

DEXTER WILSON ENGINEERING, INC.

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CONSULTING ENGINEERS

OVERVIEW OF WATER SERVICE FOR THE OTAY RANCH TOWN CENTER REDEVELOPMENT

June 22, 2023

**OVERVIEW OF WATER SERVICE
FOR THE
OTAY RANCH TOWN CENTER
REDEVELOPMENT**

June 22, 2023

**Prepared by:
Dexter Wilson Engineering, Inc.
2234 Faraday Avenue
Carlsbad, CA 92008
(760) 438-4422**

Job No. 509-127

June 22, 2023

509-127

Hunsaker & Associates San Diego, Inc.
9707 Waples Street
San Diego, CA 92121

Attention: Chuck Cater, Vice President

Subject: Overview of Water Service for the Otay Ranch Town Center Redevelopment

Introduction

This report provides an overview of water service for the Otay Ranch Town Center Redevelopment project. The project is located east of State Route 125, north of Birch Road, west of Eastlake Parkway, and south of Olympic Parkway in the City of Chula Vista. A vicinity map for the project is presented on Figure 1.

The existing Otay Ranch Town Center site includes five lots (Lots 1, 2, 3, 4, and 5) on approximately 87.25 acres and comprises commercial space. The project proposes to redevelop the northwest portion of the existing Otay Ranch Town Center site. The redevelopment will affect Lots 1 and 4, which make up 58.49 acres of the overall site. Within the 58.49 acres, 16.57 acres will be redeveloped with 840 residential dwelling units; there will be no change in commercial square footage as 37,200 square feet of existing commercial will be removed and replaced with 37,200 square feet of new commercial. The remaining area will consist of private streets and plaza improvements. The Tentative Map title sheet for the Otay Ranch Town Center Redevelopment project is provided in Appendix A for reference. The title sheet includes tabulated land use breakdowns of the affected lots and shows the location of existing Lots 1, 2, 3, 4, and 5.

\\ARTIC\DWG\509127\REPORT\PRTR\FIGURE-1_VM.DWG 9/28/2022 2:45:49 PM LAYOUT:8x11 USER:Donald

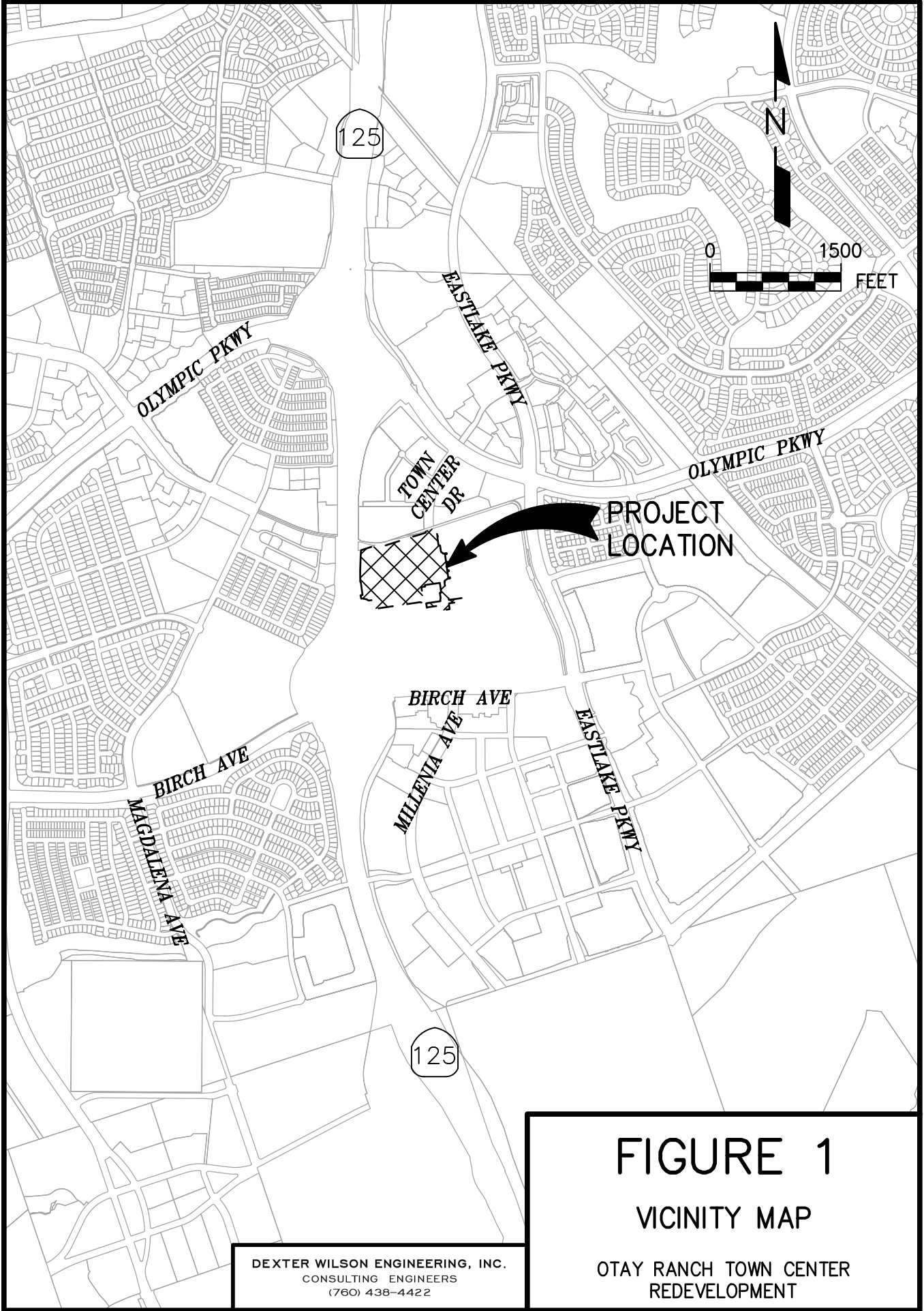


FIGURE 1

VICINITY MAP

OTAY RANCH TOWN CENTER
REDEVELOPMENT

DEXTER WILSON ENGINEERING, INC.
CONSULTING ENGINEERS
(760) 438-4422

Potable water service and recycled water service for the existing Otay Ranch Town Center site is provided by the Otay Water District. Potable water service is from the Otay Water District 980 Pressure Zone. Recycled water service is from the Otay Water District 815 Pressure Zone.

Background

The backbone potable water system for the existing Otay Ranch Town Center (previously referred to as Freeway Commercial or FC-1) site was identified in the 2002 Subarea Master Plan that was prepared for the project. In February 2015, a Subarea Master Plan amendment was prepared for the 2002 Subarea Master Plan. In February 2018 a second Subarea Master Plan amendment was prepared for the project. The Subarea Master Plans evaluated the existing backbone system in the vicinity of the project for a 5,000 gpm fire flow, which is the maximum fire flow supplied by the Otay Water District. The Subarea Master Plans concluded that the existing backbone system provides adequate flow and pressure to the Otay Ranch Town Center site under a 5,000 gpm fire flow.

Potable Water Planning Criteria

The planning criteria used to evaluate the potable water system requirements for the Otay Ranch Town Center Redevelopment project are in accordance with the Otay Water District 2015 Water Facilities Master Plan. The 2015 Water Facilities Master Plan outlines minimum and maximum allowable pressures and velocities in the public water system under different operating conditions. Table 1 lists the potable water planning criteria for the project.

TABLE 1 OTAY RANCH TOWN CENTER REDEVELOPMENT POTABLE WATER SYSTEM CRITERIA	
Item	Criteria
Minimum Static Pressure	65 psi
Maximum Static Pressure	200 psi
Minimum Pressure – Peak Hour Demands	40 psi
Minimum Pressure – Maximum Day Demands plus Fire	20 psi
Maximum Velocity – Maximum Day Demands plus Fire	10 fps
Maximum Velocity – Peak Hour	6 fps
Maximum Headloss per thousand feet	10 ft
Minimum Diameter	8-inch
Hazen-Williams C-factor (12-inch diameter or less)	120
Maximum Day Peak Factors	W.A.S. Figure 4-1-2
Peak Hour Peak Factors	W.A.S. Figure 4-1-1

These criteria were used to confirm that service from the 980 Pressure Zone will provide an acceptable static pressure range for the project. Proposed elevations within the redevelopment area will range from 614 feet to 626 feet, which results in a maximum static pressure range of 153 psi to 158 psi. This is an acceptable range per the design criteria presented in Table 1. To protect private plumbing fixtures, all connections with a static pressure greater than 80 psi must include a pressure regulator per the 2019 California Plumbing Code.

Potable Water Demands

Potable water demands for the Otay Ranch Town Center Redevelopment project were estimated using water demand factors provided in the Otay Water District 2015 Water Facilities Master Plan. Table 2 summarizes the water demand factors pertinent to this project.

TABLE 2 OTAY RANCH TOWN CENTER REDEVELOPMENT PROJECT POTABLE WATER DEMAND FACTORS	
Land Use	Water Demand Factor
Commercial	1,607 gpd/acre
Residential (>10 DU/ac)	170 gpd/DU

Peaking factors for the existing site and for the proposed site after the redevelopment were determined using the charts provided in Appendix B.

Existing Otay Ranch Town Center Demand. Table 3 summarizes the average potable water demands for the existing Otay Ranch Town Center site based on the water demand factor presented in the 2002 Subarea Master Plan.

TABLE 3 EXISTING OTAY RANCH TOWN CENTER AVERAGE POTABLE WATER DEMAND			
Land Use	Quantity	Water Demand Factor ²	Average Potable Water Demand, gpd
Commercial ¹	87.25 acres	1,785 gpd/acre	155,741
TOTAL			155,741

1. Acreage reflects entire Otay Ranch Town Center site. The redevelopment will only affect 16.57 acres of Lots 1 and 4 which have a total area of 58.49 acres.
2. Based on water demand factor presented in the 2002 Subarea Master Plan.

Based on Table 3, the existing Otay Ranch Town Center site is estimated to have potable water demands as summarized below.

Average Demand: 155,741 gpd = 108 gpm

Maximum Day Demand: 155,741 gpd x 2.96 = 460,993 gpd = 320 gpm

Peak Hour Demand: 155,741 gpd x 6.71 = 1,045,022 gpd = 726 gpm

Proposed Otay Ranch Town Center Redevelopment Demand. Table 4 summarizes the projected average potable water demands for the proposed Otay Ranch Town Center Redevelopment project based on current water demand factors.

TABLE 4 OTAY RANCH TOWN CENTER REDEVELOPMENT AVERAGE POTABLE WATER DEMAND			
Land Use	Quantity	Water Demand Factor	Average Potable Water Demand, gpd
Existing Development to Remain			
Existing Commercial ¹	70.68 acres	1,607 gpd/acre	113,583
Proposed Development²			
Residential (>10 DU/ac)	840 DU	170 gpd/DU	142,800
Proposed Commercial	0.85 acres	1,607 gpd/acre	1,366
TOTAL			257,749

1. Acreage of existing Otay Ranch Town Center site (87.25 acres) reduced by 16.57 acres (redevelopment area).
2. Acreage excludes private street area (2.93 acres) and park/plaza area (2.73 acres) as no potable water demands are expected.

Based on Table 4, after the redevelopment the Otay Ranch Town Center site is projected to have potable water demands as summarized below.

Average Demand: 257,749 gpd = 179 gpm

Maximum Day Demand: 257,749 gpd x 2.82 = 726,852 gpd = 505 gpm

Peak Hour Demand: 257,749 gpd x 6.00 = 1,546,494 gpd = 1,074 gpm

In comparing the average potable water demands shown on Table 3 and Table 4, the proposed redevelopment will increase existing average potable water demand by 102,008 gpd from 155,741 gpd to 257,749 gpd.

Fire Flow Demand Requirements. Per the Otay Water District 2015 Water Facilities Master Plan the fire flow requirements for single family residential, multi-family residential, and commercial areas are 1,500 gpm, 2,500 gpm, and 3,500 gpm, respectively. Thus, the fire flow requirement estimated for the Otay Ranch Town Center Redevelopment project is 3,500 gpm. The Maximum Day plus Fire Flow requirement is estimated to be 4,005 gpm (505 gpm + 3,500 gpm = 4,005 gpm), which is less than the 5,000 gpm fire flow requirement that was analyzed for the backbone potable water system in previous Subarea Master Plans for the existing site. The actual fire flow requirement will need to be determined by the City of Chula Vista Fire Department after building construction types and square footages are available for the proposed project buildings.

Existing Potable Water System

As previously mentioned, the Otay Ranch Town Center Redevelopment project is within the City of Chula Vista and will receive potable water service from the Otay Water District public water system. Potable water service to the project will be from the 980 Pressure Zone.

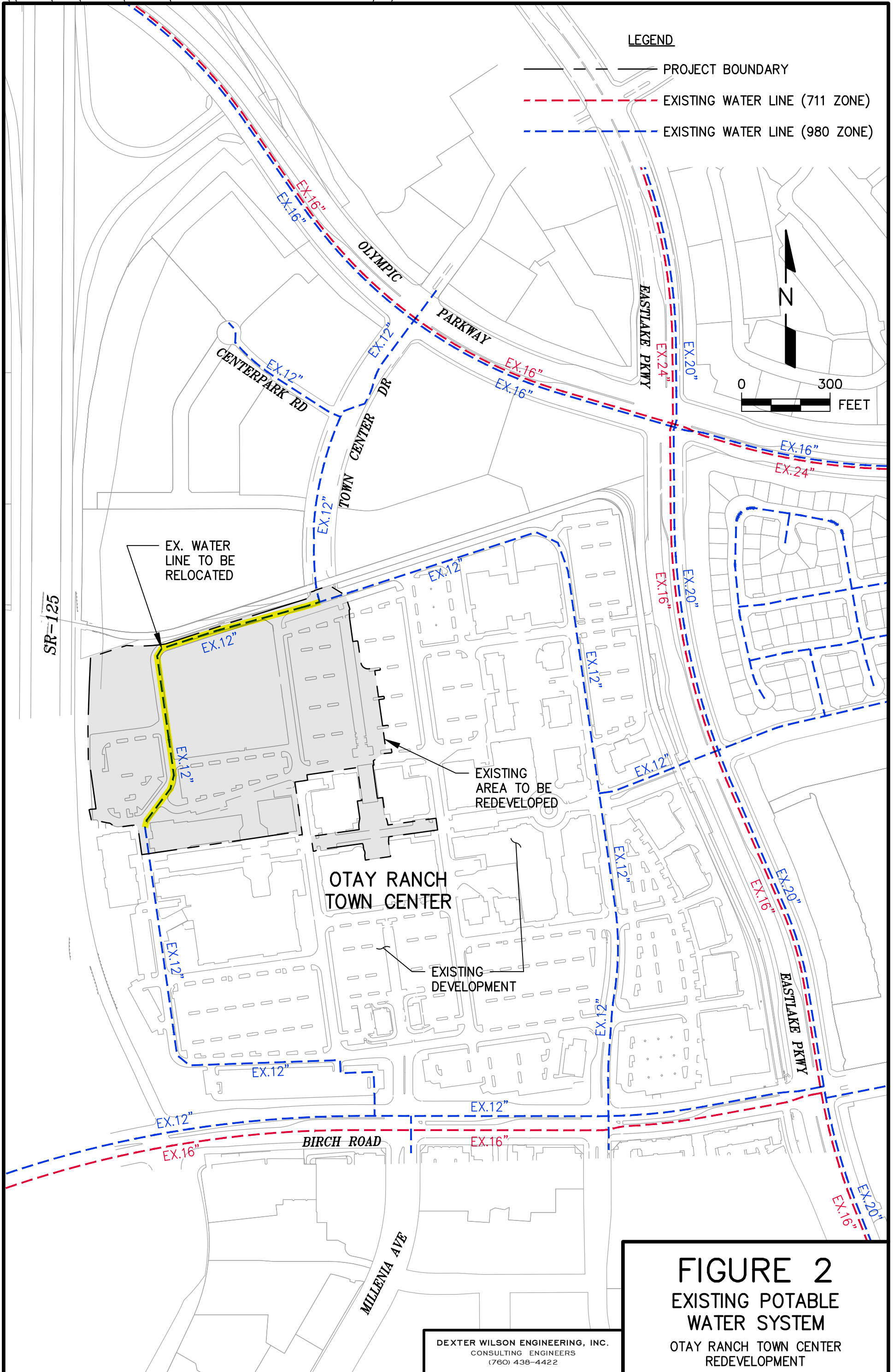
The existing water system in the vicinity of the project is presented on Figure 2. There are existing 12-inch potable water lines looped through the site and connected to an existing 12-inch line in Birch Road to the south, to an existing 20-inch line in Eastlake Parkway to the east, and to an existing 12-inch line in Town Center Drive to the north. Figure 2 presents the existing potable water system in the vicinity of the project.

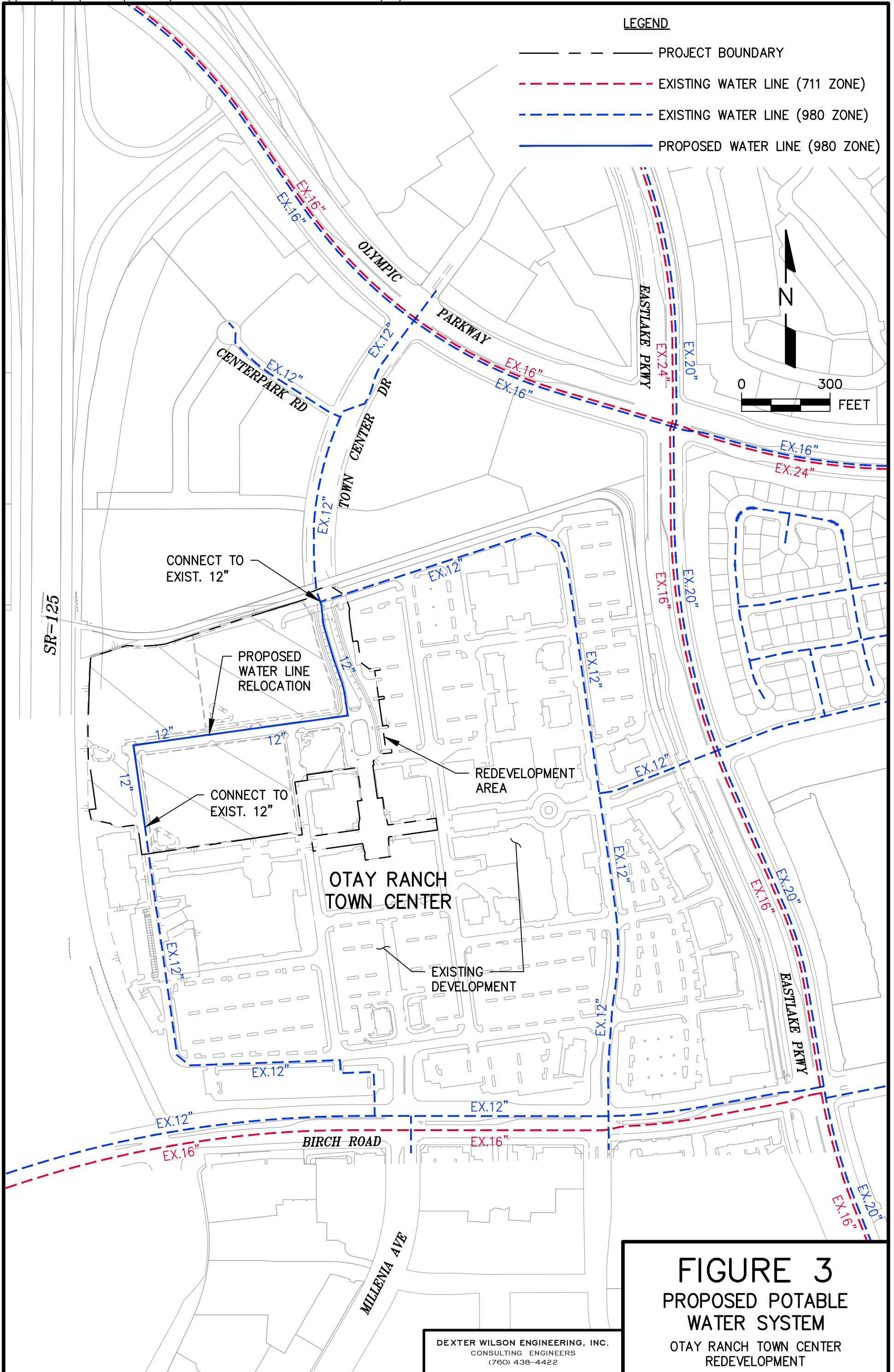
Proposed Potable Water System

The Otay Ranch Town Center Redevelopment project will receive water service by relocating a portion of the existing public 12-inch 980 Pressure Zone potable water loop within the site. Figure 3 presents the proposed public water system. The pipeline relocation is required to accommodate the proposed redevelopment and will disrupt service to an existing fire hydrant near the northwest corner of the site that was installed near the South Bay Bus Rapid Transit Station (see Appendix C). Water service to this fire hydrant will be maintained and coordinated with the Chula Vista Fire Department during final engineering.

Because the estimated Maximum Day plus Fire Flow requirement for the area to be redeveloped is 4,005 gpm and the existing backbone system has previously been evaluated for a 5,000 gpm fire flow, which is the maximum amount supplied by Otay Water District, the backbone water system will not require any pipe size upgrades to support site redevelopment.

Where new development is proposed, private onsite water systems with connections to the public system will be installed. Domestic water service connections will include a master meter and a backflow preventer, and fire service connections will include a backflow preventer. Both domestic water service laterals and fire service laterals will be installed in accordance with Otay Water District standards.





Overview of Recycled Water Service

The existing Otay Ranch Town Center site receives recycled water from the Otay Water District 815 Pressure Zone system. Recycled water is used to irrigate landscaped common areas and parkways within the Otay Ranch Town Center.

Figure 4 presents the existing public recycled water system in the vicinity of the project. As shown in Figure 4, there are existing 12-inch recycled water lines in Birch Road and Eastlake Parkway and there are two existing 8-inch recycled water service laterals to the site: one lateral is connected to the existing 12-inch recycled water line in Birch Road and the other is connected to the existing 12-inch recycled water line in Eastlake Parkway. Each 8-inch recycled water service lateral serves two existing 2-inch irrigation service laterals and meters (four total). The existing recycled water demand for the site is estimated as follows:

- Existing Commercial Area = 87.25 acres
- Percent Irrigated = 10% or 8.73 acres
- Average Recycled Water Demand = 8.73 acres x 1,900 gpd/acre = 16,587 gpd

Table 5 presents the projected average recycled water demand for the Otay Ranch Town Center after the proposed redevelopment.

TABLE 5 OTAY RANCH TOWN CENTER REDEVELOPMENT AVERAGE RECYCLED WATER DEMAND					
Land Use	Quantity	% Irrigated	Irrigated Acreage	Recycled Water Demand Factor	Average Recycled Water Demand, gpd
Existing Development to Remain					
Existing Commercial ¹	70.68 acres	10	7.07	1,900 gpd/ac	13,433
Proposed Development²					
Mixed-Use (Residential and Commercial)	10.91 acres	15	1.64	1,900 gpd/ac	3,116
Park/Plaza	2.73 acres	100	2.73	1,900 gpd/ac	5,187
TOTAL					21,736

1. Acreage of existing Otay Ranch Town Center site (87.25 acres) reduced by 16.57 acres (redevelopment area).
 2. Acreage excludes private street area (2.93 acres) as no recycled water demand is expected.

In comparing the existing average recycled water demands to the projected average recycled water demands after the redevelopment, the proposed redevelopment will increase recycled water demands by approximately 5,149 gpd or 31.0 percent. This increase in demand is not expected to change private irrigation line sizing within the project.

The existing 2-inch recycled water meters serving the site have a combined capacity of 512 gpm (four (4) 2-inch meters at 128 gpm each). The existing average recycled water demand for the existing site is approximately 16,587 gpd (11.5 gpm) and the projected average recycled water demand for the post-redevelopment site is 21,736 gpd (15.1 gpm). Applying a peaking factor of 6.0 (2.0 max day peaking factor x 3.0 to account for 8 hours of irrigation over 24 hours) results in peak hour demands of 69.0 gpm and 90.6 gpm for the existing site condition and the post-redevelopment site condition, respectively; thus, the recycled water demands are well within the total meter capacity available to the site and it is anticipated that new public recycled water services will not be required for the project.

To provide recycled water service to the redevelopment area the existing private irrigation system within the Otay Ranch Town Center site will be expanded/modified. The general location of private irrigation lines within the redevelopment area are shown in Appendix A. Proposed elevations within the redevelopment area range from 614 feet to 626 feet, which results in a maximum static pressure range of 81 psi to 87 psi from the 815 Pressure Zone. Potential recycled water use areas for the proposed modifications include common landscaped areas and the public park/plaza. The expected working pressures in the redevelopment area are approximately 30 psi. Meter capacities, irrigation system appurtenances, and the need for booster pumps and submeters to serve the redevelopment area will need to be evaluated in more detail during final engineering by the project landscape architect.

Chuck Cater
June 22, 2023
ORTC Redevelopment – Overview of Water

Thank you for the opportunity to assist you with the water system planning for this project. If you have any questions regarding the information presented in this report, please do not hesitate to call.

Dexter Wilson Engineering, Inc.

Fernando Fregoso, P.E.

FF:ru

Attachments

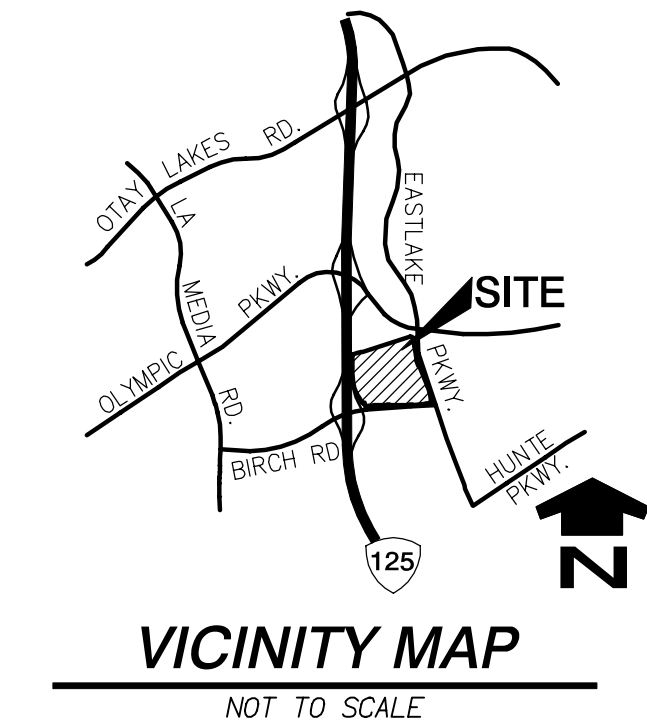
APPENDIX A

**TENTATIVE MAP
TITLE SHEET**

TENTATIVE MAP/CVT 22-0002 FOR: OTAY RANCH TOWN CENTER FC-1 CITY OF CHULA VISTA, CALIFORNIA

LEGEND

- SUBDIVISION BOUNDARY
- PROPOSED LOT LINE
- EXISTING LOT LINE
- EXISTING ASSESSOR'S MAP OR PARCEL NO. LOT 1 MAP 105037
- PROPOSED RESIDENTIAL NEIGHBORHOOD
- PROPOSED RESIDENTIAL LOT (NUMBERED)
- PROPOSED PRIVATE STREET OR PARK LOT (LETTERED)
- EXISTING ZONING
- PROPOSED EASEMENT LINE
- EXISTING EASEMENT LINE
- EXISTING SEWER MAIN WITH MANHOLE
- PROPOSED PUBLIC SEWER MAIN WITH MANHOLE (8" PVC UNLESS OTHERWISE NOTED)
- EXISTING WATER MAIN WITH FIRE HYDRANT
- PROPOSED PUBLIC WATER MAIN (8" PVC UNLESS OTHERWISE NOTED)
- EXISTING RECLAIMED WATER MAIN
- PROPOSED PUBLIC RECLAIMED WATER MAIN (8" PVC UNLESS OTHERWISE NOTED)
- EXISTING GAS MAIN
- EXISTING STORM DRAIN SYSTEM
- PROPOSED PRIVATE STORM DRAIN SYSTEM
 - A. INLET OR CATCH BASIN
 - B. HEADWALL
 - C. CLEANOUT
 - D. CATCH BASIN
 - E. MODULAR WETLANDS UNIT
- PROPOSED STREET CENTERLINE ELEVATION
- PROPOSED STREET GRADE
- STREET LIGHT
- CUT/FILL LINE
- PROPOSED SLOPE
- PROPOSED PRIVATE RETAINING WALL
- NUMBER OF PARKING STALLS IN A BLOCK
- ACCESS RIGHTS RELINQUISHED PER DOC. NO. 2009-080407 REC. 5/22/2009, O.R.
- ACCESS RIGHTS RELINQUISHED PER DOC. NO. 2009-018147 REC. 3/4/2005, O.R.
- ACCESS RIGHTS RELINQUISHED PER DOC. NO. 2009-018149 REC. 3/4/2005, O.R.
- INDICATES FOUND MONUMENT AS NOTED.
- INDICATES FOUND 3/4" IRON PIPE WITH DISC STAMPED "LS 7696" PER CERTIFICATE OF CORRECTION FOR MAP NO. 15037 RECORDED 8/10/2009 AS DOC NO. 2009-0446488.
- INDICATES FOUND 2" IRON PIPE WITH DISC STAMPED "LS 7969" PER MAP NO. 15037 AND THE CERTIFICATE OF CORRECTION THEREOF.
- INDICATES FOUND LEAD & DISC STAMPED "LS 7696" PER MAP NO. 15037 AND CERTIFICATES OF CORRECTION THEREOF.
- INDICATES FOUND LEAD & DISC STAMPED "LS 6922" PER OR 43680, 43681 OR 43682, UNLESS OTHERWISE NOTED.
- INDICATES FOUND 2" IRON PIPE WITH DISC STAMPED "LS 6187" IN STANDARD STREET WELL MONUMENT PER ROS 19985, UNLESS OTHERWISE NOTED.
- INDICATES FOUND STANDARD STREET WELL MONUMENT MARKED "LS 7322" FOR MAP NO. 14780 OR CERTIFICATE OF CORRECTION THEREOF, UNLESS OTHERWISE NOTED.
- INDICATES FOUND STANDARD STREET WELL MONUMENT MARKED "LS 7322" AS SHOWN ON ROS 19985, UNLESS OTHERWISE NOTED.
- INDICATES SEARCHED FOR NOTHING FOUND.
- EXISTING IRRIGATION LINE TO REMAIN
- EXISTING IRRIGATION LINE TO BE RELOCATED
- EXISTING METER



GENERAL NOTES

- GROSS SITE AREA EXISTING: 78.291 ACRES (EXCLUDING MAP PARCEL 3 8.955 ACRES)
- GROSS REDEVELOPMENT SITE AREA PROPOSED: 16.57 ACRES (REMAINDER OF 58.49 ACRES TO REMAIN AS CURRENTLY DEVELOPED)
- TOTAL NUMBER OF LOTS: 19, BROKEN DOWN AS FOLLOWS
 - MULTI-FAMILY RESIDENTIAL: 9 LOTS
 - PARK/PARKAZA: 5 LOTS
 - PRIVATE STREETS: 4 LOTS
 - COMMERCIAL/RETAIL: 1 LOT
- MAXIMUM NUMBER UNITS ALLOWED: 840 UNITS
- ASSESSOR'S PARCEL NUMBERS: 643-061-08-00 AND 643-061-04-00
- EXISTING GENERAL PLAN DESIGNATIONS: COMMERCIAL RETAIL
- PROPOSED GENERAL PLAN LAND USES: COMMERCIAL RETAIL, URBAN CORE
- EXISTING ZONING: COMMERCIAL RETAIL (FC-1)
- PROPOSED ZONING: MIXED-USE
- PRESENT LAND USE: RETAIL

GENERAL DESIGN NOTES

- WATER SYSTEM TO BE INSTALLED IN ACCORDANCE WITH THE STANDARDS OF THE OTAY WATER DISTRICT AND SHALL BE MAINTAINED AND OPERATED BY THE DISTRICT.
- SPECIFIC METHODS OF HANDLING STORM WATER ARE SUBJECT TO DETAILED APPROVAL BY THE DEVELOPMENT SERVICES DEPARTMENT AT THE TIME OF SUBMISSION OF IMPROVEMENT AND GRADING PLANS. DESIGN SHALL BE ACCOMPLISHED ON THE BASIS OF THE REQUIREMENTS OF THE SUBDIVISION MANUAL. DRAINAGE EASEMENTS SHALL BE PROVIDED AS REQUIRED BY THE CITY DEVELOPMENT SERVICES DEPARTMENT.
- SANITARY SEWER TO BE PROVIDED AND CONNECTED TO CITY OF CHULA VISTA SEWERS. SEWER MAINS ARE 8" MINIMUM P.V.C. UNLESS SHOWN OTHERWISE.
- EVIDENCE SHALL BE PROVIDED OF HAVING OBTAINED GRADING RIGHTS UPON ADJACENT PROPERTY WHERE REQUIRED DURING FINAL ENGINEERING.
- STREET TREE DEPOSITS SHALL BE PAID IN ACCORDANCE WITH ORDINANCE NUMBER 1369 AND NO. 1687 OF THE CITY OF CHULA VISTA.
- UTILITIES SHALL BE UNDERGROUND AND EASEMENTS PROVIDED AS NECESSARY.
- SUBDIVIDER TO PROVIDE AND INSTALL APPROVED STREET LIGHT STANDARDS AND FIXTURES IN THE TYPE AND NUMBER APPROVED BY THE DEVELOPMENT SERVICES DEPARTMENT FOR PUBLIC RIGHT-OF-WAY.
- SLOPE PLANTING SHALL BE IN ACCORDANCE WITH THE CITY OF CHULA VISTA LANDSCAPE MANUAL, AND/OR THE OTAY RANCH VILLAGE DESIGN PLAN.
- GRADING SHALL BE CONSTRUCTED IN ACCORDANCE WITH TITLE 15 OF THE CITY OF CHULA VISTA MUNICIPAL CODE.
- ALL WORK IN THE PUBLIC RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, THE SAN DIEGO AREA REGIONAL STANDARD DRAWINGS AND THE DESIGN AND CONSTRUCTION STANDARDS OF THE CITY OF CHULA VISTA.
- THE STREET SYSTEM SHOWN HEREON SHALL COMPLY WITH CHULA VISTA FIRE DEPARTMENT GUIDELINES, INCLUDING THE AUTOTURN DETAIL. FIRE HYDRANTS TO BE INSTALLED IN ACCORDANCE WITH THE CITY OF CHULA VISTA DESIGN STANDARD NO. 8. FIRE HYDRANTS AS SHOWN ON THIS MAP SHALL BE USED AS A GUIDE ONLY. ONE FOOT CONTROL LOTS TO BE GRANTED TO THE CITY OF CHULA VISTA BY SEPARATE DEED WHERE DETERMINED NECESSARY BY THE DEVELOPMENT SERVICES DEPARTMENT.
- GRADING AND MODEL HOMES MAY BE BUILT, AFTER CITY APPROVAL, PRIOR TO FINAL MAP RECORDED.
- GRADING SHOWN HEREON IS PRELIMINARY AND SUBJECT TO MODIFICATION IN FINAL DESIGN SUBJECT TO SUBSTANTIAL CONFORMANCE APPROVAL BY THE CITY OF CHULA VISTA DEVELOPMENT SERVICES DEPARTMENT.
- STORM DRAIN AND SEWER SHOWN HEREON IS PRELIMINARY AND SUBJECT TO MODIFICATION IN FINAL DESIGN.
- TEMPORARY AND PERMANENT STRUCTURAL BEST MANAGEMENT PRACTICES WILL BE INCORPORATED IN THE DESIGN AND IMPLEMENTATION OF THE DEVELOPMENT.
- PRELIMINARY GEOTECHNICAL REPORT PREPARED BY: GEOTECH, INC. DATED FEBRUARY 4, 2022.
- REFER TO THE "WATER QUALITY TECHNICAL REPORT SNOW" FEBRUARY 28, 2022 PREPARED BY HUNSAKER & ASSOCIATES FOR COMPLIANCE WITH THE REGIONAL WATER QUALITY CONTROL BOARD JURISDICTIONAL PERMIT.
- TEMPORARY TURNBARRENDS SHALL BE PROVIDED AT ALL DEAD END STREETS DURING FINAL ENGINEERING AS REQUESTED BY THE DEVELOPMENT SERVICES DEPARTMENT.
- A FUEL MODIFICATION ZONE IS NOT PROPOSED AS THE PROJECT IS SURROUNDED BY EXISTING PAVEMENT AND DEVELOPMENT.
- SPEED BUMPS FOR TRAFFIC CALMING PURPOSES ARE PROHIBITED ON STREETS TO BE BUILT FOR THIS PROJECT.

CONDOMINIUM NOTES

THIS IS A MAP OF A RESIDENTIAL CONDOMINIUM PROJECT AS DEFINED IN SECTION 4125 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA AND IS FILED PURSUANT TO THE SUBDIVISION MAP ACT. PLANNING NEIGHBORHOOD INCLUDED WITHIN THE RESIDENTIAL CONDOMINIUM PROJECT DESIGNATION ARE (R-1, R-2, R-3A, R-3B, R-4, R-5), FOR A MAXIMUM NUMBER OF (640) DWELLING UNITS.

THIS IS ALSO A MAP OF A COMMERCIAL CONDOMINIUM PROJECT AS DEFINED IN SECTION 6531 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA AND IS FILED PURSUANT TO THE SUBDIVISION MAP ACT. PLANNING NEIGHBORHOOD INCLUDED WITHIN THE COMMERCIAL CONDOMINIUM PROJECT DESIGNATION IS MU/R-3A AND MU/R-3B FOR A MAXIMUM OF 37,200 SF.

SOURCE OF TOPOGRAPHY

THE INFORMATION SHOWN HEREON IS BASED ON AERIAL PHOTODIAPHRAMETRY FLOWN BY R.J. LUNG AND ASSOCIATES ON AUGUST 5, 2020, TOGETHER WITH FIELD SURVEY MEASUREMENTS PERFORMED BY HUNSAKER & ASSOCIATES SAN DIEGO, INC. ON AUGUST 5, 2016.

BENCHMARK:

VERTICAL RELIEF SHOWN HEREON WAS PRODUCED BY FIELD METHODS COMBINED WITH AERIAL TOPOGRAPHY BY R.J. LUNG AND ASSOCIATES FLOWN ON AUGUST 5, 2020. VERTICAL DATUM BASED ON CITY OF CHULA VISTA BENCHMARK NO. NUMBER 2375 (4057) NAVD 88
ELEV. 639.072.

EARTHWORK/GRADING QUANTITIES

CUT: 19,490 C.Y.
FILL: 6,405 C.Y.
EXPORT: 11,085 C.Y.

GRADING QUANTITIES SHOWN ARE RAW QUANTITIES ONLY AND DO NOT INCLUDE THE EFFECT OF REMOVAL GRADING SHOWN IN THE PRELIMINARY SOI. A TRANSPORTATION PERMIT AND A LETTER FROM THE SITE ACCEPTING EXPORTED MATERIAL IS REQUIRED PRIOR TO ISSUANCE OF PERMIT.

EASEMENT & ENCUMBRANCE NOTES

SEE SHEETS 7 & 8

APPLICANT/OWNER

GO2-OTAY RANCH L.P.
350 W. ORLEANS ST. SUITE 300, CHICAGO, IL 60654

JAMES VARSAMIS
VICE PRESIDENT - RETAIL
(312) 835-4764



AUSA S. WALPANDO R.C.E. 47945 DATE

SHEET INDEX

- SHEET 1 - TITLE SHEET/TABLES
- SHEET 2 - STREET SECTIONS & SITE SECTION
- SHEET 3 - PROJECT DESIGN
- SHEET 4 - PROJECT DESIGN
- SHEET 5 - PROJECT DESIGN
- SHEET 6 - PROPOSED LOTTING, EASEMENTS & EASEMENTS OR PORTIONS OF EASEMENTS TO BE VACATED
- SHEET 7 - BOUNDARY, EASEMENTS & ENCUMBRANCES
- SHEET 8 - BOUNDARY, EASEMENTS & ENCUMBRANCES

PREPARED BY:	NO. REVISIONS	DATE	BY
 HUNSAKER & ASSOCIATES SAN DIEGO, INC. PLANNING: 9707 Waples Street San Diego, CA 92121 SURVEYING: PH080505-0000 PH080508-1414	1	FIRST SUBMITTAL	01/26/21 H&A
	2	SECOND SUBMITTAL	03/09/22 H&A
	3	THIRD SUBMITTAL	10/13/22 H&A
	4	FOURTH SUBMITTAL	02/15/23 H&A
	5		
	6		
	7		

TENTATIVE MAP/CVT 22-0002
OTAY RANCH TOWN CENTER FC-1
City Of Chula Vista, California

SHEET 1 OF 8



KEY MAP
SCALE: 1"=150'

LEGAL DESCRIPTION:

REAL PROPERTY IN THE CITY OF CHULA VISTA, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL A:
LOTS 1 AND 4 OF CHULA VISTA TRACT NO. 05-02, OTAY RANCH FREEWAY COMMERCIAL SECTIONAL PLANNING AREA, IN THE CITY OF CHULA VISTA, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE MAP THEREOF, 15037, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JUNE 30, 2005, AND AS CORRECTED BY A CERTIFICATE OF CORRECTION RECORDED JANUARY 3, 2008 AS INSTRUMENT NO. 2008-0003099, AND FURTHER CORRECTED BY A CERTIFICATE OF CORRECTION RECORDED AUGUST 10, 2009 AS INSTRUMENT NO. 2009-0446488, BOTH OF OFFICIAL RECORDS.

EXCEPTING THEREFROM FROM LOT 1 THAT PORTION OF LAND CONVEYED TO SAN DIEGO ASSOCIATION OF GOVERNMENTS, A CALIFORNIA LEGISLATIVELY-CREATED REGIONAL PLANNING AGENCY, IN GRANT DEED RECORDED DECEMBER 29, 2016 AS INSTRUMENT NO. 2016-0714265 AND 2016-0714266, BOTH OF OFFICIAL RECORDS.

PARCEL B:
EASEMENTS FOR COMMON AREA, UNDERGROUND SUPPORTS AND MINOR ENCROACHMENTS, ACCESS, SIGNAGE, UTILITIES, DRAINAGE AND INCIDENTAL PURPOSES AS SET FORTH IN INSTRUMENT ENTITLED "CONSTRUCTION, OPERATION AND RECIPROCAL EASEMENT AGREEMENT", EXECUTED BY GO2-OTAY RANCH, L.P., A DELAWARE LIMITED PARTNERSHIP AND MACY'S DEPARTMENT STORES, INC., AN OHIO CORPORATION, RECORDED NOVEMBER 21, 2008 AS INSTRUMENT NO. 2008-0604340 OF OFFICIAL RECORDS.

APN(S): 643-061-08-00 (AFFECTS: LOT 1) AND 643-061-04-00 (AFFECTS: LOT 4)

PUBLIC UTILITIES

- SEWER: CITY OF CHULA VISTA
- WATER: OTAY WATER DISTRICT
- STORM DRAIN: CITY OF CHULA VISTA
- TELEPHONE: AT&T
- GAS AND ELECTRIC: SOG&E
- CABLE T.V.: COX COMMUNICATIONS
- POLICE & FIRE: CITY OF CHULA VISTA
- SCHOOLS: CHULA VISTA ELEMENTARY SCHOOL DISTRICT, SWEETWATER UNION HIGH SCHOOL DISTRICT

LAND USE SUMMARY

A. PROPOSED LAND USE

LOT	LAND USE	AREA AC	COMMERCIAL	DENSITY DU/AC	UNITS
MUR LOT 1	Urban Core	1.65	-	77.0	-
MUR LOT 2	Urban Core	1.23	-	77.0	-
MUR LOT 3	Urban Core	1.88	-	77.0	-
MUR LOT 4	Urban Core	1.86	*37,200 SF	77.0	-
MUR LOT 5	Urban Core	0.73	-	77.0	-
MUR LOT 6	Urban Core	0.73	-	77.0	-
MUR LOT 7	Urban Core	1.19	-	77.0	-
MUR LOT 8	Urban Core	1.17	-	77.0	-
MUR LOT 9	Urban Core	0.47	-	77.0	-
SUBTOTAL MUR		10.91			840
PS LOT A	Private St.	1.50	-	-	-
PS LOT B	Private St.	0.80	-	-	-
PS LOT C	Private St.	0.26	-	-	-
PS LOT D	Private St.	0.37	-	-	-
SUBTOTAL PS		2.93			
P LOT E	Park/Plaza	0.72	-	-	-
P LOT F	Park	0.87	-	-	-
P LOT G	Park	0.38	-	-	-
P LOT H	Park	0.76	-	-	-
SUBTOTAL PARK		2.73			
SUBTOTAL REDEVELOPMENT		16.57			
LOT 10	Commercial Retail	41.93	-	-	-
TOTAL		58.49		*37,200	840

Note: Acreages rounded to the nearest hundredth of an acre
*37,200 sf of existing commercial to be replaced with 37,200 sf of new commercial

B. EXISTING LOTS

LOT	LAND USE	AREA AC
** LOT 1	Commercial Retail	** 50.791
LOT 4	Commercial Retail	7.699
TOTAL		58.490

** THE BOUNDARY AND ACREAGE OF LOT 1 OF FINAL MAP 15037 WAS CORRECTED PURSUANT TO CERTIFICATE OF CORRECTION REC. 1/03/2008 AS INST. NO. 2008-0003099 AND CERTIFICATE OF CORRECTION REC. 8/10/2009 AS INST. NO. 2009-0446488. THE ACREAGE REFLECTED HEREON IS ACCORDANCE WITH THESE CORRECTIONS.

APPENDIX B

PEAKING FACTOR CURVES

PEAK HOUR DEMAND FACTOR

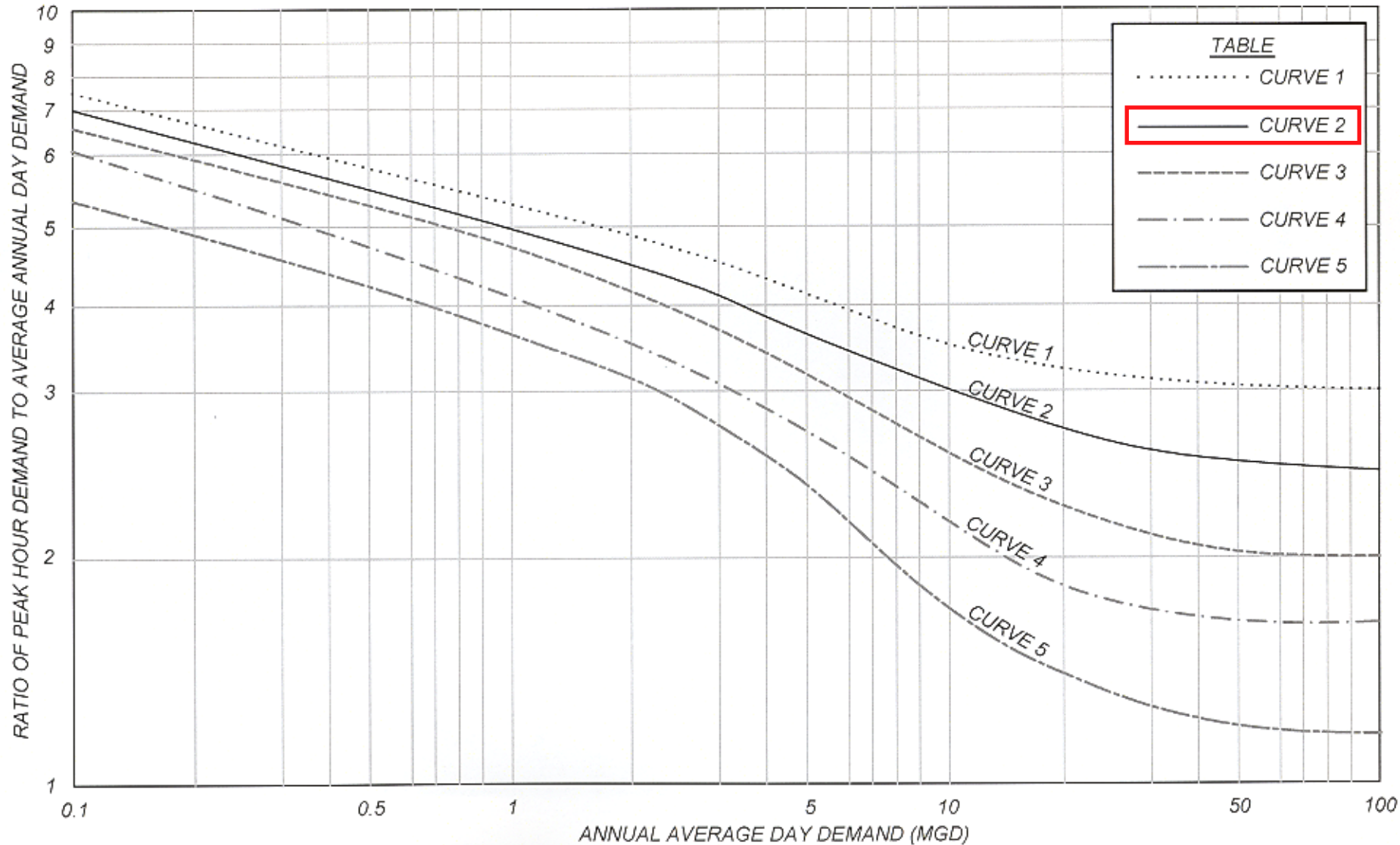


TABLE	
.....	CURVE 1
————	CURVE 2
-----	CURVE 3
- . - . - .	CURVE 4
-----	CURVE 5

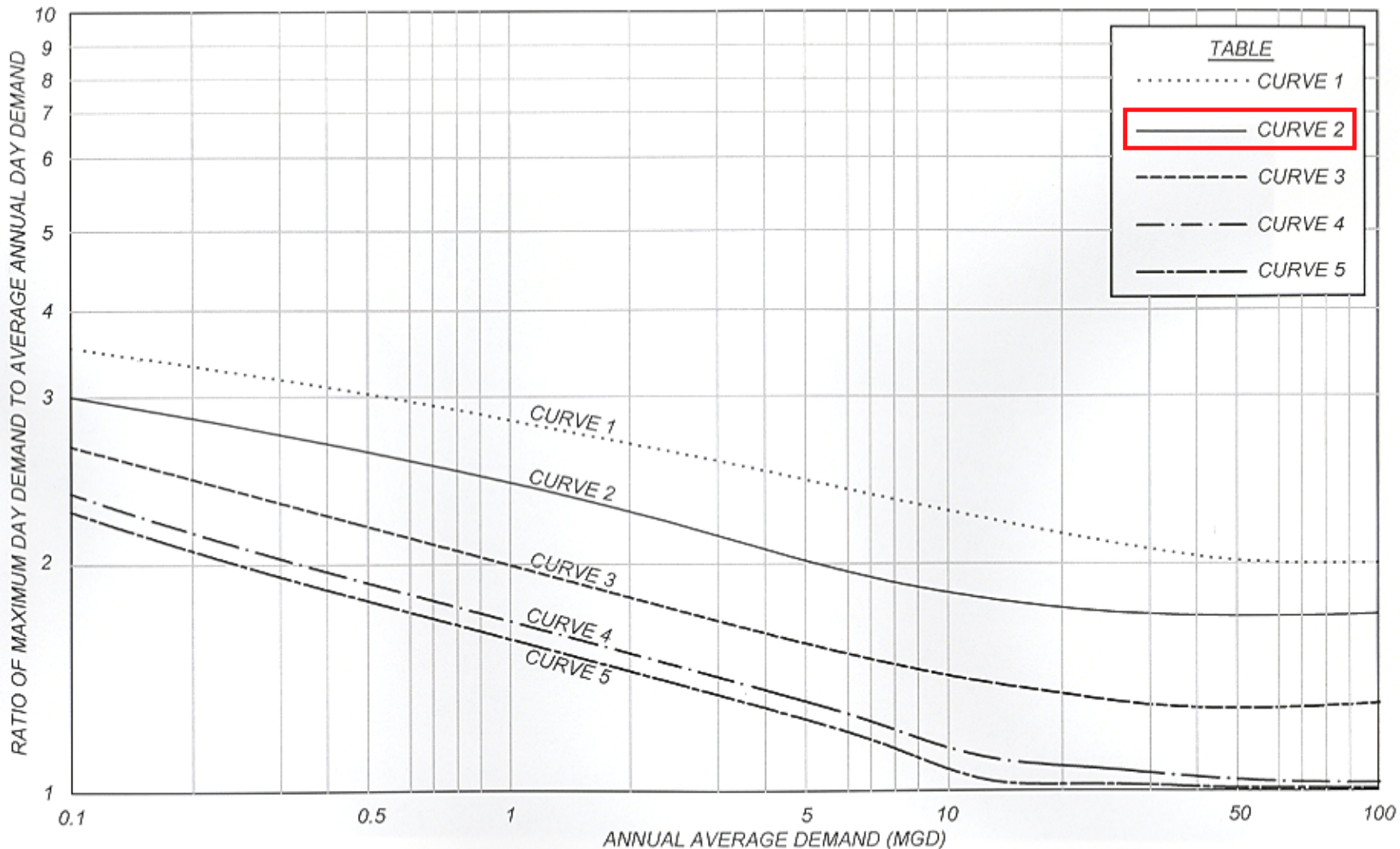
WATER AGENCIES' DESIGN GUIDELINES

WATER PLANNING

PEAK HOUR DEMAND
PEAKING FACTOR CURVE
FIGURE 4-1-1

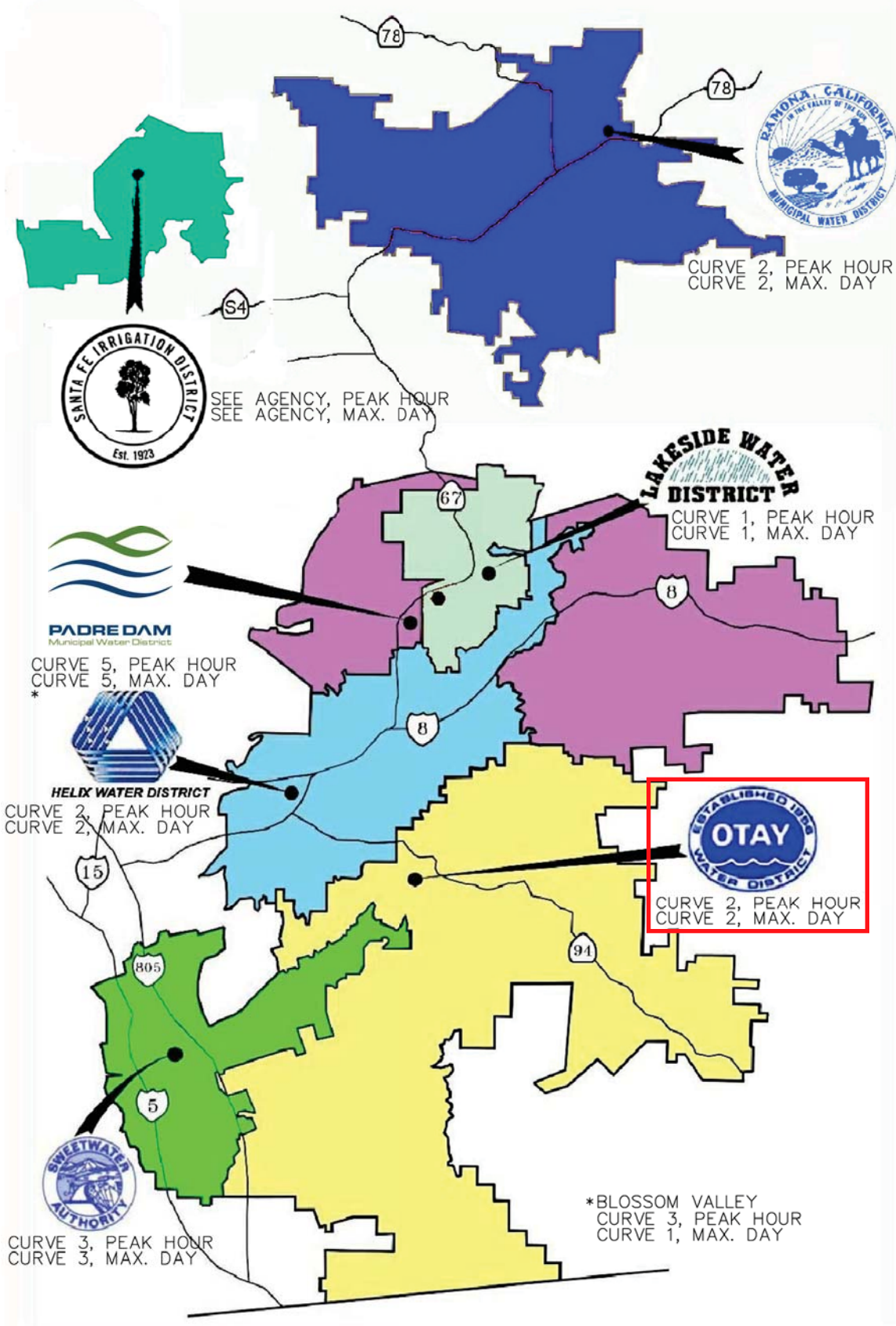


MAXIMUM DAY DEMAND FACTOR



WATER AGENCIES' DESIGN GUIDELINES

WATER PLANNING
MAXIMUM DAY DEMAND
PEAKING FACTOR CURVE
FIGURE 4-1-2



WATER AGENCIES' DESIGN GUIDELINES

WATER PLANNING
WATER AGENCIES MAP

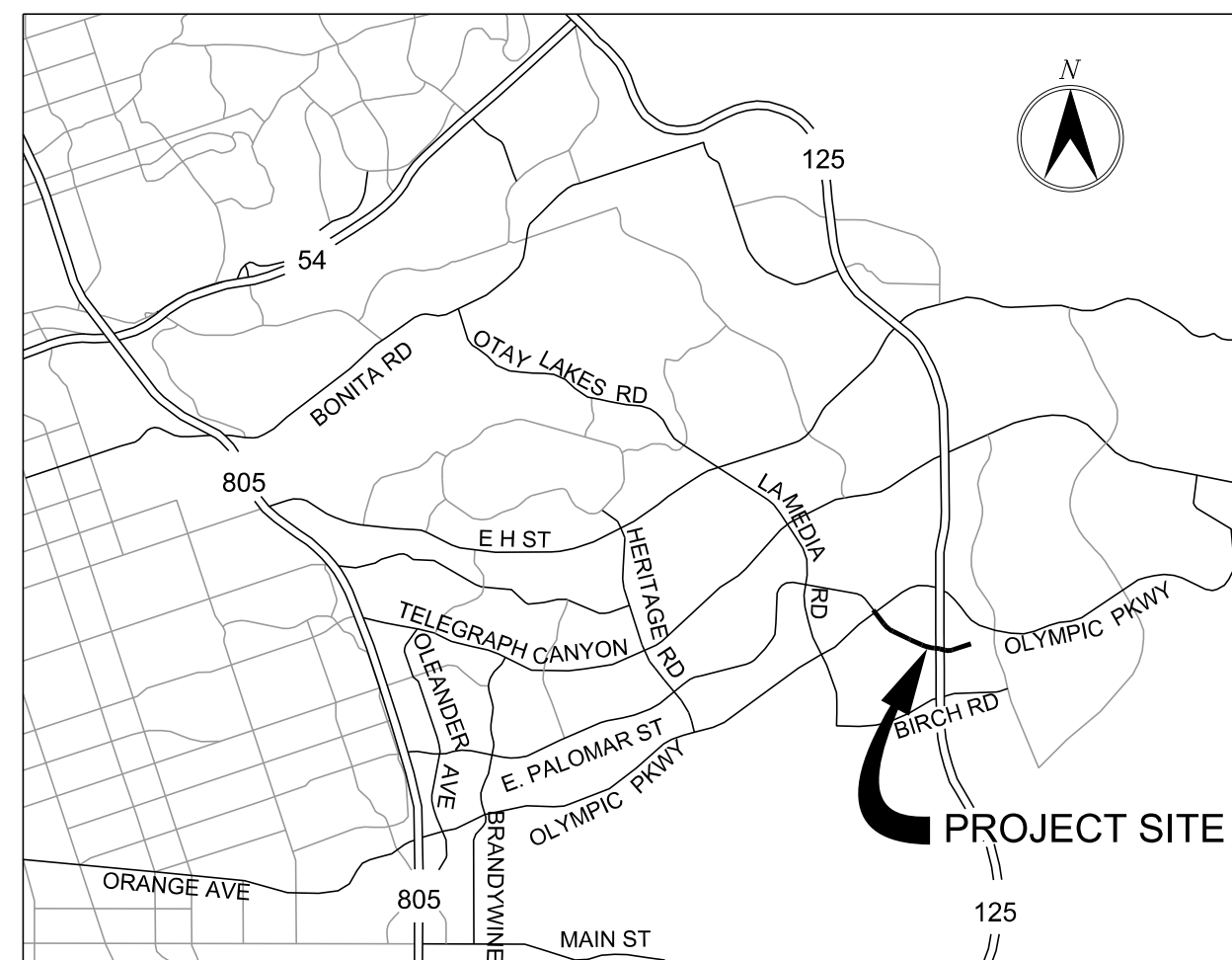
FIGURE 4-1-3

P:\WORKING\W08490-WAS\CI\Water Agencies Design Guide (WADG)\DWG\ACAD 2000\4.1_Figure4-1-3-2000.dwg 8/18/2004 3:03:38 PM PST

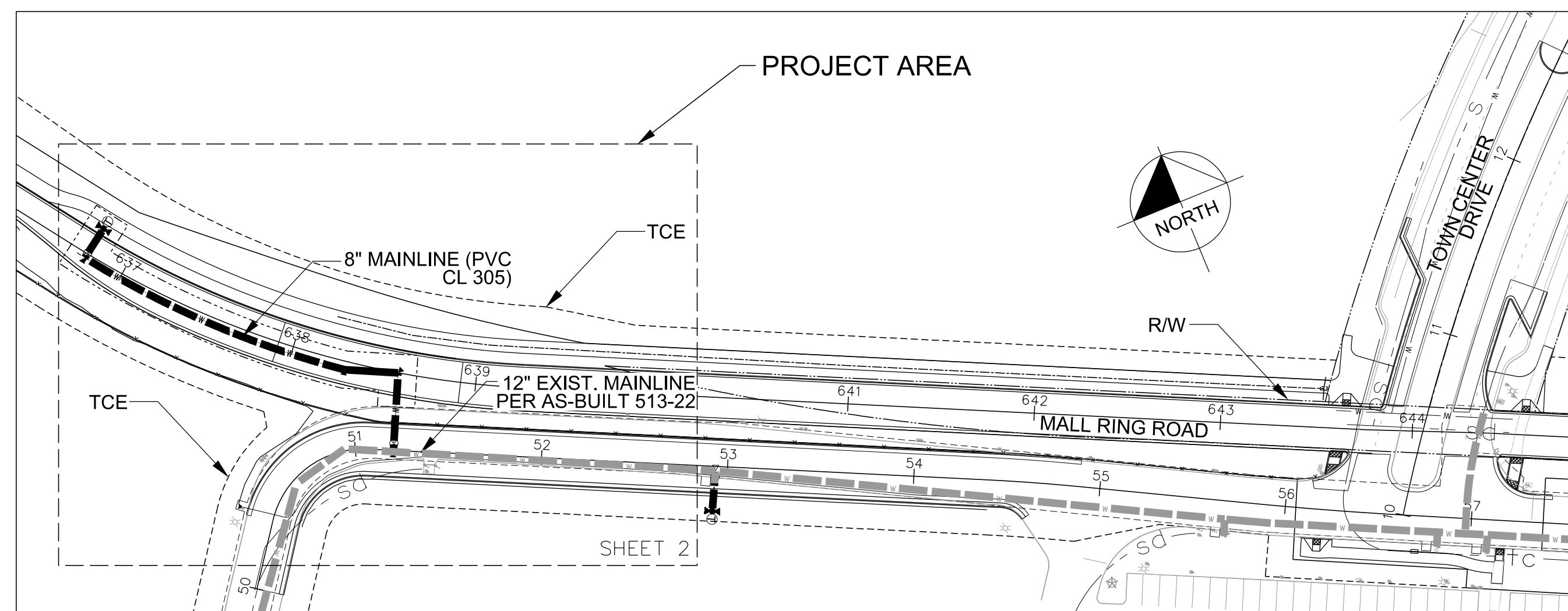
APPENDIX C

**SOUTH BAY BRT
WATER LINE PLANS**

SOUTH BAY BRT SEGMENT 2 POTABLE WATER PLAN FOR 8" MAINLINE



VICINITY MAP
NOT TO SCALE



SITE MAP
NOT TO SCALE

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THIS PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF THE PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF CHULA VISTA, THE OTAY WATER DISTRICT AND THE COUNTY OF SAN DIEGO OF ENVIRONMENTAL HEALTH IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS THE ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

TYLIN INTERNATIONAL
404 CAMINO DEL RIO SOUTH, SUITE 700
SAN DIEGO, CA 92108

Bethany Dawa
BETHANY DAWA
R.C.E. No.: 68721
05-03-2016
DATE

OTAY WATER DISTRICT NOTES:

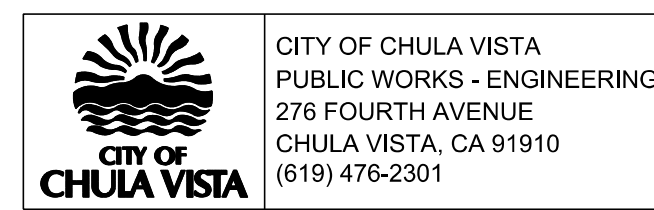
1. WATER MAINS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AND THE CURRENT APPROVED WATER AGENCIES' STANDARDS.
2. OTAY DISTRICT INSPECTION SHALL RECEIVE THE CONSTRUCTION SCHEDULE AT LEAST FIVE (5) WORKING DAYS IN ADVANCE OF THE START OF CONSTRUCTION. WORK DONE WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REMOVAL AT THE CONTRACTOR'S EXPENSE. THE TELEPHONE NUMBER OF OTAY WATER DISTRICT INSPECTION IS (619) 670-2203.
3. CONSTRUCTION SHALL NOT START UNTIL THE SUBDIVISION AGREEMENT HAS BEEN EXECUTED BETWEEN THE OTAY WATER DISTRICT AND THE DEVELOPER AND A PRE-CONSTRUCTION MEETING HAS BEEN HELD WITH THE OTAY WATER DISTRICT'S INSPECTION DEPARTMENT.
4. THE CONTRACTOR SHALL POTHOLE ALL TIE-IN LOCATIONS BEFORE PIPE INSTALLATION TO DETERMINE PIPE SIZE AND MATERIAL, ELEVATION, AND IF TIE-IN CAN BE MADE AT THE LOCATION INDICATED. THE CONTRACTOR SHALL ALSO POTHOLE ALL EXISTING UTILITIES THAT MAY INTERFERE WITH THE TIE-IN LOCATION AND EXPOSE PIPE A MINIMUM OF 3-FEET ON EACH SIDE OF THE CONNECTION POINT TO ASSURE THAT NO COLLARS ARE IN THE TAP AREA. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OTAY WATER DISTRICT'S ENGINEERING DEPARTMENT, PUBLIC SERVICES PRIOR TO PROCEEDING.
5. WATER PRESSURE REGULATORS WILL BE REQUIRED. THE INSTALLATION AND MAINTENANCE OF REGULATORS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.
6. APPROVAL OF THE PLANS BY THE OTAY WATER DISTRICT DOES NOT CONSTITUTE RESPONSIBILITY FOR ACCURACY OF INFORMATION NOR LOCATIONS OF EXISTING FACILITIES.
7. DEVELOPER/CUSTOMER AGREES THAT IF IT, ITS EMPLOYEES, AGENTS, OR ANY INDEPENDENT CONTRACTORS OR SUBCONTRACTORS SHOULD MAKE AN UNAUTHORIZED CONNECTION TO THE DISTRICT WATER SYSTEM, CUSTOMER IS SUBJECT TO THE FINES SET FORTH IN SECTION 72 OF THE DISTRICT'S CODE OF ORDINANCES INCLUDING, BUT NOT LIMITED TO, SECTION 72.03, "CERTAIN SPECIFIC OPERATIONAL VIOLATIONS". CUSTOMER ACKNOWLEDGES AND AGREES THAT PAYMENT OF FINES MAY BE DEDUCTED FROM ANY DEPOSIT CUSTOMER HAS WITH THE DISTRICT.
8. NO PERSON, OTHER THAN AN EMPLOYEE OR AGENT OF THE DISTRICT, SHALL HAVE ANY RIGHT TO OPERATE ANY PART OF A DISTRICT WATER DISTRIBUTION SYSTEM. ANY PERSON WHO TAMPERS OR INTERFERES WITH ANY PART OR COMPONENT OF SAID SYSTEM, OR CAUSES OR PERMITS ANY ACT OF TAMPERING OR INTERFERING WITH THE SYSTEM, SHALL BE LIABLE FOR ANY INJURY OR DAMAGE CAUSED THEREBY OR RESULTING THEREFROM. IN ADDITION, THE FINES SET FORTH IN SECTION 72 OF THE DISTRICT'S CODE OF ORDINANCES INCLUDING, BUT NOT LIMITED TO, SECTION 72.03, "CERTAIN SPECIFIC OPERATIONAL VIOLATIONS", WILL BE IMPOSED ON ANY PERSON OR COMPANY WHO OPERATES ANY PART OF THE DISTRICT WATER SYSTEM WITHOUT PROPER AUTHORIZATION
9. NO MORE THAN 70 EQUIVALENT DWELLING UNITS CAN BE ON AN UNLOOPED SYSTEM.
10. NO MORE THAN 1,320 FEET OF MAIN SHALL BE IN USE WITHOUT LOOPING TO A SECOND SOURCE. THE WATER MAIN SHALL BE DESIGNED AND INSTALLED SO THAT IT TERMINATES AT A LOT LINE AND NOT WITHIN A LOT OR OTHERWISE APPROVED BY THE OTAY WATER DISTRICT.
11. THRUST BLOCK SIZING ASSUMES A SOIL BEARING CAPACITY OF 1,500 PSF. SHOULD FIELD CONDITIONS INDICATE A LESSER SOIL BEARING CAPACITY, NOTIFY THE OTAY WATER DISTRICT'S ENGINEERING DEPARTMENT, PUBLIC SERVICES.
12. THE TOP OF POTABLE WATER MAINS 12-INCHES IN DIAMETER AND SMALLER MUST BE 3.5 FEET BELOW FINISHED GRADE. THE TOP OF RECYCLED WATER MAINS 12- INCHES IN DIAMETER AND SMALLER MUST BE AT LEAST 4.5 FEET BELOW FINISHED GRADE. ALL WATER MAINS 16-INCHES IN DIAMETER AND LARGER MUST HAVE AN ADDITIONAL 1-FOOT OF COVER. THE TOP OF PIPE ELEVATIONS SHALL BE PROVIDED ON THE PROFILE EVERY 100 FEET. PIPELINES MUST BE THE CLASS AS SHOWN AND CONSTRUCTED ACCORDING TO THE APPROVED PLANS WITH A HORIZONTAL TOLERANCE OF 0.15 FEET AND A VERTICAL TOLERANCE OF 0.10 FEET.
13. EVERY RESIDENTIAL LOT MUST BE SERVED BY A 1-INCH COPPER SERVICE (WAS DWG WS-01). ALL OTHER LOTS MUST BE SERVED WITH A MINIMUM 2-INCH COPPER SERVICE (WAS DWG WS-02). CATHODIC PROTECTION WILL BE REQUIRED ON ALL NEW COPPER SERVICES (WAS DWG WC-17). ADDITIONALLY, ALL SACRIFICIAL ANODES SHALL BE TESTED FOR OPERATION AND A REPORT ISSUED BY THE DEVELOPER'S CORROSION ENGINEER. SERVICE SADDLES SHALL BE A MINIMUM 2.0 FEET AWAY FROM OTHER SADDLES AND OR JOINTS. MULTIPLE SADDLES ON THE SAME PIPE LENGTH SHALL BE ALTERNATELY STAGGERED 10 TO 30 DEGREES TO PREVENT A WEAK PLANE IN THE PIPE.
14. FOR CONNECTIONS TO EXISTING WATER MAINS, ALL WET TAP CONNECTIONS TO EXISTING PIPELINES, WHETHER FOR MAINLINE EXTENSION OR SERVICE LATERALS, SHALL BE PERFORMED BY THE DISTRICT. THE CONTRACTOR SHALL FURNISH THE TAPPING SLEEVE OR TEE, VALVES AND ALL OTHER MATERIALS AS CALLED FOR IN THE WATER AGENCIES' STANDARDS. <http://www.sdwas.com/>, STANDARD SPECIFICATIONS SECTION, IN ACCORDANCE WITH THE APPROVED MATERIALS LIST. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, LABOR AND TRAFFIC CONTROL REQUIRED FOR THE EXCAVATION AND INSTALLATION OF THE CONNECTION INCLUDING BUT NOT LIMITED TO EXCAVATION BY HAND OR MACHINE, POURING OF THRUST AND ANCHOR BLOCKS, INSTALLATION OF GATE CASING, PAINTING AND WRAPPING OF FITTINGS, BACKFILL AND COMPACTION OF TRENCH AREA AND PAVEMENT REPLACEMENT.
15. A MINIMUM OF 24-INCHES OF PERMANENT BACKFILL SHALL BE INSTALLED OVER THE WATER MAIN PRIOR TO ANY TESTING.

LEGEND:

- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED THRUST/ANCHOR BLOCK
- PROPOSED STORM DRAIN
- PROPOSED DRAINAGE STRUCTURE
- PROPOSED WATER LINE
- EXISTING STORM DRAIN
- EXISTING 12" MAINLINE
- PROPOSED ELECTRICAL CONDUIT
- EXISTING EASEMENT
- PROPOSED EASEMENT

ABBREVIATIONS:

- OWD OTAY WATER DISTRICT
- DI DUCTILE IRON
- FH FIRE HYDRANT
- R/W RIGHT OF WAY
- TCE TEMPORARY CONSTRUCTION EASEMENT
- RWGV RESILIENT WEDGE GATE VALVE
- WAS WATER AGENCIES' STANDARDS
- FLG FLANGE
- MJ MECHANICAL JOINT

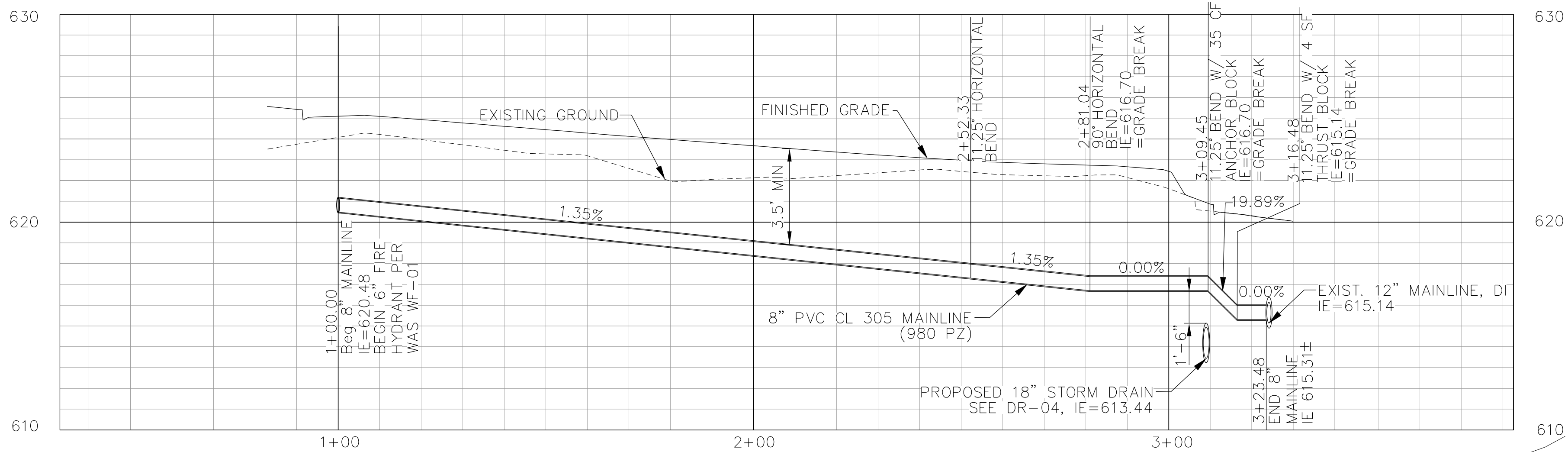


UTILITY NOTE	OTAY WATER DISTRICT
ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE PLOTTED FROM RECORD DATA AT THEIR APPROXIMATE LOCATIONS. UNDERGROUND FACILITIES MAY EXIST WHICH HAVE NOT BEEN REPORTED OR ARE NOT OF RECORD. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL PERTINENT UTILITIES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.	PROJECT # <u>D0855-090261</u> PERMIT # <u>DEV-16-003</u> PZ <u>980</u>
	DAN MARTIN RCE 49389 DATE _____ REVIEWED BY _____ DATE _____

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	DATE	APP'D	DATUM	SCALE	DESIGNED BY:	DRAWN BY:
CONTRACTOR:						VERTICAL DATUM: NAVD 88 HORIZONTAL DATUM: CCS '83, ZONE 6, EPOCH 1991.35	HORIZONTAL AS SHOWN VERTICAL AS SHOWN	D. ARUTA	S. JOHNSON
INSPECTOR:								RESPONSIBLE CHARGE OF WORK:	DATE: <u>05-03-2016</u> R.C.E. No.: <u>68721</u>
DATE COMPLETED:								<i>Bethany Dawa</i> BETHANY DAWA	

CITY OF CHULA VISTA DEPARTMENT OF PUBLIC WORKS	SOUTH BAY RAPID - SEGMENT 2 BETWEEN OLYMPIC PKWY. AND BIRCH RD. DETAIL PLAN - 8" MAINLINE
DRAWING NO. 14004-	CIP # STL-399

TITLE SHEET
1 OF 2



PROFILE

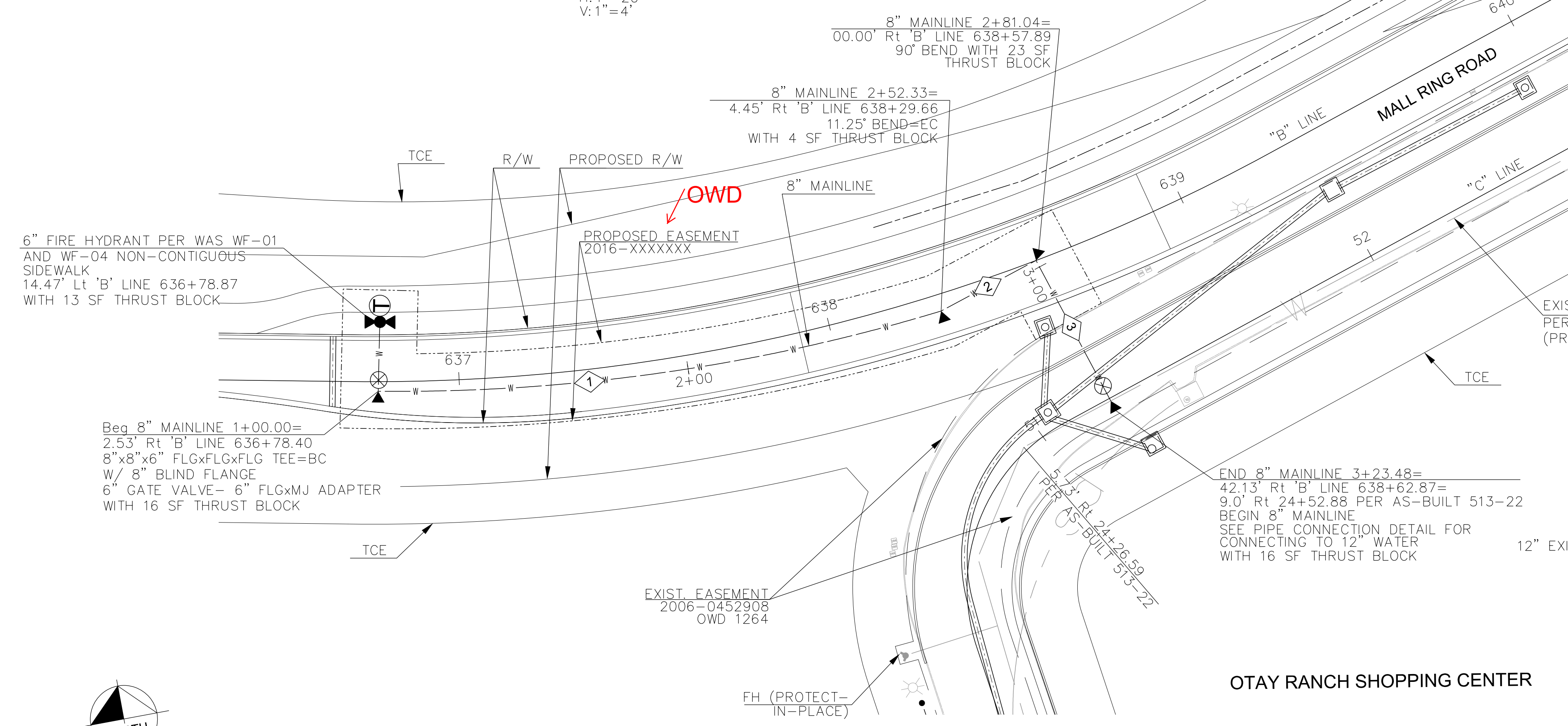
SCALE:
H: 1" = 20'
V: 1" = 4'

LINE DATA				
NO.	DELTA OR BRG.	RADIUS (ft)	LENGTH (ft)	REMARKS
1	17°27'21"	500.00*	152.33	8" PVC (C900, CLASS 305, DR14)
2	N72°30'00"E	-----	28.71	8" PVC (C900, CLASS 305, DR14)
3	N17°29'60"W	-----	42.44	8" PVC (C900, CLASS 305, DR14)

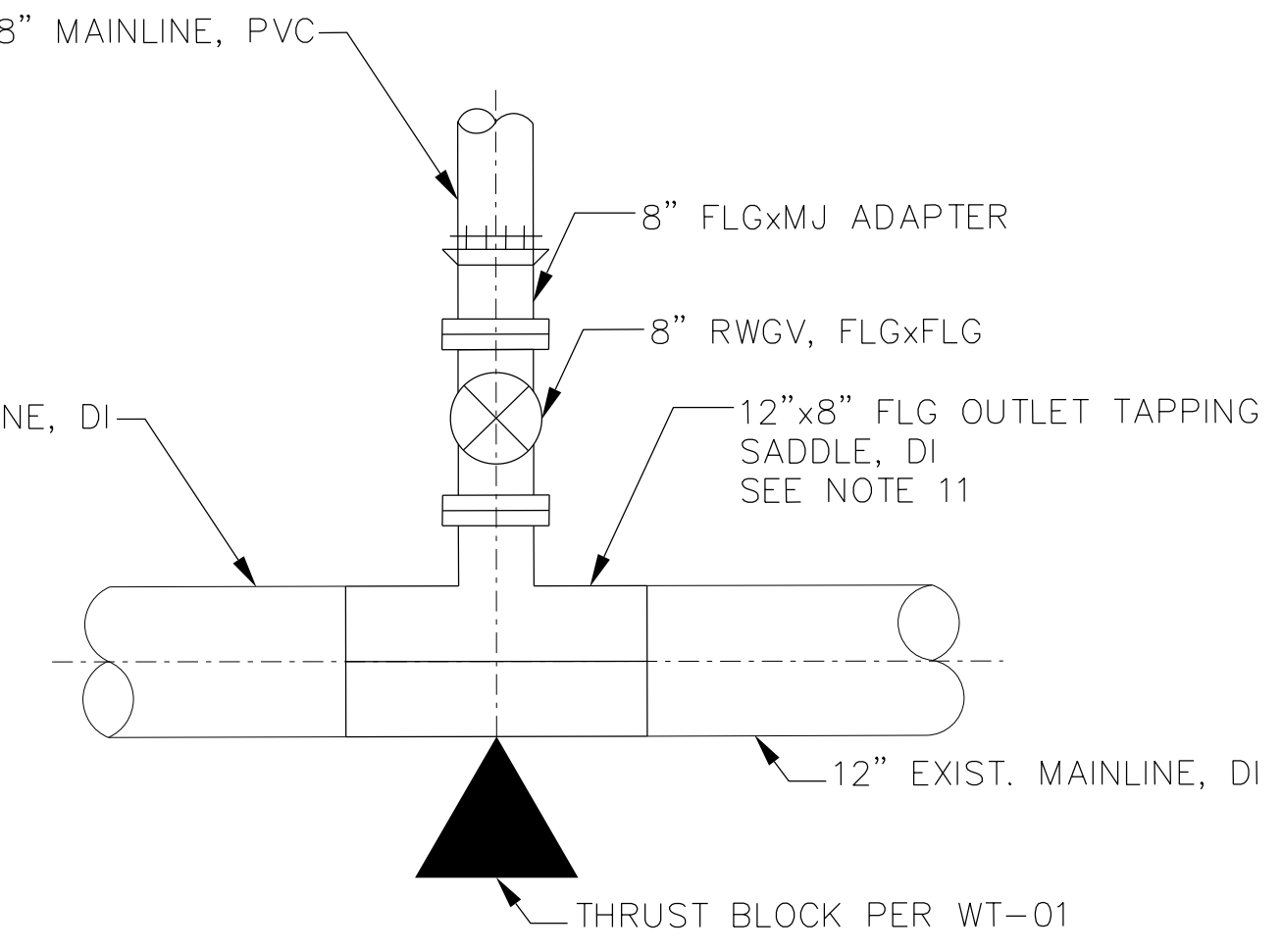
* HIGH DEFLECTION COUPLING REQUIRED

CONSTRUCTION NOTES:

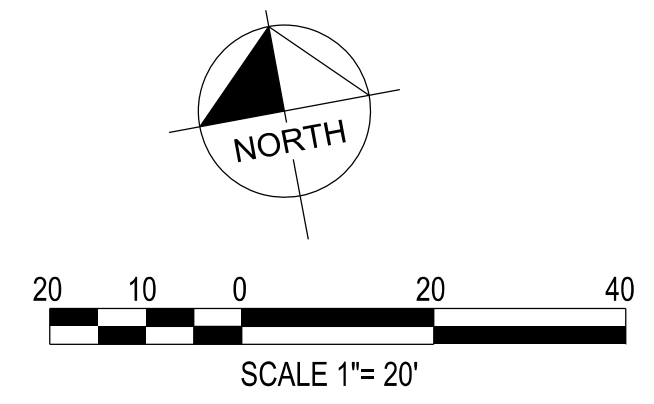
1. WATER FACILITIES SHALL CONFORM TO THE APPROVED MATERIALS LIST OF THE WATER AGENCIES STANDARDS (WAS).
2. FIRE HYDRANT, 1.03 MPa (200 PSI) SHALL BE 150mm (6") COMMERCIAL WET BARREL DUCTILE IRON WITH 6-HOLE BOLT PATTERN. HYDRANT SHALL BE FUSION EPOXY LINED. COLOR SHALL BE SAFETY YELLOW.
3. FIRE HYDRANT SHALL BE 3-PORT (TWO-2½" AND ONE- 4" OUTLET) AND CONFORM TO STD DETAIL WF-01.
4. LOCATE AND ORIENTATE FIRE HYDRANT PER STD DETAIL WF-04.
5. BOLTS AND NUTS FOR FIRE HYDRANT SHALL BE ZINC PLATED ASTM A307 CARBON STEEL/SILICONE FILLED.
6. WATER LINES SHALL BE PVC C900 PIPE PER AWWA C900, CLASS 305, DR 14. JOINT RESTRAINTS SHALL CONFORM TO WAS APPROVED MATERIALS LIST.
7. CONCRETE THRUST BLOCKS SHALL CONFORM TO STD DETAIL WT-01.
8. PLASTIC ENCASEMENT FOR WATER LINES SHALL BE 12 mil THICK POLYETHYLENE ENCASEMENT SLEEVE FOR DUCTILE IRON FITTINGS.
9. WARNING AND IDENTIFICATION TAPE SHALL BE 150 mm (6") FOR BURIED WATER LINES. WARNING AND IDENTIFICATION TAPE SHALL BE INSTALLED PER STD DETAIL WP-01.
10. ALL GATE VALVES SHALL BE FLANGE BY FLANGE.
11. FOR CONNECTIONS TO EXISTING WATER MAINS, ALL WET TAP CONNECTIONS TO EXISTING PIPELINES, WHETHER FOR MAINLINE EXTENSION OR SERVICE LATERALS, SHALL BE PERFORMED BY THE DISTRICT. THE CONTRACTOR SHALL FURNISH THE TAPPING SLEEVE OR TEE, VALVES AND ALL OTHER MATERIALS AS CALLED FOR IN THE WATER AGENCIES' STANDARDS. [HTTP://WWW.SDWVAS.COM/](http://www.sdwvas.com/), STANDARD SPECIFICATIONS SECTION, IN ACCORDANCE WITH THE APPROVED MATERIALS LIST. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, LABOR AND TRAFFIC CONTROL REQUIRED FOR THE EXCAVATION AND INSTALLATION OF THE CONNECTION INCLUDING BUT NOT LIMITED TO EXCAVATION BY HAND OR MACHINE, POURING OF THRUST AND ANCHOR BLOCKS, INSTALLATION OF GATE CASING, PAINTING AND WRAPPING OF FITTINGS, BACKFILL AND COMPACTION OF TRENCH AREA AND PAVEMENT REPLACEMENT.



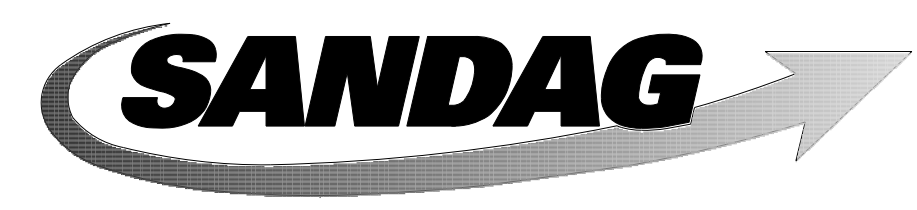
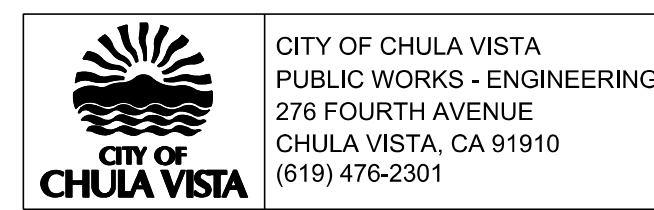
PLAN



WET TAP PIPE CONNECTION
NTS



UTILITY NOTE		AS-BUILT		OTAY WATER DISTRICT	
ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE PLOTTED FROM RECORD DATA AT THEIR APPROXIMATE LOCATIONS. UNDERGROUND FACILITIES MAY EXIST WHICH HAVE NOT BEEN REPORTED OR ARE NOT OF RECORD. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL PERTINENT UTILITIES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.		SIGNATURE _____	DATE _____	PROJECT # D0855-090261	PERMIT # DEV-16-003 PZ 980
		PRINTED NAME _____	LICENSE NO. _____	REVIEWED BY _____	DATE _____
		REGISTRATION EXPIRATION _____	DISCIPLINE _____		
CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	DATE	APP'D
CONTRACTOR:					
INSPECTOR:					
DATE COMPLETED:					
				DATUM	
				VERTICAL DATUM: NAVD 88	
				HORIZONTAL DATUM: CCS '83, ZONE 6, EPOCH 1991.35	
				SCALE	
				HORIZONTAL AS SHOWN	
				VERTICAL AS SHOWN	
				DESIGNED BY:	DRAWN BY:
				D. ARUTA	S. JOHNSON
				RESPONSIBLE CHARGE OF WORK:	DATE:
				Bethany Dawa	R.C.E. No.: 68721
				BETHANY DAWA	



CITY OF CHULA VISTA DEPARTMENT OF PUBLIC WORKS
SOUTH BAY RAPID - SEGMENT 2
BETWEEN OLYMPIC PKWY. AND BIRCH RD.
DETAIL PLAN - 8" MAINLINE

UTD-01
2 OF 2
DRAWING NO. 14004-
CIP # STL-399
D0855-090261