MASTER WATER REPORT
FOR
DEVELOPMENT UNIT 3/4
AT
EASTMARK

September 29, 2017
WP# 174708

DMB® Master Developer Approval EASTMARK.
Date 10·5·17
Molly Thomaske

Submitted to:

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Date Signed 9-29-17
ARIZONA, U.S.A.

EXPIRES 06-30-2018

APPROVED
By RAP at 3:24 pm, Jan 11, 2018

WOOD/PATEL
MISSION: CLIENT SERVICE®

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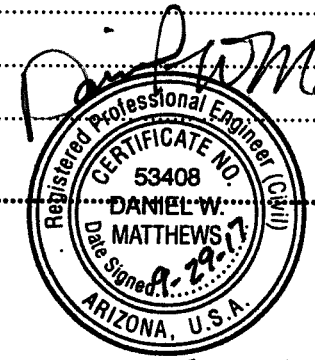

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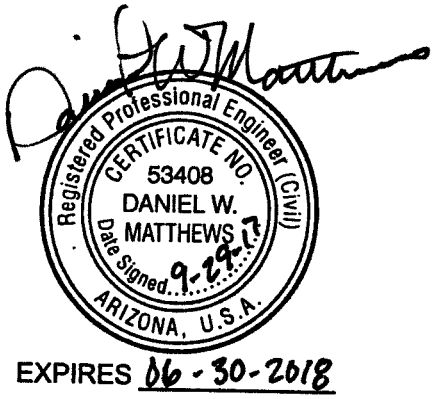

EXPIRES 06-30-2018

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1.0 INTRODUCTION

1.1 General Background and Project Location

The proposed Development Unit 3/4 (Site) is anticipated to comprise approximately 614 acres within the 3,154-acre Eastmark master planned community in the City of Mesa (City). Development Unit 3/4 (DU 3/4) is planned to include single-family residential, multi-family residential, commercial mixed-use, office, a high school, an aquatic center, a hotel, and open spaces.

This Master Water Report has been prepared in accordance with Wood, Patel & Associates, Inc.'s (Wood/Patel) understanding of the City of Mesa's technical requirements for water distribution systems, as applicable for the development known as Eastmark.

The Site is located within Sections 15, 22, and 23, Township 1 South, Range 7 East of the Gila and Salt River Meridian. The Site is bounded by Ray Road to the south (from Ellsworth Road to Inspirian Parkway), Inspirian Parkway on the east (from Ray Road to Point Twenty-Two Boulevard), Point Twenty-Two Boulevard on the south (from Inspirian Parkway to Eastmark Parkway), Eastmark Parkway on the east (from Point Twenty-Two Boulevard to Warner Road), Warner Road on the north, and Ellsworth Road on the west (refer to Exhibit 1 – *Vicinity Map*).

1.2 Scope of Master Water Report

The Master Water Report for Development Unit 3/4 at Eastmark presents water design flows, pipe sizes, and backbone waterline locations, as required to provide water service to the Site at full build-out conditions prior to the full build-out of Eastmark. This update reflects the City of Mesa Water Master Plan modeled waterline sizes in this area of the Desert Wells Water Pressure Zone. Report results indicate pressures and flows which are adequate to serve DU 3/4.

The purpose of this report is to provide a water analysis reflecting the developed condition of DU 3/4 prior to the full build-out of Eastmark, based on the land uses provided by DMB Mesa Proving Grounds, LLC, and to identify the water infrastructure required to serve the Site, while meeting the requirements of the City's Engineering and

Design Standards. Updates to this DU 3/4 Master Water Report may be required if significant changes are made to the land uses and assumptions utilized to prepare this report. Additionally, design criteria may change based on actual water demands to calculate draws on the system in the future.

1.3 Master Water Report for Eastmark

The *Master Water Report Update for Eastmark*, prepared for DU 5-5N-6S, by Wood/Patel, dated February 16, 2017, was approved by the City of Mesa. Additionally, the *Master Water Report Update for Eastmark*, prepared by Wood/Patel and updated September 29, 2017, was submitted to the City of Mesa for review and re-approval to incorporate development changes within DU 3/4. The most current updated master report includes the revised information utilized as the basis for this report.

1.4 Full Build-Out Condition

The design criteria utilized to calculate water flows and determine required pipe sizes for the Site are based on projected full build-out conditions for DU 3/4. For a detailed breakdown of DU 3/4 modeled land use, please refer to the following:

- Table 1 – *DU 3/4 Modeled Land Use*
- Table 4 – *Water Demand Design Flows by Development Unit*
- Table 5 – *Water Demand Design Flows by Junction Node*
- Exhibit 2 – *DU 3/4 Master Water Exhibit*

1.5 Basis of Design Reports for Specific Individual Developments

As development progresses within the Site, Basis of Design (BOD) reports are required for specific individual developments to ensure compliance with the Master Report and this Development Unit Master Report, and to identify significant variations in land use, water demands, and the water infrastructure needed to serve the parcel. It is Wood/Patel's understanding the Site will be developed in phases, and the infrastructure needed to support a phased development will be determined at the time of platting.

2.0 EXISTING CONDITIONS

2.1 Topographic Conditions

The pre-developed Site consisted of multiple automotive test tracks and undisturbed desert, which borders the Site to the west, north, and the northern half of the eastern boundary. A portion of the northern half of the eastern boundary is currently under construction as part of DU 6 South. Along the southern half of the eastern boundary, DU 7 has been constructed. To the south, the Site is bound by Ray Road. The land generally slopes in a southwesterly direction, at approximately 0.5 to 1 percent. The peak elevation within the Site is approximately 1,425 feet above mean sea level (MSL), located along Inspirian Parkway, north of Ray Road. The lowest elevation within the Site is approximately 1,390 feet MSL, located at the southwest corner of DU 3/4. Refer to Exhibit 1 for roadway alignments.

2.2 Existing Pressure Zones and Hydraulic Grade Lines

The Site is located within the Desert Wells Water Pressure Zone, defined by the City of Mesa as follows:

Desert Wells Water Pressure Zone:

- Ground elevation range = 1,370 to 1,520 feet
- Static hydraulic grade line (HGL) = 1,634 feet.

2.3 Existing Offsite Water Infrastructure

Relevant existing water infrastructure adjacent to the Site includes the following within the Desert Wells Water Pressure Zone:

- 16-inch waterline extending south along Ellsworth Road, from north of Elliot Road to Pecos Road.
- 16-inch waterline extending east along Elliot Road, from Ellsworth Road to Mountain Road.
- 24-inch waterline extending south along Signal Butte Road to Elliot Road.
- 16-inch waterline extending south along Signal Butte Road, from Elliot Road to Ray Road.

- 30-inch waterline extending south along Signal Butte Road, from Elliot Road to Rueben Avenue.
- 16-inch waterline extending east along Ray Road, from Ellsworth Road to Mountain Road.
- 12-inch waterline extending east along Warner Road, from the Loop 202 freeway to Ellsworth Road (not modeled).
- 24-inch waterline extending west along Point Twenty-Two Boulevard, from Signal Butte Road to Inspirian Parkway.
- 20-inch waterline extending north along Eastmark Parkway, from Ray Road to Point Twenty-Two Boulevard.
- 12-inch waterline extending north along Inspirian Parkway, from Ray Road to Point Twenty-Two Boulevard.
- 16-inch waterline extending southeast along Eastmark Parkway, from Ray Road to Signal Butte Road.
- 12-inch looped waterlines through DU 6N Phase 1.
- 8-inch looped waterlines through DU 7, DU 8 & 9, DU 3S, and portions of DU 6S.
- Existing 24-inch waterline in Signal Butte Road, from Eastmark Parkway to Williams Field Road.
- Existing 24-inch waterline in Williams Field Road, from Signal Butte Road along the adjacent southern Eastmark boundary.
- 8-inch waterline extending north along Parc Joule Avenue, from Point Twenty-Two Boulevard to the south boundary of Parcel 6-8 within DU 6 South.
- 12-inch waterline extending north along Everton Terrace, from Ray Road to the boundary of Parcel 6-7 and Parcel 6-8 within DU 6 South.
- It is our understanding that 8-inch looped waterlines through Parcels 6-1/2, 6-7, 6-8, and 6-10 through 6-15 within Development Unit 6 South are currently under construction.

2.4 Existing Onsite Water Infrastructure

It is Wood/Patel's understanding there may be existing onsite waterlines within DU 3/4 from the General Motors Proving Grounds offices and facilities. If waterlines are discovered, they will be removed by the developer, where applicable, with construction of DU 3/4.

- 8-inch waterline extending north along Copernicus Drive within DU 3/4, from Ray Road to Point Twenty-Two Boulevard.

3.0 DESIGN CRITERIA AND PROJECTED WATER DEMANDS

3.1 Design Criteria

Water demand and pipe-sizing criteria utilized in this DU 3/4 Master Water Report are based on Wood/Patel's understanding of the following:

- Applicable water system design criteria listed in the *2012 City of Mesa Engineering and Design Standards,* along with City-accepted population-based criteria, per Table 2 – *DU 3/4 Water System Design Criteria.*
- Previously-approved criteria for DU 5 North, DU 6 North, DU 6 South, DU 7, DU 8 & 9, DU 3S, and DU 3/4 Phase 1.
- Regionally-accepted design standards.
- Title 18, Chapter 9 of the *Arizona Administrative Code.*

Table 2 represents Unit Daily Water Demand design criteria for each land use category. The Development Unit Daily Water Demand was used to estimate demands at each node in the hydraulic model to determine flow rates, velocities, and pipe sizing.

Fire flow requirements were modeled during the fire flow analysis of the Site. Residential development was modeled with a fire flow of 3,000 gpm, and the commercial development was modeled with a minimum fire flow of 4,000 gpm.

3.2 Water Demand Design Flows

Water demand flows under full build-out conditions are calculated using the design criteria listed in Section 3.1. Projected full build-out design flows for DU 3/4 and the existing development within Eastmark, including DU 5 North, DU 6 South, DU 6 North, DU 7, DU 8/9, and DU 3 South, are summarized below.

	Average-Day Demand MGD (gpm)	**Max-Day Demand MGD (gpm)**	**Peak-Hour Demand MGD (gpm)**
DU 3/4	1.79 (1,674)	3.14 (2,612)	5.11 (3,550)
Developed Eastmark	6.99 (5,022)	13.81 (9,754)	20.86 (14,487)
Total Eastmark	**8.78 (6,696)**	**16.95 (12,366)**	**25.97 (18,037)**

4.0 HYDRAULIC MODEL

Bentley WaterCAD Version 8i, a potable water transmission and distribution system numerical modeling program, was utilized to analyze the proposed potable water system. A hydraulic grade line (HGL) of 1,634 feet was used to simulate the water supply pressure for the Desert Wells Water Pressure Zone. Water demands and peaking factors utilized are based on information listed in Section 3.0 of this report. Pipes are sized to accommodate modeled conditions of flow.

4.1 Modeled Scenarios

The following primary modeling scenarios were selected to demonstrate compliance with City of Mesa requirements, and to analyze the proposed water system:

- Average-Day Demand
- Max-Day Demand
- Peak-Hour Demand
- Max-Day Demand Plus Fire Flow

The hydraulic model utilizes the Hazen-Williams equation to calculate head losses throughout the system during the modeled scenarios. Refer to Table 2 for additional information regarding hydraulic modeling parameters.

4.2 Hydraulic Modeling Criteria

Assumptions were made regarding offsite water infrastructure for the purpose of modeling DU 3/4 to full build-out design conditions.

- It is our understanding the DU 3 South, DU 3/4-1 through 3/4-4, DU 6N Phase 1, DU 7, and DU 8 & 9 water infrastructure has been constructed and is operational.
- It is our understanding the DU 6 South Parcels 1, 2, 3, 7, and 8 water infrastructure has been constructed and is operational.
- It is our understanding the water infrastructure for DU 6 South Parcels 10 through 15 is currently under City review, and construction is expected in the near future.
- The proposed infrastructure requires several connections to existing offsite waterlines.
    - The first three connections are to the existing 16-inch waterline in Ellsworth Road, between Warner Road and Ray Road, with a proposed 24-inch waterline in Point Twenty-Two Boulevard, 12-inch connection north of Parcel 3/4-10, and a 16-inch connection at Warner Road.

- The next two connections are to the existing 24-inch waterline in Point Twenty-Two Boulevard at the Inspirian Parkway intersection, with the proposed 24-inch waterline extending west, and a 12-inch waterline extending north.
- One future 16-inch waterline in Eastmark Parkway that will be constructed as part of the DU 6 South improvements. DU 3/4 improvements will connect a 16-inch waterline connecting at the intersection of Warner Road and Eastmark Parkway.
- One 12-inch connection to the existing 16-inch waterline in Ray Road directly east of Parcel 3/4-9.

Refer to Exhibit 2 for detailed information regarding existing and proposed offsite water infrastructure. With multiple connections to existing waterlines, the system has redundancy allowing the water system to function in compliance with City of Mesa standards and specifications. Additional connections to existing waterlines may be required to provide looped systems, if construction is phased differently than presented within this report.

4.3 Hydraulic Modeling Results

The hydraulic modeling results indicate the onsite system in DU 3/4 is capable of delivering Average-Day and Peak-Hour demands for the full build-out condition within the following onsite pressure ranges:

DU 3/4 Full Build-Out Pressure (psi)

Hydraulic Model Scenario	Low	Node	High	Node
Average-Day Demand	95	J-DU3-4-200	104	J-DU3-4-100
Peak-Hour Demand	89	J-DU3-4-200	98	J-DU3-4-100

Fire flow results for the model indicate available fire flows of 4,000 gpm for commercial development and 3,000 gpm for residential development during Max-Day demands, while maintaining residual pressures greater than 20 psi throughout the Site at full build-out conditions. Detailed hydraulic modeling results, calculations, and exhibits are provided in the attached appendices and exhibits. Modeled outflow from each water source is shown below.

Flow from South C.A.P. Desert Wells Pump Station

Average-Day Demand:	6,305 gpm
Max-Day Demand:	11,644 gpm
Peak-Hour Demand:	16,985 gpm

Flow from City of Mesa Water System, North of Elliot Road

Average-Day Demand:	391 gpm
Max-Day Demand:	722 gpm
Peak-Hour Demand:	1,052 gpm

5.0 GENERAL PLAN FOR ONSITE WATER DISTRIBUTION

5.1 Piping Layout

The planned water distribution system for the Site consists of looped public waterlines, ranging in diameter from 8 inches (onsite) up to 30 inches (offsite), using pipe materials per City of Mesa standards. Main waterlines have been located within designated public rights-of-way. In accordance with City of Mesa standards, 12-inch and 16-inch waterlines are generally located near ½-mile and 1-mile street alignments, or are upsized, as needed, to meet design demands or City-required upsizing (refer to Exhibit 2).

5.2 Water Sources

According to the *2010 City of Mesa Water Master Plan Update,* two (2) primary sources of water will supply Eastmark. These sources are surface water supplied from the C.A.P. Canal, and groundwater from proposed well sites.

5.2.1 Surface Water

The Signal Butte Groundwater Facility, consisting of a reservoir and groundwater wells, has been constructed to provide storage and assist in meeting peak demands in the Desert Wells Water Pressure Zone. A portion of the facility will serve Eastmark in the interim until such time as the City deems it necessary to construct the C.A.P. raw water conveyance system from the C.A.P. Canal and the water treatment portion of the plant.

According to the *2010 City of Mesa Water Master Plan (Update),* the C.A.P. Canal water supply system typically provides a constant supply of surface water, although outages are possible as a result of failures and for periodic maintenance. C.A.P. has indicated that short dry-ups (ranging from one week to one month in duration) may be required every two to three years, on average, for maintenance purposes. According to the *2010 City of Mesa Water Master Plan (Update),* the South C.A.P. water facilities will be supplied by groundwater production wells during C.A.P. dry-ups to provide adequate storage and pumping to the Desert Wells Water Pressure Zone and other pressure zones.

5.2.2 Groundwater Wells

Conceptual locations of the future groundwater wells are shown on Exhibit 2. Well locations are conceptual in nature and will be coordinated with the City of Mesa during the construction plan design and preparation. Well collection lines will be required extending from each well site to supply the South C.A.P. water facilities. It is Wood/Patel's understanding the well sites and well collector mains will be phased with development and will be owned, operated, and maintained by the City of Mesa.

5.3 Water Pressure to Multi-Story Buildings

Based on full build-out hydraulic modeling results, peak-hour residual pressures within the Site are at or above 90 pounds per square inch (psi). Private individual booster pumps may be required to serve multi-story buildings, and should be evaluated on an individual basis. Since onsite pressures are above 80 psi, pressure reducing valves (PRVs) on buildings should be evaluated on an individual basis.

6.0 CONCLUSIONS

This *Master Water Report for Development Unit 3/4 at Eastmark* meets accepted standards and requirements, and will serve, in conjunction with the *Master Water Report for Eastmark*, as a guide for construction documents associated with the planned potable water systems of DU 3/4. No critical issues were identified that would preclude the anticipated development as presented in this Master Water Report. The following are critical conclusions:

1. The Site is located within the existing Desert Wells Water Pressure Zone, currently served by the City of Mesa.

2. For the purpose of this Master Water Report, the full build-out conditions for DU 3/4 have been evaluated for the design of the water distribution system.

3. The approximate Average-Day water demand for DU 3/4 is 1.79 million gallons per day (MGD) at full build-out conditions, per Section 3.2 of this report.

4. A hydraulic model was utilized to analyze the proposed potable water system and size pipes for the water distribution system. Modeling results indicate minimum residual pressures are met, and head loss and velocities within the planned waterlines meet the design criteria presented herein.

5. The planned onsite water distribution system for DU 3/4 consists of looped 8-inch and larger public waterlines.

6. Modeling results indicated the proposed waterline layout would adequately serve DU 3/4.

7. The proposed water distribution system and resulting hydraulic modeling output anticipates City of Mesa water production facilities and booster pump station facilities will be brought into service, as necessary.

8. This *Master Water Report for Development Unit 3/4 at Eastmark* demonstrates the sufficiency of the proposed water distribution system to serve the Site in accordance with City of Mesa Water Standards and the *Master Water Report for Eastmark.*

TABLE 1

DU 3/4
MODELED LAND USE

TABLE 1 - DU 3/4 MODELED LAND USE

Project: DU 3/4 at Eastmark
Location: Mesa, Arizona

PRELIMINARY LAND USE AND DWELLING UNIT BREAKDOWN BY PARCEL

Parcel	No. of DUs	Residential Acres	Density (DU/AC)	Non-Residential Acres	Land Use	Floor Area (SQ. FT.)	Population Density or Acreage		Total Population or Acreage	Unit Daily Water Demand (GPD/DU, AC, or S.F.)		Avg Day Flow (GPD)	Total Avg Day Flow (GPD)
3/4-1 to 3/4-3	251	40.0	6.28	--	MDR-4	--	--	--	--	250	GPD/DU	62,750	109,660
	165	11.0	15.00	-	HDR-2	--	--	--	--	230	GPD/DU	37,950	
	--	--	--	4.0	Open Space	--	0.4	Acres of Turf/ Acre	1.6	4,400	GPD/Acre	7,040	
							0.6	Acres of Low Water Use Landscaping/ Acre	2.4	800	GPD/Acre	1,920	
3/4-4	195	34.0	5.74	--	MDR-3	--	--	--	--	250	GPD/DU	48,750	48,750
3/4-5	263	45.1	5.83	--	MDR-3	--	--	--	--	250	GPD/DU	65,750	65,750
3/4-6	--	--	--	60.8	High School	420,000	100	Students and Staff / Acre	6,080	40	GPD / Person	243,200	384,040
							0.3	Acres of Turf/Acre	18.2	4,400	GPD/Acre	80,080	
							0.2	Acres of Low Water Use Landscaping/Acre	12.2	800	GPD/Acre	9,760	
	--	--	--		Aquatic Center (17 AC)	20,000	200	Patrons and Staff / Acre	3,400	15	GPD / Person	51,000	
3/4-7	--	--	--	5.5	Church	21,000	0.4	Employees / 1,000 S.F.	8.4	54	GPD / Person	454	55,794
							15	Patrons / 1,000 S.F.	315	20	GPD / Person	6,300	
	--	--	--	14.0	Commercial/Retail Restaurant	245,000	2.5	Employees and Patrons / 1,000 S.F.	613	80	GPD / Person	49,040	
3/4-8	210	8.5	24.71	--	HDR-2	--	--	--	--	230	GPD/DU	48,300	48,300
3/4-9	--	--	--	43.4	Commercial/Retail Restaurant	280,000	2.5	Employees and Patrons/ 1,000 S.F.	700	80	GPD / Person	56,000	311,000
	--	--	--		Office	525,000	5.0	Employees/ 1,000 S.F.	2,625	80	GPD / Person	210,000	
	--	--	--		Theater	12 Screens 50,000	250	Seats/Screen	3,000	7.5	GPD / Seat	22,500	
	--	--	--		Hotel	45,000	150	Rooms	--	150	GPD / Room	22,500	
3/4-10	--	--	--	16.7	Commercial/Retail Restaurant	250,000	2.5	Employees and Patrons / 1,000 S.F.	625	80	GPD / Person	50,000	50,000
3/4-11	90	25.1	3.6	--	MDR-2	--	--	--	--	250	GPD/DU	22,500	32,500
	--	--	--	5.0	Commercial/Retail Restaurant	50,000	2.5	Employees and Patrons / 1,000 S.F.	125	80	GPD / Person	10,000	
3/4-12	216	60	3.6	--	MDR-2	--	--	--	--	250	GPD/DU	54,000	54,000
3/4-13	172	47.7	3.6	--	MDR-2	--	--	--	--	250	GPD/DU	43,000	43,000
3/4-14	87	24.1	3.6	--	MDR-2	--	--	--	--	250	GPD/DU	21,750	21,750
3/4-15	60	16.8	3.6	--	MDR-2	--	--	--	--	250	GPD/DU	15,000	15,000
3/4-16	113	31.5	3.6	--	MDR-2	--	--	--	--	250	GPD/DU	28,250	28,250
3/4-17	210	58.2	3.6	--	MDR-2	--	--	--	--	250	GPD/DU	52,500	52,500
3/4-18	--	--	--	10.8	Commercial/Retail Restaurant	150,000	2.5	Employees and Patrons / 1,000 S.F.	375	80	GPD / Person	30,000	30,000
3/4-19 [1]	--	--	--	40.0	GREAT PARK TURF	--	--	--	--	--	--	441,655	441,655
				11.8	GREAT PARK LOW WATER USE								
DU 3 & 4 Totals	**2,032**	**402.0**		**212.0**		**2,056,000**						**1,791,949**	**1,791,949**

TABLE 1 CONTINUED - DU 3/4 MODELED LAND USE

Project: DU 3/4 at Eastmark
Location: Mesa, Arizona

Junction	Parcel(s)	No. of DUs	Acres	Density (DU/AC)	Land Use	Floor Area (SQ. FT.)	Avg Day Flow (GPD)	Total Avg Day Flow (GPD)	Avg Day (GPM)	Total Avg Day Flow (GPM)
J-DU3-4-010	1/3 3/4-6	--	20.3	--	High School	146,667	128,013	128,013	88.9	88.9
J-DU3-4-020	1/3 3/4-6	--	20.3	--	--	146,667	128,013	128,013	88.9	88.9
J-DU3-4-030	1/4 3/4-9	--	10.9	--	Commercial/Retail/Restaurant/Office/Theater/Hotel	225,000	77,750	166,419	54.0	115.5
	1/2 3/4-5	132	22.6	5.8	MDR-3	--	32,875		22.8	
	3/4-7	--	19.5	--	Church/ Commercial/ Retail/ Restaurant	266,000	55,794		38.7	
J-DU3-4-040	1/2 3/4-4	97	17.0	5.7	MDR-3	--	24,375	37,875	16.9	26.3
	1/4 3/4-12	54	15.0	3.6	MDR-2	--	13,500		9.4	
J-DU3-4-050	1/3 3/4-16	38	10.5	3.6	MDR-2	--	9,417	9,417	6.5	6.5
J-DU3-4-060	1/4 3/4-12	54	15.0	3.6	MDR-2	--	13,500	22,917	9.4	15.9
	1/3 3/4-16	38	10.5	3.6	MDR-2	--	9,417		6.5	
J-DU3-4-070	1/4 3/4-12	54	15.0	3.6	MDR-2	--	13,500	35,000	9.4	24.3
	1/2 3/4-13	86	23.9	3.6	MDR-2	--	21,500		14.9	
J-DU3-4-080	1/2 3/4-5	131	22.6	5.8	MDR-3	--	32,875	54,875	22.8	38.1
	1/4 3/4-13	43	11.9	3.6	MDR-2	--	10,750		7.5	
	1/2 3/4-11	45	12.6	3.6	MDR-2	--	11,250		7.8	
J-DU3-4-090	1/4 3/4-11	23	6.3	3.7	MDR-2	--	5,625	5,625	3.9	3.9
J-DU3-4-100	3/4-10	--	16.7	--	Commercial/Retail Restaurant	250,000	50,000	127,750	34.7	88.7
	1/4 3/4-9	--	10.9	--	Commercial/Retail/Restaurant/Office/Theater/Hotel	225,000	77,750		54.0	
J-DU3-4-110	1/4 3/4-11	22	6.2	3.5	MDR-2	--	5,625	5,625	3.9	3.9
J-DU3-4-120	3/4-11 (Commercial)	--	5.0	--	Commercial/Retail Restaurant	50,000	10,000	10,000	6.9	6.9
J-DU3-4-130	1/2-3/4-14	43	12	3.6	MDR-2	--	10,875	10,875	7.6	7.6
J-DU3-4-140	3/4-15	60	16.8	3.6	MDR-2	--	15,000	25,875	10.4	18.0
	1/2-3/4-14	44	12.1	3.6	MDR-2	--	10,875		7.6	
J-DU3-4-150	1/3 3/4-16	37	10.5	3.5	MDR-2	--	9,417	20,167	6.5	14.0
	1/4 3/4-13	43	11.9	3.6	MDR-2	--	10,750		7.5	
J-DU3-4-200	1/3 3/4-1 to 3/4-3	84	14.7	6.3	MDR-4 & Park	--	23,903	36,553	16.6	25.4
		55	3.7	15.0	HDR-2	--	12,650		8.8	
J-DU3-4-210	1/3 3/4-6	--	20.3	--	High School	146,666	128,013	188,941	88.9	131.2
	1/3 3/4-1 to 3/4-3	83	14.7	6.3	MDR-4 & Park	--	23,903		16.6	
		55	3.7	15.0	HDR-2	--	12,650		8.8	
	1/2 3/4-4	98	17.0	5.8	MDR-3	--	24,375		16.9	
J-DU6-130	3/4-17	210	58.2	3.6	MDR-2	--	52,500	52,500	36.5	36.5
J-DU6-170 [1]	3/4-19	--	51.8	--	GREAT PARK	--	441,655	441,655	736.0	736.0
J-300EX	1/4 3/4-9	--	10.8	--	Commercial/Retail/Restaurant/Office/Theater/Hotel	225,000	77,750	77,750	54.0	54.0

Junction	Parcel(s)	No. of DUs	Acres	Density (DU/AC)	Land Use	Floor Area (SQ. FT.)	0	0	Avg Day (GPM)	Total Avg Day Flow (GPM)
J-DU3S-080	1/4 3/4-9	--	10.8	--	Commercial/Retail/Restaurant/Office/Theater/Hotel	225,000	77,750	126,050	54.0	87.5
	3/4-8	210	8.5	24.7	HDR-2	--	48,300		33.5	
J-DU7-020	1/3 3/4-1 to 3/4-3	84	14.7	6.3	MDR-4 & Park	--	23,903	36,553	16.6	25.4
		55	3.7	15.0	HDR-2	--	12,650		8.8	
J-DU7-040	1/4 3/4-12	54	15.0	3.6	MDR-2	--	13,500	13,500	9.4	9.4
J-DU7-050	3/4-18	--	10.8	--	Commercial/Retail Restaurant	150,000	30,000	30,000	20.8	20.8
DU 3 & 4 Totals		**2,032**	**614.4**			**2,056,000**	**1,791,948**	**1,791,948**	**1,673.6**	**1,673.6**

Notes:

1) The irrigation system for the Great Park is supplied by a lake that is filled from the potable water system. For calculations of the Great Park (Phase 2) daily water demand refer to Tables 19 and 20 within the *Master Water Report*. Per DMB and Associates, the lake is planned to be filled within 10 hours/day. Therefore, the total instantaneous peak flow to fill the north lake at the Great Park is calculated as follows: 441,655 GPD *(1 Day/10 Hours)*(1 Hour/60 Minutes)= 736 GPM.

TABLE 2

DU 3/4
WATER DESIGN CRITERIA

WOOD/PATEL

TABLE 2 - DU 3/4 WATER DESIGN CRITERIA

CIVIL ENGINEERS • HYDROLOGISTS • LAND SURVEYORS • CONSTRUCTION MANAGERS

Project: DU 3/4 at Eastmark
Location: Mesa, Arizona
References: 2012 City of Mesa Engineering Design Standards and City of Mesa approved population based design criteria

UNIT DAILY RESIDENTIAL WATER DEMANDS

LAND USE CATEGORY	LAND USE	DWELLING UNIT DENSITY VALUE	DWELLING UNIT DENSITY UNITS	UNIT DAILY WATER DEMAND VALUE	UNIT DAILY WATER DEMAND UNITS	NOTES
LDR-1	Low Density Residential (LDR 0-1)	0.5	DU/AC	490	GPD/DU	Source: Dwelling unit density divisions are based on City of Mesa 2025 General Plan. Unit water demands are based on the City of Mesa 2012 Engineering and Design Standards. LDR 1.0 Average and MDR 4.0 Average are used at locations where the dwelling unit densities are at or near 1 DU/AC and 4 DU/AC, respectively.
LDR-2	LDR 0-1 & LDR 1-2 AVG.	1	DU/AC	490	GPD/DU	
LDR-3	Low Density Residential (LDR-1-2)	1.2	DU/AC	490	GPD/DU	
MDR-1	Medium Density Residential (MDR 2-4)	3.0	DU/AC	250	GPD/DU	
MDR-2	MDR 2-4 & MDR 4-6 AVG.	4	DU/AC	250	GPD/DU	
MDR-3	Medium Density Residential (MDR 4-6)	5.0	DU/AC	250	GPD/DU	
MDR-4	Medium Density Residential (MDR 6-10)	6.5	DU/AC	250	GPD/DU	
HDR-1	High Density Residential (HDR 10-15)	11.0	DU/AC	230	GPD/DU	
HDR-2	High Density Residential (HDR 15+)	20.0	DU/AC	230	GPD/DU	
MUR-1	Mixed Use/Residential (MUR) – Residential	15.0	DU/AC	185	GPD/DU	

UNIT DAILY NON-RESIDENTIAL WATER DEMANDS

LAND USE	Population Density		WATER DESIGN DEMANDS (PER CAPITA)		NOTES
University - Boarded Student	---	---	80	GPD / Person	Source: City of Mesa approved population based criteria
University - Commuter Student and Staff	---	---	40	GPD / Person	
Elementary School - Student and Staff	200	Students and Staff / Acre	40	GPD / Person	
Middle School - Student and Staff	100	Students and Staff / Acre	40	GPD / Person	
Civic / Church / Library Staff	0.4	Employees / 1,000 S.F.	54	GPD / Person	
Civic / Church / Library Patrons	2	Patrons / 1,000 S.F.	20	GPD / Person	
Aquatic Center	200	Patrons and Staff / Acre	15	GPD / Person	
Commercial / Retail / Restaurant	2.5	Employees and Patrons / 1,000 S.F.	80	GPD / Person	
Office	5.0	Employees / 1,000 S.F.	80	GPD / Person	
Theater	250	Seats / Screen	7.5	GPD / Seat	
Hotel	---	---	150	GPD / Room	
Resort	---	---	300	GPD / Room	
Turf	---	---	4400	GPD/Acre	
Low Water Use Landscaping	---	---	800	GPD/Acre	

HYDRAULIC MODELING CRITERIA

DESCRIPTION	VALUE	UNITS	NOTES
PEAKING FACTORS			
Max Day	2.0	x Ave Day Demand	1
Peak Hour	3.0	x Ave Day Demand	1
MODELED FIRE HYDRANT FLOW (MINIMUMS)			
Residential	1,500	gpm	
Commercial (represents flow in backbone waterlines)	4,000	gpm	
HYDRAULICS (ON SITE)			
Minimum Residual Pressure, Peak Hour	40	psi	1
Minimum Residual Pressure, Max Day + Fire Flow	20	psi	1
Maximum Pipe Head Loss, Max Day Demand	10 ft/1000 ft	-	2
Maximum Velocity, Peak Hour Demand	5 (+/-)	ft/s	1
Maximum Velocity, Max Day + Fire Flow	10	ft/s	1
Minimum Pipe Diameter, Looped System	8	in	1
Hazen-Williams C-value	120	-	2

Notes:
1. Per 2012 City of Mesa Engineering Design Standards.
2. Per City of Phoenix Design Standards Manual for Water and Wastewater Systems.

TABLE 3

OVERALL EASTMARK
MODELED LAND USE

TABLE 3 -OVERALL EASTMARK MODELED LAND USE

Project: Eastmark
Location: Mesa, Arizona

EASTMARK - PRELIMINARY RESIDENTIAL LAND USE AND DWELLING UNIT BREAKDOWN

Land Use	LDR-2	LDR-3	MDR-1	MDR-2	MDR-3	MDR-4	HDR-1	HDR-2	**Residential Total**	Mixed Use Residential [3]	**Total Residential Units**
Acreage	0.0	50.2	971.8	492.8	187.9	40.0	20.0	19.5	**1,782.2**	594.3	--
Dwelling Units	0	91	3,214	1,888	1,012	251	220	375	**7,051**	5,755	**12,806**

EASTMARK - WATER DEMAND CALCULATIONS

Development Unit	Total Area (AC)	Residential (AC)	Total Dwelling Units	Keys[1]	Gross Non-Residential[2] (AC)	Total Floor Area (sq. ft.)	Education (AC)	Church (AC)	Civic (AC)	Other (AC)	Avg. Day Water Demand (GPD)	Development Unit Flow Area (AC)	Unit Daily Water Demand (GPD/AC)
1	--	--	--	--	--	--	--	--	--	--	--	--	--
2	--	--	--	--	--	--	--	--	--	--	--	--	--
3S	92.3	92.3	388	0	0.0	--	0.0	0.0	0.0	0.0	112,421	92.3	1,218.0
3/4	614.0	402.0	2,032	150	156.2	2,056,000	60.8	5.5	--	55.8	1,791,949	614.0	2,918.5
5N	347.0	0.0	3,145	0	324.8	3,710,000	0.0	0.0	0.0	22.2	2,928,037	347.0	8,438.1
6N	272.5	0.0	2,610	0	272.5	3,337,200	0.0	0.0	0.0	3.0	2,221,450	272.5	8,152.1
6S	402.6	360.9	1,223	0	17.9	131,000	0.0	0.0	0.0	23.8	540,140	402.6	1,341.6
7	575.5	475.8	1,958	0	5.5	265,000	26.0	7.5	2.5	58.2	720,067	575.5	1,251.2
8	198.8	196.1	544	0	0.0	--	0.0	0.0	0.0	2.7	182,490	198.8	918.0
9	328.2	255.1	906	0	0.0	200,000	0.0	0.0	11.2	61.9	284,100	328.2	865.6
Subtotal:	**2,830.9**	**1782.2**	**12,806**	**150**	**776.9**	**9,699,200**	**86.8**	**13.0**	**13.7**	**227.6**	**8,780,654**	**3,002.8**	--

Notes:

[1] Anticipated number of "Keys" represents hotel and resort uses. This includes approximately 2.5 acres within DU-3/4.

[2] Non-residential water demands are calculated based on net non-residential acreage.

[3] The full build-out mixed use residential acreage assumes that residential units will be constructed across the entire development units DU 5 North and DU 6 South equally. Thus, this acreage is shown for reference purposes only as the full-buildout mixed use development may or may not be constructed across the entire DU 5N and DU 6S development units.

Abbreviations:
AC = Acres
GPD = Gallons Per Day
GPD/AC = Gallons Per Day Per Acre

TABLE 4

WATER DEMAND DESIGN FLOWS
BY DEVELOPMENT UNIT

Project: Eastmark
Location: Mesa, Arizona
References: 2012 City of Mesa Engineering Design Standards

Eastmark

DEVELOPMENT UNIT	PARCEL/ DEVELOPMENT UNIT SUB-AREA	DEVELOPMENT UNIT DEMAND AREA (ACRES)	DWELLING UNITS	LAND USE	UNIT FLOW (GPD/AC)	HYD. MODEL NODE	AVE. DAY DEMAND (GPD)	AVE. DAY DEMAND (GPM)	MAX DAY DEMAND (GPD)	MAX DAY DEMAND (GPM)	PEAK HOUR DEMAND (GPM)
DU-3S	3S-1	30.9	137	MDR-2	1,218	J-DU3S-030, J-DU3S-040, J-DU3S-050	37,636	26.14	75,272	52.27	78.42
	3S-2	31.4	113	MDR-2	1,218	J-DU3S-020, J-DU3S-030, J-DU3S-050, J-DU3S-060	38,245	26.56	76,490	53.12	79.68
	3S-3	30.0	138	MDR-2	1,218	J-DU3S-010, J-DU3S-020, J-DU3S-060, J-DU3S-070	36,540	25.38	73,080	50.75	76.14
Total		**92.3**	**388**				**112,421**	**78.1**	**224,842**	**156.1**	**234.2**
DU-3/4	DU-3/4-1 to DU-3/4-3	55.0	416	MDR-4 / HDR-2 /Open Space	1,994	J-DU3-4-200, J-DU3-4-210, J-DU7-020	109,660	76.15	219,320	152.31	228.45
	DU-3/4-4	34.0	185	MDR-3	1,434	J-DU3-4-040, J-DU3-4-210	48,750	33.85	97,500	67.71	101.55
	DU-3/4-5	45.1	263	MDR-3	1,458	J-DU3-4-080, J-DU3-4-030	65,750	45.66	131,500	91.32	136.98
	DU-3/4-6	60.8	--	High School/ Aquatic Center	6,316	J-DU3-4-010, J-DU3-4-020, J-DU3-4-210	384,040	266.69	768,080	533.39	800.07
	DU-3/4-7	19.5	--	Church/ Commercial/ Retail/ Restaurant	2,861	J-DU3-4-030	55,794	38.75	111,588	77.49	116.25
	DU-3/4-8	8.5	210	HDR-2	5,682	J-DU3S-080	48,300	33.60	96,600	67.08	100.80
	DU-3/4-9	43.4	--	Commercial/ Retail/ Restaurant/Hotel/ Office/Theater	7,166	J-DU3-4-030, J-DU3-4-100, J-300EX, J-DU3S-080	311,000	216.00	622,000	431.94	648.00
	DU-3/4-10	16.7	--	Commercial/ Retail/ Restaurant	2,994	J-DU3-4-100	50,000	34.72	100,000	69.44	104.16
	DU-3/4-11	30.1	90	Commercial/ Retail/ Restaurant/ MDR-2	1,080	J-DU3-4-080, J-DU3-4-090, J-DU3-4-110, J-DU3-4-120	32,500	22.57	65,000	45.14	67.71
	DU-3/4-12	60.0	216	MDR-2	900	J-DU3-4-040, J-DU3-4-060, J-DU3-4-070, J-DU7-040	54,000	37.50	108,000	75.00	112.50
	DU-3/4-13	47.7	172	MDR-2	901	J-DU3-4-070, J-DU3-4-080, J-DU3-4-150	43,000	29.90	86,000	59.72	89.70
	DU-3/4-14	24.1	87	MDR-2	902	J-DU3-4-130, J-DU3-4-140	21,750	15.10	43,500	30.21	45.30
	DU-3/4-15	16.8	60	MDR-2	893	J-DU3-4-140	15,000	10.42	30,000	20.83	31.26
	DU-3/4-16	31.5	113	MDR-2	897	J-DU3-4-050, J-DU3-4-060, J-DU3-4-150	28,250	19.62	56,500	39.24	58.86
	DU-3/4-17	58.2	210	MDR-2	902	J-DU6-130	52,500	36.46	105,000	72.92	109.38
	DU-3/4-18	10.8	--	Commercial/ Retail/ Restaurant	2,778	J-DU7-050	30,000	20.83	60,000	41.67	62.49
	DU-3/4-19	51.8	--	GREAT PARK	--	J-DU6-170	441,655	736.00	441,655	736.00	736.00
Total		**614.0**	**2,032.0**				**1,791,949**	**1,673.8**	**3,142,243**	**2,611.4**	**3,549.5**
DU 5N	DU-5A	31.1	242	Industrial/ MUR-1	2,372	J-DU5N-030	73,770	51.23	147,540	102.46	153.69
	DU-5B	47.4	459	Industrial/ MUR-1	2,952	J-2340EX, J-1040EX	139,915	97.16	279,830	194.33	291.49
	DU-5C	50.5	489	Industrial/ MUR-1	2,951	J-DU5N-060, J-1040EX	149,045	103.50	298,090	207.01	310.51
	DU-5D	32.4	242	Industrial/ MUR-1	2,277	J-DU5N-040	73,770	51.23	147,540	102.46	153.69
	DU-5E	185.6	1,713	Industrial/ MUR-1	13,424	J-DU5N-010, J-DU5N-020, J-2340EX, J-1130EX	2,491,537	1,730.23	4,983,074	3,460.47	5,190.70
Total		**347.0**	**3,145.0**				**2,928,037**	**2,033.4**	**5,856,074**	**4,066.7**	**6,100.1**

TABLE 4- WATER DEMAND DESIGN FLOWS BY DEVELOPMENT UNIT

Project: Eastmark
Location: Mesa, Arizona
References: 2012 City of Mesa Engineering Design Standards

DEVELOPMENT UNIT	PARCEL/ DEVELOPMENT UNIT SUB-AREA	DEVELOPMENT UNIT DEMAND AREA (ACRES)	DWELLING UNITS	LAND USE	UNIT FLOW (GPD/AC)	HYD. MODEL NODE	(GPD)	(GPM)	(GPD)	(GPM)	(GPM)
DU-6N	DU-6A	86.5	838	Industrial/ MUR-1	14,085	J-DU6-020, J-DU6-060	1,218,375	846.09	2,436,750	1,692.19	2,538.27
	DU-6B	50.7	491	Industrial/ MUR-1	14,085	J-1130EX, J-2140EX	714,090	495.90	1,428,180	991.79	1,487.70
	DU-6C	132.3	1,281	Industrial/ MUR-1	2,184	J-DU6-070, J-DU6-080, J-DU6-090, J-DU6-100	288,985	200.68	577,970	401.37	602.04
	Other	3.0									
Total		**272.5**	**2,610**				**2,221,450**	**1,542.7**	**4,442,900**	**3,085.4**	**4,628.0**
DU-6S	6-1/2	45.4	107	MDR-1/ Open Space	990	J-DU6-160	44,940	31.21	89,880	62.42	93.63
	6-3	18.4	–	Commercial/ Retail	1,424	J-260EX	26,200	18.19	52,400	36.39	54.57
	6-4, 6-5	36.5	92	MDR-1/ Open Space	1,059	J-DU6-120	38,640	26.83	77,280	53.67	80.49
	6-6	19.3	58	MDR-1/ Open Space	1,262	J-DU6-110	24,360	16.92	48,720	33.83	50.76
	6-7	21.0	61	MDR-1	1,220	J-DU6-150, J-DU6-160	25,620	17.79	51,240	35.58	53.37
	6-8	31.0	52	LDR-3/ Open Space	788	J-DU6-150, J-DU6-160	24,440	16.97	48,880	33.94	50.91
	6-9, 6-17	25.4	116	MDR-3/ Open Space	1,827	J-DU6-110	46,400	32.22	92,800	64.44	96.66
	6-10 through 6-12	41.9	171	MDR-2	1,714	J-DU6-140, J-DU6-150	71,820	49.88	143,640	99.75	149.64
	6-13 through 6-15	50.2	161	MDR-1	1,347	J-DU6-120, J-DU6-140	67,620	46.96	135,240	93.92	140.88
	6-16 through 6-18	36.7	114	MDR-1	1,305	J-DU6-130	47,880	33.25	95,760	66.50	99.75
	6-19 through 6-23	76.8	291	MDR-2	1,591	J-DU3-4-170	122,220	84.88	244,440	169.75	254.64
Total		**402.6**	**1,223**				**540,140**	**375.1**	**1,080,280**	**750.2**	**1,125.3**
DU-7	7-1	15.9	84	MDR-3	1,602	J-DU7-100	25,472	17.69	50,944	35.38	53.07
	7-2	19.3	79	MDR-1	834	J-DU7-100	16,096	11.18	32,192	22.36	33.54
	7-3	30.7	110	MDR-1	834	J-DU7-110	25,604	17.78	51,208	35.56	53.34
	7-4	32.3	84	MDR-1	834	J-DU7-180	26,938	18.71	53,876	37.41	56.13
	7-5	25.1	66	MDR-1	834	J-DU7-190	20,933	14.54	41,866	29.07	43.62
	7-6	18.5	38	MDR-1	834	J-DU7-170	15,429	10.71	30,858	21.43	32.13
	7-7	26.8	98	MDR-1	834	J-DU7-190	22,351	15.52	44,702	31.04	46.56
	7-8	23.5	120	MDR-3	1,602	J-1990EX	37,647	26.14	75,294	52.29	78.42
	7-9	23.1	81	MDR-1	834	J-DU7-080	19,265	13.38	38,530	26.76	40.14
	7-10	7.5	–	CHURCH	1,500	J-250EX	11,250	7.81	22,500	15.63	23.43
	7-11	24.4	135	MDR-3	1,602	J-DU7-080	39,089	27.15	78,178	54.29	81.45
	7-12	23.0	97	MDR-1	834	J-DU7-160	19,182	13.32	38,364	26.64	39.96
	7-13	19.2	78	MDR-1	834	J-DU7-060	16,013	11.12	32,026	22.24	33.36
	7-14	17.3	53	MDR-1	834	J-DU7-150	14,428	10.02	28,856	20.04	30.06
	7-15	18.4	58	MDR-1	834	J-DU7-160	15,346	10.66	30,692	21.31	31.98
	7-16	26.4	106	MDR-1	834	J-DU7-140	22,018	15.29	44,036	30.58	45.87
	7-17	20.1	99	MDR-3	1,602	J-DU7-200	32,200	22.36	64,400	44.72	67.08
	7-18	29.1	85	MDR-1	834	J-DU7-200	24,269	16.85	48,538	33.71	50.55
	7-19	23.8	103	MDR-1	834	J-DU7-140	19,849	13.78	39,698	27.57	41.34
	7-20	19.9	80	MDR-1	834	J-DU7-200	16,597	11.53	33,194	23.05	34.59
	7-21	19.0	84	MDR-1	834	J-DU7-110	15,846	11.00	31,692	22.01	33.00
	7-22	20.0	–	EDUCATION	1,500	J-DU7-140	30,000	20.83	60,000	41.67	62.49
	7-23	20.0	220	HDR-1	1,936	J-DU7-050	38,720	26.89	77,440	53.78	80.67
	7-24	6.0	–	EDUCATION	1,500	J-DU7-150	9,000	6.25	18,000	12.50	18.75
	7-25	2.5	–	CIVIC	1,500	J-DU7-130	3,750	2.60	7,500	5.21	7.80
	7-26	5.5	–	COMMERCIAL/ RESTAURANT	1,700	J-DU7-010	9,350	6.49	18,700	12.99	19.47
	7-27	32.0	–	GREAT PARK	5,420	J-DU7-020	173,425	289.00	173,425	289.00	289.00
		26.2	–	Road R.O.W.	–	–	–	–	–	–	–
Total		**575.5**	**1,958**				**720,067**	**668.6**	**1,266,709**	**1,048.2**	**1,427.8**

TABLE 4- WATER DEMAND DESIGN FLOWS BY DEVELOPMENT UNIT

Project: Eastmark
Location: Mesa, Arizona
References: 2012 City of Mesa Engineering Design Standards

DEVELOPMENT UNIT	PARCEL/ DEVELOPMENT UNIT SUB-AREA	DEVELOPMENT UNIT DEMAND AREA (ACRES)	DWELLING UNITS	LAND USE	UNIT FLOW (GPD/AC)	HYD. MODEL NODE	(GPD)	(GPM)	(GPD)	(GPM)	(GPM)
							AVE. DAY DEMAND		MAX DAY DEMAND		PEAK HOUR DEMAND
DU-8	8-1	22.9	74	MDR-1	969	J-DU8-070	22,200	15.42	44,400	30.83	46.26
	8-2	30.0	87	MDR-1	870	J-DU8-060, J-DU8-100	26,100	18.13	52,200	36.25	54.39
	8-3	24.7	64	MDR-1	777	J-DU8-110	19,200	13.33	38,400	26.67	39.99
	8-3B	6.7	9	MDR-1 / PARK	2,176	J-DU8-110	14,580	10.13	29,160	20.25	30.39
	8-4	21.0	42	MDR-1	600	J-DU8-080, J-DU8-090	12,600	8.75	25,200	17.50	26.25
	8-6	23.6	91	MDR-1	1,157	J-DU8-110, J-DU8-120	27,300	18.96	54,600	37.92	56.88
	8-7	28.2	74	MDR-1	787	J-DU8-120, J-DU8-130	22,200	15.42	44,400	30.83	46.26
	8-8	20.0	39	LDR-3	956	J-DU8-090, J-DU8-130	19,110	13.27	38,220	26.54	39.81
	8-9	21.7	64	MDR-1	885	J-DU8-040, J-DU8-130	19,200	13.33	38,400	26.67	39.99
Total		**198.8**	**544**				**182,490**	**126.7**	**364,980**	**253.5**	**380.2**
DU-9	9-1	57.2	189	MDR-1	991	J-DU9-010, J-DU9-020	56,700	39.38	113,400	78.75	118.14
	9-2	25.6	99	MDR-1	1,160	J-DU9-020, J-DU9-030	29,700	20.63	59,400	41.25	61.89
	9-3	11.2	--	Civic	1,500	J-DU9-020, J-DU9-030	16,800	11.67	33,600	23.33	35.01
	9-4	49.4	158	MDR-1	960	J-DU9-030, J-DU9-070	47,400	32.92	94,800	65.83	98.76
	9-5	39.8	144	MDR-1	1,085	J-DU9-070, J-DU9-080	43,200	30.00	86,400	60.00	90.00
	9-6	22.4	90	MDR-2	1,004	J-DU9-040, J-DU9-060	22,500	15.63	45,000	31.25	46.89
	9-7	60.7	226	MDR-1	1,117	J-DU9-060, J-DU9-080	67,800	47.08	135,600	94.17	141.24
		61.9	--	Other	0		0.0	0.00	0.0	0.00	0.00
Total		**328.2**	**906**				**284,100**	**197.31**	**568,200**	**394.58**	**591.93**
EASTMARK TOTAL		**2,831**	**12,806**				**8,780,654**	**6,695.7**	**16,946,228**	**12,366.1**	**18,037.0**

TABLE 5

WATER DEMAND DESIGN FLOWS
BY JUNCTION NODE

WOOD/PATEL

TABLE 5 - WATER DEMAND DESIGN FLOWS BY JUNCTION NODE

CIVIL ENGINEERS * HYDROLOGISTS * LAND SURVEYORS * CONSTRUCTION MANAGERS

Project: Eastmark

Location: Mesa, Arizona

References: 2012 City of Mesa Engineering Design Standards

EASTMARK

	WATER DEMAND (GPM)		
HYDRAULIC MODEL NODE	AVE. DAY	MAX DAY	PEAK HOUR
J-DU3S-010	10.2	20.4	30.6
J-DU3S-020	11.0	22.0	33.0
J-DU3S-030	15.0	30.0	45.0
J-DU3S-040	11.0	22.0	33.0
J-DU3S-050	12.1	24.2	36.3
J-DU3S-060	11.8	23.6	35.4
J-DU3S-070	7.0	14.0	21.0
J-DU3S-080	87.5	175.0	262.5
J-DU3-4-010	88.9	177.8	266.7
J-DU3-4-020	88.9	177.8	266.7
J-DU3-4-030	115.5	231.0	346.5
J-DU3-4-040	26.3	52.6	78.9
J-DU3-4-050	6.5	13.0	19.5
J-DU3-4-060	15.9	31.8	47.7
J-DU3-4-070	24.3	48.6	72.9
J-DU3-4-080	38.1	76.2	114.3
J-DU3-4-090	3.9	7.8	11.7
J-DU3-4-100	88.7	177.4	266.1
J-DU3-4-110	3.9	7.8	11.7
J-DU3-4-120	6.9	13.8	20.7
J-DU3-4-130	7.6	15.2	22.8
J-DU3-4-140	18.0	36.0	54.0
J-DU3-4-150	14.0	28.0	42.0
J-DU3-4-160	--	--	--
J-DU3-4-170	84.9	169.8	254.7
J-DU3-4-200	25.4	50.8	76.2
J-DU3-4-210	131.2	262.4	393.6
J-DU5N-010	432.6	865.2	1297.8
J-DU5N-020	432.6	865.2	1297.8
J-DU5N-030	51.2	102.4	153.6
J-DU5N-040	51.2	102.4	153.6
J-DU5N-050	--	--	--
J-DU5N-060	51.8	103.6	155.4
J-DU6-010	--	--	--
J-DU6-020	423.0	846.0	1269.0
J-DU6-050	--	--	--
J-DU6-060	423.0	846.0	1269.0
J-DU6-070	50.2	100.4	150.6
J-DU6-080	50.2	100.4	150.6
J-DU6-090	50.2	100.4	150.6
J-DU6-100	50.2	100.4	150.6
J-DU6-110	49.1	98.2	147.3
J-DU6-120	50.3	100.6	150.9
J-DU6-130	69.8	139.6	209.4
J-DU6-140	48.4	96.8	145.2
J-DU6-150	42.3	84.6	126.9
J-DU6-160	48.6	97.2	145.8
J-DU6-170	736.0	736.0	736.0

	WATER DEMAND (GPM)		
HYDRAULIC MODEL NODE	AVE. DAY	MAX DAY	PEAK HOUR
J-DU7-010	6.5	13.0	19.5
J-DU7-020	25.4	50.8	76.2
J-DU7-030	0.0	0.0	0.0
J-DU7-040	9.4	18.8	28.2
J-DU7-050	47.7	95.4	143.1
J-DU7-060	11.1	22.2	33.3
J-DU7-070	0.0	0.0	0.0
J-DU7-080	40.5	81.0	121.5
J-DU7-090	0.0	0.0	0.0
J-DU7-100	28.9	57.8	86.7
J-DU7-110	28.8	57.6	86.4
J-DU7-120	2.6	5.2	7.8
J-DU7-130	289.0	289.0	289.0
J-DU7-140	49.9	99.8	149.7
J-DU7-150	16.3	32.6	48.9
J-DU7-160	24.0	48.0	72.0
J-DU7-170	10.7	21.4	32.1
J-DU7-180	18.7	37.4	56.1
J-DU7-190	30.1	60.2	90.3
J-DU7-200	50.7	101.4	152.1
J-250EX	7.8	15.6	23.4
J-DU8-010	0.0	0.0	0.0
J-DU8-020	0.0	0.0	0.0
J-DU8-030	0.0	0.0	0.0
J-DU8-040	6.7	13.4	20.1
J-DU8-050	0.0	0.0	0.0
J-DU8-060	9.0	18.0	27.0
J-DU8-070	15.4	30.8	46.2
J-DU8-080	4.4	8.8	13.2
J-DU8-090	11.0	22.0	33.0
J-DU8-100	9.2	18.4	27.6
J-DU8-110	33.0	66.0	99.0
J-DU8-120	17.1	34.2	51.3
J-DU8-130	21.0	42.0	63.0
J-DU9-010	19.7	39.4	59.1
J-DU9-020	35.8	71.6	107.4
J-DU9-030	32.6	65.2	97.8
J-DU9-040	7.8	15.6	23.4
J-DU9-050	0.0	0.0	0.0
J-DU9-060	31.4	62.8	94.2
J-DU9-070	31.5	63.0	94.5
J-DU9-080	38.5	77.0	115.5
J-300EX	54.0	108.0	162.0
J-260EX	18.2	36.4	54.6
J-590EX	--	--	--
J-970EX	--	--	--
J-1040EX	100.3	200.6	300.9
J-2140EX	247.9	495.8	743.7
J-1130EX	680.5	1361.0	2041.5
J-1990EX	26.1	52.2	78.3
J-2340EX	481.1	962.2	1443.3

EASTMARK TOTAL	**6,695.5**	**12,366.0**	**18,036.5**

APPENDIX A

HYDRAULIC MODELING RESULTS – SERVED BY SOUTH C.A.P. WATER TREATMENT PLANT (NON-DROUGHT CONDITION)

Average-Day Demand

Eastmark Master Water Report

Active Scenario: Avg Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
C.O.M. DW SUPPLY FROM NORTH	1,634.0	390.9	1,634.0
SCAP DWPS	1,634.0	6,304.6	1,634.0

Eastmark Master Water Report

Active Scenario: Avg Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
J-100EX	1,406.0	Desert Wells	0.0	97.4	1,631.0
J-110EX	1,418.0	Desert Wells	0.0	92.2	1,631.0
J-120EX	1,462.0	Desert Wells	0.0	74.3	1,633.8
J-135EX	1,460.0	Desert Wells	0.0	74.9	1,633.2
J-150EX	1,472.0	Desert Wells	0.0	69.4	1,632.4
J-160EX	1,435.0	Desert Wells	0.0	85.2	1,631.9
J-170EX	1,430.0	Desert Wells	0.0	87.3	1,631.9
J-180EX	1,410.0	Desert Wells	0.0	96.0	1,631.8
J-190EX	1,395.0	Desert Wells	0.0	102.4	1,631.6
J-200EX	1,385.0	Desert Wells	0.0	106.6	1,631.4
J-220EX	1,480.0	Desert Wells	0.0	66.3	1,633.1
J-230EX	1,475.0	Desert Wells	0.0	68.2	1,632.7
J-250EX	1,452.0	Desert Wells	7.8	78.0	1,632.4
J-260EX	1,453.0	Desert Wells	18.2	77.6	1,632.4
J-270	1,429.0	Desert Wells	0.0	87.8	1,631.9
J-280EX	1,460.0	Desert Wells	0.0	74.4	1,632.0
J-300EX	1,392.0	Desert Wells	54.0	103.5	1,631.2
J-320	1,422.0	Desert Wells	0.0	90.8	1,631.8
J-330EX	1,455.0	Desert Wells	0.0	76.6	1,632.2
J-340	1,440.0	Desert Wells	0.0	83.1	1,632.0
J-360EX	1,400.0	Desert Wells	0.0	100.0	1,631.0
J-550	1,425.0	Desert Wells	0.0	89.5	1,631.9
J-590EX	1,413.0	Desert Wells	0.0	94.3	1,631.0
J-920	1,434.0	Desert Wells	0.0	85.7	1,632.0
J-950	1,414.0	Desert Wells	0.0	94.1	1,631.5
J-960EX	1,402.0	Desert Wells	0.0	99.1	1,631.0
J-970EX	1,397.0	Desert Wells	0.0	101.3	1,631.0
J-1000EX	1,455.0	Desert Wells	0.0	77.4	1,634.0
J-1010EX	1,485.0	Desert Wells	0.0	64.4	1,633.9
J-1020EX	1,425.0	Desert Wells	0.0	90.4	1,634.0
J-1030EX	1,480.0	Desert Wells	0.0	66.6	1,634.0
J-1040EX	1,428.0	Desert Wells	100.3	87.9	1,631.1
J-1050EX	1,445.0	Desert Wells	0.0	81.0	1,632.2
J-1120EX	1,456.0	Desert Wells	0.0	76.3	1,632.4
J-1130EX	1,445.0	Desert Wells	680.5	80.8	1,631.7
J-1160EX	1,445.0	Desert Wells	0.0	81.8	1,634.0
J-1170EX	1,470.0	Desert Wells	0.0	70.9	1,633.9
J-1180EX	1,440.0	Desert Wells	0.0	83.9	1,634.0
J-1190EX	1,420.0	Desert Wells	0.0	92.6	1,634.0
J-1200EX	1,445.0	Desert Wells	0.0	81.8	1,634.0
J-1210EX	1,455.0	Desert Wells	0.0	77.4	1,633.9
J-1220EX	1,475.0	Desert Wells	0.0	68.7	1,633.9
J-1230EX	1,460.0	Desert Wells	0.0	74.5	1,632.1
J-1235EX	1,440.0	Desert Wells	0.0	83.1	1,632.2
J-1240EX	1,455.0	Desert Wells	0.0	76.7	1,632.2

Eastmark Master Water Report

Active Scenario: Avg Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
J-1280	1,410.0	Desert Wells	0.0	96.0	1,631.8
J-1290EX	1,480.0	Desert Wells	0.0	66.6	1,633.9
J-1300EX	1,465.0	Desert Wells	0.0	73.1	1,633.9
J-1310EX	1,480.0	Desert Wells	0.0	66.6	1,633.9
J-1330EX	1,465.0	Desert Wells	0.0	73.1	1,633.9
J-1340EX	1,450.0	Desert Wells	0.0	79.6	1,634.0
J-1350EX	1,465.0	Desert Wells	0.0	73.1	1,633.9
J-1360EX	1,445.0	Desert Wells	0.0	81.8	1,634.0
J-1370EX	1,430.0	Desert Wells	0.0	88.2	1,634.0
J-1380EX	1,450.0	Desert Wells	0.0	79.6	1,634.0
J-1390EX	1,430.0	Desert Wells	0.0	88.2	1,634.0
J-1400EX	1,430.0	Desert Wells	0.0	88.2	1,634.0
J-1410	1,458.0	Desert Wells	0.0	75.8	1,633.1
J-1410EX	1,420.0	Desert Wells	0.0	92.6	1,634.0
J-1420EX	1,460.0	Desert Wells	0.0	74.7	1,632.6
J-1430EX	1,455.0	Desert Wells	0.0	76.9	1,632.7
J-1440EX	1,478.0	Desert Wells	0.0	67.0	1,632.9
J-1680EX	1,401.0	Desert Wells	0.0	99.5	1,631.0
J-1990EX	1,447.0	Desert Wells	26.1	80.2	1,632.3
J-2000EX	1,442.0	Desert Wells	0.0	82.3	1,632.2
J-2010	1,419.0	Desert Wells	0.0	92.1	1,631.8
J-2040	1,427.0	Desert Wells	0.0	88.6	1,631.9
J-2120EX	1,453.0	Desert Wells	0.0	77.6	1,632.4
J-2140EX	1,450.0	Desert Wells	247.9	78.8	1,632.1
J-2200	1,414.0	Desert Wells	0.0	94.1	1,631.5
J-2295	1,415.0	Desert Wells	0.0	93.6	1,631.4
J-2340EX	1,434.0	Desert Wells	481.1	85.3	1,631.2
J-2346	1,445.7	Desert Wells	0.0	80.5	1,631.8
J-2353	1,456.0	Desert Wells	0.0	76.5	1,632.8
J-2354	1,453.4	Desert Wells	0.0	77.6	1,632.7
J-DU3-4-010	1,405.0	Desert Wells	88.9	97.9	1,631.2
J-DU3-4-020	1,402.0	Desert Wells	88.9	99.2	1,631.2
J-DU3-4-030	1,392.0	Desert Wells	115.5	103.5	1,631.2
J-DU3-4-040	1,403.0	Desert Wells	26.3	98.7	1,631.2
J-DU3-4-050	1,408.0	Desert Wells	6.5	96.6	1,631.2
J-DU3-4-060	1,408.0	Desert Wells	15.9	96.5	1,631.1
J-DU3-4-070	1,404.0	Desert Wells	24.3	98.3	1,631.1
J-DU3-4-080	1,400.0	Desert Wells	38.1	100.0	1,631.1
J-DU3-4-090	1,393.0	Desert Wells	3.9	103.0	1,631.1
J-DU3-4-100	1,391.0	Desert Wells	88.7	103.9	1,631.2
J-DU3-4-110	1,393.0	Desert Wells	3.9	103.0	1,631.1
J-DU3-4-120	1,393.0	Desert Wells	6.9	103.0	1,631.0
J-DU3-4-130	1,395.0	Desert Wells	7.6	102.1	1,631.0
J-DU3-4-140	1,403.0	Desert Wells	18.0	98.6	1,631.0
J-DU3-4-150	1,407.0	Desert Wells	14.0	96.9	1,631.1

Eastmark Master Water Report

Active Scenario: Avg Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
J-DU3-4-160	1,406.0	Desert Wells	0.0	97.3	1,630.9
J-DU3-4-170	1,410.0	Desert Wells	84.9	95.6	1,630.9
J-DU3-4-200	1,412.5	Desert Wells	25.4	94.6	1,631.3
J-DU3-4-210	1,406.0	Desert Wells	131.2	97.4	1,631.2
J-DU3S-010	1,412.0	Desert Wells	10.2	94.9	1,631.4
J-DU3S-020	1,407.0	Desert Wells	11.0	97.0	1,631.3
J-DU3S-030	1,401.0	Desert Wells	15.0	99.6	1,631.2
J-DU3S-040	1,399.0	Desert Wells	11.0	100.5	1,631.2
J-DU3S-050	1,404.0	Desert Wells	12.1	98.3	1,631.2
J-DU3S-060	1,410.0	Desert Wells	11.8	95.7	1,631.3
J-DU3S-070	1,417.0	Desert Wells	7.0	92.7	1,631.3
J-DU3S-080	1,396.0	Desert Wells	87.5	101.8	1,631.2
J-DU5N-010	1,435.5	Desert Wells	432.6	84.4	1,630.5
J-DU5N-020	1,424.5	Desert Wells	432.6	89.1	1,630.4
J-DU5N-030	1,426.0	Desert Wells	51.2	88.5	1,630.6
J-DU5N-040	1,414.0	Desert Wells	51.2	93.8	1,630.9
J-DU5N-050	1,414.0	Desert Wells	0.0	93.9	1,630.9
J-DU5N-060	1,417.0	Desert Wells	51.8	92.6	1,631.0
J-DU6-010	1,459.0	Desert Wells	0.0	75.0	1,632.4
J-DU6-020	1,453.0	Desert Wells	423.0	77.6	1,632.4
J-DU6-050	1,448.0	Desert Wells	0.0	79.8	1,632.5
J-DU6-060	1,458.0	Desert Wells	423.0	75.5	1,632.5
J-DU6-070	1,452.0	Desert Wells	50.2	77.9	1,632.0
J-DU6-080	1,446.0	Desert Wells	50.2	80.3	1,631.5
J-DU6-090	1,435.0	Desert Wells	50.2	84.7	1,630.9
J-DU6-100	1,437.5	Desert Wells	50.2	83.6	1,630.6
J-DU6-110	1,432.0	Desert Wells	49.1	85.9	1,630.6
J-DU6-120	1,422.0	Desert Wells	50.3	90.4	1,630.9
J-DU6-130	1,416.0	Desert Wells	69.8	93.0	1,630.9
J-DU6-140	1,417.0	Desert Wells	48.4	92.6	1,631.0
J-DU6-150	1,427.0	Desert Wells	42.3	88.4	1,631.3
J-DU6-160	1,436.0	Desert Wells	48.6	84.5	1,631.3
J-DU6-170	1,416.5	Desert Wells	736.0	92.7	1,630.9
J-DU7-010	1,415.0	Desert Wells	6.5	93.6	1,631.4
J-DU7-020	1,425.0	Desert Wells	25.4	89.3	1,631.3
J-DU7-030	1,416.0	Desert Wells	0.0	93.1	1,631.3
J-DU7-040	1,409.0	Desert Wells	9.4	96.2	1,631.3
J-DU7-050	1,416.0	Desert Wells	47.7	93.2	1,631.3
J-DU7-060	1,423.0	Desert Wells	11.1	90.2	1,631.4
J-DU7-070	1,430.0	Desert Wells	0.0	87.2	1,631.6
J-DU7-080	1,434.0	Desert Wells	40.5	85.6	1,631.8
J-DU7-090	1,437.0	Desert Wells	0.0	84.4	1,632.1
J-DU7-100	1,435.0	Desert Wells	28.9	85.2	1,631.9
J-DU7-110	1,435.0	Desert Wells	28.8	85.1	1,631.6
J-DU7-120	1,420.0	Desert Wells	2.6	91.5	1,631.4

Eastmark Master Water Report

Active Scenario: Avg Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
J-DU7-130	1,420.0	Desert Wells	289.0	91.5	1,631.4
J-DU7-140	1,425.0	Desert Wells	49.9	89.3	1,631.4
J-DU7-150	1,419.0	Desert Wells	16.3	91.9	1,631.3
J-DU7-160	1,435.0	Desert Wells	24.0	85.0	1,631.6
J-DU7-170	1,432.0	Desert Wells	10.7	86.3	1,631.6
J-DU7-180	1,433.0	Desert Wells	18.7	85.9	1,631.6
J-DU7-190	1,437.0	Desert Wells	30.1	84.3	1,631.9
J-DU7-200	1,432.0	Desert Wells	50.7	86.3	1,631.4
J-DU8-010	1,420.0	Desert Wells	0.0	91.5	1,631.5
J-DU8-020	1,419.5	Desert Wells	0.0	91.7	1,631.5
J-DU8-030	1,421.0	Desert Wells	0.0	91.1	1,631.6
J-DU8-040	1,418.0	Desert Wells	6.7	92.4	1,631.7
J-DU8-050	1,422.0	Desert Wells	0.0	90.7	1,631.7
J-DU8-060	1,420.0	Desert Wells	9.0	91.5	1,631.5
J-DU8-070	1,420.0	Desert Wells	15.4	91.5	1,631.5
J-DU8-080	1,422.0	Desert Wells	4.4	90.7	1,631.6
J-DU8-090	1,424.0	Desert Wells	11.0	89.8	1,631.6
J-DU8-100	1,425.0	Desert Wells	9.2	89.4	1,631.6
J-DU8-110	1,430.0	Desert Wells	33.0	87.2	1,631.6
J-DU8-120	1,431.0	Desert Wells	17.1	86.8	1,631.6
J-DU8-130	1,427.0	Desert Wells	21.0	88.5	1,631.6
J-DU9-010	1,419.0	Desert Wells	19.7	91.9	1,631.5
J-DU9-020	1,415.0	Desert Wells	35.8	93.7	1,631.5
J-DU9-030	1,416.0	Desert Wells	32.6	93.2	1,631.5
J-DU9-040	1,416.0	Desert Wells	7.8	93.2	1,631.5
J-DU9-050	1,419.0	Desert Wells	0.0	91.9	1,631.5
J-DU9-060	1,422.0	Desert Wells	31.4	90.7	1,631.6
J-DU9-070	1,414.0	Desert Wells	31.5	94.1	1,631.5
J-DU9-080	1,419.0	Desert Wells	38.5	91.9	1,631.5

Eastmark Master Water Report

Active Scenario: Avg Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-160EX	16.0	2,722.00	120.0	138.5	0.22	0.019
P-170EX	16.0	5,366.00	120.0	138.5	0.22	0.019
P-180EX	16.0	5,396.00	120.0	192.2	0.31	0.034
P-190EX	16.0	5,728.00	120.0	192.2	0.31	0.034
P-200EX	16.0	889.00	120.0	-719.1	1.15	0.393
P-210EX	16.0	510.00	120.0	-967.0	1.54	0.680
P-220EX	16.0	2,909.00	120.0	541.6	0.86	0.233
P-240EX	16.0	1,387.00	120.0	-1,205.1	1.92	1.023
P-250EX	16.0	2,611.00	120.0	358.5	0.57	0.108
P-310	30.0	4,937.00	120.0	1,185.3	0.54	0.046
P-340EX	16.0	5,775.00	120.0	138.5	0.22	0.019
P-410EX	16.0	5,368.00	120.0	192.2	0.31	0.034
P-970	24.0	1,001.00	120.0	805.5	0.57	0.067
P-980	24.0	1,935.00	120.0	350.2	0.25	0.014
P-1060EX	16.0	1,328.00	120.0	43.1	0.07	0.002
P-1070EX	16.0	1,257.00	120.0	43.1	0.07	0.002
P-1400	16.0	1,688.00	120.0	0.0	0.00	0.000
P-1630EX	16.0	1,793.00	120.0	110.0	0.18	0.012
P-1640EX	16.0	1,335.00	120.0	265.1	0.42	0.062
P-1780	24.0	1,528.00	120.0	805.5	0.57	0.067
P-1790	24.0	1,115.00	120.0	805.5	0.57	0.067
P-1940EX	16.0	1,976.00	120.0	43.1	0.07	0.002
P-1950EX	16.0	637.00	120.0	43.1	0.07	0.002
P-1970EX	16.0	927.00	120.0	208.7	0.33	0.040
P-1980EX	16.0	1,106.00	120.0	204.8	0.33	0.038
P-2000EX	16.0	1,599.00	120.0	-216.9	0.35	0.043
P-2040EX	16.0	10,635.00	120.0	-91.0	0.15	0.009
P-2055EX	16.0	10,453.00	120.0	41.0	0.07	0.002
P-2070EX	24.0	5,329.00	120.0	-258.9	0.18	0.008
P-2500EX	24.0	2,750.00	120.0	271.4	0.19	0.009
P-2510EX	24.0	2,726.00	120.0	258.6	0.18	0.008
P-2540EX	12.0	2,624.00	120.0	-32.0	0.09	0.005
P-2570EX	16.0	2,640.00	120.0	0.0	0.00	0.000
P-2655EX	16.0	2,870.00	120.0	138.5	0.22	0.019
P-2660EX	24.0	2,797.00	120.0	390.9	0.28	0.018
P-2665EX	16.0	2,716.00	120.0	138.5	0.22	0.019
P-2690EX	16.0	2,914.00	120.0	-99.3	0.16	0.010
P-2700EX	16.0	3,115.00	120.0	259.2	0.41	0.059
P-2710EX	16.0	1,823.00	120.0	194.2	0.31	0.035
P-2720EX	12.0	3,042.00	120.0	-65.1	0.18	0.019
P-2800	24.0	5,786.00	120.0	-53.7	0.04	0.000
P-2830	16.0	2,890.00	120.0	55.7	0.09	0.003
P-2860EX	24.0	761.00	120.0	390.9	0.28	0.018
P-2880EX	12.0	383.00	120.0	0.0	0.00	0.000
P-2890EX	8.0	3,148.00	120.0	-20.1	0.13	0.015

Eastmark Master Water Report

Active Scenario: Avg Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-2900	24.0	1,423.00	120.0	349.6	0.25	0.014
P-2910EX	24.0	497.00	120.0	370.9	0.26	0.016
P-2950	12.0	1,089.00	120.0	12.8	0.04	0.001
P-2970EX	12.0	1,119.00	120.0	18.8	0.05	0.002
P-2990EX	8.0	2,811.00	120.0	-14.5	0.09	0.008
P-3010EX	12.0	471.00	120.0	20.1	0.06	0.002
P-3020EX	12.0	1,167.00	120.0	4.4	0.01	0.000
P-3030EX	12.0	378.00	120.0	0.0	0.00	0.000
P-3040EX	8.0	3,081.00	120.0	-14.1	0.09	0.008
P-3060	12.0	595.00	120.0	0.0	0.00	0.000
P-3070EX	8.0	2,922.00	120.0	-9.7	0.06	0.004
P-3080EX	12.0	1,397.00	120.0	-31.3	0.09	0.005
P-3090EX	12.0	1,109.00	120.0	-25.0	0.07	0.003
P-3100EX	12.0	695.00	120.0	7.0	0.02	0.000
P-3110EX	12.0	664.00	120.0	0.7	0.00	0.000
P-3120EX	8.0	1,851.00	120.0	-6.3	0.04	0.002
P-3130	12.0	1,155.00	120.0	9.7	0.03	0.001
P-3140EX	16.0	1,783.00	120.0	9.0	0.01	0.000
P-3150EX	16.0	958.00	120.0	0.0	0.00	0.000
P-3160EX	8.0	3,801.00	120.0	-9.0	0.06	0.003
P-3170EX	8.0	2,838.00	120.0	-21.3	0.14	0.015
P-3180EX	8.0	736.00	120.0	6.0	0.04	0.002
P-3190EX	30.0	2,559.00	120.0	3,100.5	1.41	0.275
P-3240EX	16.0	1,263.00	120.0	427.5	0.68	0.150
P-3250EX	12.0	844.00	120.0	-183.1	0.52	0.127
P-3260EX	16.0	1,108.00	120.0	541.6	0.86	0.233
P-3270EX	16.0	1,509.00	120.0	401.6	0.64	0.134
P-3280EX	12.0	2,890.00	120.0	-140.0	0.40	0.077
P-3290EX	12.0	2,432.00	120.0	43.1	0.12	0.009
P-3930EX	16.0	794.00	120.0	43.1	0.07	0.002
P-3940EX	16.0	509.00	120.0	43.1	0.07	0.002
P-3970EX	16.0	1,445.00	120.0	-43.1	0.07	0.002
P-4720EX	16.0	1,216.00	120.0	334.4	0.53	0.095
P-4730EX	16.0	456.00	120.0	308.3	0.49	0.082
P-4750EX	16.0	715.00	120.0	308.3	0.49	0.082
P-4760EX	16.0	774.00	120.0	29.3	0.05	0.001
P-4780	24.0	2,143.00	120.0	350.2	0.25	0.014
P-4790EX	16.0	1,816.00	120.0	94.4	0.15	0.009
P-4860	24.0	986.00	120.0	-350.2	0.25	0.014
P-4870	24.0	620.00	120.0	-350.2	0.25	0.014
P-5700EX	16.0	1,176.00	120.0	852.3	1.36	0.538
P-5710EX	16.0	1,171.00	120.0	852.3	1.36	0.539
P-5740	24.0	1,548.00	120.0	-350.2	0.25	0.014
P-5770	16.0	1,043.00	120.0	-44.9	0.07	0.002
P-5780	16.0	684.00	120.0	-63.1	0.10	0.004

Eastmark Master Water Report

Active Scenario: Avg Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-6064	16.0	846.00	120.0	-296.4	0.47	0.076
P-6065	16.0	3,443.00	120.0	-296.4	0.47	0.076
P-6070	16.0	247.00	120.0	-270.2	0.43	0.064
P-6166EX	16.0	1,247.00	120.0	-317.2	0.51	0.086
P-6167EX	16.0	2,351.00	120.0	-517.1	0.83	0.213
P-6189	16.0	269.00	120.0	-478.5	0.76	0.185
P-6198	30.0	1,017.00	120.0	3,100.5	1.41	0.275
P-6199	30.0	1,680.00	120.0	3,100.5	1.41	0.275
P-6202	16.0	2,580.00	120.0	517.5	0.83	0.214
P-6203	16.0	1,345.00	120.0	-996.0	1.59	0.719
P-6204	16.0	1,529.00	120.0	-996.0	1.59	0.719
P-7000	12.0	742.00	120.0	-174.1	0.49	0.115
P-COMWTREX	36.0	10.00	120.0	390.9	0.12	0.000
P-DU-3-4-080	12.0	1,214.00	120.0	-9.9	0.03	0.001
P-DU-3-4-090	12.0	979.00	120.0	14.4	0.04	0.001
P-DU-3-4-100	12.0	717.00	120.0	-52.5	0.15	0.013
P-DU-3-4-110	16.0	597.00	120.0	154.8	0.25	0.023
P-DU-3-4-120	16.0	1,296.00	120.0	147.2	0.23	0.021
P-DU-3-4-130	12.0	1,079.00	120.0	-114.0	0.32	0.053
P-DU-3-4-70	12.0	1,088.00	120.0	-153.8	0.44	0.092
P-DU-3S-130	16.0	2,122.00	120.0	-238.5	0.38	0.051
P-DU3-4-010	12.0	2,097.00	120.0	-34.9	0.10	0.006
P-DU3-4-020	24.0	1,134.00	120.0	-243.8	0.17	0.007
P-DU3-4-060	12.0	553.00	120.0	-160.3	0.45	0.099
P-DU3-4-160	12.0	822.00	120.0	-128.0	0.36	0.065
P-DU3-4-170	16.0	1,033.00	120.0	243.2	0.39	0.053
P-DU3-4-180	16.0	876.00	120.0	243.2	0.39	0.053
P-DU3-4-190	16.0	1,406.00	120.0	158.3	0.25	0.024
P-DU3-4-200	8.0	1,001.00	120.0	44.0	0.28	0.065
P-DU3-4-210	8.0	1,083.00	120.0	-47.9	0.31	0.076
P-DU3-4-220	8.0	2,361.00	120.0	39.3	0.25	0.053
P-DU3-4-30	24.0	1,272.00	120.0	-324.3	0.23	0.012
P-DU3-4-40	24.0	496.00	120.0	-413.2	0.29	0.020
P-DU3-4-50	24.0	1,092.00	120.0	-483.5	0.34	0.026
P-DU3S-010	8.0	261.00	120.0	96.1	0.61	0.276
P-DU3S-020	8.0	1,374.00	120.0	41.4	0.26	0.058
P-DU3S-030	8.0	1,542.00	120.0	30.4	0.19	0.033
P-DU3S-040	8.0	1,242.00	120.0	15.4	0.10	0.009
P-DU3S-050	8.0	801.00	120.0	-18.0	0.11	0.012
P-DU3S-060	8.0	974.00	120.0	-13.6	0.09	0.007
P-DU3S-070	8.0	1,384.00	120.0	-25.7	0.16	0.024
P-DU3S-080	8.0	1,241.00	120.0	-37.5	0.24	0.048
P-DU3S-090	8.0	621.00	120.0	-44.5	0.28	0.067
P-DU3S-100	16.0	1,114.00	120.0	-28.2	0.04	0.001
P-DU3S-110	16.0	1,525.00	120.0	-76.3	0.12	0.006

Eastmark Master Water Report

Active Scenario: Avg Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-DU3S-120	16.0	822.00	120.0	-165.2	0.26	0.026
P-DU5N-010	12.0	334.00	120.0	-358.3	1.02	0.439
P-DU5N-020	12.0	1,978.00	120.0	-90.5	0.26	0.034
P-DU5N-030	12.0	529.00	120.0	-342.1	0.97	0.403
P-DU5N-040	12.0	2,743.00	120.0	-236.3	0.67	0.203
P-DU5N-040	12.0	2,697.00	120.0	157.0	0.45	0.095
P-DU5N-050	16.0	779.00	120.0	208.2	0.33	0.040
P-DU5N-060	16.0	1,403.00	120.0	208.2	0.33	0.040
P-DU5N-070	16.0	638.00	120.0	260.0	0.41	0.060
P-DU6-010	12.0	1,163.00	120.0	92.3	0.26	0.036
P-DU6-020	16.0	124.00	120.0	238.1	0.38	0.050
P-DU6-050	12.0	2,221.00	120.0	-92.6	0.26	0.036
P-DU6-060	12.0	2,209.00	120.0	92.3	0.26	0.036
P-DU6-070	16.0	142.00	120.0	607.9	0.97	0.288
P-DU6-080	12.0	1,135.00	120.0	92.6	0.26	0.036
P-DU6-130	12.0	500.00	120.0	472.4	1.34	0.733
P-DU6-140	12.0	768.00	120.0	422.2	1.20	0.595
P-DU6-150	12.0	1,433.00	120.0	372.0	1.06	0.471
P-DU6-180	12.0	1,702.00	120.0	-213.9	0.61	0.169
P-DU6-190	12.0	1,448.00	120.0	280.6	0.80	0.279
P-DU6-200	12.0	1,666.00	120.0	-16.4	0.05	0.001
P-DU6-210	16.0	548.00	120.0	104.8	0.17	0.011
P-DU6-220	16.0	1,003.00	120.0	-621.5	0.99	0.300
P-DU6-230	8.0	2,333.00	120.0	58.1	0.37	0.109
P-DU6-240	12.0	696.00	120.0	355.2	1.01	0.432
P-DU6-250	8.0	2,342.00	120.0	-25.7	0.16	0.024
P-DU6-260	8.0	656.00	120.0	-161.1	1.03	0.720
P-DU6-270	12.0	803.00	120.0	164.8	0.47	0.104
P-DU6-280	12.0	395.00	120.0	408.5	1.16	0.560
P-DU6-290	8.0	2,027.00	120.0	86.8	0.55	0.229
P-DU6-300	16.0	515.00	120.0	-631.2	1.01	0.309
P-DU7-010	12.0	1,115.00	120.0	121.0	0.34	0.059
P-DU7-020	12.0	1,147.00	120.0	-56.3	0.16	0.014
P-DU7-030	12.0	1,044.00	120.0	-56.3	0.16	0.014
P-DU7-040	24.0	1,410.00	120.0	-596.9	0.42	0.039
P-DU7-050	24.0	1,075.00	120.0	-1,039.0	0.74	0.108
P-DU7-060	24.0	1,254.00	120.0	-1,050.1	0.74	0.110
P-DU7-070	24.0	1,205.00	120.0	-1,407.6	1.00	0.189
P-DU7-080	24.0	2,339.00	120.0	-1,609.2	1.14	0.242
P-DU7-090	16.0	941.00	120.0	-529.9	0.85	0.223
P-DU7-100	16.0	1,562.00	120.0	-501.0	0.80	0.201
P-DU7-110	16.0	1,742.00	120.0	-395.6	0.63	0.130
P-DU7-120	16.0	778.00	120.0	191.9	0.31	0.034
P-DU7-130	20.0	317.00	120.0	-472.8	0.48	0.061
P-DU7-140	20.0	1,207.00	120.0	-183.8	0.19	0.011

Eastmark Master Water Report

Active Scenario: Avg Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-DU7-150	20.0	1,514.00	120.0	-243.4	0.25	0.018
P-DU7-160	20.0	619.00	120.0	-227.1	0.23	0.016
P-DU7-170	12.0	1,073.00	120.0	-2.3	0.01	0.000
P-DU7-180	12.0	828.00	120.0	-21.7	0.06	0.002
P-DU7-190	12.0	399.00	120.0	-192.6	0.55	0.139
P-DU7-200	12.0	2,378.00	120.0	37.7	0.11	0.007
P-DU7-210	12.0	1,049.00	120.0	-279.0	0.79	0.276
P-DU7-220	12.0	1,054.00	120.0	-248.9	0.71	0.224
P-DU7-230	12.0	1,714.00	120.0	-160.2	0.45	0.099
P-DU7-240	12.0	1,014.00	120.0	-109.5	0.31	0.049
P-DU8-010	16.0	1,107.00	120.0	-271.7	0.43	0.065
P-DU8-020	16.0	714.00	120.0	-254.9	0.41	0.058
P-DU8-030	16.0	1,312.00	120.0	-243.7	0.39	0.053
P-DU8-040	16.0	1,371.00	120.0	-287.6	0.46	0.072
P-DU8-050	16.0	520.00	120.0	-345.2	0.55	0.101
P-DU8-060	16.0	1,021.00	120.0	-455.3	0.73	0.169
P-DU8-070	8.0	542.00	120.0	-46.0	0.29	0.071
P-DU8-080	8.0	253.00	120.0	-16.5	0.11	0.010
P-DU8-090	8.0	1,138.00	120.0	-31.9	0.20	0.036
P-DU8-100	12.0	599.00	120.0	114.3	0.32	0.053
P-DU8-110	12.0	709.00	120.0	52.4	0.15	0.012
P-DU8-120	8.0	678.00	120.0	-38.6	0.25	0.051
P-DU8-130	8.0	1,315.00	120.0	20.8	0.13	0.016
P-DU8-140	8.0	966.00	120.0	9.4	0.06	0.004
P-DU8-150	6.0	737.00	120.0	1.0	0.01	0.000
P-DU8-160	8.0	1,265.00	120.0	13.2	0.08	0.007
P-DU8-170	8.0	2,613.00	120.0	1.0	0.01	0.000
P-DU8-180	8.0	1,778.00	120.0	-16.1	0.10	0.010
P-DU8-190	8.0	1,185.00	120.0	13.8	0.09	0.008
P-DU8-200	8.0	1,054.00	120.0	50.9	0.32	0.085
P-DU9-010	16.0	904.00	120.0	26.2	0.04	0.001
P-DU9-020	8.0	227.00	120.0	16.8	0.11	0.011
P-DU9-030	8.0	1,616.00	120.0	-10.3	0.07	0.004
P-DU9-040	8.0	746.00	120.0	-34.8	0.22	0.042
P-DU9-050	8.0	869.00	120.0	-11.2	0.07	0.005
P-DU9-060	8.0	1,550.00	120.0	-42.9	0.27	0.062
P-DU9-070	8.0	1,001.00	120.0	-8.9	0.06	0.003
P-DU9-080	8.0	644.00	120.0	-16.7	0.11	0.011
P-DU9-090	8.0	3,092.00	120.0	8.0	0.05	0.003
P-DU9-100	8.0	1,619.00	120.0	-17.4	0.11	0.012
P-DU9-110	8.0	3,057.00	120.0	-6.1	0.04	0.002
P-DU9-120	8.0	901.00	120.0	20.1	0.13	0.015
P-DU9-130	8.0	879.00	120.0	-54.2	0.35	0.096
P-DU9-140	8.0	430.00	120.0	-110.1	0.70	0.356
P-DU9-150	8.0	4,471.00	120.0	-24.5	0.16	0.022

Eastmark Master Water Report

Active Scenario: Avg Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-SCAP	48.0	1,752.00	120.0	-6,304.6	1.12	0.104

Max-Day Demand

Eastmark Master Water Report

Active Scenario: Max Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
C.O.M. DW SUPPLY FROM NORTH	1,634.0	721.5	1,634.0
SCAP DWPS	1,634.0	11,644.5	1,634.0

Eastmark Master Water Report

Active Scenario: Max Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
J-100EX	1,406.0	Desert Wells	0.0	94.8	1,625.0
J-110EX	1,418.0	Desert Wells	0.0	89.6	1,625.0
J-120EX	1,462.0	Desert Wells	0.0	74.2	1,633.4
J-135EX	1,460.0	Desert Wells	0.0	74.2	1,631.4
J-150EX	1,472.0	Desert Wells	0.0	68.0	1,629.1
J-160EX	1,435.0	Desert Wells	0.0	83.4	1,627.8
J-170EX	1,430.0	Desert Wells	0.0	85.5	1,627.6
J-180EX	1,410.0	Desert Wells	0.0	94.0	1,627.3
J-190EX	1,395.0	Desert Wells	0.0	100.3	1,626.8
J-200EX	1,385.0	Desert Wells	0.0	104.4	1,626.2
J-220EX	1,480.0	Desert Wells	0.0	65.5	1,631.3
J-230EX	1,475.0	Desert Wells	0.0	67.0	1,629.9
J-250EX	1,452.0	Desert Wells	15.6	76.6	1,629.0
J-260EX	1,453.0	Desert Wells	36.4	76.1	1,629.0
J-270	1,429.0	Desert Wells	0.0	85.9	1,627.6
J-280EX	1,460.0	Desert Wells	0.0	72.7	1,628.1
J-300EX	1,392.0	Desert Wells	108.0	101.1	1,625.6
J-320	1,422.0	Desert Wells	0.0	88.9	1,627.5
J-330EX	1,455.0	Desert Wells	0.0	75.0	1,628.4
J-340	1,440.0	Desert Wells	0.0	81.3	1,627.8
J-360EX	1,400.0	Desert Wells	0.0	97.4	1,625.1
J-550	1,425.0	Desert Wells	0.0	87.7	1,627.6
J-590EX	1,413.0	Desert Wells	0.0	91.7	1,625.0
J-920	1,434.0	Desert Wells	0.0	84.0	1,628.1
J-950	1,414.0	Desert Wells	0.0	91.9	1,626.4
J-960EX	1,402.0	Desert Wells	0.0	96.5	1,625.1
J-970EX	1,397.0	Desert Wells	0.0	98.7	1,625.1
J-1000EX	1,455.0	Desert Wells	0.0	77.4	1,633.9
J-1010EX	1,485.0	Desert Wells	0.0	64.3	1,633.7
J-1020EX	1,425.0	Desert Wells	0.0	90.4	1,633.9
J-1030EX	1,480.0	Desert Wells	0.0	66.6	1,634.0
J-1040EX	1,428.0	Desert Wells	200.6	85.3	1,625.1
J-1050EX	1,445.0	Desert Wells	0.0	79.4	1,628.6
J-1120EX	1,456.0	Desert Wells	0.0	74.8	1,629.0
J-1130EX	1,445.0	Desert Wells	1,361.0	78.6	1,626.7
J-1160EX	1,445.0	Desert Wells	0.0	81.7	1,633.9
J-1170EX	1,470.0	Desert Wells	0.0	70.9	1,633.8
J-1180EX	1,440.0	Desert Wells	0.0	83.9	1,633.9
J-1190EX	1,420.0	Desert Wells	0.0	92.6	1,633.9
J-1200EX	1,445.0	Desert Wells	0.0	81.7	1,633.9
J-1210EX	1,455.0	Desert Wells	0.0	77.3	1,633.8
J-1220EX	1,475.0	Desert Wells	0.0	68.6	1,633.6
J-1230EX	1,460.0	Desert Wells	0.0	72.8	1,628.2
J-1235EX	1,440.0	Desert Wells	0.0	81.5	1,628.4
J-1240EX	1,455.0	Desert Wells	0.0	75.1	1,628.6

Eastmark Master Water Report

Active Scenario: Max Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
J-1280	1,410.0	Desert Wells	0.0	94.0	1,627.3
J-1290EX	1,480.0	Desert Wells	0.0	66.5	1,633.6
J-1300EX	1,465.0	Desert Wells	0.0	73.0	1,633.8
J-1310EX	1,480.0	Desert Wells	0.0	66.5	1,633.7
J-1330EX	1,465.0	Desert Wells	0.0	73.0	1,633.8
J-1340EX	1,450.0	Desert Wells	0.0	79.5	1,633.9
J-1350EX	1,465.0	Desert Wells	0.0	73.0	1,633.8
J-1360EX	1,445.0	Desert Wells	0.0	81.7	1,633.9
J-1370EX	1,430.0	Desert Wells	0.0	88.2	1,633.9
J-1380EX	1,450.0	Desert Wells	0.0	79.6	1,633.9
J-1390EX	1,430.0	Desert Wells	0.0	88.2	1,633.9
J-1400EX	1,430.0	Desert Wells	0.0	88.2	1,633.9
J-1410	1,458.0	Desert Wells	0.0	75.0	1,631.3
J-1410EX	1,420.0	Desert Wells	0.0	92.6	1,633.9
J-1420EX	1,460.0	Desert Wells	0.0	73.3	1,629.5
J-1430EX	1,455.0	Desert Wells	0.0	75.6	1,629.8
J-1440EX	1,478.0	Desert Wells	0.0	66.0	1,630.5
J-1680EX	1,401.0	Desert Wells	0.0	96.9	1,625.1
J-1990EX	1,447.0	Desert Wells	52.2	78.6	1,628.7
J-2000EX	1,442.0	Desert Wells	0.0	80.6	1,628.4
J-2010	1,419.0	Desert Wells	0.0	90.2	1,627.4
J-2040	1,427.0	Desert Wells	0.0	86.8	1,627.5
J-2120EX	1,453.0	Desert Wells	0.0	76.1	1,628.8
J-2140EX	1,450.0	Desert Wells	495.8	76.9	1,627.7
J-2200	1,414.0	Desert Wells	0.0	92.0	1,626.6
J-2295	1,415.0	Desert Wells	0.0	91.4	1,626.3
J-2340EX	1,434.0	Desert Wells	962.2	82.7	1,625.3
J-2346	1,445.7	Desert Wells	0.0	78.4	1,626.8
J-2353	1,456.0	Desert Wells	0.0	75.5	1,630.4
J-2354	1,453.4	Desert Wells	0.0	76.4	1,629.9
J-DU3-4-010	1,405.0	Desert Wells	177.8	95.5	1,625.7
J-DU3-4-020	1,402.0	Desert Wells	177.8	96.8	1,625.7
J-DU3-4-030	1,392.0	Desert Wells	231.0	101.1	1,625.6
J-DU3-4-040	1,403.0	Desert Wells	52.6	96.4	1,625.7
J-DU3-4-050	1,408.0	Desert Wells	13.0	94.2	1,625.6
J-DU3-4-060	1,408.0	Desert Wells	31.8	94.0	1,625.3
J-DU3-4-070	1,404.0	Desert Wells	48.6	95.8	1,625.3
J-DU3-4-080	1,400.0	Desert Wells	76.2	97.5	1,625.3
J-DU3-4-090	1,393.0	Desert Wells	7.8	100.5	1,625.3
J-DU3-4-100	1,391.0	Desert Wells	177.4	101.5	1,625.6
J-DU3-4-110	1,393.0	Desert Wells	7.8	100.5	1,625.2
J-DU3-4-120	1,393.0	Desert Wells	13.8	100.4	1,625.1
J-DU3-4-130	1,395.0	Desert Wells	15.2	99.6	1,625.1
J-DU3-4-140	1,403.0	Desert Wells	36.0	96.1	1,625.0
J-DU3-4-150	1,407.0	Desert Wells	28.0	94.4	1,625.2

Eastmark Master Water Report

Active Scenario: Max Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
J-DU3-4-160	1,406.0	Desert Wells	0.0	94.7	1,624.9
J-DU3-4-170	1,410.0	Desert Wells	169.8	93.0	1,624.8
J-DU3-4-200	1,412.5	Desert Wells	50.8	92.3	1,625.7
J-DU3-4-210	1,406.0	Desert Wells	262.4	94.9	1,625.5
J-DU3S-010	1,412.0	Desert Wells	20.4	92.6	1,626.1
J-DU3S-020	1,407.0	Desert Wells	22.0	94.7	1,625.8
J-DU3S-030	1,401.0	Desert Wells	30.0	97.2	1,625.7
J-DU3S-040	1,399.0	Desert Wells	22.0	98.1	1,625.7
J-DU3S-050	1,404.0	Desert Wells	24.2	95.9	1,625.7
J-DU3S-060	1,410.0	Desert Wells	23.6	93.4	1,625.8
J-DU3S-070	1,417.0	Desert Wells	14.0	90.4	1,626.0
J-DU3S-080	1,396.0	Desert Wells	175.0	99.4	1,625.6
J-DU5N-010	1,435.5	Desert Wells	865.2	81.2	1,623.1
J-DU5N-020	1,424.5	Desert Wells	865.2	85.8	1,622.8
J-DU5N-030	1,426.0	Desert Wells	102.4	85.5	1,623.6
J-DU5N-040	1,414.0	Desert Wells	102.4	91.2	1,624.8
J-DU5N-050	1,414.0	Desert Wells	0.0	91.2	1,624.8
J-DU5N-060	1,417.0	Desert Wells	103.6	90.0	1,624.9
J-DU6-010	1,459.0	Desert Wells	0.0	73.5	1,629.0
J-DU6-020	1,453.0	Desert Wells	846.0	76.1	1,628.8
J-DU6-050	1,448.0	Desert Wells	0.0	78.4	1,629.1
J-DU6-060	1,458.0	Desert Wells	846.0	74.1	1,629.3
J-DU6-070	1,452.0	Desert Wells	100.4	76.1	1,627.8
J-DU6-080	1,446.0	Desert Wells	100.4	78.0	1,626.3
J-DU6-090	1,435.0	Desert Wells	100.4	81.9	1,624.2
J-DU6-100	1,437.5	Desert Wells	100.4	80.5	1,623.5
J-DU6-110	1,432.0	Desert Wells	98.2	82.8	1,623.5
J-DU6-120	1,422.0	Desert Wells	100.6	87.7	1,624.8
J-DU6-130	1,416.0	Desert Wells	139.6	90.4	1,624.8
J-DU6-140	1,417.0	Desert Wells	96.8	90.1	1,625.3
J-DU6-150	1,427.0	Desert Wells	84.6	86.0	1,625.9
J-DU6-160	1,436.0	Desert Wells	97.2	82.2	1,625.9
J-DU6-170	1,416.5	Desert Wells	736.0	90.2	1,624.9
J-DU7-010	1,415.0	Desert Wells	13.0	91.3	1,626.1
J-DU7-020	1,425.0	Desert Wells	50.8	86.9	1,625.9
J-DU7-030	1,416.0	Desert Wells	0.0	90.8	1,625.8
J-DU7-040	1,409.0	Desert Wells	18.8	93.8	1,625.8
J-DU7-050	1,416.0	Desert Wells	95.4	90.9	1,626.0
J-DU7-060	1,423.0	Desert Wells	22.2	88.0	1,626.3
J-DU7-070	1,430.0	Desert Wells	0.0	85.1	1,626.7
J-DU7-080	1,434.0	Desert Wells	81.0	83.7	1,627.4
J-DU7-090	1,437.0	Desert Wells	0.0	82.8	1,628.4
J-DU7-100	1,435.0	Desert Wells	57.8	83.4	1,627.7
J-DU7-110	1,435.0	Desert Wells	57.6	83.0	1,626.8
J-DU7-120	1,420.0	Desert Wells	5.2	89.2	1,626.2

Eastmark Master Water Report

Active Scenario: Max Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
J-DU7-130	1,420.0	Desert Wells	289.0	89.2	1,626.2
J-DU7-140	1,425.0	Desert Wells	99.8	87.0	1,626.1
J-DU7-150	1,419.0	Desert Wells	32.6	89.6	1,626.0
J-DU7-160	1,435.0	Desert Wells	48.0	82.9	1,626.7
J-DU7-170	1,432.0	Desert Wells	21.4	84.2	1,626.7
J-DU7-180	1,433.0	Desert Wells	37.4	83.9	1,626.9
J-DU7-190	1,437.0	Desert Wells	60.2	82.4	1,627.6
J-DU7-200	1,432.0	Desert Wells	101.4	84.0	1,626.2
J-DU8-010	1,420.0	Desert Wells	0.0	89.3	1,626.4
J-DU8-020	1,419.5	Desert Wells	0.0	89.6	1,626.5
J-DU8-030	1,421.0	Desert Wells	0.0	89.0	1,626.7
J-DU8-040	1,418.0	Desert Wells	13.4	90.4	1,627.0
J-DU8-050	1,422.0	Desert Wells	0.0	88.7	1,627.1
J-DU8-060	1,420.0	Desert Wells	18.0	89.4	1,626.6
J-DU8-070	1,420.0	Desert Wells	30.8	89.4	1,626.6
J-DU8-080	1,422.0	Desert Wells	8.8	88.6	1,626.7
J-DU8-090	1,424.0	Desert Wells	22.0	87.7	1,626.7
J-DU8-100	1,425.0	Desert Wells	18.4	87.3	1,626.7
J-DU8-110	1,430.0	Desert Wells	66.0	85.1	1,626.6
J-DU8-120	1,431.0	Desert Wells	34.2	84.6	1,626.6
J-DU8-130	1,427.0	Desert Wells	42.0	86.4	1,626.7
J-DU9-010	1,419.0	Desert Wells	39.4	89.7	1,626.4
J-DU9-020	1,415.0	Desert Wells	71.6	91.5	1,626.4
J-DU9-030	1,416.0	Desert Wells	65.2	91.0	1,626.4
J-DU9-040	1,416.0	Desert Wells	15.6	91.0	1,626.4
J-DU9-050	1,419.0	Desert Wells	0.0	89.7	1,626.4
J-DU9-060	1,422.0	Desert Wells	62.8	88.5	1,626.6
J-DU9-070	1,414.0	Desert Wells	63.0	91.9	1,626.3
J-DU9-080	1,419.0	Desert Wells	77.0	89.7	1,626.3

Eastmark Master Water Report

Active Scenario: Max Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-160EX	16.0	2,722.00	120.0	247.6	0.40	0.055
P-170EX	16.0	5,366.00	120.0	247.6	0.40	0.055
P-180EX	16.0	5,396.00	120.0	347.1	0.55	0.102
P-190EX	16.0	5,728.00	120.0	347.1	0.55	0.102
P-200EX	16.0	889.00	120.0	-1,317.2	2.10	1.206
P-210EX	16.0	510.00	120.0	-1,813.0	2.89	2.179
P-220EX	16.0	2,909.00	120.0	996.4	1.59	0.719
P-240EX	16.0	1,387.00	120.0	-2,270.5	3.62	3.306
P-250EX	16.0	2,611.00	120.0	635.4	1.01	0.313
P-310	30.0	4,937.00	120.0	2,122.3	0.96	0.137
P-340EX	16.0	5,775.00	120.0	247.6	0.40	0.055
P-410EX	16.0	5,368.00	120.0	347.1	0.55	0.102
P-970	24.0	1,001.00	120.0	1,442.1	1.02	0.198
P-980	24.0	1,935.00	120.0	624.2	0.44	0.042
P-1060EX	16.0	1,328.00	120.0	132.1	0.21	0.017
P-1070EX	16.0	1,257.00	120.0	132.1	0.21	0.017
P-1400	16.0	1,688.00	120.0	-202.8	0.32	0.038
P-1630EX	16.0	1,793.00	120.0	183.2	0.29	0.031
P-1640EX	16.0	1,335.00	120.0	467.3	0.75	0.177
P-1780	24.0	1,528.00	120.0	1,442.1	1.02	0.198
P-1790	24.0	1,115.00	120.0	1,442.1	1.02	0.198
P-1940EX	16.0	1,976.00	120.0	132.1	0.21	0.017
P-1950EX	16.0	637.00	120.0	132.1	0.21	0.017
P-1970EX	16.0	927.00	120.0	369.4	0.59	0.115
P-1980EX	16.0	1,106.00	120.0	361.6	0.58	0.110
P-2000EX	16.0	1,599.00	120.0	-231.0	0.37	0.048
P-2040EX	16.0	10,635.00	120.0	-168.1	0.27	0.027
P-2055EX	16.0	10,453.00	120.0	75.7	0.12	0.006
P-2070EX	24.0	5,329.00	120.0	-477.7	0.34	0.026
P-2500EX	24.0	2,750.00	120.0	500.8	0.36	0.028
P-2510EX	24.0	2,726.00	120.0	479.2	0.34	0.026
P-2540EX	12.0	2,624.00	120.0	-59.1	0.17	0.016
P-2570EX	16.0	2,640.00	120.0	0.0	0.00	0.000
P-2655EX	16.0	2,870.00	120.0	247.6	0.40	0.055
P-2660EX	24.0	2,797.00	120.0	721.5	0.51	0.055
P-2665EX	16.0	2,716.00	120.0	247.6	0.40	0.055
P-2690EX	16.0	2,914.00	120.0	-172.6	0.28	0.028
P-2700EX	16.0	3,115.00	120.0	462.8	0.74	0.174
P-2710EX	16.0	1,823.00	120.0	346.5	0.55	0.102
P-2720EX	12.0	3,042.00	120.0	-116.3	0.33	0.055
P-2800	24.0	5,786.00	120.0	-99.5	0.07	0.001
P-2830	16.0	2,890.00	120.0	98.8	0.16	0.010
P-2860EX	24.0	761.00	120.0	721.5	0.51	0.055
P-2880EX	12.0	383.00	120.0	0.0	0.00	0.000
P-2890EX	8.0	3,148.00	120.0	-37.6	0.24	0.048

Eastmark Master Water Report

Active Scenario: Max Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-2900	24.0	1,423.00	120.0	647.3	0.46	0.045
P-2910EX	24.0	497.00	120.0	683.9	0.49	0.050
P-2950	12.0	1,089.00	120.0	21.6	0.06	0.002
P-2970EX	12.0	1,119.00	120.0	34.7	0.10	0.006
P-2990EX	8.0	2,811.00	120.0	-26.7	0.17	0.026
P-3010EX	12.0	471.00	120.0	37.6	0.11	0.006
P-3020EX	12.0	1,167.00	120.0	8.0	0.02	0.000
P-3030EX	12.0	378.00	120.0	0.0	0.00	0.000
P-3040EX	8.0	3,081.00	120.0	-25.9	0.17	0.024
P-3060	12.0	595.00	120.0	0.0	0.00	0.000
P-3070EX	8.0	2,922.00	120.0	-17.9	0.11	0.012
P-3080EX	12.0	1,397.00	120.0	-57.8	0.16	0.015
P-3090EX	12.0	1,109.00	120.0	-46.1	0.13	0.010
P-3100EX	12.0	695.00	120.0	12.9	0.04	0.001
P-3110EX	12.0	664.00	120.0	1.3	0.00	0.000
P-3120EX	8.0	1,851.00	120.0	-11.6	0.07	0.006
P-3130	12.0	1,155.00	120.0	17.9	0.05	0.002
P-3140EX	16.0	1,783.00	120.0	16.7	0.03	0.000
P-3150EX	16.0	958.00	120.0	0.0	0.00	0.000
P-3160EX	8.0	3,801.00	120.0	-16.7	0.11	0.011
P-3170EX	8.0	2,838.00	120.0	-36.6	0.23	0.046
P-3180EX	8.0	736.00	120.0	11.7	0.07	0.004
P-3190EX	30.0	2,559.00	120.0	5,652.2	2.57	0.838
P-3240EX	16.0	1,263.00	120.0	709.5	1.13	0.383
P-3250EX	12.0	844.00	120.0	-361.0	1.02	0.445
P-3260EX	16.0	1,108.00	120.0	996.4	1.59	0.719
P-3270EX	16.0	1,509.00	120.0	733.9	1.17	0.408
P-3280EX	12.0	2,890.00	120.0	-262.5	0.74	0.247
P-3290EX	12.0	2,432.00	120.0	98.5	0.28	0.040
P-3930EX	16.0	794.00	120.0	132.1	0.21	0.017
P-3940EX	16.0	509.00	120.0	132.1	0.21	0.017
P-3970EX	16.0	1,445.00	120.0	-132.1	0.21	0.017
P-4720EX	16.0	1,216.00	120.0	602.1	0.96	0.283
P-4730EX	16.0	456.00	120.0	549.9	0.88	0.239
P-4750EX	16.0	715.00	120.0	549.9	0.88	0.239
P-4760EX	16.0	774.00	120.0	50.5	0.08	0.003
P-4780	24.0	2,143.00	120.0	624.2	0.44	0.042
P-4790EX	16.0	1,816.00	120.0	166.8	0.27	0.026
P-4860	24.0	986.00	120.0	-624.2	0.44	0.042
P-4870	24.0	620.00	120.0	-624.2	0.44	0.042
P-5700EX	16.0	1,176.00	120.0	1,583.1	2.53	1.695
P-5710EX	16.0	1,171.00	120.0	1,583.1	2.53	1.695
P-5740	24.0	1,548.00	120.0	-624.2	0.44	0.042
P-5770	16.0	1,043.00	120.0	-179.5	0.29	0.030
P-5780	16.0	684.00	120.0	-215.9	0.34	0.042

Eastmark Master Water Report

Active Scenario: Max Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-6064	16.0	846.00	120.0	-524.7	0.84	0.219
P-6065	16.0	3,443.00	120.0	-524.7	0.84	0.219
P-6070	16.0	247.00	120.0	-481.6	0.77	0.187
P-6166EX	16.0	1,247.00	120.0	-431.6	0.69	0.153
P-6167EX	16.0	2,351.00	120.0	-904.0	1.44	0.601
P-6189	16.0	269.00	120.0	-947.7	1.51	0.655
P-6198	30.0	1,017.00	120.0	5,652.2	2.57	0.838
P-6199	30.0	1,680.00	120.0	5,652.2	2.57	0.838
P-6202	16.0	2,580.00	120.0	916.1	1.46	0.616
P-6203	16.0	1,345.00	120.0	-1,863.9	2.97	2.294
P-6204	16.0	1,529.00	120.0	-1,863.9	2.97	2.294
P-7000	12.0	742.00	120.0	-298.5	0.85	0.313
P-COMWTREX	36.0	10.00	120.0	721.5	0.23	0.012
P-DU-3-4-080	12.0	1,214.00	120.0	-34.7	0.10	0.006
P-DU-3-4-090	12.0	979.00	120.0	13.9	0.04	0.001
P-DU-3-4-100	12.0	717.00	120.0	-90.1	0.26	0.034
P-DU-3-4-110	16.0	597.00	120.0	215.7	0.34	0.042
P-DU-3-4-120	16.0	1,296.00	120.0	200.5	0.32	0.037
P-DU-3-4-130	12.0	1,079.00	120.0	-187.0	0.53	0.132
P-DU-3-4-70	12.0	1,088.00	120.0	-281.5	0.80	0.281
P-DU-3S-130	16.0	2,122.00	120.0	-465.6	0.74	0.176
P-DU3-4-010	12.0	2,097.00	120.0	-51.1	0.14	0.012
P-DU3-4-020	24.0	1,134.00	120.0	-461.5	0.33	0.024
P-DU3-4-060	12.0	553.00	120.0	-294.5	0.84	0.306
P-DU3-4-160	12.0	822.00	120.0	-215.0	0.61	0.171
P-DU3-4-170	16.0	1,033.00	120.0	351.5	0.56	0.104
P-DU3-4-180	16.0	876.00	120.0	351.5	0.56	0.104
P-DU3-4-190	16.0	1,406.00	120.0	-21.1	0.03	0.001
P-DU3-4-200	8.0	1,001.00	120.0	90.7	0.58	0.249
P-DU3-4-210	8.0	1,083.00	120.0	-93.7	0.60	0.264
P-DU3-4-220	8.0	2,361.00	120.0	78.0	0.50	0.188
P-DU3-4-30	24.0	1,272.00	120.0	-641.4	0.45	0.044
P-DU3-4-40	24.0	496.00	120.0	-819.2	0.58	0.070
P-DU3-4-50	24.0	1,092.00	120.0	-962.5	0.68	0.094
P-DU3S-010	8.0	261.00	120.0	183.1	1.17	0.913
P-DU3S-020	8.0	1,374.00	120.0	78.2	0.50	0.189
P-DU3S-030	8.0	1,542.00	120.0	56.2	0.36	0.103
P-DU3S-040	8.0	1,242.00	120.0	26.2	0.17	0.025
P-DU3S-050	8.0	801.00	120.0	-26.9	0.17	0.026
P-DU3S-060	8.0	974.00	120.0	-22.7	0.14	0.019
P-DU3S-070	8.0	1,384.00	120.0	-46.9	0.30	0.073
P-DU3S-080	8.0	1,241.00	120.0	-70.5	0.45	0.156
P-DU3S-090	8.0	621.00	120.0	-84.5	0.54	0.218
P-DU3S-100	16.0	1,114.00	120.0	-55.9	0.09	0.004
P-DU3S-110	16.0	1,525.00	120.0	-143.2	0.23	0.020

Eastmark Master Water Report

Active Scenario: Max Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-DU3S-120	16.0	822.00	120.0	-321.0	0.51	0.088
P-DU5N-010	12.0	334.00	120.0	-661.4	1.88	1.367
P-DU5N-020	12.0	1,978.00	120.0	-181.4	0.51	0.124
P-DU5N-030	12.0	529.00	120.0	-683.8	1.94	1.454
P-DU5N-040	12.0	2,743.00	120.0	-426.3	1.21	0.606
P-DU5N-040	12.0	2,697.00	120.0	359.9	1.02	0.443
P-DU5N-050	16.0	779.00	120.0	259.5	0.41	0.060
P-DU5N-060	16.0	1,403.00	120.0	259.5	0.41	0.060
P-DU5N-070	16.0	638.00	120.0	363.1	0.58	0.111
P-DU6-010	12.0	1,163.00	120.0	194.0	0.55	0.141
P-DU6-020	16.0	124.00	120.0	457.4	0.73	0.169
P-DU6-050	12.0	2,221.00	120.0	-194.5	0.55	0.142
P-DU6-060	12.0	2,209.00	120.0	194.0	0.55	0.141
P-DU6-070	16.0	142.00	120.0	1,234.6	1.97	1.069
P-DU6-080	12.0	1,135.00	120.0	194.5	0.55	0.142
P-DU6-130	12.0	500.00	120.0	889.0	2.52	2.364
P-DU6-140	12.0	768.00	120.0	788.6	2.24	1.894
P-DU6-150	12.0	1,433.00	120.0	688.2	1.95	1.471
P-DU6-180	12.0	1,702.00	120.0	-483.3	1.37	0.765
P-DU6-190	12.0	1,448.00	120.0	477.4	1.35	0.747
P-DU6-200	12.0	1,666.00	120.0	106.5	0.30	0.046
P-DU6-210	16.0	548.00	120.0	-267.2	0.43	0.063
P-DU6-220	16.0	1,003.00	120.0	-1,008.1	1.61	0.735
P-DU6-230	8.0	2,333.00	120.0	92.0	0.59	0.255
P-DU6-240	12.0	696.00	120.0	628.4	1.78	1.243
P-DU6-250	8.0	2,342.00	120.0	-25.6	0.16	0.024
P-DU6-260	8.0	656.00	120.0	-296.8	1.89	2.234
P-DU6-270	12.0	803.00	120.0	385.1	1.09	0.502
P-DU6-280	12.0	395.00	120.0	761.8	2.16	1.776
P-DU6-290	8.0	2,027.00	120.0	174.0	1.11	0.831
P-DU6-300	16.0	515.00	120.0	-1,003.2	1.60	0.728
P-DU7-010	12.0	1,115.00	120.0	229.9	0.65	0.193
P-DU7-020	12.0	1,147.00	120.0	-101.1	0.29	0.042
P-DU7-030	12.0	1,044.00	120.0	-101.1	0.29	0.042
P-DU7-040	24.0	1,410.00	120.0	-1,174.7	0.83	0.135
P-DU7-050	24.0	1,075.00	120.0	-1,827.9	1.30	0.307
P-DU7-060	24.0	1,254.00	120.0	-1,850.1	1.31	0.314
P-DU7-070	24.0	1,205.00	120.0	-2,491.1	1.77	0.545
P-DU7-080	24.0	2,339.00	120.0	-2,868.9	2.03	0.707
P-DU7-090	16.0	941.00	120.0	-945.9	1.51	0.653
P-DU7-100	16.0	1,562.00	120.0	-888.1	1.42	0.581
P-DU7-110	16.0	1,742.00	120.0	-677.7	1.08	0.352
P-DU7-120	16.0	778.00	120.0	410.0	0.65	0.139
P-DU7-130	20.0	317.00	120.0	-693.6	0.71	0.124
P-DU7-140	20.0	1,207.00	120.0	-404.6	0.41	0.046

Eastmark Master Water Report

Active Scenario: Max Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-DU7-150	20.0	1,514.00	120.0	-482.9	0.49	0.063
P-DU7-160	20.0	619.00	120.0	-450.3	0.46	0.056
P-DU7-170	12.0	1,073.00	120.0	-12.7	0.04	0.001
P-DU7-180	12.0	828.00	120.0	-35.3	0.10	0.006
P-DU7-190	12.0	399.00	120.0	-336.2	0.95	0.391
P-DU7-200	12.0	2,378.00	120.0	65.6	0.19	0.019
P-DU7-210	12.0	1,049.00	120.0	-499.4	1.42	0.812
P-DU7-220	12.0	1,054.00	120.0	-439.2	1.25	0.640
P-DU7-230	12.0	1,714.00	120.0	-279.5	0.79	0.277
P-DU7-240	12.0	1,014.00	120.0	-178.1	0.51	0.120
P-DU8-010	16.0	1,107.00	120.0	-431.1	0.69	0.152
P-DU8-020	16.0	714.00	120.0	-431.0	0.69	0.152
P-DU8-030	16.0	1,312.00	120.0	-421.5	0.67	0.146
P-DU8-040	16.0	1,371.00	120.0	-508.2	0.81	0.207
P-DU8-050	16.0	520.00	120.0	-614.0	0.98	0.293
P-DU8-060	16.0	1,021.00	120.0	-817.9	1.31	0.499
P-DU8-070	8.0	542.00	120.0	-77.8	0.50	0.187
P-DU8-080	8.0	253.00	120.0	-27.1	0.17	0.026
P-DU8-090	8.0	1,138.00	120.0	-57.9	0.37	0.108
P-DU8-100	12.0	599.00	120.0	218.3	0.62	0.175
P-DU8-110	12.0	709.00	120.0	99.3	0.28	0.041
P-DU8-120	8.0	678.00	120.0	-68.7	0.44	0.149
P-DU8-130	8.0	1,315.00	120.0	42.7	0.27	0.062
P-DU8-140	8.0	966.00	120.0	21.8	0.14	0.018
P-DU8-150	6.0	737.00	120.0	7.2	0.08	0.009
P-DU8-160	8.0	1,265.00	120.0	27.7	0.18	0.028
P-DU8-170	8.0	2,613.00	120.0	4.4	0.03	0.001
P-DU8-180	8.0	1,778.00	120.0	-29.8	0.19	0.032
P-DU8-190	8.0	1,185.00	120.0	20.6	0.13	0.016
P-DU8-200	8.0	1,054.00	120.0	92.4	0.59	0.257
P-DU9-010	16.0	904.00	120.0	43.1	0.07	0.002
P-DU9-020	8.0	227.00	120.0	0.1	0.00	0.000
P-DU9-030	8.0	1,616.00	120.0	3.6	0.02	0.001
P-DU9-040	8.0	746.00	120.0	-68.3	0.44	0.147
P-DU9-050	8.0	869.00	120.0	0.3	0.00	0.000
P-DU9-060	8.0	1,550.00	120.0	-79.4	0.51	0.195
P-DU9-070	8.0	1,001.00	120.0	-6.2	0.04	0.002
P-DU9-080	8.0	644.00	120.0	-21.8	0.14	0.018
P-DU9-090	8.0	3,092.00	120.0	20.7	0.13	0.016
P-DU9-100	8.0	1,619.00	120.0	-33.3	0.21	0.039
P-DU9-110	8.0	3,057.00	120.0	-9.0	0.06	0.003
P-DU9-120	8.0	901.00	120.0	41.4	0.26	0.058
P-DU9-130	8.0	879.00	120.0	-96.5	0.62	0.279
P-DU9-140	8.0	430.00	120.0	-203.9	1.30	1.114
P-DU9-150	8.0	4,471.00	120.0	-44.5	0.28	0.067

Eastmark Master Water Report

Active Scenario: Max Day Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-SCAP	48.0	1,752.00	120.0	-11,644.5	2.06	0.324

Peak-Hour Demand

Eastmark Master Water Report

Active Scenario: Peak Hour Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Reservoir Table

Label	Elevation (ft)	Flow (Out net) (gpm)	Hydraulic Grade (ft)
C.O.M. DW SUPPLY FROM NORTH	1,634.0	1,052.3	1,634.0
SCAP DWPS	1,634.0	16,984.2	1,634.0

Eastmark Master Water Report

Active Scenario: Peak Hour Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
J-100EX	1,406.0	Desert Wells	0.0	90.9	1,616.1
J-110EX	1,418.0	Desert Wells	0.0	85.7	1,616.0
J-120EX	1,462.0	Desert Wells	0.0	73.9	1,632.9
J-135EX	1,460.0	Desert Wells	0.0	73.0	1,628.8
J-150EX	1,472.0	Desert Wells	0.0	65.9	1,624.2
J-160EX	1,435.0	Desert Wells	0.0	80.7	1,621.6
J-170EX	1,430.0	Desert Wells	0.0	82.8	1,621.3
J-180EX	1,410.0	Desert Wells	0.0	91.2	1,620.7
J-190EX	1,395.0	Desert Wells	0.0	97.2	1,619.6
J-200EX	1,385.0	Desert Wells	0.0	101.0	1,618.5
J-220EX	1,480.0	Desert Wells	0.0	64.3	1,628.7
J-230EX	1,475.0	Desert Wells	0.0	65.3	1,625.8
J-250EX	1,452.0	Desert Wells	23.4	74.5	1,624.1
J-260EX	1,453.0	Desert Wells	54.6	74.0	1,624.0
J-270	1,429.0	Desert Wells	0.0	83.1	1,621.2
J-280EX	1,460.0	Desert Wells	0.0	70.2	1,622.2
J-300EX	1,392.0	Desert Wells	162.0	97.5	1,617.4
J-320	1,422.0	Desert Wells	0.0	86.1	1,621.0
J-330EX	1,455.0	Desert Wells	0.0	72.6	1,622.8
J-340	1,440.0	Desert Wells	0.0	78.6	1,621.7
J-360EX	1,400.0	Desert Wells	0.0	93.6	1,616.3
J-550	1,425.0	Desert Wells	0.0	84.9	1,621.3
J-590EX	1,413.0	Desert Wells	0.0	87.9	1,616.1
J-920	1,434.0	Desert Wells	0.0	81.4	1,622.2
J-950	1,414.0	Desert Wells	0.0	88.7	1,618.9
J-960EX	1,402.0	Desert Wells	0.0	92.7	1,616.2
J-970EX	1,397.0	Desert Wells	0.0	94.9	1,616.3
J-1000EX	1,455.0	Desert Wells	0.0	77.3	1,633.7
J-1010EX	1,485.0	Desert Wells	0.0	64.2	1,633.4
J-1020EX	1,425.0	Desert Wells	0.0	90.4	1,633.9
J-1030EX	1,480.0	Desert Wells	0.0	66.6	1,634.0
J-1040EX	1,428.0	Desert Wells	300.9	81.4	1,616.1
J-1050EX	1,445.0	Desert Wells	0.0	77.1	1,623.2
J-1120EX	1,456.0	Desert Wells	0.0	72.6	1,623.9
J-1130EX	1,445.0	Desert Wells	2,041.5	75.3	1,619.1
J-1160EX	1,445.0	Desert Wells	0.0	81.6	1,633.7
J-1170EX	1,470.0	Desert Wells	0.0	70.8	1,633.6
J-1180EX	1,440.0	Desert Wells	0.0	83.8	1,633.8
J-1190EX	1,420.0	Desert Wells	0.0	92.5	1,633.9
J-1200EX	1,445.0	Desert Wells	0.0	81.7	1,633.8
J-1210EX	1,455.0	Desert Wells	0.0	77.3	1,633.6
J-1220EX	1,475.0	Desert Wells	0.0	68.4	1,633.2
J-1230EX	1,460.0	Desert Wells	0.0	70.3	1,622.5
J-1235EX	1,440.0	Desert Wells	0.0	79.1	1,622.9
J-1240EX	1,455.0	Desert Wells	0.0	72.8	1,623.2

Eastmark Master Water Report

Active Scenario: Peak Hour Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
J-1280	1,410.0	Desert Wells	0.0	91.2	1,620.7
J-1290EX	1,480.0	Desert Wells	0.0	66.3	1,633.3
J-1300EX	1,465.0	Desert Wells	0.0	72.9	1,633.6
J-1310EX	1,480.0	Desert Wells	0.0	66.3	1,633.3
J-1330EX	1,465.0	Desert Wells	0.0	72.9	1,633.6
J-1340EX	1,450.0	Desert Wells	0.0	79.5	1,633.7
J-1350EX	1,465.0	Desert Wells	0.0	72.9	1,633.6
J-1360EX	1,445.0	Desert Wells	0.0	81.6	1,633.7
J-1370EX	1,430.0	Desert Wells	0.0	88.2	1,633.8
J-1380EX	1,450.0	Desert Wells	0.0	79.5	1,633.8
J-1390EX	1,430.0	Desert Wells	0.0	88.2	1,633.8
J-1400EX	1,430.0	Desert Wells	0.0	88.2	1,633.8
J-1410	1,458.0	Desert Wells	0.0	73.8	1,628.6
J-1410EX	1,420.0	Desert Wells	0.0	92.5	1,633.9
J-1420EX	1,460.0	Desert Wells	0.0	71.3	1,624.8
J-1430EX	1,455.0	Desert Wells	0.0	73.8	1,625.6
J-1440EX	1,478.0	Desert Wells	0.0	64.5	1,627.1
J-1680EX	1,401.0	Desert Wells	0.0	93.1	1,616.2
J-1990EX	1,447.0	Desert Wells	78.3	76.3	1,623.4
J-2000EX	1,442.0	Desert Wells	0.0	78.2	1,622.9
J-2010	1,419.0	Desert Wells	0.0	87.3	1,620.9
J-2040	1,427.0	Desert Wells	0.0	84.0	1,621.1
J-2120EX	1,453.0	Desert Wells	0.0	73.8	1,623.5
J-2140EX	1,450.0	Desert Wells	743.7	74.1	1,621.3
J-2200	1,414.0	Desert Wells	0.0	88.8	1,619.3
J-2295	1,415.0	Desert Wells	0.0	88.2	1,618.8
J-2340EX	1,434.0	Desert Wells	1,443.3	78.9	1,616.4
J-2346	1,445.7	Desert Wells	0.0	75.2	1,619.5
J-2353	1,456.0	Desert Wells	0.0	73.9	1,626.9
J-2354	1,453.4	Desert Wells	0.0	74.6	1,625.7
J-DU3-4-010	1,405.0	Desert Wells	266.7	91.9	1,617.4
J-DU3-4-020	1,402.0	Desert Wells	266.7	93.2	1,617.5
J-DU3-4-030	1,392.0	Desert Wells	346.5	97.5	1,617.3
J-DU3-4-040	1,403.0	Desert Wells	78.9	92.8	1,617.5
J-DU3-4-050	1,408.0	Desert Wells	19.5	90.6	1,617.4
J-DU3-4-060	1,408.0	Desert Wells	47.7	90.3	1,616.8
J-DU3-4-070	1,404.0	Desert Wells	72.9	92.1	1,616.8
J-DU3-4-080	1,400.0	Desert Wells	114.3	93.8	1,616.8
J-DU3-4-090	1,393.0	Desert Wells	11.7	96.8	1,616.8
J-DU3-4-100	1,391.0	Desert Wells	266.1	97.9	1,617.3
J-DU3-4-110	1,393.0	Desert Wells	11.7	96.8	1,616.6
J-DU3-4-120	1,393.0	Desert Wells	20.7	96.6	1,616.4
J-DU3-4-130	1,395.0	Desert Wells	22.8	95.8	1,616.3
J-DU3-4-140	1,403.0	Desert Wells	54.0	92.3	1,616.3
J-DU3-4-150	1,407.0	Desert Wells	42.0	90.7	1,616.5

Eastmark Master Water Report

Active Scenario: Peak Hour Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
J-DU3-4-160	1,406.0	Desert Wells	0.0	90.9	1,616.1
J-DU3-4-170	1,410.0	Desert Wells	254.7	89.1	1,616.0
J-DU3-4-200	1,412.5	Desert Wells	76.2	88.7	1,617.6
J-DU3-4-210	1,406.0	Desert Wells	393.6	91.3	1,617.0
J-DU3S-010	1,412.0	Desert Wells	30.6	89.3	1,618.3
J-DU3S-020	1,407.0	Desert Wells	33.0	91.2	1,617.8
J-DU3S-030	1,401.0	Desert Wells	45.0	93.7	1,617.5
J-DU3S-040	1,399.0	Desert Wells	33.0	94.5	1,617.4
J-DU3S-050	1,404.0	Desert Wells	36.3	92.4	1,617.5
J-DU3S-060	1,410.0	Desert Wells	35.4	89.8	1,617.7
J-DU3S-070	1,417.0	Desert Wells	21.0	87.0	1,618.1
J-DU3S-080	1,396.0	Desert Wells	262.5	95.8	1,617.4
J-DU5N-010	1,435.5	Desert Wells	1,297.8	76.3	1,611.9
J-DU5N-020	1,424.5	Desert Wells	1,297.8	80.9	1,611.4
J-DU5N-030	1,426.0	Desert Wells	153.6	80.9	1,613.0
J-DU5N-040	1,414.0	Desert Wells	153.6	87.3	1,615.7
J-DU5N-050	1,414.0	Desert Wells	0.0	87.3	1,615.8
J-DU5N-060	1,417.0	Desert Wells	155.4	86.1	1,615.9
J-DU6-010	1,459.0	Desert Wells	0.0	71.3	1,623.8
J-DU6-020	1,453.0	Desert Wells	1,269.0	73.8	1,623.5
J-DU6-050	1,448.0	Desert Wells	0.0	76.2	1,624.1
J-DU6-060	1,458.0	Desert Wells	1,269.0	72.0	1,624.5
J-DU6-070	1,452.0	Desert Wells	150.6	73.3	1,621.5
J-DU6-080	1,446.0	Desert Wells	150.6	74.6	1,618.5
J-DU6-090	1,435.0	Desert Wells	150.6	77.6	1,614.3
J-DU6-100	1,437.5	Desert Wells	150.6	75.9	1,612.8
J-DU6-110	1,432.0	Desert Wells	147.3	78.2	1,612.8
J-DU6-120	1,422.0	Desert Wells	150.9	83.8	1,615.7
J-DU6-130	1,416.0	Desert Wells	209.4	86.5	1,616.0
J-DU6-140	1,417.0	Desert Wells	145.2	86.5	1,616.8
J-DU6-150	1,427.0	Desert Wells	126.9	82.6	1,617.8
J-DU6-160	1,436.0	Desert Wells	145.8	78.7	1,617.9
J-DU6-170	1,416.5	Desert Wells	736.0	86.4	1,616.2
J-DU7-010	1,415.0	Desert Wells	19.5	88.0	1,618.4
J-DU7-020	1,425.0	Desert Wells	76.2	83.5	1,617.9
J-DU7-030	1,416.0	Desert Wells	0.0	87.3	1,617.8
J-DU7-040	1,409.0	Desert Wells	28.2	90.3	1,617.8
J-DU7-050	1,416.0	Desert Wells	143.1	87.5	1,618.2
J-DU7-060	1,423.0	Desert Wells	33.3	84.7	1,618.8
J-DU7-070	1,430.0	Desert Wells	0.0	82.0	1,619.6
J-DU7-080	1,434.0	Desert Wells	121.5	80.8	1,620.8
J-DU7-090	1,437.0	Desert Wells	0.0	80.4	1,622.8
J-DU7-100	1,435.0	Desert Wells	86.7	80.7	1,621.6
J-DU7-110	1,435.0	Desert Wells	86.4	79.9	1,619.8
J-DU7-120	1,420.0	Desert Wells	7.8	85.9	1,618.6

Eastmark Master Water Report

Active Scenario: Peak Hour Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Demand (gpm)	Pressure (psi)	Hydraulic Grade (ft)
J-DU7-130	1,420.0	Desert Wells	289.0	85.9	1,618.5
J-DU7-140	1,425.0	Desert Wells	149.7	83.7	1,618.4
J-DU7-150	1,419.0	Desert Wells	48.9	86.2	1,618.2
J-DU7-160	1,435.0	Desert Wells	72.0	79.8	1,619.6
J-DU7-170	1,432.0	Desert Wells	32.1	81.1	1,619.6
J-DU7-180	1,433.0	Desert Wells	56.1	80.8	1,619.9
J-DU7-190	1,437.0	Desert Wells	90.3	79.7	1,621.2
J-DU7-200	1,432.0	Desert Wells	152.1	80.8	1,618.6
J-DU8-010	1,420.0	Desert Wells	0.0	86.1	1,618.9
J-DU8-020	1,419.5	Desert Wells	0.0	86.4	1,619.1
J-DU8-030	1,421.0	Desert Wells	0.0	85.9	1,619.5
J-DU8-040	1,418.0	Desert Wells	20.1	87.4	1,620.0
J-DU8-050	1,422.0	Desert Wells	0.0	85.8	1,620.3
J-DU8-060	1,420.0	Desert Wells	27.0	86.2	1,619.3
J-DU8-070	1,420.0	Desert Wells	46.2	86.2	1,619.3
J-DU8-080	1,422.0	Desert Wells	13.2	85.5	1,619.5
J-DU8-090	1,424.0	Desert Wells	33.0	84.6	1,619.5
J-DU8-100	1,425.0	Desert Wells	27.6	84.2	1,619.6
J-DU8-110	1,430.0	Desert Wells	99.0	81.9	1,619.4
J-DU8-120	1,431.0	Desert Wells	51.3	81.5	1,619.4
J-DU8-130	1,427.0	Desert Wells	63.0	83.3	1,619.5
J-DU9-010	1,419.0	Desert Wells	59.1	86.5	1,618.9
J-DU9-020	1,415.0	Desert Wells	107.4	88.2	1,618.9
J-DU9-030	1,416.0	Desert Wells	97.8	87.8	1,618.9
J-DU9-040	1,416.0	Desert Wells	23.4	87.8	1,618.9
J-DU9-050	1,419.0	Desert Wells	0.0	86.5	1,618.9
J-DU9-060	1,422.0	Desert Wells	94.2	85.4	1,619.4
J-DU9-070	1,414.0	Desert Wells	94.5	88.6	1,618.8
J-DU9-080	1,419.0	Desert Wells	115.5	86.4	1,618.8

Eastmark Master Water Report

Active Scenario: Peak Hour Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-160EX	16.0	2,722.00	120.0	356.6	0.57	0.107
P-170EX	16.0	5,366.00	120.0	356.6	0.57	0.107
P-180EX	16.0	5,396.00	120.0	502.2	0.80	0.202
P-190EX	16.0	5,728.00	120.0	502.2	0.80	0.202
P-200EX	16.0	889.00	120.0	-1,914.1	3.05	2.410
P-210EX	16.0	510.00	120.0	-2,657.8	4.24	4.425
P-220EX	16.0	2,909.00	120.0	1,451.1	2.32	1.443
P-240EX	16.0	1,387.00	120.0	-3,336.3	5.32	6.742
P-250EX	16.0	2,611.00	120.0	912.0	1.46	0.610
P-310	30.0	4,937.00	120.0	3,057.9	1.39	0.268
P-340EX	16.0	5,775.00	120.0	356.6	0.57	0.107
P-410EX	16.0	5,368.00	120.0	502.2	0.80	0.202
P-970	24.0	1,001.00	120.0	2,077.5	1.47	0.389
P-980	24.0	1,935.00	120.0	897.8	0.64	0.082
P-1060EX	16.0	1,328.00	120.0	226.9	0.36	0.046
P-1070EX	16.0	1,257.00	120.0	226.9	0.36	0.046
P-1400	16.0	1,688.00	120.0	-403.4	0.64	0.135
P-1630EX	16.0	1,793.00	120.0	256.9	0.41	0.058
P-1640EX	16.0	1,335.00	120.0	670.4	1.07	0.345
P-1780	24.0	1,528.00	120.0	2,077.5	1.47	0.389
P-1790	24.0	1,115.00	120.0	2,077.5	1.47	0.389
P-1940EX	16.0	1,976.00	120.0	226.9	0.36	0.046
P-1950EX	16.0	637.00	120.0	226.9	0.36	0.046
P-1970EX	16.0	927.00	120.0	530.9	0.85	0.224
P-1980EX	16.0	1,106.00	120.0	519.2	0.83	0.215
P-2000EX	16.0	1,599.00	120.0	-237.2	0.38	0.050
P-2040EX	16.0	10,635.00	120.0	-245.1	0.39	0.054
P-2055EX	16.0	10,453.00	120.0	110.4	0.18	0.012
P-2070EX	24.0	5,329.00	120.0	-696.8	0.49	0.051
P-2500EX	24.0	2,750.00	120.0	730.2	0.52	0.056
P-2510EX	24.0	2,726.00	120.0	699.2	0.50	0.052
P-2540EX	12.0	2,624.00	120.0	-86.1	0.24	0.031
P-2570EX	16.0	2,640.00	120.0	0.0	0.00	0.000
P-2655EX	16.0	2,870.00	120.0	356.6	0.57	0.107
P-2660EX	24.0	2,797.00	120.0	1,052.3	0.75	0.110
P-2665EX	16.0	2,716.00	120.0	356.6	0.57	0.107
P-2690EX	16.0	2,914.00	120.0	-245.9	0.39	0.054
P-2700EX	16.0	3,115.00	120.0	666.1	1.06	0.341
P-2710EX	16.0	1,823.00	120.0	498.5	0.80	0.199
P-2720EX	12.0	3,042.00	120.0	-167.6	0.48	0.108
P-2800	24.0	5,786.00	120.0	-145.6	0.10	0.003
P-2830	16.0	2,890.00	120.0	141.9	0.23	0.019
P-2860EX	24.0	761.00	120.0	1,052.3	0.75	0.110
P-2880EX	12.0	383.00	120.0	0.0	0.00	0.000
P-2890EX	8.0	3,148.00	120.0	-54.1	0.35	0.096

Eastmark Master Water Report

Active Scenario: Peak Hour Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-2900	24.0	1,423.00	120.0	944.3	0.67	0.090
P-2910EX	24.0	497.00	120.0	998.2	0.71	0.100
P-2950	12.0	1,089.00	120.0	31.1	0.09	0.005
P-2970EX	12.0	1,119.00	120.0	50.8	0.14	0.012
P-2990EX	8.0	2,811.00	120.0	-39.0	0.25	0.052
P-3010EX	12.0	471.00	120.0	54.1	0.15	0.013
P-3020EX	12.0	1,167.00	120.0	11.8	0.03	0.001
P-3030EX	12.0	378.00	120.0	0.0	0.00	0.000
P-3040EX	8.0	3,081.00	120.0	-38.0	0.24	0.050
P-3060	12.0	595.00	120.0	0.0	0.00	0.000
P-3070EX	8.0	2,922.00	120.0	-26.2	0.17	0.025
P-3080EX	12.0	1,397.00	120.0	-84.2	0.24	0.030
P-3090EX	12.0	1,109.00	120.0	-67.3	0.19	0.020
P-3100EX	12.0	695.00	120.0	18.9	0.05	0.002
P-3110EX	12.0	664.00	120.0	1.9	0.01	0.000
P-3120EX	8.0	1,851.00	120.0	-17.0	0.11	0.011
P-3130	12.0	1,155.00	120.0	26.2	0.07	0.003
P-3140EX	16.0	1,783.00	120.0	24.3	0.04	0.001
P-3150EX	16.0	958.00	120.0	0.0	0.00	0.000
P-3160EX	8.0	3,801.00	120.0	-24.3	0.15	0.022
P-3170EX	8.0	2,838.00	120.0	-53.9	0.34	0.093
P-3180EX	8.0	736.00	120.0	16.1	0.10	0.010
P-3190EX	30.0	2,559.00	120.0	8,203.2	3.72	1.670
P-3240EX	16.0	1,263.00	120.0	994.0	1.59	0.716
P-3250EX	12.0	844.00	120.0	-539.1	1.53	0.936
P-3260EX	16.0	1,108.00	120.0	1,451.1	2.32	1.443
P-3270EX	16.0	1,509.00	120.0	1,065.8	1.70	0.815
P-3280EX	12.0	2,890.00	120.0	-385.3	1.09	0.503
P-3290EX	12.0	2,432.00	120.0	153.8	0.44	0.092
P-3930EX	16.0	794.00	120.0	226.9	0.36	0.046
P-3940EX	16.0	509.00	120.0	226.9	0.36	0.046
P-3970EX	16.0	1,445.00	120.0	-226.9	0.36	0.046
P-4720EX	16.0	1,216.00	120.0	869.4	1.39	0.559
P-4730EX	16.0	456.00	120.0	791.1	1.26	0.469
P-4750EX	16.0	715.00	120.0	791.1	1.26	0.469
P-4760EX	16.0	774.00	120.0	71.4	0.11	0.005
P-4780	24.0	2,143.00	120.0	897.8	0.64	0.082
P-4790EX	16.0	1,816.00	120.0	239.0	0.38	0.051
P-4860	24.0	986.00	120.0	-897.8	0.64	0.082
P-4870	24.0	620.00	120.0	-897.8	0.64	0.082
P-5700EX	16.0	1,176.00	120.0	2,314.4	3.69	3.425
P-5710EX	16.0	1,171.00	120.0	2,314.4	3.69	3.425
P-5740	24.0	1,548.00	120.0	-897.8	0.64	0.082
P-5770	16.0	1,043.00	120.0	-314.6	0.50	0.085
P-5780	16.0	684.00	120.0	-369.2	0.59	0.114

Eastmark Master Water Report

Active Scenario: Peak Hour Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-6064	16.0	846.00	120.0	-752.2	1.20	0.427
P-6065	16.0	3,443.00	120.0	-752.2	1.20	0.427
P-6070	16.0	247.00	120.0	-694.3	1.11	0.368
P-6166EX	16.0	1,247.00	120.0	-538.1	0.86	0.230
P-6167EX	16.0	2,351.00	120.0	-1,289.9	2.06	1.160
P-6189	16.0	269.00	120.0	-1,417.2	2.26	1.381
P-6198	30.0	1,017.00	120.0	8,203.2	3.72	1.670
P-6199	30.0	1,680.00	120.0	8,203.2	3.72	1.670
P-6202	16.0	2,580.00	120.0	1,314.3	2.10	1.201
P-6203	16.0	1,345.00	120.0	-2,731.5	4.36	4.655
P-6204	16.0	1,529.00	120.0	-2,731.5	4.36	4.655
P-7000	12.0	742.00	120.0	-424.0	1.20	0.600
P-COMWTREX	36.0	10.00	120.0	1,052.3	0.33	0.012
P-DU-3-4-080	12.0	1,214.00	120.0	-59.4	0.17	0.016
P-DU-3-4-090	12.0	979.00	120.0	13.5	0.04	0.001
P-DU-3-4-100	12.0	717.00	120.0	-127.8	0.36	0.065
P-DU-3-4-110	16.0	597.00	120.0	271.6	0.43	0.065
P-DU-3-4-120	16.0	1,296.00	120.0	248.8	0.40	0.055
P-DU-3-4-130	12.0	1,079.00	120.0	-260.6	0.74	0.244
P-DU-3-4-70	12.0	1,088.00	120.0	-409.7	1.16	0.563
P-DU-3S-130	16.0	2,122.00	120.0	-692.5	1.10	0.367
P-DU3-4-010	12.0	2,097.00	120.0	-66.7	0.19	0.020
P-DU3-4-020	24.0	1,134.00	120.0	-679.6	0.48	0.049
P-DU3-4-060	12.0	553.00	120.0	-429.2	1.22	0.614
P-DU3-4-160	12.0	822.00	120.0	-302.6	0.86	0.321
P-DU3-4-170	16.0	1,033.00	120.0	455.4	0.73	0.169
P-DU3-4-180	16.0	876.00	120.0	455.4	0.73	0.169
P-DU3-4-190	16.0	1,406.00	120.0	-202.7	0.32	0.038
P-DU3-4-200	8.0	1,001.00	120.0	137.3	0.88	0.536
P-DU3-4-210	8.0	1,083.00	120.0	-139.6	0.89	0.553
P-DU3-4-220	8.0	2,361.00	120.0	116.6	0.74	0.396
P-DU3-4-30	24.0	1,272.00	120.0	-959.4	0.68	0.093
P-DU3-4-40	24.0	496.00	120.0	-1,226.1	0.87	0.147
P-DU3-4-50	24.0	1,092.00	120.0	-1,442.3	1.02	0.198
P-DU3S-010	8.0	261.00	120.0	270.3	1.72	1.878
P-DU3S-020	8.0	1,374.00	120.0	115.1	0.73	0.387
P-DU3S-030	8.0	1,542.00	120.0	82.1	0.52	0.207
P-DU3S-040	8.0	1,242.00	120.0	37.1	0.24	0.048
P-DU3S-050	8.0	801.00	120.0	-36.0	0.23	0.045
P-DU3S-060	8.0	974.00	120.0	-31.8	0.20	0.036
P-DU3S-070	8.0	1,384.00	120.0	-68.1	0.43	0.146
P-DU3S-080	8.0	1,241.00	120.0	-103.5	0.66	0.318
P-DU3S-090	8.0	621.00	120.0	-124.5	0.79	0.447
P-DU3S-100	16.0	1,114.00	120.0	-83.3	0.13	0.007
P-DU3S-110	16.0	1,525.00	120.0	-209.9	0.33	0.040

Eastmark Master Water Report

Active Scenario: Peak Hour Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-DU3S-120	16.0	822.00	120.0	-476.6	0.76	0.183
P-DU5N-010	12.0	334.00	120.0	-969.3	2.75	2.774
P-DU5N-020	12.0	1,978.00	120.0	-270.1	0.77	0.260
P-DU5N-030	12.0	529.00	120.0	-1,027.7	2.92	3.092
P-DU5N-040	12.0	2,743.00	120.0	-622.7	1.77	1.223
P-DU5N-040	12.0	2,697.00	120.0	558.6	1.58	1.000
P-DU5N-050	16.0	779.00	120.0	308.7	0.49	0.082
P-DU5N-060	16.0	1,403.00	120.0	308.7	0.49	0.082
P-DU5N-070	16.0	638.00	120.0	464.1	0.74	0.175
P-DU6-010	12.0	1,163.00	120.0	294.9	0.84	0.306
P-DU6-020	16.0	124.00	120.0	678.5	1.08	0.352
P-DU6-050	12.0	2,221.00	120.0	-295.6	0.84	0.308
P-DU6-060	12.0	2,209.00	120.0	294.9	0.84	0.306
P-DU6-070	16.0	142.00	120.0	1,859.5	2.97	2.284
P-DU6-080	12.0	1,135.00	120.0	295.6	0.84	0.308
P-DU6-130	12.0	500.00	120.0	1,308.6	3.71	4.837
P-DU6-140	12.0	768.00	120.0	1,158.0	3.28	3.857
P-DU6-150	12.0	1,433.00	120.0	1,007.4	2.86	2.980
P-DU6-180	12.0	1,702.00	120.0	-745.9	2.12	1.708
P-DU6-190	12.0	1,448.00	120.0	684.7	1.94	1.457
P-DU6-200	12.0	1,666.00	120.0	212.2	0.60	0.166
P-DU6-210	16.0	548.00	120.0	-624.3	1.00	0.303
P-DU6-220	16.0	1,003.00	120.0	-1,383.3	2.21	1.320
P-DU6-230	8.0	2,333.00	120.0	122.2	0.78	0.432
P-DU6-240	12.0	696.00	120.0	909.8	2.58	2.467
P-DU6-250	8.0	2,342.00	120.0	-24.1	0.15	0.021
P-DU6-260	8.0	656.00	120.0	-432.9	2.76	4.495
P-DU6-270	12.0	803.00	120.0	598.6	1.70	1.137
P-DU6-280	12.0	395.00	120.0	1,119.9	3.18	3.625
P-DU6-290	8.0	2,027.00	120.0	263.1	1.68	1.787
P-DU6-300	16.0	515.00	120.0	-1,360.3	2.17	1.280
P-DU7-010	12.0	1,115.00	120.0	338.7	0.96	0.396
P-DU7-020	12.0	1,147.00	120.0	-145.9	0.41	0.083
P-DU7-030	12.0	1,044.00	120.0	-145.9	0.41	0.083
P-DU7-040	24.0	1,410.00	120.0	-1,753.8	1.24	0.284
P-DU7-050	24.0	1,075.00	120.0	-2,610.6	1.85	0.594
P-DU7-060	24.0	1,254.00	120.0	-2,643.9	1.88	0.608
P-DU7-070	24.0	1,205.00	120.0	-3,574.8	2.54	1.063
P-DU7-080	24.0	2,339.00	120.0	-4,129.2	2.93	1.389
P-DU7-090	16.0	941.00	120.0	-1,361.3	2.17	1.282
P-DU7-100	16.0	1,562.00	120.0	-1,274.6	2.03	1.135
P-DU7-110	16.0	1,742.00	120.0	-958.5	1.53	0.669
P-DU7-120	16.0	778.00	120.0	626.7	1.00	0.305
P-DU7-130	20.0	317.00	120.0	-911.4	0.93	0.206
P-DU7-140	20.0	1,207.00	120.0	-622.4	0.64	0.101

Eastmark Master Water Report

Active Scenario: Peak Hour Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-DU7-150	20.0	1,514.00	120.0	-718.5	0.73	0.132
P-DU7-160	20.0	619.00	120.0	-669.6	0.68	0.116
P-DU7-170	12.0	1,073.00	120.0	-21.1	0.06	0.002
P-DU7-180	12.0	828.00	120.0	-50.9	0.14	0.012
P-DU7-190	12.0	399.00	120.0	-480.9	1.36	0.758
P-DU7-200	12.0	2,378.00	120.0	92.3	0.26	0.036
P-DU7-210	12.0	1,049.00	120.0	-719.6	2.04	1.598
P-DU7-220	12.0	1,054.00	120.0	-629.3	1.79	1.247
P-DU7-230	12.0	1,714.00	120.0	-397.9	1.13	0.533
P-DU7-240	12.0	1,014.00	120.0	-245.8	0.70	0.219
P-DU8-010	16.0	1,107.00	120.0	-587.3	0.94	0.270
P-DU8-020	16.0	714.00	120.0	-607.0	0.97	0.287
P-DU8-030	16.0	1,312.00	120.0	-599.6	0.96	0.281
P-DU8-040	16.0	1,371.00	120.0	-728.4	1.16	0.403
P-DU8-050	16.0	520.00	120.0	-882.6	1.41	0.575
P-DU8-060	16.0	1,021.00	120.0	-1,179.6	1.88	0.983
P-DU8-070	8.0	542.00	120.0	-109.1	0.70	0.350
P-DU8-080	8.0	253.00	120.0	-37.5	0.24	0.049
P-DU8-090	8.0	1,138.00	120.0	-83.7	0.53	0.214
P-DU8-100	12.0	599.00	120.0	322.0	0.91	0.361
P-DU8-110	12.0	709.00	120.0	146.1	0.41	0.084
P-DU8-120	8.0	678.00	120.0	-98.6	0.63	0.290
P-DU8-130	8.0	1,315.00	120.0	64.6	0.41	0.133
P-DU8-140	8.0	966.00	120.0	34.3	0.22	0.041
P-DU8-150	6.0	737.00	120.0	13.3	0.15	0.029
P-DU8-160	8.0	1,265.00	120.0	42.0	0.27	0.060
P-DU8-170	8.0	2,613.00	120.0	7.6	0.05	0.003
P-DU8-180	8.0	1,778.00	120.0	-43.7	0.28	0.064
P-DU8-190	8.0	1,185.00	120.0	27.4	0.18	0.027
P-DU8-200	8.0	1,054.00	120.0	134.1	0.86	0.513
P-DU9-010	16.0	904.00	120.0	58.0	0.09	0.004
P-DU9-020	8.0	227.00	120.0	-19.6	0.13	0.015
P-DU9-030	8.0	1,616.00	120.0	18.5	0.12	0.013
P-DU9-040	8.0	746.00	120.0	-101.8	0.65	0.308
P-DU9-050	8.0	869.00	120.0	12.9	0.08	0.007
P-DU9-060	8.0	1,550.00	120.0	-115.6	0.74	0.389
P-DU9-070	8.0	1,001.00	120.0	-2.1	0.01	0.000
P-DU9-080	8.0	644.00	120.0	-25.5	0.16	0.024
P-DU9-090	8.0	3,092.00	120.0	32.8	0.21	0.038
P-DU9-100	8.0	1,619.00	120.0	-49.7	0.32	0.082
P-DU9-110	8.0	3,057.00	120.0	-12.0	0.08	0.006
P-DU9-120	8.0	901.00	120.0	63.0	0.40	0.127
P-DU9-130	8.0	879.00	120.0	-138.3	0.88	0.543
P-DU9-140	8.0	430.00	120.0	-297.0	1.90	2.236
P-DU9-150	8.0	4,471.00	120.0	-64.5	0.41	0.132

Eastmark Master Water Report

Active Scenario: Peak Hour Demand-Served by SCAP (for DU 3/4 FBO Condition)

FlexTable: Pipe Table

Label	Diameter (in)	Length (ft)	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Headloss Gradient (ft/1000ft)
P-SCAP	48.0	1,752.00	120.0	-16,984.2	3.01	0.651

Max-Day Demand Plus Fire Flow

Eastmark Master Water Report

Active Scenario: Max Day Demand + FF-Served by SCAP (for DU 3/4 FBO Condition)

Fire Flow Node FlexTable: Fire Flow Report

Label	Elevation (ft)	Satisfies Fire Flow Constraints?	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Press. (Calc Rsdl) (psi)	Press (Calc Zn Lwr Limit) (psi)	Junction w/ Min Press (Zone)
J-100EX	1,406.0	True	3,000.0	5,000.0	81.8	64.2	J-1010EX
J-110EX	1,418.0	True	3,000.0	5,000.0	80.6	64.2	J-1010EX
J-120EX	1,462.0	True	3,000.0	5,000.0	74.0	64.2	J-1010EX
J-150EX	1,472.0	True	3,000.0	5,000.0	62.8	63.9	J-1440EX
J-160EX	1,435.0	True	3,000.0	5,000.0	62.2	60.2	J-280EX
J-170EX	1,430.0	True	3,000.0	5,000.0	66.3	62.8	J-280EX
J-180EX	1,410.0	True	3,000.0	5,000.0	86.1	64.2	J-1010EX
J-190EX	1,395.0	True	3,000.0	5,000.0	81.9	64.2	J-1010EX
J-200EX	1,385.0	True	3,000.0	5,000.0	86.0	64.2	J-1010EX
J-220EX	1,480.0	True	3,000.0	5,000.0	59.4	61.5	J-1440EX
J-230EX	1,475.0	True	3,000.0	5,000.0	61.2	62.1	J-1440EX
J-250EX	1,452.0	True	3,015.6	5,015.6	74.0	64.2	J-1010EX
J-DU7-090	1,437.0	True	3,000.0	5,000.0	79.2	64.2	J-1010EX
J-270	1,429.0	True	3,000.0	5,000.0	80.5	64.2	J-1010EX
J-280EX	1,460.0	True	3,000.0	5,000.0	53.6	60.5	J-1230EX
J-DU3-4-170	1,410.0	True	3,169.8	5,169.8	85.3	64.2	J-1010EX
J-300EX	1,392.0	True	3,108.0	5,108.0	93.3	64.2	J-1010EX
J-DU7-120	1,420.0	True	3,005.2	5,005.2	84.2	64.2	J-1010EX
J-320	1,422.0	True	3,000.0	5,000.0	83.1	64.2	J-1010EX
J-330EX	1,455.0	True	3,000.0	5,000.0	68.0	64.2	J-1010EX
J-340	1,440.0	True	3,000.0	5,000.0	76.6	64.2	J-1010EX
J-DU7-050	1,416.0	True	3,095.4	5,095.4	86.1	64.2	J-1010EX
J-360EX	1,400.0	True	3,000.0	5,000.0	84.5	64.2	J-1010EX
J-DU3-4-140	1,403.0	True	3,036.0	5,036.0	87.6	64.2	J-1010EX
J-DU7-040	1,409.0	True	3,018.8	5,018.8	88.6	64.2	J-1010EX
J-DU7-030	1,416.0	True	3,000.0	5,000.0	76.3	64.2	J-1010EX
J-DU7-020	1,425.0	True	3,050.8	5,050.8	73.3	64.2	J-1010EX
J-DU7-010	1,415.0	True	3,013.0	5,013.0	85.4	64.2	J-1010EX
J-DU3-4-090	1,393.0	True	3,007.8	5,007.8	92.7	64.2	J-1010EX
J-DU7-070	1,430.0	True	3,000.0	5,000.0	80.7	64.2	J-1010EX
J-DU7-140	1,425.0	True	3,099.8	5,099.8	81.6	64.2	J-1010EX
J-DU7-110	1,435.0	True	3,057.6	5,057.6	77.3	64.2	J-1010EX
J-550	1,425.0	True	3,000.0	5,000.0	82.9	64.2	J-1010EX
J-DU3-4-010	1,405.0	True	3,177.8	5,177.8	86.1	64.2	J-1010EX
J-590EX	1,413.0	True	3,000.0	5,000.0	80.2	64.2	J-1010EX
J-DU3-4-150	1,407.0	True	3,028.0	5,028.0	79.8	64.2	J-1010EX
J-DU3-4-130	1,395.0	True	3,015.2	5,015.2	90.6	64.2	J-1010EX
J-DU6-130	1,416.0	True	3,139.6	5,139.6	82.7	64.2	J-1010EX
J-DU7-060	1,423.0	True	3,022.2	5,022.2	83.3	64.2	J-1010EX
J-DU3-4-100	1,391.0	True	3,177.4	5,177.4	95.4	64.2	J-1010EX
J-DU7-080	1,434.0	True	3,081.0	5,081.0	79.4	64.2	J-1010EX
J-920	1,434.0	True	3,000.0	5,000.0	79.6	64.2	J-1010EX
J-DU3-4-200	1,412.5	True	3,050.8	5,050.8	83.3	64.2	J-1010EX
J-950	1,414.0	True	3,000.0	5,000.0	84.4	64.2	J-1010EX

Eastmark Master Water Report

Active Scenario: Max Day Demand + FF-Served by SCAP (for DU 3/4 FBO Condition)

Fire Flow Node FlexTable: Fire Flow Report

Label	Elevation (ft)	Satisfies Fire Flow Constraints?	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Press. (Calc Rsdl) (psi)	Press (Calc Zn Lwr Limit) (psi)	Junction w/ Min Press (Zone)
J-960EX	1,402.0	True	3,000.0	5,000.0	83.1	64.2	J-1010EX
J-970EX	1,397.0	True	3,000.0	5,000.0	86.4	64.2	J-1010EX
J-DU3-4-110	1,393.0	True	3,007.8	5,007.8	91.8	64.2	J-1010EX
J-1000EX	1,455.0	True	3,000.0	5,000.0	76.0	63.7	J-1010EX
J-1010EX	1,485.0	True	3,000.0	5,000.0	63.0	65.3	J-220EX
J-1020EX	1,425.0	True	3,000.0	5,000.0	70.9	64.1	J-1010EX
J-1030EX	1,480.0	True	3,000.0	5,000.0	66.6	64.3	J-1010EX
J-1040EX	1,428.0	True	3,200.6	5,200.6	76.1	64.2	J-1010EX
J-1050EX	1,445.0	True	3,000.0	5,000.0	73.7	64.2	J-1010EX
J-DU7-130	1,420.0	True	3,289.0	5,289.0	84.0	64.2	J-1010EX
J-DU7-150	1,419.0	True	3,032.6	5,032.6	84.4	64.2	J-1010EX
J-1120EX	1,456.0	True	3,000.0	5,000.0	69.9	64.2	J-1010EX
J-1130EX	1,445.0	True	4,361.0	6,361.0	72.9	64.2	J-1010EX
J-1160EX	1,445.0	True	3,000.0	5,000.0	48.3	57.7	J-1360EX
J-1170EX	1,470.0	True	3,000.0	5,000.0	69.3	63.4	J-1010EX
J-1180EX	1,440.0	True	3,000.0	5,000.0	67.4	64.0	J-1010EX
J-1190EX	1,420.0	True	3,000.0	5,000.0	59.6	64.1	J-1010EX
J-1200EX	1,445.0	True	3,000.0	5,000.0	26.2	47.6	J-1370EX
J-1210EX	1,455.0	True	3,000.0	4,948.6	20.0	25.1	J-1300EX
J-1220EX	1,475.0	True	3,000.0	5,000.0	67.5	63.6	J-1010EX
J-1230EX	1,460.0	True	3,000.0	5,000.0	57.8	59.5	J-280EX
J-1235EX	1,440.0	True	3,000.0	5,000.0	76.1	64.2	J-1010EX
J-1240EX	1,455.0	True	3,000.0	5,000.0	68.3	64.2	J-1010EX
J-1280	1,410.0	True	3,000.0	5,000.0	87.8	64.2	J-1010EX
J-1290EX	1,480.0	True	3,000.0	5,000.0	65.3	63.4	J-1010EX
J-1300EX	1,465.0	True	3,000.0	5,000.0	24.2	28.5	J-1210EX
J-1310EX	1,480.0	True	3,000.0	5,000.0	65.2	63.3	J-1010EX
J-1330EX	1,465.0	True	3,000.0	5,000.0	61.5	63.5	J-1010EX
J-1340EX	1,450.0	True	3,000.0	5,000.0	65.9	63.6	J-1010EX
J-1350EX	1,465.0	True	3,000.0	5,000.0	29.0	29.9	J-1300EX
J-1360EX	1,445.0	True	3,000.0	5,000.0	57.7	57.7	J-1160EX
J-1370EX	1,430.0	True	3,000.0	5,000.0	47.6	41.1	J-1200EX
J-1380EX	1,450.0	True	3,000.0	5,000.0	65.2	63.9	J-1010EX
J-1390EX	1,430.0	True	3,000.0	5,000.0	67.6	63.3	J-1200EX
J-1400EX	1,430.0	True	3,000.0	5,000.0	61.8	56.6	J-1200EX
J-1410EX	1,420.0	True	3,000.0	5,000.0	65.5	64.1	J-1010EX
J-1410	1,458.0	True	3,000.0	5,000.0	73.2	64.2	J-1010EX
J-1420EX	1,460.0	True	3,000.0	5,000.0	69.8	64.2	J-1010EX
J-1430EX	1,455.0	True	3,000.0	5,000.0	67.5	63.0	J-1440EX
J-1440EX	1,478.0	True	3,000.0	5,000.0	60.2	61.2	J-220EX
J-DU5N-060	1,417.0	True	3,103.6	5,103.6	80.3	64.2	J-1010EX
J-DU6-150	1,427.0	True	3,084.6	5,084.6	76.0	64.2	J-1010EX
J-DU6-140	1,417.0	True	3,096.8	5,096.8	82.9	64.2	J-1010EX
J-DU3-4-080	1,400.0	True	3,076.2	5,076.2	82.3	64.2	J-1010EX

Eastmark Master Water Report

Active Scenario: Max Day Demand + FF-Served by SCAP (for DU 3/4 FBO Condition)

Fire Flow Node FlexTable: Fire Flow Report

Label	Elevation (ft)	Satisfies Fire Flow Constraints?	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Press. (Calc Rsdl) (psi)	Press (Calc Zn Lwr Limit) (psi)	Junction w/ Min Press (Zone)
J-DU3-4-070	1,404.0	True	3,048.6	5,048.6	77.8	64.2	J-1010EX
J-DU3-4-060	1,408.0	True	3,031.8	5,031.8	81.8	64.2	J-1010EX
J-DU3S-080	1,396.0	True	3,175.0	5,175.0	91.4	64.2	J-1010EX
J-DU3-4-050	1,408.0	True	3,013.0	5,013.0	82.8	64.2	J-1010EX
J-DU3-4-020	1,402.0	True	3,177.8	5,177.8	91.1	64.2	J-1010EX
J-DU7-170	1,432.0	True	3,021.4	5,021.4	74.9	64.2	J-1010EX
J-DU7-100	1,435.0	True	3,057.8	5,057.8	77.5	64.2	J-1010EX
J-DU7-160	1,435.0	True	3,048.0	5,048.0	70.9	64.2	J-1010EX
J-DU7-180	1,433.0	True	3,037.4	5,037.4	74.7	64.2	J-1010EX
J-DU7-190	1,437.0	True	3,060.2	5,060.2	70.0	64.2	J-1010EX
J-1680EX	1,401.0	True	3,000.0	5,000.0	83.6	64.2	J-1010EX
J-DU3-4-120	1,393.0	True	3,013.8	5,013.8	92.0	64.2	J-1010EX
J-1990EX	1,447.0	True	3,052.2	5,052.2	73.1	64.2	J-1010EX
J-2000EX	1,442.0	True	3,000.0	5,000.0	75.2	64.2	J-1010EX
J-2010	1,419.0	True	3,000.0	5,000.0	84.0	64.2	J-1010EX
J-2040	1,427.0	True	3,000.0	5,000.0	81.2	64.2	J-1010EX
J-2200	1,414.0	True	3,000.0	5,000.0	83.3	64.2	J-1010EX
J-DU3-4-160	1,406.0	True	3,000.0	5,000.0	86.2	64.2	J-1010EX
J-DU6-120	1,422.0	True	3,100.6	5,100.6	75.2	64.2	J-1010EX
J-135EX	1,460.0	True	3,000.0	5,000.0	70.4	64.2	J-1010EX
J-DU6-110	1,432.0	True	3,098.2	5,098.2	63.1	64.2	J-1010EX
J-DU6-160	1,436.0	True	3,097.2	5,097.2	45.0	64.2	J-1010EX
J-260EX	1,453.0	True	3,036.4	5,036.4	71.8	64.2	J-1010EX
J-2120EX	1,453.0	True	3,000.0	5,000.0	71.7	64.2	J-1010EX
J-DU6-090	1,435.0	True	3,100.4	5,100.4	64.3	64.2	J-1010EX
J-2140EX	1,450.0	True	3,495.8	5,495.8	71.6	64.2	J-1010EX
J-DU6-050	1,448.0	True	3,000.0	5,000.0	64.5	64.2	J-1010EX
J-DU6-080	1,446.0	True	3,100.4	5,100.4	60.7	64.2	J-1010EX
J-DU6-070	1,452.0	True	3,100.4	5,100.4	64.1	64.2	J-1010EX
J-DU6-060	1,458.0	True	3,846.0	5,846.0	70.0	64.2	J-1010EX
J-DU6-010	1,459.0	True	3,000.0	5,000.0	59.4	64.2	J-1010EX
J-DU6-020	1,453.0	True	3,846.0	7,846.0	68.6	64.2	J-1010EX
J-DU7-200	1,432.0	True	3,101.4	5,101.4	69.7	64.2	J-1010EX
J-2295	1,415.0	True	3,000.0	5,000.0	83.8	64.2	J-1010EX
J-DU3S-010	1,412.0	True	3,020.4	5,020.4	57.9	58.0	J-DU3S-070
J-DU3S-020	1,407.0	True	3,022.0	3,799.1	20.0	53.4	J-DU3S-030
J-DU3S-030	1,401.0	True	3,030.0	3,847.1	20.0	50.5	J-DU3S-020
J-DU3S-040	1,399.0	True	3,022.0	5,022.0	38.5	45.9	J-DU3S-050
J-DU3S-050	1,404.0	True	3,024.2	3,936.8	20.0	43.4	J-DU3S-060
J-DU3S-060	1,410.0	True	3,023.6	3,595.9	20.0	54.7	J-DU3S-050
J-DU3S-070	1,417.0	True	3,014.0	4,369.3	20.0	39.6	J-DU3S-060
J-DU9-010	1,419.0	True	3,039.4	5,039.4	80.8	64.2	J-1010EX
J-DU8-010	1,420.0	True	3,000.0	5,000.0	83.0	64.2	J-1010EX
J-DU9-020	1,415.0	True	3,071.6	5,071.6	58.3	64.2	J-1010EX

Eastmark Master Water Report

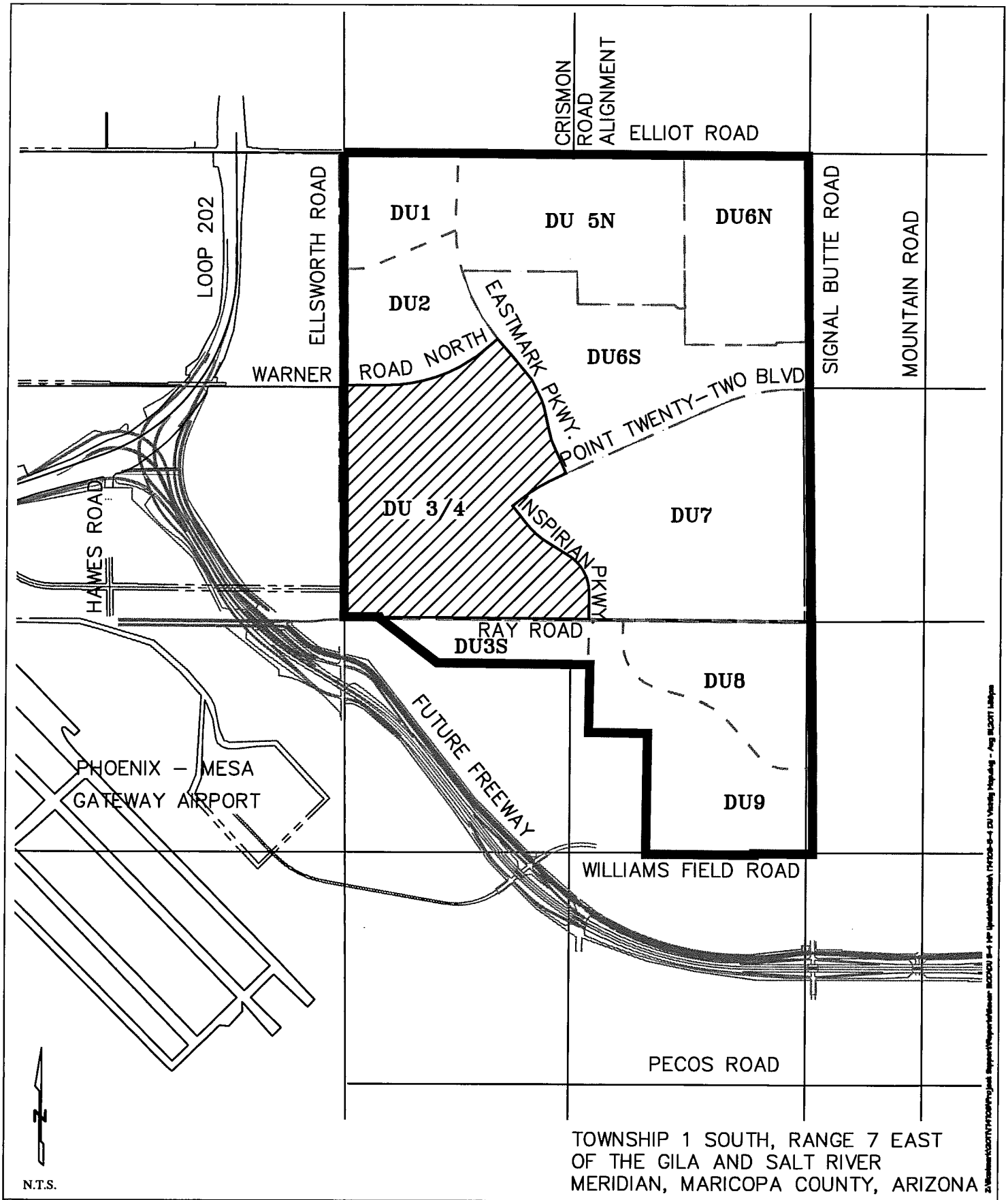
Active Scenario: Max Day Demand + FF-Served by SCAP (for DU 3/4 FBO Condition)

Fire Flow Node FlexTable: Fire Flow Report

Label	Elevation (ft)	Satisfies Fire Flow Constraints?	Flow (Total Needed) (gpm)	Flow (Total Available) (gpm)	Press. (Calc Rsdl) (psi)	Press (Calc Zn Lwr Limit) (psi)	Junction w/ Min Press (Zone)
J-DU8-020	1,419.5	True	3,000.0	5,000.0	82.7	64.2	J-1010EX
J-DU9-030	1,416.0	True	3,065.2	5,065.2	50.2	58.3	J-DU9-040
J-DU9-040	1,416.0	True	3,015.6	4,758.5	20.0	50.3	J-DU9-050
J-DU9-050	1,419.0	True	3,000.0	5,000.0	31.4	37.3	J-DU9-080
J-DU9-060	1,422.0	True	3,062.8	5,062.8	44.2	55.6	J-DU9-080
J-DU9-070	1,414.0	True	3,063.0	4,184.4	20.0	53.3	J-DU9-080
J-DU9-080	1,419.0	True	3,077.0	4,245.0	20.0	53.1	J-DU9-050
J-DU8-030	1,421.0	True	3,000.0	5,000.0	81.2	64.2	J-1010EX
J-DU8-050	1,422.0	True	3,000.0	5,000.0	81.7	64.2	J-1010EX
J-DU8-040	1,418.0	True	3,013.4	5,013.4	82.9	64.2	J-1010EX
J-DU8-070	1,420.0	True	3,030.8	5,030.8	48.6	64.2	J-1010EX
J-DU8-060	1,420.0	True	3,018.0	5,018.0	63.5	64.2	J-1010EX
J-DU8-080	1,422.0	True	3,008.8	5,008.8	70.7	64.2	J-1010EX
J-DU8-090	1,424.0	True	3,022.0	5,022.0	53.1	63.7	J-DU8-120
J-DU8-100	1,425.0	True	3,018.4	5,018.4	75.4	64.2	J-1010EX
J-DU8-110	1,430.0	True	3,066.0	5,066.0	26.4	49.0	J-DU8-120
J-DU8-120	1,431.0	True	3,034.2	3,291.0	20.0	64.3	J-1010EX
J-DU8-130	1,427.0	True	3,042.0	5,042.0	34.5	45.7	J-DU8-120
J-2340EX	1,434.0	True	3,962.2	5,962.2	75.7	64.2	J-1010EX
J-DU3-4-040	1,403.0	True	3,052.6	5,052.6	90.8	64.2	J-1010EX
J-DU3-4-210	1,406.0	True	3,262.4	5,262.4	55.5	64.2	J-1010EX
J-DU5N-050	1,414.0	True	3,000.0	5,000.0	81.4	64.2	J-1010EX
J-2346	1,445.7	True	3,000.0	5,000.0	72.7	64.2	J-1010EX
J-DU5N-020	1,424.5	True	3,865.2	5,865.2	64.0	64.2	J-1010EX
J-DU5N-010	1,435.5	True	3,865.2	5,865.2	64.0	64.2	J-1010EX
J-DU6-100	1,437.5	True	3,100.4	5,100.4	62.7	64.2	J-1010EX
J-DU5N-040	1,414.0	True	3,102.4	5,102.4	82.1	64.2	J-1010EX
J-DU5N-030	1,426.0	True	3,102.4	5,102.4	67.9	64.2	J-1010EX
J-2353	1,456.0	True	3,000.0	5,000.0	73.3	64.2	J-1010EX
J-2354	1,453.4	True	3,000.0	5,000.0	70.8	64.2	J-1010EX
J-DU3-4-030	1,392.0	True	3,231.0	5,231.0	95.2	64.2	J-1010EX
J-DU6-170	1,416.5	True	3,736.0	5,736.0	82.4	64.2	J-1010EX

EXHIBIT 1

VICINITY MAP



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OR RECORDING

EXHIBIT 1: VICINITY MAP

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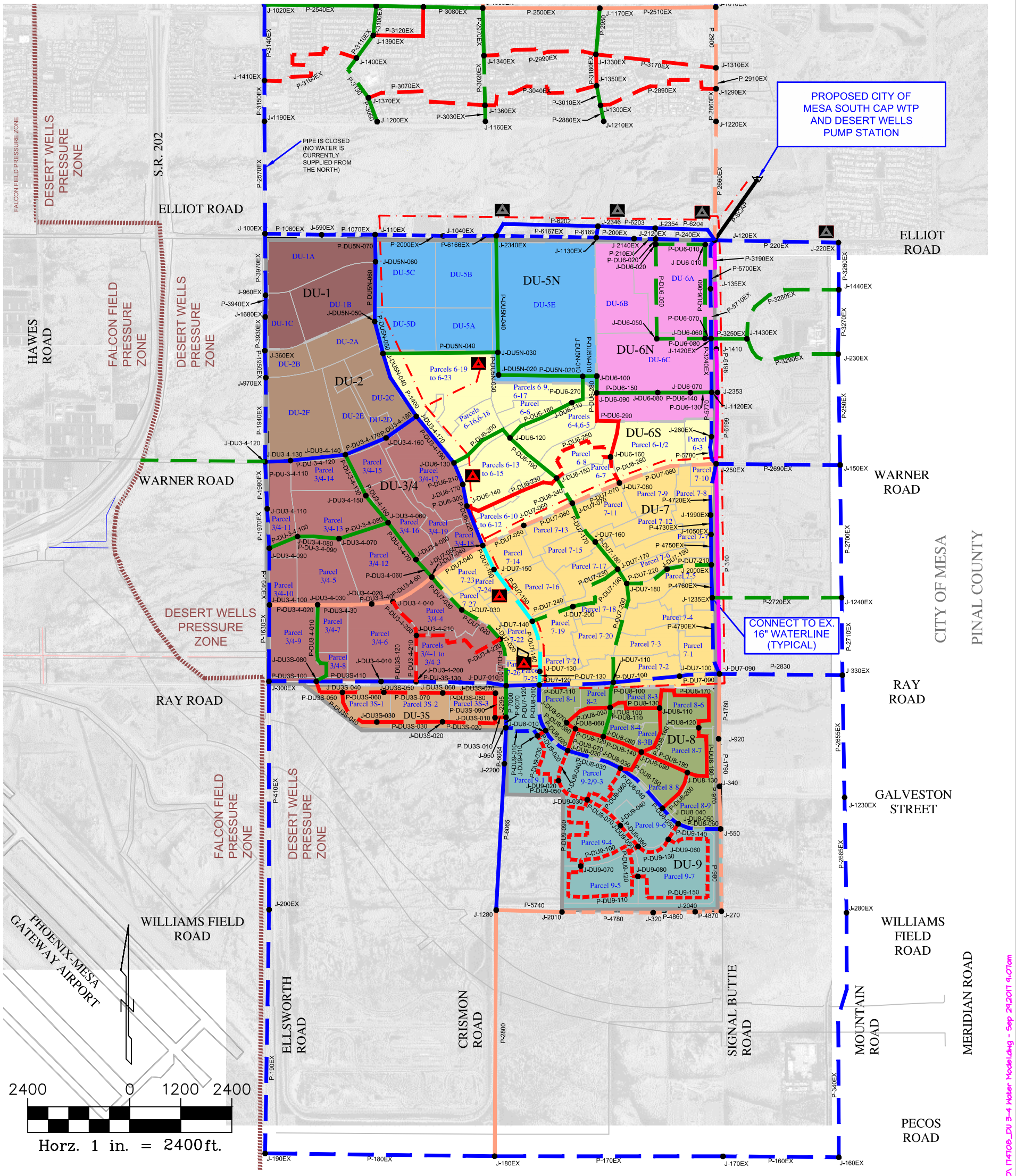
EXHIBIT 2

DU 3/4

MASTER WATER EXHIBIT



LEGEND

NOTES:
1. INFRASTRUCTURE SIZES AND LOCATIONS ARE CONCEPTUAL AND SUBJECT TO CHANGE.

PIPE DIAMETER	EXISTING	PLANNED
8-INCHES		
12-INCHES		
16-INCHES		
20-INCHES		
24-INCHES		
30-INCHES		
WELL SITE		
WELL COLLECTION LINE		
PRESSURE ZONE BOUNDARY		

●	JUNCTION NODE
	WATER SOURCE
P-XXX	PROPOSED PIPE
P-XXXEX	EXISTING PIPE
J-XXX	JUNCTION NODE (PROPOSED)
J-XXXEX	JUNCTION NODE (EXIST.)
MODELED PRESSURE ZONE :	DESERT WELLS

ON-SITE DEVELOPMENT UNITS

DU-1		DU-6N	
DU-2		DU-6S	
DU-3S		DU-7	
DU-3/4		DU-8	
DU-5N		DU-9	

DU-4A DEVELOPMENT UNIT SUB-AREA

SITE BOUNDARY

EXHIBIT 2 - DU 3/4 MASTER WATER EXHIBIT

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