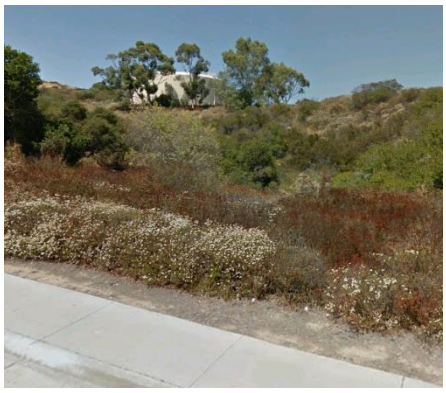
PRELIMINARY WATER REPORT

for Tract No. 36544 – Skyline Heights
in the City of Corona,
County of Riverside, California



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FEBRUARY 2026

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1
INTRODUCTION

1.1 PURPOSE OF STUDY

The purpose of this report is to provide a water system analysis for the Tract No. 36544 Skyline Heights project. Water service to the project will be provided by the City of Corona. This report provides projected water demands, identifies existing facilities relevant to the project, evaluates reservoir storage requirements, pumping requirements, and identifies proposed water system improvements necessary to provide service to the project. This report also presents project phasing and identifies the facilities required to serve each phase of the project. In addition to identifying project needs, the report will be prepared in coordination with City of Corona master planning efforts for the region to ensure that all improvements constructed meet the regional needs of the area. A section on reclaimed water is also provided in this report. A final water study will need to be submitted and approved concurrent with the final design of proposed improvements.

1.2 PROJECT DESCRIPTION

The Skyline Heights project consists of approximately 249.5 acres of vacant land situated in the hills on the southwest side of the City of Corona in western Riverside County, adjacent to Foothill Parkway. The site is located approximately 3 miles south of the 71 and 91 Freeways and approximately 4 miles west of Interstate 15. **Figure 1-1** provides a location map for the project. The project site was annexed to the City of Corona during the entitlement process. The Foothill Parkway Westerly Extension between Green River Road and Trudy Way borders the eastern portion of the project and will be the primary access to the site.

Skyline Heights is generally bounded to the north and east by single-family residences and to the south and west by the Cleveland National Forest and large privately-owned parcels. Within the general boundaries of the project is an undeveloped 10.0-acre parcel which is considered “Not a Part” and is owned by the U.S. Forest Service. Adjacent to the southeast portion of the project site is a single-family residential community. The immediate surrounding area consists of Low Density Residential (3-6 du/ac) as well as undeveloped open space within the City of Corona. Skyline Drive, a graded forest service access road, is located just to the south of the project. This road provides recreational hiking and mountain biking opportunities to residents on a local and regional level.

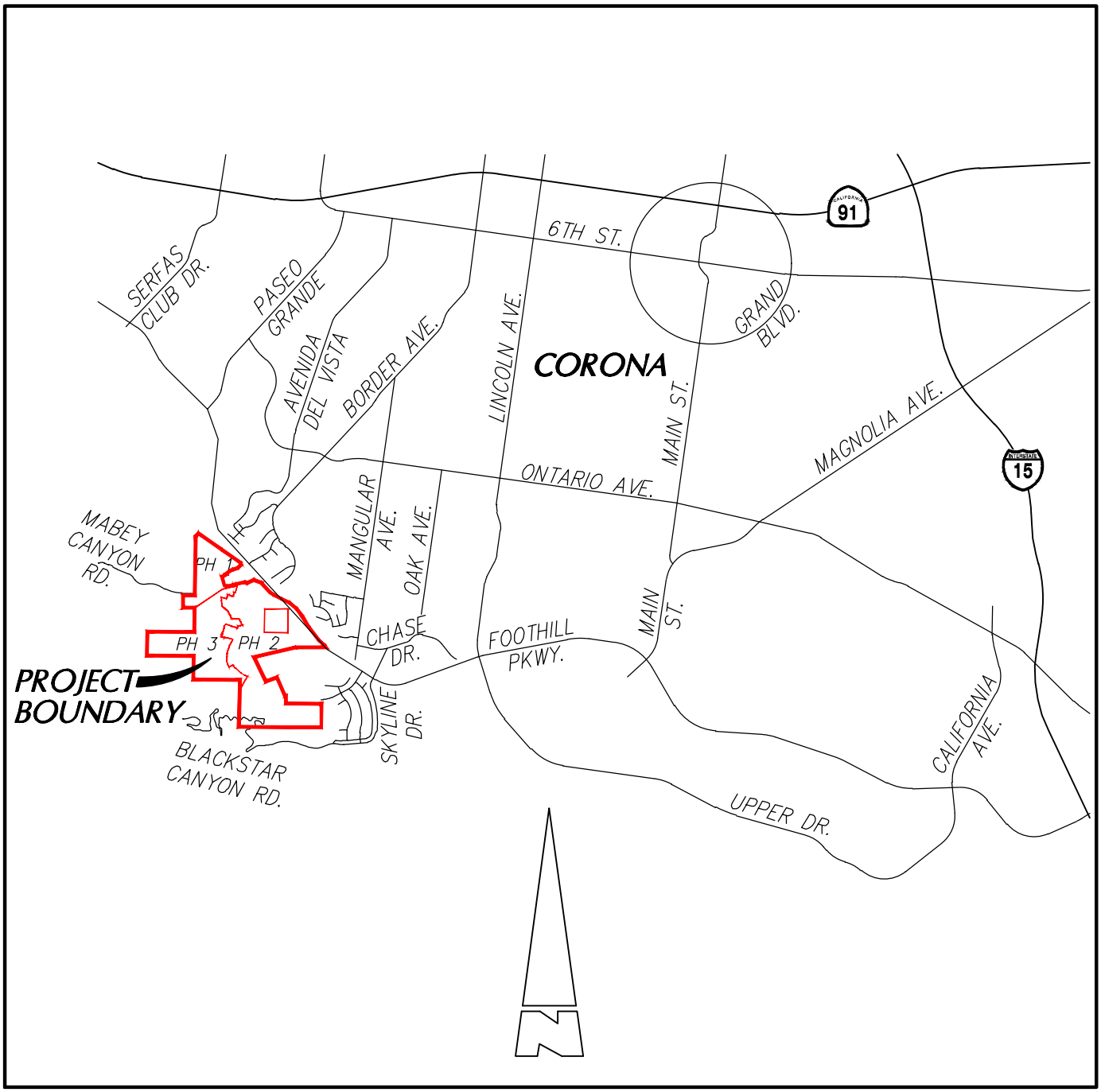
The project site consists of sparsely vegetated and otherwise undeveloped land with the exception of dirt roads. The site is characterized by steep topography, generally increasing in elevation from the northeast to the southwest. Several canyons and ravines are present which will convey natural drainage across the project site. Phase 1 is located at the northern end of the project and is geographically separated from Phases 2 and 3 to the south by Mabey Canyon. Development within

Phase 1 is proposed to consist of 104 residential units. Development within Phase 2 is proposed to consist of 111 residential units. Development within Phase 3 is proposed to consist of 77 residential units.

1.3 RELATED STUDIES

The City of Corona Water Master Plan, prepared by AKM Consulting Engineers in September 2005, provides a regional study identifying existing and future proposed water supply, storage, and transmission facilities within the City's ultimate service area. The study also presents design criteria to be utilized in water supply, system pressures, pipeline velocities, fire flow criteria, storage volumes, operational storage, fire protection storage, emergency storage, and pump capacities. The report also provides information on the City of Corona planning and evaluation criteria that can be applied to determine projected water demands and proposed improvements.

The 2005 Water Master Plan identified the project property as vacant land in the existing condition and as "Specific Plan Area" in the ultimate land use condition. The Master Plan does not provide specific details on what land use assumptions were made for the "Specific Plan Area". Excerpts from the 2005 Water Master Plan have been included in **Appendix A** for reference. The City of Corona is in the process of updating their water master plan and has taken this project into consideration in evaluating the need for regional water facilities in the area. Per the modeling results conducted by the City, with the construction of onsite Zone 5 and Zone 6A storage facilities, no additional offsite regional improvements are required to support the project.



LOCATION MAP

NOT TO SCALE

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1880 COMPTON AVENUE, SUITE 100 ● CORONA, CA. 92881-3370 ● 951-734-2130

FIGURE 1-1

J.N. 2012.1344.1 / R:\12\1344\FINAL\REPORTS\WAT\FIGURES\FIGURE 1-1 - LOCATION MAP.dwg 04/15/2024 13:48

Section

2
PLANNING CRITERIA

This section presents the planning criteria used to evaluate recommended water system improvements required for Skyline Heights. The criteria utilized in this study are in accordance with the City of Corona 2005 Water Master Plan, and the 2012 City's Department of Water and Power Design Policy.

2.1 WATER DUTY FACTORS

To convert proposed land uses to average day water demands, a water duty factor is utilized. Water duty factors applicable to residential and recreational development on this Project are summarized in **Table 2-1**. Water demand factors for irrigated slopes have not been included in this report as these areas are proposed to be irrigated with reclaimed water.

TABLE 2-1

AVERAGE WATER DUTY FACTORS		
Land Use	**Value**	**Unit**
Low Medium Density Residential (6-8 DU/AC)	3,750	gpd/ac
Low Density Residential (3-6 DU/AC)	3,540	gpd/ac
Open Space Recreational (Park)	1,200	gpd/ac

To convert average day demands to maximum day demands, a peak factor of 1.8 is utilized. To convert average day demands to peak hour demands, information from the 2005 Master Plan is utilized. Peak hour demand factors vary by pressure zone in the 2005 Master Plan. The 2005 Master Plan identifies a peak hour factor of 1.67 times average day demand to convert average day demands to peak hour demands in Zone 5 and a peak factor of 2.51 is used in Zone 6.

2.2 PLANNING CRITERIA

The planning criteria are used to evaluate the proposed water system under the various demand scenarios. They are utilized as a check to confirm that the proposed water system will provide adequate service to the project. A list of planning criteria used in the evaluation of this project is provided in **Table 2-2.**

Table 2-2 – Summary of Planning Criteria

Criteria		Value	Unit
Peaking Factors	MDD Factor	1.80	unitless
	PHD Factor in Zone 5	1.67	unitless
	PHD Factor in Zone 6A	2.51	unitless
Pressure	Minimum residual pressure under ADD	50	psi
	Minimum residual pressure under PHD	40	psi
	Minimum residual pressure under MDD + FF	20	psi
	Static pressure requiring pressure regulators	80	psi
Maximum pipe velocities under MDD + FF		12	fps
Fire Flow	Single Family Residential Flow Rate	2,500[1]	gpm
	Multi-Family Residential Flow Rate	2,500	gpm
	Duration	2	hours
Storage	Operational	50% of MDD	MG
	Fire Flow	Rate × Duration	MG
	Terminal	10% of Design Volume	MG
Booster Pumping Capacity		MDD	gpm

[1] Fire and Utilities Department have determined that a 2,500 gpm fire flow will be required due in part to the proximity of development relative to a high fire severity zone.

2.3 SYSTEM PRESSURES

The water distribution system has been designed to maintain static pressures between 60 psi and 120 psi when possible. This criterion is used to initially divide a project between water service zones. Based on the range of elevations on the proposed project, the lower portion of the development is within the City's Zone 5 system and the upper elevations of the project are to be served by a newly formed Zone 6A system. The new pressure zone is identified as intermediate Zone 6A in this report because it is at a lower HWL than the City's Zone 6 pressure zone, but higher than the HWL for Zone 5 pressure system.

Computer modeling is then performed to ensure that adequate residual pressures are obtained under all demand conditions. The system has been designed to yield minimum residual pressures of approximately 60 psi during maximum day and peak hour demands and a minimum of 20 psi during maximum day demand plus fire flow conditions. Head losses in water lines are calculated

using the Hazen-Williams equation with a "C" value of 110. Only locations where customers are served need to meet pressure requirements.

2.4 PIPELINE VELOCITIES

Distribution pipelines are designed for a maximum velocity of 5 fps for the ADD non-fire scenarios. The maximum velocity can increase to 7 fps for Peak Hour non-fire scenarios. For fire flow scenarios, the pipe cannot exceed a maximum velocity of 12 fps.

2.5 STORAGE VOLUMES

The total required volume of storage in a water system consists of water for operational storage, fire flow storage and terminal storage. Per the 2005 Water Master Plan, the project's operational storage and terminal storage is required to be equivalent to 50 percent of the maximum day demand and 10% of the reservoir storage volume, respectively. Fire flow and duration requirements 2,500 gpm for 2-hour duration based on City requirements which equals 0.30 MG**.** Water reservoir storage requirements are evaluated on a zone-by-zone basis.

2.6 PUMP CAPACITY

Booster Pump Stations are typically sized to deliver the maximum day demands of the service areas, except in service areas supplied by a closed zone (where the booster pumps must meet peak hour demands plus fire flow requirements and have fire-rated pumps). All booster stations shall incorporate a standby pump of the same size as the largest duty pump in case the largest unit is taken out of service. The pump station shall be designed so that the duty pump and standby pump start in alternating cycles. This will reduce the maintenance issues on the pumps and extend the life of the pumps. The pump stations should be equipped with modern pump controllers, flow meters, suction and discharge pressure gauges, proper isolation valves, and telemetry equipment. The booster station should also be equipped with an emergency standby generator and automatic transfer switch to provide backup power in the event of a power outage.

Section

3

PROJECTED WATER DEMANDS AND STORAGE REQUIREMENTS

This section provides the projected water demand for the Skyline Heights project and provides reservoir storage requirements for the Project.

3.1 PROJECTED WATER DEMANDS

Using the water duty factors from Section 2 and the land use plan, **Table 3-1** provides the project water demands by pressure zone for the Project.

TABLE 3-1

SKYLINE HEIGHTS- WATER DEMAND SUMMARY							
Development Phase Land Use	**Residential Lots (DU)**	**Area (acres)**	**DU/AC**	**Water Duty Factor, gpd/ac**	**Average Day Demand (MGD)**	**Maximum Day Demand (MGD)**	**Peak Hour Demand (MGD)**
Zone 5							
1 Residential	104	13.1	7.9	3,750	0.049	0.088	0.082
Subtotal Zone 5	**104**				**0.049**	**0.088**	**0.082**
Zone 6A							
2 Residential	111	34.7	3.2	3,540	0.123	0.221	0.308
2 Park	---	9.25	---	1,200	0.011	0.020	0.028
3 Residential	77	16.0	4.8	3,540	0.057	0.102	0.142
Subtotal Zone 6A	**188**				**0.191**	**0.343**	**0.478**
Total	**292**				**0.240**	**0.431**	**0.560**

3.2 RESERVOIR STORAGE REQUIREMENTS

Using the projected water demands, **Table 3-2** summarizes the required reservoir storage for each water service zone based upon the design criteria outlined in Section 2. The sizing presented in **Table 3-2** is for the Skyline Heights project only and does not include oversizing to accommodate other neighboring developments as there are no known neighboring properties that will require service from these facilities.

Reservoir storage is made up of operational storage, terminal (or emergency) storage, and fire flow storage. Operational and terminal storage are based on projected water demands within the reservoir service area and increase as the reservoir service area increases. Fire flow storage is based on the largest fire flow requirement within the water service zone. Fire flow storage is provided by water service zone and not required for each individual reservoir where service zones include more than one reservoir in the system. For the Zone 5 reservoir, the City is requiring the Project fire flow requirements to be included in the reservoir storage requirements.

TABLE 3-2

RESERVOIR STORAGE REQUIREMENTS

Water Pressure Zone	Maximum Day Demand (mgd)	Required Operational Storage (MG)	Required Fire Flow Storage (MG)	Required Terminal Storage (MG)	Total Required Storage (MG)
Zone 5	0.088	0.044	0.300[1]	0.034	0.378
Zone 6A	0.343	0.172	0.300	0.047	0.519

[1] Fire flow storage is already provided in existing Zone 5 reservoirs, but has been included at the request of the City.

Section

4

EXISTING AND PROPOSED WATER FACILITIES

This section discusses the existing and proposed water facilities that will provide service to the Skyline Heights project. The project site was identified as "Specific Plan Area" in the City of Corona 2005 Water Master Plan report, but details on the assumed land uses were not provided in the body of the 2005 Water Master Plan. The current project is being included in the updated water master planning efforts that are currently in progress. Per the modeling results conducted by the City, with the construction of onsite Zone 5 and Zone 6A storage facilities, no additional offsite regional improvements are required to support the project.

The primary source of water to the project is from the Zone 5 transmission line in Foothill Parkway that is supplied by Zone 5 reservoirs located to the south of the project. An emergency source of supply to Zone 5 development in the area is the Zone 5 booster station that was constructed within the Sierra Bella Project to the north. This booster station includes two Zone 5 pumps that are supplied from a connection to the Zone 3 system. Each pump has a capacity of 1,500 gpm with one pump acting as the duty pump and the other pump acting as a standby. This station does not run during normal operating conditions, but would come on in the event of a pressure drop caused by something such as the transmission line in Foothill Parkway being out of service. The station was designed to provide emergency fire protection service to the Sierra Bella project.

4.1 EXISTING FACILITIES

The project is in the City's southwestern water service area. The existing water facilities in the vicinity of the project that are pertinent to providing service to the project are located within the City's Zone 4 (1220' HWL) and Zone 5 (1380' HWL) water service zones. **Figure 4-1** presents the existing regional water facilities in the vicinity of the project and a brief description is provided below.

4.1.1 ZONE 4

There is an existing 16-inch Zone 4 water line in Foothill Parkway, adjacent to the project site. This line has been extended to Mabey Canyon Road with a 16-inch line and a 12-inch line installed in Mabey Canyon Road, north of Foothill Parkway. A 16-inch Zone 4 line is extended off Mabey Canyon Road to the Avenida Del Vista Reservoir site. The Avenida Del Vista Reservoir is located just north of Foothill Parkway, has a capacity of 1.6 million gallons and a high water line elevation of 1220 feet. Zone 4 is not proposed to provide direct service to any development within the Skyline Heights project, but it does provide a source of supply to the area.

4.1.2 ZONE 5

There is an existing 16-inch Zone 5 water line in Foothill Parkway, adjacent to the project site. This line has been extended from the Zone 5 system to the southeast, north to Green River Road. In the vicinity of the Project site, the Zone 5 system provides service to the residential tract that is adjacent to the southeast project boundary. The Zone 5 system also provides service to small pockets of development on the east side of Foothill Parkway.

There are two existing Zone 5 reservoirs located southeast of the Project. The Eagle Glen Reservoir has a capacity of 2.0 million gallons and a high water line elevation of 1380 feet. The Gilbert Reservoir has a capacity of 4.7 million gallons and a high water line elevation of 1380 feet. The Zone 5 reservoirs are supplied by the Lester Booster Station, the Border Booster Station, and the Eagle Glen Booster Station.

4.2 PROPOSED FACILITIES

The range of elevations on the proposed Skyline Heights project allows a small portion of the Project to be served from the Zone 5 system, but most of the Project is too high in elevation to be served from Zone 5. To serve the upper elevations of the Project, a new Zone 6A is proposed to be formed. For the distribution system, the City does not allow more than 10 homes or 500 feet of piping to be served without system looping. **Figure 4-1** presents the proposed water facilities to provide service to the Project and a brief description is provided below.

4.2.1 ZONE 5

The only area of the Project that can receive service from the Zone 5 system is the proposed development at the north end of the Project, north of Mabey Canyon. This area of the project is proposed to be served by making connections to the existing 16-inch Zone 5 line in Foothill Parkway. In order to provide redundancy to this area of development, two connections are proposed to the line in Foothill Parkway with dual lines extended into the development area. Proposed development pad elevations in this area of the project range from 1185 feet to 1215 feet, resulting in maximum static pressures ranging from 71 psi to 84 psi with service from the Zone 5 system. All lots with static pressures that exceed 80 psi will require individual pressure regulators in accordance with California Plumbing Code requirements.

The City of Corona 2005 Master Plan indicates that the existing Zone 5 reservoirs have a surplus capacity of 1.77 MG under existing (2004) conditions and a surplus capacity of 1.22 MG under future (2020) conditions. While the existing Zone 5 Reservoirs have adequate capacity, the existing reservoirs are located a long distance from the Skyline Heights project and the City has determined that additional Zone 5 storage is required in the Skyline Heights area to serve the Project and other Zone 5 development in the area. At the City's request and consistent with the City Capital Improvement Program, a 2.5 MG Zone 5 reservoir has been incorporated into planning of the Skyline Heights project.

Several potential reservoir sites were reviewed with the City and the selected site is proposed in the central portion of the site, within the Phase 2 development area. The Zone 5 supply for the reservoir will be from the existing 16-inch Zone 5 line in Foothill Parkway and a 16-inch line will be routed to the proposed reservoir. Per the modeling results conducted by the City, with the construction of the onsite Zone 5 storage facilities, no additional offsite regional improvements are required to support the project.

4.2.2 ZONE 6A

The majority of the Project is above the service elevation range of the Zone 5 system and a new Zone 6A is proposed to be formed to serve the Project. The Zone 6A system will be formed by pumping from the Zone 5 reservoir site to an onsite Zone 6A tank with a proposed high water line elevation of 1560 feet. The proposed range of pad elevations in the service area is 1218 feet to 1412 feet which results in maximum static pressures ranging from 64 psi to 148 psi with service from the Zone 6A tank. All lots with static pressures that exceed 80 psi will require individual pressure regulators in accordance with California Plumbing Code requirements.

The Zone 6A tank is being sized to serve the Skyline Heights project only and requires a minimum capacity of 0.519 million gallons. A 0.60 million gallon tank is proposed at the request of the City. An above ground tank is proposed, and the location of the tank site is provided on **Figure 4-1**. The Zone 6A Booster Station is proposed to be located at the Zone 5 Reservoir site and must have a minimum capacity of 238 gpm (0.343 mgd maximum day demand per **Table 3-1**) to meet the maximum day demands of development within the service area. A booster station with a firm capacity of 500 gpm is proposed and will consist of a duty pump and standby pump, each rated for this capacity.

4.3 WATER SYSTEM MODELING

The domestic water system was analyzed using Innovyze InfoWater Hydraulic Modeling Software. The hydraulic model was created by inputting the geometry of the proposed water system. Elevation grades from the preliminary tentative map prepared by KWC were utilized to input elevations at the various junctions of the model. City of Corona planning criteria were used to establish demands, minimum diameters, maximum velocities, and Hazen-Williams friction factors. Junctions were placed at intersections to join two or more pipelines and demands were applied for average day demand, peak hour demand, and maximum day demand plus fire flow scenarios. **Attachment B** provides the computer modeling output and corresponding node and pipe diagram that was used to evaluate the project water system.

The Zone 5 hydraulic model was based on service from the new onsite reservoir and the hydraulic grade line in the model was assumed to be 20 feet below the design grade line of the reservoir. Based on a design reservoir high water line of 1380 feet, the assumed hydraulic grade line used in the hydraulic modeling is 1360 feet.

The results of the Zone 5 system modeling confirm that the minimum pressure requirements and maximum pipeline velocity requirements are met under normal daily demand scenarios considered

The Zone 6A hydraulic model was based on service from the proposed onsite reservoir, assuming the Zone 6A Booster Station was not in operation. For the available hydraulic grade line, the reservoir level was assumed to be 20 feet below the high water line, or at an elevation of 1540 feet. The results of the Zone 6A system modeling confirm that the minimum pressure requirements and maximum pipeline velocity requirements are met under all demand scenarios considered in this report.

The modeling results indicate locations near the supply reservoirs where low system pressures will occur. This is expected and City minimum pressure criteria only applies to areas of the system where customers are being served.

4.4 COST SHARING

The majority of improvements required to serve the Skyline Heights project are sized for the project only and will be funded by the Project as the site develops. The regional facilities that will be subject to cost sharing between the development and the City include the proposed 2.5 MG Zone 5 Reservoir and the 16-inch Zone 5 line that supplies the reservoir. These facilities will serve regional development in the area and are typically funded through the City's Capital Improvement Program. The Project's Zone 5 demands and Zone 5 water storage requirements provided in **Table 3-2** represent 15.1 percent of the 2.5 MG storage reservoir. The City of Corona requirement is for the Project to include Zone 5 and Zone 6A storage requirements in the Zone 5 reservoir which results in a fair share of 35.9 percent. The City of Corona and developer are currently discussing fair share costs for these improvements and the final agreed upon cost sharing will be incorporated into the development agreement for the project.

LEGEND

- EXISTING ZONE 4
- PROPOSED ZONE 4
- PROPOSED ZONE 5
- EXISTING ZONE 5
- PROPOSED ZONE 6A

EXISTING AVENIDA DEL VISTA RESERVOIR
1.60 MG (ZONE 4)
HWL ELEV. 1220'

MABEY CANYON RD

BORDER AVE

W CHASE DR

FOOTHILL PKWY

TRACT 36544-1

TRACT 36544-2

TRACT 36544-3

NAP

POC

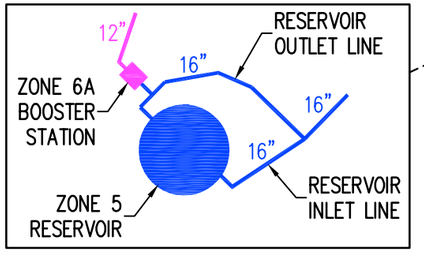
POC
NORMALLY CLOSED
VALVE

RESERVOIR
TO HAVE SEPARATE
INLET/OUTLET LINES

PROPOSED RESERVOIR
0.60 MG (ZONE 6A)
HWL ELEV. 1560

PROPOSED ZONE 6A
BOOSTER STATION

PROPOSED RESERVOIR
2.50 MG (ZONE 5)
WITH SEPARATE
INLET/OUTLET LINES



DETAIL

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FIGURE 4-1

PROPOSED WATER
FACILITIES MAP

JN: 2012.1344 R:\12\1344\FINAL\REPORTS\WAT\FIGURES\1344 WAT FIG 4-1.dwg 12/18/25 3:42 PM

Section

5
PHASING

This section of the report identifies the proposed project phasing and provides the required water system improvements to serve each phase of the project.

5.1 PROJECT PHASING

The Skyline Heights project will be developed in three major phases. The first phase is the development at the north end of the project, north of Mabey Canyon. The second phase consists of the eastern portion of proposed development south of Mabey Canyon and the third phase includes the remainder of the project located along the western edge of the development. **Figure 5-1** provides the location of the proposed project phases.

5.2 WATER FACILITY PHASING

The Project will be required to construct water infrastructure that allows phased construction of the Project. City of Corona looping criteria will need to be met with each individual phase of development. Service to Phase 1 is independent of the rest of the project and can be served by connection to the existing Zone 5 system in Foothill Parkway. The Zone 5 reservoir and supply line is required in Phase 1 to meet the maximum day demand plus fire flow scenario. Phase 2 is located within Zone 6A and will require the Zone 6A Reservoir and Zone 6A Booster Station to be in service prior to providing service to the first lot in this phase. Backbone Zone 6A water lines and distribution system improvements to the development areas will also be required as part of Phase 2. The remainder of the Zone 6A water system will be completed with Phase 3 of the project. **Figure 5-1** provides the proposed water facility improvements for each phase of the project.

EXISTING AVENIDA DEL VISTA RESERVOIR
1.60 MG (ZONE 4)
HWL ELEV. 1220'

MABEY CANYON RD

BORDER AVE

W CHASE DR

FOOTHILL PKWY

TRACT 36544-1

TRACT 36544-2

TRACT 36544-3

RESERVOIR TO HAVE SEPARATE INLET/OUTLET LINES

PROPOSED RESERVOIR
0.60 MG (ZONE 6A)
HWL ELEV. 1560

PROPOSED ZONE 6A BOOSTER STATION

PROPOSED RESERVOIR
2.50 MG (ZONE 5)
WITH SEPARATE
INLET/OUTLET LINES

NAP

LEGEND

DEVELOPMENT PHASING

- PHASE 1
- PHASE 2
- PHASE 3

FACILITY PHASING

- EXISTING WATER LINE
- PHASE 1 WATER LINE
- PHASE 2 WATER LINE
- PHASE 3 WATER LINE

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SCALE: 1"=600'

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FIGURE 5-1

PROPOSED WATER
FACILITIES PHASING MAP

JN: 2012.1344 R:\12\1344\FINAL\REPORTS\WAT\FIGURES\1344 WAT FIG 5-1.dwg 12/16/25 3:43 PM

Section

6
RECLAIMED WATER SYSTEM

Reclaimed water is proposed to be used for the irrigation of common landscaped area and slopes on the Project. The preliminary location of irrigated slopes and irrigation meters has been provided by the project landscape architect and the conceptual plan has been included in **Appendix C** for reference. The reclaimed water requirements will be updated during the final engineering phase of the Project.

6.1 PLANNING CRITERIA

This section presents the design criteria used to evaluate recommended reclaimed water system improvements required for the Skyline Heights project. The criteria utilized in this study are in accordance with the City of Corona 2018 Reclaimed Water Master Plan and the 2012 Department of Water and Power Design Policy.

6.1.1 RECLAIMED PLANNING CRITERIA

The planning criteria used to evaluate the proposed recycled water system are from the November 2012 City of Corona Design Policy. A summary of planning criteria utilized in the evaluation of this Project is provided in **Table 6-1.**

TABLE 6-1

PLANNING CRITERIA		
Description	**Value**	**Unit**
Average Day Demand	4,500	gpd/ac
Average Day to Maximum Day Demand Factor	4.0	unitless
Average Day to Peak Hour Demand Factor	8.0	unitless
Average Day Demand Minimum Dynamic Pressure	80	psi
Maximum Day Demand Minimum Dynamic Pressure	60	psi
Maximum Distribution Pipe Velocity During PHD	7	fps

6.1.2 RECLAIMED WATER USE

The primary potential for the use of reclaimed water within the Project is for irrigating slope landscaping. The irrigation zones and acreages were taken from the conceptual landscape plan provided in **Appendix C**. Projected reclaimed water use is summarized in **Table 6-2**.

TABLE 6-2

SKYLINE HEIGHTS RECLAIMED WATER DEMAND SUMMARY						
Meter No.	**Irrigated Area, Ac**	**Demand Factor, gpd/ac**	**Average Daily Demand, (MGD)**	**Maximum Day Demand, (MGD)**	**Peak Hour Demand (MGD)**	**Peak Hour Demand (gpm)**
1380 Zone						
12	3.9	4,500	0.018	0.070	0.140	97.5
13	5.5	4,500	0.025	0.099	0.198	137.5
Subtotal 1380 Zone						**235**
1650 Zone						
1	3.7	4,500	0.017	0.067	0.133	92.5
2	5.4	4,500	0.024	0.097	0.194	135
3	6.3	4,500	0.028	0.113	0.227	157.5
4	5.8	4,500	0.026	0.104	0.209	145
5	7.1	4,500	0.032	0.128	0.256	177.5
6	5.8	4,500	0.026	0.104	0.209	145
7	9.0	4,500	0.041	0.162	0.324	225
8	5.1	4,500	0.023	0.092	0.184	127.5
9	0.8	4,500	0.004	0.014	0.029	20
10	5.2	4,500	0.023	0.094	0.187	130
11	3.8	4,500	0.017	0.068	0.137	95
Subtotal 1650 Zone						**1,450**
Total						**1,685**

6.1.3 SYSTEM PRESSURES

The required residual pressures for the reclaimed water system are 80 psi during average day demands and 60 psi during peak hour demands.

6.1.4 PIPELINE VELOCITIES

Distribution pipelines are sized to have a maximum velocity of 7 feet per second under peak hour demand conditions.

6.2 EXISTING FACILITIES

A 12-inch 1380 Zone reclaimed water line was constructed as part of the City's Foothill Parkway Westerly Extension Improvements and is located in Foothill Parkway from Chase Drive to Green River Road and in Chase Drive from Foothill Parkway to Skyline Drive. The 1380 Zone is currently supplied by the WRF 3 Booster Station and Border Avenue Booster Station. The zone serves elevations between 1033 ft to 1355 ft AMSL. Water is stored in the Gilbert Reservoir and WRF 3, having a capacity of 1.0 MG and 1.0 MG, respectively. WRF 3 will ultimately be decommissioned, so it is assumed that reclaimed water from this source will not be available for long-term consideration.

6.3 PROPOSED FACILITIES

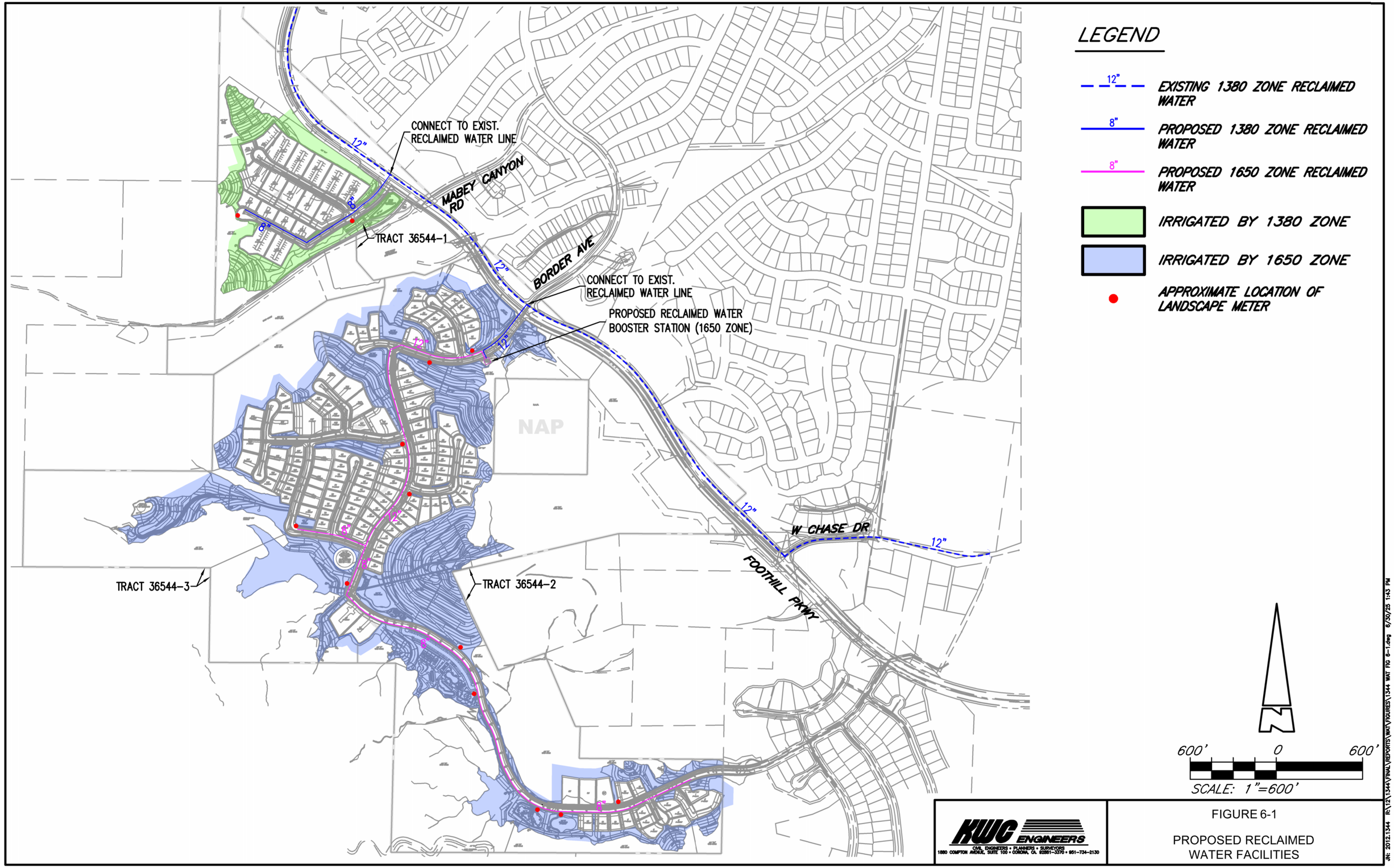
The Skyline Heights project will be served by the City's existing 1380 Zone for the northerly portion of the project site. The remaining southerly portion of the site will be served by a proposed 1650 Zone, which will utilize a closed pumping system to provide the necessary system pressures. **Figure 6-1** presents the Proposed Reclaimed Water Facilities Plan, which illustrates the boundaries of the project and the proposed reclaimed water facilities for the Skyline Heights project. Irrigation meter locations were based on the conceptual landscape plan in **Appendix C**.

6.3.1 1380 ZONE

The 1380 Zone portion of the project will be served by making connections to the existing 12-inch line in Foothill Parkway. One connection will be made at the entry to the Phase 1 development and extended within Phase 1 to the irrigation points of connection. A second connection will be made at Border Avenue and extended to supply the 1650 Zone Booster Station. The reclaimed water demands and precise points of connection are not known at this time, but will be coordinated with the project landscape architect and used to confirm the sizing and limits of proposed reclaimed water piping. The landscape exhibit in **Appendix C** provides the anticipated pressure at each of the landscape meters. For the meters served by the existing 1380 Zone system, the anticipated pressure is 70 psi minimum.

6.3.2 1650 ZONE

The 1650 Zone portion of the project will be supplied by a proposed onsite 1650 Zone Booster Station. This booster station will be a closed pumping system with a duty pump and standby pump, each sized for peak demands of the 1650 Zone. Based on the information provided in **Table 6-1**, the booster station would need to be sized for a capacity of 1,450 gpm. From the booster station, it is proposed to install 8-inch through 12-inch lines in the backbone street and to the irrigation points of connection. The reclaimed water demands and precise points of connection will be coordinated with the project landscape architect to confirm the limits of proposed reclaimed water piping. The landscape exhibit in **Appendix C** provides the anticipated pressure at each of the landscape meters. For the meters served by the proposed 1650 Zone system, the anticipated pressure is 108 psi minimum.



KWC ENGINEERS
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1880 COMPTON AVENUE, SUITE 100 • CORONA, CA. 92881-3370 • 951-734-2130

FIGURE 6-1

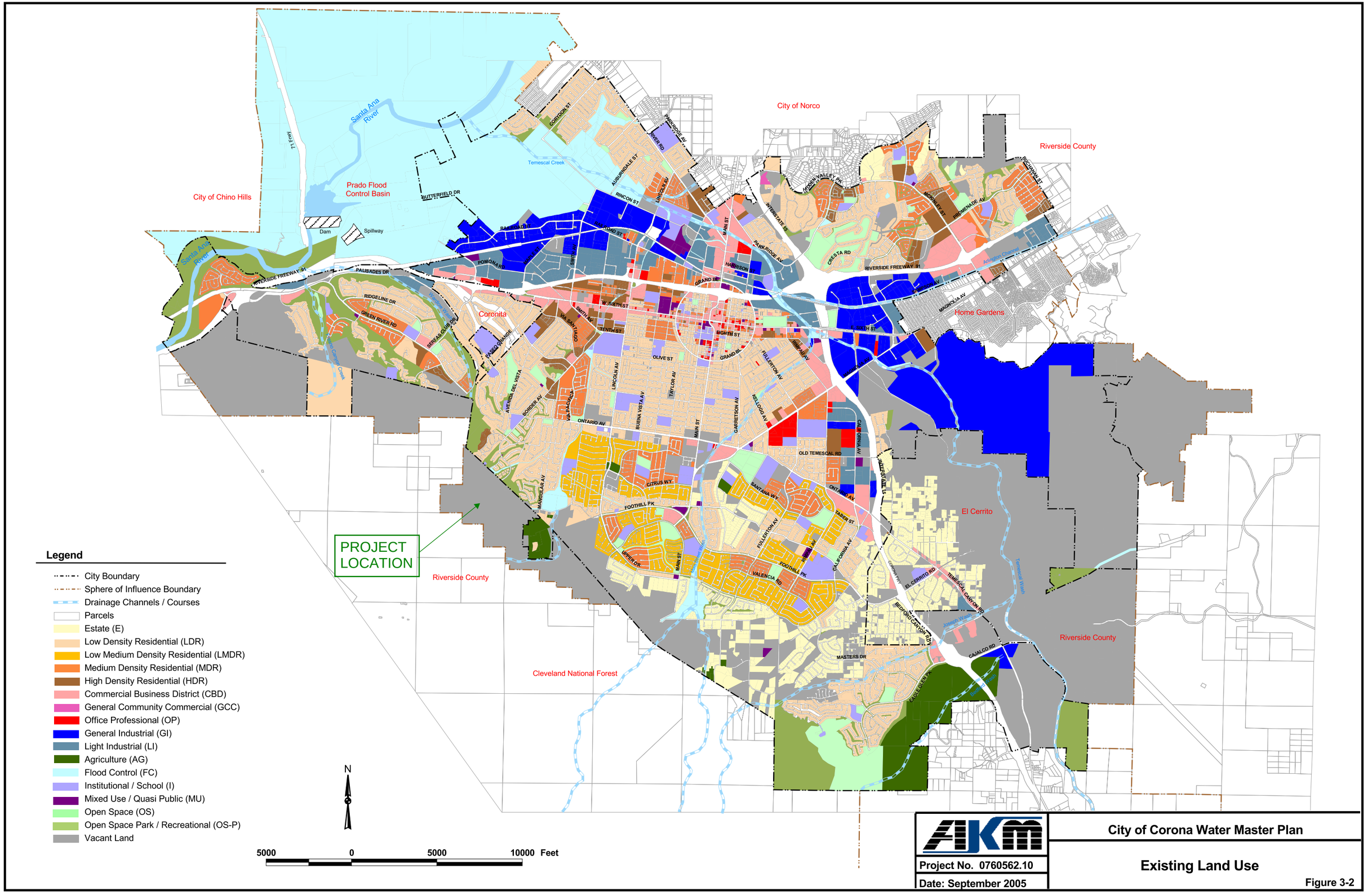
PROPOSED RECLAIMED WATER FACILITIES

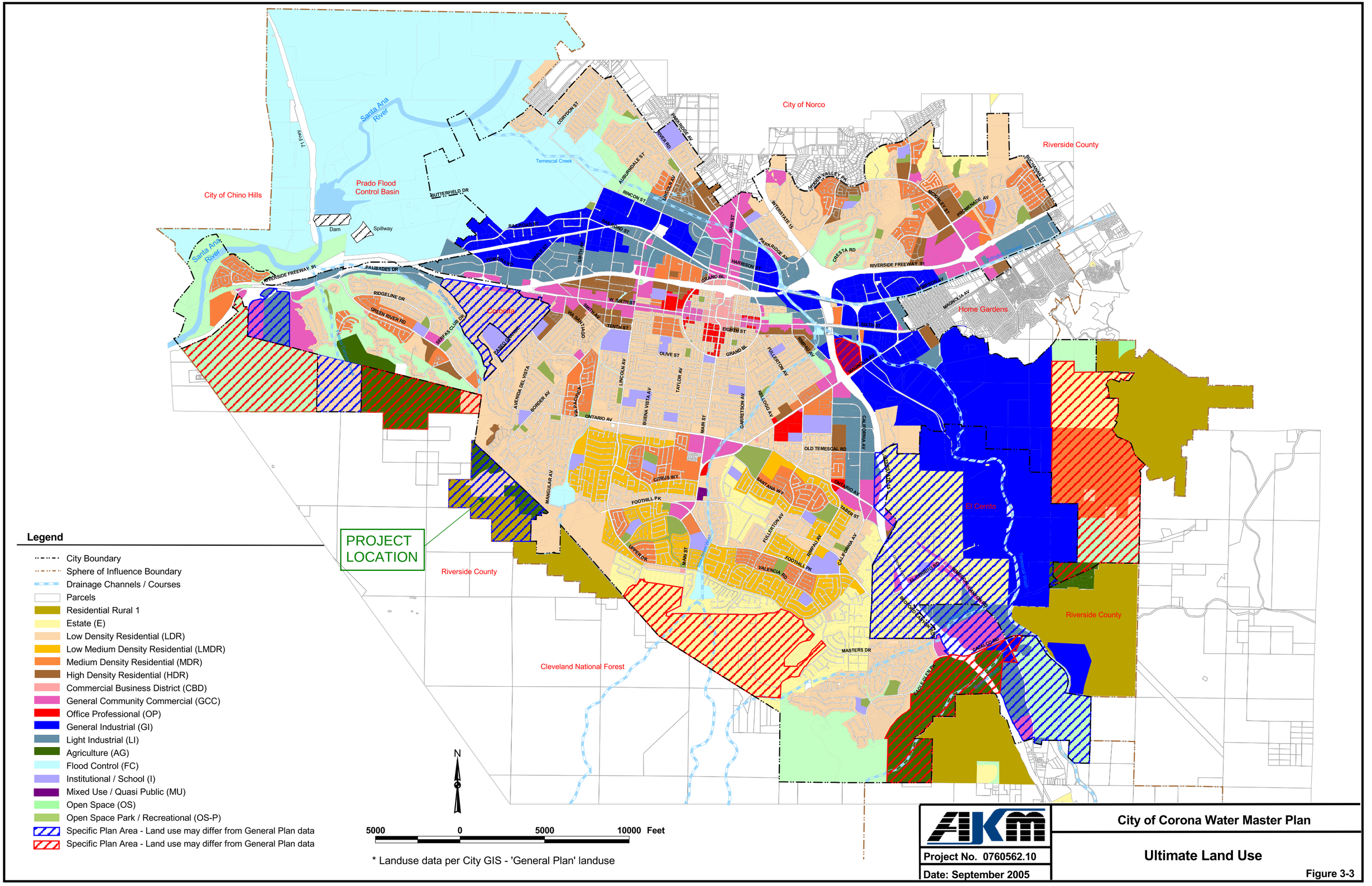
JN: 2012.1344 R:\12\1344\FINAL\REPORTS\WAT\FIGURES\1344 WAT FIG 6-1.dwg 6/30/25 1:43 PM

Appendix

A

2005 WATER MASTER PLAN EXCERPTS


City of Chino Hills
Prado Flood Control Basin
Santa Ana River
Dam
Spillway
Temescal Creek
City of Norco
Riverside County
Coronita
Home Gardens
El Cerrito
Cleveland National Forest
PROJECT LOCATION
Riverside County
Riverside Freeway 91
Pomona Fwy
Interstate 15
Palisades Dr
Ridgeline Dr
Green River Rd
Sierras Club Dr
Paseo Grande
Via Santiago
Smith Av
Tenth St
W. Sixth St
E. Sixth St
Eighth St
Grand Bl
Main St
Railroad St
Rincon St
Auburndale St
Lincoln Av
River Rd
Parkridge Av
Gordon St
Hidden Valley Pk
Promenade Av
Pierson Pl
McKinley St
Buchanan St
Cresta Rd
Harrison St
Olive St
Fullerton Av
Kellogg Av
Taylor Av
Buena Vista Av
Garretson Av
Lincoln Av
Via Pacheco
Avenida Del Vista
Border Av
Ontario Av
Citrus Wy
Foothill Pk
Mangular Av
Santana Wy
Yaber St
Valencia Rd
Upper Dr
Old Temescal Rd
California Av
Valley View Ln
Corona Fwy
El Cerrito Rd
Temescal Canyon Rd
Bedford Canyon Rd
Cajalco Rd
Eagle Eye Pk
Masters Dr
Magnolia Av
Joseph Wash
Temescal Wash
Arlington Channel
Butterfield Dr
Tenth St
Lincoln Av
Main St
Smith Av
Fullerton Av
Rincon St
Railroad St
Pomona Fwy
Palisades Dr
Ridgeline Dr
Green River Rd
Sierras Club Dr
Paseo Grande
Via Santiago
Smith Av
Tenth St
W. Sixth St
Eighth St
Grand Bl
Main St
Railroad St
Rincon St
Auburndale St
Lincoln Av
River Rd
Parkridge Av
Gordon St
Hidden Valley Pk
Promenade Av
Pierson Pl
McKinley St
Buchanan St
Cresta Rd
Harrison St
Olive St
Fullerton Av
Kellogg Av
Taylor Av
Buena Vista Av
Garretson Av
Lincoln Av
Via Pacheco
Avenida Del Vista
Border Av
Ontario Av
Citrus Wy
Foothill Pk
Mangular Av
Santana Wy
Yaber St
Valencia Rd
Upper Dr
Old Temescal Rd
California Av
Valley View Ln
Corona Fwy
El Cerrito Rd
Temescal Canyon Rd
Bedford Canyon Rd
Cajalco Rd
Eagle Eye Pk
Masters Dr
Magnolia Av
Joseph Wash
Temescal Wash
Arlington Channel
Butterfield Dr
Legend
City Boundary
Sphere of Influence Boundary
Drainage Channels / Courses
Parcels
Estate (E)
Low Density Residential (LDR)
Low Medium Density Residential (LMDR)
Medium Density Residential (MDR)
High Density Residential (HDR)
Commercial Business District (CBD)
General Community Commercial (GCC)
Office Professional (OP)
General Industrial (GI)
Light Industrial (LI)
Agriculture (AG)
Flood Control (FC)
Institutional / School (I)
Mixed Use / Quasi Public (MU)
Open Space (OS)
Open Space Park / Recreational (OS-P)
Vacant Land
N
5000 0 5000 10000 Feet
AKM
City of Corona Water Master Plan
Project No. 0760562.10
Date: September 2005
Existing Land Use
Figure 3-2



Legend

- City Boundary
- Sphere of Influence Boundary
- Drainage Channels / Courses
- Parcels
- Residential Rural 1
- Estate (E)
- Low Density Residential (LDR)
- Low Medium Density Residential (LMDR)
- Medium Density Residential (MDR)
- High Density Residential (HDR)
- Commercial Business District (CBD)
- General Community Commercial (GCC)
- Office Professional (OP)
- General Industrial (GI)
- Light Industrial (LI)
- Agriculture (AG)
- Flood Control (FC)
- Institutional / School (I)
- Mixed Use / Quasi Public (MU)
- Open Space (OS)
- Open Space Park / Recreational (OS-P)
- Specific Plan Area - Land use may differ from General Plan data
- Specific Plan Area - Land use may differ from General Plan data

* Landuse data per City GIS - 'General Plan' landuse

AKM

Project No. 0760562.10

Date: September 2005

City of Corona Water Master Plan

Ultimate Land Use

Figure 3-3

Table 7-1
Existing Storage Conditions (2004)

Zone	[1]Average Day Demand (Gallons/Day)	[2]Maximum Day Demand (Gallons/Day)	Fire Flow (Gallons/Day)	50% Maximum Day Demand + Fire Flow + 10% Dead Storage (Gallons/Day)	Storage Needed (MG)	Existing Storage (MG)	Additional Storage Proposed (MG)
1	2824840	4608958	840000	3458927	3.46	1.5	0.0
2	11486090	18740497	840000	11231273	11.23	6[5]	0.0
3	9773810	15946772	840000	9694725	9.69	17.5	0.0
4	6602020	10771737	720000	6716455	6.72	7.2	0.0
5	4616050	7531464	720000	4934305	4.93	6.7	0.0
6	944220	1540572	180000	1045315	1.05	2.5[6]	0.0
Total	36247030	59140000	4140000	37081000	37.08	41.4	0.0

Table 7-2
Future Storage Conditions (2020)

Zone	[3]Average Day Demand (Gallons/Day)	[4]Maximum Day Demand (Gallons/Day)	Fire Flow (Gallons/Day)	50% Maximum Day Demand + Fire Flow + 10% Dead Storage (Gallons/Day)	Storage Needed (MG)	Existing Storage (MG)	Additional Storage Proposed (MG)
1	2773862	4992952	840000	3670123	3.67	1.5	0.0
2	12557020	22602636	840000	13355450	13.36	6[5]	1 @ 2.5
3	13710960	24679728	840000	14497850	14.50	17.5	0.0
4	8169630	14705334	720000	8879934	8.88	7.2	2 @ 2.5
5	4730880	8515584	720000	5475571	5.48	6.7	0.0
6	2163720	3894696	180000	2340083	2.34	2.5[6]	0.0
Total	44106072	79390930	4140000	48219011	48.22	41.4	7.5

Notes:

(1) Based on metered data.

(2) Based on 5-year City data (1999 – 2004).

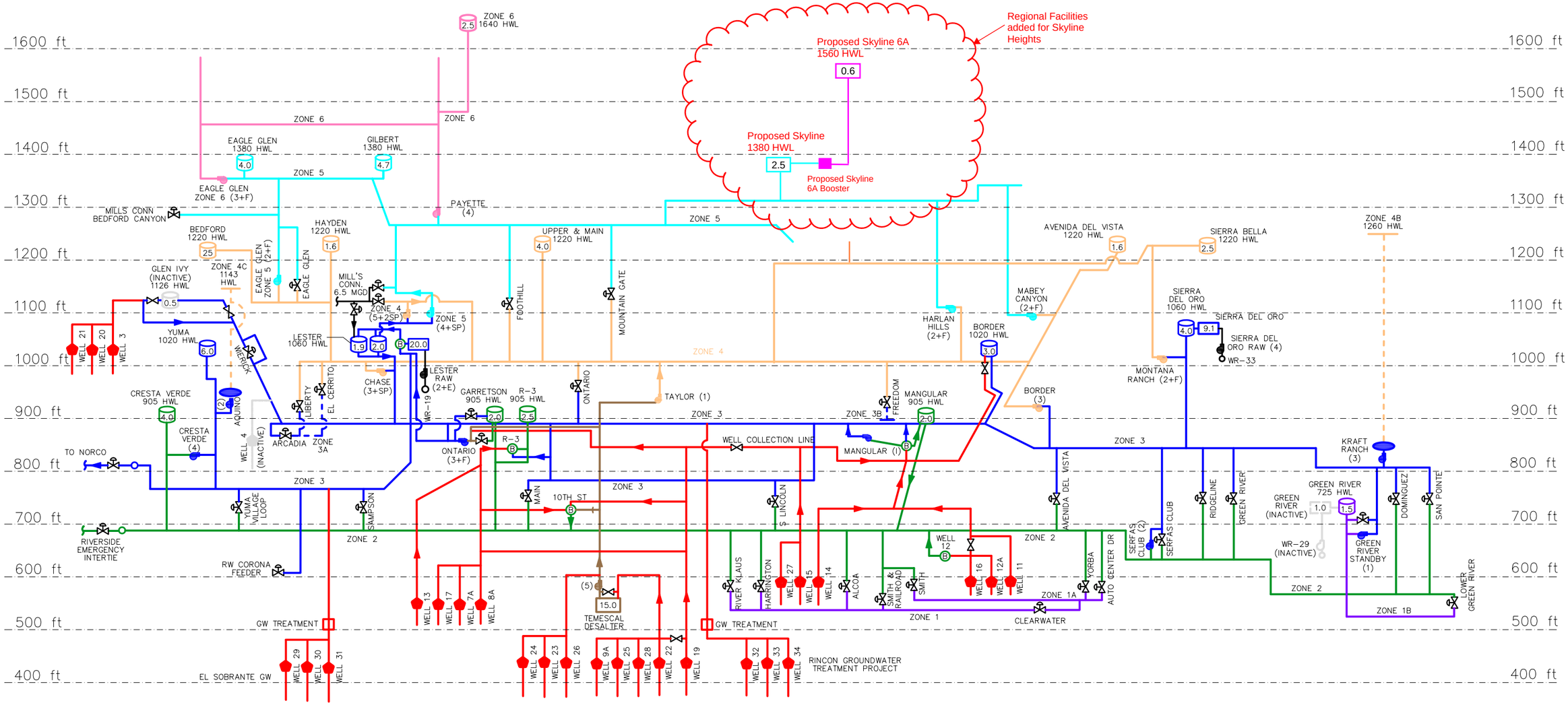
(3) Based on land use and unit flow factors.

(4) Based on 1.8 peaking factor.

(5) Does not include the 2 MG Garretson Reservoir (which acts as a pumping forebay for the Ontario BPS, and can not provide downward system storage to Zone 2).

(6) Zone 6 Reservoir is currently under construction.

While the Existing storage conditions are sufficient, the Future storage conditions require 6.8 MG of additional storage. It is recommended that one 2.5 MG reservoir in Zone 2 (R-3) and two 2.5 MG reservoirs in Zone 4 (Montana Ranch and Masters) be built for the Future system. The Zone 6 Reservoir is included as a future project, even though it is already in the construction phase, because it will be in service after the calibration day, March 18, 2004.



LEGEND

- 750/820/725 ZONE (ZONE 1, 1A, & 1B)
- 905 ZONE (ZONE 2)
- 1060/1100 ZONE (ZONE 3, 3A, & 3B)
- 1220 ZONE (ZONE 4, 4A, 4B & 4C)
- 1380 ZONE (ZONE 5, 5A, & 5B)
- 1640 ZONE (ZONE 6)
- WELL COLLECTION
- MWD–WMWD SUPPLY
- TEMESCAL DESALTER LINE
- CLOSED ZONE
- INACTIVE OR FUTURE FACILITY

- PRV
- PUMP STATION WITH NUMBER OF PUMPS
  - E=EMERGENCY PUMP
  - F=FIRE PUMP
  - SP=SPARE PUMP
- WELL
- NORMALLY CLOSED VALVE
- RESERVOIR WITH CAPACITY IN MG
- HYDROPNEUMATIC RESERVOIR
- 20.0 TREATMENT PLANT WITH CAPACITY IN MGD
- CONN TO MWD
- B BLENDING STATION

SERVICE ELEVATIONS

ZONE	FROM	TO
1	430'	600'
2	600'	760'
3	760'	900'
4	900'	1100'
5	1100'	1260'
6	1260'	1520'

WATER SUPPLY

WELLS (LESS DESALTER)	20.0 MGD
DESALTER	15.0 MGD
LESTER WTP	20.0 MGD
SDO WTP	9.1 MGD
MILL'S CONNECTION	6.5 MGD
EL SOBRANTE GROUNDWATER WTP	4.7 MGD
RINCON GROUNDWATER WTP	4.7 MGD
TOTAL SUPPLY	80.0 MGD

AKM

Project No. 0760562.10

Date: September 2005

City of Corona Water Master Plan

Future Water System Hydraulic Profile

Figure 7–2

Appendix

B

HYDRAULIC MODELING RESULTS

SKYLINE HEIGHTS WATER DEMAND SUMMARY TABLE												
Demand Node No.	**Land Area No.**	**Land Use**	**Area (ac)**	**Dwelling Units**	**Average Daily Demand (gpd/ac)**	**Average Daily Demand (gpd/unit)**	**Average Day Demand (gpd)**	**Average Day Demand (gpm)**	**Max Day Factor**	**Maximum Day Demand (gpm)**	**Peak Hour Factor**	**Peak Hour Demand (gpm)**
ZONE 5 (PHASE 1)												
J14	1	LMDR	7.86	--	3,750	--	29,475	20.47	1.80	36.84	1.67	34.18
J10	2	LMDR	5.24	--	3,750	--	19,650	13.65	1.80	24.56	1.67	22.79
Total:	--	--	13.10	--	--	--	49,125	34.11	--	61.41	--	56.97
ZONE 6A (PHASE 2)												
J22	3	LDR	4.76	--	3,540	--	16,833	11.69	1.80	21.04	2.51	29.34
J26	4	LDR	2.71	--	3,540	--	9,584	6.66	1.80	11.98	2.51	16.70
J28	5	LDR	3.47	--	3,540	--	12,273	8.52	1.80	15.34	2.51	21.39
J32	6	LDR	4.41	--	3,540	--	15,617	10.85	1.80	19.52	2.51	27.22
J30	7	LDR	3.73	--	3,540	--	13,214	9.18	1.80	16.52	2.51	23.03
J48	8	LDR	4.40	--	3,540	--	15,573	10.81	1.80	19.47	2.51	27.14
J50	9	LDR	3.19	--	3,540	--	11,286	7.84	1.80	14.11	2.51	19.67
J60	10	LDR	8.06	--	3,540	--	28,528	19.81	1.80	35.66	2.51	49.73
J78	--	P	9.25	--	1,200	--	11,100	7.71	1.80	13.88	2.51	19.35
Total:	--	--	34.72	--	--	--	134,008	93.06	--	167.51	--	233.58
ZONE 6A (PHASE 3)												
J54	11	LDR	2.08	--	3,540	--	7,377	5.12	1.80	9.22	2.51	12.86
J36	12	LDR	4.65	--	3,540	--	16,453	11.43	1.80	20.57	2.51	28.68
J38	13	LDR	2.54	--	3,540	--	9,003	6.25	1.80	11.25	2.51	15.69
J42	14	LDR	3.58	--	3,540	--	12,676	8.80	1.80	15.85	2.51	22.10
J44	15	LDR	3.15	--	3,540	--	11,143	7.74	1.80	13.93	2.51	19.42
Total:	--	--	16.00	--	--	--	56,653	39.34	--	70.82	--	98.75

Note:

1) Maximum Day Demand is 1.80xADD
2) Peak Hour Demand is 1.67xADD for Zone 5
3) Peak Hour Demand is 2.51xADD for Zone 6A
4) Fire flow is 2,500 gpm for 2 hours at Node J10, Node J58/J60, and Node J42/J94

ONSITE WATER DEMANDS ANALYSIS RESULTS

Average Day Demand (ADD)

Junction Pressures @ Steady State Analysis					
ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)	
ZONE 5					
J6	0.00	1156.18	1359.99	88.31	<- Existing Node
J9	0.00	1159.47	1359.99	86.89	
J84	0.00	1159.62	1359.99	86.82	
J10	13.65	1215.28	1359.99	62.70	
J12	0.00	1203.62	1359.99	67.75	
J14	20.47	1189.71	1359.98	73.78	
J16	0.00	1183.90	1359.99	76.30	
J11	0.00	1215.28	1359.99	62.70	
J13	0.00	1203.62	1359.99	67.75	
J15	0.00	1189.71	1359.98	73.78	
J17	0.00	1183.90	1359.99	76.30	
J188	0.00	1154.36	1360.00	89.10	<- Existing Node
J190	0.00	1162.50	1360.00	85.57	<- Existing Node
J192	0.00	1171.76	1360.00	81.56	
J196	0.00	1264.17	1360.00	41.52	
J194	0.00	1238.50	1360.00	52.64	
J198	0.00	1288.33	1360.00	31.05	<- Near Reservoir
J200	0.00	1324.72	1360.00	15.29	<- Near Reservoir
J204	0.00	1341.76	1360.00	7.90	<- Near Reservoir
J202	0.00	1334.98	1360.00	10.84	<- Near Reservoir
J206	0.00	1347.74	1360.00	5.31	<- Near Reservoir

Reservoir Results @ Steady State Analysis		
ID	Flow (gpm)	Head (ft)
R50	-34.12	1360.00

ONSITE WATER DEMANDS ANALYSIS RESULTS

Average Day Demand (ADD)

Pipe Pressures @ Steady State Analysis											
ID	From Node	To Node	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status	
ZONE 5											
P6	J188	J6	836.45	16.00	110	34.12	0.05	0.00	0.00	Open	<- Existing Pipe
P84	J6	J84	253.97	16.00	110	18.28	0.03	0.00	0.00	Open	
P11	J6	J9	244.01	8.00	110	15.84	0.10	0.00	0.01	Open	
P13	J9	J16	348.28	8.00	110	15.84	0.10	0.00	0.01	Open	
P15	J16	J14	799.27	8.00	110	9.49	0.06	0.00	0.00	Open	
P17	J84	J17	371.71	8.00	110	18.28	0.12	0.01	0.02	Open	
P19	J12	J10	511.51	8.00	110	7.29	0.05	0.00	0.00	Open	
P7	J17	J12	350.30	8.00	110	7.29	0.05	0.00	0.00	Open	
P9	J13	J11	508.67	8.00	110	6.36	0.04	0.00	0.00	Open	
P10	J17	J15	782.95	8.00	110	10.98	0.07	0.00	0.01	Open	
P1	J15	J14	16.00	8.00	110	10.98	0.07	0.00	0.00	Open	
P2	J11	J10	26.00	8.00	110	6.36	0.04	0.00	0.00	Open	
P3	J16	J13	389.97	12.00	110	6.36	0.02	0.00	0.00	Open	
P151	J192	J190	173.22	16.00	110	34.12	0.05	0.00	0.00	Open	
P167	J190	J188	199.94	16.00	110	34.12	0.05	0.00	0.00	Open	<- Existing Pipe
P153	J194	J192	610.72	16.00	110	34.12	0.05	0.00	0.00	Open	
P155	J196	J194	259.54	16.00	110	34.12	0.05	0.00	0.00	Open	
P157	J198	J196	312.75	16.00	110	34.12	0.05	0.00	0.00	Open	
P159	J200	J198	388.14	16.00	110	34.12	0.05	0.00	0.00	Open	
P161	J202	J200	495.32	16.00	110	34.12	0.05	0.00	0.00	Open	
P163	J204	J202	218.43	16.00	110	34.12	0.05	0.00	0.00	Open	
P165	J206	J204	190.02	16.00	110	34.12	0.05	0.00	0.00	Open	
P169	R50	J206	76.54	16.00	110	34.12	0.05	0.00	0.00	Open	

ONSITE WATER DEMANDS ANALYSIS RESULTS

Maximum Day Demand (MDD)

Junction Pressures @ Steady State Analysis					
ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)	
ZONE 5					
J6	0.00	1156.18	1359.98	88.31	<- Existing Node
J9	0.00	1159.47	1359.97	86.88	
J84	0.00	1159.62	1359.98	86.82	
J10	24.57	1215.28	1359.96	62.69	
J12	0.00	1203.62	1359.96	67.74	
J14	36.85	1189.71	1359.95	73.77	
J16	0.00	1183.90	1359.96	76.29	
J11	0.00	1215.28	1359.96	62.69	
J13	0.00	1203.62	1359.96	67.74	
J15	0.00	1189.71	1359.95	73.77	
J17	0.00	1183.90	1359.96	76.29	
J188	0.00	1154.36	1359.99	89.10	<- Existing Node
J190	0.00	1162.50	1359.99	85.57	<- Existing Node
J192	0.00	1171.76	1359.99	81.56	
J196	0.00	1264.17	1359.99	41.52	
J194	0.00	1238.50	1359.99	52.64	
J198	0.00	1288.33	1359.99	31.05	<- Near Reservoir
J200	0.00	1324.72	1360.00	15.28	<- Near Reservoir
J204	0.00	1341.76	1360.00	7.90	<- Near Reservoir
J202	0.00	1334.98	1360.00	10.84	<- Near Reservoir
J206	0.00	1347.74	1360.00	5.31	<- Near Reservoir

Reservoir Results @ Steady State Analysis		
ID	Flow (gpm)	Head (ft)
R50	-61.42	1360.00

ONSITE WATER DEMANDS ANALYSIS RESULTS

Maximum Day Demand (MDD)

Pipe Pressures @ Steady State Analysis											
ID	From Node	To Node	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status	
ZONE 5											
P6	J188	J6	836.45	16.00	110	61.42	0.10	0.00	0.00	Open	<- Existing Pipe
P84	J6	J84	253.97	16.00	110	32.90	0.05	0.00	0.00	Open	
P11	J6	J9	244.01	8.00	110	28.51	0.18	0.01	0.03	Open	
P13	J9	J16	348.28	8.00	110	28.51	0.18	0.01	0.03	Open	
P15	J16	J14	799.27	8.00	110	17.07	0.11	0.01	0.01	Open	
P17	J84	J17	371.71	8.00	110	32.90	0.21	0.02	0.04	Open	
P19	J12	J10	511.51	8.00	110	13.13	0.08	0.00	0.01	Open	
P7	J17	J12	350.30	8.00	110	13.13	0.08	0.00	0.01	Open	
P9	J13	J11	508.67	8.00	110	11.44	0.07	0.00	0.01	Open	
P10	J17	J15	782.95	8.00	110	19.77	0.13	0.01	0.02	Open	
P1	J15	J14	16.00	8.00	110	19.77	0.13	0.00	0.02	Open	
P2	J11	J10	26.00	8.00	110	11.44	0.07	0.00	0.00	Open	
P3	J16	J13	389.97	12.00	110	11.44	0.03	0.00	0.00	Open	
P151	J192	J190	173.22	16.00	110	61.42	0.10	0.00	0.00	Open	
P167	J190	J188	199.94	16.00	110	61.42	0.10	0.00	0.00	Open	<- Existing Pipe
P153	J194	J192	610.72	16.00	110	61.42	0.10	0.00	0.00	Open	
P155	J196	J194	259.54	16.00	110	61.42	0.10	0.00	0.00	Open	
P157	J198	J196	312.75	16.00	110	61.42	0.10	0.00	0.01	Open	
P159	J200	J198	388.14	16.00	110	61.42	0.10	0.00	0.00	Open	
P161	J202	J200	495.32	16.00	110	61.42	0.10	0.00	0.00	Open	
P163	J204	J202	218.43	16.00	110	61.42	0.10	0.00	0.00	Open	
P165	J206	J204	190.02	16.00	110	61.42	0.10	0.00	0.01	Open	
P169	R50	J206	76.54	16.00	110	61.42	0.10	0.00	0.00	Open	

ONSITE WATER DEMANDS ANALYSIS RESULTS

Maximum Day Demand (MDD) plus Fire Flow at J10

Junction Pressures @ Steady State Analysis					
ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)	
ZONE 5					
J6	0.00	1156.18	1341.74	80.40	<- Existing Node
J9	0.00	1159.47	1333.62	75.46	
J84	0.00	1159.62	1341.34	78.74	
J10	2524.57	1215.28	1296.00	34.98	
J12	0.00	1203.62	1312.79	47.30	
J14	36.85	1189.71	1322.97	57.74	
J16	0.00	1183.90	1322.02	59.85	
J11	0.00	1215.28	1297.15	35.47	
J13	0.00	1203.62	1319.63	50.27	
J15	0.00	1189.71	1323.00	57.75	
J17	0.00	1183.90	1324.28	60.83	
J188	0.00	1154.36	1345.80	82.95	<- Existing Node
J190	0.00	1162.50	1346.77	79.84	<- Existing Node
J192	0.00	1171.76	1347.61	76.20	
J196	0.00	1264.17	1351.84	37.99	
J194	0.00	1238.50	1350.58	48.56	
J198	0.00	1288.33	1353.36	28.18	<- Near Reservoir
J200	0.00	1324.72	1355.24	13.22	<- Near Reservoir
J204	0.00	1341.76	1358.71	7.34	<- Near Reservoir
J202	0.00	1334.98	1357.65	9.82	<- Near Reservoir
J206	0.00	1347.74	1359.63	5.15	<- Near Reservoir

Reservoir Results @ Steady State Analysis		
ID	Flow (gpm)	Head (ft)
R50	-2,561.42	1360.00

ONSITE WATER DEMANDS ANALYSIS RESULTS

Maximum Day Demand (MDD) plus Fire Flow at J10

Pipe Pressures @ Steady State Analysis											
ID	From Node	To Node	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status	
ZONE 5											
P6	J188	J6	836.45	16.00	110	2561.42	4.09	4.06	4.86	Open	<- Existing Pipe
P84	J6	J84	253.97	16.00	110	1391.42	2.22	0.40	1.57	Open	
P11	J6	J9	244.01	8.00	110	1170.00	7.47	8.12	33.29	Open	
P13	J9	J16	348.28	8.00	110	1170.00	7.47	11.59	33.29	Open	
P15	J16	J14	799.27	8.00	110	-193.50	1.24	0.95	1.19	Open	
P17	J84	J17	371.71	8.00	110	1391.42	8.88	17.06	45.89	Open	
P19	J12	J10	511.51	8.00	110	1161.06	7.41	16.79	32.82	Open	
P7	J17	J12	350.30	8.00	110	1161.06	7.41	11.50	32.82	Open	
P9	J13	J11	508.67	8.00	110	1363.51	8.70	22.48	44.20	Open	
P10	J17	J15	782.95	8.00	110	230.35	1.47	1.29	1.64	Open	
P1	J15	J14	16.00	8.00	110	230.35	1.47	0.03	1.64	Open	
P2	J11	J10	26.00	8.00	110	1363.51	8.70	1.15	44.19	Open	
P3	J16	J13	389.97	12.00	110	1363.51	3.87	2.39	6.13	Open	
P151	J192	J190	173.22	16.00	110	2561.42	4.09	0.84	4.86	Open	
P167	J190	J188	199.94	16.00	110	2561.42	4.09	0.97	4.85	Open	<- Existing Pipe
P153	J194	J192	610.72	16.00	110	2561.42	4.09	2.97	4.86	Open	
P155	J196	J194	259.54	16.00	110	2561.42	4.09	1.26	4.86	Open	
P157	J198	J196	312.75	16.00	110	2561.42	4.09	1.52	4.86	Open	
P159	J200	J198	388.14	16.00	110	2561.42	4.09	1.88	4.85	Open	
P161	J202	J200	495.32	16.00	110	2561.42	4.09	2.40	4.86	Open	
P163	J204	J202	218.43	16.00	110	2561.42	4.09	1.06	4.85	Open	
P165	J206	J204	190.02	16.00	110	2561.42	4.09	0.92	4.86	Open	
P169	R50	J206	76.54	16.00	110	2561.42	4.09	0.37	4.85	Open	

ONSITE WATER DEMANDS ANALYSIS RESULTS

Peak Hour Demand (PHD)

Junction Pressures @ Steady State Analysis					
ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)	
ZONE 5					
J6	0.00	1156.18	1359.98	88.31	<- Existing Node
J9	0.00	1159.47	1359.98	86.88	
J84	0.00	1159.62	1359.98	86.82	
J10	22.79	1215.28	1359.96	62.69	
J12	0.00	1203.62	1359.97	67.75	
J14	34.18	1189.71	1359.96	73.77	
J16	0.00	1183.90	1359.97	76.29	
J11	0.00	1215.28	1359.96	62.69	
J13	0.00	1203.62	1359.97	67.74	
J15	0.00	1189.71	1359.96	73.77	
J17	0.00	1183.90	1359.97	76.29	
J188	0.00	1154.36	1359.99	89.10	<- Existing Node
J190	0.00	1162.50	1359.99	85.57	<- Existing Node
J192	0.00	1171.76	1359.99	81.56	
J196	0.00	1264.17	1359.99	41.52	
J194	0.00	1238.50	1359.99	52.64	
J198	0.00	1288.33	1359.99	31.05	<- Near Reservoir
J200	0.00	1324.72	1360.00	15.29	<- Near Reservoir
J204	0.00	1341.76	1360.00	7.90	<- Near Reservoir
J202	0.00	1334.98	1360.00	10.84	<- Near Reservoir
J206	0.00	1347.74	1360.00	5.31	<- Near Reservoir

Reservoir Results @ Steady State Analysis		
ID	Flow (gpm)	Head (ft)
R50	-56.97	1360.00

ONSITE WATER DEMANDS ANALYSIS RESULTS

Peak Hour Demand (PHD)

Pipe Pressures @ Steady State Analysis											
ID	From Node	To Node	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status	
ZONE 5											
P6	J188	J6	836.45	16.00	110	56.97	0.09	0.00	0.00	Open	<- Existing Pipe
P84	J6	J84	253.97	16.00	110	30.52	0.05	0.00	0.00	Open	
P11	J6	J9	244.01	8.00	110	26.45	0.17	0.01	0.03	Open	
P13	J9	J16	348.28	8.00	110	26.45	0.17	0.01	0.03	Open	
P15	J16	J14	799.27	8.00	110	15.84	0.10	0.01	0.01	Open	
P17	J84	J17	371.71	8.00	110	30.52	0.19	0.01	0.04	Open	
P19	J12	J10	511.51	8.00	110	12.18	0.08	0.00	0.01	Open	
P7	J17	J12	350.30	8.00	110	12.18	0.08	0.00	0.01	Open	
P9	J13	J11	508.67	8.00	110	10.61	0.07	0.00	0.01	Open	
P10	J17	J15	782.95	8.00	110	18.34	0.12	0.01	0.02	Open	
P1	J15	J14	16.00	8.00	110	18.34	0.12	0.00	0.02	Open	
P2	J11	J10	26.00	8.00	110	10.61	0.07	0.00	0.00	Open	
P3	J16	J13	389.97	12.00	110	10.61	0.03	0.00	0.00	Open	
P151	J192	J190	173.22	16.00	110	56.97	0.09	0.00	0.00	Open	
P167	J190	J188	199.94	16.00	110	56.97	0.09	0.00	0.00	Open	<- Existing Pipe
P153	J194	J192	610.72	16.00	110	56.97	0.09	0.00	0.00	Open	
P155	J196	J194	259.54	16.00	110	56.97	0.09	0.00	0.00	Open	
P157	J198	J196	312.75	16.00	110	56.97	0.09	0.00	0.00	Open	
P159	J200	J198	388.14	16.00	110	56.97	0.09	0.00	0.00	Open	
P161	J202	J200	495.32	16.00	110	56.97	0.09	0.00	0.00	Open	
P163	J204	J202	218.43	16.00	110	56.97	0.09	0.00	0.00	Open	
P165	J206	J204	190.02	16.00	110	56.97	0.09	0.00	0.00	Open	
P169	R50	J206	76.54	16.00	110	56.97	0.09	0.00	0.00	Open	

ONSITE WATER DEMANDS ANALYSIS RESULTS

Average Day Demand (ADD)

Junction Pressures @ Steady State Analysis					
ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)	
ZONE 6					
J68	0.00	1481.03	1539.96	25.53	<- Near Reservoir
J42	8.80	1406.28	1539.86	57.88	
J40	0.00	1403.67	1539.86	59.01	
J94	0.00	1401.83	1539.86	59.81	
J74	0.00	1401.83	1539.86	59.81	
J78	7.71	1388.85	1539.83	65.42	
J76	0.00	1388.85	1539.84	65.42	
J70	0.00	1385.50	1539.89	66.90	
J44	7.74	1378.33	1539.87	69.99	
J38	6.25	1377.20	1539.86	70.48	
J92	0.00	1377.20	1539.86	70.48	
J48	10.81	1377.00	1539.85	70.56	
J54	5.12	1376.34	1539.84	70.85	
J52	0.00	1376.34	1539.85	70.85	
J82	0.00	1372.78	1539.85	72.39	
J86	0.00	1370.15	1539.85	73.53	
J46	0.00	1370.15	1539.86	73.53	
J50	7.84	1365.70	1539.85	75.46	
J32	10.85	1355.88	1539.83	79.71	
J90	0.00	1352.47	1539.84	81.19	
J72	0.00	1352.47	1539.84	81.19	
J36	11.43	1351.23	1539.85	81.73	
J88	0.00	1350.26	1539.84	82.14	
J30	9.18	1350.26	1539.84	82.14	
J210	0.00	1348.83	1539.85	82.77	
J208	0.00	1346.75	1539.85	83.67	
J34	0.00	1346.75	1539.85	83.67	
J28	8.52	1324.72	1539.84	93.21	
J212	0.00	1324.72	1539.84	93.21	
J56	0.00	1302.39	1539.83	102.88	
J80	0.00	1302.39	1539.83	102.88	
J26	6.66	1281.78	1539.83	111.81	
J24	0.00	1264.17	1539.83	119.44	
J214	0.00	1264.17	1539.83	119.45	
J60	19.81	1233.28	1539.82	132.83	
J58	0.00	1229.41	1539.83	134.50	
J22	11.69	1220.28	1539.83	138.46	
J98	0.00	1220.28	1539.83	138.46	
J96	0.00	1210.06	1539.83	142.89	
J20	0.00	1210.06	1539.83	142.89	
J62	0.00	1194.33	1539.83	149.70	

Reservoir Results @ Steady State Analysis		
ID	Flow (gpm)	Head (ft)
T1	-132.41	1540.00

ONSITE WATER DEMANDS ANALYSIS RESULTS

Average Day Demand (ADD)

Pipe Pressures @ Steady State Analysis										
ID	From Node	To Node	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status
ZONE 6										
P49	T1	J68	480.94	12.00	110	132.41	0.38	0.04	0.08	Open
P53	J70	J44	314.44	12.00	110	132.41	0.38	0.03	0.08	Open
P51	J68	J70	823.14	12.00	110	132.41	0.38	0.07	0.08	Open
P193	J92	J38	14.74	8.00	110	41.87	0.27	0.00	0.07	Open
P41	J38	J34	247.74	8.00	110	34.95	0.22	0.01	0.05	Open
P55	J44	J46	439.47	12.00	110	74.67	0.21	0.01	0.03	Open
P61	J46	J86	19.10	12.00	110	67.56	0.19	0.00	0.02	Open
P183	J86	J50	265.41	12.00	110	63.86	0.18	0.01	0.02	Open
P37	J34	J208	22.96	8.00	110	26.26	0.17	0.00	0.03	Open
P205	J208	J28	438.41	8.00	110	23.52	0.15	0.01	0.02	Open
P219	J50	J30	514.52	8.00	110	23.38	0.15	0.01	0.02	Open
P59	J44	J92	476.30	12.00	110	50.00	0.14	0.01	0.01	Open
P221	J54	J50	325.77	8.00	110	-20.70	0.13	0.01	0.02	Open
P73	J58	J60	193.32	8.00	110	19.81	0.13	0.00	0.02	Open
P173	J54	J78	791.24	8.00	110	15.58	0.10	0.01	0.01	Open
P63	J50	J52	319.39	8.00	110	11.94	0.08	0.00	0.01	Open
P177	J76	J80	1,409.75	8.00	110	11.94	0.08	0.01	0.01	Open
P171	J80	J58	641.89	8.00	110	11.94	0.08	0.00	0.01	Open
P175	J52	J76	782.09	8.00	110	11.94	0.08	0.01	0.01	Open
P207	J210	J36	231.97	8.00	110	11.43	0.07	0.00	0.01	Open
P189	J90	J32	327.69	8.00	110	10.85	0.07	0.00	0.01	Open
P29	J28	J24	627.61	8.00	110	10.82	0.07	0.00	0.01	Open
P181	J82	J48	305.52	8.00	110	10.81	0.07	0.00	0.01	Open
P195	J94	J42	220.34	8.00	110	8.80	0.06	0.00	0.00	Open
P39	J34	J210	201.83	8.00	110	8.69	0.06	0.00	0.00	Open
P187	J88	J30	18.99	8.00	110	-8.67	0.06	0.00	0.01	Open
P197	J94	J92	310.47	8.00	110	-8.12	0.05	0.00	0.00	Open
P179	J56	J78	1,416.58	8.00	110	-7.87	0.05	0.00	0.00	Open
P69	J56	J58	647.71	8.00	110	7.87	0.05	0.00	0.00	Open
P213	J214	J20	473.54	8.00	110	7.53	0.05	0.00	0.00	Open
P211	J212	J214	604.82	8.00	110	7.53	0.05	0.00	0.00	Open
P23	J20	J22	484.37	8.00	110	7.53	0.05	0.00	0.00	Open
P217	J28	J212	18.17	8.00	110	7.53	0.05	0.00	0.00	Open
P57	J46	J82	250.72	8.00	110	7.11	0.05	0.00	0.00	Open
P27	J24	J26	255.94	8.00	110	6.66	0.04	0.00	0.00	Open
P33	J30	J72	306.83	8.00	110	5.53	0.04	0.00	0.00	Open
P35	J72	J90	20.67	8.00	110	5.53	0.04	0.00	0.01	Open
P191	J90	J88	304.00	8.00	110	-5.32	0.03	0.00	0.00	Open
P203	J98	J22	25.00	8.00	110	4.16	0.03	0.00	0.00	Open
P201	J98	J96	524.91	8.00	110	-4.16	0.03	0.00	0.00	Open
P215	J24	J96	512.64	8.00	110	4.16	0.03	0.00	0.00	Open
P185	J86	J82	265.83	8.00	110	3.70	0.02	0.00	0.00	Open
P31	J28	J88	356.75	8.00	110	-3.35	0.02	0.00	0.00	Open

P209	J210	J208	201.33	8.00	110	-2.74	0.02	0.00	0.00	Open
P43	J38	J74	309.05	8.00	110	0.68	0.00	0.00	0.00	Open
P47	J74	J94	14.34	8.00	110	0.68	0.00	0.00	0.00	Open
P45	J74	J40	262.70	8.00	110	0.00	0.00	0.00	0.00	Open
P71	J58	J62	293.54	8.00	110	0.00	0.00	0.00	0.00	Open

ONSITE WATER DEMANDS ANALYSIS RESULTS

Maximum Day Demand (MDD)

Junction Pressures @ Steady State Analysis					
ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)	
ZONE 6					
J68	0.00	1481.03	1539.88	25.50	<- Near Reservoir
J42	15.84	1406.28	1539.58	57.76	
J40	0.00	1403.67	1539.59	58.89	
J94	0.00	1401.83	1539.59	59.69	
J74	0.00	1401.83	1539.59	59.69	
J78	13.88	1388.85	1539.51	65.28	
J76	0.00	1388.85	1539.53	65.29	
J70	0.00	1385.50	1539.68	66.81	
J44	13.93	1378.33	1539.61	69.88	
J38	11.25	1377.20	1539.59	70.36	
J92	0.00	1377.20	1539.59	70.36	
J48	19.46	1377.00	1539.56	70.44	
J54	9.22	1376.34	1539.53	70.71	
J52	0.00	1376.34	1539.55	70.72	
J82	0.00	1372.78	1539.57	72.27	
J86	0.00	1370.15	1539.57	73.41	
J46	0.00	1370.15	1539.57	73.41	
J50	14.11	1365.70	1539.55	75.33	
J32	19.53	1355.88	1539.51	79.57	
J90	0.00	1352.47	1539.51	81.05	
J72	0.00	1352.47	1539.51	81.05	
J36	20.57	1351.23	1539.54	81.60	
J88	0.00	1350.26	1539.52	82.00	
J30	16.52	1350.26	1539.52	82.00	
J210	0.00	1348.83	1539.55	82.64	
J208	0.00	1346.75	1539.55	83.54	
J34	0.00	1346.75	1539.55	83.54	
J212	0.00	1324.72	1539.52	93.07	
J28	15.34	1324.72	1539.52	93.07	
J56	0.00	1302.39	1539.49	102.74	
J80	0.00	1302.39	1539.50	102.74	
J26	11.99	1281.78	1539.50	111.67	
J24	0.00	1264.17	1539.50	119.30	
J214	0.00	1264.17	1539.51	119.30	
J60	35.66	1233.28	1539.48	132.68	
J58	0.00	1229.41	1539.49	134.36	
J22	21.04	1220.28	1539.50	138.32	
J98	0.00	1220.28	1539.50	138.32	
J96	0.00	1210.06	1539.50	142.75	
J20	0.00	1210.06	1539.51	142.75	
J62	0.00	1194.33	1539.49	149.56	

Reservoir Results @ Steady State Analysis		
ID	Flow (gpm)	Head (ft)
T1	-238.34	1540.00

ONSITE WATER DEMANDS ANALYSIS RESULTS

Maximum Day Demand (MDD)

Pipe Pressures @ Steady State Analysis										
ID	From Node	To Node	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status
ZONE 6										
P49	T1	J68	480.94	12.00	110	238.34	0.68	0.12	0.24	Open
P53	J70	J44	314.44	12.00	110	238.34	0.68	0.08	0.24	Open
P51	J68	J70	823.14	12.00	110	238.34	0.68	0.20	0.24	Open
P193	J92	J38	14.74	8.00	110	75.38	0.48	0.00	0.21	Open
P41	J38	J34	247.74	8.00	110	62.91	0.40	0.04	0.15	Open
P55	J44	J46	439.47	12.00	110	134.41	0.38	0.04	0.08	Open
P61	J46	J86	19.10	12.00	110	121.61	0.34	0.00	0.06	Open
P183	J86	J50	265.41	12.00	110	114.95	0.33	0.02	0.06	Open
P37	J34	J208	22.96	8.00	110	47.27	0.30	0.00	0.09	Open
P205	J208	J28	438.41	8.00	110	42.34	0.27	0.03	0.07	Open
P219	J50	J30	514.52	8.00	110	42.08	0.27	0.04	0.07	Open
P59	J44	J92	476.30	12.00	110	90.00	0.26	0.02	0.04	Open
P221	J54	J50	325.77	8.00	110	-37.27	0.24	0.02	0.06	Open
P73	J58	J60	193.32	8.00	110	35.66	0.23	0.01	0.05	Open
P173	J54	J78	791.24	8.00	110	28.05	0.18	0.03	0.03	Open
P63	J50	J52	319.39	8.00	110	21.49	0.14	0.01	0.02	Open
P177	J76	J80	1,409.75	8.00	110	21.49	0.14	0.03	0.02	Open
P171	J80	J58	641.89	8.00	110	21.49	0.14	0.01	0.02	Open
P175	J52	J76	782.09	8.00	110	21.49	0.14	0.02	0.02	Open
P207	J210	J36	231.97	8.00	110	20.57	0.13	0.00	0.02	Open
P189	J90	J32	327.69	8.00	110	19.53	0.12	0.01	0.02	Open
P29	J28	J24	627.61	8.00	110	19.47	0.12	0.01	0.02	Open
P181	J82	J48	305.52	8.00	110	19.46	0.12	0.01	0.02	Open
P195	J94	J42	220.34	8.00	110	15.84	0.10	0.00	0.01	Open
P39	J34	J210	201.83	8.00	110	15.64	0.10	0.00	0.01	Open
P187	J88	J30	18.99	8.00	110	-15.61	0.10	0.00	0.01	Open
P197	J94	J92	310.47	8.00	110	-14.62	0.09	0.00	0.01	Open
P179	J56	J78	1,416.58	8.00	110	-14.17	0.09	0.01	0.01	Open
P69	J56	J58	647.71	8.00	110	14.17	0.09	0.01	0.01	Open
P213	J214	J20	473.54	8.00	110	13.56	0.09	0.00	0.01	Open
P211	J212	J214	604.82	8.00	110	13.56	0.09	0.01	0.01	Open
P23	J20	J22	484.37	8.00	110	13.56	0.09	0.00	0.01	Open
P217	J28	J212	18.17	8.00	110	13.56	0.09	0.00	0.01	Open
P57	J46	J82	250.72	8.00	110	12.80	0.08	0.00	0.01	Open
P27	J24	J26	255.94	8.00	110	11.99	0.08	0.00	0.01	Open
P33	J30	J72	306.83	8.00	110	9.95	0.06	0.00	0.00	Open
P35	J72	J90	20.67	8.00	110	9.95	0.06	0.00	0.01	Open
P191	J90	J88	304.00	8.00	110	-9.58	0.06	0.00	0.00	Open
P203	J98	J22	25.00	8.00	110	7.48	0.05	0.00	0.00	Open
P201	J98	J96	524.91	8.00	110	-7.48	0.05	0.00	0.00	Open
P215	J24	J96	512.64	8.00	110	7.48	0.05	0.00	0.00	Open
P185	J86	J82	265.83	8.00	110	6.66	0.04	0.00	0.00	Open
P31	J28	J88	356.75	8.00	110	-6.03	0.04	0.00	0.00	Open

P209	J210	J208	201.33	8.00	110	-4.93	0.03	0.00	0.00	Open
P43	J38	J74	309.05	8.00	110	1.22	0.01	0.00	0.00	Open
P47	J74	J94	14.34	8.00	110	1.22	0.01	0.00	0.00	Open
P45	J74	J40	262.70	8.00	110	0.00	0.00	0.00	0.00	Open
P71	J58	J62	293.54	8.00	110	0.00	0.00	0.00	0.00	Open

ONSITE WATER DEMANDS ANALYSIS RESULTS

Maximum Day Demand (MDD) plus Fire Flow at J60 & J58

Junction Pressures @ Steady State Analysis					
ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)	
ZONE 6					
J68	0.00	1481.03	1529.27	20.90	<- Near Reservoir
J78	13.88	1388.85	1449.65	26.34	
J76	0.00	1388.85	1450.55	26.73	
J56	0.00	1302.39	1395.41	40.31	
J80	0.00	1302.39	1395.62	40.40	
J42	15.84	1406.28	1503.28	42.03	
J40	0.00	1403.67	1503.28	43.16	
J74	0.00	1401.83	1503.28	43.96	
J94	0.00	1401.83	1503.29	43.96	
J54	9.22	1376.34	1480.57	45.16	
J52	0.00	1376.34	1481.02	45.36	
J48	19.46	1377.00	1497.36	52.15	
J82	0.00	1372.78	1497.37	53.98	
J70	0.00	1385.50	1510.91	54.34	
J44	13.93	1378.33	1503.89	54.41	
J38	11.25	1377.20	1503.25	54.62	
J92	0.00	1377.20	1503.34	54.66	
J86	0.00	1370.15	1497.26	55.08	
J46	0.00	1370.15	1497.51	55.18	
J50	14.11	1365.70	1493.47	55.36	
J60	1285.66	1233.28	1362.95	56.18	
J32	19.53	1355.88	1496.06	60.74	
J58	1250.00	1229.41	1370.61	61.18	
J72	0.00	1352.47	1496.06	62.22	
J90	0.00	1352.47	1496.06	62.22	
J30	16.52	1350.26	1496.03	63.16	
J88	0.00	1350.26	1496.12	63.20	
J36	20.57	1351.23	1501.30	65.03	
J210	0.00	1348.83	1501.31	66.07	
J208	0.00	1346.75	1501.26	66.95	
J34	0.00	1346.75	1501.38	67.00	
J212	0.00	1324.72	1498.19	75.16	
J28	15.34	1324.72	1498.19	75.16	
J62	0.00	1194.33	1370.61	76.38	
J26	11.99	1281.78	1498.18	93.77	
J24	0.00	1264.17	1498.18	101.40	
J214	0.00	1264.17	1498.18	101.40	
J22	21.04	1220.28	1498.18	120.41	
J98	0.00	1220.28	1498.18	120.41	
J96	0.00	1210.06	1498.18	124.84	
J20	0.00	1210.06	1498.18	124.84	

Reservoir Results @ Steady State Analysis		
ID	Flow (gpm)	Head (ft)
T1	-2,738.34	1540.00

ONSITE WATER DEMANDS ANALYSIS RESULTS

Maximum Day Demand (MDD) plus Fire Flow at J60 & J58

Pipe Pressures @ Steady State Analysis										
ID	From Node	To Node	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status
ZONE 6										
P73	J58	J60	193.32	8.00	110	1285.66	8.21	7.66	39.64	Open
P221	J54	J50	325.77	8.00	110	-1284.96	8.20	12.90	39.60	Open
P173	J54	J78	791.24	8.00	110	1275.74	8.14	30.92	39.07	Open
P177	J76	J80	1,409.75	8.00	110	1273.80	8.13	54.93	38.96	Open
P175	J52	J76	782.09	8.00	110	1273.80	8.13	30.47	38.96	Open
P171	J80	J58	641.89	8.00	110	1273.80	8.13	25.01	38.96	Open
P63	J50	J52	319.39	8.00	110	1273.80	8.13	12.44	38.96	Open
P179	J56	J78	1,416.58	8.00	110	-1261.86	8.05	54.24	38.29	Open
P69	J56	J58	647.71	8.00	110	1261.86	8.05	24.80	38.29	Open
P51	J68	J70	823.14	12.00	110	2738.34	7.77	18.36	22.31	Open
P53	J70	J44	314.44	12.00	110	2738.34	7.77	7.02	22.31	Open
P49	T1	J68	480.94	12.00	110	2738.34	7.77	10.73	22.31	Open
P55	J44	J46	439.47	12.00	110	2172.32	6.16	6.39	14.53	Open
P183	J86	J50	265.41	12.00	110	2152.86	6.11	3.79	14.29	Open
P61	J46	J86	19.10	12.00	110	2044.04	5.80	0.25	12.98	Open
P41	J38	J34	247.74	8.00	110	525.00	3.35	1.87	7.55	Open
P205	J208	J28	438.41	8.00	110	504.43	3.22	3.07	7.01	Open
P193	J92	J38	14.74	8.00	110	481.27	3.07	0.09	6.43	Open
P31	J28	J88	356.75	8.00	110	456.06	2.91	2.07	5.81	Open
P37	J34	J208	22.96	8.00	110	424.82	2.71	0.12	5.10	Open
P219	J50	J30	514.52	8.00	110	-420.01	2.68	2.57	4.99	Open
P187	J88	J30	18.99	8.00	110	388.12	2.48	0.08	4.31	Open
P59	J44	J92	476.30	12.00	110	552.09	1.57	0.55	1.15	Open
P57	J46	J82	250.72	8.00	110	128.28	0.82	0.14	0.56	Open
P185	J86	J82	265.83	8.00	110	-108.82	0.69	0.11	0.41	Open
P39	J34	J210	201.83	8.00	110	100.18	0.64	0.07	0.35	Open
P209	J210	J208	201.33	8.00	110	79.61	0.51	0.05	0.23	Open
P197	J94	J92	310.47	8.00	110	-70.81	0.45	0.06	0.18	Open
P191	J90	J88	304.00	8.00	110	-67.94	0.43	0.05	0.17	Open
P43	J38	J74	309.05	8.00	110	-54.97	0.35	0.04	0.12	Open
P47	J74	J94	14.34	8.00	110	-54.97	0.35	0.00	0.12	Open
P33	J30	J72	306.83	8.00	110	-48.41	0.31	0.03	0.09	Open
P35	J72	J90	20.67	8.00	110	-48.41	0.31	0.00	0.09	Open
P207	J210	J36	231.97	8.00	110	20.57	0.13	0.00	0.02	Open
P189	J90	J32	327.69	8.00	110	19.53	0.12	0.01	0.02	Open
P29	J28	J24	627.61	8.00	110	19.47	0.12	0.01	0.02	Open
P181	J82	J48	305.52	8.00	110	19.46	0.12	0.01	0.02	Open
P195	J94	J42	220.34	8.00	110	15.84	0.10	0.00	0.01	Open
P213	J214	J20	473.54	8.00	110	13.56	0.09	0.00	0.01	Open
P211	J212	J214	604.82	8.00	110	13.56	0.09	0.01	0.01	Open
P217	J28	J212	18.17	8.00	110	13.56	0.09	0.00	0.01	Open
P23	J20	J22	484.37	8.00	110	13.56	0.09	0.00	0.01	Open
P27	J24	J26	255.94	8.00	110	11.99	0.08	0.00	0.01	Open

P215	J24	J96	512.64	8.00	110	7.48	0.05	0.00	0.00	Open
P201	J98	J96	524.91	8.00	110	-7.48	0.05	0.00	0.00	Open
P203	J98	J22	25.00	8.00	110	7.48	0.05	0.00	0.00	Open
P71	J58	J62	293.54	8.00	110	0.00	0.00	0.00	0.00	Open
P45	J74	J40	262.70	8.00	110	0.00	0.00	0.00	0.00	Open

ONSITE WATER DEMANDS ANALYSIS RESULTS

Maximum Day Demand (MDD) plus Fire Flow at J42 & J94

Junction Pressures @ Steady State Analysis					
ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)	
ZONE 6					
J68	0.00	1481.03	1529.27	20.90	<- Near Reservoir
J42	1265.84	1406.28	1476.09	30.25	
J40	0.00	1403.67	1485.10	35.29	
J94	1250.00	1401.83	1484.58	35.85	
J74	0.00	1401.83	1485.10	36.08	
J78	13.88	1388.85	1503.12	49.51	
J76	0.00	1388.85	1503.14	49.52	
J38	11.25	1377.20	1496.48	51.68	
J92	0.00	1377.20	1496.79	51.82	
J70	0.00	1385.50	1510.91	54.34	
J44	13.93	1378.33	1503.89	54.41	
J48	19.46	1377.00	1503.42	54.78	
J54	9.22	1376.34	1503.14	54.94	
J52	0.00	1376.34	1503.15	54.95	
J82	0.00	1372.78	1503.42	56.61	
J86	0.00	1370.15	1503.42	57.74	
J46	0.00	1370.15	1503.44	57.75	
J50	14.11	1365.70	1503.16	59.56	
J32	19.53	1355.88	1500.43	62.63	
J36	20.57	1351.23	1497.26	63.28	
J90	0.00	1352.47	1500.43	64.11	
J72	0.00	1352.47	1500.43	64.11	
J210	0.00	1348.83	1497.27	64.32	
J88	0.00	1350.26	1500.41	65.06	
J30	16.52	1350.26	1500.48	65.09	
J34	0.00	1346.75	1497.25	65.21	
J208	0.00	1346.75	1497.30	65.23	
J212	0.00	1324.72	1498.83	75.44	
J28	15.34	1324.72	1498.83	75.44	
J56	0.00	1302.39	1503.10	86.97	
J80	0.00	1302.39	1503.11	86.97	
J26	11.99	1281.78	1498.81	94.04	
J24	0.00	1264.17	1498.82	101.67	
J214	0.00	1264.17	1498.82	101.67	
J60	35.66	1233.28	1503.09	116.91	
J58	0.00	1229.41	1503.10	118.59	
J22	21.04	1220.28	1498.81	120.69	
J98	0.00	1220.28	1498.81	120.69	
J96	0.00	1210.06	1498.82	125.12	
J20	0.00	1210.06	1498.82	125.12	
J62	0.00	1194.33	1503.10	133.79	

Reservoir Results @ Steady State Analysis		
ID	Flow (gpm)	Head (ft)
T1	-2,738.34	1540.00

ONSITE WATER DEMANDS ANALYSIS RESULTS

Maximum Day Demand (MDD) plus Fire Flow at J42 & J94

Pipe Pressures @ Steady State Analysis										
ID	From Node	To Node	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status
ZONE 6										
P197	J94	J92	310.47	8.00	110	-1280.64	8.17	12.22	39.35	Open
P195	J94	J42	220.34	8.00	110	1265.84	8.08	8.49	38.51	Open
P43	J38	J74	309.05	8.00	110	1235.20	7.88	11.37	36.81	Open
P47	J74	J94	14.34	8.00	110	1235.20	7.88	0.53	36.80	Open
P51	J68	J70	823.14	12.00	110	2738.34	7.77	18.36	22.31	Open
P49	T1	J68	480.94	12.00	110	2738.34	7.77	10.73	22.31	Open
P53	J70	J44	314.44	12.00	110	2738.34	7.77	7.02	22.31	Open
P59	J44	J92	476.30	12.00	110	2202.02	6.25	7.10	14.90	Open
P193	J92	J38	14.74	8.00	110	921.38	5.88	0.32	21.39	Open
P219	J50	J30	514.52	8.00	110	430.06	2.74	2.68	5.22	Open
P31	J28	J88	356.75	8.00	110	-394.01	2.51	1.58	4.43	Open
P187	J88	J30	18.99	8.00	110	-351.87	2.25	0.07	3.59	Open
P205	J208	J28	438.41	8.00	110	-345.64	2.21	1.53	3.48	Open
P41	J38	J34	247.74	8.00	110	-325.07	2.07	0.77	3.11	Open
P37	J34	J208	22.96	8.00	110	-277.13	1.77	0.05	2.31	Open
P55	J44	J46	439.47	12.00	110	522.39	1.48	0.46	1.04	Open
P183	J86	J50	265.41	12.00	110	502.93	1.43	0.26	0.97	Open
P61	J46	J86	19.10	12.00	110	485.67	1.38	0.02	0.91	Open
P209	J210	J208	201.33	8.00	110	-68.51	0.44	0.04	0.17	Open
P35	J72	J90	20.67	8.00	110	61.67	0.39	0.00	0.14	Open
P33	J30	J72	306.83	8.00	110	61.67	0.39	0.04	0.14	Open
P39	J34	J210	201.83	8.00	110	-47.94	0.31	0.02	0.09	Open
P191	J90	J88	304.00	8.00	110	42.14	0.27	0.02	0.07	Open
P221	J54	J50	325.77	8.00	110	-37.27	0.24	0.02	0.06	Open
P57	J46	J82	250.72	8.00	110	36.72	0.23	0.01	0.05	Open
P73	J58	J60	193.32	8.00	110	35.66	0.23	0.01	0.05	Open
P173	J54	J78	791.24	8.00	110	28.05	0.18	0.03	0.03	Open
P175	J52	J76	782.09	8.00	110	21.49	0.14	0.02	0.02	Open
P177	J76	J80	1,409.75	8.00	110	21.49	0.14	0.03	0.02	Open
P171	J80	J58	641.89	8.00	110	21.49	0.14	0.01	0.02	Open
P63	J50	J52	319.39	8.00	110	21.49	0.14	0.01	0.02	Open
P207	J210	J36	231.97	8.00	110	20.57	0.13	0.00	0.02	Open
P189	J90	J32	327.69	8.00	110	19.53	0.12	0.01	0.02	Open
P29	J28	J24	627.61	8.00	110	19.47	0.12	0.01	0.02	Open
P181	J82	J48	305.52	8.00	110	19.46	0.12	0.01	0.02	Open
P185	J86	J82	265.83	8.00	110	-17.26	0.11	0.00	0.01	Open
P69	J56	J58	647.71	8.00	110	14.17	0.09	0.01	0.01	Open
P179	J56	J78	1,416.58	8.00	110	-14.17	0.09	0.01	0.01	Open
P217	J28	J212	18.17	8.00	110	13.56	0.09	0.00	0.01	Open
P211	J212	J214	604.82	8.00	110	13.56	0.09	0.01	0.01	Open
P23	J20	J22	484.37	8.00	110	13.56	0.09	0.00	0.01	Open
P213	J214	J20	473.54	8.00	110	13.56	0.09	0.00	0.01	Open
P27	J24	J26	255.94	8.00	110	11.99	0.08	0.00	0.01	Open

P215	J24	J96	512.64	8.00	110	7.48	0.05	0.00	0.00	Open
P203	J98	J22	25.00	8.00	110	7.48	0.05	0.00	0.00	Open
P201	J98	J96	524.91	8.00	110	-7.48	0.05	0.00	0.00	Open
P45	J74	J40	262.70	8.00	110	0.00	0.00	0.00	0.00	Open
P71	J58	J62	293.54	8.00	110	0.00	0.00	0.00	0.00	Open

ONSITE WATER DEMANDS ANALYSIS RESULTS

Peak Hour Demand (PHD)

Junction Pressures @ Steady State Analysis					
ID	Demand (gpm)	Elevation (ft)	Head (ft)	Pressure (psi)	
ZONE 6					
J68	0.00	1481.03	1539.78	25.46	<- Near Reservoir
J42	22.09	1406.28	1539.23	57.61	
J40	0.00	1403.67	1539.23	58.74	
J94	0.00	1401.83	1539.23	59.54	
J74	0.00	1401.83	1539.23	59.54	
J78	19.35	1388.85	1539.09	65.10	
J76	0.00	1388.85	1539.13	65.12	
J70	0.00	1385.50	1539.41	66.69	
J44	19.43	1378.33	1539.27	69.74	
J38	15.69	1377.20	1539.23	70.21	
J92	0.00	1377.20	1539.24	70.21	
J48	27.13	1377.00	1539.19	70.28	
J54	12.85	1376.34	1539.14	70.54	
J52	0.00	1376.34	1539.16	70.55	
J82	0.00	1372.78	1539.20	72.11	
J86	0.00	1370.15	1539.20	73.25	
J46	0.00	1370.15	1539.20	73.25	
J50	19.68	1365.70	1539.17	75.17	
J32	27.23	1355.88	1539.09	79.39	
J90	0.00	1352.47	1539.10	80.87	
J72	0.00	1352.47	1539.10	80.87	
J36	28.69	1351.23	1539.15	81.43	
J88	0.00	1350.26	1539.10	81.83	
J30	23.04	1350.26	1539.10	81.83	
J210	0.00	1348.83	1539.16	82.47	
J208	0.00	1346.75	1539.16	83.37	
J34	0.00	1346.75	1539.16	83.37	
J212	0.00	1324.72	1539.10	92.89	
J28	21.39	1324.72	1539.10	92.89	
J56	0.00	1302.39	1539.06	102.55	
J80	0.00	1302.39	1539.08	102.56	
J26	16.72	1281.78	1539.08	111.49	
J24	0.00	1264.17	1539.08	119.12	
J214	0.00	1264.17	1539.09	119.12	
J60	49.72	1233.28	1539.03	132.48	
J58	0.00	1229.41	1539.05	134.17	
J22	29.34	1220.28	1539.08	138.13	
J98	0.00	1220.28	1539.08	138.14	
J96	0.00	1210.06	1539.08	142.56	
J20	0.00	1210.06	1539.09	142.57	
J62	0.00	1194.33	1539.05	149.37	

Reservoir Results @ Steady State Analysis		
ID	Flow (gpm)	Head (ft)
T1	-332.35	1540.00

ONSITE WATER DEMANDS ANALYSIS RESULTS

Peak Hour Demand (PHD)

Pipe Pressures @ Steady State Analysis										
ID	From Node	To Node	Length (ft)	Diameter (in)	Roughness	Flow (gpm)	Velocity (ft/s)	Headloss (ft)	HL/1000 (ft/k-ft)	Status
ZONE 6										
P49	T1	J68	480.94	12.00	110	332.35	0.94	0.22	0.45	Open
P53	J70	J44	314.44	12.00	110	332.35	0.94	0.14	0.45	Open
P51	J68	J70	823.14	12.00	110	332.35	0.94	0.37	0.45	Open
P193	J92	J38	14.74	8.00	110	105.11	0.67	0.01	0.38	Open
P41	J38	J34	247.74	8.00	110	87.72	0.56	0.07	0.27	Open
P55	J44	J46	439.47	12.00	110	187.42	0.53	0.07	0.16	Open
P61	J46	J86	19.10	12.00	110	169.57	0.48	0.00	0.13	Open
P183	J86	J50	265.41	12.00	110	160.29	0.45	0.03	0.12	Open
P37	J34	J208	22.96	8.00	110	65.92	0.42	0.00	0.16	Open
P205	J208	J28	438.41	8.00	110	59.03	0.38	0.06	0.13	Open
P219	J50	J30	514.52	8.00	110	58.68	0.37	0.07	0.13	Open
P59	J44	J92	476.30	12.00	110	125.50	0.36	0.04	0.07	Open
P221	J54	J50	325.77	8.00	110	-51.96	0.33	0.03	0.10	Open
P73	J58	J60	193.32	8.00	110	49.72	0.32	0.02	0.10	Open
P173	J54	J78	791.24	8.00	110	39.11	0.25	0.05	0.06	Open
P63	J50	J52	319.39	8.00	110	29.97	0.19	0.01	0.04	Open
P177	J76	J80	1,409.75	8.00	110	29.97	0.19	0.05	0.04	Open
P171	J80	J58	641.89	8.00	110	29.97	0.19	0.02	0.04	Open
P175	J52	J76	782.09	8.00	110	29.97	0.19	0.03	0.04	Open
P207	J210	J36	231.97	8.00	110	28.69	0.18	0.01	0.03	Open
P189	J90	J32	327.69	8.00	110	27.23	0.17	0.01	0.03	Open
P29	J28	J24	627.61	8.00	110	27.15	0.17	0.02	0.03	Open
P181	J82	J48	305.52	8.00	110	27.13	0.17	0.01	0.03	Open
P195	J94	J42	220.34	8.00	110	22.09	0.14	0.00	0.02	Open
P39	J34	J210	201.83	8.00	110	21.81	0.14	0.00	0.02	Open
P187	J88	J30	18.99	8.00	110	-21.77	0.14	0.00	0.02	Open
P197	J94	J92	310.47	8.00	110	-20.39	0.13	0.01	0.02	Open
P179	J56	J78	1,416.58	8.00	110	-19.76	0.13	0.02	0.02	Open
P69	J56	J58	647.71	8.00	110	19.76	0.13	0.01	0.02	Open
P213	J214	J20	473.54	8.00	110	18.90	0.12	0.01	0.02	Open
P211	J212	J214	604.82	8.00	110	18.90	0.12	0.01	0.02	Open
P23	J20	J22	484.37	8.00	110	18.90	0.12	0.01	0.02	Open
P217	J28	J212	18.17	8.00	110	18.90	0.12	0.00	0.01	Open
P57	J46	J82	250.72	8.00	110	17.85	0.11	0.00	0.01	Open
P27	J24	J26	255.94	8.00	110	16.72	0.11	0.00	0.01	Open
P33	J30	J72	306.83	8.00	110	13.87	0.09	0.00	0.01	Open
P35	J72	J90	20.67	8.00	110	13.87	0.09	0.00	0.01	Open
P191	J90	J88	304.00	8.00	110	-13.36	0.09	0.00	0.01	Open
P203	J98	J22	25.00	8.00	110	10.44	0.07	0.00	0.00	Open
P201	J98	J96	524.91	8.00	110	-10.44	0.07	0.00	0.01	Open
P215	J24	J96	512.64	8.00	110	10.44	0.07	0.00	0.01	Open
P185	J86	J82	265.83	8.00	110	9.29	0.06	0.00	0.00	Open
P31	J28	J88	356.75	8.00	110	-8.41	0.05	0.00	0.00	Open

P209	J210	J208	201.33	8.00	110	-6.88	0.04	0.00	0.00	Open
P43	J38	J74	309.05	8.00	110	1.70	0.01	0.00	0.00	Open
P47	J74	J94	14.34	8.00	110	1.70	0.01	0.00	0.00	Open
P45	J74	J40	262.70	8.00	110	0.00	0.00	0.00	0.00	Open
P71	J58	J62	293.54	8.00	110	0.00	0.00	0.00	0.00	Open

Junction

Type

- Active
- Domain
- Inactive
- <All other values>

Reservoir

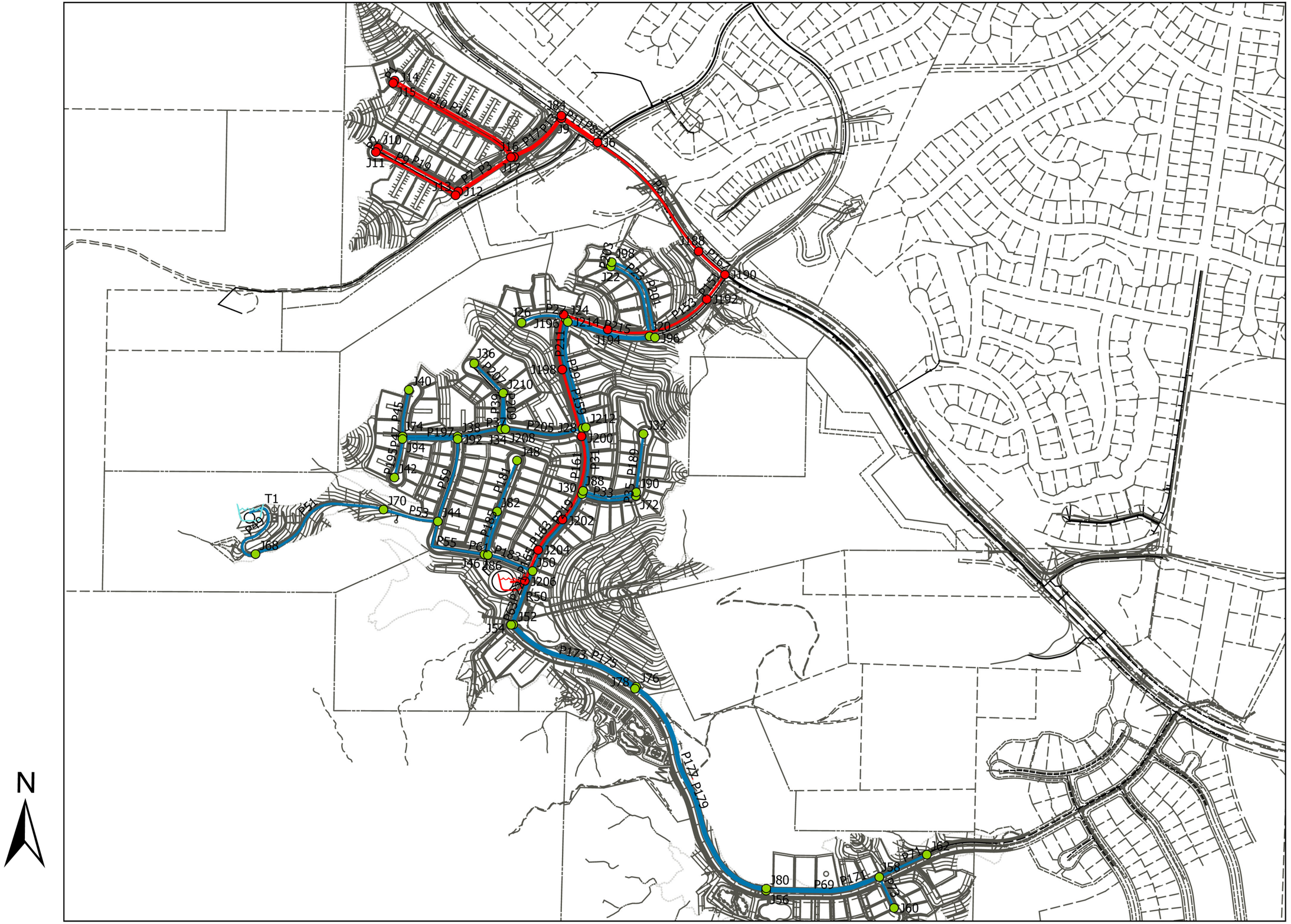
Type

- Active
- Domain
- Inactive
- <All other values>

Pipe

Type

- Active
- Domain
- Inactive
- <All other values>



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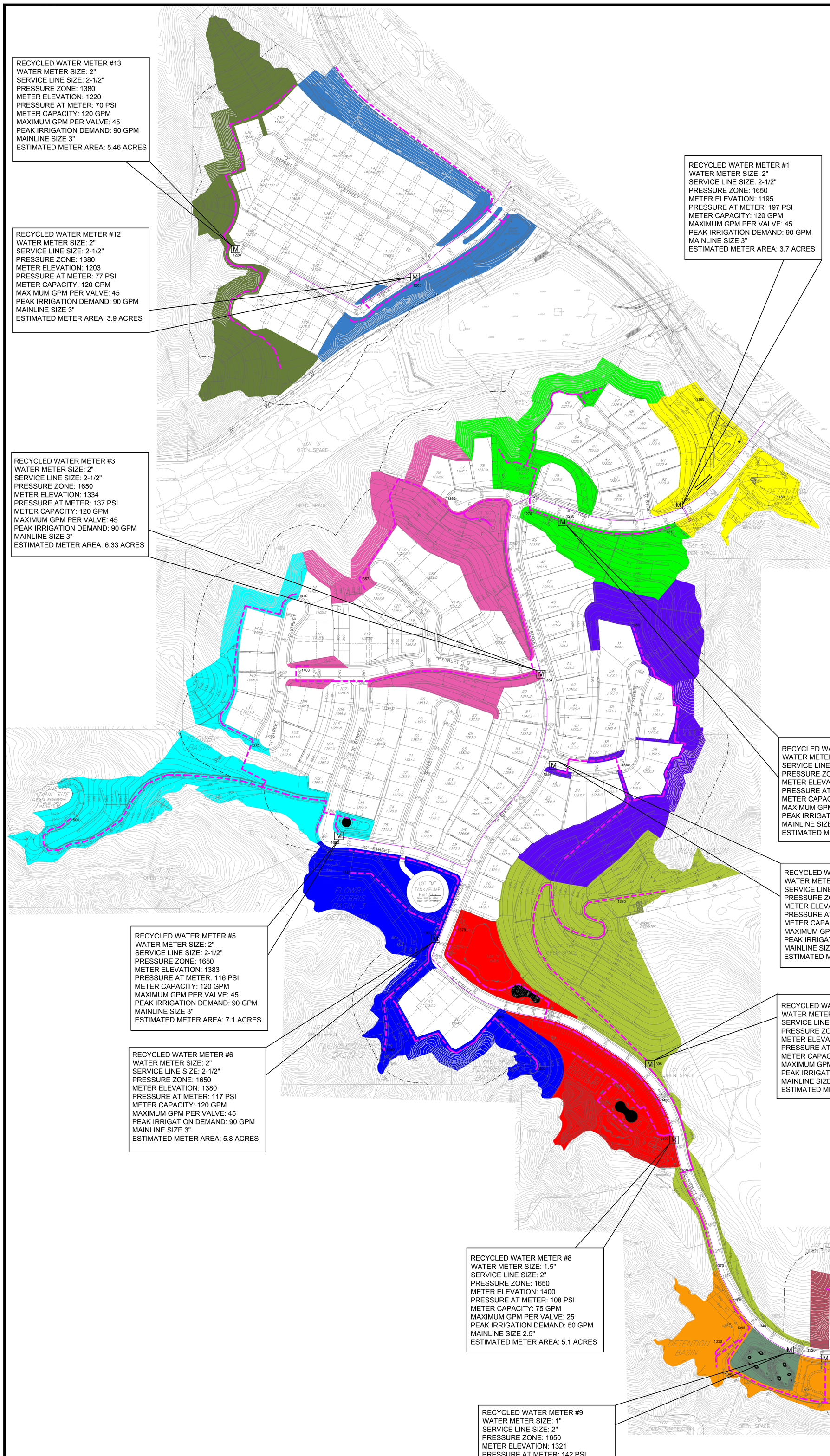
Appendix

C

CONCEPTUAL IRRIGATION PLAN



Meter #	Desciption	Area S/F	Maximum Demand GPM	Meter Size
1	HOA	160,397	90	2"
2	HOA	235,345	90	2"
3	HOA	275,814	90	2"
4	HOA	252,580	90	2"
5	HOA	310,987	90	2"
6	HOA	251,878	90	2"
7	HOA	394,146	90	2"
8	PARK	221,180	50	1-1/2"
9	PARK	35,817	50	1"
10	HOA	228,619	90	2"
11	HOA	167,342	90	2"
12	HOA	170,681	90	2"
13	HOA	238,273	90	2"
TOTAL		**2,943,059**	**1,090**	
TOTAL ACRES		124.92		

METER 1 **Maximum Annual Water Allowance**
(Eto)(Conversion Factor) [(ET adjustment Factor*Total Landscape Area)+(ET adjustment Factor*SLA)] = **MAWA**
56.37 * 0.62 * [(0.5 * 160,397) + (0.5 * 0)] = 2,802,889 gal / yr

METER 2 **Maximum Annual Water Allowance**
(Eto)(Conversion Factor) [(ET adjustment Factor*Total Landscape Area)+(ET adjustment Factor*SLA)] = **MAWA**
56.37 * 0.62 * [(0.5 * 235,345) + (0.5 * 0)] = 4,112,583 gal / yr

METER 3 **Maximum Annual Water Allowance**
(Eto)(Conversion Factor) [(ET adjustment Factor*Total Landscape Area)+(ET adjustment Factor*SLA)] = **MAWA**
56.37 * 0.62 * [(0.5 * 275,814) + (0.5 * 0)] = 4,819,767 gal / yr

METER 4 **Maximum Annual Water Allowance**
(Eto)(Conversion Factor) [(ET adjustment Factor*Total Landscape Area)+(ET adjustment Factor*SLA)] = **MAWA**
56.37 * 0.62 * [(0.5 * 252,580) + (0.5 * 0)] = 4,413,760 gal / yr

METER 5 **Maximum Annual Water Allowance**
(Eto)(Conversion Factor) [(ET adjustment Factor*Total Landscape Area)+(ET adjustment Factor*SLA)] = **MAWA**
56.37 * 0.62 * [(0.5 * 310,987) + (0.5 * 0)] = 5,434,405 gal / yr

METER 6 **Maximum Annual Water Allowance**
(Eto)(Conversion Factor) [(ET adjustment Factor*Total Landscape Area)+(ET adjustment Factor*SLA)] = **MAWA**
56.37 * 0.62 * [(0.5 * 250,867) + (0.5 * 0)] = 4,383,826 gal / yr

METER 7 **Maximum Annual Water Allowance**
(Eto)(Conversion Factor) [(ET adjustment Factor*Total Landscape Area)+(ET adjustment Factor*SLA)] = **MAWA**
56.37 * 0.62 * [(0.5 * 394,146) + (0.5 * 0)] = 6,887,583 gal / yr

METER 8 **Maximum Annual Water Allowance**
(Eto)(Conversion Factor) [(ET adjustment Factor*Total Landscape Area)+(ET adjustment Factor*SLA)] = **MAWA**
56.37 * 0.62 * [(0.5 * 221,180) + (0.5 * 0)] = 3,865,054 gal / yr

METER 9 **Maximum Annual Water Allowance**
(Eto)(Conversion Factor) [(ET adjustment Factor*Total Landscape Area)+(ET adjustment Factor*SLA)] = **MAWA**
56.37 * 0.62 * [(0.5 * 35,817) + (0.5 * 0)] = 625,891 gal / yr

METER 10 **Maximum Annual Water Allowance**
(Eto)(Conversion Factor) [(ET adjustment Factor*Total Landscape Area)+(ET adjustment Factor*SLA)] = **MAWA**
56.37 * 0.62 * [(0.5 * 228,619) + (0.5 * 0)] = 3,995,048 gal / yr

METER 11 **Maximum Annual Water Allowance**
(Eto)(Conversion Factor) [(ET adjustment Factor*Total Landscape Area)+(ET adjustment Factor*SLA)] = **MAWA**
56.37 * 0.62 * [(0.5 * 167,342) + (0.5 * 0)] = 2,924,251 gal / yr

TOTAL **Maximum Annual Water Allowance**
(Eto)(Conversion Factor) [(ET adjustment Factor*Total Landscape Area)+(ET adjustment Factor*SLA)] = **MAWA**
56.37 * 0.62 * [(0.5 * 2,943,059) + (0.5 * 0)] = 51,429,073 gal / yr

TOTAL ACRE FEET PER YEAR **157.83**

NORTH 0' 150' 300' 450'

SKYLINE HEIGHTS

CONCEPTUAL IRRIGATION WATER METER LOCATIONS

PREPARED FOR RICHLAND DEVELOPMENT

bmla LANDSCAPE ARCHITECTURE
310 NORTH JOY STREET | CORONA, CA 92879
T: 951.737.1124 | F: 951.737.6551

Appendix

D

FIRE FLOW TEST RESULTS

CITY OF CORONA
FIRE FLOW TEST REPORT
TELEPHONE: 951-739-4842; FAX: 951-735-3786

Applicant Information

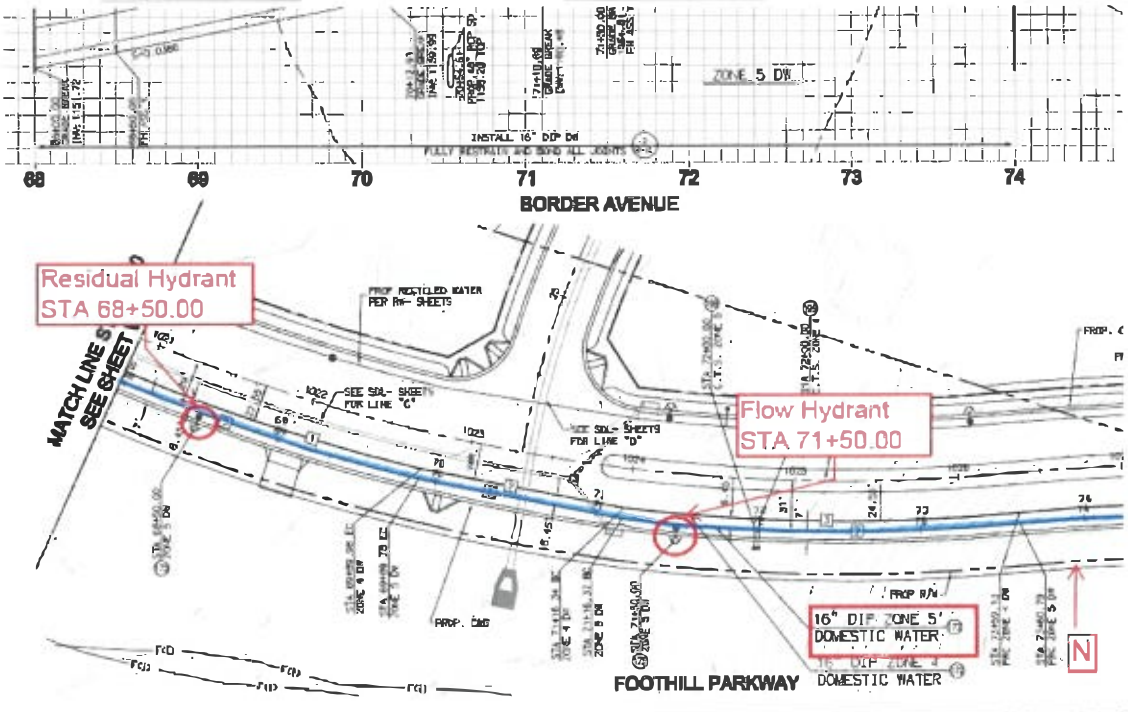
First, Last Name:	MIKE TAING	Date:	7/25/2018
Company Name:	KWC ENGINEERS	Phone:	(951) 734-2130
Billing Address:	1880 COMPTON AVE	Fax:	
City, State, Zip Code:	CORONA CA 92881	Email:	Mike.Taing@kwcengineers.com
Site Address/APN #/Tract #:	SKYLINE HEIGHTS DEVELOPME	Flow Hydrant(s):	STA 71+50
Reason for Request	DESIGN	Residual Hydrant:	STA 68+50

Test Information

Test Date:	8/7/2018 Test Time: 9:32 AM	Test Performed By:	Richard and Juan
Static Pressure (psi):	86	Total Hydrant(s) Flow (gpm)	993
Residual Pressure (psi):	76	20 psi Residual Flow (gpm):	2750

Flow Hydrant Information

Flow Hydrant # 1:	STA 71+50	Flow Hydrant # 2:		Flow Hydrant # 3:	
Nozzle Size (in):	2.5	Nozzle Size (in)		Nozzle Size (in):	
Pitot Pressure (psi):	35	Pitot Pressure (psi):		Pitot Pressure (psi)	
Main Size (in):	16	Main Size (in):		Main Size (in):	
Test Duration (min):	3	Test Duration (min):		Test Duration (min):	
Hydrant Flow (gpm):	993	Hydrant Flow (gpm):		Hydrant Flow (gpm):	



Approved By: _____ Date: 8/13/2018