customer requests, meter replacement program, and hydrant meters.

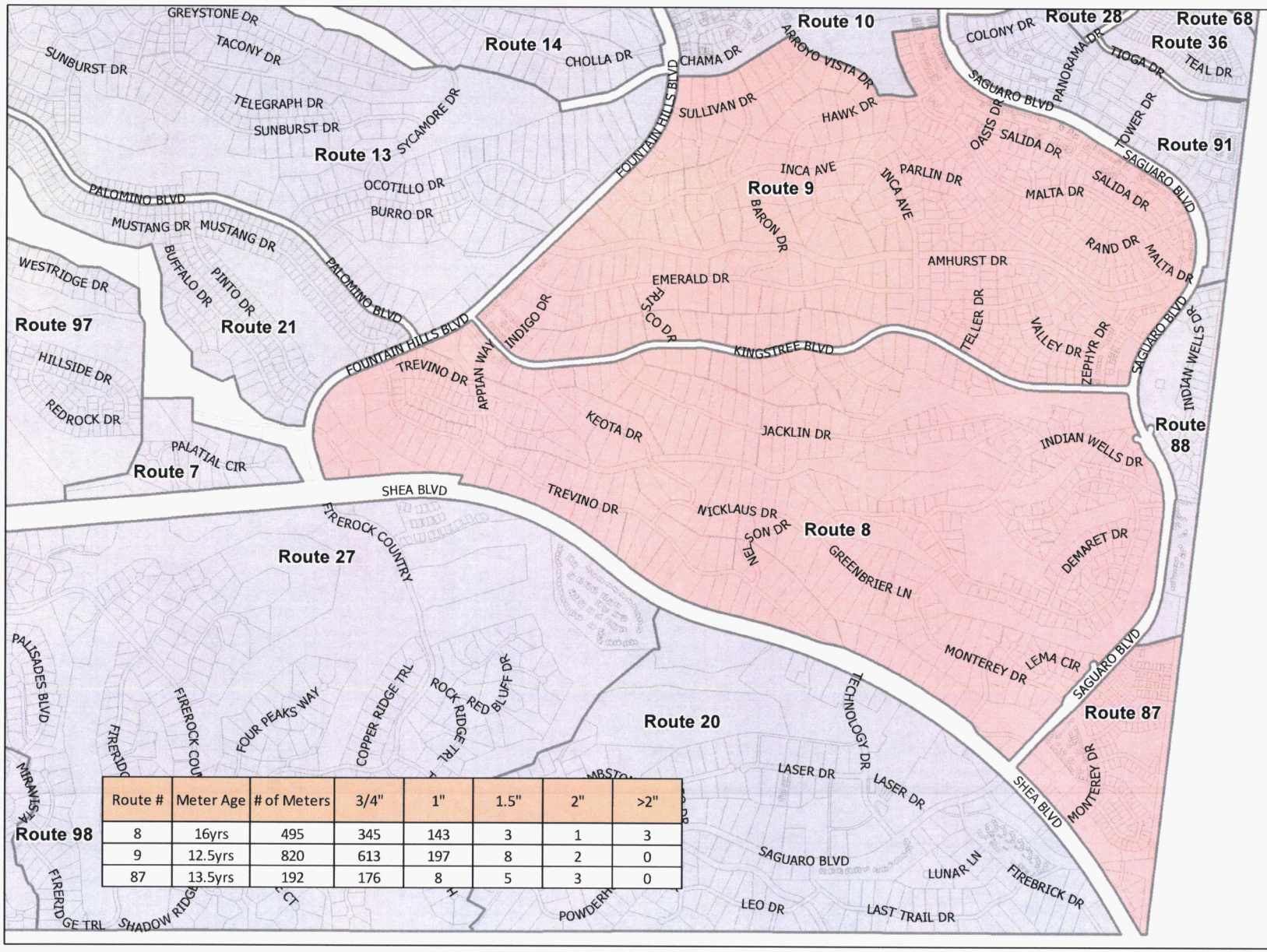
Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 4-1

2014 Meter Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
M-1	334	meters	1,507	¾" to >2"	Copper/ Plastic	¾"-$195 1"-$234 1½"-$367 2"-$447 >2"-$1,223	Meter Routes 8, 9, and 87 (see map M-1 in Exhibit CC-1)	12/2014	n/a	$314,989	Replace 1,134 - ¾", 348 – 1", 16 – 1.5", 6 – 2", and 3 - >2" (1,507 total) meters in CCWC meter routes 8, 9, and 87. The existing meters are between 10 and 15 years old and are experiencing a rapid decline in meter accuracy. Route 8 was chosen for completion in 2014 because the meters are the oldest in the system. Routes 9 and 87 were chosen to complete in the same year due to their vicinity to Route 8. Prior to replacement, a 10% sample of the route meters will be tested for accuracy. The new meters will help reduce system water loss to below 10%. The meter replacements are for existing customers and not related to new growth. See Section 4 of the SIB Report (Exhibit CC-1) for more explanation. See map M-1 in Exhibit CC-1 for the location of the meter routes.
Total			**1,507**							**$314,989**	



Route #	Meter Age	# of Meters	3/4"	1"	1.5"	2"	>2"
8	16yrs	495	345	143	3	1	3
9	12.5yrs	820	613	197	8	2	0
87	13.5yrs	192	176	8	5	3	0

2014
Project No. M-1
PWSID 07-017
Chaparral District
Fountain Hills, AZ

EPCOR WATER

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

Legend

- Target Routes 8; 9; 87
- Other Routes

Project Description:

1,507 Meters total to be replaced in Routes 8, 9, and 87.

Created: 2 July 2013

Prepared by: C Martinez

File name: M-1.mxd

Data source: EPCOR Water; Maricopa County Parcels; Maricopa County Streets

N

1 inch = 0.3 miles

EPCOR Water Preliminary Cost Estimate				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Number: M-1	Project Location: Meter Routes 8, 9, 87	
Project Description: Replace 1,134 - ¾", 348 – 1", 16 – 1.5", 6 – 2", and 3 - >2" (1,507 total) meters in CCWC meter routes 8, 9, 87.				

Materials & Labor

Quantity	Unit	$/Unit	Description	Estimated Item Cost
1134	3/4" Meter	159	New Meter	$ 180,079
348	1" Meter	194	New Meter	$ 67,498
16	1.5" Meter	292	New Meter	$ 4,669
6	2" Meter	350	New Meter	$ 2,099
3	>2" Meter	1000	New Meter (estimated avg. cost >2")	$ 3,000
1134	3/4" Meter	19	Labor to install 1134 new 3/4" meters*	$ 21,168
348	1" Meter	19	Labor to install 348 new 1" meters*	$ 6,496
16	1.5" Meter	42	Labor to install 16 new 1.5" meters*	$ 672
6	2" Meter	56	Labor to install 6 new 2" meters*	$ 336
3	>2" Meter	112	Labor to install 3 new >2" meters*	$ 336
Subtotal				$ 286,354
General Overhead Rate on Labor and Capital (10%)				$ 28,635
Total Estimated Cost				**$ 314,989**

*Company labor includes the salary for two employees at a rate of $28/hour for 20 minutes each for 3/4" and 1" meters, 45 minutes each for 1 1/2" meters, 1 hour each for 2" meters, and 2 hours each for meters larger than 2".

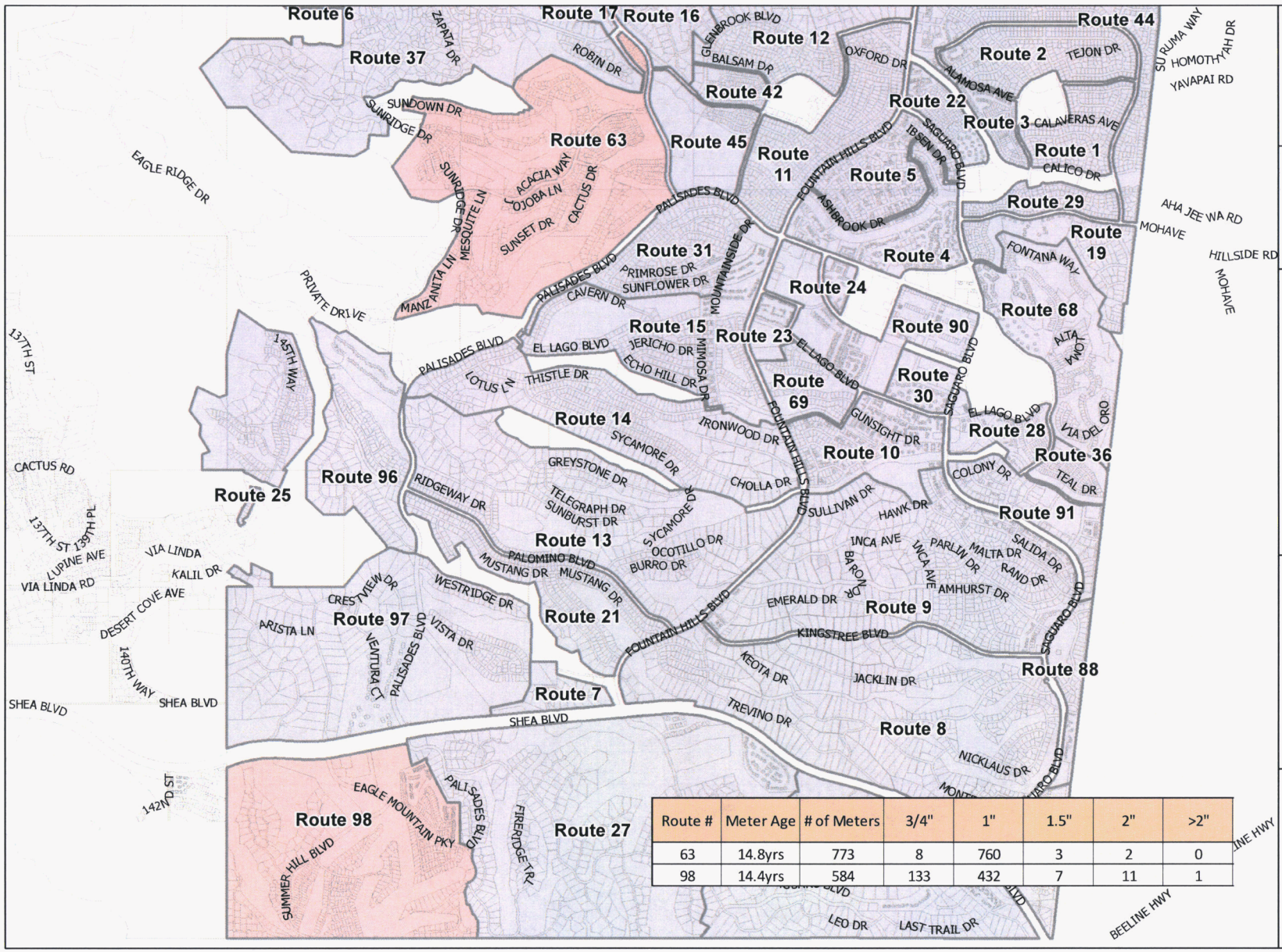
Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 4-2

2015 Meter Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
M-2	334	meters	1,357	¾" to >2"	Cooper/ Plastic	¾"-$195 1"-$234 1½"-$367 2"-$447 >2"-$1,223	Meter Routes 63 and 98 (see map M-2 in Exhibit CC-1)	12/2015	n/a	$317,509	Replace 141 - ¾", 1192 – 1", 10 – 1.5", 13 – 2", and 1 - >2" (1,357 total) meters in CCWC meter routes 63 and 98. The existing meters are about 13 years old, and will be 15 years old in their replacement year. They are experiencing a rapid decline in meter accuracy. Prior to replacement, a 10% sample of the route meters will be tested for accuracy. The new meters will help reduce system water loss to below 10%. The meter replacements are for existing customers and not related to new growth. See Section 4 of the SIB Report (Exhibit CC-1) for more explanation. See map M-2 in Exhibit CC-1 for the location of the meter routes.
Total			**1,357**							**$317,509**	



Route #	Meter Age	# of Meters	3/4"	1"	1.5"	2"	>2"
63	14.8yrs	773	8	760	3	2	0
98	14.4yrs	584	133	432	7	11	1

2015
Project No. M-2
PWSID 07-017
Chaparral District
Fountain Hills, AZ

EPCOR WATER

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

Legend

Target Routes 63; 98

Other Routes

Project Description:

1357 Meters total to be replaced in Routes 63 and 98.

Created: 2 July 2013

Prepared by: C Martinez

File name: M-2.mxd

Data source: EPCOR Water; Maricopa County Parcels; Maricopa County Streets

N

1 inch = 0.5 miles

EPCOR Water Preliminary Cost Estimate				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Number: M-2	Project Location: Meter Routes 63, 98	
Project Description: Replace 141 - ¾", 1192 – 1", 10 – 1.5", 13 – 2", and 1 - >2" (1,357 total) meters in CCWC meter routes 63, 98.				

Materials & Labor

Quantity	Unit	$/Unit	Description	Estimated Item Cost
141	3/4"	159	New Meter	$ 22,390.80
1192	1"	194	New Meter	$ 231,200.32
10	1.5"	292	New Meter	$ 2,918.40
13	2"	350	New Meter	$ 4,548.31
1	>2"	1000	New Meter (estimated avg. cost >2")	$ 1,000.00
141	hours	19	Labor to install 141 new 3/4" meters	$ 2,679
1192	hours	19	Labor to install 1192 new 1" meters	$ 22,648
10	hours	42	Labor to install 10 new 1.5" meters	$ 420
13	hours	56	Labor to install 13 new 2" meters	$ 728
1	hours	112	Labor to install 1 new >2" meters	$ 112
Subtotal				$ 288,645
General Overhead Rate on Labor and Capital (10%)				$ 28,864
Total Estimated Cost				**$ 317,509**

Chaparral City Water Company – PWS ID No. 07-017

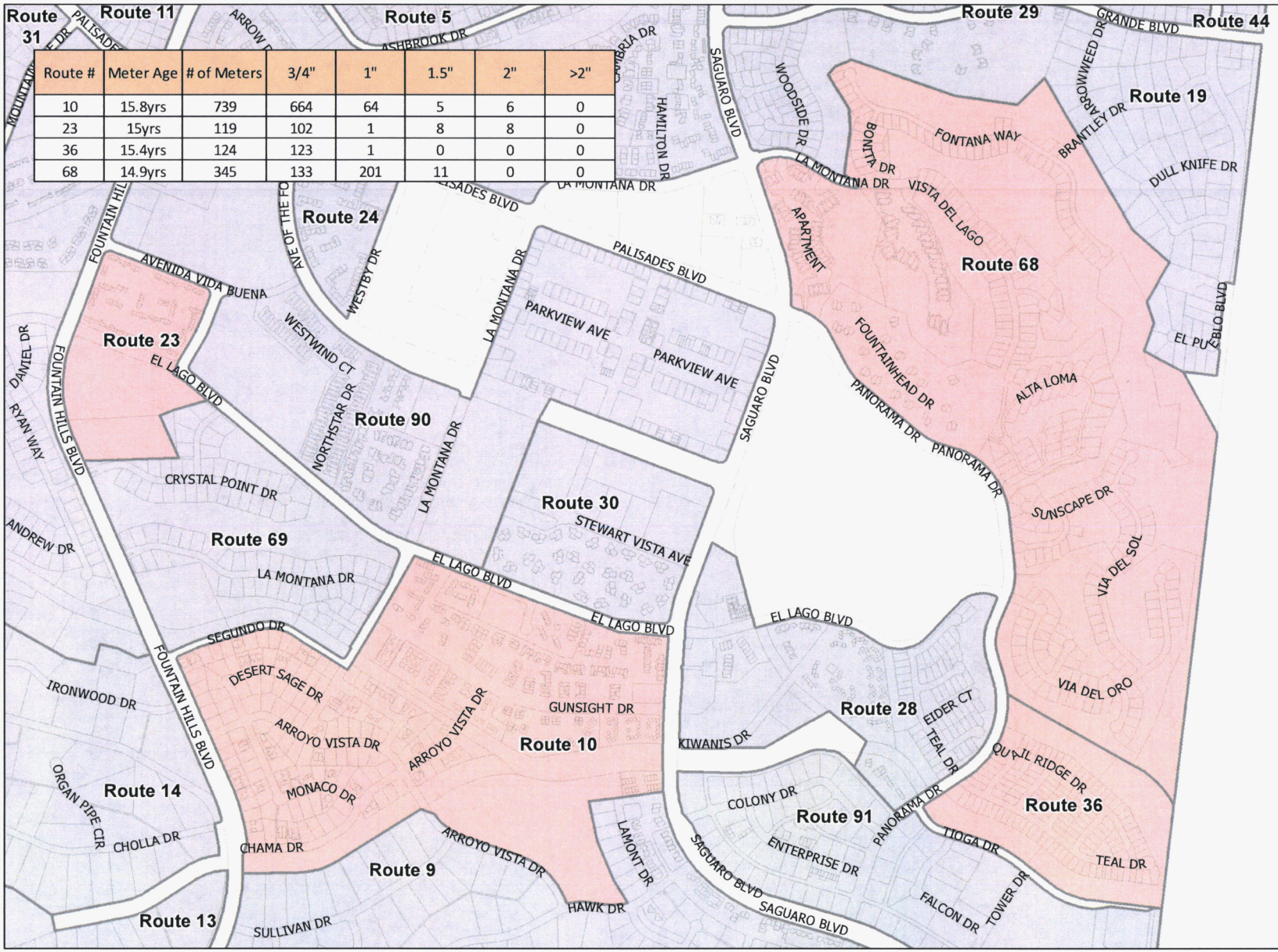
SIB PLANT TABLE I, 4-3

2016 Meter Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
M-3	334	meters	1,327	¾" to 2"	Copper/ Plastic	¾"-$195 1"-$234 1½"-$367 2"-$447	Meter Routes 10, 23, 36, and 68 (see map M-3 in Exhibit CC-1)	12/2016	n/a	$277,493	Replace 1022 - ¾", 267 – 1", 24 – 1.5", and 14 – 2" (1,327 total) meters in CCWC meter routes 10, 23, 36, and 68. The existing meters are about 12-13 years old, and will be 15-16 years old in their replacement year. They are experiencing a rapid decline in meter accuracy. Prior to replacement, a 10% sample of the route meters will be tested for accuracy. The new meters will help reduce system water loss to below 10%. The meter replacements are for existing customers and not related to new growth. See Section 4 of the SIB Report (Exhibit CC-1) for more explanation. See map M-3 in Exhibit CC-1 for the location of the meter routes.
Total			**1,327**							**$277,493**	

Route #	Meter Age	# of Meters	3/4"	1"	1.5"	2"	>2"
10	15.8yrs	739	664	64	5	6	0
23	15yrs	119	102	1	8	8	0
36	15.4yrs	124	123	1	0	0	0
68	14.9yrs	345	133	201	11	0	0



2016
Project No. M-3
PWSID 07-017
Chaparral District
Fountain Hills, AZ

EPCOR WATER

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

Legend

Target Routes 10; 23; 36; 68

Other Routes

Project Description:

1,327 total meters to be replaced in Routes 10, 23, 36, 68.

Created: 5 July 2013

Prepared by: J Wilda

File name: M-3.mxd

Data source: EPCOR Water; Maricopa County Parcels; Maricopa County Streets

N

1 inch = 0.2 miles

EPCOR Water Preliminary Cost Estimate				Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Number: M-3	Project Location: Meter Routes 10, 23, 36, 68	

Project Description:
Replace 1,022 - ¾", 267 – 1", 24 – 1.5", and 14 – 2" (1,327 total) meters in CCWC meter routes 10, 23, 36, 68.

Materials & Labor

Quantity	Unit	$/Unit	Description	Estimated Item Cost
1022	3/4"	159	New Meter	$ 162,293.60
267	1"	194	New Meter	$ 51,787.32
24	1.5"	292	New Meter	$ 7,004.16
14	2"	350	New Meter	$ 4,898.18
1022	hours	19	Labor to install 1022 new 3/4" meters	$ 19,418
267	hours	19	Labor to install 267 new 1" meters	$ 5,073
24	hours	42	Labor to install 24 new 1.5" meters	$ 1,008
14	hours	56	Labor to install 14 new 2" meters	$ 784
Subtotal				$ 252,266
General Overhead Rate on Labor and Capital (10%)				$ 25,227
Total Estimated Cost				**$ 277,493**

Chaparral City Water Company – PWS ID No. 07-017

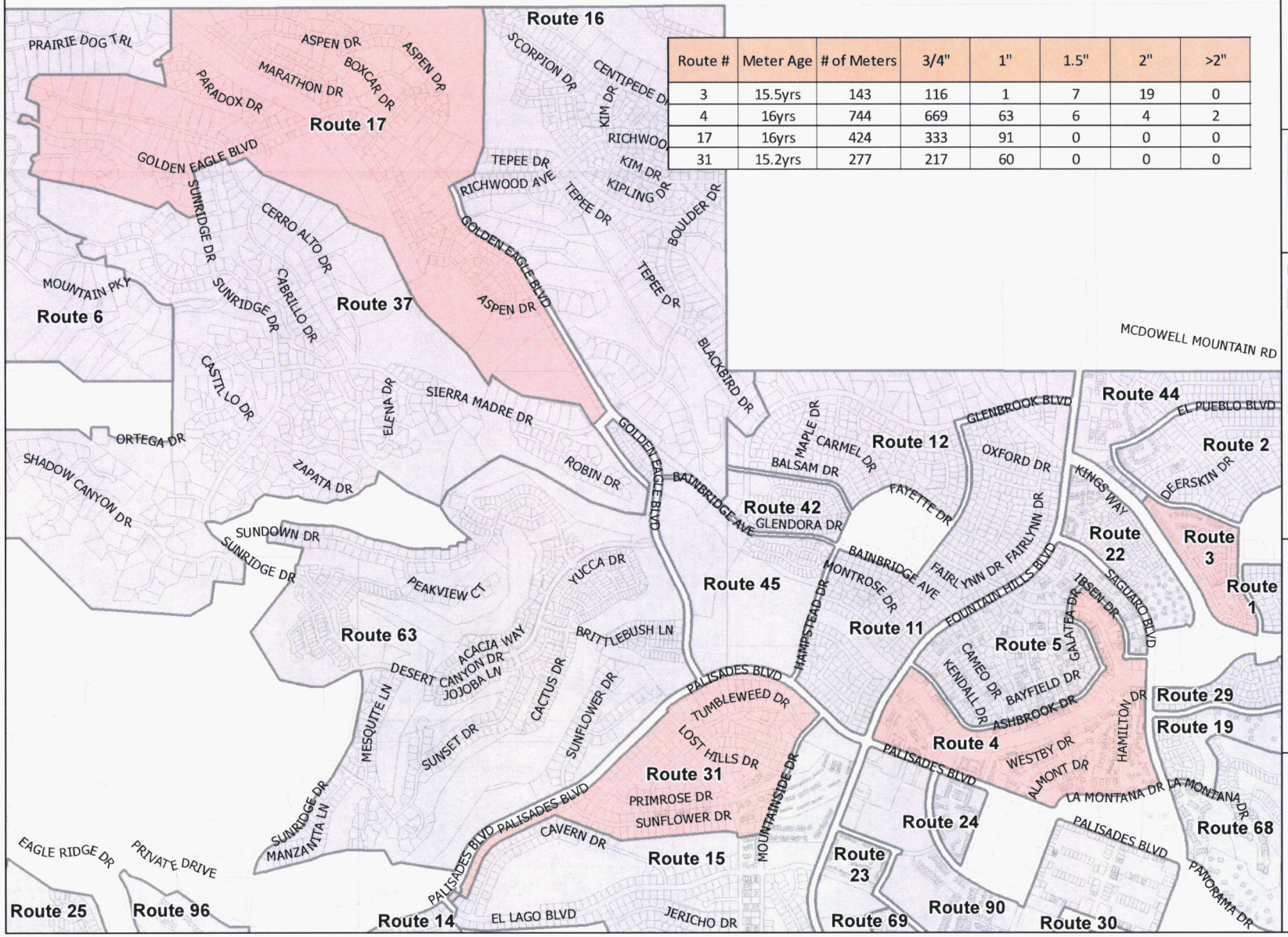
SIB PLANT TABLE I, 4-4

2017 Meter Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
M-4	334	meters	1,588	¾" to >2"	Copper/ Plastic	¾"-$195 1"-$234 1½"-$367 2"-$447 >2"-$1,223	Meter Routes 3, 4, 17, and 31 (see map M-4 in Exhibit CC-1)	12/2017	n/a	$328,953	Replace 1,335 - ¾", 215 – 1", 13 – 1.5", 23 – 2", and 2 - >2" (1,588 total) meters in CCWC meter routes 3, 4, 17, and 31. The existing meters are about 11-12 years old, and will be 15-16 years old in their replacement year. They are experiencing a rapid decline in meter accuracy. Prior to replacement, a 10% sample of the route meters will be tested for accuracy. The new meters will help reduce system water loss to below 10%. The meter replacements are for existing customers and not related to new growth. See Section 4 of the SIB Report (Exhibit CC-1) for more explanation. See map M-4 in Exhibit CC-1 for the location of the meter routes.
Total			**1,588**							**$328,953**	

Route #	Meter Age	# of Meters	3/4"	1"	1.5"	2"	>2"
3	15.5yrs	143	116	1	7	19	0
4	16yrs	744	669	63	6	4	2
17	16yrs	424	333	91	0	0	0
31	15.2yrs	277	217	60	0	0	0



2017
Project No. M-4
PWSID 07-017
Chaparral District
Fountain Hills, AZ

EPCOR WATER

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

Legend

Target Routes 3; 4; 17; 31

Other Routes

Project Description:

1,588 total meters to be replaced in Routes 3, 4, 17, 31.

Created: 5 July 2013

Prepared by: J Wilda

File name: M-4.mxd

Data source: EPCOR Water; Maricopa County Parcels; Maricopa County Streets

N

1 inch = 0.3 miles

EPCOR Water Preliminary Cost Estimate			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Number: M-4	Project Location: Meter Routes 3, 4, 17, 31

Project Description:
Replace 1335 - ¾", 215 – 1", 13 – 1.5", and 23 – 2", and 2 >2" (1,588 total) meters in CCWC meter routes 3, 4, 17, 31.

Materials & Labor

Quantity	Unit	$/Unit	Description	Estimated Item Cost
1335	3/4"	159	New Meter	$ 211,998.00
215	1"	194	New Meter	$ 41,701.40
13	1.5"	292	New Meter	$ 3,793.92
23	2"	350	New Meter	$ 8,047.01
2	>2"	1000	New Meter (estimated avg. cost >2")	$ 2,000.00
1335	hours	19	Labor to install 1335 new 3/4" meters	$ 25,365
215	hours	19	Labor to install 215 new 1" meters	$ 4,085
13	hours	42	Labor to install 13 new 1.5" meters	$ 546
23	hours	56	Labor to install 23 new 2" meters	$ 1,288
2	hours	112	Labor to install 2 new >2" meters	$ 224
Subtotal				$ 299,048
General Overhead Rate on Labor and Capital (10%)				$ 29,905
Total Estimated Cost				**$ 328,953**

Chaparral City Water Company – PWS ID No. 07-017

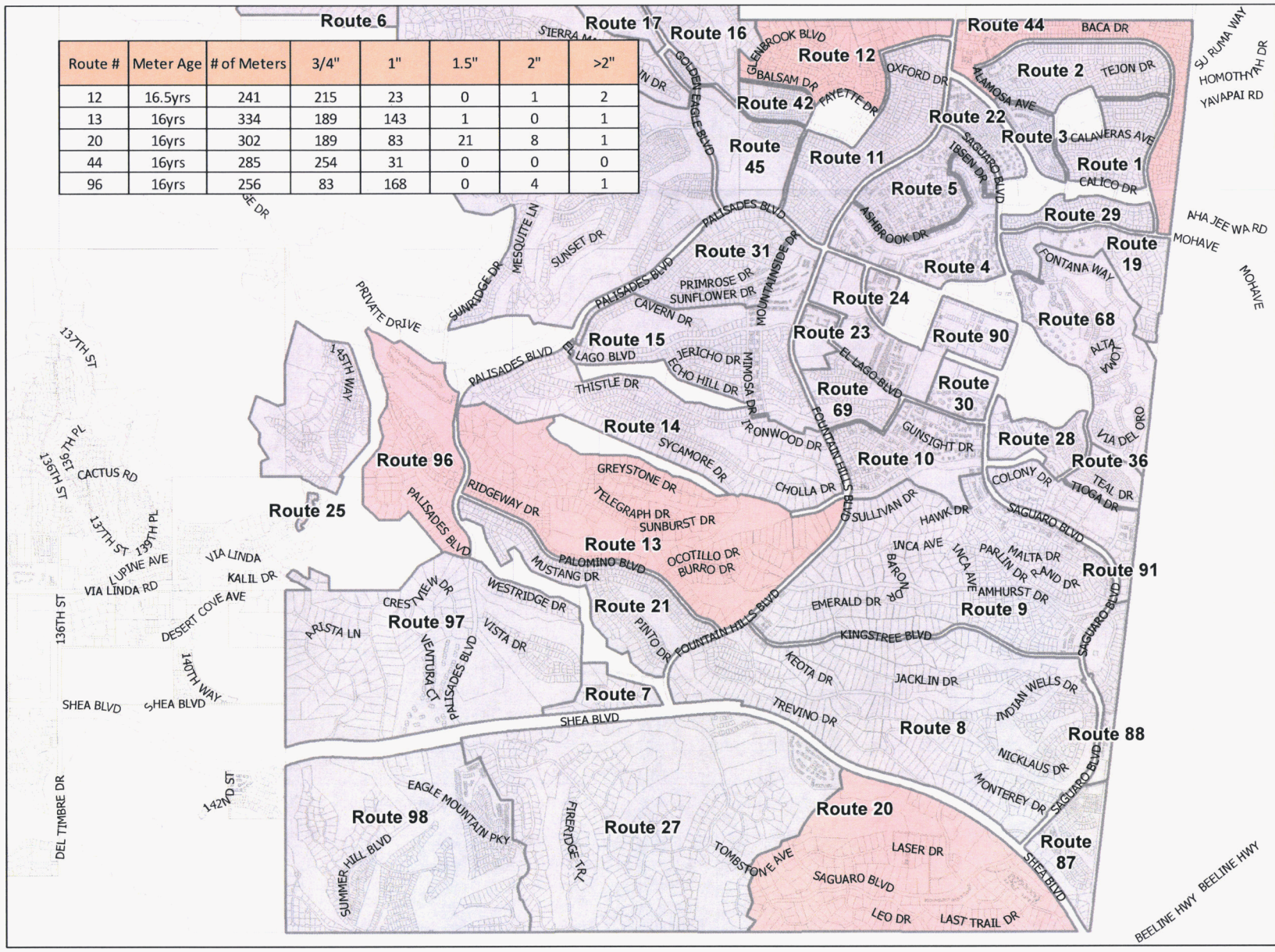
SIB PLANT TABLE I, 4-5

2018 Meter Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
M-5	334	meters	1,418	¾" to >2"	Copper/ Plastic	¾"-$195 1"-$234 1½"-$367 2"-$447 >2"-$1,223	Meter Routes 12, 13, 20, 44, and 96 (see map M-4 in Exhibit CC-1)	12/2018	n/a	$306,835	Replace 930 - ¾", 448 – 1", 22 – 1.5", 13 – 2", and 5 – >2" (1,418 total) meters in CCWC meter routes 12, 13, 20, 44, and 96. The existing meters are about 11-12 years old, and will be 16-17 years old in their replacement year. They are experiencing a rapid decline in meter accuracy. Prior to replacement, a 10% sample of the route meters will be tested for accuracy. The new meters will help reduce system water loss to below 10%. The meter replacements are for existing customers and not related to new growth. See Section 4 of the SIB Report (Exhibit CC-1) for more explanation. See map M-5 in Exhibit CC-1 for the location of the meter routes.
Total			**1,418**							**$306,835**	

Route #	Meter Age	# of Meters	3/4"	1"	1.5"	2"	>2"
12	16.5yrs	241	215	23	0	1	2
13	16yrs	334	189	143	1	0	1
20	16yrs	302	189	83	21	8	1
44	16yrs	285	254	31	0	0	0
96	16yrs	256	83	168	0	4	1



2018
Project No. M-5
PWSID 07-017
Chaparral District
Fountain Hills, AZ

EPCOR WATER

2355 W. Pinnacle Peak Rd.
Suite 300
Phoenix, AZ 85027

Legend

Target Routes 12; 13; 20; 44; 96

Other Routes

Project Description:

1,418 total meters to be replaced in Routes 12, 13, 20, 44, 96.

Created: 5 July 2013

Prepared by: J Wilda

File name: M-5.mxd

Data source: EPCOR Water; Maricopa County Parcels; Maricopa County Streets

N

1 inch = 0.5 miles

EPCOR Water Preliminary Cost Estimate			Date Prepared: 8/6/2013
Prepared By: Ian Crooks	Water System: Chaparral City/ Fountain Hills	Project Number: M-5	Project Location: Meter Routes 12 , 13, 20, 44, 96

Project Description:
Replace 930 - ¾", 448 – 1", 22 – 1.5", and 13 – 2", and 5 >2" (1,418 total) meters in CCWC meter routes 12 , 13, 20, 44, 96.

Materials & Labor

Quantity	Unit	$/Unit	Description	Estimated Item Cost
930	3/4"	159	New Meter	$ 147,684.00
448	1"	194	New Meter	$ 86,894.08
22	1.5"	292	New Meter	$ 6,420.48
13	2"	350	New Meter	$ 4,548.31
5	>2"	1000	New Meter (estimated avg. cost >2")	$ 5,000.00
930	hours	19	Labor to install 930 new 3/4" meters	$ 17,670
448	hours	19	Labor to install 448 new 1" meters	$ 8,512
22	hours	42	Labor to install 22 new 1.5" meters	$ 924
13	hours	56	Labor to install 13 new 2" meters	$ 728
5	hours	112	Labor to install 5 new >2" meters	$ 560
Subtotal				$ 278,941
General Overhead Rate on Labor and Capital (10%)				$ 27,894
Total Estimated Cost				**$ 306,835**

ATTACHMENT 2

SIB Table I

(Exhibit CC-2)

EPCOR Water (USA) Inc.

Chaparral City Water Company/Fountain Hills

PWS ID No. 07-017

August 21, 2013

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 1-1

2014 Service Line Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
S-1	333	service lines	40	¾" & 1"	Copper	$3,881	Ocotillo	12/2014	n/a	$155,232	Replace 40 residential services (3/4" or 1") on Ocotillo between Mustang and Fountain Hills Blvd. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed about 40 years ago, in 1974. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-1 in Exhibit CC-1 for the locations of the replacements.
S-2	333	service lines	105	¾" & 1"	Copper	$3,881	Mustang	12/2014	n/a	$407,484	Replace 105 residential services (3/4" or 1") on Mustang between Palisades and Fountain Hills Blvd. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed about 38 years ago, in 1976. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-2 in Exhibit CC-1 for the locations of the replacements.

S-3	333	service lines	13	¾" & 1"	Copper	$3,881	Spotted Horse	12/2014	n/a	$50,450	Replace 13 residential services (3/4" or 1") on Spotted Horse between Mustang and Westridge. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed about 35 years ago, in 1979. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-3 in Exhibit CC-1 for the locations of the replacements.
S-4	333	service lines	37	¾" & 1"	Copper	$3,881	Buffalo	12/2014	n/a	$143,590	Replace 37 residential services (3/4" or 1") on Buffalo between Mustang and Fountain Hills Blvd. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed about 38 years ago, in 1976. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-4 in Exhibit CC-1 for the locations of the replacements.
S-5	333	service lines	9	¾" & 1"	Copper	$3,881	Garland	12/2014	n/a	$34,927	Replace 9 residential services (3/4" or 1") on Garland between Buffalo and Palatial. The services are branched black poly lines (one service for two customers) that are failing at a high rate. The services are located on a short dead-end street off of Buffalo, which is scheduled for service line replacements in the same year (project S-4). Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-5 in Exhibit CC-1 for the locations of the replacements.
S-6	333	service lines	43	¾" & 1"	Copper	$3,881	Pinto	12/2014	n/a	$166,874	Replace 43 residential services (3/4" or 1") on Pinto between Palomino and Fountain Hills Blvd. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed about 38 years ago, in 1976. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-6 in Exhibit CC-1 for the locations of the replacements.
Total			**247**							**$958,558**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 1-2

2015 Service Line Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
S-7	333	service lines	44	¾" & 1"	Copper	$3,881	Sycamore	12/2015	n/a	$170,755	Replace 44 residential services (3/4" or 1") on Sycamore between Thistle and Ocotillo. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1974 and will be 41 years old in 2015. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-7 in Exhibit CC-1 for the locations of the replacements.
S-8	333	service lines	13	¾" & 1"	Copper	$3,881	Winchester	12/2015	n/a	$50,450	Replace 13 residential services (3/4" or 1") on Winchester between Sunburst and Palomino. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority due to their vicinity to the other projects being completed this year, and also because these services are in a very high pressure area (>120 psi), and are therefore more susceptible to failure. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-8 Exhibit CC-1 for the locations of the replacements.

S-9	333	service lines	31	¾" & 1"	Copper	$3,881	Ridgeway	12/2015	n/a	$120,305	Replace 31 residential services (3/4" or 1") on Ridgeway between Palisades and Winchester. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1976 and will be 39 years old in 2015. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-9 Exhibit CC-1 for the locations of the replacements.
S-10	333	service lines	54	¾" & 1"	Copper	$3,881	Sunburst	12/2015	n/a	$209,563	Replace 54 residential services (3/4" or 1") on Sunburst between Palisades and Sycamore. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority due to their vicinity to the other projects being completed this year, and also because these services are in a very high pressure area (>120 psi), and are therefore more susceptible to failure. Additionally, homes on this street a very large, and are therefore expected to use more water, which reduces meter accuracy faster. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-10 Exhibit CC-1 for the locations of the replacements.
S-11	333	service lines	28	¾" & 1"	Copper	$3,881	Burro	12/2015	n/a	$108,662	Replace 28 residential services (3/4" or 1") on Burro between Palomino and Pinchushion. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1978 and will be 37 years old in 2015. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-11 Exhibit CC-1 for the locations of the replacements.
S-12	333	service lines	26	¾" & 1"	Copper	$3,881	Greystone	12/2015	n/a	$100,901	Replace 26 residential services (3/4" or 1") on Greystone between Sunburst and Sycamore. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are in the vicinity of the other service line replacements for 2015 and will be about 29 years old. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-12 Exhibit CC-1 for the locations of the replacements.

S-13	333	service lines	25	¾" & 1"	Copper	$3,881	Telegraph	12/2015	n/a	$97,020	Replace 25 residential services (3/4" or 1") on Telegraph between Greystone and Sunburst. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are in the vicinity of the other service line replacements for 2015 and will be about 29 years old. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-13 Exhibit CC-1 for the locations of the replacements.
Total			**221**							**$857,656**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 1-3

2016 Service Line Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
S-14	333	service lines	95	¾" & 1"	Copper	$3,881	Cholla	12/2016	n/a	$368,676	Replace 95 residential services (3/4" or 1") on Cholla between Chicory and Fountain Hills Blvd. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1973 and will be 43 years old in 2016. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-14 Exhibit CC-1 for the locations of the replacements.
S-15	333	service lines	49	¾" & 1"	Copper	$3,881	Chicory	12/2016	n/a	$190,159	Replace 49 residential services (3/4" or 1") on Chicory between Sycamore and Thistle. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1974 and will be approximately 42 years old in 2016. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-15 Exhibit CC-1 for the locations of the replacements.

S-16	333	service lines	26	¾" & 1"	Copper	$3,881	Verbena	12/2016	n/a	$100,901	Replace 26 residential services (3/4" or 1") on Verbena between Sage and El Lago. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1978 and will be approximately 38 years old in 2016. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No.S-16 Exhibit CC-1 for the locations of the replacements.
S-17	333	service lines	56	¾" & 1"	Copper	$3,881	El Lago	12/2016	n/a	$217,325	Replace 56 residential services (3/4" or 1") on El Lago between Palisades and Fountain Hills Blvd. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1979 and will be approximately 37 years old in 2016. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-17 Exhibit CC-1 for the locations of the replacements.
S-18	333	service lines	30	¾" & 1"	Copper	$3,881	Cavern	12/2016	n/a	$116,424	Replace 30 residential services (3/4" or 1") on Cavern between Palisades and El Lago. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1979 and will be approximately 37 years old in 2016. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-18 in Exhibit CC-1 for the locations of the replacements.
Total			**256**							**$993,485**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 1-4

2017 Service Line Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
S-19	333	service lines	56	¾" & 1"	Copper	$3,881	Mimosa	12/2017	n/a	$217,325	Replace 56 residential services (3/4" or 1") on Mimosa between Sunflower and Thistle. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1975 and will be approximately 42 years old in 2017. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-19 in Exhibit CC-1 for the locations of the replacements.
S-20	333	service lines	34	¾" & 1"	Copper	$3,881	Mountainside	12/2017	n/a	$131,947	Replace 34 residential services (3/4" or 1") on Mountainside between Palisades and Thistle. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1975 and will be 42 years old in 2017. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-20 in Exhibit CC-1 for the locations of the replacements.

S-21	333	service lines	31	¾" & 1"	Copper	$3,881	Echo Hill	12/2017	n/a	$120,305	Replace 31 residential services (3/4" or 1") on Echo Hill between El Lago and Mimosa. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1979 and will be 38 years old in 2017. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-21 in Exhibit CC-1 for the locations of the replacements.
S-22	333	service lines	84	¾" & 1"	Copper	$3,881	El Pueblo	12/2017	n/a	$325,987	Replace 84 residential services (3/4" or 1") on El Pueblo between Fountain Hills Blvd and Caliente. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1972 and will be 45 years old in 2017. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-22 in Exhibit CC-1 for the locations of the replacements.
S-23	333	service lines	55	¾" & 1"	Copper	$3,881	Oro Grande, Pampas	12/2017	n/a	$213,444	Replace 55 residential services (3/4" or 1") on Oro Grande and Pampas between Calle del Prado and Tejon. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1974 and will be approximately 43 years old in 2017. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-23 in Exhibit CC-1 for the locations of the replacements.
Total			**260**							**$1,009,008**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 1-5

2018 Service Line Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
S-24	333	service lines	39	¾" & 1"	Copper	$3,881	Alamosa	12/2018	n/a	$151,351	Replace 39 residential services (3/4" or 1") on Alamosa between El Pueblo and Del Cambre. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1972 and will be 46 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-24 in Exhibit CC-1 for the locations of the replacements.
S-25	333	service lines	41	¾" & 1"	Copper	$3,881	Caliente Bowstring	12/2018	n/a	$159,113	Replace 41 residential services (3/4" or 1") on Caliente and Bowstring between Tejon and El Pueblo. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1973 and will be 45 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-25 in Exhibit CC-1 for the locations of the replacements as well as the location of historical replacements in the area.

S-26	333	service lines	24	¾" & 1"	Copper	$3,881	El Sobrante	12/2018	n/a	$93,139	Replace 24 residential services (3/4" or 1") on El Sobrante between Baca and Calvaras. The services are branched black poly lines (one service for two customers) that are failing at a high rate These services are a priority because they were installed in 1972 and will be 46 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-26 in Exhibit CC-1 for the locations of the replacements.
S-27	333	service lines	22	¾" & 1"	Copper	$3,881	Mirage Crossing	12/2018	n/a	$85,378	Replace 22 residential services (3/4" or 1") on Mirage Crossing between El Pueblo and Alamosa. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services will be 27 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-27 in Exhibit CC-1 for the locations of the replacements.
S-28	333	service lines	30	¾" & 1"	Copper	$3,881	Calle Del Prado	12/2018	n/a	$116,424	Replace 30 residential services (3/4" or 1") on Calle Del Prado between El Pueblo and Del Cambre. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1973 and will be 45 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-28 in Exhibit CC-1 for the locations of the replacements.
S-29	333	service lines	39	¾" & 1"	Copper	$3,881	Tejon, Buena Vida, Rica Vida, and Agave	12/2018	n/a	$151,351	Replace 39 residential services (3/4" or 1") on Tejon, Buena Vida, Rica Vida, and Agave between El Sobrante and El Pueblo. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed around 1977 and will be approximately 46 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-29 in Exhibit CC-1 for the locations of the replacements.

S-30	333	service lines	36	¾" & 1"	Copper	$3,881	Deerskin	12/2018	n/a	$139,709	Replace 36 residential services (3/4" or 1") on Deerskin between Alamosa and Del Cambre. The services are branched black poly lines (one service for two customers) that are failing at a high rate. These services are a priority because they were installed in 1973 and will be 45 years old in 2018. Replacing the services will help reduce system water loss and improve customer pressure and flow with a single service for each customer. The service line replacements are for existing customers and not related to new growth. See Map No. S-30 for the locations of the replacements.
Total			**231**							**$896,465**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 2-1

2014 Valve Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
V-1	331	gate valves	28	23-6" 1-8" 4-12"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201 12"-$6,173	Palomino	12/2014	n/a	$136,862	Replace 23-6", 1-8", 4-12" valves (28 total) on Palomino between Palisades and Fountain Hills Blvd. Distribution system valves that are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves are a priority because they were installed in 1976 and will be 38 years old in 2014. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-1 in Exhibit CC-1 shows the location of these valves.
V-2	331	gate valves	34	31-6" 1-4" 2-12"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651 12"-$6,173	Mustang	12/2014	n/a	$160,952	Replace 31-6", 1-4", and 2-12" valves (34 total) on Mustang between Palisades and Fountain Hills Blvd. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves are a priority because they were installed in 1977 and will be 37 years old in 2014. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-2 in Exhibit CC-1 shows the location of these valves.

V-3	331	gate valves	1	6"	cast iron with rubberized epoxy coating	$4,651	Spotted Horse	12/2014	n/a	$4,651	Replace 1-6" valve on Spotted Horse between Mustang and Westridge. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. This valve is a priority because it was installed in 1979 and will be 35 years and is needed in order to operate the only hydrants on this street. Replacing valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-3 in Exhibit CC-1 shows the location of this valve.
V-4	331	gate valves	10	6"	cast iron with rubberized epoxy coating	$4,651	Buffalo	12/2014	n/a	$46,508	Replace 10-6" valves on Buffalo between Mustang and Fountain Hills Blvd. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves are a priority because they were installed in 1976 and will be 38 years old in 2014. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-4 in Exhibit CC-1 shows the location of these valves.
V-5	331	gate valves	1	6"	cast iron with rubberized epoxy coating	$4,651	Garland	12/2014	n/a	$4,651	Replace 1-6" valve on Garland between Buffalo and Palatial. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. This valve is suffering from corrosion and is the only way to isolate Garland Circle. Replacing valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-5 in Exhibit CC-1 shows the location of this valve.
V-6	331	gate valves	10	6"	cast iron with rubberized epoxy coating	$4,651	Pinto	12/2014	n/a	$46,508	Replace 10-6" valves on Pinto between Palomino and Fountain Hills Blvd. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves are a priority because they were installed in 1976 and will be 38 years old in 2014. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-6 in Exhibit CC-1 shows the location of these valves.

V-7	331	gate valves	11	6-6" 4-8"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201	Ocotillo	12/2014	n/a	$53,359	Replace 6-6" and 4-8" valves (10 total) on Ocotillo between Mustang and Fountain Hills Blvd. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves are a priority because they were installed in 1974 and will be 40 years old in 2014. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-7 in Exhibit CC-1 shows the location of these valves.
Total			**95**							**$453,491**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 2-2

2015 Valve Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
V-8	331	gate valves	14	1-4" 9-6" 4-12"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651 12"-$6,173	Sycamore	12/2015	n/a	$70,981	Replace 1-4", 9-6", 4-12" valves (14 total) on Sycamore between Thistle and Ocotillo. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed around 1976 and will be approximately 39 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-8 in Exhibit CC-1 shows the location of these valves.
V-9	331	gate valves	6	6"	cast iron with rubberized epoxy coating	$4,651	Winchester	12/2015	n/a	$27,905	Replace 6-6" valves on Winchester between Sunburst and Palomino. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves will be 17-39 years old and are located in a high pressure area. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-9 in Exhibit CC-1 shows the location of these valves.

V-10	331	gate valves	9	6"	cast iron with rubberized epoxy coating	$4,651	Ridgeway	12/2015	n/a	$41,857	Replace 9-6" valves on Ridgeway between Palisades and Winchester. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed around 1976 and will be approximately 39 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-10 in Exhibit CC-1 shows the location of these valves.
V-11	331	gate valves	18	6"	cast iron with rubberized epoxy coating	$4,651	Sunburst	12/2015	n/a	$83,714	Replace 18-6" valves on Sunburst between Palisades and Sycamore. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves will be approximately 17-29 years old and are located in a high pressure area. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-11 in Exhibit CC-1 shows the location of these valves.
V-12	331	gate valves	15	6"	cast iron with rubberized epoxy coating	$4,651	Greystone	12/2015	n/a	$69,762	Replace 15-6" valve on Greystone between Sunburst and Sycamore. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves will be approximately 29 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-12 in Exhibit CC-1 shows the location of these valves.
V-13	331	gate valves	8	6"	cast iron with rubberized epoxy coating	$4,651	Telegraph	12/2015	n/a	$37,206	Replace 8-6" valves on Telegraph between Greystone and Sunburst. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves will be approximately 29 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-13 in Exhibit CC-1 shows the location of these valves.
V-14	331	gate valves	4	6"	cast iron with rubberized epoxy coating	$4,651	Tacony	12/2015	n/a	$18,603	Replace 4-6" valves on Tacony between Greystone and Telegraph. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves will be approximately 29 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-14 in Exhibit CC-1 shows the location of these valves.

V-15	331	gate valves	11	5-6" 1-8" 5-12"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201 12"-$6,173	Mimosa	12/2015	n/a	$59,321	Replace 5-6", 1-8", and 5-12" (11 total) valves on Mimosa between Sunflower and Thistle. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1976 and will be 39 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-15 in Exhibit CC-1 shows the location of these valves.
V-16	331	gate valves	18	1-4" 13-6" 4-8"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651 8"-$5,201	Cholla	12/2015	n/a	$85,694	Replace 1-4", 13-6", and 4-8" (18 total) valves on Cholla between Chicory and Fountain Hills Blvd. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed around 1975 and will be approximately 40 years old in 2015. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-16 in Exhibit CC-1 shows the location of these valves.
Total			**103**							**$495,043**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 2-3

2016 Valve Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
V-17	331	gate valves	8	5-6" 3-12"	cast iron with rubberized epoxy coating	6"-$4,651 12"-$6,173	Chicory	12/2016	n/a	$41,744	Replace 5-6" and 3-12" (8 total) valves on Chicory between Sycamore and Thistle. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1974 and will be 42 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-17 in Exhibit CC-1 shows the location of these valves.
V-18	331	gate valves	6	5-6" 1-8"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201	Verbena	12/2016	n/a	$28,433	Replace 5-6" and 1-8" (6 total) valves on Verbena between Sage and El Lago. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed around 1977 and will be approximately 39 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-18 in Exhibit CC-1 shows the location of these valves.

V-19	331	gate valves	12	9-6" 3-12"	cast iron with rubberized epoxy coating	6"-$4,651 12"-$6,173	Sage	12/2016	n/a	$60,377	Replace 9-6" and 3-12" (12 total) valves on Sage between Palisades and Stardust. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed between 1975 and 1989 and will be approximately 27 to 41 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-19 in Exhibit CC-1 shows the location of these valves.
V-20	331	gate valves	6	3-6" 3-12"	cast iron with rubberized epoxy coating	6"-$4,651 12"-$6,173	Ironwood	12/2016	n/a	$32,472	Replace 3-6" and 3-12" (6 total) valves on Ironwood between Thistle and Fountain Hills Blvd. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These were installed in 1973 and will be 43 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-20 in Exhibit CC-1 shows the location of these valves.
V-21	331	gate valves	19	1-4" 11-6" 5-8" 2-12"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651 8"-$5,201 12"-$6,173	Thistle	12/2016	n/a	$93,940	Replace 1-4", 11-6", 5-8", and 2-12" (19 total) valves on Thistle between Palisades and Mountainside Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed around 1976 and will be approximately 40 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-21 in Exhibit CC-1 shows the location of these valves.
V-22	331	gate valves	21	10-6" 11-8"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201	El Lago	12/2016	n/a	$103,717	Replace 10-6" and 11-8" (21 total) valves on El Lago between Palisades and Fountain Hills Blvd Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed around 1979 and will be approximately 37 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-22 in Exhibit CC-1 shows the location of these valves.

V-23	331	gate valves	16	13-6" 3-8"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201	Sunflower	12/2016	n/a	$76,063	Replace 13-6" and 3-8" (16 total) valves on Sunflower between Cactus and Mountainside. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed between 1975 and 1995 and will be approximately 21 to 41 years old in 2016. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-23 in Exhibit CC-1 shows the location of these valves.
Total			**88**							**$436,776**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 2-4

2017 Valve Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
V-24	331	gate valves	8	6"	cast iron with rubberized epoxy coating	$4,651	Cavern	12/2017	n/a	$37,206	Replace 8-6" valves on Cavern between Palisades and El Lago. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1979 and will be 38 years old in 2017. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-24 in Exhibit CC-1 shows the location of these valves.
V-25	331	gate valves	7	4-6" 3-8"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201	Jackrabbit	12/2017	n/a	$34,206	Replace 4-6" and 3-8" (7 total) valves on Jackrabbit between Palisades and Sunflower. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1997. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-25 in Exhibit CC-1 shows the location of these valves.

V-26	331	gate valves	16	9-6" 4-8" 3-12"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201 12"-$6,173	Mountain-side	12/2017	n/a	$81,180	Replace 9-6", 4-8", and 3-12" (16 total) valves on Mountainside between Palisades and Thistle Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1978 and will be 39 years old in 2017. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-26 in Exhibit CC-1 shows the location of these valves.
V-27	331	gate valves	6	4-6" 2-8"	cast iron with rubberized epoxy coating	6"-$4,651 8"-$5,201	Echo Hill	12/2017	n/a	$29,005	Replace 4-6" and 2-8" (6 total) valves on Echo Hill between El Lago and Mimosa. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1979 and will be 38 years old in 2017. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-27 in Exhibit CC-1 shows the location of these valves.
V-28	331	gate valves	14	6"	cast iron with rubberized epoxy coating	$4,651	Tumble-weed	12/2017	n/a	$65,111	Replace 14-6" valves on Tumbleweed between Cavern and Mountainside. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed between 1975 and 1990 and will be 27 to 42 years old in 2017. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-28 in Exhibit CC-1 shows the location of these valves.
V-29	331	gate valves	14	6"	cast iron with rubberized epoxy coating	$4,651	Ponderosa	12/2017	n/a	$65,111	Replace 14-6" valves on Pondersoa between Primrose and Mountainside Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed between 1975 and 1989 and will be 28 to 42 years old in 2017. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-29 in Exhibit CC-1 shows the location of these valves.

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 2-5

2018 Valve Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (Estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
V-31	331	gate valves	33	1-4" 19-6" 5-8" 8-12"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651 8"-$5,201 12"-$6,173	El Pueblo	12/2018	n/a	$168,186	Replace 1-4", 19-6", 5-8", 8-12" (33 total) valves on El Pueblo between Fountain Hills Blvd and Escalante. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1973 and will be 45 years old in 2018. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-31 in Exhibit CC-1 shows the location of these valves.
V-32	331	gate valves	13	1-4" 12-6"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651	Oro Grande	12/2018	n/a	$60,240	Replace 1-4" and 12-6" (13 total) valves on Oro Grande between Calle del Prado and Tejon. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1974 and will be 44 years old in 2018. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-32 in Exhibit CC-1 shows the location of these valves.

V-33	331	gate valves	16	1-4" 14-6" 1-12"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651 12"-$6,173	Alamosa	12/2018	n/a	$75,715	Replace 1-4", 14-6", and 1-12" (16 total) valves on Alamosa between Del Cambre and El Pueblo. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1972 and will be 46 years old in 2018. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-33 in Exhibit CC-1 shows the location of these valves.
V-34	331	gate valves	11	2-4" 9-6"	cast iron with rubberized epoxy coating	4"-$4,431 6"-$4,651	Caliente, Yuma Kiva	12/2018	n/a	$50,719	Replace 2-4" and 9-6" (11 total) valves on Caliente and Yuma Kiva between Tejon and El Pueblo. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1973 and will be 45 years old in 2018. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-34 in Exhibit CC-1 shows the location of these valves.
V-35	331	gate valves	16	15-6" 1-12"	cast iron with rubberized epoxy coating	6"-$4,651 12"-$6,173	El Sobrante	12/2018	n/a	$75,935	Replace 15-6" and 1-12" (16 total) valves on El Sobrante between Baca and Calvaras. Distribution system valves are no longer functioning because they are primarily uncoated butterfly valves which are prone to tuberculation. These valves were installed in 1972 and will be 6 years old in 2018. Replacing the valves decreases time required to shutdown water main in the event of main break or other system maintenance which reduces customer service disruption and decreases water loss during a main breaks. The valve replacements are not related to new growth. Map V-35 in Exhibit CC-1 shows the location of these valves.
Total			**89**							**$430,795**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 3-1

2014 Hydrant Replacements

Information to be included with DSIC-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
H-1	335	hydrants	8	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Palomino	12/2014	n/a	$18,093	Replace 8 fire hydrants on Palomino between Palisades and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and are approximately 35 years old. These are Dresser hydrants, for which we can no longer obtain repair parts. Three hydrants on this street have already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-1 in Exhibit CC-1 which shows the locations of the future replacements.
H-2	335	hydrants	10	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Mustang	12/2014	n/a	$22,616	Replace 10 fire hydrants on Mustang between Palisades and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and are 37 years old. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-2 in Exhibit CC-1 which shows the locations of the future replacements.

H-3	335	hydrants	1	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Spotted Horse	12/2014	n/a	$2,262	Replace 1 fire hydrant on Spotted Horse between Mustang and Westridge. The fire hydrant is in deteriorating condition and is 34 years old. This is a Dresser hydrant, for which we can no longer obtain repair parts. Replacing the hydrant will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacement is for existing customers and not related to new growth. See the map for Project H-3 in Exhibit CC-1 which shows the location of the future replacement.
H-4	335	hydrants	1	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Buffalo	12/2014	n/a	$2,262	Replace 1 fire hydrant on Buffalo between Mustang and Puma. The fire hydrant is in deteriorating condition and is 37 years old. This is a Dresser hydrant, for which we can no longer obtain repair parts. The other 3 hydrants on this street have already needed replacement. Replacing the hydrant will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacement is for existing customers and not related to new growth. See the map for Project H-4 in Exhibit CC-1 which shows the location of the future replacement.
H-5	335	hydrants	10	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Sunburst	12/2014	n/a	$22,616	Replace 10 fire hydrants on Sunburst between Palisades and Sycamore. The fire hydrants are in deteriorating condition and 2 hydrants on this street have already needed replacement. These are Dresser hydrants, for which we can no longer obtain repair parts. Two hydrants on this street have already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-5 in Exhibit CC-1 which shows the locations of the future replacements.
H-6	335	hydrants	4	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Burro, Pincushion	12/2014	n/a	$9,046	Replace 4 fire hydrants on Burro and Pincushion between Palomino and Ocotillo. The fire hydrants are in deteriorating condition and are approximately 37 years old. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-6 in Exhibit CC-1 which shows the locations of the future replacements.
H-7	335	hydrants	7	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Ocotillo	12/2014	n/a	$15,831	Replace 7 fire hydrants on Ocotillo between Mustang and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and are approximately 39 years old. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-7 in Exhibit CC-1 which shows the locations of the future replacements.
Total			**41**							**$92,726**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 3-2

2015 Hydrant Replacements

Information to be included with DSIC-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
H-8	335	hydrants	6	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Sycamore	12/2015	n/a	$13,570	Replace 6 fire hydrants on Sycamore between Thistle and Ocotillo. The fire hydrants are in deteriorating condition and will be 41 years old in 2015. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-8 in Exhibit CC-1 which shows the locations of the future replacements.
H-9	335	hydrants	6	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Ridgeway	12/2015	n/a	$13,570	Replace 6 fire hydrants on Ridgeway between Palisades and Winchester. The fire hydrant is in deteriorating condition and will be 39 years old in 2015. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-9 in Exhibit CC-1 which shows the locations of the future replacements.

H-10	335	hydrants	6	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Greystone	12/2014	n/a	$13,570	Replace 6 fire hydrants on Greystone between Sunburst and Sycamore. The fire hydrant is in deteriorating condition and will be 29 years old in 2015. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-10 in Exhibit CC-1 which shows the location of the future replacements.
H-11	335	hydrants	4	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Telegraph	12/2014	n/a	$9,046	Replace 4 fire hydrants on Telegraph between Greystone and Sunburst. The fire hydrant is in deteriorating condition and will be 29 years old in 2015. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-11 in Exhibit CC-1 which shows the location of the future replacements.
H-12	335	hydrants	1	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Tacony	12/2015	n/a	$2,262	Replace 1 fire hydrant on Tacony between Greystone and Telegraph. The fire hydrant is in deteriorating condition and will be 29 years old in 2015. This is a Dresser hydrant, for which we can no longer obtain repair parts. The other hydrant on this street has already needed replacement Replacing the hydrant will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacement is for existing customers and not related to new growth. See the map for Project H-12 in Exhibit CC-1 which shows the locations of the future replacement.
H-13	335	hydrants	8	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Mimosa	12/2015	n/a	$18,093	Replace 8 fire hydrants on Mimosa between Sunflower and Thistle. The fire hydrants are in deteriorating condition and will be approximately 37 years old in 2015. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-13 in Exhibit CC-1 which shows the locations of the future replacements.

H-14	335	hydrants	4	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Cholla	12/2015	n/a	$9,046	Replace 4 fire hydrants on Cholla between Chicory and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and will be 42 years old in 2015. These are Dresser hydrants, for which we can no longer obtain repair parts. Four hydrants on this street have already needed replacement. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-14 in Exhibit CC-1 which shows the locations of the future replacements.
Total			**35**							**$79,157**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 3-3

2016 Hydrant Replacements

Information to be included with DSIC-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
H-15	335	hydrants	2	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Chicory	12/2016	n/a	$4,523	Replace 2 fire hydrants on Chicory between Sycamore and Thistle. The fire hydrants are in deteriorating condition and will be 41 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-15 in Exhibit CC-1 which shows the locations of the future replacements.
H-16	335	hydrants	3	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Verbena	12/2016	n/a	$6,785	Replace 3 fire hydrants on Verbena between Sage and El Lago. The fire hydrants are in deteriorating condition and will be 40 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-16 in Exhibit CC-1 which shows the locations of the future replacements.

H-17	335	hydrants	5	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Sage, Stardust	12/2016	n/a	$11,308	Replace 5 fire hydrants on Sage and Stardust between Palisades and Greystone. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-17 in Exhibit CC-1 which shows the locations of the future replacements.
H-18	335	hydrants	1	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Sierra Norte	12/2016	n/a	$2,262	Replace 1 fire hydrant on Sierra Norte between Palisades and Sage. This is a Dresser hydrant, for which we can no longer obtain repair parts. Replacing the hydrant will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacement is for existing customers and not related to new growth. See the map for Project H-18 in Exhibit CC-1 which shows the location of the future replacement.
H-19	335	hydrants	3	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Ironwood	12/2016	n/a	$6,785	Replace 3 fire hydrants on Ironwood between Thistle and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and will be 43 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-19 in Exhibit CC-1 which shows the location of the future replacements.
H-20	335	hydrants	5	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Thistle	12/2016	n/a	$11,308	Replace 5 fire hydrants on Thistle between Palisades and Mountainside. The fire hydrants are in deteriorating condition and will be 40 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-20 in Exhibit CC-1 which shows the locations of the future replacements.
H-21	335	hydrants	10	n/a	Cast Iron/ AVK Wet Barrel	$2,262	El Lago	12/2016	n/a	$22,616	Replace 10 fire hydrants on El Lago between Palisades and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and will be approximately 37 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-21 in Exhibit CC-1 which shows the locations of the future replacements.

H-22	335	hydrants	1	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Cavern	12/2016	n/a	$2,262	Replace 1 fire hydrant on Cavern between Palisades and El Lago. The fire hydrant is in deteriorating condition and will be 36 years old in 2016. This is a Dresser hydrant, for which we can no longer obtain repair parts. The other hydrant on this street already needed replacement. Replacing the hydrant will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacement is for existing customers and not related to new growth. See the map for Project H-22 in Exhibit CC-1 which shows the location of the future replacement.
H-23	335	hydrants	4	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Mountain-side	12/2016	n/a	$9,046	Replace 4 fire hydrants on Mountainside between Palisades and Thistle. The fire hydrants are in deteriorating condition and will be 40 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrant on this street has already needed replacement within the last 6 years. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-23 in Exhibit CC-1 which shows the locations of the future replacements.
H-24	335	hydrants	3	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Echo Hill	12/2016	n/a	$6,785	Replace 3 fire hydrants on Echo Hill between El Lago and Mimosa. The fire hydrants are in deteriorating condition and will be approximately 37 years old in 2016. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-24 in Exhibit CC-1 which shows the locations of the future replacements.
Total			**37**							**$83,680**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 3-4

2017 Hydrant Replacements

Information to be included with DSIC-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
H-25	335	hydrants	7	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Tumble-weed, Seminole	12/2017	n/a	$15,831	Replace 7 fire hydrants on Tumbleweed and Seminole between Cavern and Mountainside. The fire hydrants are in deteriorating condition and will be about 40 years old in 2017. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-25 in Exhibit CC-1 which shows the locations of the future replacements.
H-26	335	hydrants	9	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Sunflower, Primrose	12/2017	n/a	$20,354	Replace 9 fire hydrants on Sunflower and Primrose between Cactus and Mountainside. The fire hydrants are in deteriorating condition and will be about 40 years old in 2017. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-26 in Exhibit CC-1 which shows the locations of the future replacements.

H-27	335	hydrants	4	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Ponderosa	12/2017	n/a	$9,046	Replace 4 fire hydrants on Ponderosa between Primrose and Mountainside. The fire hydrants are in deteriorating condition and will be about 31 years old in 2017. These are Dresser hydrants, for which we can no longer obtain repair parts. Two hydrants have already needed replacement on this street. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-27 in Exhibit CC-1 which shows the locations of the future replacements.
H-28	335	hydrants	11	n/a	Cast Iron/ AVK Wet Barrel	$2,262	El Pueblo	12/2017	n/a	$24,878	Replace 11 fire hydrants on El Pueblo between Fountain Hills Blvd and Escalante. The fire hydrants are in deteriorating condition and will be about 42 years old in 2017. These are Dresser hydrants, for which we can no longer obtain repair parts. Four hydrants have already needed replacement on this street. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-28 in Exhibit CC-1 which shows the locations of the future replacements.
H-29	335	hydrants	6	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Oro Grande	12/2017	n/a	$13,570	Replace 6 fire hydrants on Ironwood between Calle del Prado and Tejon. The fire hydrants are in deteriorating condition and will be 44 years old in 2017. These are Dresser hydrants, for which we can no longer obtain repair parts. Two hydrants have already needed replacement on this street. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-29 in Exhibit CC-1 which shows the location of the future replacements.
Total			**37**							**$83,679**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 3-5

2018 Hydrant Replacements

Information to be included with DSIC-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
H-30	335	hydrants	8	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Alamosa	12/2018	n/a	$18,093	Replace 8 fire hydrants on Alamosa between Del Cambre and El Pueblo. The fire hydrants are in deteriorating condition and will be about 46 years old in 2018. These are Dresser hydrants, for which we can no longer obtain repair parts. One hydrants on this street already needed replacement. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-30 in Exhibit CC-1 which shows the locations of the future replacements.
H-31	335	hydrants	4	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Caliente, Tejon	12/2018	n/a	$9,046	Replace 4 fire hydrants on Caliente and Tejon between El Sobrante and El Pueblo. The fire hydrants are in deteriorating condition and will be about 45 years old in 2018. These are Dresser hydrants, for which we can no longer obtain repair parts. Four hydrants on this street have already needed replacement. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-31 in Exhibit CC-1 which shows the locations of the future replacements.

H-32	335	hydrants	6	n/a	Cast Iron/ AVK Wet Barrel	$2,262	El Sobrante	12/2018	n/a	$13,570	Replace 6 fire hydrants on El Sobrante between Baca and Calvaras. The fire hydrants are in deteriorating condition and will be about 46 years old in 2018. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-32 in Exhibit CC-1 which shows the locations of the future replacements.
H-33	335	hydrants	13	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Palisades	12/2018	n/a	$29,401	Replace 13 fire hydrants on Palisades between Sage and Fountain Hills Blvd. The fire hydrants are in deteriorating condition and will be about 40 years old in 2018. These are Dresser hydrants, for which we can no longer obtain repair parts. Three hydrants have already needed replacement on this street. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-33 in Exhibit CC-1 which shows the locations of the future replacements.
H-34	335	hydrants	5	n/a	Cast Iron/ AVK Wet Barrel	$2,262	Fountain Hills Blvd.	12/2018	n/a	$11,308	Replace 5 fire hydrants on Fountain Hills Blvd between Palomino and Inca. The fire hydrants are in deteriorating condition and will be 41 years old in 2017. These are Dresser hydrants, for which we can no longer obtain repair parts. Replacing the hydrants will improve fire flow availability and response times in the event of fire at a customer's home or business. The hydrant replacements are for existing customers and not related to new growth. See the map for Project H-34 in Exhibit CC-1 which shows the location of the future replacements.
Total			**36**							**$81,418**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 4-1

2014 Meter Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
M-1	334	meters	1,507	¾" to >2"	Copper/ Plastic	¾"-$195 1"-$234 1½"-$367 2"-$447 >2"-$1,223	Meter Routes 8, 9, and 87 (see map M-1 in Exhibit CC-1)	12/2014	n/a	$314,989	Replace 1,134 - ¾", 348 – 1", 16 – 1.5", 6 – 2", and 3 - >2" (1,507 total) meters in CCWC meter routes 8, 9, and 87. The existing meters are between 10 and 15 years old and are experiencing a rapid decline in meter accuracy. Route 8 was chosen for completion in 2014 because the meters are the oldest in the system. Routes 9 and 87 were chosen to complete in the same year due to their vicinity to Route 8. Prior to replacement, a 10% sample of the route meters will be tested for accuracy. The new meters will help reduce system water loss to below 10%. The meter replacements are for existing customers and not related to new growth. See Section 4 of the SIB Report (Exhibit CC-1) for more explanation. See map M-1 in Exhibit CC-1 for the location of the meter routes.
Total			**1,507**							**$314,989**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 4-2

2015 Meter Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
M-2	334	meters	1,357	¾" to >2"	Cooper/ Plastic	¾"-$195 1"-$234 1½"-$367 2"-$447 >2"-$1,223	Meter Routes 63 and 98 (see map M-2 in Exhibit CC-1)	12/2015	n/a	$317,509	Replace 141 - ¾", 1192 – 1", 10 – 1.5", 13 – 2", and 1 - >2" (1,357 total) meters in CCWC meter routes 63 and 98. The existing meters are about 13 years old, and will be 15 years old in their replacement year. They are experiencing a rapid decline in meter accuracy. Prior to replacement, a 10% sample of the route meters will be tested for accuracy. The new meters will help reduce system water loss to below 10%. The meter replacements are for existing customers and not related to new growth. See Section 4 of the SIB Report (Exhibit CC-1) for more explanation. See map M-2 in Exhibit CC-1 for the location of the meter routes.
Total			**1,357**							**$317,509**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 4-3

2016 Meter Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
M-3	334	meters	1,327	¾" to 2"	Copper/ Plastic	¾"-$195 1"-$234 1½"-$367 2"-$447	Meter Routes 10, 23, 36, and 68 (see map M-3 in Exhibit CC-1)	12/2016	n/a	$277,493	Replace 1022 - ¾", 267 – 1", 24 – 1.5", and 14 – 2" (1,327 total) meters in CCWC meter routes 10, 23, 36, and 68. The existing meters are about 12-13 years old, and will be 15-16 years old in their replacement year. They are experiencing a rapid decline in meter accuracy. Prior to replacement, a 10% sample of the route meters will be tested for accuracy. The new meters will help reduce system water loss to below 10%. The meter replacements are for existing customers and not related to new growth. See Section 4 of the SIB Report (Exhibit CC-1) for more explanation. See map M-3 in Exhibit CC-1 for the location of the meter routes.
Total			**1,327**							**$277,493**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 4-4

2017 Meter Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
M-4	334	meters	1,588	¾" to >2"	Copper/ Plastic	¾"-$195 1"-$234 1½"-$367 2"-$447 >2"-$1,223	Meter Routes 3, 4, 17, and 31 (see map M-4 in Exhibit CC-1)	12/2017	n/a	$328,953	Replace 1,335 - ¾", 215 – 1", 13 – 1.5", 23 – 2", and 2 - >2" (1,588 total) meters in CCWC meter routes 3, 4, 17, and 31. The existing meters are about 11-12 years old, and will be 15-16 years old in their replacement year. They are experiencing a rapid decline in meter accuracy. Prior to replacement, a 10% sample of the route meters will be tested for accuracy. The new meters will help reduce system water loss to below 10%. The meter replacements are for existing customers and not related to new growth. See Section 4 of the SIB Report (Exhibit CC-1) for more explanation. See map M-4 in Exhibit CC-1 for the location of the meter routes.
Total			**1,588**							**$328,953**	

Chaparral City Water Company – PWS ID No. 07-017

SIB PLANT TABLE I, 4-5

2018 Meter Replacements

Information to be included with SIB-Eligible Project Notification

	NARUC Acct No. (DSIC-eligible plant)	Replacement Plant Description (new plant) (DSIC-eligible plant)					Site (location description)	Replacement Plant			1. Provide narrative why Replacement Plant is necessary - replacement of existing plant that has exceeded its designated useful life and has worn out or is in deteriorating condition due to no fault of the utility - replacement of existing plant to address excessive water loss (10% or more) - replacement of existing plant for other reasons supported by persuasive showing by utility 2. Provide narrative explaining why this segment of plant is a priority. 3. Provide narrative explaining how replacing this plant will benefit existing customers. 4. Provide affirmation that Replacement Plant does not include the costs for extending or expanding facilities to serve new customers. 5. Provides reference to related page No. in the submitted detailed Engineering Analysis supporting the need for SIB. Engineering Analysis shall also include narrative explaining the utility's systematic assessment, inspection, maintenance, and repair/replacement program.
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (estimated)		Expected In-Service Date	Estimated Subtotal Cost (by NARUC Acct No)	Estimated Subtotal Cost (by project)	
M-5	334	meters	1,418	¾" to >2"	Copper/ Plastic	¾"-$195 1"-$234 1½"-$367 2"-$447 >2"-$1,223	Meter Routes 12, 13, 20, 44, and 96 (see map M-4 in Exhibit CC-1)	12/2018	n/a	$306,835	Replace 930 - ¾", 448 – 1", 22 – 1.5", 13 – 2", and 5 – >2" (1,418 total) meters in CCWC meter routes 12, 13, 20, 44, and 96. The existing meters are about 11-12 years old, and will be 16-17 years old in their replacement year. They are experiencing a rapid decline in meter accuracy. Prior to replacement, a 10% sample of the route meters will be tested for accuracy. The new meters will help reduce system water loss to below 10%. The meter replacements are for existing customers and not related to new growth. See Section 4 of the SIB Report (Exhibit CC-1) for more explanation. See map M-5 in Exhibit CC-1 for the location of the meter routes.
Total			**1,418**							**$306,835**	

ATTACHMENT 3

SIB Table II Template

(Exhibit CC-3)

EPCOR Water (USA) Inc.

Chaparral City Water Company/Fountain Hills

PWS ID No. 07-017

August 21, 2013

Chaparral City Water Company – PWS ID No. 07-017
SIB PLANT TABLE II (Page 1 of 2)
Information to be included with SIB-Eligible Completed Project Filings

	NARUC Acct No. (SIB-eligible plant)	Replacement Plant Description (new plant) (SIB-eligible plant)					Site (location description)	Replacement Plant			Original Plant (Plant Being Retired)			
Project No.	**309 Supply Mains** **331 T&D Mains** **333 Services** **334 Meters** **335 Hydrants**	Description	Pipe Length/ Quantity	Diameter/ Size	Material	Installed Cost/Unit (actual cost)		In-Service Date (provide ADEQ AOC and other related approvals by state and/or federal agencies when applicable; pictures of installed plant)	Subtotal Actual Cost (by NARUC Acct No)	Subtotal Actual Cost (by project)	Actual Retirement Date	Original In-Service Date	Original Cost	Accumulated Depreciation Reserve (as of the actual retirement date)
										Total Actual Cost				

Chaparral City Water Company – PWS ID No. 07-017
SIB PLANT TABLE II (Page 2 of 2, Summary)

Information to be included with SIB-Eligible Completed Project Filings

Project No.	PWS ID No.	Project Description	Estimated Cost (from TABLE I)	Actual Cost	Detailed explanation of why actual costs have exceeded estimated costs by more than 10% for the project.
		Total Cost			

ATTACHMENT 4

services. An increase in the Reconnection Fee when the customer is disconnected for nonpayment of the bill is also proposed, again both for services performed during normal business hours and after hours. CCWC is proposing to decrease the charge for a water meter test if it is correct from $35.00 to $30.00 and decrease the charge for a meter re-read if it is correct from $25.00 to $10.00.

Q. IS THE COMPANY REQUESTING ANY CHANGES TO THE EXISTING SERVICE LINE AND METER INSTALLATION CHARGES?

A. Yes. The current tariffs for meter and service line installation charges provides a fixed fee for service line and meter installations 2-inches and larger in size. CCWC requests to revise this portion of the tariff to enable the Company to charge the actual cost for service line and meter installations 2-inches and larger as summarized in the table below. Replacing meters that are 2-inches and larger is dependent on many different variables. Sometimes a blow torch is required to remove the bolts on the existing meter, or the meter is located two to three boxes deep. Many times the service line must be raised, modifications must be made to the customer's property, and / or a special connection must be made requiring the service of a certified plumber. Depending on the complexity of the replacement, it could take anywhere from one hour to one day for two employees to complete the replacement of a meter that is 2-inches or larger.

Under CCWC's proposal, the service line and meter installation fees for the 5/8 X ¾-inch meter would remain the same as in the current tariff. However, for the ¾-inch, 1-inch, and 1 ½-inch meter sizes, CCWC is proposing to reduce the meter installation charges because the cost estimated to install these meters is lower than the current tariff reflects. Please refer to Table 2 for the proposed service line and meter installation charges proposed for all meter sizes.

Table 2. Service Line and Meter Installation Charges – Present and Proposed

	Present Rates			Proposed Rates		
Service Line and Meter Installation Chai	Service Line Charge	Meter Installation Charge	Total Charge	Service Line Charge	Meter Installation Charge	Total Charge
Refundable per A.A. C. Rule 14-2-405.B:						
5/8 x 3/4-inch Meter	$ 385.00	$ 135.00	$ 520.00	$ 385.00	$ 135.00	$ 520.00
3/4-inch Meter	$ 385.00	$ 215.00	$ 600.00	$ 385.00	$ 195.00	$ 580.00
1-inch Meter	$ 435.00	$ 255.00	$ 690.00	$ 435.00	$ 234.00	$ 669.00
1 1/2-inch Meter	$ 470.00	$ 465.00	$ 935.00	$ 470.00	$ 367.00	$ 837.00
2-inch Turbine Meter	$ 630.00	$ 965.00	$ 1,595.00	At Cost	At Cost	At Cost
2-inch Compound Meter	$ 630.00	$ 1,690.00	$ 2,320.00	At Cost	At Cost	At Cost
3-inch Turbine Meter	$ 805.00	$ 1,470.00	$ 2,275.00	At Cost	At Cost	At Cost
3-inch Compound Meter	$ 845.00	$ 2,265.00	$ 3,110.00	At Cost	At Cost	At Cost
4-inch Turbine Meter	$ 1,170.00	$ 2,350.00	$ 3,520.00	At Cost	At Cost	At Cost
4-inch Compound Meter	$ 1,230.00	$ 3,245.00	$ 4,475.00	At Cost	At Cost	At Cost
6-inch Turbine Meter	$ 1,730.00	$ 4,545.00	$ 6,275.00	At Cost	At Cost	At Cost
6-inch Compound Meter	$ 1,770.00	$ 6,280.00	$ 8,050.00	At Cost	At Cost	At Cost
8-inch or Larger	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost
Fire Sprinkler:						
2" Meter and Valve			Cost			Cost
4" Meter and Valve			Cost			Cost
6" Meter and Valve			Cost			Cost
8" Meter and Valve			Cost			Cost
Main Extensions (per R14-2-406)						

XI COMPLIANCE MATTERS

A. LEAD / LAG STUDY

Q. IN THE LAST CHAPARRAL CITY WATER COMPANY RATE CASE, THE COMMISSION ORDERED THE COMPANY TO PREPARE A LEAD / LAG STUDY TO JUSTIFY ANY REQUEST FOR A WORKING CAPITAL ALLOWANCE. HAS THE COMPANY INCLUDED A LEAD / LAG STUDY IN ITS FILING?

A. Yes. The Company has conducted a lead / lag study. The results of the lead / lag study is included as Schedule B-6 as required in the ACC's standard filing requirements and is discussed in greater detail above in this direct testimony.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY IN THIS CASE?

A. Yes.

Line No.	Rate Schedule	Description	Block	Monthly Usage Charge Present Rate	Monthly Usage Charge Proposed Rate	Commodity Charge Present Rate	Commodity Charge Proposed Rate	Change
1	F and S .75RC	Chaparral Residential 3/4" Meter	First 3,000 gals.	$ 16.50	$ 22.30	$ 2.31	$ 3.1061	$ 0.7961
2			3,001 to 9,000 gals.			$ 2.96	$ 3.9850	$ 1.0250
3			Over 9,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
4	F1RC, S1RC, F1C, and S1C	Chaparral Residential 1" Meter	First24,000 gals.	$ 27.50	$ 37.19	$ 2.96	$ 3.9850	$ 1.0250
5			Over 24,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
6	F1.5RC	Chaparral Residential 1-1/2" Meter	First 60,000 gals.	$ 55.00	$ 74.38	$ 2.96	$ 3.9850	$ 1.0250
7			Over 60,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
8	F2RC	Chaparral Residential 2" Meter	First 100,000 gals.	$ 88.00	$ 119.00	$ 2.96	$ 3.9850	$ 1.0250
9			Over 100,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
10	F3RC	Chaparral Residential 3" Meter	First 225,000 gals.	$ 176.00	$ 238.00	$ 2.96	$ 3.9850	$ 1.0250
11			Over 225,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
12	F4RC - no active accounts.	Chaparral Residential 4" Meter	First 350,000 gals.	$ 275.00	$ 371.88	$ 2.96	$ 3.9850	$ 1.0250
13			Over 350,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
14	F6RC - no active accounts	Chaparral Residential 6" Meter	First 725,000 gals.	$ 550.00	$ 743.77	$ 2.96	$ 3.9850	$ 1.0250
15			Over 725,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
16	F8RC - no active accounts	Chaparral Residential 8" Meter	First 1,125,000 gals.	$ 880.00	$ 1,190.02	$ 2.96	$ 3.9850	$ 1.0250
17			Over 1,125,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
18	F10RC - no active accounts	Chaparral Residential 10" Meter	First 1,500,000 gals.	$ 1,265.00	$ 1,710.66	$ 2.96	$ 3.9850	$ 1.0250
19			Over 1,500,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
20	F12RC - no active accounts	Chaparral Residential 12" Meter	First 2,250,000 gals.	$ 2,365.00	$ 3,198.19	$ 2.96	$ 3.9850	$ 1.0250
21			Over 2,250,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
22	F.75CC and S.75CC	Chaparral Commercial 3/4" Meter	First 9,000 gals.	$ 16.50	$ 22.31	$ 2.96	$ 3.9850	$ 1.0250
23			Over 9,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
24	F1CC and S1CC	Chaparral Commercial 1" Meter	First24,000 gals.	$ 27.50	$ 37.19	$ 2.96	$ 3.9850	$ 1.0250
25			Over 24,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
26	F1.5CC and S1.5CC	Chaparral Commercial 1-1/2" Meter	First 60,000 gals.	$ 55.00	$ 74.38	$ 2.96	$ 3.9850	$ 1.0250
27			Over 60,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
28	F2CC AND S2CC	Chaparral Commercial 2" Meter	First 100,000 gals.	$ 88.00	$ 119.00	$ 2.96	$ 3.9850	$ 1.0250
29			Over 100,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
30	F3CC	Chaparral Commercial 3" Meter	First 225,000 gals.	$ 176.00	$ 238.00	$ 2.96	$ 3.9850	$ 1.0250
31			Over 225,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
32	F4C, S4C	Chaparral Commercial 4" Meter	First 350,000 gals.	$ 275.00	$ 371.88	$ 2.96	$ 3.9850	$ 1.0250
33			Over 350,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
34	F6C,S6C	Chaparral Commercial 6" Meter	First 725,000 gals.	$ 550.00	$ 743.77	$ 2.96	$ 3.9850	$ 1.0250
35			Over 725,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
36	F8C,S8C - no active accounts	Chaparral Commercial 8" Meter	First 1,125,000 gals.	$ 880.00	$ 1,190.02	$ 2.96	$ 3.9850	$ 1.0250
37			Over 1,125,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
38	F10C,S10C - no active accounts	Chaparral Commercial 10" Meter	First 1,500,000 gals.	$ 1,265.00	$ 1,710.66	$ 2.96	$ 3.9850	$ 1.0250
39			Over 1,500,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
40	F12C,S12C - no active accounts	Chaparral Commercial 12" Meter	First 2,250,000 gals.	$ 2,365.00	$ 3,198.19	$ 2.96	$ 3.9850	$ 1.0250
41			Over 2,250,000 gals.			$ 3.61	$ 4.8640	$ 1.2540
42	F.75I_C and S.75I_C	Chaparral Irrigation 3/4" Meter	All Usage	$ 16.50	$ 22.31	$ 2.96	$ 3.9850	$ 1.0250
43								
44	F1I_C , S1I_C	Chaparral Irrigation 1" Meter	All Usage	$ 27.50	$ 37.19	$ 2.96	$ 3.9850	$ 1.0250
45								
46	F1.5I_C, S1.5I_C	Chaparral Irrigation 1-1/2" Meter	All Usage	$ 55.00	$ 74.38	$ 2.96	$ 3.9850	$ 1.0250
47								
48	F2I_C , S2I_C	Chaparral Irrigation 2" Meter	All Usage	$ 88.00	$ 119.00	$ 2.96	$ 3.9850	$ 1.0250
49								
50	F3I_C , S3I_C - no active accounts	Chaparral Irrigation 3" Meter	All Usage	$ 176.00	$ 238.00	$ 2.96	$ 3.9850	$ 1.0250

Chaparral City Water Company
Test Year Ended December 31, 2012
Changes in Representative Rate Schedules

Line No.	Rate Schedule	Description	Block	Monthly Usage Charge Present Rate	Monthly Usage Charge Proposed Rate	Commodity Charge Present Rate	Commodity Charge Proposed Rate	Change
51								
52	F4I_C	Chaparral Irrigation 4" Meter	All Usage	$ 275.00	$ 371.88	$ 2.96	$ 3.9850	$ 1.0250
53								
54	F6I_C	Chaparral Irrigation 6" Meter	All Usage	$ 550.00	$ 743.77	$ 2.96	$ 3.9850	$ 1.0250
55								
56	F8I_C , S8I_C - no active accounts	Chaparral Irrigation 8" Meter	All Usage	$ 880.00	$ 1,190.02	$ 2.96	$ 3.9850	$ 1.0250
57								
58	F10I_C , S10I_C - no active accounts	Chaparral Irrigation 10" Meter	All Usage	$ 1,265.00	$ 1,710.66	$ 2.96	$ 3.9850	$ 1.0250
59								
60	F12I_C , S12I_C - no active accounts	Chaparral Irrigation 12" Meter	All Usage	$ 2,365.00	$ 3,198.19	$ 2.96	$ 3.9850	$ 1.0250
61								
62	F.75H_C and S.75H_C	Chaparral Hydrant 3/4" Meter	All Usage	$ 16.50	$ 22.31	$ 2.96	$ 3.9850	$ 1.0250
63								
64	F1H_C AND S1H_C	Chaparral Hydrant 1" Meter	All Usage	$ 27.50	$ 37.19	$ 2.96	$ 3.9850	$ 1.0250
65								
66	F1.5H_C, S1.5H_C	Chaparral Hydrant 1-1/2" Meter	All Usage	$ 55.00	$ 74.38	$ 2.96	$ 3.9850	$ 1.0250
67								
68	F2H_C, S2H_C	Chaparral Hydrant 2" Meter	All Usage	$ 88.00	$ 119.00	$ 2.96	$ 3.9850	$ 1.0250
69								
70	F3H_C, S3H_C	Chaparral Hydrant 3" Meter	All Usage	$ 176.00	$ 238.00	$ 2.96	$ 3.9850	$ 1.0250
71								
72	F4H_C, S4H_C - no active accounts	Chaparral Hydrant 4" Meter	All Usage	$ 275.00	$ 371.88	$ 2.96	$ 3.9850	$ 1.0250
73								
74	F6H_C, S6H_C - no active accounts	Chaparral Hydrant 6" Meter	All Usage	$ 550.00	$ 743.77	$ 2.96	$ 3.9850	$ 1.0250
75								
76	F8H_C, S8H_C - no active accounts	Chaparral Hydrant 8" Meter	All Usage	$ 880.00	$ 1,190.02	$ 2.96	$ 3.9850	$ 1.0250
77								
78	F10H_C, S10H_C - no active accounts	Chaparral Hydrant 10" Meter	All Usage	$ 1,265.00	$ 1,710.66	$ 2.96	$ 3.9850	$ 1.0250
79								
80	F12H_C, S12H_C - no active accounts	Chaparral Hydrant 12" Meter	All Usage	$ 2,365.00	$ 3,198.19	$ 2.96	$ 3.9850	$ 1.0250
81								
82	FS - All Meter Sizes	Chaparral Fire Sprinklers	All Usage	$ 10.00	$ 13.52	$ 2.96	$ 3.9850	$ 1.0250
83								
84	SP2	Standpipe Water Service - 2" Meter	All Usage	$ -	$ -	$ 2.96	$ 3.9850	$ 1.0250
85								
86	LIDFH.75 and LIDSH.75	Low Income Discount (FH and SD)	All Usage	$ -	$ 14.80	$ -	$ 3.1061	$ 3.1061
87							$ 3.9850	$ 3.9850
88							$ 4.8640	$ 4.8640
89	LIDFH1 and LIDSH1	Low Income Discount (FH and SD)	All Usage	$ -	$ 29.69	$ -	$ 3.9850	$ 3.9850
90							$ 4.8640	$ 4.8640

	Present	Proposed
91 Service Charges		
92 Establishment of Service		
93 Regular Hours	$ 25.00	$ 60.00
94 After Hours	$ 35.00	$ 90.00
95 Re-establishment of Service per A.A.C. R14-2-403.D (same customer, same location within 12 months)	*	*
96 Reconnection of Service (delinquent)	$ 35.00	$ 60.00
97 Reconnection of Service (delinquent / after-hours)	$ 50.00	$ 90.00
98 Water Meter Test (If Correct)	$ 35.00	$ 30.00
99 Water Meter Relocation at Customer Request (per A.A.C. R14-2-405.B)	Cost ***	Cost ***
100 Meter Re-Read (If Correct)	$ 25.00	$ 10.00
101 NSF Check Charge	$ 25.00	$ 25.00
102 Late Fee Charge (per month)	1.50%	1.50%
103 Deferred Payment Finance Charge (per month)	1.50%	1.50%
104 Service Call - After Hours(per A.A.C. R14-2-403D)	refer to charges above	refer to charges above
105 Deposit Requirements Residential	**	**
106 Deposit Requirements Non-Residential	**	**
107 Deposit Interest (per A.A.C. Rule 14-2-403.B)	6% per annum	6% per annum

108
109 * Monthly minimum charge multiplied by the number of months disconnected from the water system.
110 ** Residential - two times the average bill. Non-residential - two and one-half times the estimated maximum bill.
111 *** Per Company Tariff Sheet No. 8.
112
113

	Present Rates			Proposed Rates		
114		Meter			Meter	
115	Service Line	Installation	Total	Service Line	Installation	Total
116 Service Line and Meter Installation Charges	Charge	Charge	Charge	Charge	Charge	Charge
117 Refundable per A.A. C. Rule 14-2-405.B:						
118 5/8 x 3/4-inch Meter	$ 385.00	$ 135.00	$ 520.00	$ 385.00	$ 135.00	$ 520.00
119 3/4-inch Meter	$ 385.00	$ 215.00	$ 600.00	$ 385.00	$ 195.00	$ 580.00
120 1-inch Meter	$ 435.00	$ 255.00	$ 690.00	$ 435.00	$ 234.00	$ 669.00
121 1 1/2-inch Meter	$ 470.00	$ 465.00	$ 935.00	$ 470.00	$ 367.00	$ 837.00
122 2-inch Turbine Meter	$ 630.00	$ 965.00	$ 1,595.00	At Cost	At Cost	At Cost
123 2-inch Compound Meter	$ 630.00	$ 1,690.00	$ 2,320.00	At Cost	At Cost	At Cost
124 3-inch Turbine Meter	$ 805.00	$ 1,470.00	$ 2,275.00	At Cost	At Cost	At Cost
125 3-inch Compound Meter	$ 845.00	$ 2,265.00	$ 3,110.00	At Cost	At Cost	At Cost
126 4-inch Turbine Meter	$ 1,170.00	$ 2,350.00	$ 3,520.00	At Cost	At Cost	At Cost
127 4-inch Compound Meter	$ 1,230.00	$ 3,245.00	$ 4,475.00	At Cost	At Cost	At Cost
128 6-inch Turbine Meter	$ 1,730.00	$ 4,545.00	$ 6,275.00	At Cost	At Cost	At Cost
129 6-inch Compound Meter	$ 1,770.00	$ 6,280.00	$ 8,050.00	At Cost	At Cost	At Cost
130 8-inch or Larger	At Cost	At Cost	At Cost	At Cost	At Cost	At Cost
131						
132 Fire Sprinkler:						
133 2" Meter and Valve			Cost			Cost
134 4" Meter and Valve			Cost			Cost
135 6" Meter and Valve			Cost			Cost
136 8" Meter and Valve			Cost			Cost
137						
138 Main Extensions (per R14-2-406)						

139
140
141 AN APPLICANT FOR WATER SERVICE SHALL PAY TO THE COMPANY, AS A REFUNDABLE ADVANCE IN AID OF CONSTRUCTION THE FULL COST TO PROVIDE THE NEW SERVICE LINE AND METER.
142
143 IN ADDITION TO THE COLLECTION OF REGULAR RATES, THE UTILITY WILL COLLECT FROM IT CUSTOMERS A PROPORTIONATE SHARE
144 OF ANY PRIVILEGE, SALES,USE, AND FRANCHISE TAX. PER COMMISSION RULE 14-2-409D(5).
145
146 ALL ADVANCES AND/OR CONTRIBUTIONS ARE TO INCLUDE LABOR, MATERIALS, OVERHEADS, AND ALL APPLICABLE TAXES, INCLUDING
147 ALL GROSS-UP TAXES FOR INCOME TAXES, IF APPLICABLE.