Landscape & Irrigation Plans for:

OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL

A Development of HomeFed Corporation

DEH-2019-LRWS-1134

Print Date: 24 APR '23

GENERAL NOTES

THE FOLLOWING GENERAL NOTES ARE PROVIDED TO GIVE DIRECTIONS TO THE CONTRACTOR BY THE LANDSCAPE ARCHITECT OF WORK. A CITY OF CHULA VISTA SIGNATURE ON THESE PLANS DOES NOT CONSTITUTE APPROVAL OF ANY OF THESE NOTES AND THE CITY WILL NOT BE RESPONSIBLE FOR THEIR ENFORCEMENT.

1. NOTES ARE DIRECTED TO THE WORK OF THE LANDSCAPE CONTRACTOR UNLESS NOTED ON PLANS.
2. WORK NOT INTENDED TO BE UNDER LANDSCAPE CONTRACTOR'S CONTRACT:
   A. N.I.C. - NOT IN CONTRACT
   B. BY OTHERS
   C. EXISTING
3. CONTRACTOR SHALL VERIFY WITH LANDSCAPE ARCHITECT THAT PLANS ARE CURRENT AND APPROVED.
4. WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF CHULA VISTA LANDSCAPE MANUAL (MOST RECENT EDITION) AND THE SAN DIEGO COUNTY HANDBOOK FOR PUBLIC WORKS CONSTRUCTION.
5. THESE LANDSCAPE AND IRRIGATION PLANS HAVE BEEN CHECKED ONLY FOR COMPLIANCE WITH THE REQUIREMENTS OF THE GRADING ORDINANCE. THE ENGINEER'S SIGNATURE OR APPROVAL DOES NOT CONSTITUTE APPROVAL OF ADDITIONAL LANDSCAPE AND IRRIGATION WHICH IS NOT COVERED BY THE BUILDING DEPARTMENT CHECK AND APPROVAL.
6. THESE PLANS ARE BASED ON HUNSAKER & ASSOCIATES GRADING PLANS, W.O. # OR-3001G, DRAWING NO. 16026-01 THROUGH 16026-93, DATED 10/04/16.
7. THE OWNER SHALL PROVIDE A COPY OF THE ENGINEERING SOILS REPORT BY GEOCON, INC. DATED 4-21-2010 TO THE CONTRACTOR WHO SHALL BECOME FAMILIAR WITH THE REPORT'S RECOMMENDATIONS PRIOR TO BEGINNING ANY WORK. THE CONTRACTOR SHALL COMPLY WITH THE REPORTS RECOMMENDATIONS AS THEY RELATE TO HIS WORK.
8. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY AND/OR REQUIRED PERMITS AND PAY ALL RELATED FEES AND/OR TAXES REQUIRED TO INSTALL THE WORK ON THESE PLANS.
9. THE CONTRACTOR SHALL BE APPROPRIATELY LICENSED AS REQUIRED BY THE STATE IN WHICH THE WORK TAKES PLACE.
10. PRIOR TO INITIATING ANY PHASE OF THE IRRIGATION INSTALLATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE, AND LOCATION OF ALL RELATED UTILITY SERVICES AND METERS AND NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES.
11. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF WORK, TO BE APPROVED BY OWNER AND LANDSCAPE ARCHITECT, PRIOR TO BEGINNING THE PROJECT. ALL WORK SHALL BE IN ACCORDANCE WITH SAID SCHEDULE.
12. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING THE WORK AND SHALL BE RESPONSIBLE FOR COORDINATING WITH THE OWNER, LANDSCAPE ARCHITECT, GOVERNING AGENCIES AND OTHER TRADES.
13. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF ANY ERRORS, OMISSIONS OR DISCREPANCIES IN EXISTING CONDITIONS OR WITHIN THE PLANS PRIOR TO BEGINNING THE WORK. IMMEDIATE NOTIFICATION WILL BE GIVEN TO THE LANDSCAPE ARCHITECT SHOULD SUCH A CONDITION BE DISCOVERED.
14. ALL MATERIAL SHALL BE NEW UNLESS OTHERWISE SPECIFIED.
15. THE CONTRACTOR SHALL, IMMEDIATELY UPON BEING AWARDED THE CONTRACT, MAKE ANY ARRANGEMENTS NECESSARY TO INSURE THAT ALL MATERIALS, CONNECTIONS, AND SUPPLIES WILL BE AVAILABLE WHEN NEEDED FOR THIS PROJECT.
16. ADDITIONS AND/OR DELETIONS OF MATERIAL AND/OR LABOR SHALL BE MADE AT UNIT PRICES.
17. NO ALTERATIONS WILL BE CONSIDERED FOR ITEMS SPECIFICALLY CALLED FOR ON THESE PLANS.
18. DETERMINATION OF "EQUAL" SUBSTITUTIONS SHALL BE MADE ONLY BY THE LANDSCAPE ARCHITECT AND /OR OWNER.
19. LANDSCAPE ARCHITECT SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF ANY SITE OBSERVATIONS OR MEETINGS.
20. SITE OBSERVATIONS AND MEETINGS SHALL INCLUDE:
   A. PRE-CONSTRUCTION
   B. LANDSCAPE CONSTRUCTION
   C. IRRIGATION PRESSURE AND COVERAGE TEST
   D. SPOTTING OF SPECIMEN PLANTS
   E. PLANTING
   F. PRE-MAINTENANCE
   G. POST-MAINTENANCE (FINAL)

NOTE: "LANDSCAPE" SHALL REFER TO ALL IMPROVEMENTS WITHIN THIS SET OF DOCUMENTS THAT HAVE BEEN DESIGNED BY THIS OFFICE.

NOTE: THE CITY OF CHULA VISTA LANDSCAPE INSPECTOR, DAVE DEFACCI (619) 850-0539, WILL ISSUE A LIST OF CITY OBSERVATIONS AT THE PRE-CONTRACT MEETING.

21. SITE OBSERVATIONS BY THE LANDSCAPE ARCHITECT DURING ANY PHASE OF THIS PROJECT DOES NOT RELIEVE THE CONTRACTOR OF HIS PRIMARY RESPONSIBILITY TO PERFORM ALL WORK IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS AND GOVERNING CODES.
22. CONTRACTOR SHALL BE BACK CHARGED FOR LANDSCAPE ARCHITECT'S TIME WHEN OBSERVATIONS ARE CALLED FOR AND IT IS FOUND THAT THE WORK IS NOT SIGNIFICANTLY READY UPON OBSERVATION OR APPOINTMENT IS NOT KEPT. TIME WILL BE CHARGED ON AN HOURLY BASIS, PLUS TRANSPORTATION, FOOD AND LODGING COSTS, IF ANY, AT THE THEN EXISTING HOURLY RATE FOR PERSONNEL PROVIDING THE OBSERVATIONS.
23. THIS FIRM DOES NOT PRACTICE OR CONSULT IN THE FIELD OF SAFETY ENGINEERING. THIS FIRM DOES NOT DIRECT THE CONTRACTORS OPERATIONS, AND IS NOT RESPONSIBLE FOR THE SAFETY OF PERSONNEL OTHER THAN OUR OWN ON THE SITE: THE SAFETY OF OTHERS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHOULD NOTIFY THE OWNER IF HE CONSIDERS ANY OF THE RECOMMENDED ACTIONS PRESENTED HEREIN TO BE UNSAFE.
24. THIS FIRM DOES NOT PRACTICE OR CONSULT IN THE FIELD OF SAFETY ENGINEERING. THIS FIRM DOES NOT DIRECT THE CONTRACTORS OPERATIONS, AND IS NOT RESPONSIBLE FOR THE SAFETY OF PERSONNEL OTHER THAN OUR OWN ON THE SITE: THE SAFETY OF OTHERS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHOULD NOTIFY THE OWNER IF HE CONSIDERS ANY OF THE RECOMMENDED ACTIONS PRESENTED HEREIN TO BE UNSAFE.
25. THESE PLANS HAVE BEEN PREPARED IN SUBSTANTIAL CONFORMANCE WITH THE LANDSCAPE CONCEPT PLANS, WATER CONSERVATION PLAN AND CONDITIONS OF APPROVAL RELATED TO LANDSCAPING.
26. THESE PLANS SHOW SHOW A COMBINATION OF CFD AND ASSOCIATION MAINTAINED LANDSCAPE IMPROVEMENTS. THE DEVELOPER / CONTRACTOR SHALL PROVIDE FULL MAINTENANCE OF ALL LANDSCAPE AREAS:
   - FOR HOA MAINTAINED AREAS: A MINIMUM OF 90 DAYS
   - FOR CFD MAINTAINED AREAS: 1 YEAR

   AFTER INITIAL WRITTEN CLIENT APPROVAL.
27. THESE PLANS AND ALL WORK SHALL COMPLY WITH THE 2007 CBC (2006 IBC), 2007 CPC, 2007 CMC, 2007 CEC, 2007 CFC & THE 2008 CALIFORNIA ENERGY CODE, AS ADOPTED AND AMENDED BY THE CITY OF CHULA VISTA.
28. THE LANDSCAPE AND IRRIGATION SHALL BE IN COMPLIANCE WITH THE CITY OF CHULA VISTA LANDSCAPE WATER CONSERVATION ORDINANCE, MUNICIPAL CODE CHAPTER 20.12.
29. UPON COMPLETION OF THE LANDSCAPE AND IRRIGATION IMPROVEMENTS, CONTRACTOR SHALL CONTACT THE CITY OF CHULA VISTA SENIOR LANDSCAPE INSPECTOR, DAVE DEFACCI (DDEFACCI@CHULAVISTACA.GOV OR 619-397-6018) TO SCHEDULE A PRE-CONSTRUCTION MEETING, RECEIVE A LANDSCAPE INSPECTION PACKET, AND TO SCHEDULE AN INSPECTION OF THE IMPROVEMENTS.

Declaration of Responsible Charge

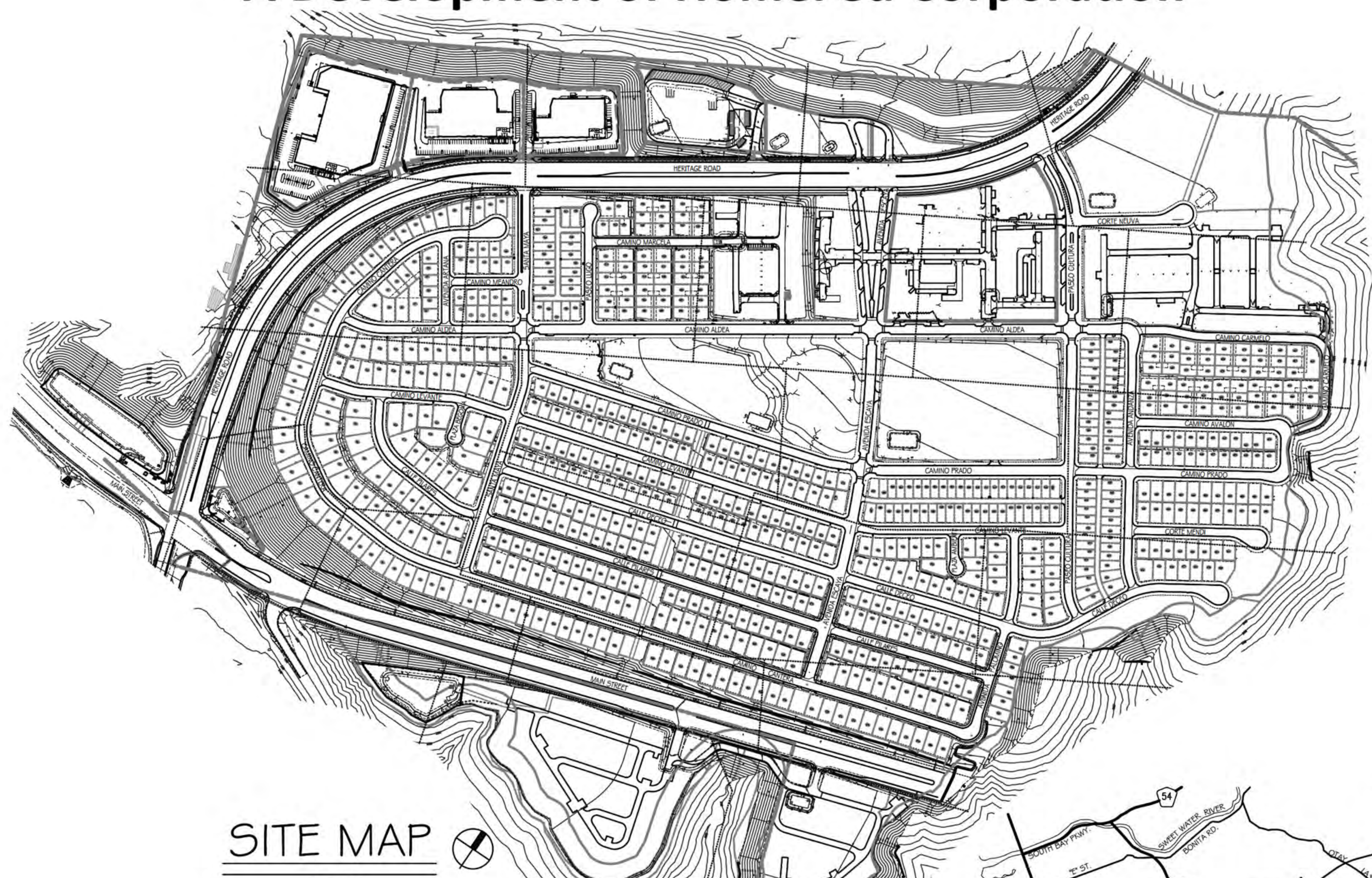
I hereby declare that I am the Landscape Architect of work for this project, that I have exercised responsible charge over the design of the project as defined in section 6703 of the Business and Professions Code, and that the design is consistent with current standards.

I understand that the check of project drawings and specifications by the City of Chula Vista, the Otay Water District, and the County of San Diego Department of Environmental Health is confined to a review only and does not relieve me, as Landscape Architect of work, of my responsibilities for project design.

I am familiar with and agree to comply with the requirements for landscape improvement plans as described in Chapter 20.12 of the Municipal Code. I have prepared this plan in compliance with those regulations. I certify that the plan implements the regulations to provide efficient landscape water use.

Tributary LA, Inc. 2725 Jefferson Street, Suite 14 Carlsbad, CA 92008

R.L.A. NO. 4001 EXP. DATE: 9-5-17 DATE 9/13/17



SITE MAP

N.T.S.

*NOT A PART OF D0944-060189

V3 HERITAGE ROAD - METER INFORMATION TABLE - RECYCLED WATER

	POC ID	METER LOCATION		STATION COUNT	DEMAND GPM	IRRIG. AREA (SQ.FT)	LATERAL SIZE	METER SIZE	MAINTAINED BY
*	~~MU-1~~	~~HERITAGE ROAD~~	~~43+10~~	~~4~~	~~18~~	~~1,923~~	~~2"~~	~~1 1/2"~~	~~Sub Assoc / Master HOA~~
*	~~1-3a~~	~~HERITAGE ROAD~~	~~40+30~~	~~4~~	~~12~~	~~4,316~~	~~2"~~	~~1 1/2"~~	~~Sub Assoc / Master HOA~~
*	~~R-16~~	~~HERITAGE ROAD~~	~~39+20~~	~~13~~	~~41~~	~~43,133~~	~~2"~~	~~1 1/2"~~	~~Sub Assoc / Master HOA~~
	S-D	HERITAGE ROAD	36+40	34	57	219,411	2"	1 1/2"	CFD
*	~~1-2~~					~~-~~			~~NOT A PART~~
	S-B2	HERITAGE ROAD	24+90	27	48	86,717	2"	1 1/2"	CFD
	S-C	HERITAGE ROAD	19+00	31	65	215,140	2"	2"	CFD
*	~~1-1a~~					~~-~~			~~NOT A PART~~
	S-E	HERITAGE ROAD	50+10	34	54	266,902	2"	1 1/2"	CFD
*	~~MU-2~~	~~HERITAGE ROAD~~	~~49+00~~	~~4~~	~~30~~	~~5,065~~	~~2"~~	~~1 1/2"~~	~~Sub Assoc / Master HOA~~
*	~~1-3C~~	~~HERITAGE ROAD~~	~~47+00~~	~~2~~	~~21~~	~~1635~~	~~2"~~	~~1 1/2"~~	~~Sub Assoc / Master HOA~~
*	~~O-1~~	~~PASEO CULTURA~~	~~12+05~~	~~2~~	~~33~~	~~10,103~~	~~2"~~	~~1 1/2"~~	~~Sub Assoc / Master HOA~~
*	~~R-14~~	~~PASEO CULTURA~~	~~14+80~~	~~7~~	~~48~~	~~11,982~~	~~2"~~	~~1 1/2"~~	~~Sub Assoc / Master HOA~~
*	~~S-1a~~	~~CAMINO ALDEA~~	~~35+00~~	~~9~~	~~20~~	~~10,493~~	~~2"~~	~~1 1/2"~~	~~Sub Assoc / Master HOA~~
*	~~S-1b~~	~~CAMINO ALDEA~~	~~35+10~~	~~8~~	~~46~~	~~13,843~~	~~2"~~	~~1 1/2"~~	~~Sub Assoc / Master HOA~~
	S-B	HERITAGE ROAD	14+00	19	46	111,973	2"	1 1/2"	CFD
	SA-1	CALLE DESEO	32+65	17	31	42,689	2"	1 1/2"	CFD
	SA-2	HERITAGE ROAD	12+20	25	56	159,644	2"	1 1/2"	CFD
	S-1	HERITAGE ROAD	12+15	26	33	104,693	2"	2"	CFD
	BB	HERITAGE ROAD	12+70	27	53	81,565	2"	1 1/2"	HOA
	S-G	CALLE DECEO	32+55	25	26	197,379	2"	2"	CFD
	S-H	CALLE DECEO	32+60	29	32	203,446	2"	2"	CFD
	TOTAL IRRIGATED AREA FOR RECYCLED WATER (SQ. FT.)					1,792,052			

SHEET INDEX

* NOT A PART OF OWD APPROVAL

LRWS TABLE

Construction Change	LRWS Number
Original	2016-625
A	2018-909
B	2019-1065
C	2019-1134
D	2019-1134

**SCOPE OF WORK:
PLANTING AND IRRIGATION ON PERMANENT AND TEMPORARY SLOPES WITHIN IN VILLAGE 3 AND SURROUNDING WATER QUALITY BASINS.**

OWNER
HOMEFED CORPORATION
1903 WRIGHT PLACE, SUITE 220
CARLSBAD, CALIFORNIA 92008
(760) 798-1765
CONTACT: CURT SMITH

LANDSCAPE ARCHITECT
TRIBUTARY LA, INC.
2725 JEFFERSON STREET, SUITE 14
CARLSBAD, CA 92008
(760) 434-9300
CONTACT: TOM PICARD

CIVIL ENGINEER
HUNSAKER & ASSOCIATES
9707 WAPLES ST.
SAN DIEGO, CA 92121
(858) 558-4500
CONTACT: JOHN RIVERA

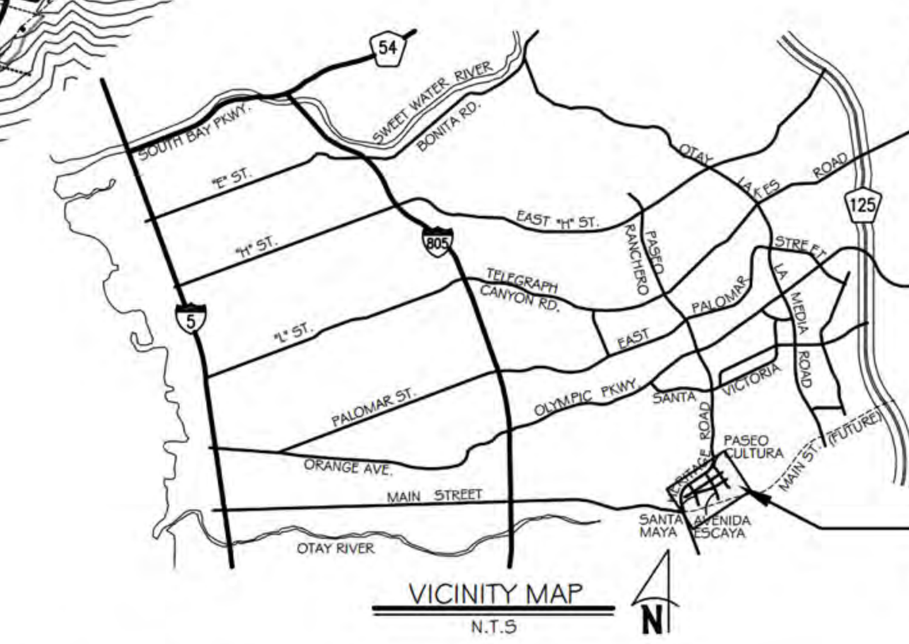
GOVERNING MUNICIPALITY
THE CITY OF CHULA VISTA
276 FOURTH AVENUE
CHULA VISTA, CALIFORNIA 91910
(619) 489-3826
CONTACT: ZACH TANNER

GOVERNING WATER AGENCY
OTAY WATER DISTRICT
2554 SWEETWATER SPRINGS BLVD
SPRING VALLEY, CALIFORNIA 91978
(619) 670-2222

GOVERNING HEALTH AGENCY
COUNTY OF SAN DIEGO
DEPT. OF ENVIRONMENTAL HEALTH
5500 OVERLAND AVENUE, SUITE 170
SAN DIEGO, CALIFORNIA 92123
(858) 505-6700
CONTACT: GLENN LEEKS

IRRIGATION CONSULTANT
INDEPENDENT IRRIGATION CONSULTANTS, INC.
435 NORTH PACIFIC STREET
SAN MARCOS, CA 92069
(760) 967-0177
CONTACT: JAIME COVARRUBIAS

OWD WO# D0944-060189



VICINITY MAP

N.T.S

PROJECT SITE:
OTAY RANCH VILLAGE 3 SLOPES

Responsibility Disclaimer

All screened facilities, existing or proposed, were obtained from Civil Plans OR-837C, Drawing No. 14032-01 through 14032-37, dated 12/14/16, and OWD WO# D0954-090246. Actual size and location of facilities shall be verified. Contractor shall pothole all existing utilities to verify tie-in locations, pipe size and type prior to any work being performed. To the best of our knowledge the facilities exist or will exist as shown. The Otay Water District and Tributary LA, Inc. shall not be held responsible for actual size and location. Any discrepancies shall be immediately brought to the attention of the OWD District Engineer.

Omission Statement

There are no drinking fountains, decorative fountains, comfort stations, outdoor eating areas, swimming pools, playground equipment, or wells on the site.

Inspection Note

Otay Water District shall be notified 5 working days prior to the start of construction at (619) 670-2241. All work performed without the benefit of inspection shall be subject to rejection and removal.

OWD AS BUILT	
Brandon DiPietro (Digitally signed by Brandon DiPietro DN: C=US, E=brandond@otaywater.gov, O=Otay Water District, OU=Field Services, CN=Brandon DiPietro Date: 2023.05.03 07:45:12-07'00')	SYSTEMS SB2, SD & SE
Signature and Date	SYSTEMS SB, SA2 & SG
Field Services Mngr. Brandon DiPietro	

REGISTERED LANDSCAPE ARCHITECT – THOMAS A. PICARD – 4001 – Signature 9/30/23 Renewal Date 10/25/21 Date – CALIFORNIA

COUNTY OF SAN DIEGO D.E.H. REVISIONS	OTAY WATER DISTRICT REVISIONS	Date
A 8-9-18 Glenn Leeks	A DAN MARTIN.	
B 5-1-19 Glenn Leeks	A	
C 10-14-19	B	
D Jenna Lepore Digitally signed by Jenna Lepore Date: 2021.11.29 14:54:35 -08'00'	C 10.23.19	
E Jenna Lepore Digitally signed by Jenna Lepore Date: 2022.04.12 09:49:41 -07'00'	D Brandon DiPietro	
	E Brandon DiPietro	

COUNTY OF SAN DIEGO
Department of Environmental Health
Land and Water Quality Division

~~GLENN LEEKS~~ Jenna Poitras 5/4/2017 Date
Environmental Health Specialist ~~II~~ II

OTAY WATER DISTRICT
PROJECT # D0944-060189
PZ 624, 711 RPZ 680

DAN MARTIN, P.E. RCE 49389 DATE: 5/10/17
REVIEWED BY: DATE: 5/10/17
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

CITY OF CHULA VISTA SUBMITTALS	
1ST SUBMITTAL	10/6/16
2ND SUBMITTAL	01/19/17
3RD SUBMITTAL	03/09/17
4TH SUBMITTAL	04/10/17
AS-BUILT	

"AS-BUILT"
SYSTEMS SB, SA2 & SG DATE: 4/24/23
SYSTEMS SB2, SD & SE DATE: 9/26/22
SIGNED:
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/23

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT – THOMAS A. PICARD – 4001 – Signature 9/30/19 Renewal Date 3/28/19 Date – CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	24 APR '23
SCALE:	N / A
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.
Inspector		
Date Completed		

REVISIONS	Date	App'd
A ADD SHUT VALVES & BROWNLINE	7/3/18	
B LOTS 35 & 36, INDUSTRIAL PARK, FILTRATION PAD	5.22.19	
C ADJ. IRR&PLNTG@MAIN&HERITAGE MMT WALLS	10.23.19	
D ADJ. IRRIG@HERITAGE STA 13+00 & CALLE DECEO STA 32+50	4.20.22	
E ADJ IRR & PLTG @ IND CTR DWYS & PERIM PARK	4.20.22	

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N / A; Vertical N / A

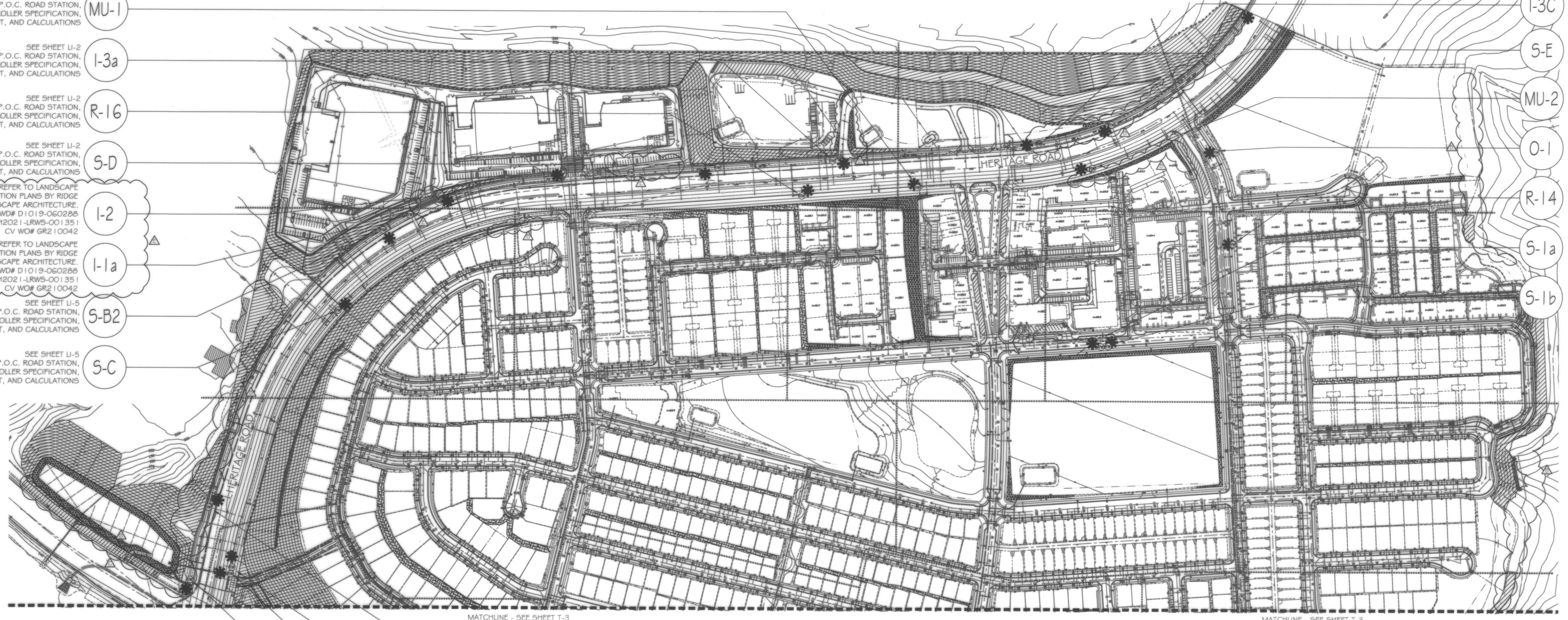
Office / Field / Traffic

Designed By | Drawn By | Checked By
Plans Prepared Under Supervision Of THOMAS A. PICARD Date 3/28/19 R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: Date: 5.22.19
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE TITLE SHEET FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 01
Sheet 01 of 88



MU-1 — SEE SHEET LI-3 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

I-3a — SEE SHEET LI-2 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

R-16 — SEE SHEET LI-2 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

S-D — SEE SHEET LI-2 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

I-2 — NOT A PART - REFER TO LANDSCAPE & IRRIGATION PLANS BY RIDGE LANDSCAPE ARCHITECTURE. OWD# D1019-060288 DEH# DEH2021-LRWS-001351 CV WO# GR210042

I-1a — NOT A PART - REFER TO LANDSCAPE & IRRIGATION PLANS BY RIDGE LANDSCAPE ARCHITECTURE. OWD# D1019-060288 DEH# DEH2021-LRWS-001351 CV WO# GR210042

S-B2 — SEE SHEET LI-5 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

S-C — SEE SHEET LI-5 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

I-3C — SEE SHEET LI-3 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

S-E — SEE SHEET LI-3 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

MU-2 — SEE SHEET LI-3 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

O-1 — SEE SHEET LI-4 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

R-14 — SEE SHEET LI-8 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

S-1a — SEE SHEET LI-8 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

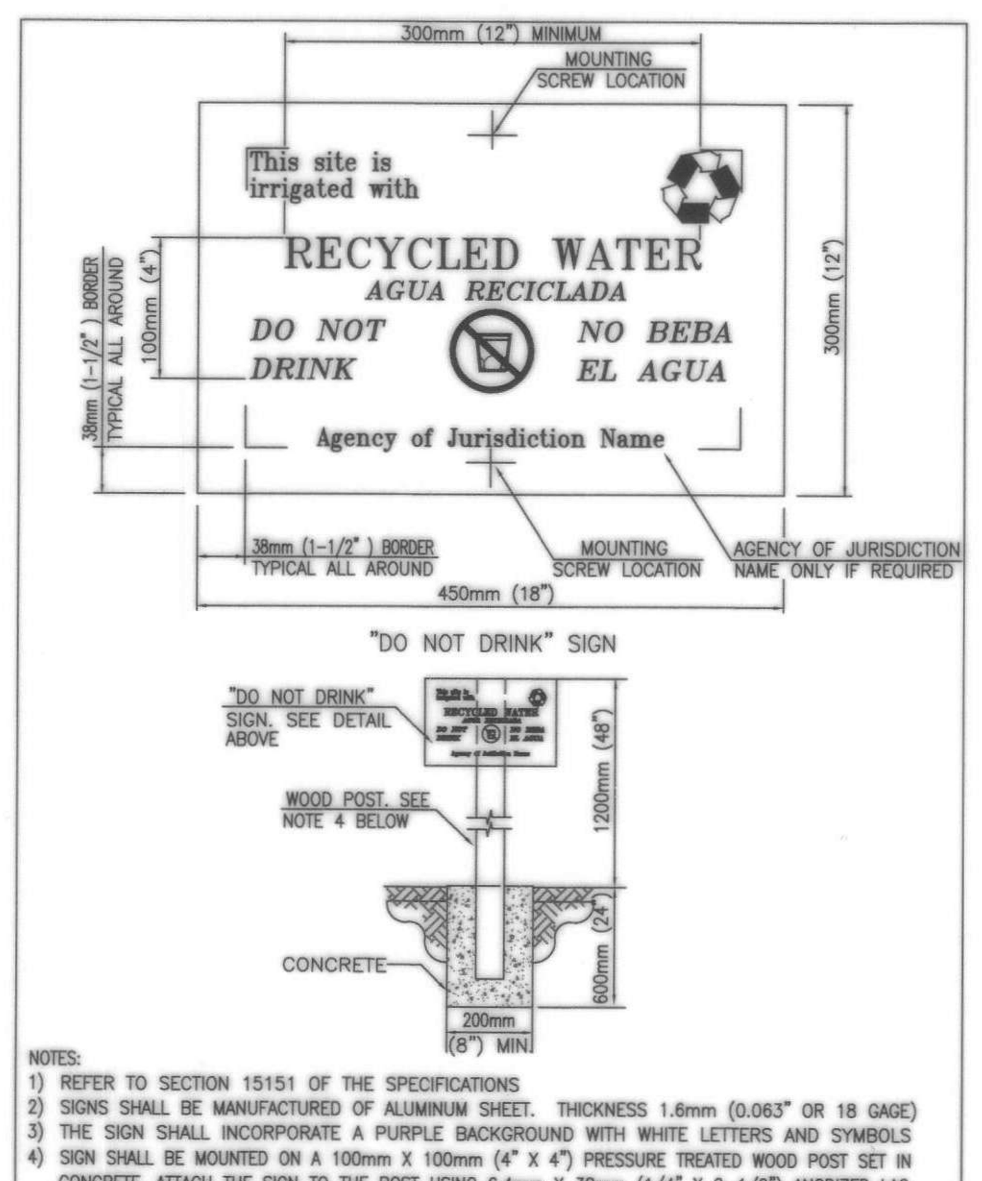
S-1b — SEE SHEET LI-8 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

S-B — SEE SHEET LI-10 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

SA-2 — SEE SHEET LI-15 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

S-I — SEE SHEET LI-15 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

BB — SEE SHEET LI-10 P.O.C. ROAD STATION, CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS



NOTES:
1) REFER TO SECTION 15151 OF THE SPECIFICATIONS
2) SIGNS SHALL BE MANUFACTURED OF ALUMINUM SHEET. THICKNESS 1.6mm (0.063" OR 18 GAGE)
3) THE SIGN SHALL INCORPORATE A PURPLE BACKGROUND WITH WHITE LETTERS AND SYMBOLS
4) SIGN SHALL BE MOUNTED ON A 100mm X 100mm (4" X 4") PRESSURE TREATED WOOD POST SET IN CONCRETE. ATTACH THE SIGN TO THE POST USING 6.4mm X 38mm (1/4" X 2-1/2") ANODIZED LAG SCREWS AND WASHERS (2 EACH)

RECYCLED WATER "DO NOT DRINK" SIGN	WATER AGENCIES STANDARDS
	COMMITTEE APPROVAL: 11/16/2007
	DRAWING NUMBER: WM -08

RW — RECYCLED WATER WARNING SIGN

SECTION - NO SCALE

LEGEND

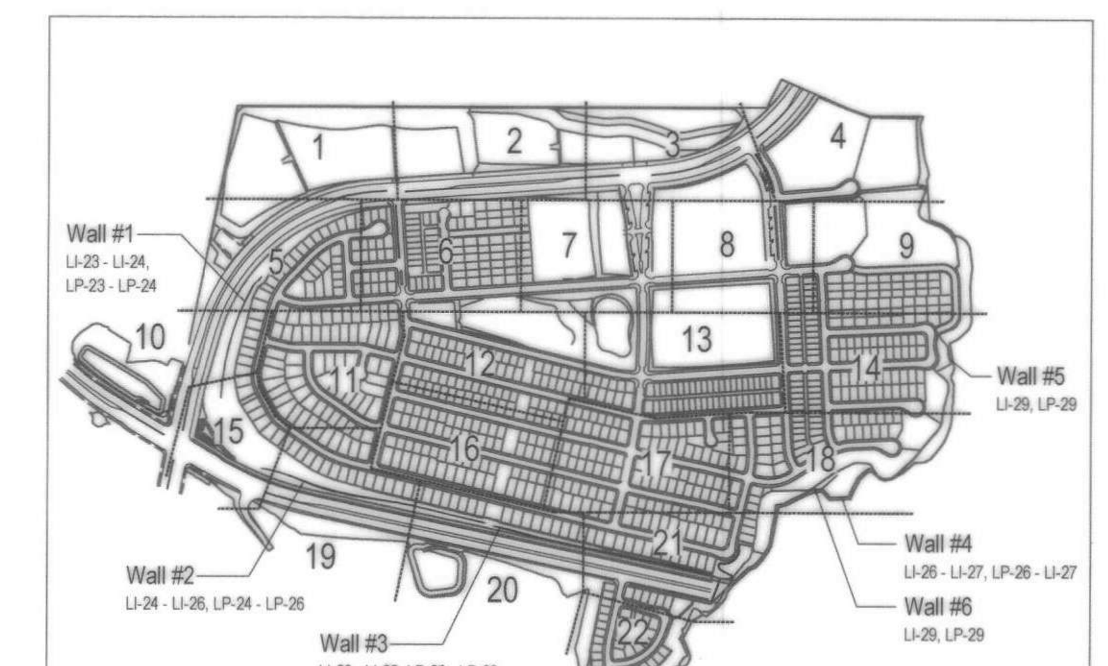
Symbol	Description
(RW)	PROPOSED RECYCLED WATER METER
	FIREHYDRANT
- - - -	PROPOSED IRRIGATION RECYCLED WATER MAINLINE
— V — V —	POTABLE WATER LINES (PER CIVIL PLANS)
— RW — RW —	RECYCLED WATER LINE (PER CIVIL PLANS)
*	PROPOSED RECYCLED WATER SIGN LOCATION
	AREA PROPOSED FOR RECYCLED WATER USE (CFD MAINTAINED)
	AREA PROPOSED FOR RECYCLED WATER USE (PRIVATELY, OR ASSOC. MAINTAINED)
	AREA PROPOSED FOR POTABLE WATER USE (INDIVIDUAL PRIVATE AREAS)
'POC'	PROPOSED POINT OF CONNECTION LOCATION

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC.
DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

* THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
* NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
* ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.



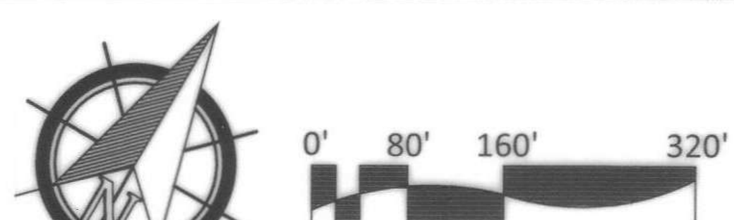
KEYMAP

TESTING:

In accordance with the City of Chula Vista's Landscape Water Conservation Ordinance, Section 20.12.240 -Irrigation testing and statement of substantial conformance.

A. For all projects approved by the City, the landscape architect of record shall state in writing that the landscape improvements have been installed in compliance with the approved landscape documentation package prior to final inspection and City issuance of a certificate of completion of the project. They shall be satisfied that the irrigation system has been functionally tested, by testing, irrigation survey or irrigation audit, for, but not limited to, the following: distribution uniformity, overspray, and that runoff has been addressed, and water use can match the included calculations once plants are established with the irrigation provided. The project applicant shall submit a copy of the testing, irrigation survey or irrigation audit to the City prior to completion or turnover in the case of public improvements.

B. All landscape irrigation audits shall be conducted by a third party, independently certified landscape irrigation auditor. Landscape audits shall not be conducted by the person who designed the landscape or installed the landscape. (Ord. 3357 §1, 2015; Ord. 3146 §1 (Exh. A), 2009)



OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE: 10-22-19
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT
REGIST. EXP.

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — 9/30/23 — Renewal Date — 4/7/22 — CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	△ 7 APR '22
SCALE:	1" = 160'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	△B ADD IRRIG. TO LOTS 35-37, DRVWYS, METHANE PAD, METER AND TREES, RE-ALIGN BROW DITCH.	5-22-19	[illegible] / NC
Inspector			△C ADD IRRIG. ON MAIN & REPLACE DRIP IRRIGATION FOR SPRAY AT RECONFIGURE MONUMENT WALLS.	10-23-19	T3e / NC
Date Completed			△E ADJ. IRRIG FOR ADDED ENTRY DRIVEWAY AT INDUSTRIAL PAD.	4-20-22	NC

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE
Horizontal 1" = 160'
Vertical N/A

Office
Field
Traffic

Designed By	Drawn By	Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 4 / 7 / 22
R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
RECYCLED WATER AREA USE MAP
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 02
Sheet 02 of 88

△REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 T-2

Print Date: 7 APR '22
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

OTAY WATER DISTRICT RECYCLED WATER NOTES

1. ALL ON-SITE IRRIGATION IMPROVEMENTS SHOWN ON THESE PLANS ARE PART OF A RECYCLED WATER DISTRIBUTION SYSTEM. NO CONSTRUCTION WILL BE ALLOWED UNTIL ALL APPROVALS HAVE BEEN OBTAINED.

2. CROSS CONNECTIONS BETWEEN RECYCLED WATER LINES AND POTABLE WATER LINES ARE STRICTLY PROHIBITED.

3. USE OF RECYCLED WATER SHALL ADHERE TO TITLE 22, DIVISION 4, CHAPTER 3 OF THE CALIFORNIA CODE OF REGULATIONS AND THE CURRENT RULES, REGULATIONS AND SPECIFICATIONS OF THE DISTRICT.

4. OTAY WATER DISTRICT INSPECTION SHALL BE NOTIFIED FIVE (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.

5. PUBLIC FACILITIES, SUCH AS DRINKING AND DECORATIVE FOUNTAINS, COMFORT STATIONS, PLAYGROUND EQUIPMENT, ETC., DO NOT EXIST ON THIS PROJECT.

6. ALL ON-SITE RECYCLED WATER IRRIGATION PIPING AND ON-SITE POTABLE WATER PIPING INSTALLED UNDER THIS DESIGN SHALL BE IDENTIFIED IN ACCORDANCE WITH THE DISTRICT STANDARD SPECIFICATIONS.

7. ALL ON-SITE RECYCLED WATER PIPING SHALL BE PURPLE COLORED PVC, CONTINUOUSLY STENCILED ON OPPOSITE SIDES OF THE PIPE WITH THE WORDS @CAUTION - RECYCLED WATER@. APPROVED MANUFACTURERS OF THIS PIPE CAN BE FOUND IN THE DISTRICTS' @APPROVED MATERIALS LIST@.

8. ALL ON-SITE POTABLE WATER LINES SHALL BE WHITE OR BLUE UNLESS OTHERWISE APPROVED BY THE DISTRICT.

9. UNLESS OTHERWISE DIRECTED BY THE DISTRICT, A 10-FOOT HORIZONTAL AND 1-FOOT VERTICAL SEPARATION BETWEEN POTABLE WATER AND CONSTANT PRESSURE RECYCLED WATER LINES SHALL BE MAINTAINED AT ALL TIMES. THE POTABLE LINES SHALL BE INSTALLED ABOVE THE RECYCLED LINES UNLESS OTHERWISE APPROVED BY THE DISTRICT OR DEHQ.

10. WHERE POTABLE LINES AND CONSTANT PRESSURE RECYCLED WATER LINES CROSS, THE RECYCLED WATER LINE SHOULD BE INSTALLED BELOW THE POTABLE WATER LINE IN A SCHEDULE 40 PURPLE COLORED PVC SLEEVE. THE SLEEVE SHALL EXTEND 10-FEET ON EITHER SIDE OF THE POTABLE LINE, FOR A TOTAL OF 20-FEET.

11. A MINIMUM VERTICAL SEPARATION OF 12 INCHES SHALL BE MAINTAINED BETWEEN UTILITIES AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE DISTRICT.

12. HOSE BIBS ARE STRICTLY PROHIBITED ON RECYCLED WATER SYSTEMS.

13. ALL SPRAY HEADS, VALVE BOXES, AND QUICK COUPLER VALVES SHALL BE CLEARLY COLOR CODED (PURPLE) TO INDICATE THE USE OF RECYCLED WATER.

14. RECYCLED WATER LINES SHALL NOT CROSS ROADS, STREETS, OR EASEMENTS UNLESS SPECIFICALLY SHOWN ON THESE PLANS.

15. ALL CONSTANT PRESSURE LINES SHALL BE TESTED WITH HYDROSTATIC PRESSURE AS REQUIRED IN THE DISTRICT STANDARD SPECIFICATIONS. NO LEAKS SHALL BE ALLOWED. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT FOR HYDROSTATIC TESTS. THESE TESTS SHALL BE WITNESSED BY A REPRESENTATIVE OF THE DISTRICT.

16. ALL SIGNAGE SHALL BE APPROVED AND INSTALLED PRIOR TO ENERGIZING THE SYSTEM WITH WATER. A SIGNAGE PLAN INDICATING USE OF RECYCLED WATER SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL PRIOR TO INSTALLATION. AS A MINIMUM, SIGNS MUST BE POSTED AND WRITTEN IN ENGLISH AND SPANISH WITH THE INTERNATIONAL SYMBOL (DO NOT DRINK).

17. ALL METER SIZES SHALL BE VERIFIED BY THE DISTRICT. FINAL DETERMINATION OF METER SIZES IS RESERVED BY THE DISTRICT.

18. ALL RECYCLED WATER SERVICES REQUIRE BACKFLOW PREVENTION AS SHOWN IN THE POINT OF CONNECTION (POC) DETAIL. IRRIGATION SYSTEMS BEING SUPPLIED WITH RECYCLED WATER SHALL INSTALL BACKFLOW PREVENTION AND A WYE STRAINER PER DISTRICT STANDARD DRAWING WR-03, WR-04, WR-05, WR-06, and WR-08.

19. PRIOR TO ENERGIZING THE ON-SITE SYSTEM WITH WATER, ONE (1) COMPLETE SET OF LAMINATED CONTROLLER CHARTS AND ONE (1) ELECTRONIC COPY CREATED FROM THE FINAL APPROVED AS-BUILT SHALL BE PROVIDED TO THE DISTRICT.

20. EACH AUTOMATIC CONTROLLER AND ITS ASSOCIATED EQUIPMENT SHALL BE IDENTIFIED WITH A SIGN BEARING THE WORDS @RECYCLED WATER USED FOR IRRIGATION@ IN ENGLISH AND SPANISH, WITH WHITE LETTERS AT LEAST 1 INCH HIGH ON A PURPLE, PANTONE 512, BACKGROUND. THE SIGN SHALL BE PLACED AS TO BE READILY SEEN BY ANY OPERATIONS PERSONNEL UTILIZING THE EQUIPMENT.

21. THE CONTRACTOR SHALL ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE. THIS SHALL INCLUDE THROTTLING THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM. CONDITIONS THAT CAUSE OVERSPRAYS, PONDING, OR RUNOFF SHALL BE ELIMINATED. ADJUST SYSTEM TO AVOID THESE CONDITIONS.

22. THE IRRIGATION SYSTEM HAS BEEN DESIGNED TO AND SHALL BE OPERATED BETWEEN THE HOURS OF 9:00 P.M. AND 6:00 A.M. UNLESS OTHERWISE APPROVED BY THE DISTRICT.

23. NO SUBSTITUTION OF PIPE MATERIALS WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE DISTRICT.

24. AN INITIAL CROSS-CONNECTION INSPECTION WILL BE DONE AT SITES WITH BOTH POTABLE AND RECYCLED WATER SERVICES BY THE DISTRICT AND/OR THE SAN DIEGO COUNTY ENVIRONMENTAL HEALTH (DEHQ). COPIES OF INSPECTION REPORTS WILL BE FORWARDED TO THE NON-INSPECTING PARTY. ANNUAL INSPECTIONS OR CROSS-CONNECTION TESTING WILL BE PERFORMED THEREAFTER.

25. FAILURE TO COMPLY WITH THE DISTRICT'S RULES AND REGULATIONS IS A VIOLATION AND COULD RESULT IN SUSPENSION OF SERVICE UNTIL THE APPROPRIATE CORRECTIVE STEPS HAVE BEEN TAKEN.

26. WHEN RECYCLED WATER BECOMES AVAILABLE, AN ON-SITE CERTIFIED RECYCLED WATER SITE SUPERVISOR SHALL BE DESIGNATED IN WRITING. THIS INDIVIDUAL SHALL BE FAMILIAR WITH PLUMBING SYSTEMS WITHIN THE PROPERTY, WITH THE BASIC CONCEPTS OF BACKFLOW/CROSS CONNECTION PROTECTION, THE RECYCLED PURVEYOR'S RULES AND REGULATIONS, AND THE SPECIFIC REQUIREMENTS OF A RECYCLED WATER SYSTEM. COPIES OF THE DESIGNATION, WITH CONTACT PHONE NUMBERS SHALL BE PROVIDED TO THE OTAY WATER DISTRICT AND SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.

IN CASE OF EMERGENCY, CONTACT BRIAN CANARIS AT 619-520-0429
OR AFTER HOURS, CONTACT BRIAN CANARIS AT 619-520-0429

27. BEST MANAGEMENT PRACTICES SHALL BE USED TO ELIMINATE OR CONTROL TO THE BEST EXTENT POSSIBLE PONDING, RUN-OFF, OVER-SPRAY AND MISTING.

28. AT THE DESCRETION OF OTAY WATER DISTRICT, RECYCLED WATER QUICK COUPLERS MAY BE ALLOWED WITHIN SLOPES AND PARKWAYS.

29. RECYCLED WATER QUICK COUPLING VALVES SHALL BE OF A TYPE DESIGNED FOR USE ON RECYCLED WATER DISTRIBUTION SYSTEMS (SPIKES NOT INTERCHANGEABLE WITH POTABLE WATER QUICK COUPLER SPIKES) PER OTAY WATER DISTRICT'S RULES AND REGULATIONS.

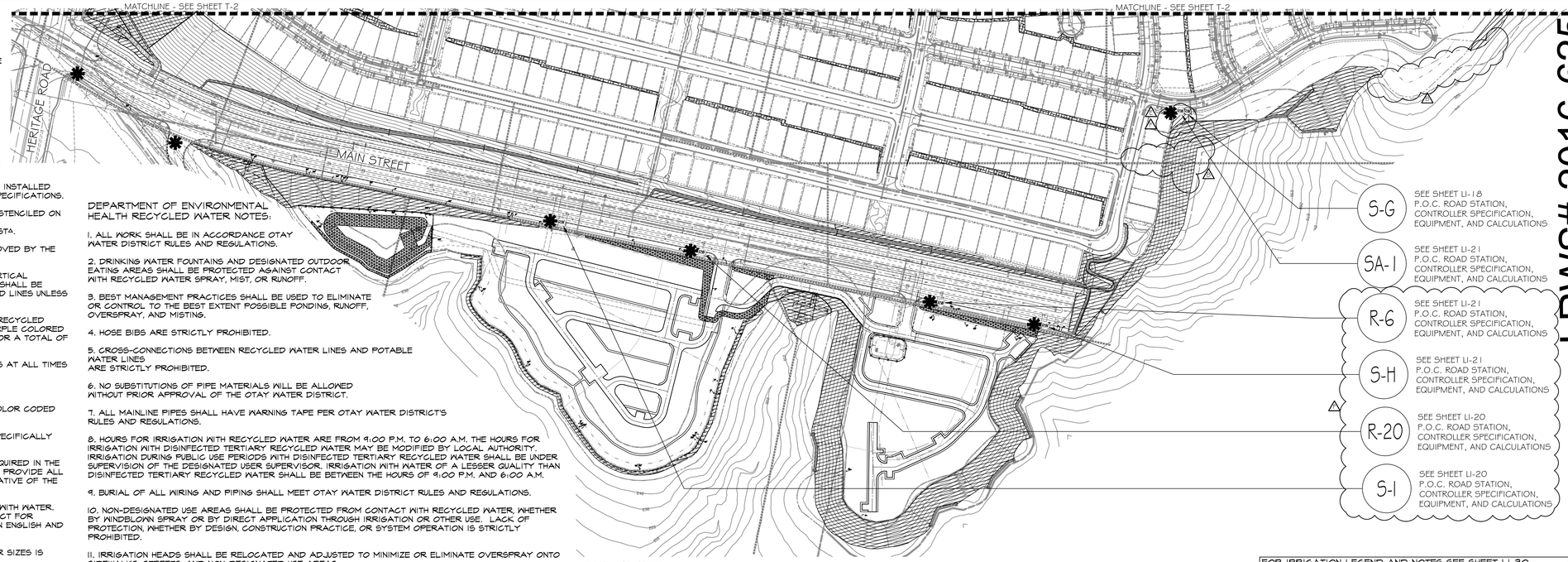
30. ALL BUILDINGS SHALL HAVE INDIVIDUAL POTABLE WATER SHUT-OFF VALVES INSTALLED ON THE EXTERIOR OF EACH BUILDING AND SHALL BE MAINTAINED IN WORKING ORDER FOR THE PURPOSE OF THE CROSS-CONNECTION SHUTDOWN TEST. A DETAIL OF POTABLE WATER SHUT-OFF VALVE INSTALLATION MUST BE INCLUDED ON PLANS FOR DISTRICT APPROVAL.

31. ALL BOX LIDS SHALL BE BRANDED.

32. A 10-FOOT SEPARATION BETWEEN RECYCLED WATER IRRIGATION MAIN LINE TIE IN POINT AND PROJECT POINT OF CONNECTION (POC) IS TO BE MAINTAINED DURING THE CONSTRUCTION PROCESS AND IS TO BE TIED IN AT THE INSPECTIONS DIRECTION, AFTER DEH APPROVALS AND METER(S) SET(S) HAVE TAKEN PLACE.

33. RECYCLED WATER IRRIGATION PROJECTS THAT REQUIRE PHASING OF CONSTRUCTION SHALL REQUIRE A DETAILED PHASING PLAN BE SUBMITTED BY THE PROJECT ARCHITECT TO THE DISTRICT FOR REVIEW. UPON APPROVAL OF THE PHASING PLAN BY THE DISTRICT, A COPY OF THE APPROVED PHASING PLAN SHALL BE INCORPORATED INTO THE APPROVED PLAN SET(S) BY THE PROJECT ARCHITECT.

34. ALL DUAL SOURCED RECYCLED WATER USE SITES SHALL BE DESIGNED AND BUILT TO UTILIZE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH APPROVED TEST METHOD 1, UTILIZING PRESSURE RECORDERS FOR THE RECYCLED AND POTABLE CROSS-CONNECTION TESTING. PROPOSED ALTERNATIVE TEST METHODS MUST BE APPROVED BY THE OTAY WATER DISTRICT AND SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.



DEPARTMENT OF ENVIRONMENTAL HEALTH RECYCLED WATER NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE OTAY WATER DISTRICT RULES AND REGULATIONS.

2. DRINKING WATER FOUNTAINS AND DESIGNATED OUTDOOR EATING AREAS SHALL BE PROTECTED AGAINST CONTACT WITH RECYCLED WATER SPRAY, MIST, OR RUNOFF.

3. BEST MANAGEMENT PRACTICES SHALL BE USED TO ELIMINATE OR CONTROL TO THE BEST EXTENT POSSIBLE PONDING, RUNOFF, OVERSPRAY, AND MISTING.

4. HOSE BIBS ARE STRICTLY PROHIBITED.

5. CROSS-CONNECTIONS BETWEEN RECYCLED WATER LINES AND POTABLE WATER LINES ARE STRICTLY PROHIBITED.

6. NO SUBSTITUTIONS OF PIPE MATERIALS WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE OTAY WATER DISTRICT.

7. ALL MAINLINE PIPES SHALL HAVE WARNING TAPE PER OTAY WATER DISTRICT'S RULES AND REGULATIONS.

8. HOURS FOR IRRIGATION WITH RECYCLED WATER ARE FROM 9:00 P.M. TO 6:00 A.M. THE HOURS FOR IRRIGATION WITH DISINFECTED TERTIARY RECYCLED WATER MAY BE MODIFIED BY LOCAL AUTHORITY. IRRIGATION DURING PUBLIC USE PERIODS WITH DISINFECTED TERTIARY RECYCLED WATER SHALL BE UNDER SUPERVISION OF THE DESIGNATED USER SUPERVISOR. IRRIGATION WITH WATER OF A LESSER QUALITY THAN DISINFECTED TERTIARY RECYCLED WATER SHALL BE BETWEEN THE HOURS OF 9:00 P.M. AND 6:00 A.M.

9. BURIAL OF ALL WIRING AND PIPING SHALL MEET OTAY WATER DISTRICT RULES AND REGULATIONS.

10. NON-DESIGNATED USE AREAS SHALL BE PROTECTED FROM CONTACT WITH RECYCLED WATER, WHETHER BY WINDBLOWN SPRAY OR BY DIRECT APPLICATION THROUGH IRRIGATION OR OTHER USE. LACK OF PROTECTION, WHETHER BY DESIGN, CONSTRUCTION FRACTICE, OR SYSTEM OPERATION IS STRICTLY PROHIBITED.

11. IRRIGATION HEADS SHALL BE RELOCATED AND ADJUSTED TO MINIMIZE OR ELIMINATE OVERSPRAY ONTO SIDEWALKS, STREETS, AND NON-DESIGNATED USE AREAS.

12. RECYCLED WATER QUICK COUPLING VALVES SHALL BE OF A TYPE DESIGNED FOR USE ON RECYCLED WATER DISTRIBUTION SYSTEMS PER OTAY WATER DISTRICT RULES AND REGULATIONS.

13. ON RECYCLED WATER SYSTEMS, ALL APPURTENANCES (SPRINKLER HEADS, VALVE BOXES, ETC.) SHALL BE COLOR-CODED (PURPLE) IN ACCORDANCE WITH AMERICAN WATER WORKS ASSOCIATION (AWWA) GUIDELINES AND SECTION 116815 OF THE CALIFORNIA HEALTH AND SAFETY CODE.

14. ALL IRRIGATION PIPES SHALL BE STENCILED WITH THE WARNING "NON-POTABLE OR RECYCLED WATER" COLOR-CODED (PURPLE) AND LAID WITH WARNING TAPE AND STENCILING ORIENTED TOWARDS THE TOP OF THE TRENCH PER OTAY WATER DISTRICT'S RULES AND REGULATIONS.

15. ON NEW SITE SYSTEMS (POST-METER), POTABLE WATER LINES, CONSTANT PRESSURE RECYCLED WATER MAINLINES AND SEWER LINES SHALL COULD BE PLACED A MINIMUM OF FOUR FEET APART OR AS DIRECTED BY THE PROJECT ENGINEER AND/OR REGULATORY AGENCY MEASUREMENTS SHALL BE BETWEEN FACING SURFACES, NOT CENTER LINE OF PIPE.

16. CONSTANT PRESSURE RECYCLED WATER LINES SHALL CROSS AT LEAST TWELVE (12) INCHES BELOW POTABLE WATER LINES AND MAINTAIN AT LEAST TWELVE INCHES OF VERTICAL SEPARATION BETWEEN OTHER UTILITIES.

17. IF A CONSTANT PRESSURE RECYCLED WATER LINE MUST BE INSTALLED ABOVE A POTABLE WATER LINE OR LESS THAN TWELVE (12) INCHES BELOW A POTABLE WATER LINE, THEN THE RECYCLED WATER LINE SHALL BE INSTALLED WITHIN AN APPROVED PROTECTIVE SLEEVE AS PER OTAY WATER DISTRICT RULES AND REGULATIONS.

18. DEVELOPER/CONTRACTOR SHALL CONDUCT A CROSS-CONNECTION SHUTDOWN TEST AND COVERAGE TEST AS DIRECTED BY THE OTAY WATER DISTRICT AND THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH PRIOR TO ANY USE OF RECYCLED WATER.

19. THE REQUIRED CROSS-CONNECTION INSPECTION SHALL BE PERFORMED BY EITHER THE OTAY WATER DISTRICT AND/OR COUNTY OF SAN DIEGO, DEPARTMENT OF ENVIRONMENTAL HEALTH. COPIES OF THE INSPECTION REPORTS SHALL BE FORWARDED TO THE NON-INSPECTING PARTY.

20. THE DESIGN AND LOCATIONS PROPOSED FOR RECYCLED WATER "DO NOT DRINK" WARNING SIGNS SHALL BE CALLED OUT ON THE PLANS.

21. WHEN RECYCLED WATER BECOMES AVAILABLE, AN ON-SITE USER/SUPERVISOR SHALL BE DESIGNATED IN WRITING. THIS INDIVIDUAL SHALL BE FAMILIAR WITH PLUMBING SYSTEMS WITHIN THE PROPERTY, WITH THE BASIC CONCEPTS OF BACKFLOW/CROSS CONNECTION PROTECTION, THE DISTRICT'S RULES AND EGULATIONS AND THE SPECIFIC REQUIREMENTS OF A RECYCLED WATER SYSTEM. COPIES OF THE DESIGNATION, WITH CONTACT PHONE NUMBERS SHALL BE PROVIDED TO THE OTAY WATER DISTRICT AND SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.

IN CASE OF AN EMERGENCY, CONTACT: BRIAN CANARIS AT (619) 234-4050
OR AFTER HOURS, CONTACT: BRIAN CANARIS AT (619) 234-4050

22. ALL PUBLIC AND PRIVATE POTABLE WATER MAINS, INCLUDING FIRE SERVICE MAINS AND ANY WATER WELLS AND WATER COURSES WITHIN THE RECYCLED WATER PROJECT LIMITS SHALL BE SHOWN ON THE PLANS.

23. CALL OUT ON THE PLANS IF THERE ARE OR ARE NOT DRINKIING FOUNTAINS AND OR DESIGNATED OUTDOOR EATING AREAS ON THIS SITE.

24. EDUCATE ALL MAINTENANCE PERSONNEL ON A CONTINUOUS BASIS REGARDING THE PRESENCE AND USE OF RECYCLED WATER. PERSONNEL MUST BE INFORMED THAT RECYCLED WATER IS INTENDED FOR LANDSCAPE IRRIGATION ONLY, AND SHALL NOT BE USED FOR DRINKING, WASHING HANDS, CLEANING TOOLS, AND ANY OTHER NON-APPROVED USE. THE HIGH TURNOVER RATE OF EMPLOYEES IN THE LANDSCAPE INDUSTRY REQUIRES THAT THIS IMPORTANT INFORMATION BE DISSEMINATED ON AN ALMOST DAILY BASIS.

25. A PHYSICAL SEPARATION SHALL BE PROVIDED BETWEEN ADJACENT AREAS IRRIGATED WITH RECYCLED WATER AND WITH POTABLE WATER. SEPARATION SHALL BE PROVIDED BY DISTANCE, CONCRETE MOW STRIPS OR OTHER APPROVED METHODS.

** ALL DEPARTMENT OF ENVIRONMENTAL HEALTH FEES SHALL BE SUBMITTED TO: SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH LAND AND WATER QUALITY DIVISION 5201 RUFFIN ROAD, SUITE G SAN DIEGO, CA 92123
ATTN: GLENN LEEKS PH# 858-694-2548 (CONTACT SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH FOR APPROPRIATE FEES)

GENERAL NOTES:

1. DETECTABLE WARNING TAPE SHALL BE USED ON ALL CONSTANT PRESSURE MAIN LINE PIPING CARRYING EITHER RECYCLED OR POTABLE WATER.

2. WARNING TAPES SHALL BE A MINIMUM OF 3" WIDE AND SHALL RUN CONTINUOUSLY FOR THE ENTIRE LENGTH OF ALL CONSTANT PRESSURE MAINLINE PIPING. THE TAPE SHALL BE INSTALLED IN A TRENCH 6" ABOVE THE TOP OF THE PIPE AT THE TOP OF THE SAND BEDDING MATERIAL.

3. WARNING TAPE FOR CONSTANT PRESSURE POTABLE WATER PIPING SHALL BE BLUE IN COLOR WITH THE WORDS, "CAUTION BURIED RECYCLED WATERLINE BELOW", IMPRINTED IN A MINIMUM 1" HIGH LETTERS BLACK IN COLOR. IMPRINTING SHALL BE CONTINUES AND PERMANENT.

4. WARNING TAPE FOR CONSTANT PRESSURE RECYCLED WATER PIPING SHALL BE PURPLE IN COLOR WITH THE WORDS, "CAUTION BURIED WATERLINE BELOW", IMPRINTED IN A MINIMUM 1" HIGH LETTERS BLACK IN COLOR. IMPRINTING SHALL BE CONTINUES AND PERMANENT.

5. ALL PRESSURE MAIN LINE PIPING FROM THE RECYCLED WATER SYSTEM SHALL BE INSTALLED TO MAINTAIN 4' MINIMUM HORIZONTAL SEPARATION FROM ALL POTABLE WATER PIPING. WHERE RECYCLED WATER AND POTABLE WATER PRESSURE MAIN LINE PIPING CROSS, THE RECYCLED WATER PIPING SHALL BE INSTALLED BELOW THE POTABLE WATER PIPING IN A PVC CL 200 PIPE SLEEVE WHICH EXTENDS A MINIMUM OF 5' ON EITHER SIDE OF THE POTABLE WATER PIPING. PROVIDE A MINIMUM VERTICAL CLEARANCE OF 6".

6. UNLESS OTHERWISE PERMITTED BY THE CITY OF CHULA VISTA, IRRIGATION WATERING CYCLES SHALL BE CONFINED TO MONDAY THROUGH FRIDAY.

7. CONTACT OTAY WATER DISTRICT AND THE CITY OF CHULA VISTA LANDSCAPE INSPECTION DIVISION TO ARRANGE FOR A COVERAGE TEST AND A SYSTEM WALK THROUGH.

SPECIAL SUPPLEMENTAL RECYCLED WATER NOTES:

1. THERE SHALL BE NO DIRECT (PIPE-TO-PIPE DRAINAGE OF RECYCLED WATER INTO THE STORM DRAINS.

2. DESIGN OF BRON DITCHES AND CATCH BASINS SHALL ABSOLUTELY MINIMIZE RECYCLED WATER RUNOFF INTO STORM DRAINS.

3. THE GENERAL CONTRACTOR SHALL KEEP AND MAINTAIN A SIGNED SET OF
4. IMPROVEMENT PLANS ON-SITE AT ALL TIMES FOR REVIEW BY THE DIRECTOR
5. OF ENGINEERING AND PLANNING OR HIS/HER REPRESENTATIVES.
6. THE GENERAL CONTRACTOR'S SUPERINTENDENT IS REQUIRED
7. TO UPDATE SAID PLANS WITH "AS-BUILT" INFORMATION ON
8. A DAILY BASIS AS WORK IS PERFORMED.

REQUIRED INSPECTIONS:

CONTRACTOR SHALL NOTIFY OTAY WATER DISTRICT FIVE (5) WORKING DAYS PRIOR TO COMMENCING WORK,

TELEPHONE (619) 670-2241. REQUIRED INSPECTIONS ARE AS FOLLOWS:

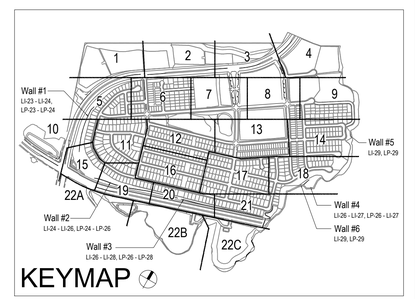
1. MAINLINE PRIOR TO BACKFILL.
2. SLEEVE CLEARANCES AND DEPTHS.
3. ALL RECYCLED WATER INSTALLATIONS FROM MAIN TO SPRINKLER HEADS.
4. SPRINKLER COVERAGE TEST.
5. CROSS CONNECTION TEST.
6. SIGNAGE.

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

R.A. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

* THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
* NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
* ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.



0' 80' 160' 320'

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
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5/10/19
REVIEWED BY: DATE:
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BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 CALIFORNIA 9/30/23

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

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W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.
Inspector		
Date Completed		

REVISIONS	Date	App'd
1 ADJUST IRRIG. FOR FUEL MOD. PLANTINGS. CHANGE DRIP ON WEST END OF PARK FOR SPRAY.	5-20-22	
2 RELOCATE METERS SPI & SP2 TO MAIN ST. ADD METERS R-6 & R-20. UPDATE OWD NOTES.	9-20-22	

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PTI# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE
Horizontal 1" = 160'
Vertical N/A

Office
Field
Traffic

Designed By	Drawn By	Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD Date / / R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
Director of Development Services or designee.

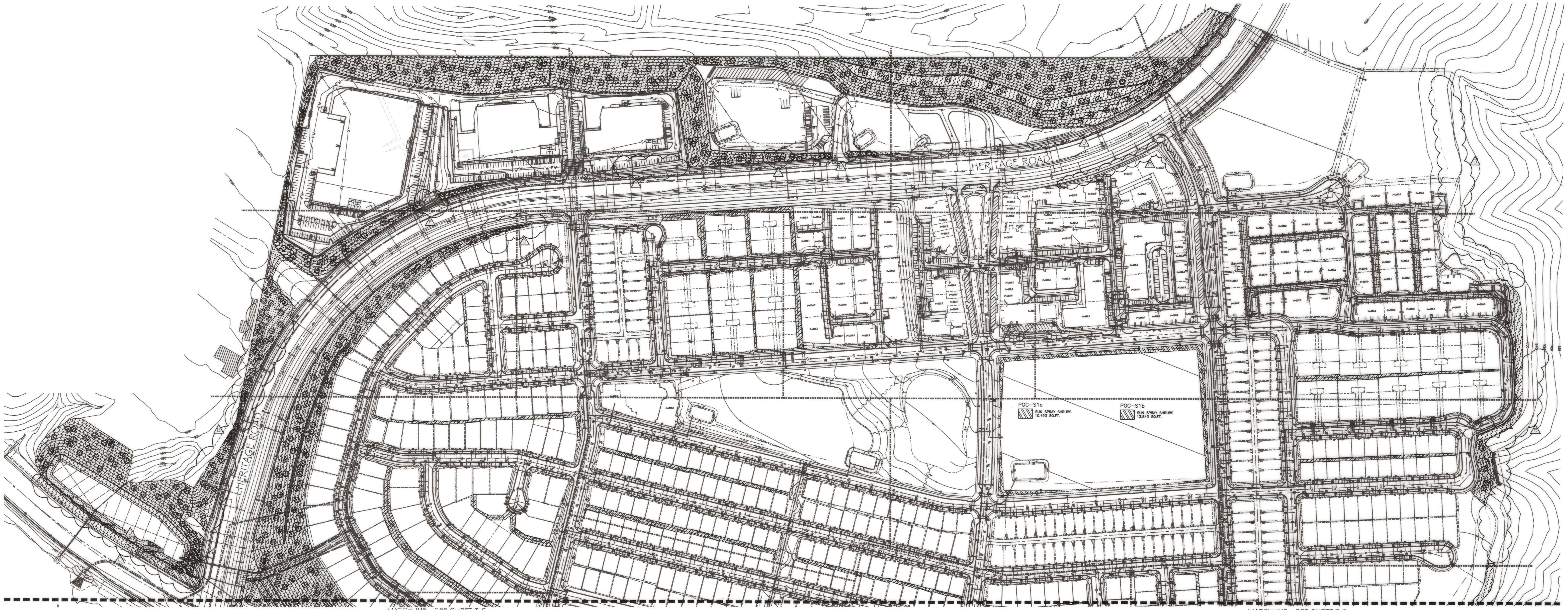
CITY OF CHULA VISTA
RECYCLED WATER AREA USE MAP
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 03
Sheet 03 of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 T-3

Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
LRWS# 2016-625
Print Date: 23 MAY'22

OWD WO# D0944-060189



MATCHLINE - SEE SHEET T-5

MATCHLINE - SEE SHEET T-5

HYDROZONE LEGEND

- SUN ROTOR SHRUBS
- SUN SPRAY SHRUBS
- SUN M-SPRAY TREES
- PART SUN ROTOR SHRUBS
- PART SUN SPRAY SHRUBS
- PART SUN M-SPRAY TREES
- PRIVATE LOT AREAS

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

R.W. IDENTIFICATION BY COLOR CODING:

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DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

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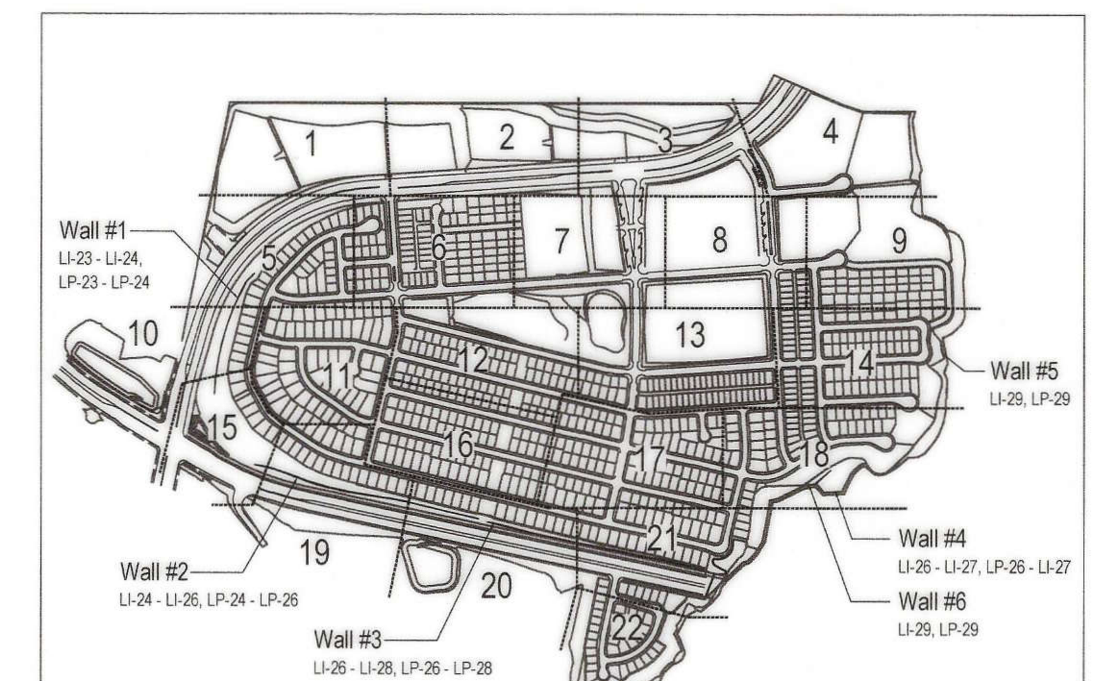
- *ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

0' 80' 160' 320'



KEYMAP

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: [signature] DATE: 10-22-19
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — Signature — 9/30/23 Renewal Date — 4/7/22 Date — CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	△E 7 APR '22
SCALE:	1" = 160'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor ______	16026-01 - 16026-93	HUNSAKER & ASSOC.	△B ADJ. IRRIG. TO LOTS 35-37, DRVWYS, METHANE PAD, METER, TREES AND FUEL MOD. RE-ALIGN BROW DITCH.	5-22-19	[initials]
Inspector ______			△C ADD IRRIG. ON MAIN & REPLACE DRIP IRRIGATION FOR SPRAY AT RECONFIGURE MONUMENT WALLS.	10-23-19	[initials]
Date Completed ______			△E ADJ. IRRIG FOR ADDED ENTRY DRIVEWAY AT INDUSTRIAL PAD.	4-20-22	[initials]

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Office ______
Field ______
Traffic ______

Designed By	Drawn By	Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 4 / 7 / 22
R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: ______ Date: ______
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
HYDROZONE MAP
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 04
Sheet 04 of 88

△E REPLACEMENT SHEET

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014

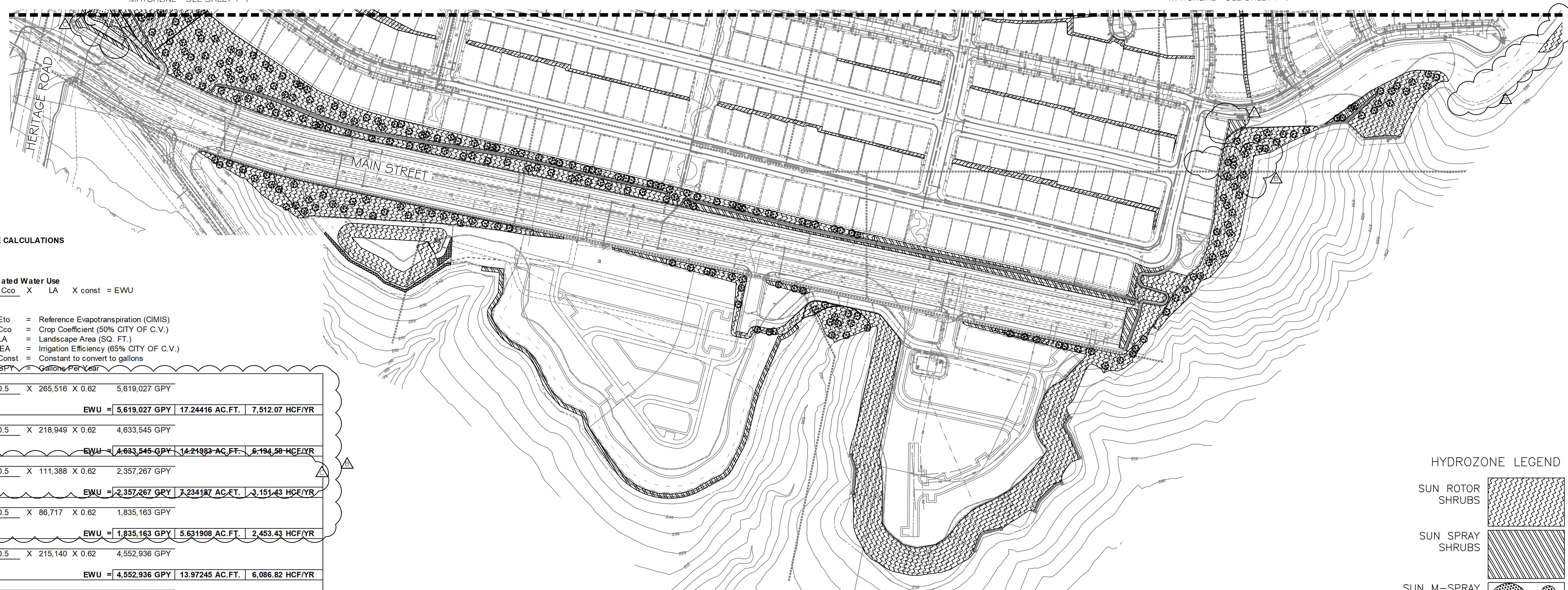
Otay Ranch, Village 3 - Slope & Erosion Control

MATCHLINE - SEE SHEET T-4

MATCHLINE - SEE SHEET T-4

LRWS# 2016-625

Print Date: 23 MAY '22



MAXIMUM APPLIED WATER ALLOWANCE VS. ESTIMATED WATER USE CALCULATIONS
OTAY RANCH VILLAGE 3 EROSION CONTROL
CHULA VISTA, CA

MAWA = Maximum Applied Water Allowance

Eto X ETAF X LA X Const = MAWA

Where
- Eto = Reference Evapotranspiration (CIMIS)
- ETAF = 100% of ETo for SLA using RW
- LA = Landscape Area (SQ. FT.)
- Const = Constant to convert to gallons
- GPY = Gallons Per Year

EWU = Estimated Water Use

(Eto X Cco X LA X const) / IEA = EWU

Where
- Eto = Reference Evapotranspiration (CIMIS)
- Cco = Crop Coefficient (50% CITY OF C.V.)
- LA = Landscape Area (SQ. FT.)
- IEA = Irrigation Efficiency (65% CITY OF C.V.)
- Const = Constant to convert to gallons
- GPY = Gallons Per Year

POC	MAWA calculation	MAWA			EWU calculation	EWU		
SE	51.2 X 1 X 265,516 X 0.62	8,428,540 GPY	25.86624 AC.FT.	11,268.11 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 265,516 X 0.62 = 5,619,027 GPY	5,619,027 GPY	17.24416 AC.FT.	7,512.07 HCF/YR
SD	51.2 X 1 X 218,949 X 0.62	6,950,317 GPY	21.32974 AC.FT.	9,291.87 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 218,949 X 0.62 = 4,633,545 GPY	4,633,545 GPY	14.21983 AC.FT.	6,194.58 HCF/YR
SB	51.2 X 1 X 111,388 X 0.62	3,535,901 GPY	10.85128 AC.FT.	4,727.14 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 111,388 X 0.62 = 2,357,267 GPY	2,357,267 GPY	7.234187 AC.FT.	3,151.43 HCF/YR
SB2	51.2 X 1 X 86,717 X 0.62	2,752,744 GPY	8.447863 AC.FT.	3,680.14 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 86,717 X 0.62 = 1,835,163 GPY	1,835,163 GPY	5.631908 AC.FT.	2,453.43 HCF/YR
SC	51.2 X 1 X 215,140 X 0.62	6,829,404 GPY	20.95867 AC.FT.	9,130.23 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 215,140 X 0.62 = 4,552,936 GPY	4,552,936 GPY	13.97245 AC.FT.	6,086.82 HCF/YR
SA1	51.2 X 1 X 42,689 X 0.62	1,355,120 GPY	4.158709 AC.FT.	1,811.66 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 42,689 X 0.62 = 903,413 GPY	903,413 GPY	2.772473 AC.FT.	1,207.77 HCF/YR
SA2	51.2 X 1 X 159,644 X 0.62	5,067,739 GPY	15.55232 AC.FT.	6,775.06 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 159,644 X 0.62 = 3,378,493 GPY	3,378,493 GPY	10.36821 AC.FT.	4,516.70 HCF/YR
SI	51.2 X 1 X 70,671 X 0.62	2,243,380 GPY	6.884681 AC.FT.	2,999.17 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 70,671 X 0.62 = 1,495,587 GPY	1,495,587 GPY	4.589787 AC.FT.	1,999.45 HCF/YR
SH	51.2 X 1 X 147,695 X 0.62	4,688,430 GPY	14.38826 AC.FT.	6,267.96 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 147,695 X 0.62 = 3,125,620 GPY	3,125,620 GPY	9.592176 AC.FT.	4,178.64 HCF/YR
SG	51.2 X 1 X 197,379 X 0.62	6,265,599 GPY	19.22842 AC.FT.	8,376.48 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 197,379 X 0.62 = 4,177,066 GPY	4,177,066 GPY	12.81894 AC.FT.	5,584.32 HCF/YR
BB	51.2 X 1 X 104,139 X 0.62	3,305,788 GPY	10.14509 AC.FT.	4,419.51 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 104,139 X 0.62 = 2,203,859 GPY	2,203,859 GPY	6.763395 AC.FT.	2,946.34 HCF/YR
S-1a	51.2 X 1 X 10,493 X 0.62	333,090 GPY	1.022215 AC.FT.	445.31 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 10,493 X 0.62 = 222,060 GPY	222,060 GPY	0.681477 AC.FT.	296.87 HCF/YR
S-1b	51.2 X 1 X 13,843 X 0.62	439,432 GPY	1.348568 AC.FT.	587.48 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 13,843 X 0.62 = 292,955 GPY	292,955 GPY	0.899045 AC.FT.	391.65 HCF/YR
R-14	51.2 X 1 X 11,982 X 0.62	380,357 GPY	1.167272 AC.FT.	508.50 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 11,982 X 0.62 = 253,571 GPY	253,571 GPY	0.778181 AC.FT.	339.00 HCF/YR
R-16	51.2 X 1 X 43,133 X 0.62	1,369,214 GPY	4.201963 AC.FT.	1,830.50 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 43,133 X 0.62 = 912,809 GPY	912,809 GPY	2.801309 AC.FT.	1,220.33 HCF/YR
MU-1	51.2 X 1 X 1,923 X 0.62	61,044 GPY	0.187336 AC.FT.	81.61 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 1,923 X 0.62 = 40,696 GPY	40,696 GPY	0.124891 AC.FT.	54.41 HCF/YR
MU-2	51.2 X 1 X 5,065 X 0.62	160,783 GPY	0.493426 AC.FT.	214.95 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 5,065 X 0.62 = 107,189 GPY	107,189 GPY	0.328951 AC.FT.	143.30 HCF/YR
[illegible]	51.2 X 1 X 5,479 X 0.62	173,925 GPY	0.533757 AC.FT.	232.52 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 5,479 X 0.62 = 115,950 GPY	115,950 GPY	0.355838 AC.FT.	155.01 HCF/YR
TYPICAL HOME OWNER SLOPE	51.2 X 0.7 X 1,018 X 0.62	22,621 GPY	0.069421 AC.FT.	30.24 HCF/YR	SHRUB (51.2 X 0.4)/0.75 X 1,018 X 0.62 = 17,235 GPY	17,235 GPY	0.052892 AC.FT.	23.04 HCF/YR

NOT A PART – REFER TO LANDSCAPE & IRRIGATION PLANS BY RIDGE LANDSCAPE ARCHITECTURE.

OWD# D1019-060288
DEH# DEH2021-LRWS-001351
CV WO# GR210042

POC	MAWA calculation	MAWA			EWU calculation	EWU		
R-20	51.2 X 1 X 15,274 X 0.62	484,858 GPY	1.487974 AC.FT.	648.21 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 15,274 X 0.62 = 323,239 GPY	323,239 GPY	0.991983 AC.FT.	432.14 HCF/YR
R-6	51.2 X 1 X 5,186 X 0.62	164,624 GPY	0.505214 AC.FT.	220.09 HCF/YR	SHRUB (51.2 X 0.5)/0.75 X 5,186 X 0.62 = 109,750 GPY	109,750 GPY	0.336809 AC.FT.	146.72 HCF/YR

NOTE:
LANDSCAPE AREA FOR MAWA AND EWU CALCULATIONS INCLUDES PLAN VIEW AREA OF TREE CANOPIES AS ILLUSTRATED IN THE LANDSCAPE PLANTING PLANS.

HYDROZONE LEGEND

- SUN ROTOR SHRUBS
- SUN SPRAY SHRUBS
- SUN M-SPRAY TREES
- PART SUN ROTOR SHRUBS
- PART SUN SPRAY SHRUBS
- PART SUN M-SPRAY TREES
- PRIVATE LOT AREAS

OWD WO# D0944-060189

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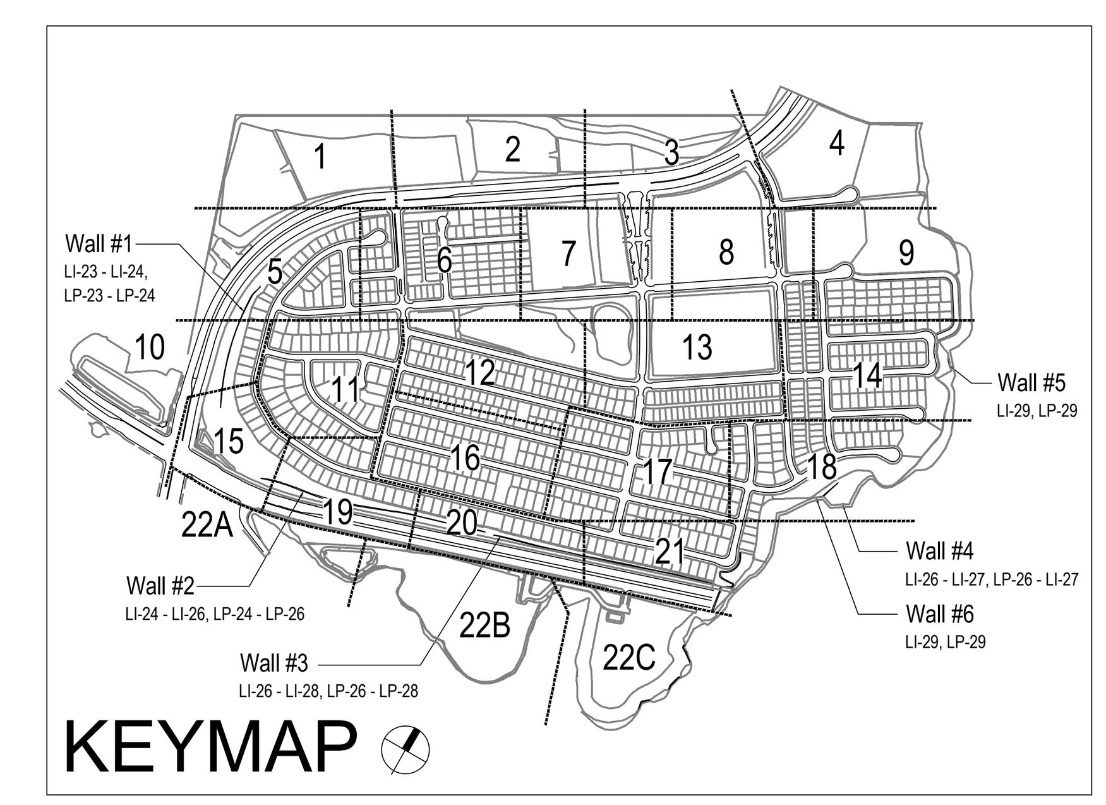

KEYMAP

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Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE: 10-22-19
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REGISTERED LANDSCAPE ARCHITECT – THOMAS A. PICARD – 4001 – CALIFORNIA
Signature 9/30/23 Renewal Date 5/23/22 Date

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	F 23 MAY '22
SCALE:	1" = 160'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.
Inspector		
Date Completed		

REVISIONS	Date	App'd
B ADJ. WATER DEMAND FOR AREAS CHANGED.	5-22-19	
C REVISE WATER CALCS. & REPLACE DRIP IRRIGATION FOR SPRAY AT RECONFIGURE MONUMENT WALLS.	10-23-19	
E ADJ. IRRIG FOR ADDED ENTRY DRIVEWAY AT INDUSTRIAL PAD.	4-20-22	
F ADJ. AREAS FOR POC'S 'SH' & 'SI' ADD WATER BUDGET FOR NEW METERS 'R-6' & 'R-20'		

BENCH MARK
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Office ____ Field ____ Traffic ____

Designed By | Drawn By | Checked By
Plans Prepared Under Supervision Of THOMAS A. PICARD Date / / R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: ____ Date: ____
Tiffany Allen
Director of Development Services or designee.

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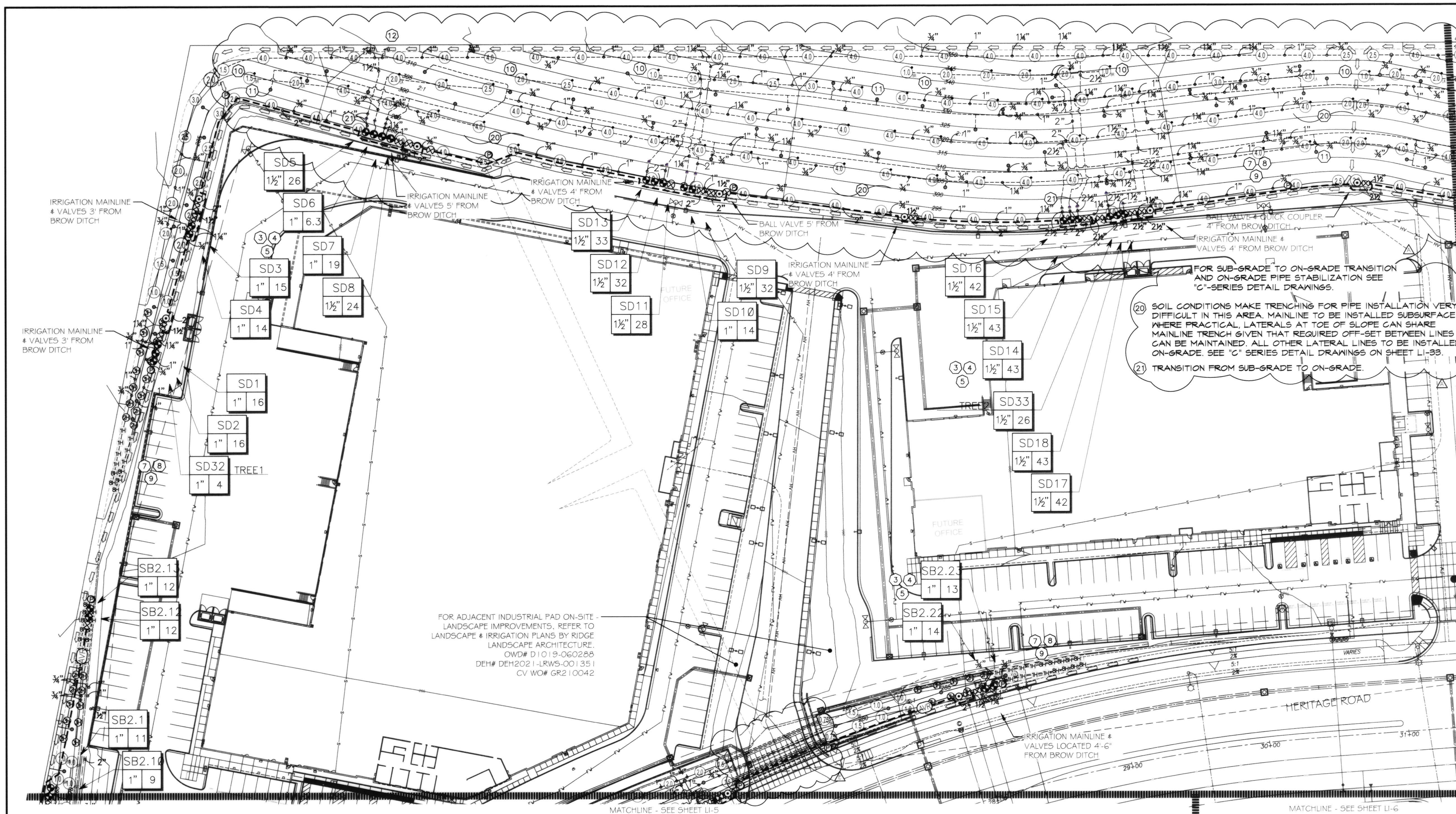
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 05
Sheet 05 of 88

F REPLACEMENT SHEET   OWD WO# D0944-060189   OWD PERMIT# PLR-16-014   T-5

Otay Ranch, Village 3 - Slope & Erosion Control



CONSTRUCTION NOTES:

(1a) IRRIGATION P.O.C. LOCATION SHOWN HAS BEEN COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THIS SERVICE, INSTALL BACKFLOW PREVENTION DEVICE, FLOW CONTROL AND MONITORING EQUIPMENT AND EXTEND SYSTEM AS SHOWN.

(1b) IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL B12 ON SHEET LI-32.

(2a) IRRIGATION CONTROLLER- 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL ROUTE POWER CABLE TO CONTROLLER IN PVC CONDUIT AND MAKE PERMANENT CONNECTION TO THE CONTROLLER. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.

(2b) IRRIGATION CONTROLLER - PRIVATE SYSTEMS. 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL INSTALL AN INDOOR IRRIGATION CONTROLLER AND A RAIN SENSOR. SEE DETAIL B12 ON SHEET LI-32. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.

(3) LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR USC-FMS. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE APPROXIMATELY AS SHOWN 12" TO 18" FROM BACK OF CURB OR WALK.

(4) REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)

(5) SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD IN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 4 VALVE BOXES IN ONE AREA. SEPARATE VALVE BOX GROUPS BY 4' MIN.

(6) DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)PULL BOX-CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE PULL BOX AT ENDS OF SLEEVES. (TYP.)

(7) ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.

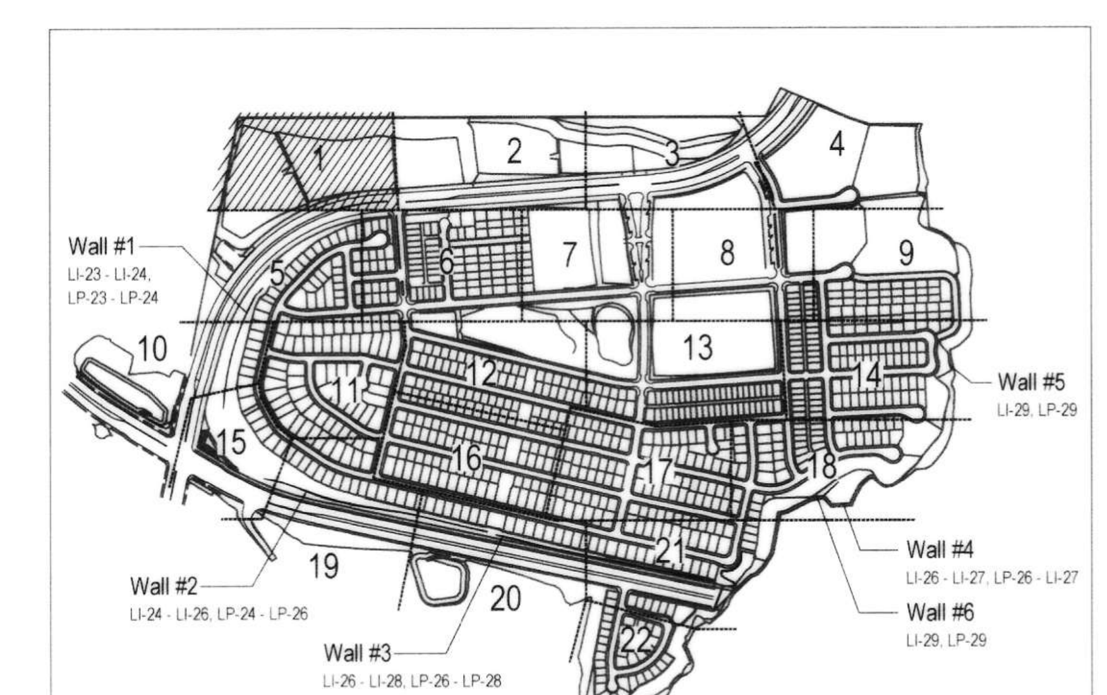
(8) SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND. UNLESS NOTED OTHERWISE.

(9) SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.

(10) RADIUS AND NOZZLE REDUCTION- SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FILL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.

(11) HUNTER PROS-00-PRS30 WITH HUNTER 5-FULL SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

(12) LATERAL LINE DRAINAGE IS TO BE PREVENTED IN ALL CASES. SPRING AND/OR SWING CHECK VALVES SHALL BE INSTALLED UNDER ALL IRRIGATION HEADS AND IN LATERAL LINE RUNS OF ALL IRRIGATION SYSTEMS WHERE TOPOGRAPHY CAUSES AN ELEVATION DIFFERENCE OF 7 FEET OR GREATER.



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0' 20' 40' 80'

UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
- DOMESTIC SEWERLINE (PER CIVIL PLANS)
- RECYCLED WATERLINE (PER CIVIL PLANS)
- STORM DRAINS (PER CIVIL PLANS)
- BLOWOFF VALVE
- AIR RELEASE VALVE
- FIRE HYDRANT
- TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
- CATHODIC TEST STATION (PER CIVIL PLANS)
- STREET LIGHT

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OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE: 8/24/18
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 10/25/21
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT
REGIST. EXP. 9/30/23

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT
THOMAS A. PICARD 4001
Signature
9/30/23
Renewal Date
4/7/22
Date
CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	(E) 7 APR '22
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-30016

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	(A) ADD SHUT OFF VALVES AND ON GRADE PIPE.	7/3/16	MR
Inspector			(D) FINAL OWD AS BUILT SYSTEMS SB2 & SD	4.20.22	TC
Date Completed			(E) ADJ. IRRIG. FOR ADDED ENTRY DRIVEWAY AT INDUSTRIAL PAD.	4.20.22	TC

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE
Horizontal 1" = 40'
Vertical N/A

Office
Field
Traffic

Designed By	Drawn By	Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 4 / 7 / 22
R.L.A. No. 4001

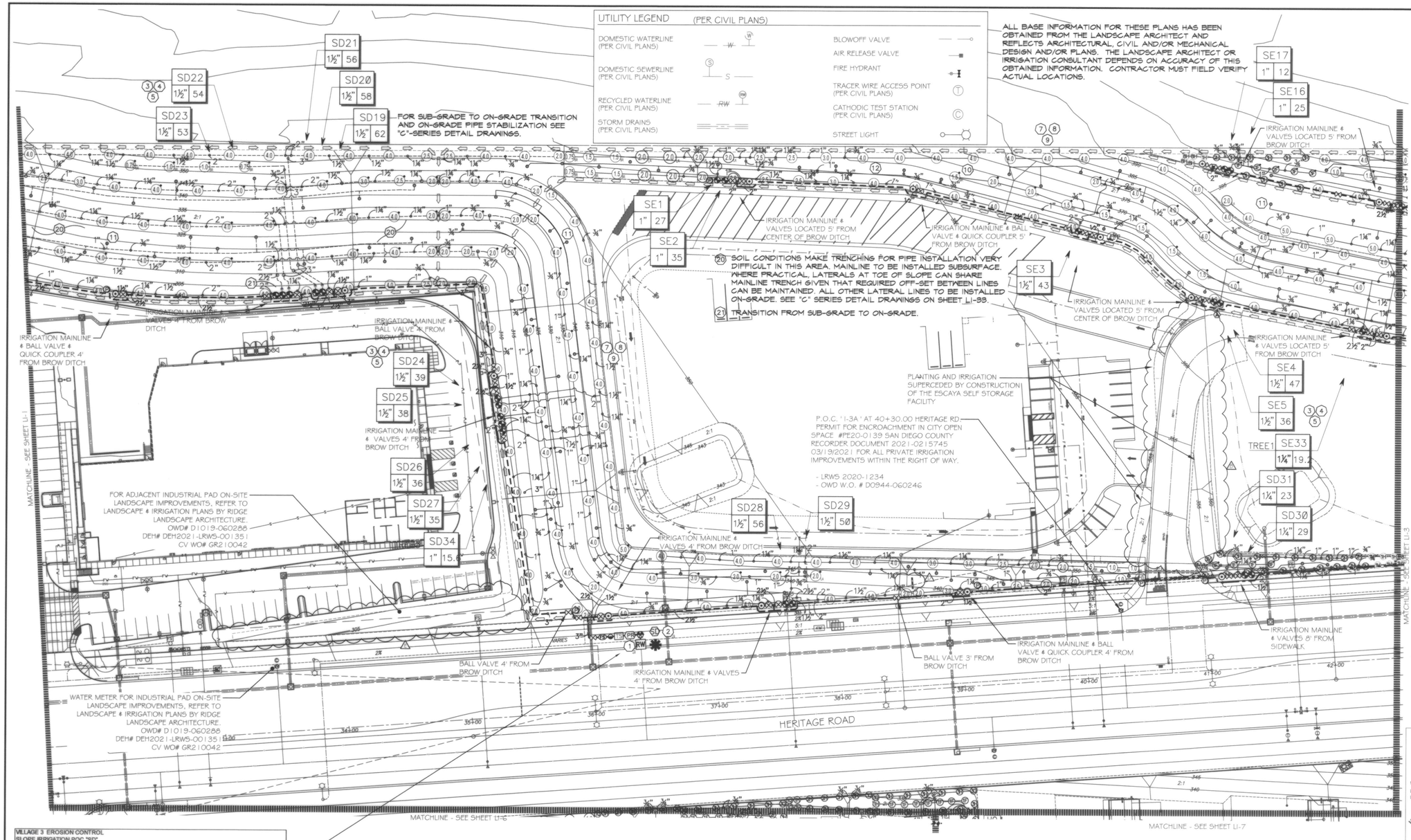
Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 09
Sheet 09 of 88

(E) REPLACEMENT SHEET   OWD WO# D0944-060189   OWD PERMIT# PLR-16-014   LI-1

Print Date: 7 APR '22
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



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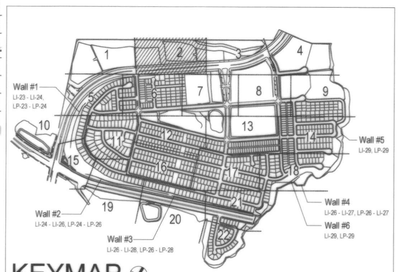
1. a. IRRIGATION P.O.C. LOCATION SHOWN HAS BEEN COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THIS SERVICE, INSTALL BACKFLOW PREVENTION DEVICE, FLOW CONTROL AND MONITORING EQUIPMENT AND EXTEND SYSTEM AS SHOWN.
   b. IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL BI2 ON SHEET LI-82.
2. IRRIGATION CONTROLLER- 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL ROUTE POWER CABLE TO CONTROLLER IN PVC CONDUIT AND MAKE PERMANENT CONNECTION TO THE CONTROLLER. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.
   IRRIGATION CONTROLLER - PRIVATE SYSTEMS. 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL INSTALL AN INDOOR IRRIGATION CONTROLLER AND A RAIN SENSOR. SEE DETAIL BI2 ON SHEET LI-82. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.
3. LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR USC-FMS. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE APPROXIMATELY AS SHOWN 12" TO 18" FROM BACK OF CURB OR WALK.
4. REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)
5. SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD IN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 4 VALVE BOXES IN ONE AREA. SEPARATE VALVE BOX GROUPS BY 4' MIN.
6. DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)FULL BOX- CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE PULL BOX AT ENDS OF SLEEVES. (TYP.)
7. ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.
8. SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND. UNLESS NOTED OTHERWISE.
9. SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.
10. RADIUS AND NOZZLE REDUCTION- SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FULL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.
11. HUNTER PROS-00-PRS30 WITH HUNTER 5-FULL SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.
12. LATERAL LINE DRAINAGE IS TO BE PREVENTED IN ALL CASES. SPRING AND/OR SWING CHECK VALVES SHALL BE INSTALLED UNDER ALL IRRIGATION HEADS AND IN LATERAL LINE RUNS OF ALL IRRIGATION SYSTEMS WHERE TOPOGRAPHY CAUSES AN ELEVATION DIFFERENCE OF 7 FEET OR GREATER.



KEYMAP

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "SD7"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

1-1/2" RECYCLED WATER METER
40 STATION CONTROLLER "SD"
STATIONS USED: 1-34 / OPEN STATIONS: 35-40
MODEL# SA6-RM2-40 / FSF-150B / 5YR / PMR-CAC / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		
METER LOCATION- STAT.PT.	HERITAGE RD. 36+40	POC EQUIPMENT
POC ELEVATION	325.00 FT.	1-1/2" WYE STRAINER
PRESSURE ZONE	680.00 FT.	1-1/2" CHECK VALVE
STATIC WATER PRESSURE	153.72 PSI	1-1/2" PRESSURE REGULATOR
REGULATED PRESSURE	85.00 PSI	TEST STATION
MIN. PRESSURE REQUIRED	48.83 PSI	1-1/2" MASTER CONTROL VALVE
MAX. DEMAND	57 GPM	1 1/2" FLOW SENSOR
AREA SERVED	218,949 SQ. FT.	NOTE: P.O.C. SEQUENCE PER W.A.S.
MAWA	21.3297 AC.FT./YR.	STD. DWG. WR-03.
EWU	14.2198 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	

- THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
- NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
- ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-45.

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE:
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SIGNED: DATE:
PRINT NAME: R.L.A. #
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REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 9/30/23 CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	△ 7 APR '22
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.
Inspector		
Date Completed		

REVISIONS	Date	App'd
△ ADD SHUTOFF VLVS AND ON-GRADE IRRIG. PIPE.	7/5/16	
△ ADJ. IRRIG. TO NEW DRWWYS TO IND. PADS & TREES	5-31-17	
△ ADJ. @ HERITAGE RD. STA 36+62.78	4-20-22	
△ ADJUST FOR INDUSTRIAL PAD L-2	4-20-22	

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PID# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE	
Horizontal	1" = 40'
Vertical	N / A

Office ____ Field ____ Traffic ____

Designed By ____ Drawn By ____ Checked By ____
Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 4 / 7 / 22
R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: ____ Date: ____
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 10
Sheet 10 of 88

△REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-2

Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
Print Date: 7 APR '22

SE20 1½" 39 BENCH1
SE30 1½" 42
SE19 1½" 32
SE18 1½" 39
SE33 1" 10 TREE3
SE21 1½" 39
SE31 2" 46 BENCH2
SE25 2" 47
SE24 2" 46
SE23 1½" 37
SE22 1½" 49
SE34 1½" 20.4 TREE2
SE32 1½" 54 BENCH3
SE26 1½" 24
SE27 1½" 39
SE28 1½" 51
SE29 1½" 40
SE6 2" 48
SE7 2" 60
SE8 2" 64
SE9 1½" 52
SE10 1½" 55

IRRIGATION MAINLINE & VALVES LOCATED 5' FROM BROW DITCH

PLANTING AND IRRIGATION TO BE SUPERCEDED BY ONSITE IMPROVEMENTS

IRRIGATION MAINLINE & VALVES 8' FROM EDGE OF SIDEWALK

RECYCLED WATER SERVICE LINE AND METER FOR CHEVRON STATION LRWS#2020-1247

RECYCLED WATER SERVICE LINE AND METER FOR LRWS# 2019-1116

MATCHLINE - SEE SHEET LI-2

MATCHLINE - SEE SHEET LI-4

MATCHLINE - SEE SHEET LI-7

MATCHLINE - SEE SHEET LI-8

HERITAGE ROAD

CALLE CULTURA

AVENIDA ESCAYA

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "SE"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

1-1/2" RECYCLED WATER METER
40 STATION CONTROLLER "SE"
STATIONS USED: 1-34 / OPEN STATIONS: 35-40
MODEL# SAR-RMC-40 / FSF-150B / SYR / PMR-CAC / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		POC EQUIPMENT
METER LOCATION- STAT.PT.	HERITAGE ROAD. 50+10	1-1/2" WYE STRAINER
POC ELEVATION	380.00 FT.	1-1/2" CHECK VALVE
PRESSURE ZONE	680.00 FT.	1-1/2" PRESSURE REGULATOR
STATIC WATER PRESSURE	129.90 PSI	TEST STATION
REGULATED PRESSURE	90.00 PSI	1-1/2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	74.71 PSI	1-1/2" FLOW SENSOR
MAX. DEMAND	54 GPM	NOTE: P.O.C SEQUENCE PER W.A.S.
AREA SERVED	265,516 SQ. FT.	STD. DWG. WR-03.
MAWA	25.8662 AC.FT./YR.	
EWU	17.2442 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	

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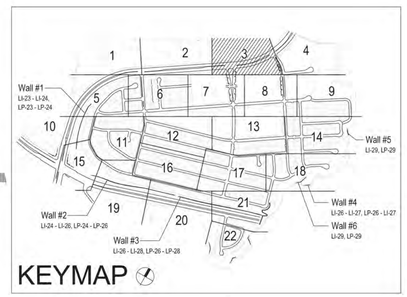

KEYMAP

UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
- DOMESTIC SEWERLINE (PER CIVIL PLANS)
- RECYCLED WATERLINE (PER CIVIL PLANS)
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FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-48.

0' 20' 40' 80'

OTAY WATER DISTRICT
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P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: 5/10/19 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

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SIGNED: DATE: 10/25/21
PRINT NAME: THOMAS PICARD R.L.A. # 4001
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REGIST. EXP. 9/30/23

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REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — CALIFORNIA
9/30/23
10/25/21

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	25 OCT '21
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	1 NEW PRVT. METER, CHANGE SLOPE & BROW DITCH.	5/10/19	TP
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT.# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 40' / Vertical N/A

Office ____ Field ____ Traffic ____

Designed By ____ Drawn By ____ Checked By ____

Plans Prepared Under Supervision Of
Date 10 / 4 / 21
THOMAS A. PICARD R.L.A. No. 4001

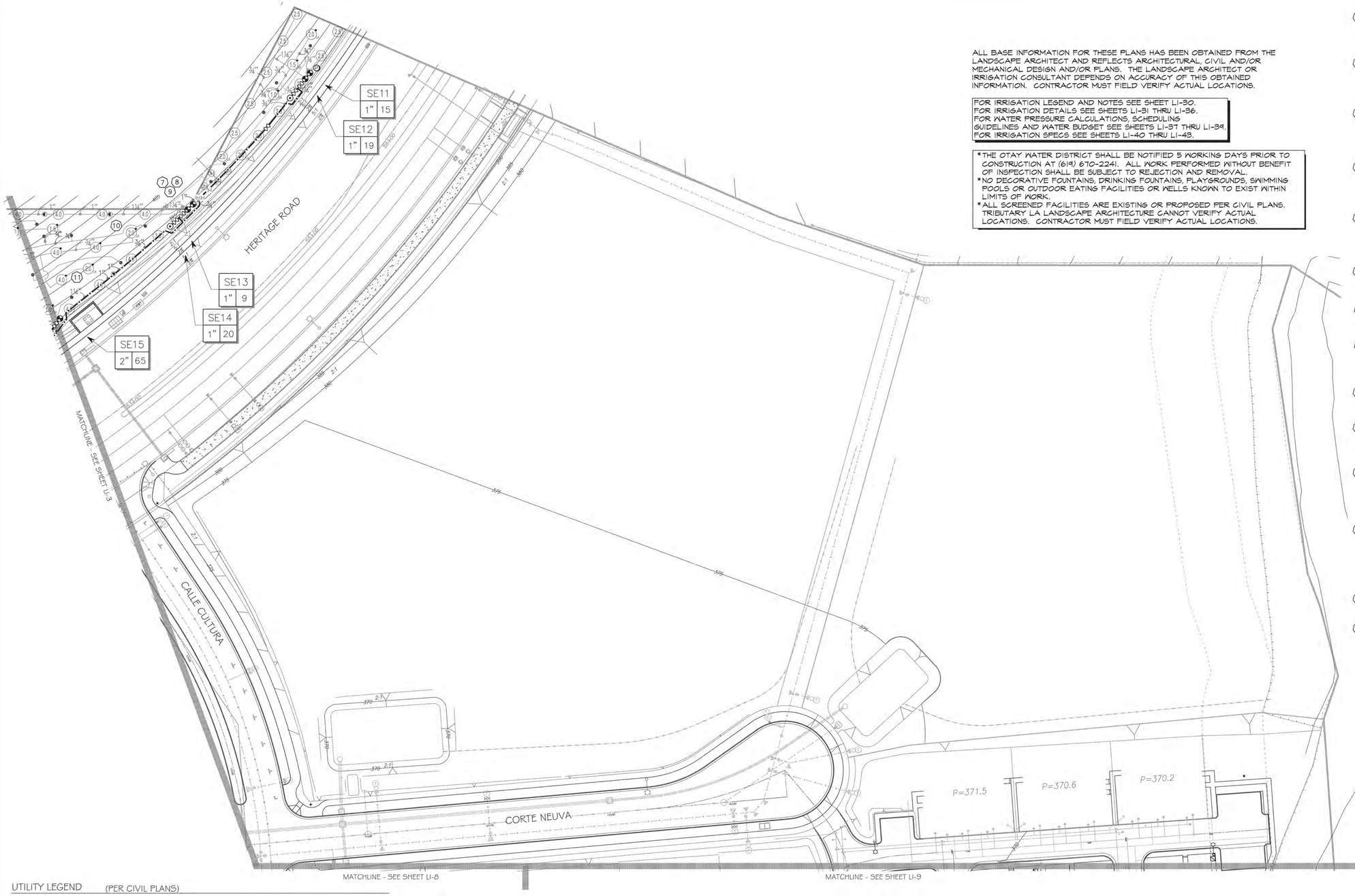
Plans Originally Approved: 5-15-17
Approved:____ Date:____
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 11
Sheet 11 of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-3

Otay Ranch, Village 3 - Slope & Erosion Control



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FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

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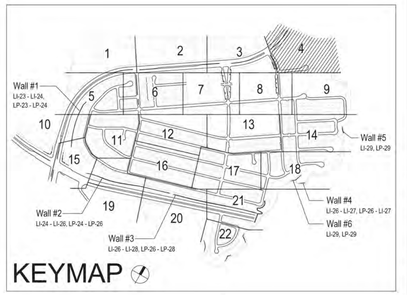

KEYMAP

UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
- DOMESTIC SEWERLINE (PER CIVIL PLANS)
- RECYCLED WATERLINE (PER CIVIL PLANS)
- STORM DRAINS (PER CIVIL PLANS)
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- AIR RELEASE VALVE
- FIRE HYDRANT
- TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
- CATHODIC TEST STATION (PER CIVIL PLANS)
- STREET LIGHT

0' 20' 40' 80'

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No.2019-00134
P.Z. 624, 711 R.P.Z. 680
5/10/19
REVIEWED BY: DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 10/25/21
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/23

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — 9/30/23 — 10/25/21 — CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	25 OCT '21
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	ADD SHUT OFF VALVES.	7/3/16	
Inspector			RE-ALIGN BROW DITCH & ADJ. IRRIG. TO FUEL MOD.	5/12/17	
Date Completed			ADD IRRIGATION TO MISSED TREES	10/5/17	

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 40' Vertical N/A

Office ____ Field ____ Traffic ____

Designed By ____ Drawn By ____ Checked By ____

Plans Prepared Under Supervision Of
Date 10 / 4 / 21
THOMAS A. PICARD R.L.A. No. 4001

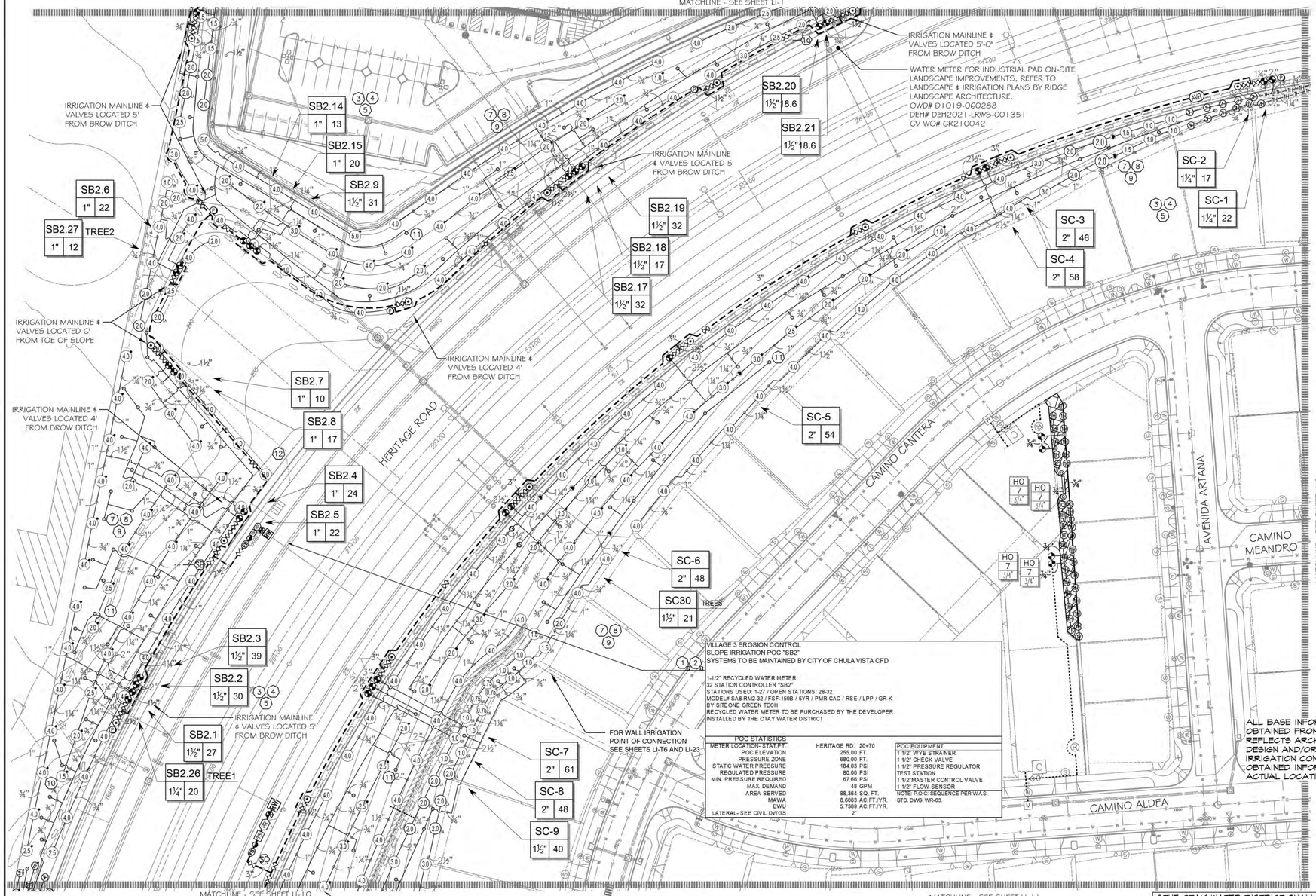
Plans Originally Approved: 5-15-17
Approved: ____ Date: ____
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. **16050 - 12**
Sheet 12 of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-4

LRWS-2019-1134
Print Date: 25 OCT '21
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "SBZ"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

1-1/2" RECYCLED WATER METER
32 STATION CONTROLLER "SBZ"
STATIONS USED: 1-27 / OPEN STATIONS: 28-32
MODEL# SA6-RM2-32 / FSF-150B / 5YR / PMR-CAC / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		
METER LOCATION- STAT.PT.	HERITAGE RD. 20+70	POC EQUIPMENT
POC ELEVATION	255.00 FT.	1 1/2' WYE STRAINER
PRESSURE ZONE	680.00 FT.	1 1/2" CHECK VALVE
STATIC WATER PRESSURE	184.03 PSI	1 1/2" PRESSURE REGULATOR
REGULATED PRESSURE	80.00 PSI	TEST STATION
MIN. PRESSURE REQUIRED	67.66 PSI	1 1/2"MASTER CONTROL VALVE
MAX. DEMAND	48 GPM	1 1/2" FLOW SENSOR
AREA SERVED	88,364 SQ. FT.	NOTE: P.O.C. SEQUENCE PER W.A.S.
MAWA	8.6083 AC.FT./YR.	STD. DWG. WR-03.
EWU	5.7389 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "SC"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

2" RECYCLED WATER METER
40 STATION CONTROLLER "SC"
STATIONS USED: 1-31 / OPEN STATIONS: 32-40
MODEL# SA6-RM2-40 / FSF-200B / 5YR / PMR / RSE / LPP / GR-K (W/ PRO-MAX REMOTE)
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		
METER LOCATION- STAT.PT.	HERITAGE RD. 19+00	POC EQUIPMENT
POC ELEVATION	215.00 FT.	2" WYE STRAINER
PRESSURE ZONE	680.00 FT.	2" CHECK VALVE
STATIC WATER PRESSURE	201.35 PSI	2" PRESSURE REGULATOR
REGULATED PRESSURE	108.65 PSI	TEST STATION
MIN. PRESSURE REQUIRED	90.54 PSI	2" MASTER CONTROL VALVE
MAX. DEMAND	65 GPM	2" FLOW SENSOR
AREA SERVED	215,140 SQ. FT.	NOTE: P.O.C. SEQUENCE PER W.A.S.
MAWA	20.9587 AC.FT./YR.	STD. DWG. WR-03.
EWU	13.9725 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	

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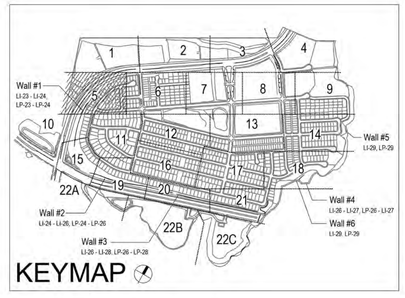

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OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No.2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE: 5/10/19
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: 4/24/23
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT
REGIST. EXP. 9/30/23

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REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 9/30/23 CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	24 APR '23
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	ADD SHUTOFF VALVES	7/3/16	
Inspector			ADDED AND/OR ADJUST IRRIGATION FOR TREES	5-12-17	
Date Completed			FINAL OWD AS BUILT SYST SBZ.	5-12-19	

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SCALE
Horizontal 1" = 40'
Vertical N/A

Office
Field
Traffic

Designed By
Drawn By
Checked By
Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 4/24/23
R.L.A. No. 4001

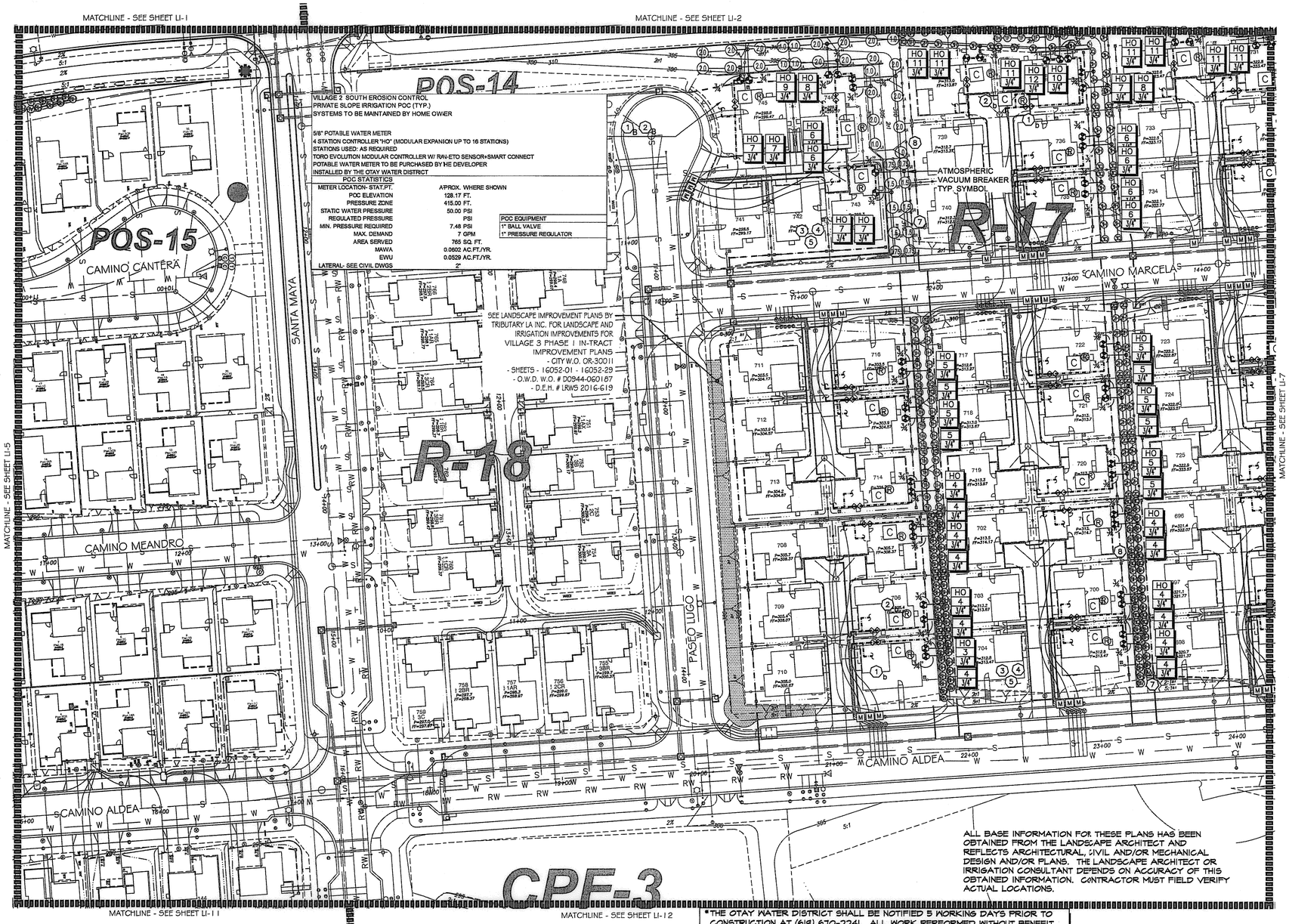
Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 13
Sheet 13 of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-5

Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
Print Date: 24 APR '23



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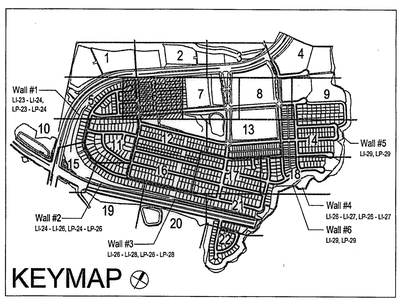

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- FIRE HYDRANT
- TRACER WIRE ACCESS POINT (PER CIVIL PLANS) — T
- CATHODIC TEST STATION (PER CIVIL PLANS) — C
- STREET LIGHT

0' 20' 40' 80'

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OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

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UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
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"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — CALIFORNIA — 9/5/17 — RENEWAL 8/31/17

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BASS DISK MARKED "SD CITY ENGR." IN 3/4" IDN PIPE
LOCATION: .5 MILES EAST OF INTX OF MAIN ST. & HERITAGE D., ON ROCK MOUNTAIN 100' EASTERLY OF "ROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY 7' WATER STORAGE FACILITY. (PT.# 1359 PER R.O.S. 16841) ELEV=629.319' (NAVD'88)

SCALE	
Horizontal	1" = 40'
Vertical	N/A

Office	
Field	
Traffic	

Designed By	Drawn By	Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD Date / / R.L.A. No. 4001

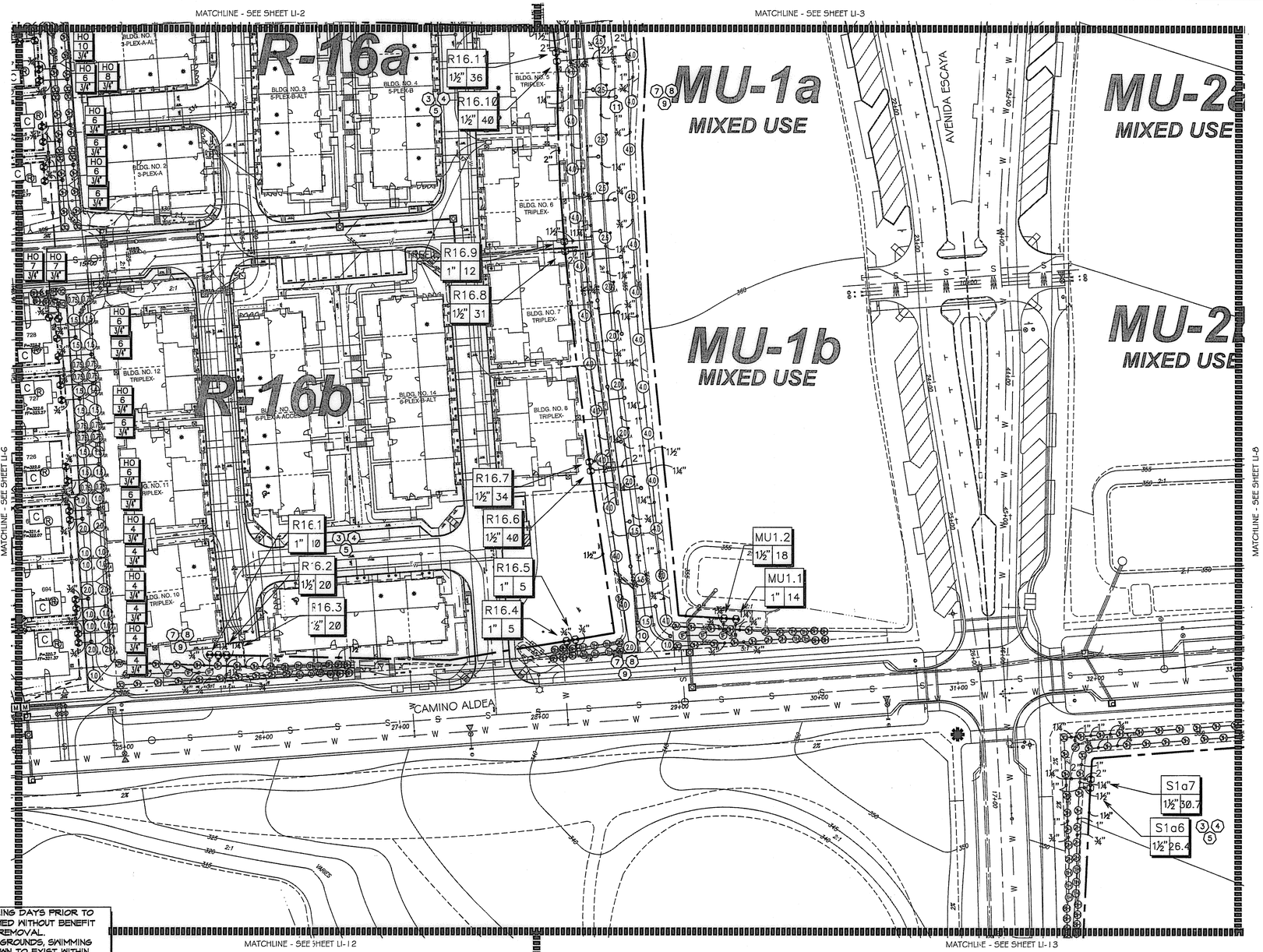
Approved: Mary Madley Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 14
Sheet 14 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-6

Print Date: 10 APR '17
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



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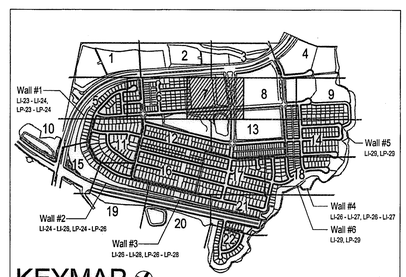

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0' 20' 40' 80'

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OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: SIGNATURE EXPIRES AFTER 1 YEAR DATE 5/10/17

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"AS-BUILT"
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PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

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Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

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JOB NO.	15024
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W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
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Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
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SCALE: Horizontal 1" = 40' Vertical N / A

Office ____ Field ____ Traffic ____

Designed By ____ Drawn By ____ Checked By ____

Plans Prepared Under Supervision Of ____ Date / / R.L.A. No. 4001 THOMAS A. PICARD

Approved: Kelly Broughton Date: 5-15-17
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 15
Sheet 15 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-7

Otay Ranch, Village 3 - Slope & Erosion Control OWD WO# D0944-060189 Print Date: 10 APR '17

MATCHLINE - SEE SHEET LI-3

MATCHLINE - SEE SHEET LI-4

MATCHLINE - SEE SHEET LI-7

MATCHLINE - SEE SHEET LI-9

MATCHLINE - SEE SHEET LI-13

MATCHLINE - SEE SHEET LI-14

MU-2C

MIXED USE

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "R-14"
SYSTEMS TO BE MAINTAINED BY SUB-ASSOCIATION

1-1/2" RECYCLED WATER METER
12 STATION CONTROLLER "R-14"
STATIONS USED: 1-7 / OPEN STATIONS: 8 - 12
MODEL# SA6-RM20-12 / FSF-150P / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS	CALLE CULTURA 14+90	POC EQUIPMENT
METER LOCATION- STAT.PT.	370.00 FT.	1 1/2" WYE STRAINER
POC ELEVATION	680.00 FT.	1 1/2" CHECK VALVE
PRESSURE ZONE	134.23 PSI	1 1/2" PRESSURE REGULATOR
STATIC WATER PRESSURE	70.00 PSI	TEST STATION
REGULATED PRESSURE	58.78 PSI	1 1/2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	46 GPM	1 1/2" FLOW SENSOR
MAX. DEMAND	11,982 SQ. FT.	NOTE P.O.C. SEQUENCE PER W.A.S.
AREA SERVED	1.1673 AC.FT./YR.	STD. DW. 9. WR-03.
MAWA	0.7782 AC.FT./YR.	
EWU	2"	
LATERAL- SEE CIVIL DWGS		

CPF-1*

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "S-1b"
SYSTEMS TO BE MAINTAINED BY SUB-ASSOCIATION

1.5" RECYCLED WATER METER
12 STATION CONTROLLER "S-1b"
STATIONS USED: 1-8 / OPEN STATIONS: 9-12
MODEL# SA6-RM20-12 / FSF-150P / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS	CAMINO ALDEA 35+10	POC EQUIPMENT
METER LOCATION- STAT.PT.	350.00 FT.	1-1/2" WYE STRAINER
POC ELEVATION	660.00 FT.	1-1/2" CHECK VALVE
PRESSURE ZONE	142.89 PSI	1-1/2" PRESSURE REGULATOR
STATIC WATER PRESSURE	80.00 PSI	TEST STATION
REGULATED PRESSURE	77.11 PSI	1 1/2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	46 GPM	1-1/2" FLOW SENSOR
MAX. DEMAND	13,843 SQ. FT.	NOTE P.O.C. SEQUENCE PER W.A.S.
AREA SERVED	1.3486 AC.FT./YR.	STD. DWG. WR-03.
MAWA	0.86904 AC.FT./YR.	
EWU	2"	
LATERAL- SEE CIVIL DWGS		

*CPF-1 LOCATED OF THE

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "S-1a"
SYSTEMS TO BE MAINTAINED BY SUB-ASSOCIATION

1.5" RECYCLED WATER METER
12 STATION CONTROLLER "S-1a"
STATIONS USED: 1-9 / OPEN STATIONS: 10-12
MODEL# SA6-RM20-12 / FSF-150P / RSE / LPP / GR-K
BY SITEONE GREEN TECH
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STATIC WATER PRESSURE	80.00 PSI	TEST STATION
REGULATED PRESSURE	67.92 PSI	1 1/2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	20 GPM	1-1/2" FLOW SENSOR
MAX. DEMAND	10,493 SQ. FT.	NOTE P.O.C. SEQUENCE PER W.A.S.
AREA SERVED	1.0222 AC.FT./YR.	STD. DWG. WR-03.
MAWA	0.6815 AC.FT./YR.	
EWU	2"	
LATERAL- SEE CIVIL DWGS		

S1a8 1½" 30.5
S1a9 1½" 30.5
S1b8 2" 45
S1b7 1½" 40
S1b6 2" 46
S1b5 1½" 32
S1b4 1½" 23
S1b3 1½" 34

CALLE CULTURA

CAMINO ALDEA

S-1

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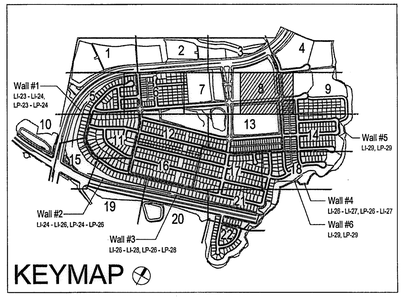

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DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.5 MILES EAST OF INTX. OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PTS 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE	
Horizontal	1" = 40'
Vertical	N/A

Office
Field
Traffic

Designed By	Drawn By	Checked By

Plans Prepared Under Supervision Of
Date / /
THOMAS A. PICARD R.L.A. No. 4001

Approved: Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE /IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 16
Sheet 16 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-8

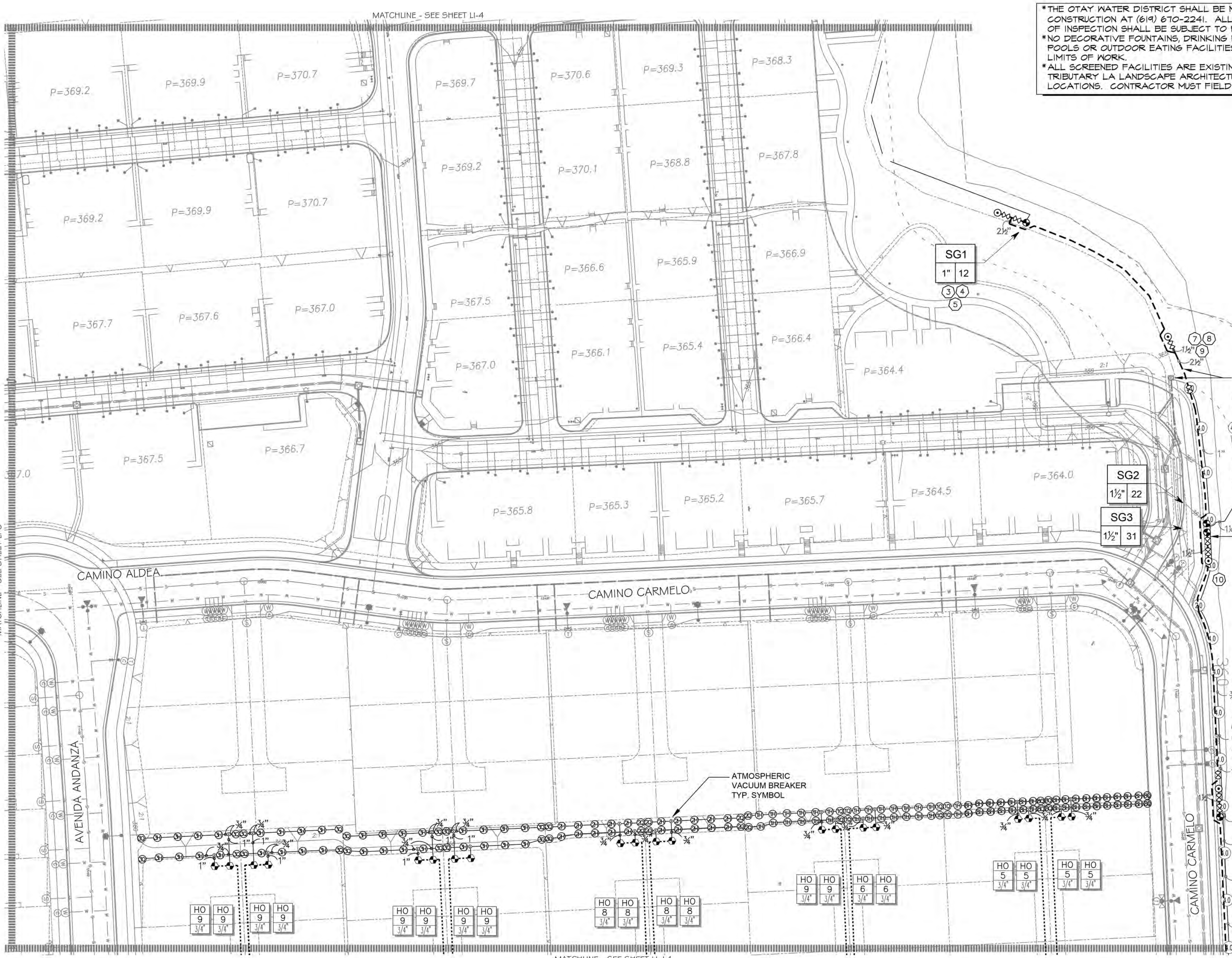
Otay Ranch, Village 3 - Slope & Erosion Control

OWD WO# D0944-060189 Print Date: 10 APR '17

LRWS# 2019-1134

Print Date: 24 APR '23

OWD WO# D0944-060189



- *THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
- *NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
- *ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

CONSTRUCTION NOTES:

1a IRRIGATION P.O.C. LOCATION SHOWN HAS BEEN COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THIS SERVICE, INSTALL BACKFLOW PREVENTION DEVICE, FLOW CONTROL AND MONITORING EQUIPMENT AND EXTEND SYSTEM AS SHOWN.

1b IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL B12 ON SHEET LI-32.

2a IRRIGATION CONTROLLER- 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL ROUTE POWER CABLE TO CONTROLLER IN PVC CONDUIT AND MAKE PERMANENT CONNECTION TO THE CONTROLLER. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.

2b IRRIGATION CONTROLLER - PRIVATE SYSTEMS. 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL INSTALL AN INDOOR IRRIGATION CONTROLLER AND A RAIN SENSOR. SEE DETAIL B12 ON SHEET LI-32. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.

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4 REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)

5 SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD IN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 4 VALVE BOXES IN ONE AREA. SEPARATE VALVE BOX GROUPS BY 4' MIN.

6 DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)PULL BOX- CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE PULL BOX AT ENDS OF SLEEVES. (TYP.)

7 ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.

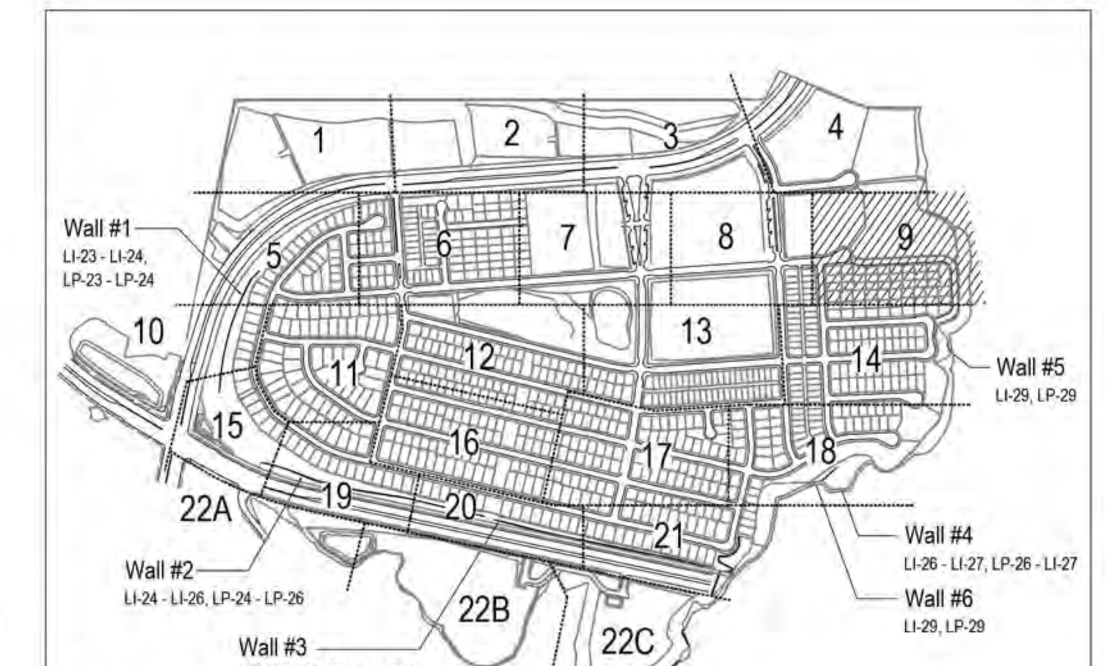
8 SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND. UNLESS NOTED OTHERWISE.

9 SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.

10 RADIUS AND NOZZLE REDUCTION- SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FILL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.

11 HUNTER PROS-00-PRS30 WITH HUNTER 5-FULL SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

12 LATERAL LINE DRAINAGE IS TO BE PREVENTED IN ALL CASES. SPRING AND/OR SWING CHECK VALVES SHALL BE INSTALLED UNDER ALL IRRIGATION HEADS AND IN LATERAL LINE RUNS OF ALL IRRIGATION SYSTEMS WHERE TOPOGRAPHY CAUSES AN ELEVATION DIFFERENCE OF 7 FEET OR GREATER.



KEYMAP

ALL BASE INFORMATION FOR THESE PLANS HAS BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND REFLECTS ARCHITECTURAL, CIVIL AND/OR MECHANICAL DESIGN AND/OR PLANS. THE LANDSCAPE ARCHITECT OR IRRIGATION CONSULTANT DEPENDS ON ACCURACY OF THIS OBTAINED INFORMATION. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

UTILITY LEGEND (PER CIVIL PLANS)

DOMESTIC WATERLINE (PER CIVIL PLANS)	BLOWOFF VALVE
DOMESTIC SEWERLINE (PER CIVIL PLANS)	AIR RELEASE VALVE
RECYCLED WATERLINE (PER CIVIL PLANS)	FIRE HYDRANT
STORM DRAINS (PER CIVIL PLANS)	TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
	CATHODIC TEST STATION (PER CIVIL PLANS)
	STREET LIGHT

0' 20' 40' 80'

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE: 5/10/19
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: 4/24/23
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT
REGIST. EXP. 9/30/23

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — Signature — 9/30/23 Renewal Date — 4/24/23 Date — CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	24 APR '23
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	A ADD SHUT OFF VALVES.	7/3/16	OSM/MR
Inspector			B ADJUST IRRIGATION FOR FUEL MOD AREAS.	5-18-19 5-22-19	OSM / MC
Date Completed					

BENCH MARK
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SCALE
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Vertical N/A

Office
Field
Traffic

Designed By	Drawn By	Checked By
Plans Prepared Under Supervision Of THOMAS A. PICARD	Date 4/24/23	R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. **16050 - 17**
Sheet 17 of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-9

Otay Ranch, Village 3 - Slope & Erosion Control

LRWS# 2019-1134

Print Date: 24 APR '23

OWD WO# D0944-060189

Otay Ranch, Village 3 - Slope & Erosion Control

UTILITY LEGEND (PER CIVIL PLANS)

DOMESTIC WATERLINE (PER CIVIL PLANS)
DOMESTIC SEWERLINE (PER CIVIL PLANS)
RECYCLED WATERLINE (PER CIVIL PLANS)
STORM DRAINS (PER CIVIL PLANS)
BLOWOFF VALVE
AIR RELEASE VALVE
FIRE HYDRANT
TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
CATHODIC TEST STATION (PER CIVIL PLANS)
STREET LIGHT

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11. RAINBIRD SQ-F SERIES MICRO SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

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SB3 1½" 28 (3,4,5)
SB4 1½" 32
SB5 1½" 36
SB6 1½" 46
SB7 1½" 46
SB8 1½" 39
SB9 1½" 20
SB10 1½" 20
SB11 1½" 30.0
SB12 1½" 33
SB13 1½" 38
SB15 1½" 29
SB14 1½" 21
SB16 1" 32 (3,4,5)
SB17 1" 21
SB18 1½" 35
SB19 1½" 31
SB20 1½" 27
SB21 1½" 18 TREE1
BB.33 1" 24
BB.32 1" 23
BB.31 1½" 29 ADDED RCV
BB.30 1½" 29 ADDED RCV
BB.29 1½" 32 ADDED RCV
BB.28 1½" 32 ADDED RCV
BB.26 1½" 52
BB.24 1" 8
BB.20 1" 21
BB.21 1" 29
BB.22 1" 15
BB.23 1" 7 TREE1
BB.25 2" 53
BB.27 2" 53
SC31 1" 10 TREES
SC10 2" 60
SC11 2" 54
SC12 2" 48
SC13 1½" 40

Irrigation mainline to be located 12" from back of Main Street trail.

IRRIGATION MAINLINE AND CONTROLLER WIRE SLEEVES TO CONTINUE THRU THE CFD LANDSCAPE.

MATCHLINE - SEE SHEET LI-5
MATCHLINE - SEE SHEET LI-1
MATCHLINE - SEE SHEET LI-5
MATCHLINE - SEE SHEET LI-5

HERITAGE ROAD
CAMINO CANTERA
MAIN STREET

0' 20' 40' 80'

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VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "SB"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

1-1/2" RECYCLED WATER METER
32 STATION CONTROLLER "SB"
STATIONS USED: 3-25 / OPEN STATIONS: 1,3 & 26-32
MODEL# SA6-RM2-32 / FSF-150B / 5YR / PMR-CAC / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		
METER LOCATION- STAT.PT.	HERITAGE RD. 14+00	POC EQUIPMENT
POC ELEVATION	173.00 FT.	1 1/2" WYE STRAINER
PRESSURE ZONE	680.00 FT.	1 1/2" CHECK VALVE
STATIC WATER PRESSURE	219.53 PSI	1 1/2" PRESSURE REGULATOR
REGULATED PRESSURE	100.00 PSI	TEST STATION
MIN. PRESSURE REQUIRED	83.41 PSI	1 1/2" MASTER CONTROL VALVE
MAX. DEMAND	48 GPM	1 1/2" FLOW SENSOR
AREA SERVED	111,388 SQ. FT.	NOTE: P.O.C. SEQUENCE PER W.A.S.
MAWA	10.8513 AC.FT./YR.	STD. DWG. WR-03.
EWU	7.2342 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	

VILLAGE 3 EROSION CONTROL
DETANTION BASIN SLOPES IRRIGATION POC "BB"
SYSTEMS TO BE MAINTAINED BY MASTER ASSOCIATION

1-1/2" RECYCLED WATER METER
32 STATION CONTROLLER "BB"
STATIONS USED: 1-26 / OPEN STATIONS: 27-32
MODEL# SA6-RM20-32 / FSF-150P / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		
METER LOCATION- STAT.PT.	HERITAGE RD. 11+50	POC EQUIPMENT
POC ELEVATION	155.00 FT.	1-1/2" WYE STRAINER
PRESSURE ZONE	680.00 FT.	1-1/2" CHECK VALVE
STATIC WATER PRESSURE	227.33 PSI	1-1/2" PRESSURE REGULATOR
REGULATED PRESSURE	85.00 PSI	TEST STATION
MIN. PRESSURE REQUIRED	73.60 PSI	1-1/2" MASTER CONTROL VALVE
MAX. DEMAND	53 GPM	1 1/2" FLOW SENSOR
AREA SERVED	104,139 SQ. FT.	NOTE: P.O.C. SEQUENCE PER W.A.S.
MAWA	10.1451 AC.FT./YR.	STD. DWG. WR-03.
EWU	8.9777 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	

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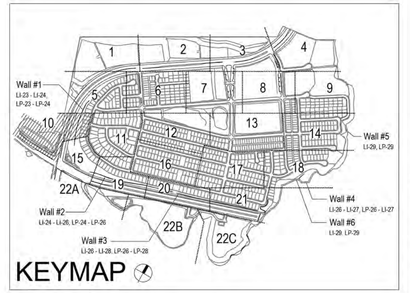

System BB Mainline & Control Wire Notes

13. System BB is a Master Home Owner maintained irrigation system, servicing the water quality basins
- System BB permanently services the irrigation systems servicing the water quality basins, located on the north side of Main Street
- System BB also temporarily services the irrigation systems servicing the water quality basins, located on the south side of Main Street

14. Prior to the initiation of the Main Street parkway landscape improvements:
- System BB irrigation improvements located within the Main Street south parkway shall be cut, capped & removed. This includes:
  - Cutting & capping the mainline & control wires, located on the north side of Main Street a minimum of 24" from the end of the sleeve.
  - Cutting & removing all mainline & control wires, located on the south side of Main Street & within the future CFD area
  - Cap both ends of both sleeves that cross under Main Street.
- Water service to the south water quality basin shall be concurrently connected to a temporary construction meter, until such a time the Water District & Department of Environmental Health approves the installation of the final water meter, that will permanently service the south water quality basin & any other Master Home Owner Association improvements

15. All Master Home Owner Association piping or control wire, must be 100% encased in sleeves, where located in a CFD open-space area.

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: 10-22-19 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 4/24/23
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT
REGIST. EXP. 9/30/23

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UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 9/30/23 — CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE: 24 APR '23
SCALE: 1" = 40'
JOB NO. 15024
DRAWN BY: T.P. / T.G.M.
W.O. NO. OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.
Inspector		
Date Completed		

REVISIONS	Date	App'd
1 ADD SHUTOFF VALVES	7/3/18	
2 ADDED METHANE PAD, TREES, NOTES & IRRIGATION.	5-23-19	
3 ADD IRRIG. ON MAIN; ADJ. IRRIG FOR RECONFIGURE WALL MONUMENT & CONVERT CFD SYSTEMS TO HOA	10-25-19	
4 ADJ IRRIG. FOR REMOVAL OF PAD		

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

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Horizontal	1" = 40'
Vertical	N/A

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Field
Traffic

Designed By | Drawn By | Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 4/24/23
R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 18
Sheet 18 of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-10

CONSTRUCTION NOTES:

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2. IRRIGATION CONTROLLER - PRIVATE SYSTEMS. 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL INSTALL AN INDOOR IRRIGATION CONTROLLER AND A RAIN SENSOR. SEE DETAIL BI2 ON SHEET LI-32. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.
3. LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR USG-FMS. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE APPROXIMATELY AS SHOWN 12" TO 18" FROM BACK OF CURB OR WALK.
4. REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)
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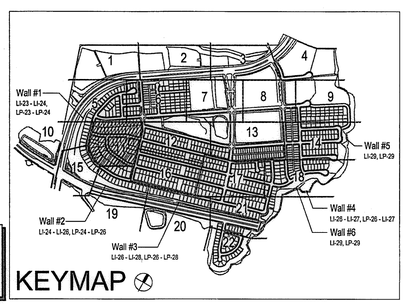
6. DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)FULL BOX- CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE FULL BOX AT ENDS OF SLEEVES. (TYP.)
7. ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.
8. SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND. UNLESS NOTED OTHERWISE.
9. SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.
10. RADIUS AND NOZZLE REDUCTION- SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FILL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.
11. HUNTER PROS-00-PRS30 WITH HUNTER 5-FULL SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.
12. LATERAL LINE DRAINAGE IS TO BE PREVENTED IN ALL CASES. SPRING AND/OR SWING CHECK VALVES SHALL BE INSTALLED UNDER ALL IRRIGATION HEADS AND IN LATERAL LINE RUNS OF ALL IRRIGATION SYSTEMS WHERE TOPOGRAPHY CAUSES AN ELEVATION DIFFERENCE OF 7 FEET OR GREATER.

UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
- DOMESTIC SEWERLINE (PER CIVIL PLANS)
- RECYCLED WATERLINE (PER CIVIL PLANS)
- STORM DRAINS (PER CIVIL PLANS)
- BLOWOFF VALVE
- AIR RELEASE VALVE
- FIRE HYDRANT
- TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
- CATHODIC TEST STATION (PER CIVIL PLANS)
- STREET LIGHT

0' 20' 40' 80'

FOR IRRIGATION LEGEND SEE SHEET LI-30.
FOR IRRIGATION NOTES AND DETAILS SEE SHEETS LI-31.
FOR IRRIGATION DETAILS SEE SHEETS LI-32 THRU LI-37.
FOR WATER PRESSURE CALCULATIONS SEE SHEETS LI-38 AND LI-39
FOR SCHEDULING GUIDELINES SEE SHEETS LI-40 THRU LI-41.
FOR IRRIGATION SPECS SEE SHEETS LI-42 THRU LI-44.



KEYMAP

- *THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
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OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/11/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG! CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING 1-800-227-2600 UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 9/5/17 — CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: .5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF MONUMENT 10" HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PID# 1359 PER R.O.S. 4841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 40' Vertical N/A
Office ____ Field ____ Traffic ____
Designed By ____ Drawn By ____ Checked By ____
Plans Prepared Under Supervision Of ____ Date ____/____/____
THOMAS A. PICARD R.L.A. No. 4001

Approved: Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 19
Sheet 19 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-11

Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
Print Date: 10 APR '17

CONSTRUCTION NOTES:

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UTILITY LEGEND (PER CIVIL PLANS)

DOMESTIC WATERLINE (PER CIVIL PLANS)	W	BLOWOFF VALVE	
DOMESTIC SEWERLINE (PER CIVIL PLANS)	S	AIR RELEASE VALVE	
RECYCLED WATERLINE (PER CIVIL PLANS)	RW	FIRE HYDRANT	
STORM DRAINS (PER CIVIL PLANS)		TRACER WIRE ACCESS POINT (PER CIVIL PLANS)	T
		CATHODIC TEST STATION (PER CIVIL PLANS)	C
		STREET LIGHT	

0' 20' 40' 80'

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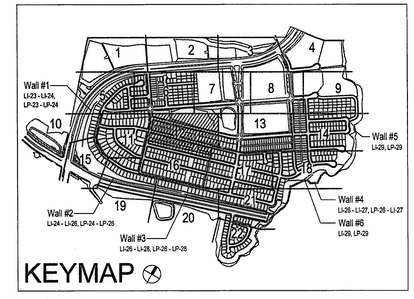

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OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG! CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING 1-800-227-2600 UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
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"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 9/15/17 CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE: 10 APR '17
SCALE: 1" = 40'
JOB NO. 15024
DRAWN BY: T.P. / T.G.
W.O. NO. OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.5 MILES EAST OF INTX. OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 40' Vertical N/A
Office ____ Field ____ Traffic ____
Designed By ____ Drawn By ____ Checked By ____
Plans Prepared Under Supervision Of ____ Date ____ / ____ / ____
THOMAS A. PICARD R.L.A. No. 4001

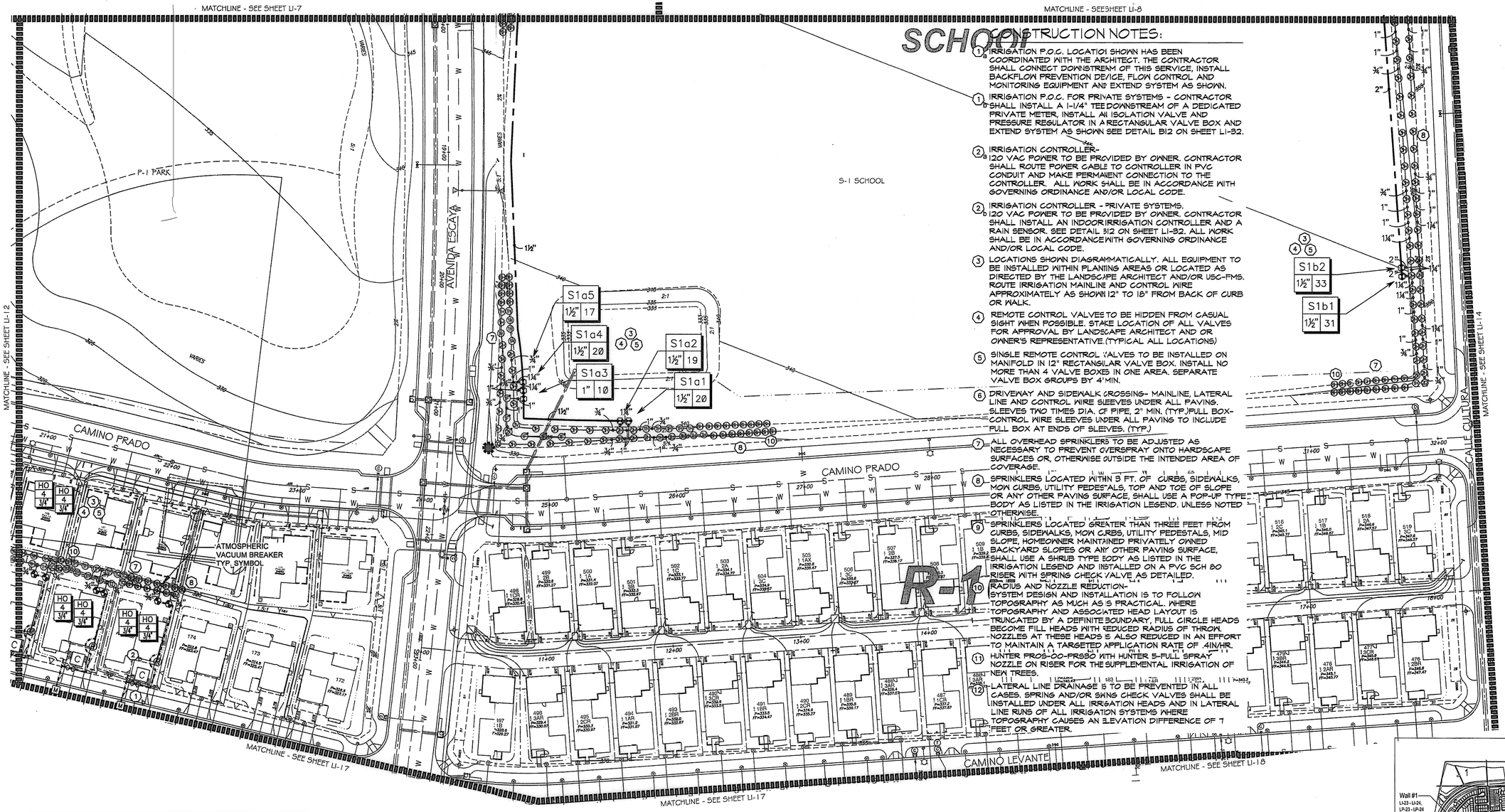
Approved: Kelly Broughton Date: 5-15-17
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 20
Sheet 20 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-12

Print Date: 10 APR '17
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



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- DOMESTIC SEWERLINE (PER CIVIL PLANS) — S
- RECYCLED WATERLINE (PER CIVIL PLANS) — RW
- STORM DRAINS (PER CIVIL PLANS)
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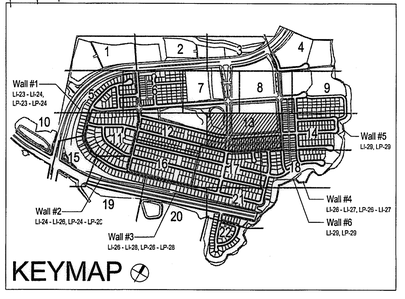

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
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REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — CALIFORNIA — 9/5/17

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2725 Jefferson Street, Suite 14
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Office ____ Field ____ Traffic ____

Designed By ____ Drawn By ____ Checked By ____

Plans Prepared Under Supervision Of ____ Date ____ / ____ / ____
THOMAS A. PICARD R.L.A. No. 4001

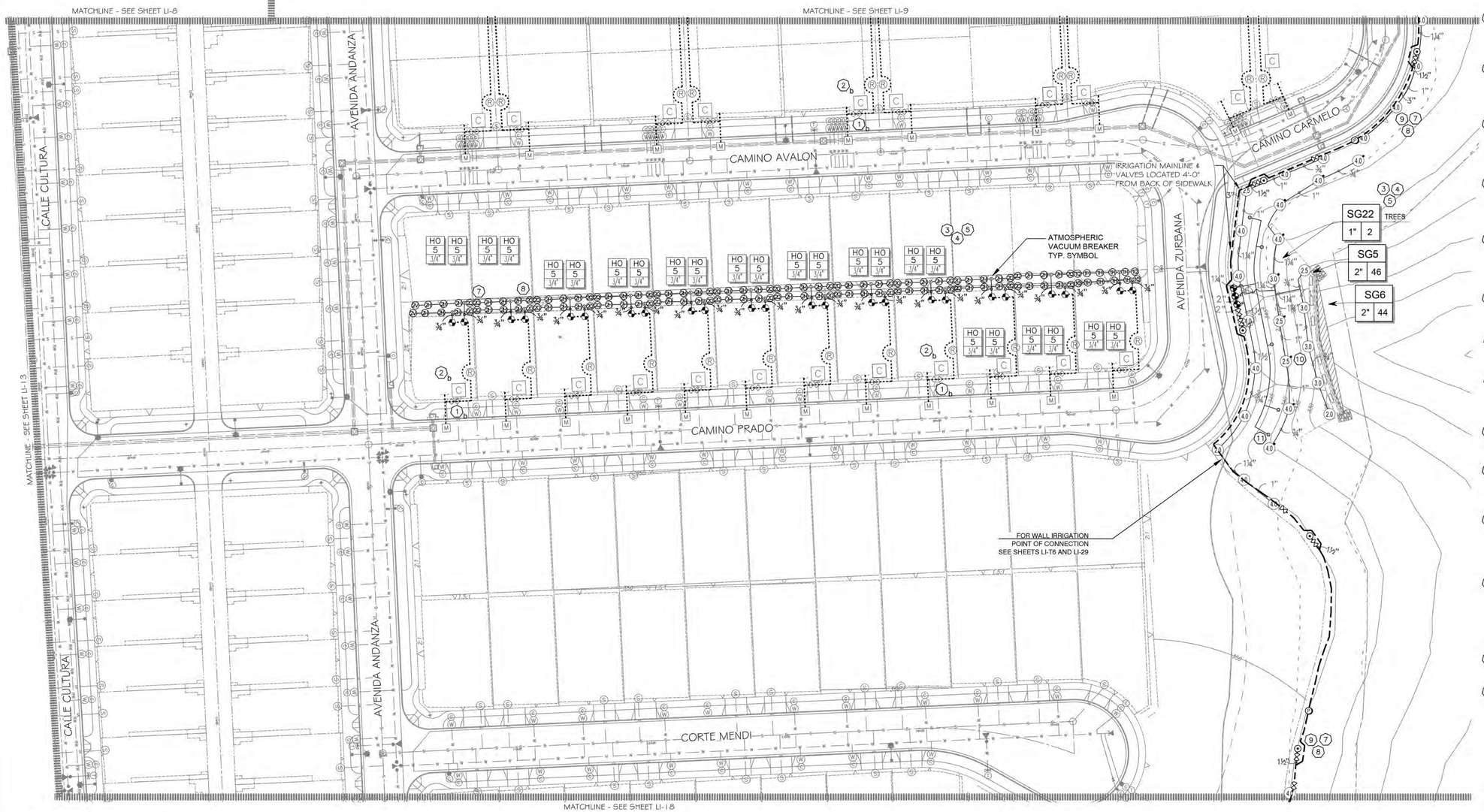
Approved: Nancy Madsen Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 21
Sheet 21 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-13

Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
Print Date: 10 APR '17

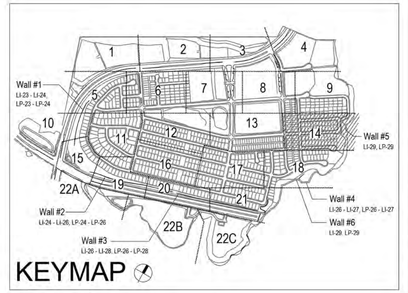


CONSTRUCTION NOTES:

1. a IRRIGATION P.O.C. LOCATION SHOWN HAS BEEN COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THIS SERVICE, INSTALL BACKFLOW PREVENTION DEVICE, FLOW CONTROL AND MONITORING EQUIPMENT AND EXTEND SYSTEM AS SHOWN.
1. b IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL BI2 ON SHEET LI-32.
2. a IRRIGATION CONTROLLER- 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL ROUTE POWER CABLE TO CONTROLLER IN PVC CONDUIT AND MAKE PERMANENT CONNECTION TO THE CONTROLLER. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.
2. b IRRIGATION CONTROLLER - PRIVATE SYSTEMS. 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL INSTALL AN INDOOR IRRIGATION CONTROLLER AND A RAIN SENSOR. SEE DETAIL BI2 ON SHEET LI-32. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.
3. LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR USC-FMS. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE APPROXIMATELY AS SHOWN 12" TO 18" FROM BACK OF CURB OR WALK.
4. REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)
5. SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD IN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 4 VALVE BOXES IN ONE AREA. SEPARATE VALVE BOX GROUPS BY 4' MIN.
6. DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)PULL BOX- CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE PULL BOX AT ENDS OF SLEEVES. (TYP.)
7. ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.
8. SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND. UNLESS NOTED OTHERWISE.
9. SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.
10. RADIUS AND NOZZLE REDUCTION- SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FILL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.
11. HUNTER PROS-00-PRS30 WITH HUNTER 5-FULL SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.
12. LATERAL LINE DRAINAGE IS TO BE PREVENTED IN ALL CASES. SPRING AND/OR SWING CHECK VALVES SHALL BE INSTALLED UNDER ALL IRRIGATION HEADS AND IN LATERAL LINE RUNS OF ALL IRRIGATION SYSTEMS WHERE TOPOGRAPHY CAUSES AN ELEVATION DIFFERENCE OF 7 FEET OR GREATER.

UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
- DOMESTIC SEWERLINE (PER CIVIL PLANS)
- RECYCLED WATERLINE (PER CIVIL PLANS)
- STORM DRAINS (PER CIVIL PLANS)
- BLOWOFF VALVE
- AIR RELEASE VALVE
- FIRE HYDRANT
- TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
- CATHODIC TEST STATION (PER CIVIL PLANS)
- STREET LIGHT



ALL BASE INFORMATION FOR THESE PLANS HAS BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND REFLECTS ARCHITECTURAL, CIVIL AND/OR MECHANICAL DESIGN AND/OR PLANS. THE LANDSCAPE ARCHITECT OR IRRIGATION CONSULTANT DEPENDS ON ACCURACY OF THIS OBTAINED INFORMATION. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

0' 20' 40' 80'

*THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
*ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No.2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE: 5/10/19
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 4/24/23
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/23

IT'S THE LAW! DIAL BEFORE YOU DIG! CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING 1-800-227-2600 UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD No. 4001 9/30/23 Renewal Date 4/24/23 CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	24 APR '23
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	1 ADD SHUT OFF VALVES.	7/3/18	DWMR
Inspector			2 ADJUST IRRIGATION TO FUEL MOD AREAS.	6/28/19	BSM
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT # 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

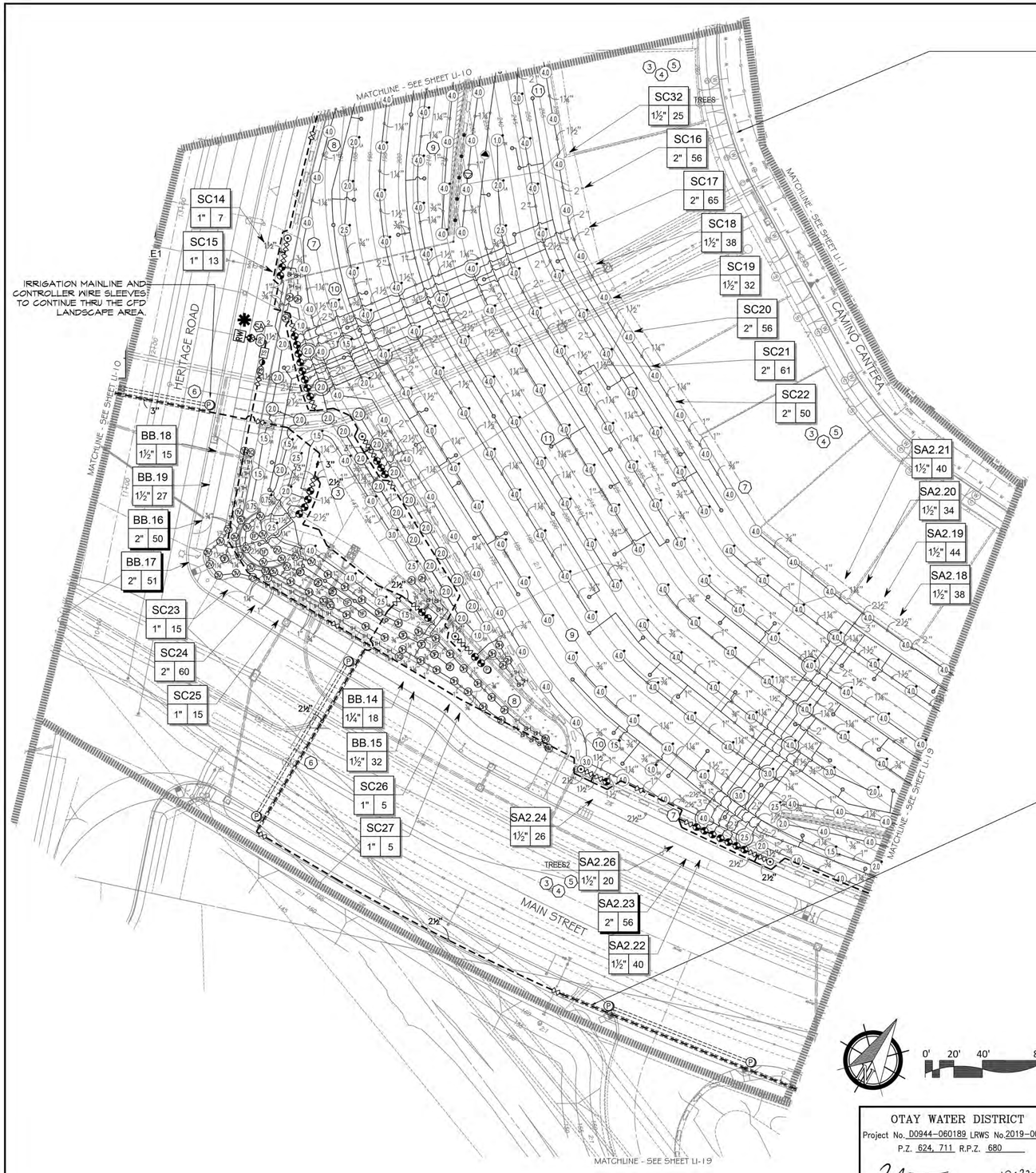
SCALE: Horizontal 1" = 40' Vertical N/A
Office ____ Field ____ Traffic ____
Designed By ____ Drawn By ____ Checked By ____
Plans Prepared Under Supervision Of THOMAS A. PICARD Date 4/24/23 R.L.A. No. 4001
Plans Originally Approved: 5-15-17
Approved: ____ Date: ____
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 22
Sheet 22 of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-14

LRWS# 2019-1134
Print Date: 24 APR '23
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



0' 20' 40' 80'

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "SA2"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

1-1/2" RECYCLED WATER METER
32 STATION CONTROLLER "SA2"
STATIONS USED: 1-25 / OPEN STATIONS: 26-32
MODEL# SA6-RM2-32 / FSF-150B / SYR / PMR-CAC / RSE / LFP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		
METER LOCATION- STAT.PT.	HERITAGE RD. 12+20	POC EQUIPMENT
POC ELEVATION	158.00 FT.	1-1/2" WYE STRAINER
PRESSURE ZONE	680.00 FT.	1-1/2" CHECK VALVE
STATIC WATER PRESSURE	226.03 PSI	1-1/2" PRESSURE REGULATOR
REGULATED PRESSURE	110.00 PSI	TEST STATION
MIN. PRESSURE REQUIRED	103.38 PSI	1-1/2" MASTER CONTROL VALVE
MAX. DEMAND	56 GPM	1-1/2" FLOW SENSOR
AREA SERVED	159.644 SQ. FT.	NOTE: P.O.C. SEQUENCE PER W.A.S.
MAWA	15.5523 AC.FT./YR.	STD. DWG. WR-03.
EWU	10.3882 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	

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FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

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System BB Mainline & Control Wire Notes

(13) System BB is a Master Home Owner maintained irrigation system, servicing the water quality basins.
- System BB permanently services the irrigation systems servicing the water quality basins, located on the north side of Main Street
- System BB also temporarily services the irrigation systems servicing the water quality basins, located on the south side of Main Street

(14) Prior to the initiation of the Main Street parkway landscape improvements:
- System BB irrigation improvements located within the Main Street south parkway shall be cut, capped & removed. This includes:
  - ☐ Cutting & capping the mainline & control wires, located on the north side of Main Street a minimum of 24" from the end of the sleeve.
  - ☐ Cutting & removing all mainline & control wires, located on the south side of Main Street & within the future CFD area
  - ☐ Cap both ends of both sleeves that cross under Main Street.
- Water service to the south water quality basin shall be concurrently connected to a temporary construction meter, until such a time the Water District & Department of Environmental Health approves the installation of the final water meter, that will permanently service the south water quality basin & any other Master Home Owner Association improvements

(15) All Master Home Owner Association piping or control wire, must be 100% encased in sleeves, where located in a CFD open-space area.

UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
- DOMESTIC SEWERLINE (PER CIVIL PLANS)
- RECYCLED WATERLINE (PER CIVIL PLANS)
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- AIR RELEASE VALVE
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- TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
- CATHODIC TEST STATION (PER CIVIL PLANS)
- STREET LIGHT

CONSTRUCTION NOTES:

(1a) IRRIGATION P.O.C. LOCATION SHOWN HAS BEEN COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THIS SERVICE, INSTALL BACKFLOW PREVENTION DEVICE, FLOW CONTROL AND MONITORING EQUIPMENT AND EXTEND SYSTEM AS SHOWN.

(1b) IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL BI2 ON SHEET LI-32.

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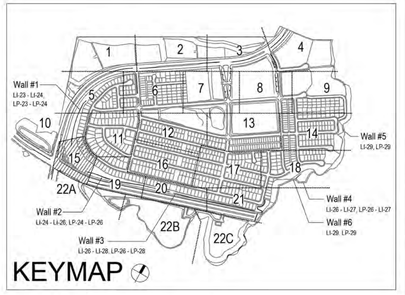


OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE: 10-22-19
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 4/24/23
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/23

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — CALIFORNIA — 9/30/23

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	24 APR '23
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	⚠ ADD SHUTOFF VALVES	7/3/16	
Inspector			⚠ ADDED NOTE FOR MAINLINE LOCATION ALONG MAIN STREET	8-3-16	
Date Completed			⚠ REPLACE DRIP IRRIGATION FOR OVERHEAD SPRAY AT RECONFIGURE MONUMENT WALLS	10-5-17	

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 40' / Vertical N/A

Office ____ Field ____ Traffic ____

Designed By	Drawn By	Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 4/24/23
R.L.A. No. 4001

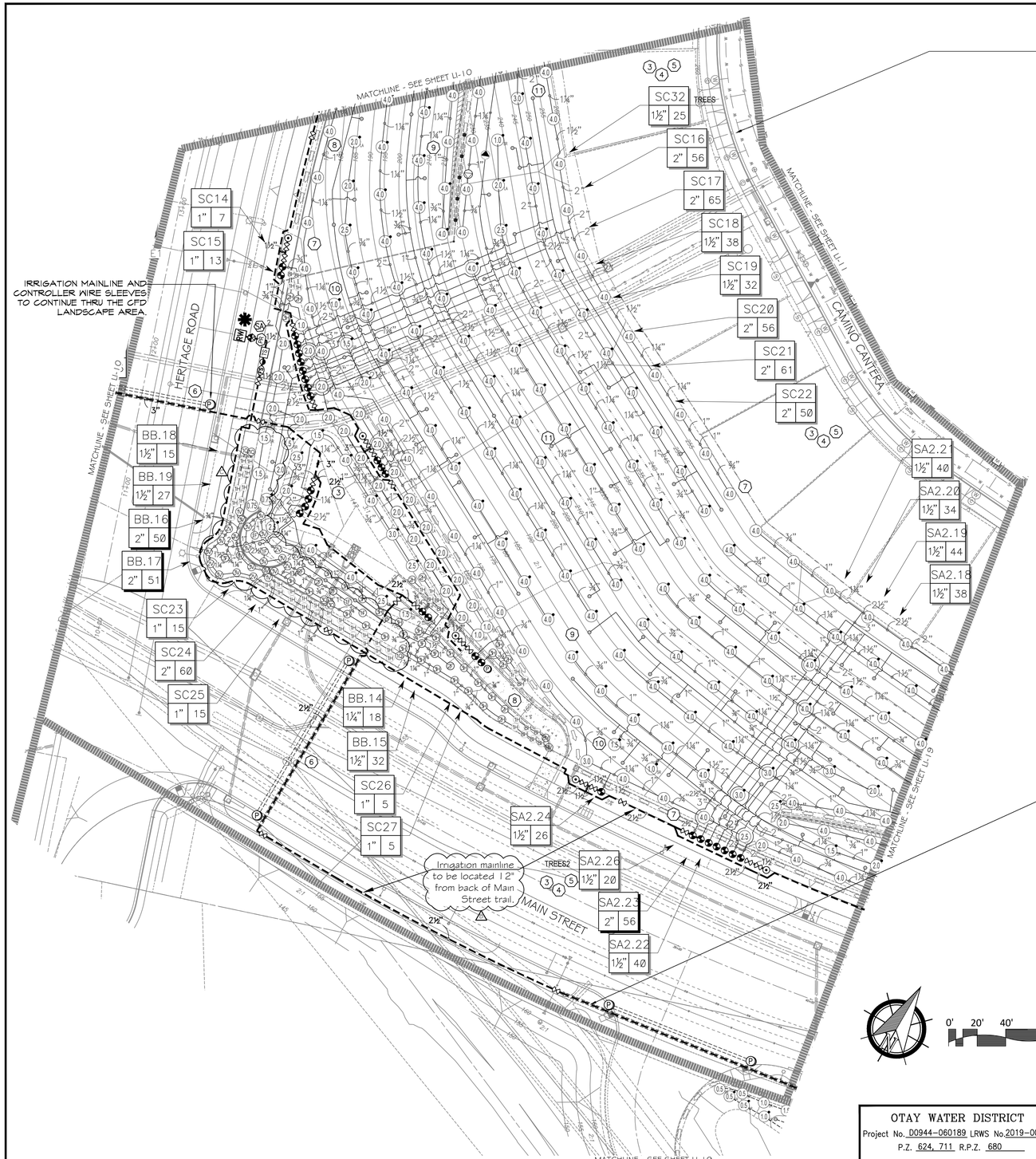
Plans Originally Approved: 5-15-17
Approved: ____ Date: ____
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. **16050 - 23**
Sheet 23 of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-15

LRWS# 2019-1134
Print Date: 24 APR '23
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "SA1"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

1-1/2" RECYCLED WATER METER
32 STATION CONTROLLER "SA2"
STATIONS USED: 1-25 / OPEN STATIONS: 26-32
MODEL# SA6-RM2-32 / FSF-150B / SYR / PMR-CAC / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		
METER LOCATION- STAT.PT.	HERITAGE RD. 12+20	POC EQUIPMENT
POC ELEVATION	158.00 FT.	1-1/2" WYE STRAINER
PRESSURE ZONE	680.00 FT.	1-1/2" CHECK VALVE
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AREA SERVED	159,644 SQ. FT.	NOTE: P.O.C. SEQUENCE PER W.A.S.
MAWA	15.5523 AC.FT./YR	STD. DWG. WR-03.
EWU	10.3882 AC.FT./YR	
LATERAL- SEE CIVIL DWGS		

PREVIOUS LOCATION OF P.O.C. "S1" CALL OUT, FOR NEW METER AND IRRIGATION CONTROLLER CALL OUT SEE SHEET LI-20

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    - System BB irrigation improvements located within the Main Street south parkway shall be cut, capped & removed. This includes:
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- RECYCLED WATERLINE (PER CIVIL PLANS)
- STORM DRAINS (PER CIVIL PLANS)
- BLOWOFF VALVE
- AIR RELEASE VALVE
- FIRE HYDRANT
- TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
- CATHODIC TEST STATION (PER CIVIL PLANS)
- STREET LIGHT

CONSTRUCTION NOTES:

1a. IRRIGATION P.O.C. LOCATION SHOWN HAS BEEN COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THIS SERVICE, INSTALL BACKFLOW PREVENTION DEVICE, FLOW CONTROL AND MONITORING EQUIPMENT AND EXTEND SYSTEM AS SHOWN.

1b. IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL BI2 ON SHEET LI-32.

2a. IRRIGATION CONTROLLER- 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL ROUTE POWER CABLE TO CONTROLLER IN PVC CONDUIT AND MAKE PERMANENT CONNECTION TO THE CONTROLLER. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.

2b. IRRIGATION CONTROLLER - PRIVATE SYSTEMS. 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL INSTALL AN INDOOR IRRIGATION CONTROLLER AND A RAIN SENSOR. SEE DETAIL BI2 ON SHEET LI-32. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.

3. LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR USC-FMS. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE APPROXIMATELY AS SHOWN 12" TO 18" FROM BACK OF CURB OR WALK.

4. REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)

5. SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD IN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 4 VALVE BOXES IN ONE AREA. SEPARATE VALVE BOX GROUPS BY 4' MIN.

6. DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)FULL BOX-CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE FULL BOX AT ENDS OF SLEEVES. (TYP.)

7. ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.

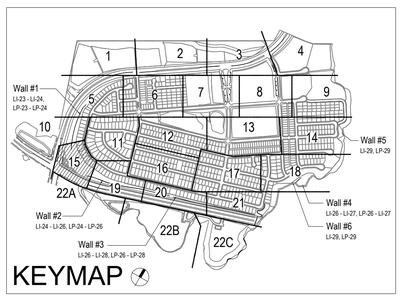
8. SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND, UNLESS NOTED OTHERWISE.

9. SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.

10. RADIUS AND NOZZLE REDUCTION- SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FILL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.

11. HUNTER PROS-00-PRS30 WITH HUNTER 5-FULL SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

12. LATERAL LINE DRAINAGE IS TO BE PREVENTED IN ALL CASES. SPRING AND/OR SWING CHECK VALVES SHALL BE INSTALLED UNDER ALL IRRIGATION HEADS AND IN LATERAL LINE RUNS OF ALL IRRIGATION SYSTEMS WHERE TOPOGRAPHY CAUSES AN ELEVATION DIFFERENCE OF 7 FEET OR GREATER.



OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — CALIFORNIA — 9/30/23 Renewal Date — 5/23/22 Date

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	⚠ 23 MAY '22
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	⚠ ADD SHUTOFF VALVES	7/3/18	
Inspector			⚠ ADDED NOTE FOR MAINLINE LOCATION ALONG MAIN STREET	5/23/22	
Date Completed			⚠ REPLACE DRIP IRRIGATION FOR OVERHEAD SPRAY AT RECONFIGURE MONUMENT WALLS.	10/25/23	
			⚠ RELOCATE METER 'S1' TO MAIN STREET		

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (FT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE
Horizontal 1" = 40'
Vertical N/A

Office ____
Field ____
Traffic ____

Designed By	Drawn By	Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date ___/___/___
R.L.A. No. 4001

Plans Originally Approved: 5-15-17

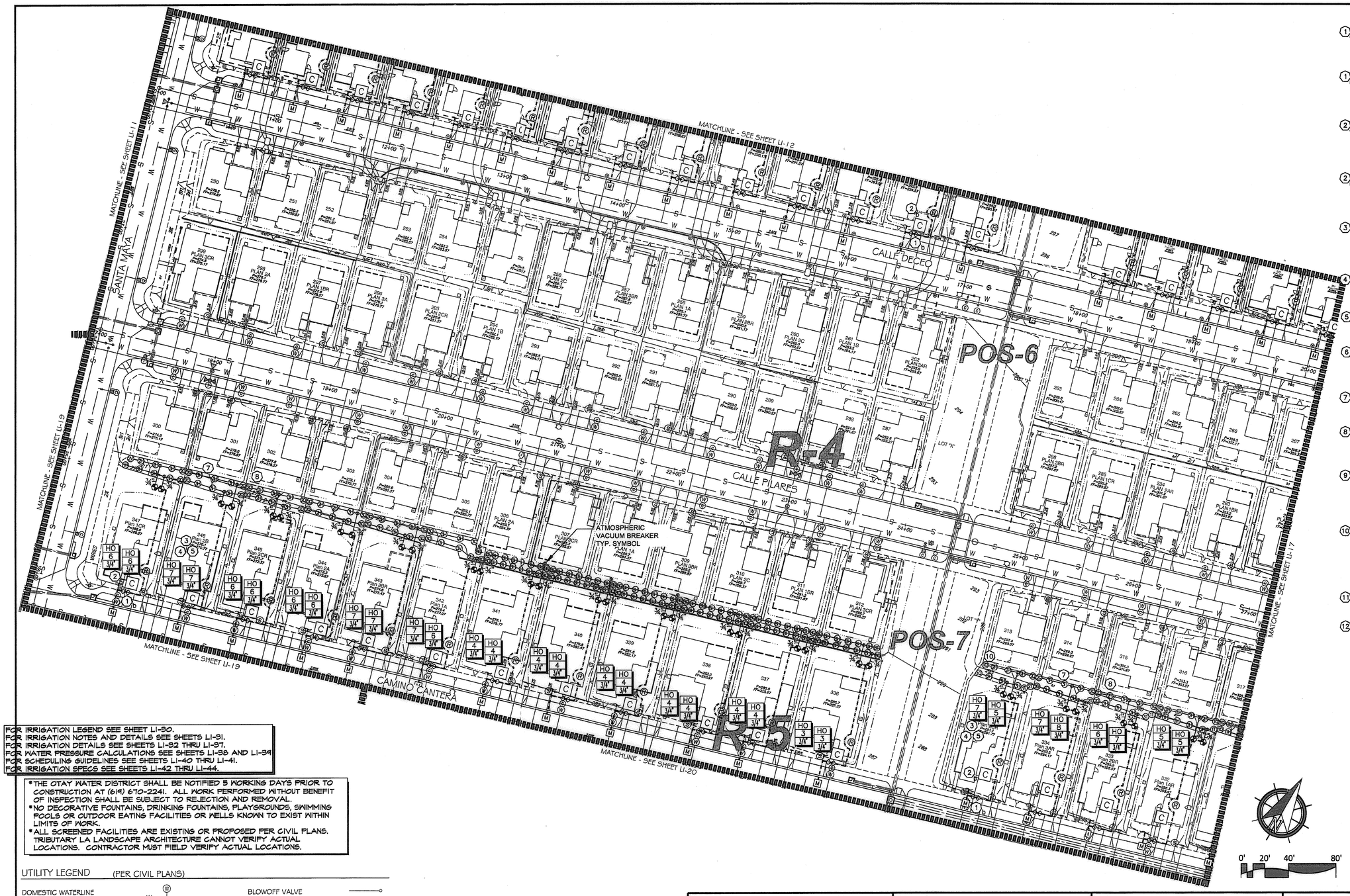
Approved: _____ Date: _____
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. **16050 - 23**
Sheet 23 of 88

⚠ REPLACEMENT SHEET

LRWS# 2016-625
Print Date: 23 MAY '22
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



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FOR IRRIGATION DETAILS SEE SHEETS LI-32 THRU LI-37.
FOR WATER PRESSURE CALCULATIONS SEE SHEETS LI-38 AND LI-39
FOR SCHEDULING GUIDELINES SEE SHEETS LI-40 THRU LI-41.
FOR IRRIGATION SPECS SEE SHEETS LI-42 THRU LI-44.

- THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
- NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
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UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS) — W
- DOMESTIC SEWERLINE (PER CIVIL PLANS) — S
- RECYCLED WATERLINE (PER CIVIL PLANS) — RW
- STORM DRAINS (PER CIVIL PLANS)
- BLOWOFF VALVE
- AIR RELEASE VALVE
- FIRE HYDRANT
- TRACER WIRE ACCESS POINT (PER CIVIL PLANS) — T
- CATHODIC TEST STATION (PER CIVIL PLANS) — C
- STREET LIGHT

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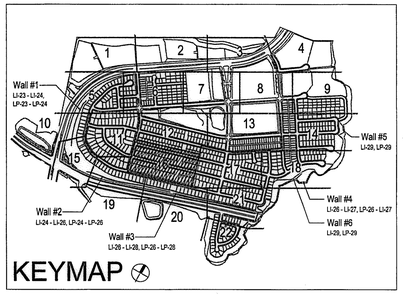


KEYMAP

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
RZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG! CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING 1-800-227-2600 UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 9/5/17 — 4001 — CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-30016

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF MONUMENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PTI 1359 PER R.O.S. 14841) ELEV=829.319' (NAVD'88)

SCALE: Horizontal 1" = 40' Vertical N/A
Office ____ Field ____ Traffic ____
Designed By ____ Drawn By ____ Checked By ____
Plans Prepared Under Supervision Of ____ Date ____
THOMAS A. PICARD R.L.A. No. 4001

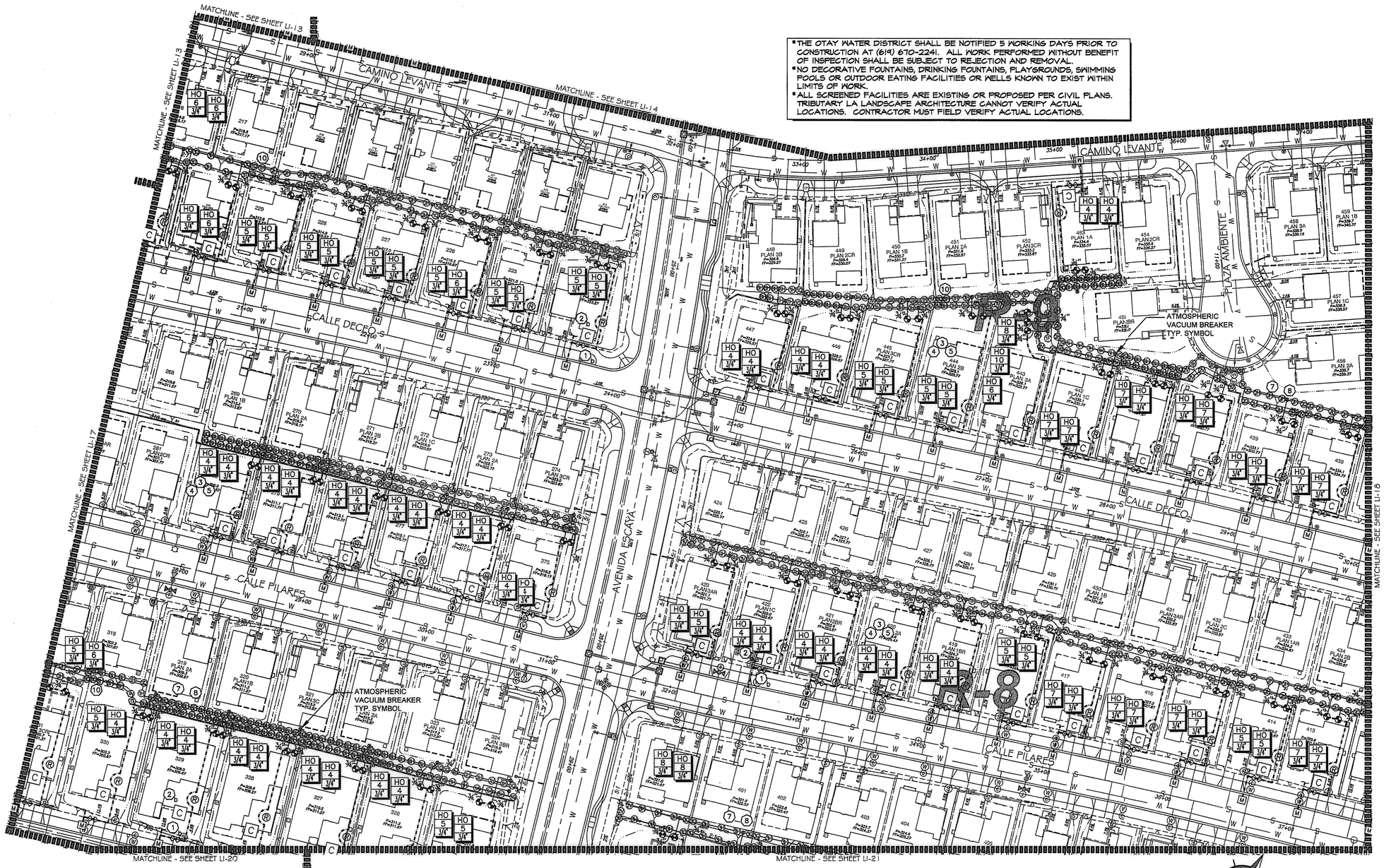
Approved: Kelly Broughton Date: 5-15-17
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 24
Sheet 24 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-16

Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
Print Date: 10 APR '17



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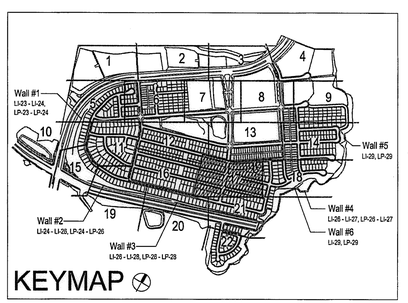

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UTILITY LEGEND (PER CIVIL PLANS)

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OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
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760.434.9300 office
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Inspector		
Date Completed		

REVISIONS	Date	App'd

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Office ____ Field ____ Traffic ____

Designed By ____ Drawn By ____ Checked By ____

Plans Prepared Under Supervision Of ____ Date ____
THOMAS A. PICARD R.L.A. No. 4001

Approved: ____ Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 25
Sheet 25 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-17

Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
Print Date: 10 APR '17

CONSTRUCTION NOTES:

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1. IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL B12 ON SHEET LI-39.
2. IRRIGATION CONTROLLER- 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL ROUTE POWER CABLE TO CONTROLLER IN PVC CONDUIT AND MAKE PERMANENT CONNECTION TO THE CONTROLLER. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.
2. IRRIGATION CONTROLLER - PRIVATE SYSTEMS. 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL INSTALL AN INDOOR IRRIGATION CONTROLLER AND A RAIN SENSOR. SEE DETAIL B12 ON SHEET LI-39. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.
3. LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR USC-FMS. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE APPROXIMATELY AS SHOWN 12" TO 18" FROM BACK OF CURB OR WALK.
4. REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)
5. SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD IN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 4 VALVE BOXES IN ONE AREA. SEPARATE VALVE BOX GROUPS BY 4' MIN.
6. DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)FULL BOX- CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE PULL BOX AT ENDS OF SLEEVES. (TYP.)
7. ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.
8. SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND. UNLESS NOTED OTHERWISE.
9. SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.
10. RADIUS AND NOZZLE REDUCTION- SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FILL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.
11. RAINBIRD SQ-F SERIES MICRO SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

ALL BASE INFORMATION FOR THESE PLANS HAS BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND REFLECTS ARCHITECTURAL, CIVIL AND/OR MECHANICAL DESIGN AND/OR PLANS. THE LANDSCAPE ARCHITECT OR IRRIGATION CONSULTANT DEPENDS ON ACCURACY OF THIS OBTAINED INFORMATION. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "SA1"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

1-1/2" RECYCLED WATER METER
24 STATION CONTROLLER "SA1"
STATIONS USED: 1-17 / OPEN STATIONS: 18-24
MODEL# SA8-RM2-24 / FSF-200B / SYR / PMR-CAC / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS	CALLE DESEO 32+60	POC EQUIPMENT
METER LOCATION- STAT.PT.	335.00 FT.	1-1/2" WYE STRAINER
POC ELEVATION	680.00 FT.	1-1/2" CHECK VALVE
PRESSURE ZONE	149.39 PSI	1-1/2" PRESSURE REGULATOR
STATIC WATER PRESSURE	90.00 PSI	TEST STATION
REGULATED PRESSURE	37.66 PSI	1-1/2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	56 GPM	1-1/2" FLOW SENSOR
MAX. DEMAND	42,686 SQ. FT.	NOTE: P.O.C. SEQUENCE PER W.A.S.
AREA SERVED	4.1587 AC.FT./YR.	STD. DWG. WR-03.
MAWA	2.7725 AC.FT./YR.	
EWU	2"	
LATERAL- SEE CIVIL DWGS		

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "SG"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

2" RECYCLED WATER METER
32 STATION CONTROLLER "SG"
STATIONS USED: 1-22 / OPEN STATIONS: 23-32
MODEL# SA8-RM2-32 / FSF-200B / SYR / PMR-CAC / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS	CALLE DESEO 32+55	POC EQUIPMENT
METER LOCATION- STAT.PT.	335.00 FT.	2" WYE STRAINER
POC ELEVATION	680.00 FT.	2" CHECK VALVE
PRESSURE ZONE	149.39 PSI	2" PRESSURE REGULATOR
STATIC WATER PRESSURE	90.00 PSI	TEST STATION
REGULATED PRESSURE	73.29 PSI	2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	28 GPM	2" FLOW SENSOR
MAX. DEMAND	138,233 SQ. FT.	NOTE: P.O.C. SEQUENCE PER W.A.S.
AREA SERVED	13.4665 AC.FT./YR.	STD. DWG. WR-03.
MAWA	8.9776 AC.FT./YR.	
EWU	2"	
LATERAL- SEE CIVIL DWGS		

MATCHLINE - SEE SHEET LI-13
MATCHLINE - SEE SHEET LI-14
MATCHLINE - SEE SHEET LI-17
MATCHLINE - SEE SHEET LI-21

ATMOSPHERIC VACUUM BREAKER TYP. SYMBOL

AVENIDA ANDANZA
CALLE CULTURA
CALLE DESEO
AVENIDA PALOMINO
PERIMETER OPEN SPACE
CPF-2
WOLF CANYON

TREES SG26 1" 6
SG15 2" 49
SG16 2" 58
SG17 1½" 29
SG18 1½" 19
SG19 2" 37
SG21 1½" 29
SG7 2" 59
SG8 2" 48
SG9 2" 56
SG10 1½" 36
SG13 1¼" 16
SG12 1½" 39

IRRIGATION MAINLINE & VALVES LOCATED 5'-0" FROM THE TOP OF SLOPE
IRRIGATION MAINLINE & VALVES LOCATED 3' FROM THE TOP OF SLOPE
IRRIGATION MAINLINE & VALVES LOCATED 5' FROM BROW DITCH

FOR LANDSCAPE AND IRRIGATION IMPROVEMENTS IN OTAY RANCH VILLAGE 3, ESCAYA - PERIMETER PARK (BORDEN PARK) SEE PLANS BY TRIBUTARY LA, INC.: CITY W.O. #OR-3001G SHEETS: 19014 OWD W.O. #D1019-060244 DEH LRWS 2019-1082

FOR IRRIGATION ON WALL #4 & #6 POINT OF CONNECTION SEE PERIMETER PARK (BORDEN PARK) SEE PLANS BY TRIBUTARY LA, INC.: CITY W.O. #OR-3001G SHEETS: 19014 OWD W.O. #D1019-060244 DEH LRWS 2019-1082

0' 20' 40' 80'

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
- DOMESTIC SEWERLINE (PER CIVIL PLANS)
- RECYCLED WATERLINE (PER CIVIL PLANS)
- STORM DRAINS (PER CIVIL PLANS)
- BLOWOFF VALVE
- AIR RELEASE VALVE
- FIRE HYDRANT
- TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
- CATHODIC TEST STATION (PER CIVIL PLANS)
- STREET LIGHT

KEYMAP

Wall #1 LI-23 - LI-24, LP-23 - LP-24
Wall #2 LI-24 - LI-26, LP-24 - LP-26
Wall #3 LI-26 - LI-28, LP-26 - LP-28
Wall #4 LI-26 - LI-27, LP-26 - LP-27
Wall #5 LI-29, LP-29
Wall #6 LI-29, LP-29

*THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
*ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No.2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: 5/10/19 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 4/24/23
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/23

IT'S THE LAW! DIAL BEFORE YOU DIG! CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING 1-800-227-2600 UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 9/30/23 — CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	24 APR '23
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	ADD SHUT OFF VALVES.	7/3/16	
Inspector			ADJUST IRRIGATION FOR FUEL MOD AREAS.	5-12-17	
Date Completed			ADD IRRIG. @ CALLE DESEO STA 32+50	5-15-17	

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY (ID# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 40' / Vertical N/A

Office ____ Field ____ Traffic ____

Designed By ____ Drawn By ____ Checked By ____
Plans Prepared Under Supervision Of
THOMAS A. PICARD Date 4/24/23 R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: ____ Date: ____
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 26
Sheet 26 of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-18

LRWS# 2019-1134
Print Date: 24 APR '23
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

CONSTRUCTION NOTES:

(1a) IRRIGATION P.O.C. LOCATION SHOWN HAS BEEN COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THIS SERVICE, INSTALL BACKFLOW PREVENTION DEVICE, FLOW CONTROL AND MONITORING EQUIPMENT AND EXTEND SYSTEM AS SHOWN.

(1b) IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL B12 ON SHEET LI-39.

(2a) IRRIGATION CONTROLLER- 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL ROUTE POWER CABLE TO CONTROLLER IN PVC CONDUIT AND MAKE PERMANENT CONNECTION TO THE CONTROLLER. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.

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(5) SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD IN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 4 VALVE BOXES IN ONE AREA. SEPARATE VALVE BOX GROUPS BY 4' MIN.

(6) DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)PULL BOX- CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE PULL BOX AT ENDS OF SLEEVES. (TYP.)

(7) ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.

(8) SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND. UNLESS NOTED OTHERWISE.

(9) SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.

(10) RADIUS AND NOZZLE REDUCTION- SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FILL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.

(11) RAINBIRD SQ-F SERIES MICRO SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

ALL BASE INFORMATION FOR THESE PLANS HAS BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND REFLECTS ARCHITECTURAL, CIVIL AND/OR MECHANICAL DESIGN AND/OR PLANS. THE LANDSCAPE ARCHITECT OR IRRIGATION CONSULTANT DEPENDS ON ACCURACY OF THIS OBTAINED INFORMATION. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

LRWS# 2016-625

Print Date: 23 MAY '22

OWD WO# D0944-060189

VILLAGE 3 EROSION CONTROL (A)
SLOPE IRRIGATION POC "SA1"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

1-1/2" RECYCLED WATER METER
24 STATION CONTROLLER "SA1"
STATIONS USED: 1-17 / OPEN STATIONS: 18-24
MODEL# SA6-RM2-24 / FSF-200B / 5YR / PMR-CAC / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		POC EQUIPMENT
METER LOCATION- STAT.PT.	CALLE DESEO 32+60	1-1/2" WYE STRAINER
POC ELEVATION	335.00 FT.	1-1/2" CHECK VALVE
PRESSURE ZONE	680.00 FT.	1-1/2" PRESSURE REGULATOR
STATIC WATER PRESSURE	149.39 PSI	TEST STATION
REGULATED PRESSURE	90.00 PSI	1-1/2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	37.66 PSI	1-1/2" FLOW SENSOR
MAX. DEMAND	56 GPM	NOTE: P.O.C. SEQUENCE PER W.A.S. STD. DWG. WR-03.
AREA SERVED	42,689 SQ. FT.	
MAWA	4.1587 AC.FT./YR.	
EWU	2.7725 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "SG"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

2" RECYCLED WATER METER
32 STATION CONTROLLER "SG"
STATIONS USED: 1-22 / OPEN STATIONS: 23-32
MODEL# SA6-RM2-32 / FSF-200B / 5YR / PMR-CAC / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		POC EQUIPMENT
METER LOCATION- STAT.PT.	CALLE DESEO 32+55	2" WYE STRAINER
POC ELEVATION	335.00 FT.	2" CHECK VALVE
PRESSURE ZONE	680.00 FT.	2" PRESSURE REGULATOR
STATIC WATER PRESSURE	149.39 PSI	TEST STATION
REGULATED PRESSURE	90.00 PSI	2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	73.29 PSI	2" FLOW SENSOR
MAX. DEMAND	26 GPM	NOTE: P.O.C. SEQUENCE PER W.A.S. STD. DWG. WR-03.
AREA SERVED	138,233 SQ. FT.	
MAWA	13.4665 AC.FT./YR.	
EWU	8.9776 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
- DOMESTIC SEWERLINE (PER CIVIL PLANS)
- RECYCLED WATERLINE (PER CIVIL PLANS)
- STORM DRAINS (PER CIVIL PLANS)
- BLOWOFF VALVE
- AIR RELEASE VALVE
- FIRE HYDRANT
- TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
- CATHODIC TEST STATION (PER CIVIL PLANS)
- STREET LIGHT

*THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
*ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE: 5/10/19
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 10/25/21
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/23

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — Signature 9/30/23 Renewal Date 5/23/22 Date — CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	(F) 23 MAY '22
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	(A) ADD SHUT OFF VALVES.	7/3/18	MR
Inspector			(B) ADJUST IRRIGATION FOR FUEL MOD AREAS.	5-22-19	
Date Completed			(D) ADD IRRIG. @ CALLE DESEO STA 32+50	10-23-19	
			(E) CHNG. DRIP 2 SPRAY @ CALLE DESEO 32+50	4-20-22	
			(F) METER 'SH' RE-LOCATED TO MAIN STREET		

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 40'; Vertical N/A

Office / Field / Traffic

Designed By / Drawn By / Checked By
Plans Prepared Under Supervision Of THOMAS A. PICARD Date / / R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 26
Sheet 26 of 88

Otay Ranch, Village 3 - Slope & Erosion Control

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

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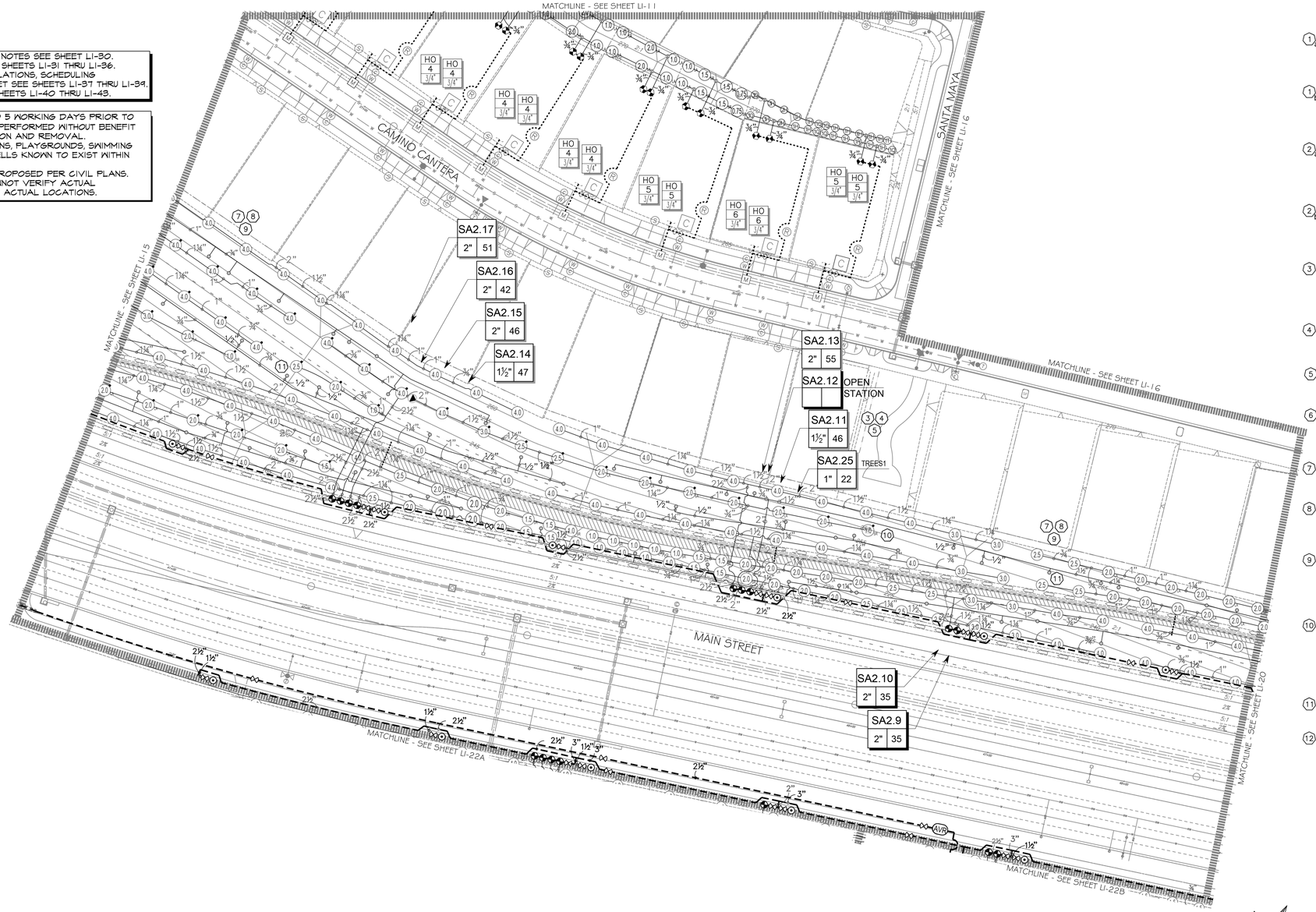

CONSTRUCTION NOTES:

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1b IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL B12 ON SHEET LI-32.

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2b IRRIGATION CONTROLLER - PRIVATE SYSTEMS. 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL INSTALL AN INDOOR IRRIGATION CONTROLLER AND A RAIN SENSOR. SEE DETAIL B12 ON SHEET LI-32. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.

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6 DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)FULL BOX- CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE FULL BOX AT ENDS OF SLEEVES. (TYP.)

7 ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.

8 SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND. UNLESS NOTED OTHERWISE.

9 SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.

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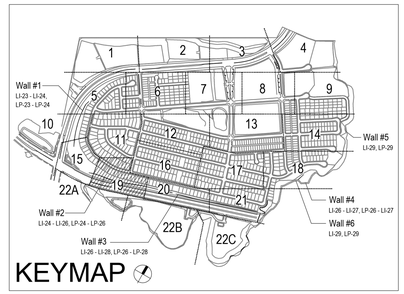

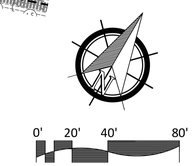

UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
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- STREET LIGHT

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE: 5/10/19
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 4/24/23
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT
REGIST. EXP. 9/30/23

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
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REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — 9/30/23 — CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	24 APR '23
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	⚠ ADD SHUTOFF VALVES	7/3/16	OWNER
Inspector			⚠ ADDED NOTE FOR MAINLINE LOCATION ALONG MAIN STREET.	6/22/21	[illegible]
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (FB 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE				
Horizontal	1" = 40'	Office	Designed By	Drawn By	Checked By
Vertical	N/A	Field			
		Traffic	Plans Prepared Under Supervision Of THOMAS A. PICARD Date 4/24/23 R.L.A. No. 4001		

Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 27
Sheet 27 of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-19

LRWS# 2019-1134
Print Date: 24 APR '23
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

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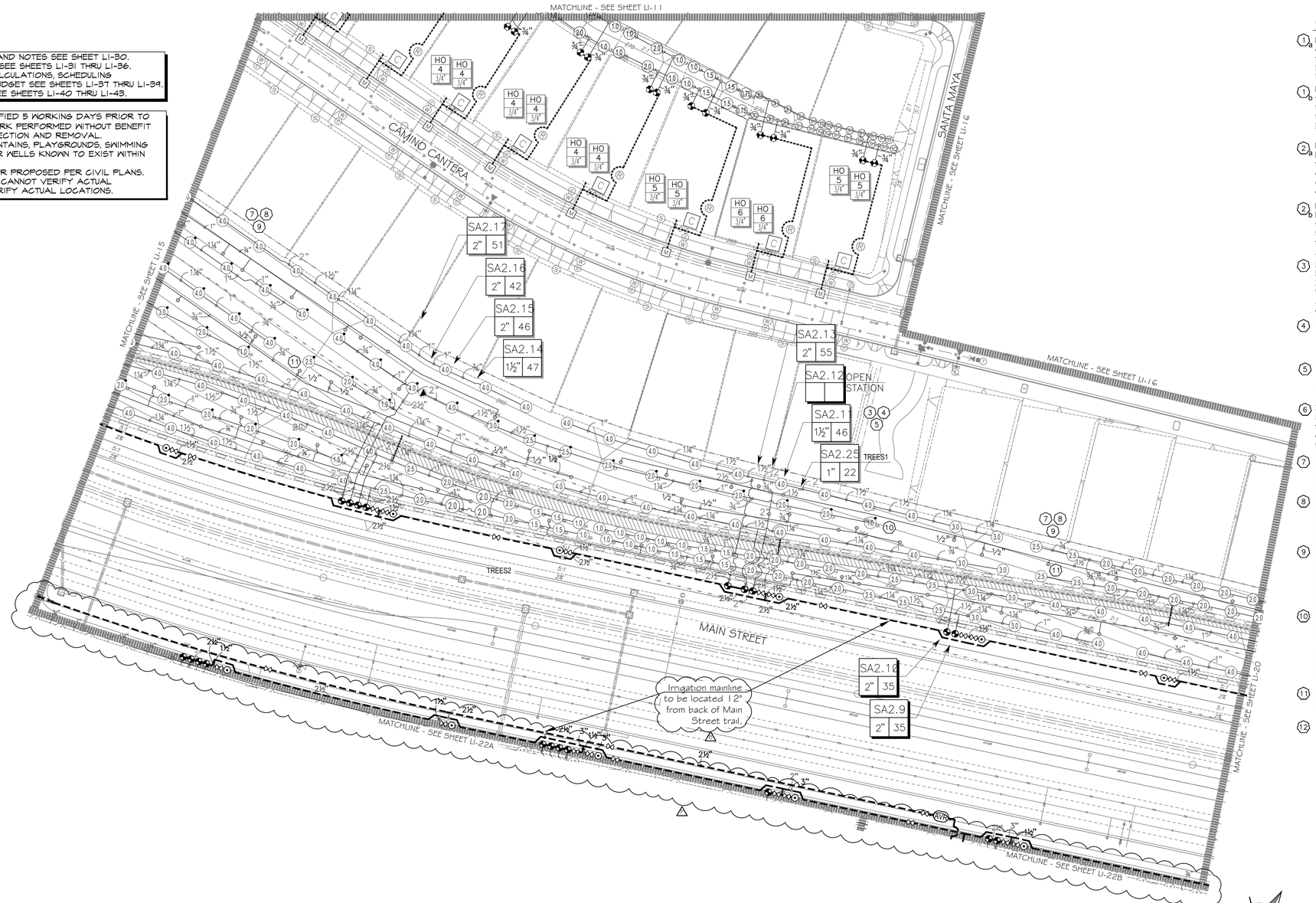

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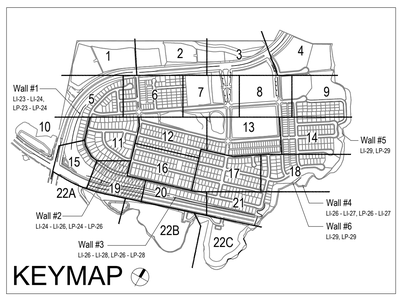

0' 20' 40' 80'

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OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No.2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

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REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — 9/30/23 — CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	⚠ 23 MAY '22
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-30016

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.
Inspector		
Date Completed		

REVISIONS	Date	App'd
⚠ ADD SHUTOFF VALVES	7/3/16	[illegible]
⚠ ADDED NOTE FOR MAINLINE LOCATION ALONG MAIN STREET	6-12-19	[illegible]
⚠ ADJUSTED MATCHLINE	5-12-17	[illegible]

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SCALE
Horizontal 1" = 40'
Vertical N/A

Office
Field
Traffic

Designed By | Drawn By | Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date / /
R.L.A. No. 4001

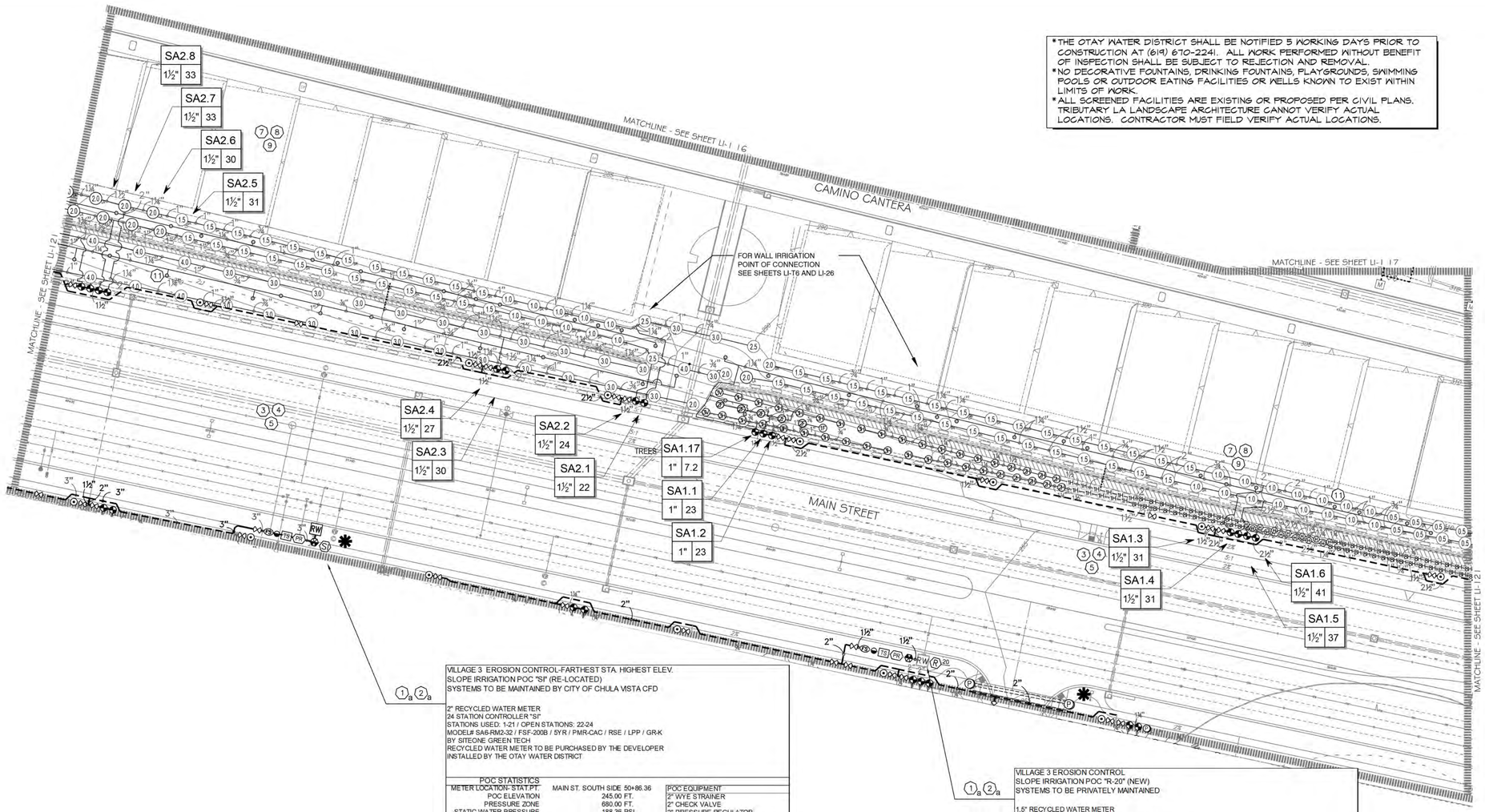
Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 27
Sheet 27 of 88

⚠ REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-19

LRWS# 2016-625
Print Date: 23 MAY '22
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



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ALL BASE INFORMATION FOR THESE PLANS HAS BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND REFLECTS ARCHITECTURAL, CIVIL AND/OR MECHANICAL DESIGN AND/OR PLANS. THE LANDSCAPE ARCHITECT OR IRRIGATION CONSULTANT DEPENDS ON ACCURACY OF THIS OBTAINED INFORMATION. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

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REVIEWED BY: 8/24/18 DATE:
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Drawing No. 16050 - 28
Sheet 28 of 88

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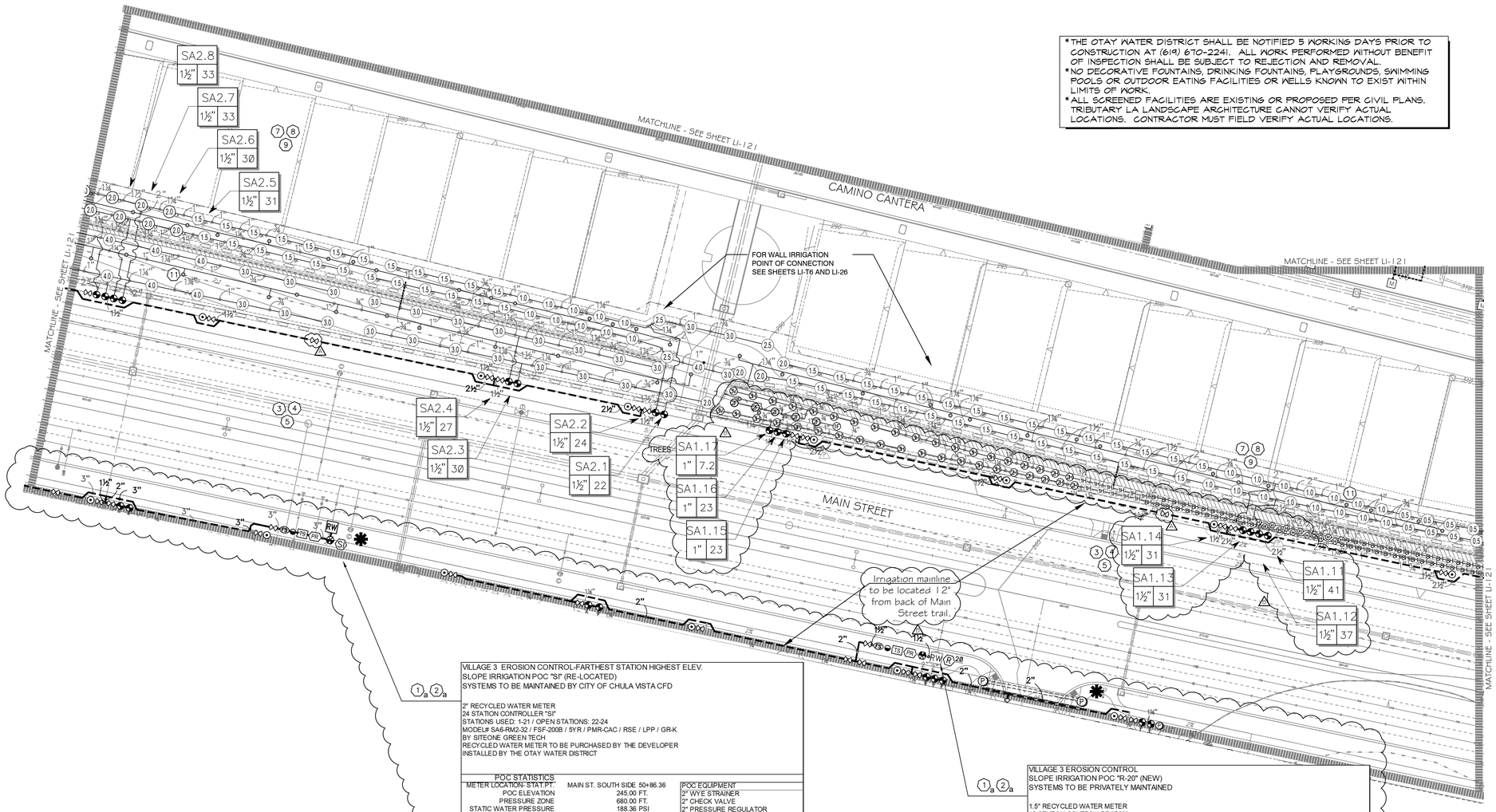
LRWS# 2019-1134
Print Date: 24 APR '23
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



*THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
*ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

CONSTRUCTION NOTES:

1a IRRIGATION P.O.C. LOCATION SHOWN HAS BEEN COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THIS SERVICE, INSTALL BACKFLOW PREVENTION DEVICE, FLOW CONTROL AND MONITORING EQUIPMENT AND EXTEND SYSTEM AS SHOWN.

1b IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL BI2 ON SHEET LI-32.

2a IRRIGATION CONTROLLER-
120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL ROUTE POWER CABLE TO CONTROLLER IN PVC CONDUIT AND MAKE PERMANENT CONNECTION TO THE CONTROLLER. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.

2b IRRIGATION CONTROLLER - PRIVATE SYSTEMS.
120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL INSTALL AN INDOOR IRRIGATION CONTROLLER AND A RAIN SENSOR, SEE DETAIL BI2 ON SHEET LI-32. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.

3 LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR USC-FMS. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE APPROXIMATELY AS SHOWN 12" TO 18" FROM BACK OF CURB OR WALK.

4 REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)

5 SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD IN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 4 VALVE BOXES IN ONE AREA. SEPARATE VALVE BOX GROUPS BY 4' MIN.

6 DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)PULL BOX-CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE PULL BOX AT ENDS OF SLEEVES. (TYP.)

7 ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.

8 SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND, UNLESS NOTED OTHERWISE.

9 SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.

10 RADIUS AND NOZZLE REDUCTION-
SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FILL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.

11 HUNTER PROS-00-PRS30 WITH HUNTER 5-FULL SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

12 LATERAL LINE DRAINAGE IS TO BE PREVENTED IN ALL CASES. SPRING AND/OR SWING CHECK VALVES SHALL BE INSTALLED UNDER ALL IRRIGATION HEADS AND IN LATERAL LINE RUNS OF ALL IRRIGATION SYSTEMS WHERE TOPOGRAPHY CAUSES AN ELEVATION DIFFERENCE OF 7 FEET OR GREATER.

VILLAGE 3 EROSION CONTROL-FARTHEST STATION HIGHEST ELEV.
SLOPE IRRIGATION POC "SI" (RE-LOCATED)
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

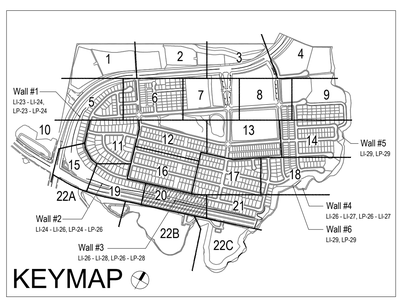
2" RECYCLED WATER METER
24 STATION CONTROLLER "SI"
STATIONS USED: 1-21 / OPEN STATIONS: 22-24
MODEL# SA6-RM2-32 / FSF-200B / 5YR / PMR-CAC / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		
METER LOCATION- STAT.PT.	MAIN ST. SOUTH SIDE 50+86.36	POC EQUIPMENT
POC ELEVATION	245.00 FT.	2" WYE STRAINER
PRESSURE ZONE	680.00 FT.	2" CHECK VALVE
STATIC WATER PRESSURE	188.36 PSI	2" PRESSURE REGULATOR
REGULATED PRESSURE	140.00 PSI	TEST STATION
MIN. PRESSURE REQUIRED	104.54 PSI	2" MASTER CONTROL VALVE
MAX. DEMAND	33 GPM	2" FLOW SENSOR
AREA SERVED	70,671 SQ. FT.	NOTE: P.O.C. SEQUENCE PER W.A.S.
MAWA	6.8847 AC.FT./YR.	STD. DWG. WR-03.
E:WU	4.3898 AC.F.I./Y.H.	
LATERAL- SEE CIVIL DWGS	2"	

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "R-20" (NEW)
SYSTEMS TO BE PRIVATELY MAINTAINED

1.5" RECYCLED WATER METER
12 STATION CONTROLLER "R20"
STATIONS USED: 1-9 / OPEN STATIONS: 10-12
MODEL# SA6-RM20-12 / FSF-150P / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		
METER LOCATION- STAT.PT.	MAIN ST. SOUTH SIDE 54+15	POC EQUIPMENT
POC ELEVATION	265.00 FT.	1-1/2" WYE STRAINER
PRESSURE ZONE	680.00 FT.	1-1/2" CHECK VALVE
STATIC WATER PRESSURE	179.70 PSI	1-1/2" PRESSURE REGULATOR
REGULATED PRESSURE	80.00 PSI	TEST STATION
MIN. PRESSURE REQUIRED	65.69 PSI	1-1/2" MASTER CONTROL VALVE
MAX. DEMAND	28 GPM	1-1/2" FLOW SENSOR
AREA SERVED	15,274 SQ. FT.	NOTE: P.O.C. SEQUENCE PER W.A.S.
MAWA	1.4879 AC.FT./YR.	STD. DWG. WR-03.
E:WU	0.9919 AC.F.I./YR.	
LATERAL- SEE CIVIL DWGS	2"	



0' 20' 40' 80'

UTILITY LEGEND (PER CIVIL PLANS)

DOMESTIC WATERLINE (PER CIVIL PLANS)
DOMESTIC SEWERLINE (PER CIVIL PLANS)
RECYCLED WATERLINE (PER CIVIL PLANS)
STORM DRAINS (PER CIVIL PLANS)
BLOWOFF VALVE
AIR RELEASE VALVE
FIRE HYDRANT
TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
CATHODIC TEST STATION (PER CIVIL PLANS)
STREET LIGHT

ALL BASE INFORMATION FOR THESE PLANS HAS BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND REFLECTS ARCHITECTURAL, CIVIL AND/OR MECHANICAL DESIGN AND/OR PLANS. THE LANDSCAPE ARCHITECT OR IRRIGATION CONSULTANT DEPENDS ON ACCURACY OF THIS OBTAINED INFORMATION. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No.2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT
REGIST. EXP.

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 CALIFORNIA 9/30/23

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	23 MAY '22
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD		REFERENCES	BY
Contractor		16026-01 - 16026-93	HUNSAKER & ASSOC.
Inspector			
Date Completed			

REVISIONS	Date	App'd
1 ADD SHUT OFF VALVES.	7/3/16	TMPR
2 ADD MAINLINE NOTE-REPLACE LI-20 FOR SPRAY		
3 ADJ. MATCHLINE, RELOCATE METER 'SI' & ADD R-20		

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX. OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT.# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE
Horizontal 1" = 40'
Vertical N/A
Office
Field
Traffic

Designed By | Drawn By | Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date / /
R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 28
Sheet 28 of 88

REPLACEMENT SHEET

LRWS# 2016-625
Print Date: 23 MAY '22
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

LRWS# 2019-1134

Print Date: 24 APR '23

OWD WO# D0944-060189

Otay Ranch, Village 3 - Slope & Erosion Control

MATCHLINE - SEE SHEET LI-17

MATCHLINE - SEE SHEET LI-18

MATCHLINE - SEE SHEET LI-20

MATCHLINE - SEE SHEET LI-22C

AVENIDA ESCAYA

CAMINO CANTERA

AVENIDA PALOMINO

MAIN STREET

ZONE 1

ZONE 2

SA1.7 1½" 24

SA1.8 1½" 24

SA1.9 1½" 29

SA1.10 1½" 29

SA1.11 1" 19

SA1.12 1" 19

SA1.13 1½" 28

SA1.14 1½" 27

SA1.15 1½" 23

SA1.16 1½" 24

SH.23 1½" 21

SH.22 1½" 18

SH.24 1" 8

SH.25 1½" 35

SH.21 2" 48

SH.20 2" 56

SG23 2" 40

SG24 2" 52

SG27 TREES 1½" 16

SA-1 IRRIGATION MAINLINE & VALVES LOCATED 13' FROM FACE OF WALL

SG IRRIGATION MAINLINE & VALVES LOCATED 15' FROM FACE OF WALL

SG IRRIGATION VALVES LOCATED 4' FROM BROW DITCH

SG IRRIGATION VALVE MANIFOLD LOCATED 4' FROM BROW DITCH

MSCP PRESERVE BOUNDARY

SEE OTAY RANCH VILLAGE 3 PHASE 3 IN-TRACT IMPROVEMENT PLANS

FOR LANDSCAPE IMPROVEMENTS WITHIN RIGHT-OF-WAY AREAS SEE NEIGHBORHOOD R-6 ONSITE IMPROVEMENT PLANS

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-45.

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UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
- DOMESTIC SEWERLINE (PER CIVIL PLANS)
- RECYCLED WATERLINE (PER CIVIL PLANS)
- STORM DRAINS (PER CIVIL PLANS)
- BLOWOFF VALVE
- AIR RELEASE VALVE
- FIRE HYDRANT
- TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
- CATHODIC TEST STATION (PER CIVIL PLANS)
- STREET LIGHT

CONSTRUCTION NOTES:

1. IRRIGATION P.O.C. LOCATION SHOWN HAS BEEN COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THIS SERVICE, INSTALL BACKFLOW PREVENTION DEVICE, FLOW CONTROL AND MONITORING EQUIPMENT AND EXTEND SYSTEM AS SHOWN.
1. IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL BI2 ON SHEET LI-34.
2. IRRIGATION CONTROLLER- 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL ROUTE POWER CABLE TO CONTROLLER IN PVC CONDUIT AND MAKE PERMANENT CONNECTION TO THE CONTROLLER. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.
2. IRRIGATION CONTROLLER - PRIVATE SYSTEMS. 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL INSTALL AN INDOOR IRRIGATION CONTROLLER AND A RAIN SENSOR. SEE DETAIL BI2 ON SHEET LI-34. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.
3. LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR USC-FMS. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE APPROXIMATELY AS SHOWN 12" TO 18" FROM BACK OF CURB OR WALK.
4. REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)
5. SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD IN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 4 VALVE BOXES IN ONE AREA. SEPARATE VALVE BOX GROUPS BY 4' MIN.
6. DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)PULL BOX- CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE PULL BOX AT ENDS OF SLEEVES. (TYP.)
7. ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.
8. SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND, UNLESS NOTED OTHERWISE.
9. SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.
10. RADIUS AND NOZZLE REDUCTION- SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FILL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.
11. RAINBIRD SQ-F SERIES MICRO SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

ALL BASE INFORMATION FOR THESE PLANS HAS BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND REFLECTS ARCHITECTURAL, CIVIL AND/OR MECHANICAL DESIGN AND/OR PLANS. THE LANDSCAPE ARCHITECT OR IRRIGATION CONSULTANT DEPENDS ON ACCURACY OF THIS OBTAINED INFORMATION. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

1a 2a

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "R-6" (NEW)
SYSTEMS TO BE PRIVATELY MAINTAINED

1.5" RECYCLED WATER METER
8 STATION CONTROLLER "R6"
STATIONS USED: 1-5 / OPEN STATIONS: 6-8
MODEL# SA6-RM20-8 / FSF-150P / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

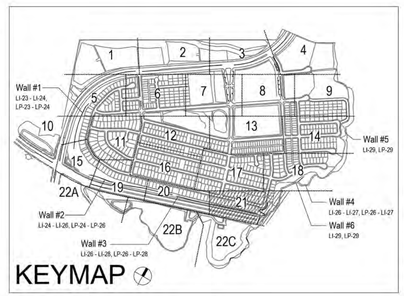
POC STATISTICS		POC EQUIPMENT
METER LOCATION- STAT PT.	MAIN ST. SOUTH SIDE 63+80	1-1/2" WYE STRAINER
POC ELEVATION	295.00 FT.	1-1/2" CHECK VALVE
PRESSURE ZONE	680.00 FT.	1-1/2" PRESSURE REGULATOR
STATIC WATER PRESSURE	166.71 PSI	TEST STATION
REGULATED PRESSURE	80.00 PSI	1-1/2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	65.80 PSI	1-1/2" FLOW SENSOR
MAX. DEMAND	15 GPM	NOTE: P.O.C. SEQUENCE PER W.A.S.
AREA SERVED	5.186 SQ. FT.	STD. DWG. WR-03.
MAWA	0.5052 AC.FT./YR.	
E:WU	0.3368 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	

1a 2a

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "SH" (RE-LOCATED)
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

2" RECYCLED WATER METER
32 STATION CONTROLLER "SH"
STATIONS USED: 1-25 / OPEN STATIONS: 26-32
MODEL# SA6-RM2-32 / FSF-200B / 5YR / PMR-CAC / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		POC EQUIPMENT
METER LOCATION- STAT PT.	MAIN ST. SOUTH SIDE 65+80	2" WYE STRAINER
POC ELEVATION	305.00 FT.	2" CHECK VALVE
PRESSURE ZONE	680.00 FT.	2" PRESSURE REGULATOR
STATIC WATER PRESSURE	162.38 PSI	TEST STATION
REGULATED PRESSURE	60.00 PSI	2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	37.81 PSI	2" FLOW SENSOR
MAX. DEMAND	32 GPM	NOTE: P.O.C. SEQUENCE PER W.A.S.
AREA SERVED	147,696 SQ. FT.	STD. DWG. WR-03.
MAWA	14.3882 AC.FT./YR.	
E:WU	9.5921 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	



KEYMAP

0' 20' 40' 80'

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No.2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: 5/10/19 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 4/24/23
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT
REGIST. EXP. 9/30/23

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 9/30/23 4/24/23 CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	24 APR '23
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	⚠ ADD SHUT OFF VALVES.	7/3/18	
Inspector			⚠ ADD MAINLINE NOTE ON MAIN STREET	5-13-19	
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=529.319' (NAVD'88)

SCALE					
Horizontal 1" = 40'	Office	Designed By	Drawn By	Checked By	Plans Originally Approved: 5-15-17
Vertical N/A	Field	Plans Prepared Under Supervision Of			Approved: Date:
	Traffic	THOMAS A. PICARD	Date 4/24/23 R.L.A. No. 4001		Tiffany Allen Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 29
Sheet 29 of 88

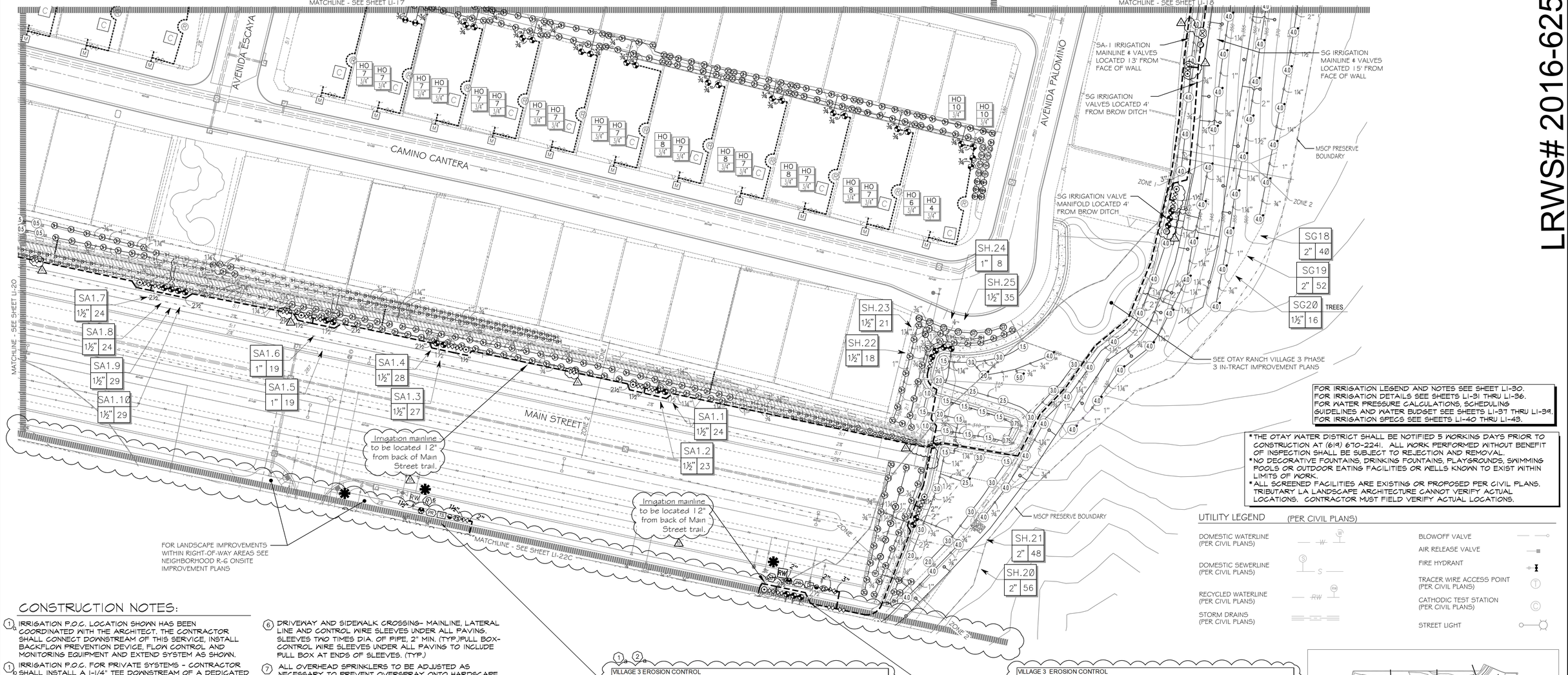
REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-21

LRWS# 2016-625

Print Date: 23 MAY '22

OWD WO# D0944-060189

Otay Ranch, Village 3 - Slope & Erosion Control



FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

* THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
* NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
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UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
- DOMESTIC SEWERLINE (PER CIVIL PLANS)
- RECYCLED WATERLINE (PER CIVIL PLANS)
- STORM DRAINS (PER CIVIL PLANS)
- BLOWOFF VALVE
- AIR RELEASE VALVE
- FIRE HYDRANT
- TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
- CATHODIC TEST STATION (PER CIVIL PLANS)
- STREET LIGHT

CONSTRUCTION NOTES:

1. IRRIGATION P.O.C. LOCATION SHOWN HAS BEEN COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THIS SERVICE, INSTALL BACKFLOW PREVENTION DEVICE, FLOW CONTROL AND MONITORING EQUIPMENT AND EXTEND SYSTEM AS SHOWN.
2. IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL B12 ON SHEET LI-39.
3. IRRIGATION CONTROLLER- 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL ROUTE POWER CABLE TO CONTROLLER IN PVC CONDUIT AND MAKE PERMANENT CONNECTION TO THE CONTROLLER. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.
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6. REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)
7. SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD IN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 4 VALVE BOXES IN ONE AREA. SEPARATE VALVE BOX GROUPS BY 4' MIN.
8. DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)FULL BOX-CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE FULL BOX AT ENDS OF SLEEVES. (TYP.)
9. ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.
10. SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND. UNLESS NOTED OTHERWISE.
11. SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.
12. RADIUS AND NOZZLE REDUCTION- SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FILL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.
13. RAINBIRD 5G-F SERIES MICRO SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

ALL BASE INFORMATION FOR THESE PLANS HAS BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND REFLECTS ARCHITECTURAL, CIVIL AND/OR MECHANICAL DESIGN AND/OR PLANS. THE LANDSCAPE ARCHITECT OR IRRIGATION CONSULTANT DEPENDS ON ACCURACY OF THIS OBTAINED INFORMATION. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

1a 2e

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "R-6" (NEW)
SYSTEMS TO BE PRIVATELY MAINTAINED

1.5" RECYCLED WATER METER
8 STATION CONTROLLER "R6"
STATIONS USED: 1-5 / OPEN STATIONS: 6-8
MODEL# SA6-RM20-8 / FSF-150P / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

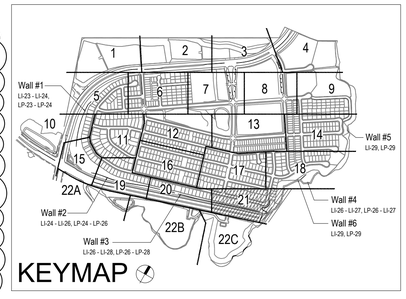
POC STATISTICS		POC EQUIPMENT
METER LOCATION- STAT.PT.	MAIN ST. SOUTH SIDE 63+80	1-1/2" WYE STRAINER
POC ELEVATION	295.00 FT.	1-1/2" CHECK VALVE
PRESSURE ZONE	680.00 FT.	1-1/2" PRESSURE REGULATOR
STATIC WATER PRESSURE	166.71 PSI	TEST STATION
REGULATED PRESSURE	80.00 PSI	1-1/2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	65.80 PSI	1-1/2" FLOW SENSOR
MAX. DEMAND	15 GPM	NOTE: P.O.C. SEQUENCE PER W.A.S.
AREA SERVED	5,186 SQ. FT.	STD. DWG. WR-03.
MAWA	0.5052 AC.FT./YR.	
ETWU	0.3368 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	

1a 2e

VILLAGE 3 EROSION CONTROL
SLOPE IRRIGATION POC "SH" (RE-LOCATED)
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

2" RECYCLED WATER METER
32 STATION CONTROLLER "SH"
STATIONS USED: 1-25 / OPEN STATIONS: 26-32
MODEL# SA6-RM2-32 / FSF-200B / 5YR / PMR-CAC / RSE / LPP / GR-K
BY SITEONE GREEN TECH
RECYCLED WATER METER TO BE PURCHASED BY THE DEVELOPER
INSTALLED BY THE OTAY WATER DISTRICT

POC STATISTICS		POC EQUIPMENT
METER LOCATION- STAT.PT.	MAIN ST. SOUTH SIDE 65+80	2" WYE STRAINER
POC ELEVATION	305.00 FT.	2" CHECK VALVE
PRESSURE ZONE	680.00 FT.	2" PRESSURE REGULATOR
STATIC WATER PRESSURE	162.38 PSI	TEST STATION
REGULATED PRESSURE	60.00 PSI	2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	37.81 PSI	2" FLOW SENSOR
MAX. DEMAND	32 GPM	NOTE: P.O.C. SEQUENCE PER W.A.S.
AREA SERVED	147,695 SQ. FT.	STD. DWG. WR-03.
MAWA	14.3882 AC.FT./YR.	
ETWU	9.5921 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	



0' 20' 40' 80'

OTAY WATER DISTRICT
Project No. 00944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: 5/10/19 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 9/30/23 — CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	23 MAY '22
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.
Inspector		
Date Completed		

REVISIONS	Date	App'd
ADD SHUT OFF VALVES.	7/3/16	
ADD MAINLINE NOTE ON MAIN STREET	5-22-19	
ADJ. SYSTEMS 5G FOR FIELD CONDITIONS	10-31-19	
ADJ. MATCHLINE, RELOCATE METER SH' & ADD 'R-6'		

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE
Horizontal 1" = 40'
Vertical N/A

Office
Field
Traffic

Designed By | Drawn By | Checked By

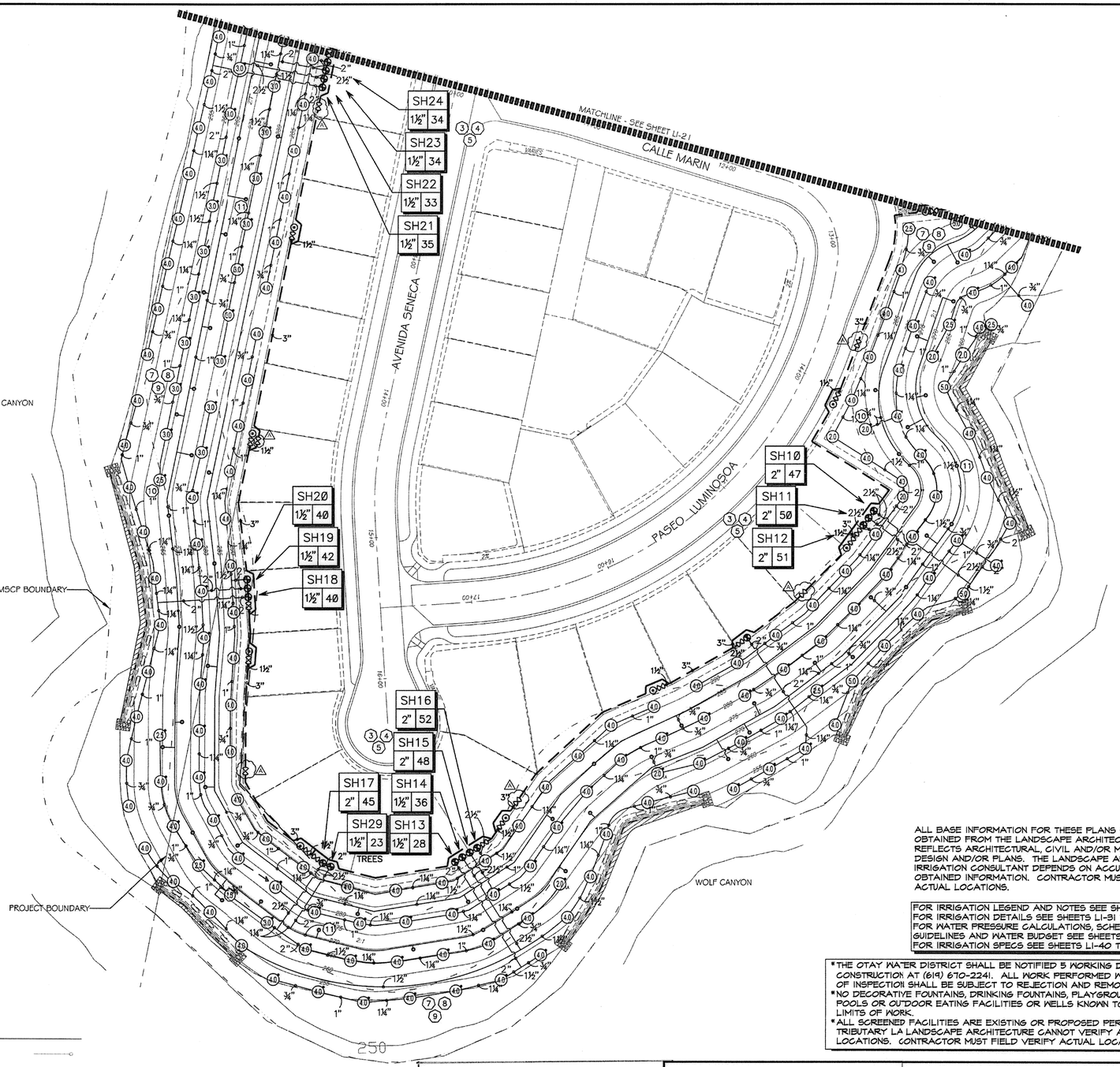
Plans Prepared Under Supervision Of
Date / /
THOMAS A. PICARD R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 29
Sheet 29 of 88

REPLACEMENT SHEET



CONSTRUCTION NOTES:

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11 HUNTER PROS-00-PRS30 WITH HUNTER 5-FULL SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

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FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-30.
FOR IRRIGATION DETAILS SEE SHEETS LI-31 THRU LI-36.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-37 THRU LI-39.
FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-45.

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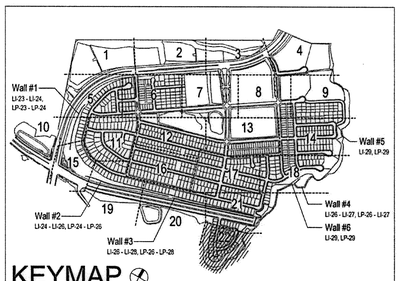

KEYMAP

UTILITY LEGEND (PER CIVIL PLANS)

DOMESTIC WATERLINE (PER CIVIL PLANS)	BLOWOFF VALVE
DOMESTIC SEWERLINE (PER CIVIL PLANS)	AIR RELEASE VALVE
RECYCLED WATERLINE (PER CIVIL PLANS)	FIRE HYDRANT
STORM DRAINS (PER CIVIL PLANS)	TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
	CATHODIC TEST STATION (PER CIVIL PLANS)
	STREET LIGHT

0' 20' 40' 80'

OTAY WATER DISTRICT
PROJECT NO: D0944-060189
PZ 624, 711 RPZ 620
REVIEWED BY: DATE:
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
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UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 9/30/19 CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

3. JUL '18	
DATE:	15 FEB '18
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	3 ADD SHUTOFF VALVES & INDUSTRIAL PAD SLOPES	7/5/18	
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PER 1359 PER R.O.S. 14141) ELEV=629.319' (NAVD'88)

SCALE		Designed By	Drawn By	Checked By
Horizontal 1" = 40'	Office			
Vertical N/A	Field	Plans Prepared Under Supervision Of		
	Traffic	THOMAS A. PICARD	Date 6/4/18	
			R.L.A. No. 4001	

Approved: Kelly Broughton, Director of Development Services or designee. Date: 8-31-18 (Assistant/Deputy Director 5-15-17)

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 30
Sheet 30 of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-22

Print Date: 15 FEB '18
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

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FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

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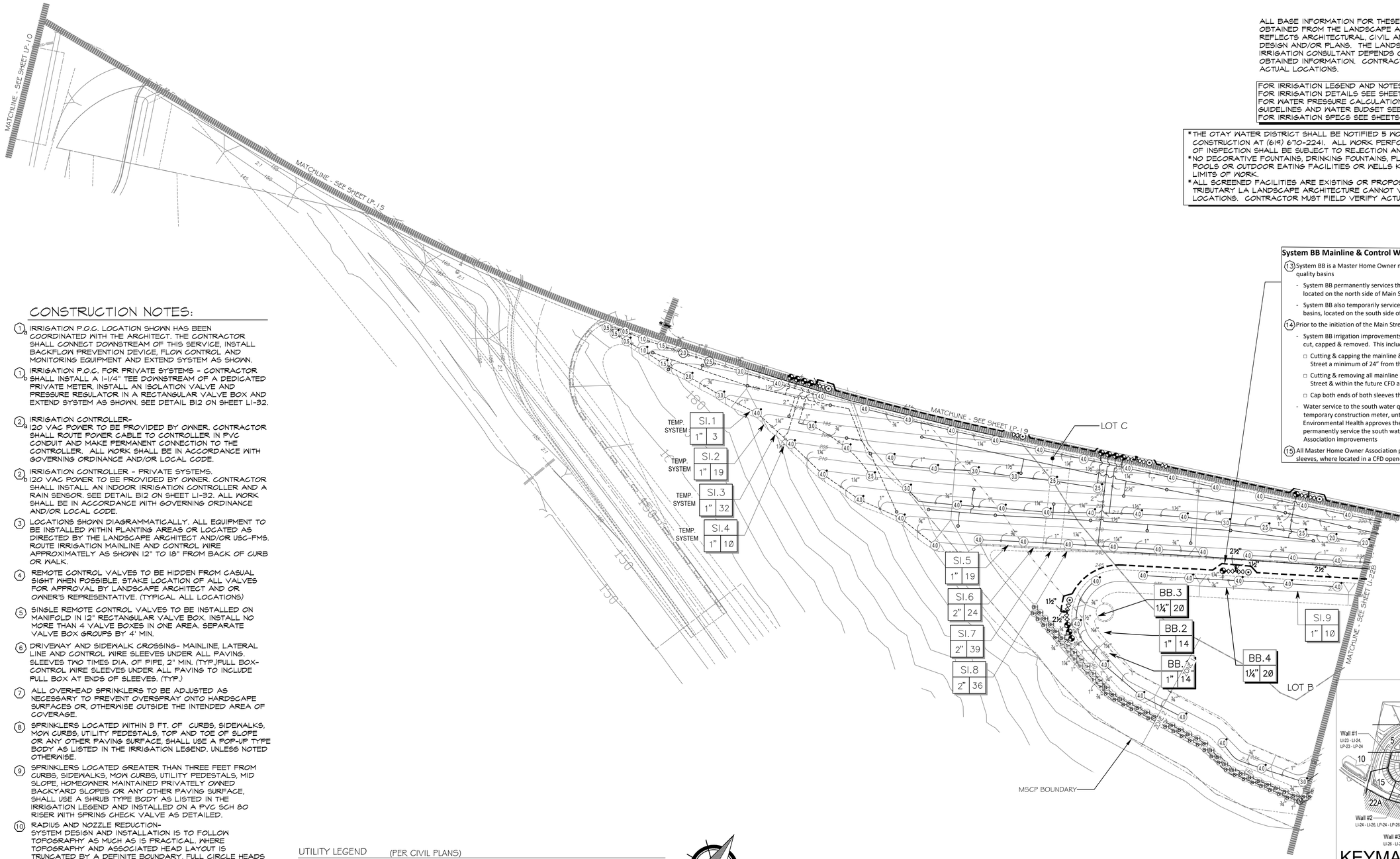

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6. DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)FULL BOX- CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE FULL BOX AT ENDS OF SLEEVES. (TYP.)

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10. RADIUS AND NOZZLE REDUCTION- SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FILL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.

11. HUNTER PROS-00-PRSD WITH HUNTER S-FULL SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

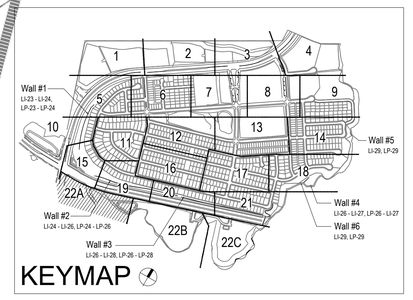
12. LATERAL LINE DRAINAGE IS TO BE PREVENTED IN ALL CASES. SPRING AND/OR SWING CHECK VALVES SHALL BE INSTALLED UNDER ALL IRRIGATION HEADS AND IN LATERAL LINE RUNS OF ALL IRRIGATION SYSTEMS WHERE TOPOGRAPHY CAUSES AN ELEVATION DIFFERENCE OF 7 FEET OR GREATER.

System BB Mainline & Control Wire Notes

13. System BB is a Master Home Owner maintained irrigation system, servicing the water quality basins
- System BB permanently services the irrigation systems servicing the water quality basins, located on the north side of Main Street
- System BB also temporarily services the irrigation systems servicing the water quality basins, located on the south side of Main Street

14. Prior to the initiation of the Main Street parkway landscape improvements:
- System BB irrigation improvements located within the Main Street south parkway shall be cut, capped & removed. This includes:
  - Cutting & capping the mainline & control wires, located on the north side of Main Street a minimum of 24" from the end of the sleeve.
  - Cutting & removing all mainline & control wires, located on the south side of Main Street & within the future CFD area
  - Cap both ends of both sleeves that cross under Main Street.
- Water service to the south water quality basin shall be concurrently connected to a temporary construction meter, until such a time the Water District & Department of Environmental Health approves the installation of the final water meter, that will permanently service the south water quality basin & any other Master Home Owner Association improvements

15. All Master Home Owner Association piping or control wire, must be 100% encased in sleeves, where located in a CFD open-space area.



KEYMAP

UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
- DOMESTIC SEWERLINE (PER CIVIL PLANS)
- RECYCLED WATERLINE (PER CIVIL PLANS)
- STORM DRAINS (PER CIVIL PLANS)
- BLOWOFF VALVE
- AIR RELEASE VALVE
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- TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
- CATHODIC TEST STATION (PER CIVIL PLANS)
- STREET LIGHT

0' 20' 40' 80'

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No.2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE:
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REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 9/30/23 CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	⚠ 23 MAY '22
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.
Inspector		
Date Completed		

REVISIONS	Date	App'd

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT # 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE
Horizontal 1" = 40'
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Office
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Traffic

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Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date / /
R.L.A. No. 4001

Plans Originally Approved: 5-15-17
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CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 30A
Sheet 30A of 88

⚠ NEW SHEET

LRWS# 2016-625

Print Date: 23 MAY '22

OWD WO# D0944-060189

Otay Ranch, Village 3 - Slope & Erosion Control

MATCHLINE - SEE SHEET LI-19

MATCHLINE - SEE SHEET LI-20

MATCHLINE - SEE SHEET LI-22A

MATCHLINE - SEE SHEET LI-22C

LOT B

LOT D

TRAIL

TREES

ZONE 1

ZONE 2

TEMP SYSTEM

MSCP BOUNDARY

PROJECT BOUNDARY

FOR LANDSCAPE IMPROVEMENTS WITHIN RIGHT-OF-WAY AREAS SEE NEIGHBORHOOD R-20 ONSITE IMPROVEMENT PLANS

BB.10 1¼" 20
BB.9 1" 11
BB.8 1" 9
BB.7 1" 15
BB.6 1" 14
BB.5 1¼" 21

SI.11 2" 41
SI.10 2" 41
SI.13 1" 9
SI.12 1" 10
SI.14 2" 45
SI.15 1½" 40
SI.16 1½" 35
SI.17 1½" 28
SI.18 1½" 24
SI.19 1¼" 21
SI.20 1¼" 17
SI.21 1" 15

R20.1 1¼" 18
R20.2 1¼" 19
R20.3 1¼" 25
R20.4 1½" 28
R20.5 1" 5.6
R20.6 1" 14
R20.7 1" 14
R20.8 1¼" 16
R20.9 1¼" 17

System BB Mainline & Control Wire Notes

(13) System BB is a Master Home Owner maintained irrigation system, servicing the water quality basins

- System BB permanently services the irrigation systems servicing the water quality basins, located on the north side of Main Street
- System BB also temporarily services the irrigation systems servicing the water quality basins, located on the south side of Main Street

(14) Prior to the initiation of the Main Street parkway landscape improvements:

- System BB irrigation improvements located within the Main Street south parkway shall be cut, capped & removed. This includes:
  - □ Cutting & capping the mainline & control wires, located on the north side of Main Street a minimum of 24" from the end of the sleeve.
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CONSTRUCTION NOTES:

(1)a IRRIGATION P.O.C. LOCATION SHOWN HAS BEEN COORDINATED WITH THE ARCHITECT. THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THIS SERVICE, INSTALL BACKFLOW PREVENTION DEVICE, FLOW CONTROL AND MONITORING EQUIPMENT AND EXTEND SYSTEM AS SHOWN.

(1)b IRRIGATION P.O.C. FOR PRIVATE SYSTEMS - CONTRACTOR SHALL INSTALL A 1-1/4" TEE DOWNSTREAM OF A DEDICATED PRIVATE METER, INSTALL AN ISOLATION VALVE AND PRESSURE REGULATOR IN A RECTANGULAR VALVE BOX AND EXTEND SYSTEM AS SHOWN. SEE DETAIL BI2 ON SHEET LI-39.

(2)a IRRIGATION CONTROLLER- 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL ROUTE POWER CABLE TO CONTROLLER IN PVC CONDUIT AND MAKE PERMANENT CONNECTION TO THE CONTROLLER. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.

(2)b IRRIGATION CONTROLLER - PRIVATE SYSTEMS. 120 VAC POWER TO BE PROVIDED BY OWNER. CONTRACTOR SHALL INSTALL AN INDOOR IRRIGATION CONTROLLER AND A RAIN SENSOR. SEE DETAIL BI2 ON SHEET LI-39. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ORDINANCE AND/OR LOCAL CODE.

(3) LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR USC-FMS. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE APPROXIMATELY AS SHOWN 12" TO 18" FROM BACK OF CURB OR WALK.

(4) REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)

(5) SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD IN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 4 VALVE BOXES IN ONE AREA. SEPARATE VALVE BOX GROUPS BY 4' MIN.

(6) DRIVEWAY AND SIDEWALK CROSSING- MAINLINE, LATERAL LINE AND CONTROL WIRE SLEEVES UNDER ALL PAVING. SLEEVES TWO TIMES DIA. OF PIPE, 2" MIN. (TYP.)PULL BOX-CONTROL WIRE SLEEVES UNDER ALL PAVING TO INCLUDE PULL BOX AT ENDS OF SLEEVES. (TYP.)

(7) ALL OVERHEAD SPRINKLERS TO BE ADJUSTED AS NECESSARY TO PREVENT OVERSPRAY ONTO HARDSCAPE SURFACES OR, OTHERWISE OUTSIDE THE INTENDED AREA OF COVERAGE.

(8) SPRINKLERS LOCATED WITHIN 3 FT. OF CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, TOP AND TOE OF SLOPE OR ANY OTHER PAVING SURFACE, SHALL USE A POP-UP TYPE BODY AS LISTED IN THE IRRIGATION LEGEND. UNLESS NOTED OTHERWISE.

(9) SPRINKLERS LOCATED GREATER THAN THREE FEET FROM CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS, MID SLOPE, HOMEOWNER MAINTAINED PRIVATELY OWNED BACKYARD SLOPES OR ANY OTHER PAVING SURFACE, SHALL USE A SHRUB TYPE BODY AS LISTED IN THE IRRIGATION LEGEND AND INSTALLED ON A PVC SCH 80 RISER WITH SPRING CHECK VALVE AS DETAILED.

(10) RADIUS AND NOZZLE REDUCTION- SYSTEM DESIGN AND INSTALLATION IS TO FOLLOW TOPOGRAPHY AS MUCH AS IS PRACTICAL. WHERE TOPOGRAPHY AND ASSOCIATED HEAD LAYOUT IS TRUNCATED BY A DEFINITE BOUNDARY, FULL CIRCLE HEADS BECOME FILL HEADS WITH REDUCED RADIUS OF THROW. NOZZLES AT THESE HEADS IS ALSO REDUCED IN AN EFFORT TO MAINTAIN A TARGETED APPLICATION RATE OF .4IN/HR.

(11) RAINBIRD SQ-F SERIES MICRO SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

ALL BASE INFORMATION FOR THESE PLANS HAS BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND REFLECTS ARCHITECTURAL, CIVIL AND/OR MECHANICAL DESIGN AND/OR PLANS. THE LANDSCAPE ARCHITECT OR IRRIGATION CONSULTANT DEPENDS ON ACCURACY OF THIS OBTAINED INFORMATION. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

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FOR IRRIGATION SPECS SEE SHEETS LI-40 THRU LI-43.

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UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS) — W
- DOMESTIC SEWERLINE (PER CIVIL PLANS) — S
- RECYCLED WATERLINE (PER CIVIL PLANS) — RW
- STORM DRAINS (PER CIVIL PLANS)
- BLOWOFF VALVE
- AIR RELEASE VALVE
- FIRE HYDRANT
- TRACER WIRE ACCESS POINT (PER CIVIL PLANS) — T
- CATHODIC TEST STATION (PER CIVIL PLANS) — C
- STREET LIGHT

0' 20' 40' 80'

KEYMAP

Wall #1 LI-23 - LI-24, LP-23 - LP-24
Wall #2 LI-24 - LI-26, LP-24 - LP-26
Wall #3 LI-26 - LI-28, LP-26 - LP-28
Wall #4 LI-26 - LI-27, LP-26 - LI-27
Wall #5 LI-29, LP-29
Wall #6 LI-29, LP-29

OTAY WATER DISTRICT
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Inspector					
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Office ____ Field ____ Traffic ____

Designed By	Drawn By	Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date / / R.L.A. No. 4001

Plans Originally Approved: 5-15-17
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Drawing No. 16050 - 30B
Sheet 30B of 88

ΔNEW SHEET

LRWS# 2016-625

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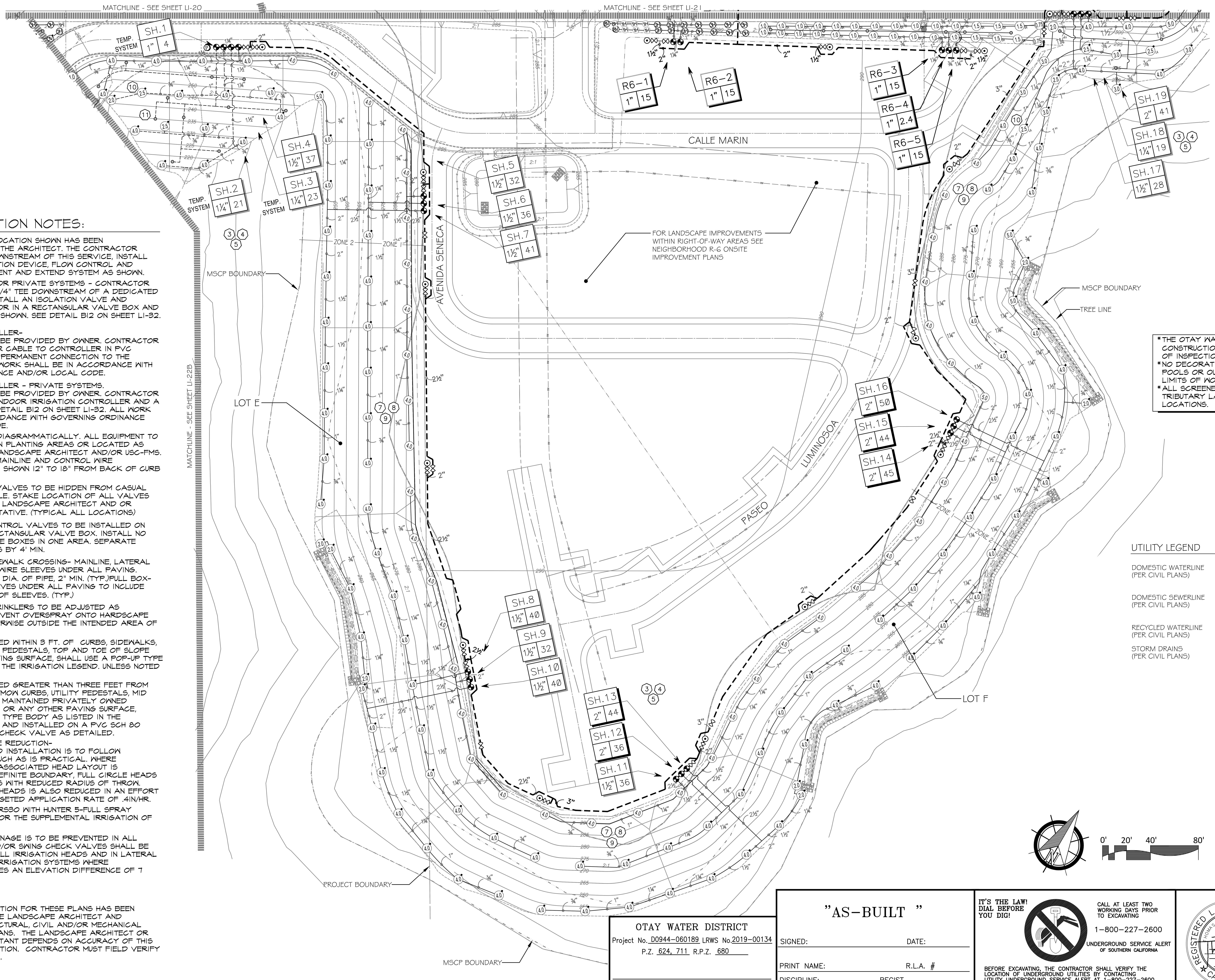

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11. HUNTER PROS-00-PRS30 WITH HUNTER 5-FULL SPRAY NOZZLE ON RISER FOR THE SUPPLEMENTAL IRRIGATION OF NEW TREES.

12. LATERAL LINE DRAINAGE IS TO BE PREVENTED IN ALL CASES. SPRING AND/OR SWING CHECK VALVES SHALL BE INSTALLED UNDER ALL IRRIGATION HEADS AND IN LATERAL LINE RUNS OF ALL IRRIGATION SYSTEMS WHERE TOPOGRAPHY CAUSES AN ELEVATION DIFFERENCE OF 7 FEET OR GREATER.

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STORM DRAINS (PER CIVIL PLANS)	TRACER WIRE ACCESS POINT (PER CIVIL PLANS)
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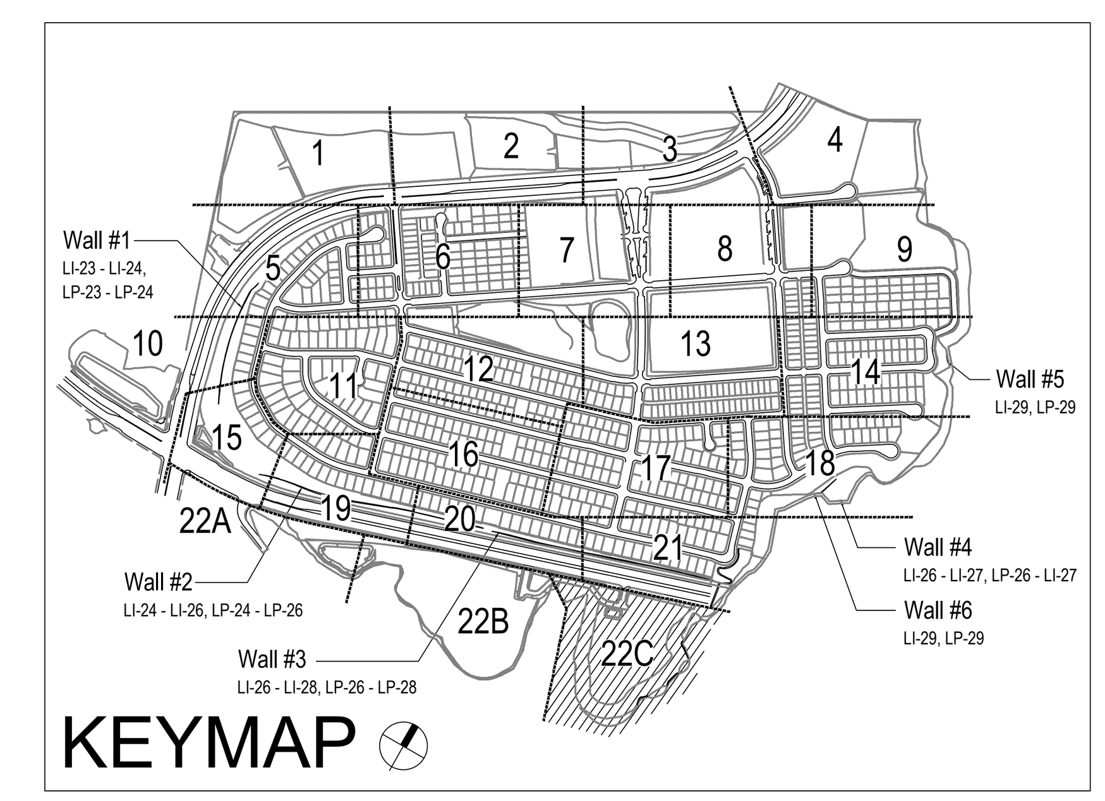

KEYMAP

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Project No. D0944-060189 LRWS No. 2019-00134
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Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
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CITY OF CHULA VISTA
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CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 30C
Sheet 30C of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-22C

OWD WO# D0944-060189

Otay Ranch, Village 3 - Slope & Erosion Control

DRIP IRRIGATION EQUIPMENT LEGEND FOR SYSTENS ASSOCIATED WITH THE MSE WALLS.

(symbol)	CONNECTION (SECONDARY POC)	CONTRACTOR FABRICATED	SOURCE WATER FOR ALL SYSTEMS PERTAINING TO IRRIGATION FOR PLANTINGS OF THE MSE WALLS OF THIS PROJECT WILL BE POC'S OF THE IN-TRACT STREETSCAPE/HOA MAINTAINED SYSTEMS. THESE POC'S ARE OUTSIDE THE LIMITS OF THIS PROJECT AND NOT A PART OF THIS WORK. COORDINATE WITH APPROPRIATE ON-SITE PERSONNEL.	NO DETAIL
(P)	PULL BOX	CONTROL WIRES FROM IN-TRACT STREET SCAPE PHASE	INSTALL IN SHRUB PLANTER AREAS WITHIN STANDARD RECTANGULAR VALVE BOX. NUMBER OF PILOT WIRES FOR STATIONS PLUS 4 SPARE AND COMMON WIRE. PROTECT WIRE ENDS WITH 3M-DRY CONNECTORS AND INCLUDE STATION LABELING FOR ALL WIRES.	D8, E LI-34
(symbol)	GATE VALVE (MAINLINE ISOLATION)	NIBCO T-113-BHW	FOR ISOLATION OF THE MSE WALL SYSTEMS, UNLESS NOTED ON THE PLANS, SIZED EQUAL TO PIPE SIZE. INSTALL IN GROUND COVER OR SHRUB PLANTER AREAS WITHIN STANDARD RECTANGULAR VALVE BOX AS DETAILED. INCLUDE CONTROLLER ID AND RW WARNING TAGS	B10/ LI-32 E/ LI-34
(PR)	PRESSURE REDUCING/REGULATING VALVE	WILKINS 500 SERIES	SIZED EQUAL TO PIPE SIZE. INSTALL IN GROUND COVER OR SHRUB PLANTER AREAS WITHIN STANDARD RECTANGULAR VALVE BOX AS DETAILED. INCLUDE CONTROLLER ID AND RW WARNING TAGS.	B-SERES /LI-31
(AVR)	AIR VACUUM RELIEF VALVE	1" BURMAD MODEL O2-ARC AND SPEARS 2121 SERIES PVC BALL VALVE	LOCATE AT HIGH POINT OF MAINLINE PIPE RUN. INSTALL IN GROUND COVER OR SHRUB PLANTER AREAS WITHIN STANDARD RECTANGULAR VALVE BOX AS DETAILED. INCLUDE CONTROLLER ID AND RW WARNING TAGS	D8, E LI-34
(line)	PVC MAINLINE	PACIFIC PLASTICS CYCLE FLOW RECYCLED WATER PVC	1" - 1.5" = PVC SCH 40; 2" AND 2.5" = PVC CLASS 315 W/ PVC SCH 80 DEEP BELL FITTINGS. (PURPLE PVC PIPE FOR USE WITH RECYCLED WATER)	D8, E LI-34
(line)	PVC LATERAL LINE (SUB-GRADE)	PACIFIC PLASTICS CYCLE FLOW RECYCLED WATER PVC	SIZED PER PLAN - .75" MINIMUM; PVC SCH 40 (PURPLE PVC PIPE FOR USE WITH RECYCLED WATER)	C SERES LI-32
(line)	PVC LATERAL LINE (ON MSE WALL)	PACIFIC PLASTICS SOLAR PROOF UVR PVC	SIZED PER PLAN - .75" MINIMUM; PVC SCH 40. IDENTIFIED FOR USE WITH RECYCLED WATER. PIPE IDENTIFICATION SHALL BE INSTALLED ON THE PIPE AT A MIN. EVERY 10 FT.	K1 LI-36
1" LOW FLOW / 1" MED. FLOW / 1.5" HIGH FLOW	REMOTE CONTROL VALVE ASSEMBLY - DRIP IRRIGATION RCV WITH SCREEN FILTER AND PRESSURE REGULATING VALVE	HUNTER INDUSTRIES-ICV-XXXG WITH RAINBIRD QKCHK-100 AND SENNINGER PRESET REG.	ASSEMBLE WITH EQUIPMENT AND SIZED ACCORDING TO FLOW AS SHOWN IN THE DETAIL DRAWINGS. INSTALL WITHIN RECTANGULAR VALVE BOX AS DETAILED.	J1, J2 LI-36
(symbol)	SWING CHECK VALVE	KING BROTHERS INDUSTRIES KSC-XXX-T (XXX=SIZE)	TO MINIMIZE LATERAL LINE DRAINAGE WHERE OPERATIONAL FLOW IS UP-HILL. SIZED EQUAL TO LATERAL LINE PIPE SIZE; 2" MAXIMUM. INSTALL AS DETAILED.	F1, F2/ LI-35 K1-36
(symbol)	SPRING CHECK VALVE	KING BROTHERS INDUSTRIES CV-XXX-FF (XXX=SIZE)	TO MINIMIZE LATERAL LINE DRAINAGE WHERE OPERATIONAL FLOW IS DOWN-HILL. SIZED EQUAL TO LATERAL LINE PIPE SIZE; 1" MAXIMUM. INSTALL AS DETAILED.	F1, F2/ LI-35 K1-36
NO SYMBOL	DRIP START CONNECTION	CONTRACTOR FABRICATED AS DETAILED	TRANSITION FROM PVC OR PE MANIFOLD TO DRIPPER LINES. SEE DETAIL DRAWINGS FOR THE VARIOUS SITUATIONS IE.. SUB-SURFACE, OR ON MSE WALL.	K SERIES LI-35
(A)	AIR / VACUUM RELIEF VALVE	NETAFIM TLAVRV AND TLO75FTEE AND .5X.75 TT BUSHING	SEE DETAIL DRAWINGS FOR THE VARIOUS SITUATIONS IE.. SUB-SURFACE, OR ON MSE WALL.	K SERIES LI-35
(F)	DRIP LINE FLUSH VALVE	NETAFIM TLSOV	SEE DETAIL DRAWINGS FOR THE VARIOUS SITUATIONS IE.. SUB-SURFACE, OR ON MSE WALL.	K SERIES LI-35
(dotted line) •	POLYETHELE DRIPPER LINE WITH PREINSERTED EMITTERS. (FOR USE ON MSE WALLS. SEE PLAN SHEETS SPECIFIC TO THE MSE WALLS)	NETAFIM TLHCVXR-RW3-1210 (BROWN COLORED TUBING W/ PURPLE STRIPE FOR RECYCLED WATER)	DRIPPER LINE W/ PRE-INSERTED 0.4 GPH PRESSURE COMPENSATING EMITTERS @ 12" O.C. DRIPPER LINES PLACED IN NOTCH OF MSE BLOCK ALONG PLANTED COURSE AND SECURED AT EVERY OPEN BLOCK CELL WITH NETAFIM TLSE6 STAPLES.	K SERIES LI-35
(dashed line)	POLYETHELE DRIPPER LINE WITH PREINSERTED EMITTERS. (SUB-SURAFCE APPLICATIONS AT BASE OF MSE WALLS)	NETAFIM TLHCVXR-RW3-1210 (PURPLE COLORED TUBING FOR RECYCLED WATER)	DRIPPER LINE W/ PRE-INSERTED 0.4 GPH PRESSURE COMPENSATING EMITTERS @ 12" O.C. DRIPPER LINES PLACED IMMEDIATELY ADJACENT TO ROOTBALL OF PLANTED SHRUBBERY AND LOCATED UPHILL ON THE WALL SIDE.	K SERIES LI-35
NO SYMBOL	ALL DRIPPER LINES	ALL DRIP LINES TO BE SECURED INTO IRRIGATION NOTCH OF MSE BLOCK WITH NETAFIM TLS6 STAPLES AT EVERY OTHER CELL. TUBING SHALL NOT BE KINKED. ALL DRIP LINE CONNECTION TO BE WITH NETAFIM 17MM INSERT FITTINGS. ALL DRIPPER LINE CONNECTIONS ON THE WALL SHALL BE SECURED WITH OTIKER STAINLESS STEEL BAND.		NO DETAIL

NOTE:
• DIFFERENT LINE TYPE FOR ON WALL SYSTEMS INDICATES CONTROL ZONE SEPARATION.

THE PROJECT - MECHANICALLY STABILIZED EARTH (MSE) WALLS

1. IRRIGATION SYSTEMS DESCRIBED BY THESE PLANS ARE PRIMARILY FOR THE SUPPORT OF EROSION CONTROL PLANTINGS ASSOCIATED WITH THE MECHANICALLY STABILIZED EARTH (MSE) WALLS.

2A. ALL IRRIGATION SYSTEMS AND WORK ON THESE HOME OWNER ASSOCIATION MAINTAINED STRUCTURES SHALL BE CONNECTED TO A P.O.C. INTENDED FOR USE OF RECYCLED WATER. USE OF RECYCLED WATER REQUIRES THAT ALL PIPE, SLEEVES, SPRINKLER HEADS, REMOTE CONTROL VALVES, QUICK COUPLER VALVES AND VALVE BOXES BE IDENTIFIED AS CONTAINING RECYCLED WATER AND ACCORDING TO RULES AND REGULATIONS OF THE SERVING WATER DISTRICT AND ALL OTHER CODES AND ORDINANCES AFFECTING CONSTRUCTION WITH OR USE OF RECYCLED WATER.

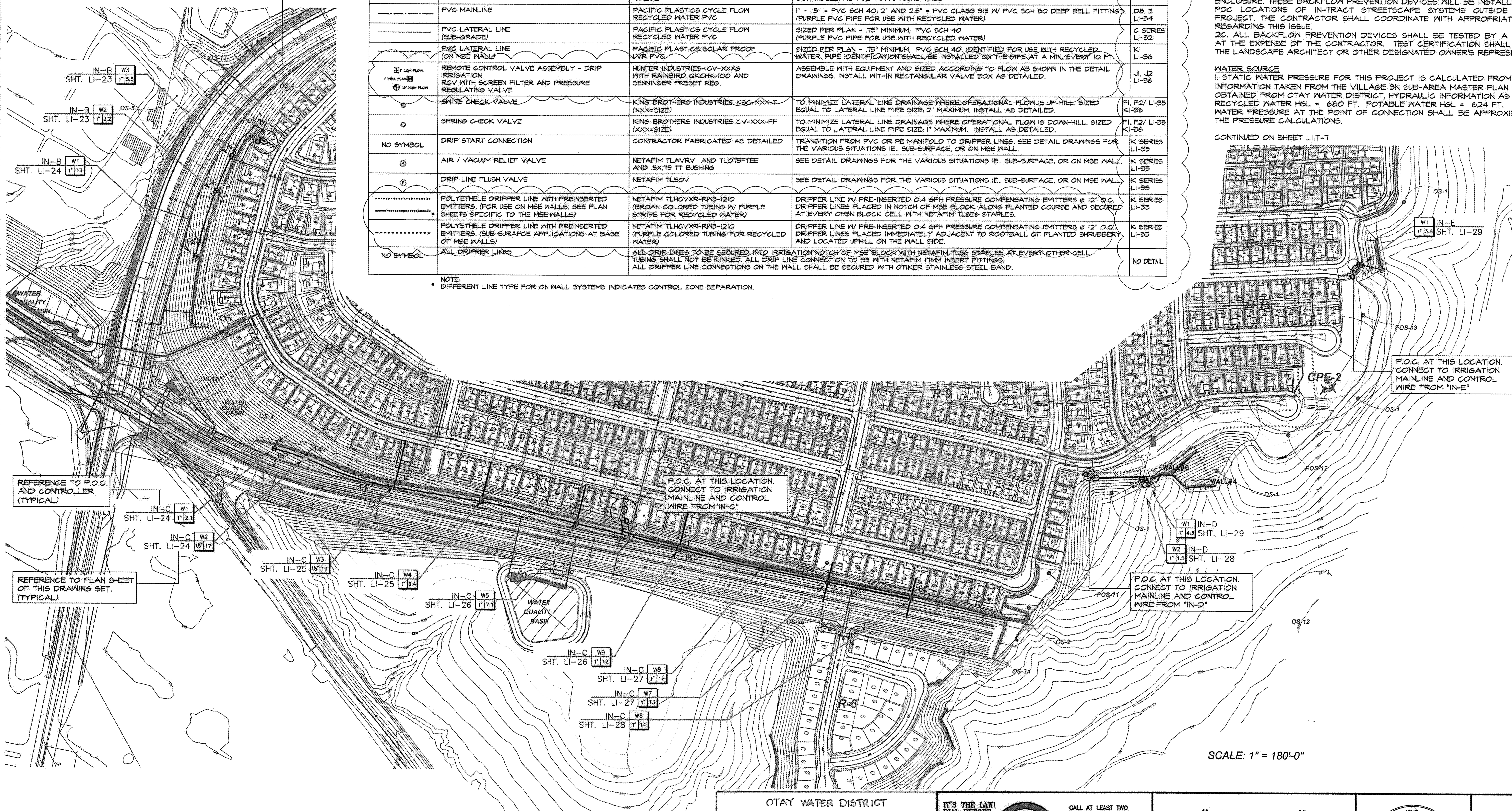
2B. IRRIGATION OF THE PLANTINGS ON THESE STRUCTURES WILL INCLUDE FERTILIZER INJECTION EQUIPMENT TO AID IN MANAGEMENT OF THESE DIFFICULT TO ACCESS AREAS. ALL IRRIGATION SYSTEMS INTENDING TO EMPLOY FERTILIZER INJECTION SHALL BE DOWNSTREAM OF AN APPROVED REDUCED PRESSURE TYPE BACKFLOW PREVENTION DEVICE WITH SECURITY ENCLOSURE. THESE BACKFLOW PREVENTION DEVICES WILL BE INSTALLED AT THE PERMANENT POC LOCATIONS OF IN-TRACT STREETSCAPE SYSTEMS OUTSIDE THE LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL COORDINATE WITH APPROPRIATE ON-SITE PERSONNEL REGARDING THIS ISSUE.

2C. ALL BACKFLOW PREVENTION DEVICES SHALL BE TESTED BY A CERTIFIED TECHNICIAN AT THE EXPENSE OF THE CONTRACTOR. TEST CERTIFICATION SHALL BE DOCUMENTED WITH THE LANDSCAPE ARCHITECT OR OTHER DESIGNATED OWNER'S REPRESENTATIVE.

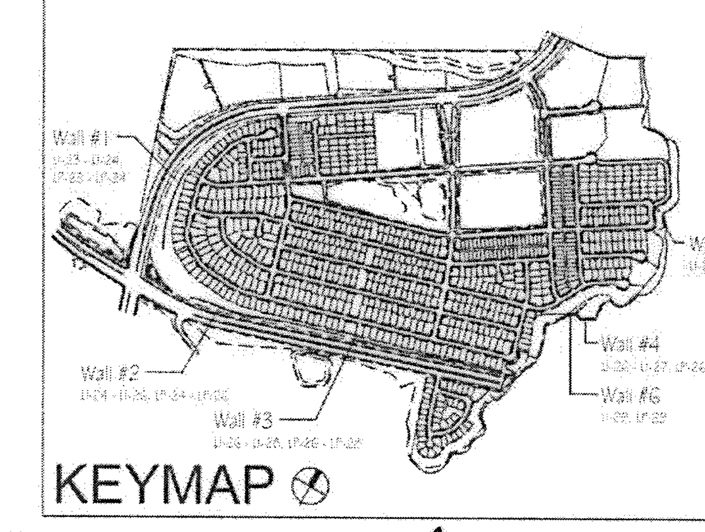
WATER SOURCE

1. STATIC WATER PRESSURE FOR THIS PROJECT IS CALCULATED FROM HYDRAULIC GRADIENT INFORMATION TAKEN FROM THE VILLAGE 3N SUB-AREA MASTER PLAN (SAMP), DATED SEP. '16 OBTAINED FROM OTAY WATER DISTRICT. HYDRAULIC INFORMATION AS FOLLOWS:
RECYCLED WATER HGL = 680 FT. POTABLE WATER HGL = 624 FT.
WATER PRESSURE AT THE POINT OF CONNECTION SHALL BE APPROXIMATELY AS SHOWN BY THE PRESSURE CALCULATIONS.

CONTINUED ON SHEET LI.T-7



SCALE: 1" = 180'-0"



KEYMAP

Notes:
1) See sheets LI-23 - LP-29 for wall specific irrigation plans.
2) Wall elevations correspond to station points reference on sheets LP-1 - LP-22.
3) All MSE walls shown on the plan will be approved by separate permit

OTAY WATER DISTRICT
PROJECT No. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 08/14/18
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT · THOMAS A. PICARD · 4001 · 9/30/19 · CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

(A)	3 JUL 18
DATE:	15 FEB '18
SCALE:	1" = 180'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	(A) ADD SHUTOFF VALVES & INDUSTRIAL PAD SLOPES	7/3/18	
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal — Vertical N/A

Office — Field — Traffic

Designed By — Drawn By — Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD Date 6/6/18 R.L.A. No. 4001

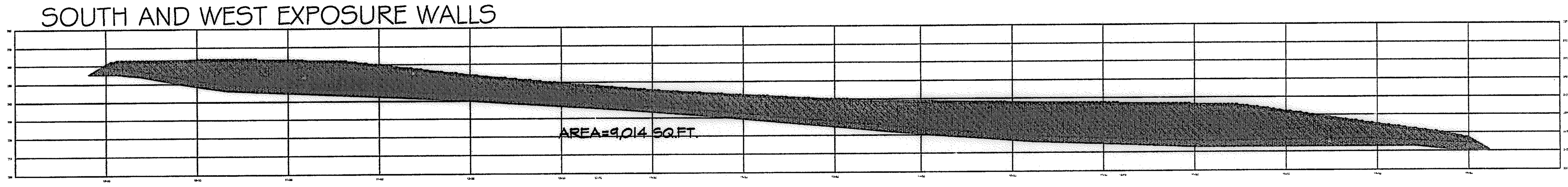
Approved: Date: 8-31-18 (ORIGINALLY APPROVED 5-15-17)
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
MSE WALL PLANTING PLANS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 31
Sheet 31 of 88

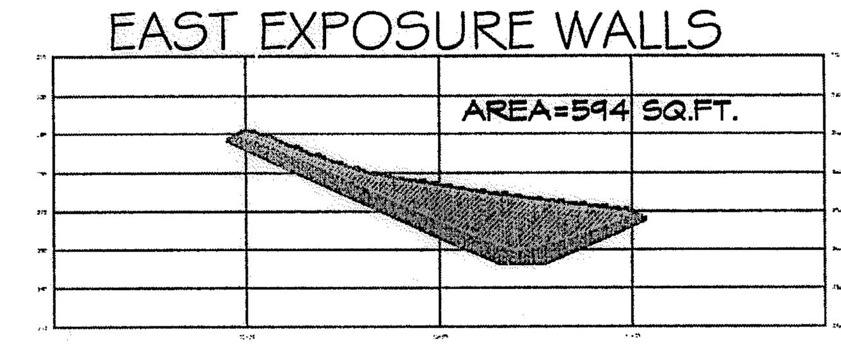
REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 T-6

SOUTH AND WEST EXPOSURE WALLS

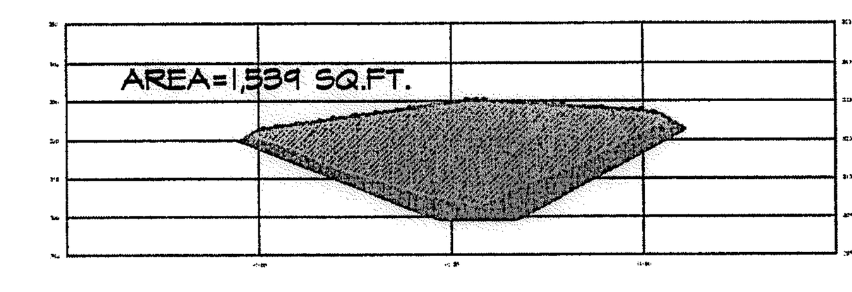


(A) WALL #1 PROFILE WEST EXPOSURE
STA. 10+00 to 17+51.75(Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)

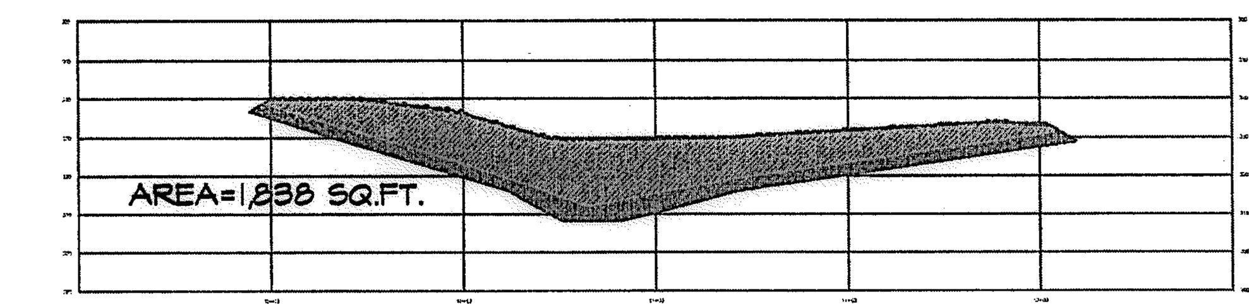
EAST EXPOSURE WALLS



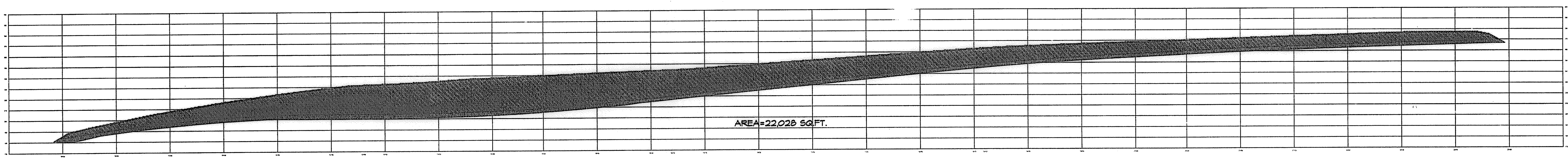
(D) WALL #4 PROFILE
STA. 10+00 to 10+96.72



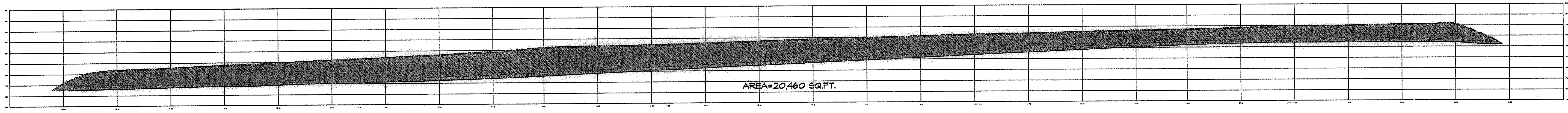
(E) WALL #5 PROFILE
STA. 10+00 to 11+04.86



(F) WALL #6 PROFILE
STA. 10+00 to 12+02.67



(B) WALL #2 PROFILE SOUTH EXPOSURE
STA. 10+00 to 23+37.09 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)



(C) WALL #3 PROFILE SOUTH EXPOSURE
STA. 10+00 to 23+50 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)

THE PROJECT - MECHANICALLY STABILIZED EARTH (MSE) WALLS

CONTINUED FROM SHEET L1.T-6

WATER SOURCE
2. CONTRACTOR SHALL INSTALL AND MONITOR A PRESSURE READING RECORDER AT AN EXISTING RECYCLED IRRIGATION METER, NEARBY THE PROJECT LOCATION, AS DIRECTED BY THE CITY'S LANDSCAPE INSPECTOR. THE RECORDER SHALL MEASURE A CONSTANT PRESSURE READING FOR A PERIOD FOR NO LESS THAN 72 CONTINUOUS HRS. IF THE READINGS ARE FOUND TO CONSISTENTLY CONTAIN SIGNIFICANTLY LOWER PRESSURE THEN THE DESIGN PRESSURE STATED ON THE PLANS (AS DETERMINED BY THE CITY'S LANDSCAPE INSPECTOR), AN IRRIGATION BOOSTER PUMP SHALL BE INSTALLED AT NO COST TO THE CITY. BOOSTER PUMP SHALL BE INCLUDED AS AN ADDITIVE ALTERNATE BID ITEM.
IRRIGATION BOOSTER PUMP ASSEMBLY TO BE AS ASSEMBLED BY AND PURCHASED FROM BARRETT ENGINEERED PUMPS. CONTACT GREEN PRODUCT SALES (949) 585-7311. FINAL SPECIFICATION OF PUMP TO BE DETERMINED SUBSEQUENT TO PRESSURE RECORDING AND JUDGEMENT OF THE CITY'S LANDSCAPE INSPECTOR.
3. PURCHASE OF EQUIPMENT AND ANY INSTALLATIONS WHEN EXISTING STATIC PRESSURE IS BELOW THAT STATED ABOVE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. THE IRRIGATION POINT OF CONNECTION SHALL BE DOWNSTREAM OF RECYCLED WATER IRRIGATION METER PROVIDED BY OTHERS (SEE CIVIL DRAWINGS). THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THE METER AND EXTEND COPPER OR BRASS PIPE AND FITTINGS TO THE SPECIFIED STRAINER, CHECK VALVE AND PRESSURE CONTROL EQUIPMENT. PVC PIPE AND FITTINGS SHALL BE INSTALLED DOWNSTREAM OF THE P.O.C. ASSEMBLY.

FOR OTHER IRRIGATION NOTES SEE SHEETS L1-30 AND L1-31.

VALVE CALL-OUT SYMBOL
FOR C.F.D. AND/OR HOA AREAS

STATION NUMBER — 22
CONTROLLER — BB
DISCHARGE (GPM) — 19
VALVE SIZE — 1"

* THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
* NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
* ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

Notes:
1) See sheets LP-22 - LP-24 for wall specific plant palettes.
2) Wall elevations correspond to station points reference on sheets LP-1 - LP-22.
3) All MSE walls shown on the plan will be approved by separate permit

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC.
DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

SOUTH AND WEST EXPOSURE WALLS

WALL #1
WATER SOURCE - POC "N-B" WEST SIDE OF SANTA MAYA AT RD.ST. 16+80 SEE PLANS FOR "R1" AND "R2" IN-TRACT PARKWAYS. IRRIGATION OF PLANTED AREA AT THIS WALL WILL BE ADDED TO THE ABOVE REFERENCED WATER SOURCE.
FACTORS FOR WATER REQUIREMENT CALCULATIONS-
9,014 SQ.FT. IRRIGATED AREA. — ENG. GRADING PLANS
51.2" ETo — CIMIS
0.81 IRRIGATION EFFICIENCY — MWELO- DRIP IRRIGATION

0.259 Lc- LANDSCAPE COEFFICIENT. — WUCOLS- IV
Ks- SPECIES FACTOR=.3 — WUCOLS- LOW CONSUMPTIVE
Kmc- MICROCLIMATE FACTOR=1.15 — WUCOLS- SOUTH EXPOSURE
Kd- DENSITY FACTOR=.75 — WUCOLS- SPARCE PLANTING

MAWA= 51.2 X 1.0 X 9,014 X 0.62 = 248,137 GPY
EWU= (51.2 X .259)/0.81 X 9,014 X .062= 79,342 GPY 31.9% MAWA

WALL #2
WATER SOURCE - POC "N-C" WEST SIDE OF SANTA MAYA AT RD.ST. 16+90 SEE PLANS FOR "R1", "R2" AND "R3" IN-TRACT PARKWAYS. IRRIGATION OF PLANTED AREA AT THIS WALL WILL BE ADDED TO THE ABOVE REFERENCED WATER SOURCE.
FACTORS FOR WATER REQUIREMENT CALCULATIONS-
22,028 SQ.FT. IRRIGATED AREA. — ENG. GRADING PLANS
51.2" ETo — CIMIS
0.81 IRRIGATION EFFICIENCY — MWELO- DRIP IRRIGATION

0.259 Lc- LANDSCAPE COEFFICIENT. — WUCOLS- IV
Ks- SPECIES FACTOR=.3 — WUCOLS- LOW CONSUMPTIVE
Kmc- MICROCLIMATE FACTOR=1.15 — WUCOLS- SOUTH EXPOSURE
Kd- DENSITY FACTOR=.75 — WUCOLS- SPARCE PLANTING

MAWA= 51.2 X 1.0 X 22,028 X 0.62 = 606,386 GPY
EWU= (51.2 X .259)/0.81 X 12,028 X .062= 193,894 GPY 31.9% MAWA

WALL #3
WATER SOURCE - POC "N-C" WEST SIDE OF SANTA MAYA AT RD.ST. 16+90 SEE PLANS FOR "R1", "R2" AND "R3" IN-TRACT PARKWAYS. IRRIGATION OF PLANTED AREA AT THIS WALL WILL BE ADDED TO THE ABOVE REFERENCED WATER SOURCE.
FACTORS FOR WATER REQUIREMENT CALCULATIONS-
20,460 SQ.FT. IRRIGATED AREA. — ENG. GRADING PLANS
51.2" ETo — CIMIS
0.81 IRRIGATION EFFICIENCY — MWELO- DRIP IRRIGATION

0.259 Lc- LANDSCAPE COEFFICIENT. — WUCOLS- IV
Ks- SPECIES FACTOR=.3 — WUCOLS- LOW CONSUMPTIVE
Kmc- MICROCLIMATE FACTOR=1.15 — WUCOLS- SOUTH EXPOSURE
Kd- DENSITY FACTOR=.75 — WUCOLS- SPARCE PLANTING

MAWA= 51.2 X 1.0 X 20,460 X 0.62 = 563,222 GPY
EWU= (51.2 X .259)/0.81 X 20,460 X .062= 180,091 GPY 31.9% MAWA

EAST EXPOSURE WALLS

WALL #4
WATER SOURCE - POC "IN-D" SOUTH SIDE OF CALLE DECEO AT RD.ST. 32+90 SEE PLANS FOR "R7" THROUGH "R9" IN-TRACT PARKWAYS. IRRIGATION OF PLANTED AREA AT THIS WALL WILL BE ADDED TO THE ABOVE REFERENCED WATER SOURCE.
FACTORS FOR WATER REQUIREMENT CALCULATIONS-
544 SQ.FT. IRRIGATED AREA. — ENG. GRADING PLANS
51.2" ETo — CIMIS
0.81 IRRIGATION EFFICIENCY — MWELO- DRIP IRRIGATION

0.191 Lc- LANDSCAPE COEFFICIENT. — WUCOLS- IV
Ks- SPECIES FACTOR=.3 — WUCOLS- LOW CONSUMPTIVE
Kmc- MICROCLIMATE FACTOR=0.85 — WUCOLS- EAST EXPOSURE
Kd- DENSITY FACTOR=.75 — WUCOLS- SPARCE PLANTING

MAWA= 51.2 X 1.0 X 594 X 0.62 = 16,352 GPY
EWU= (51.2 X .191)/0.81 X 594 X .062= 3,856 GPY 23.6% MAWA

WALL #5
WATER SOURCE - POC "IN-E" NORT SIDE OF CALLE DECEO AT RD.ST. 32+90 SEE PLANS FOR "R10" THROUGH "R13" IN-TRACT PARKWAYS. IRRIGATION OF PLANTED AREA AT THIS WALL WILL BE ADDED TO THE ABOVE REFERENCED WATER SOURCE.
FACTORS FOR WATER REQUIREMENT CALCULATIONS-
1,589 SQ.FT. IRRIGATED AREA. — ENG. GRADING PLANS
51.2" ETo — CIMIS
0.81 IRRIGATION EFFICIENCY — MWELO- DRIP IRRIGATION

0.191 Lc- LANDSCAPE COEFFICIENT. — WUCOLS- IV
Ks- SPECIES FACTOR=.3 — WUCOLS- LOW CONSUMPTIVE
Kmc- MICROCLIMATE FACTOR=0.85 — WUCOLS- EAST EXPOSURE
Kd- DENSITY FACTOR=.75 — WUCOLS- SPARCE PLANTING

MAWA= 51.2 X 1.0 X 1,589 X 0.62 = 42,366 GPY
EWU= (51.2 X .191)/0.81 X 1,589 X .062= 9,990 GPY 23.6% MAWA

WALL #6
WATER SOURCE - POC "IN-D" SOUTH SIDE OF CALLE DECEO AT RD.ST. 32+50 SEE PLANS FOR "R7" THROUGH "R9" IN-TRACT PARKWAYS. IRRIGATION OF PLANTED AREA AT THIS WALL WILL BE ADDED TO THE ABOVE REFERENCED WATER SOURCE.
FACTORS FOR WATER REQUIREMENT CALCULATIONS-
1,838 SQ.FT. IRRIGATED AREA. — ENG. GRADING PLANS
51.2" ETo — CIMIS
0.81 IRRIGATION EFFICIENCY — MWELO- DRIP IRRIGATION

0.191 Lc- LANDSCAPE COEFFICIENT. — WUCOLS- IV
Ks- SPECIES FACTOR=.3 — WUCOLS- LOW CONSUMPTIVE
Kmc- MICROCLIMATE FACTOR=0.85 — WUCOLS- EAST EXPOSURE
Kd- DENSITY FACTOR=.75 — WUCOLS- SPARCE PLANTING

MAWA= 51.2 X 1.0 X 1,838 X 0.62 = 42,366 GPY
EWU= (51.2 X .191)/0.81 X 1,838 X .062= 9,990 GPY 23.6% MAWA

WATER USE CALCULATIONS FOR OTAY RANCH V3 MSE WALLS
DESCRIPTION FACTORS USED IN THE WATIR REQUIREMENT CALCULATIONS:

MICROCLIMATE FACTOR
SUN;
S.W EXPOSURE Kmc=1.15 - WALL PLANTINGS FACING THE SOUTH AND WEST.
PART SUN;
EAST EXPOSURE Kmc=0.85 - WALL PLANTINGS FACING EAST

SPECIES FACTOR
HIGH OF THE LOW RANGE WATER CONSUMPTIVE PLANTINGS; Ks=0.3

DENSITY FACTOR
MEDIUM SPARSE PLANTING; Kd=0.75 75 % OF WALL FACE COVERED.

IRRIGATION EFFICIENCY:
DRIP IRRIGATION; IEA=0.81. (MWELO)

LEGEND

SEE SHEETS T-2/T-3	PROPOSED RECYCLED WATER METER
SEE SHEETS T-2/T-3	PROPOSED RRIGATION RECYCLED WATER MAIILINE
SEE SHEETS T-2/T-3	POTABLE WATER LINES (PER CIVIL PLANS)
SEE SHEETS T-2/T-3	RECYCLED WATER LINE (PER CIVIL PLANS)
(symbol)	PROPOSED RECYCLED WATER SIGN LOCATION
(hatch)	AREA PROPOSED FOR RECYCLED WATER USE S.W.EXPOSURE
(hatch)	AREA PROPOSED FOR RECYCLED WATER USE EAST EXPOSURE
'POC'	PROPOSED METER AND EQUIPMENT LOCATION

FINAL EQUIPMENT LOCATION

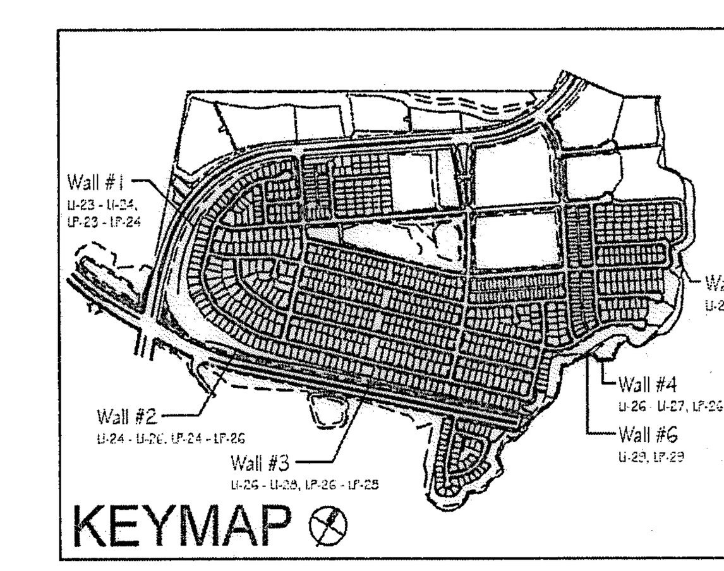
1. MAJOR IRRIGATION EQUIPMENT IN PLANTER BEDS SHALL BE HIDDEN FROM CASUAL VIEW.
2. THE FINAL LOCATION OF ALL VALVES SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT AND THE CITY OF CHULA VISTA LANDSCAPE INSPECTOR IN THE FIELD PRIOR TO INSTALLATION. SEE PLANS FOR PARTICULAR INFORMATION ON VALVE PLACEMENT.
3. THE CONTRACTOR SHALL STAKE LOCATIONS FOR REVIEW AND ADJUSTMENT BY THE LANDSCAPE
ARCHITECT AND THE CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR PRIOR TO INSTALLATION. NECESSARY RELOCATION OF IRRIGATION EQUIPMENT AS A RESULT OF THE CONTRACTORS FAILURE TO STAKE LOCATION AND RECEIVE APPROVAL SHALL BE AT THE CONTRACTORS EXPENSE.

MEANS AND METHODS

IRRESPECTIVE OF ANY OTHER TERM IN THESE CONSTRUCTION DOCUMENTS, THE IRRIGATION CONSULTANT SHALL NOT CONTROL OR BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SCHEDULES, SEQUENCES OR PROCEDURES; OR FOR CONSTRUCTION SAFETY OR ANY OTHER RELATED PROGRAMS; OR FOR ANOTHER PARTIES' ERRORS OR OMISSIONS OR FOR ANOTHER PARTIES' FAILURE TO COMPLETE THEIR WORK OR SERVICES IN ACCORDANCE WITH IRRIGATION CONSULTANT'S DOCUMENTS.

PROJECT MAINTENANCE

A LACK OF MAINTENANCE OR IMPROPER MAINTENANCE IN AREAS SUCH AS OR ASSOCIATED WITH, BUT NOT LIMITED TO, LANDSCAPE PLANTING, HARDSCAPE, LIGHTING, GRADING, DRAINAGE, WATER FEATURES, FURNISHINGS, AND IRRIGATION OR WATER MANAGEMENT WHETHER ASSOCIATED WITH THE PROJECT OR NOT MAY RESULT IN DAMAGE TO PROPERTY OR PERSONS. THE CONTRACTOR ACKNOWLEDGES AND AGREES THAT PROPER PROJECT MAINTENANCE IS REQUIRED AFTER THE PROJECT IS COMPLETE AND TO INFORM THE OWNER OF HIS/HER SOLE RESPONSIBLE FOR THE RESULTS OF ANY LACK OF MAINTENANCE OR IMPROPER MAINTENANCE.



KEYMAP

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 CALIFORNIA — 4/5/17

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 40'; Vertical N/A

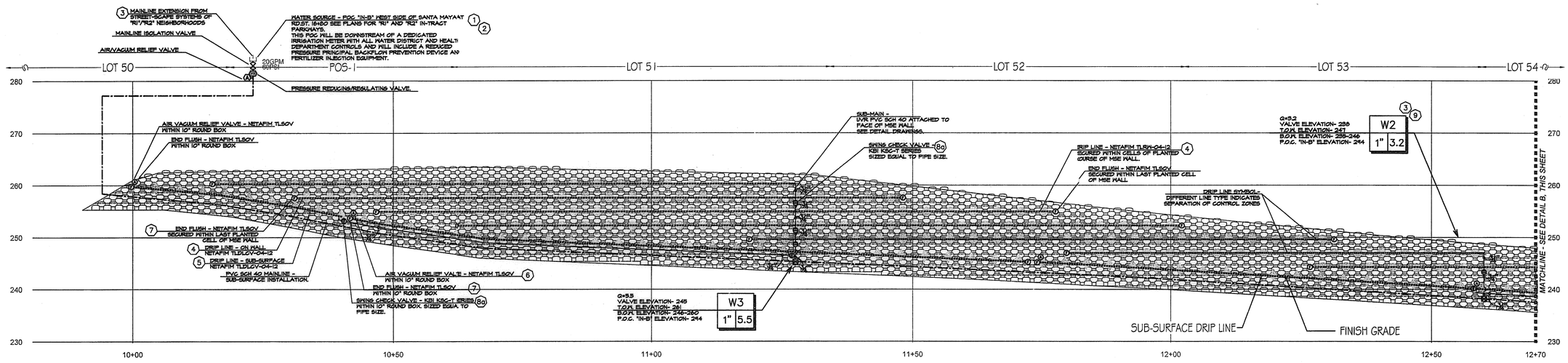
Office ___ Field ___ Traffic ___

Designed By | Drawn By | Checked By
Plans Prepared Under Supervision Of — THOMAS A. PICARD — Date / / — R.L.A. No. 4001

Approved: Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
MSE WALL PLANTING PLANS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

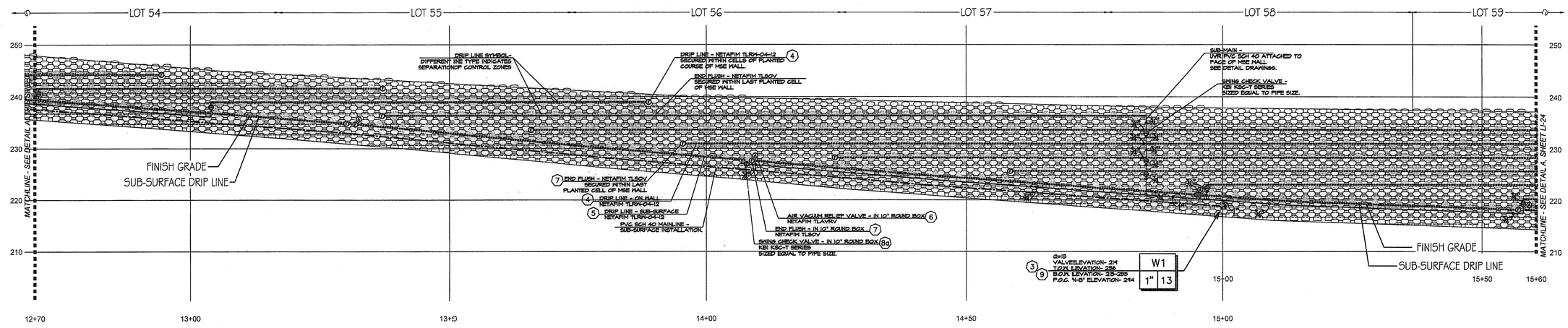
Drawing No. 16050 - 32
Sheet 32 of 88



A WALL #1 PROFILE -IRRIGATION (SEGMENT 1)

STA. 10+00 to 12+70 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs,Inc.)

SCALE: 1" = 10'-0"



B WALL #1 PROFILE - IRRIGATION (SEGMENT 2)

STA. 12+70 to 15+60 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs,Inc.)

SCALE: 1" = 10'-0"

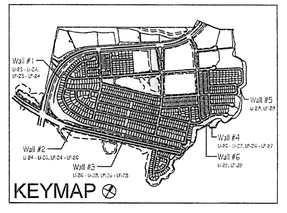
CONSTRUCTION NOTES:

1. IRRIGATION POINT OF CONNECTION (P.O.C.)
THE WATER SOURCE, PRIMARILY FOR THE PARKWAYS OF THE MASTER HOA, IS FROM AN R.W. WATER METER AND ALL REQUIRED BACKFLOW PREVENTION EQUIPMENT OUTSIDE THE LIMITS OF THIS PROJECT. THESE PLANS CALL FOR THE INSTALLATION OF A MAINLINE STUB-OUT FROM THIS SOURCE TO THE LOCATION SHOWN. THE CONTRACTOR SHALL CONNECT TO THE MAINLINE STUB-OUT AT THIS APPROXIMATE LOCATION AND EXTEND AS SHOWN.
2. IRRIGATION CONTROLLER-
THE CONTROLLER, INTENDED PRIMARILY FOR THE PARKWAYS OF THE MASTER HOA, IS OUTSIDE THE LIMITS OF THIS PROJECT. THESE PLANS CALL FOR THE INSTALLATION OF CONTROL WIRE FROM THIS CONTROLLER TO THE LOCATION SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CONNECT TO CONTROL WIRES AT THIS APPROXIMATE LOCATION AND EXTEND AS NEEDED.
3. LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OTHER AUTHORIZED REPRESENTATIVE. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE APPROXIMATELY AS SHOWN.
4. DRIP IRRIGATION FOR SHRUB AND VINE PLANTINGS OF THE MSE WALL. DRIP TUBING WITH PRE-INSERTED, .40 GPH PRESSURE COMPENSATING EMITTERS AT 12" O.C. TUBING TO BE ROUTED THROUGH MANUFACTURED NOTCH OF THE MSE BLOCK AND SECURE WITH STAPLES AT EVERY OPEN CELL. ALL TUBING TO FITTING CONNECTIONS INSTALLED ON THE MSE WALL SHALL BE SECURED WITH OETIKER STAINLESS STEEL CLAMPS-PART #21055- AS RECOMMENDED BY NETAFIM. (AVG. APPLICATION RATE = .642 in/hr. ASSUMING A 12" WETTED WIDTH)
5. DRIP IRRIGATION FOR SHRUB AND VINE PLANTINGS AT BASE OF MSE WALL. DRIP TUBING WITH PRE-INSERTED, .40 GPH PRESSURE COMPENSATING EMITTERS AT 12" O.C. TUBING TO BE ROUTED ON THE UP-HILL SIDE OF THE PLANTED ROW. DRIP LINE TO BE LOCATED AS TO PLACE THE TUBING ADJACENT TO THE ORIGINAL ROOT BALL.
THIS IS A SUB-SURFACE INSTALLATION- TUBING WITH 4" TOPSOIL COVER AND SECURES WITH STAPLES 4' O.C. (AVG. APPLICATION RATE = .642 in/hr. ASSUMING A 12" WETTED WIDTH)

ALL BASE INFORMATION FOR THESE PLANS HAS BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND REFLEC'S ARCHITECTURAL, CIVIL AND/OR MECHANICAL DESIGN AND/OR PLANS. THE LANDSCAPE ARCHITECT OR IRRIGATION CONSULTANT DEPENDS ON ACCURACY OF THIS OBTAINED INFORMATION. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

6. AIR/VACUUM RELIEF VALVE. REQUIRED FOR ALL SUBSURFACE DRIP TUBING. LOCATION SHOWN DIAGRAMMATICALLY; VALVE TO BE INSTALLED AT HIGHEST LOCAL ELEVATION (TYP. THROUGHOUT).
7. FLUSH VALVES INSTALLED AT LATERAL ENDS OR ON FLUSH MANIFOLDS OF ALL DRIP SYSTEMS (TYP.)
8. CHECK VALVES FOR REDUCTION OF LATERAL LINE DRAINAGE ARE PLACED TO DIVIDE SYSTEMS INTO CHECKED ZONES. ALL CHECKED ZONES MUST BE SEPARATED AT THE LATERAL ENDS. THERE CAN BE NO FLUSH MANIFOLD CROSSING FROM ONE CHECKED ZONE TO ANOTHER.
   - 8a SWING TYPE: FOR USE WHEN OPERATIONAL FLOW IS FROM LOW TO HIGH ELEVATION.
   - 8b SPRING TYPE: FOR USE WHEN OPERATIONAL FLOW IS FROM HIGH TO LOW ELEVATION.
9. REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)

Notes:
1) See sheets LP-22 - LP-24 for wall specific plant palettes.
2) Wall elevatons correspond to station points reference on sheets LP-1 - LP-22.
3) All MSE walls shown on the plan will be approved by separate permit



OTAY WATER DISTRICT
PROJECT NO. 00944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE:
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Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-30016

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" ION PIPE.
LOCATION: .5 MILES EAST OF INTX OF MAIN ST. & HERITAGE D. ON ROCK MOUNTAIN 100' EASTERLY OF "MONUMENT 10' HIGH BOULDER & 1700' SOUTHERLY F WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 4841) ELEV=529.315' (NAVD'88)

SCALE: Horizontal 1" = 40' Vertical N/A

Office ____ Field ____ Traffic ____

Designed By ____ Drawn By ____ Checked By ____

Plans Prepared Under Supervision Of
THOMAS A. PICARD Date __/__/__ R.L.A. No. 4001

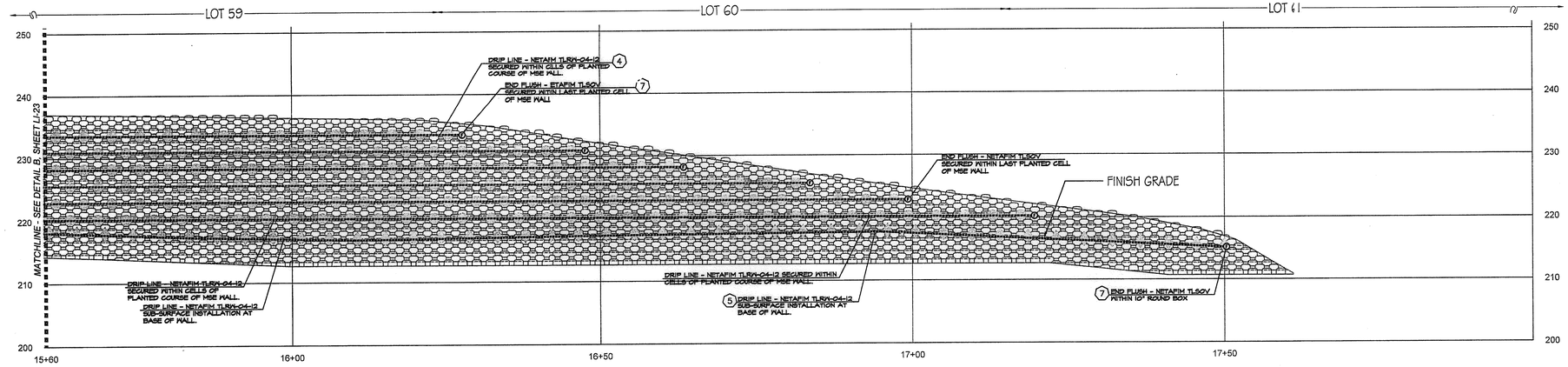
Approved: Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
MSE WALL PLANTING PLANS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 33
Sheet 33 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-23

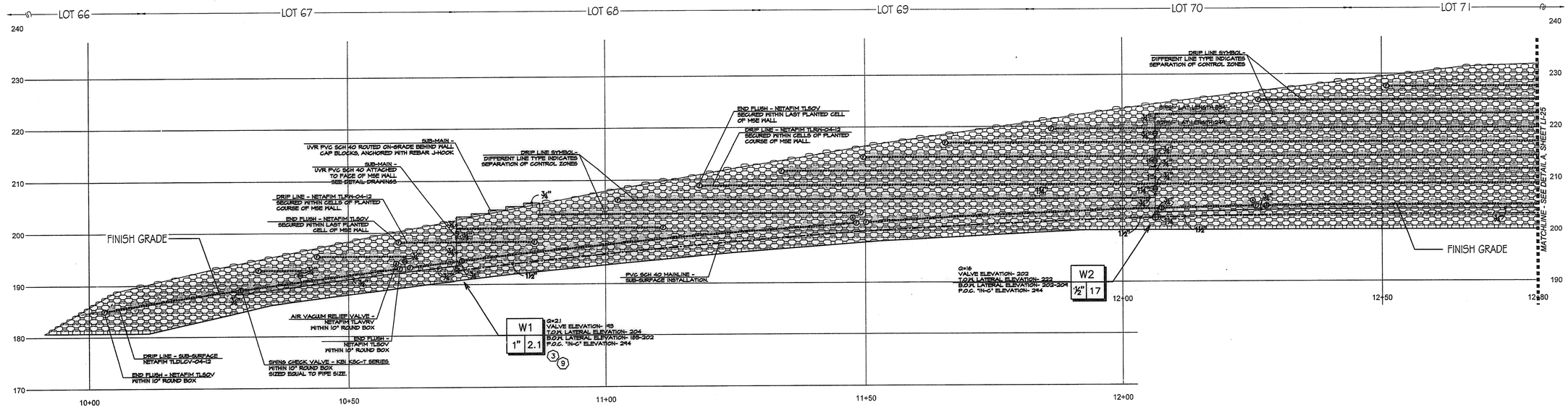
Print Date: 10 APR '17
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



A WALL #1 PROFILE - IRRIGATION (SEGMENT 3)

STA. 15+60 to 17+51.75 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)

SCALE: 1" = 10'-0"



B WALL #2 PROFILE - IRRIGATION (SEGMENT 1)

STA. 10+00 to 12+80 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)

SCALE: 1" = 10'-0"

CONSTRUCTION NOTES:

1. IRRIGATION POINT OF CONNECTION (P.O.C.)
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2. IRRIGATION CONTROLLER-
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   - 8a) SWING TYPE:
     FOR USE WHEN OPERATIONAL FLOW IS FROM LOW TO HIGH ELEVATION.
   - 8b) SPRING TYPE:
     FOR USE WHEN OPERATIONAL FLOW IS FROM HIGH TO LOW ELEVATION.
9. REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)

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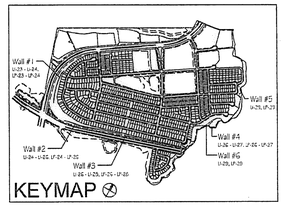
Notes:
1) See sheets LP-22 - LP-24 for wall specific plant palettes.
2) Wall elevations correspond to station points reference on sheets LI-1 - LI-22.
3) All MSE walls shown on the plan will be approved by separate permit



OTAY WATER DISTRICT
PROJECT NO. D0944-06018 9
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

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"AS-BUILT"
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PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 CALIFORNIA 5/5/17

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=529.319' (NAVD'88)

SCALE	
Horizontal	1" = 40'
Vertical	N/A

Office ____ Field ____ Traffic ____

Designed By | Drawn By | Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD Date / / R.L.A. No. 4001

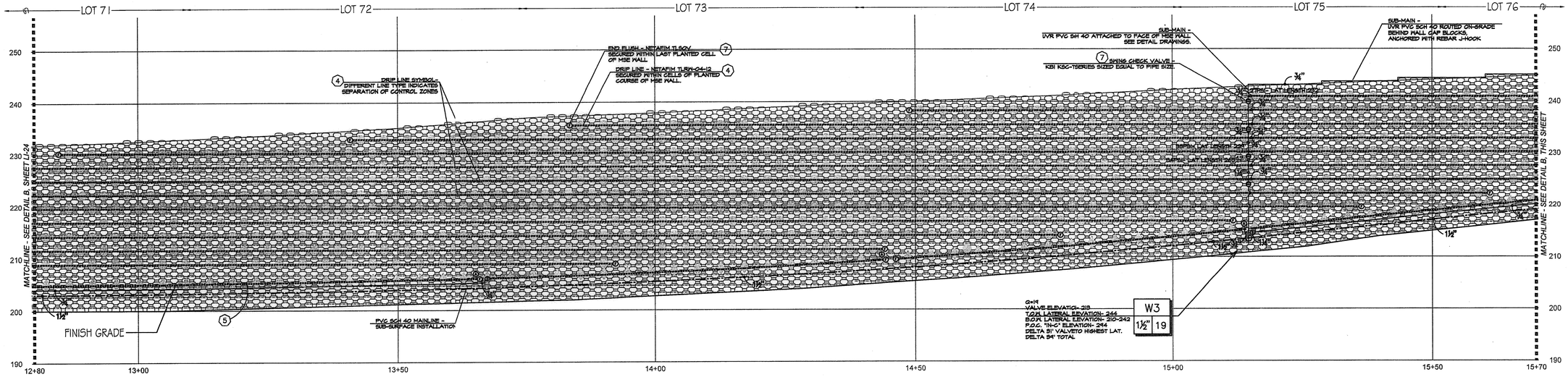
Approved: Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
MSE WALL PLANTING PLANS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 34
Sheet 34 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-24

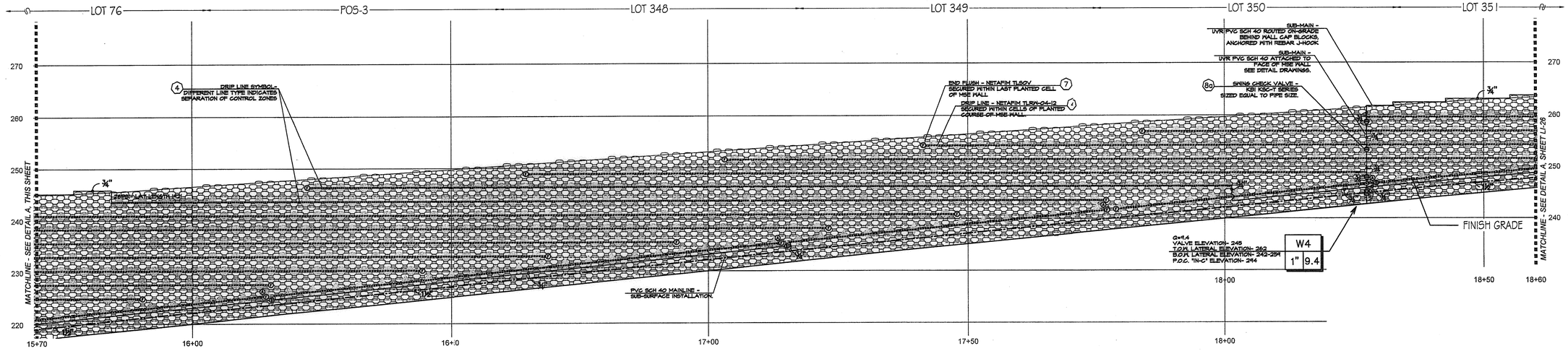
Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
Print Date: 10 APR '17



A WALL #2 PROFILE - IRRIGATION (SEGMENT 2)

STA. 12+80 to 15+70 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, nc.)

SCALE: 1" = 10'-0"



B WALL #2 PROFILE - IRRIGATION (SEGMENT 3)

STA. 15+70 to 18+60 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs,Inc.)

SCALE: 1" = 10'-0"

CONSTRUCTION NOTES:

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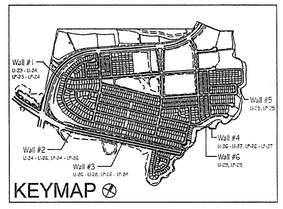

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CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: .5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF MONUMENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 4841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 40' Vertical N/A
Office ____ Field ____ Traffic ____
Designed By ____ Drawn By ____ Checked By ____
Plans Prepared Under Supervision Of ____ Date ____ / ____ / ____
THOMAS A. PICARD R.L.A. No. 4001

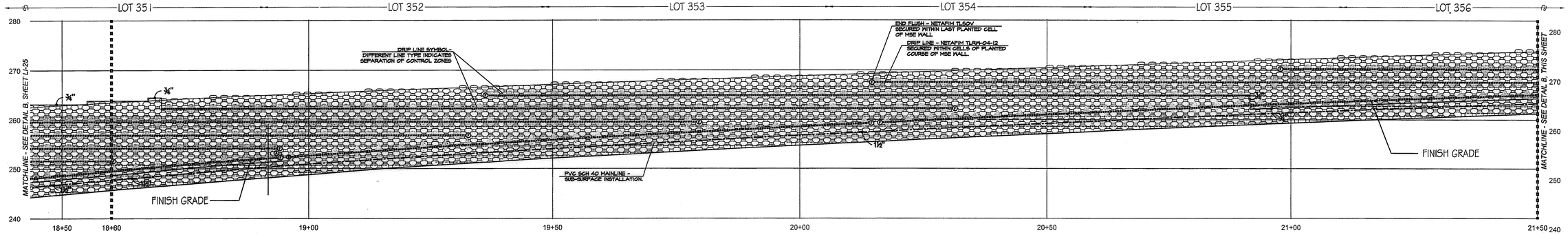
Approved: _____ Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
MSE WALL PLANTING PLANS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 35
Sheet 35 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-25

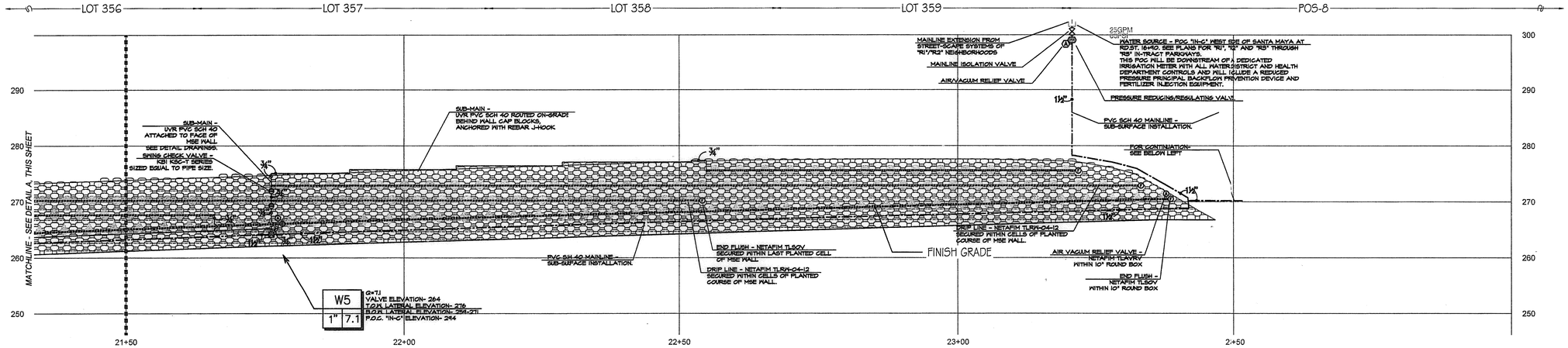
Print Date: 10 APR '17
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

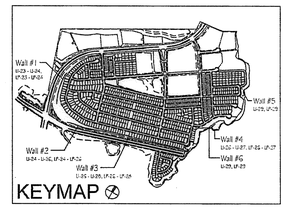


A WALL #2 PROFILE - IRRIGATION (SEGMENT 4)

STA. 18+60 to 21+50 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)

SCALE: 1" = 10'-0"

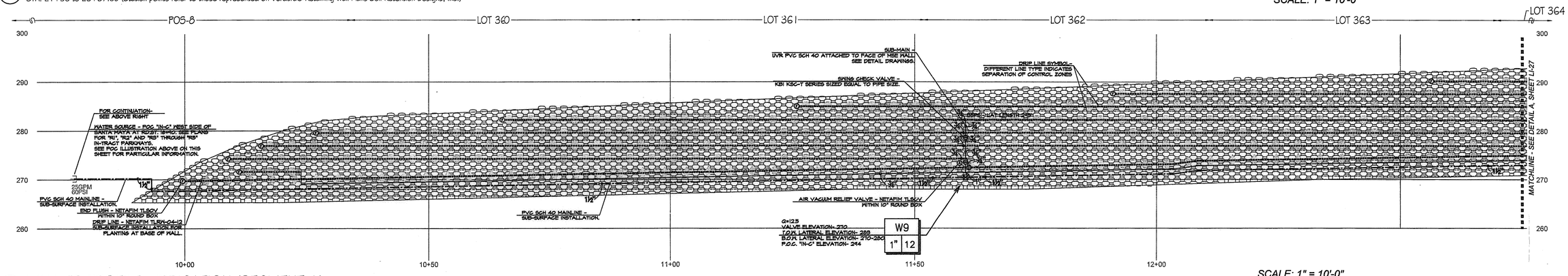




B WALL #2 PROFILE - IRRIGATION (SEGMENT 5)

STA. 21+50 to 23+37.09 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)

SCALE: 1" = 10'-0"



SCALE: 1" = 10'-0"

C WALL #3 PROFILE - IRRIGATION (SEGMENT 1)

STA. 10+00 to 12+75 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)

Notes:
1) See sheets LP-22 - LP-24 for wall specific plant palettes.
2) Wall elevations correspond to station points reference on sheets LP-1 - LP-22.
3) All MSE walls shown on the plan will be approved by separate permit

CONSTRUCTION NOTES:

(#) FOR NOTES SEE OTHER SHEETS.

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/11/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG! CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING 1-800-227-2600 UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT - THOMAS A. PICARD - No. 4001 - 9/5/17 - CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.
Inspector		
Date Completed		

REVISIONS	Date	App'd

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT # 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE
Horizontal 1" = 40'
Vertical N/A

Office
Field
Traffic

Designed By | Drawn By | Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date / /
R.L.A. No. 4001

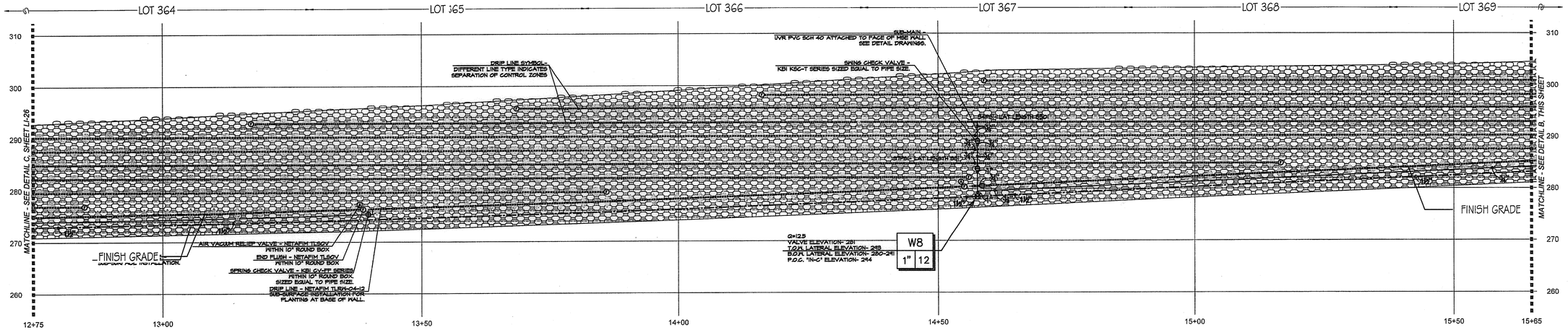
Approved: Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
MSE WALL PLANTING PLANS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 36
Sheet 36 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-26

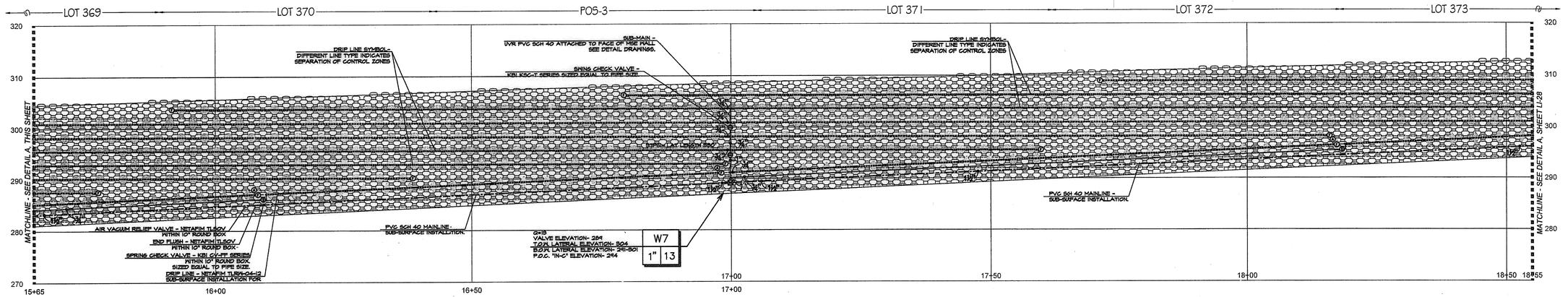
Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
Print Date: 10 APR '17



A WALL #3 PROFILE - IRRIGATION (SEGMENT 2)

STA. 12+75 to 15+65 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs Inc.)

SCALE: 1" = 10'-0"



B WALL #3 PROFILE - IRRIGATION (SEGMENT 3)

STA. 15+65 to 18+55 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs Inc.)

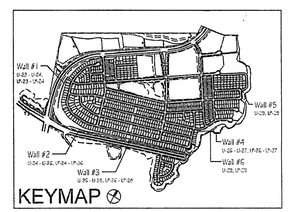
SCALE: 1" = 10'-0"

CONSTRUCTION NOTES:

1. IRRIGATION POINT OF CONNECTION (P.O.C.)
THE WATER SOURCE, PRIMARILY FOR THE PARKWAYS OF THE MASTER HOA, IS FROM AN R.W. WATER METER AND ALL REQUIRED BACKFLOW PREVENTION EQUIPMENT OUTSIDE THE LIMITS OF THIS PROJECT. THESE PLANS CALL FOR THE INSTALLATION OF A MAINLINE STUB-OUT FROM THIS SOURCE TO THE LOCATION SHOWN. THE CONTRACTOR SHALL CONNECT TO THE MAINLINE STUB-OUT AT THIS APPROXIMATE LOCATION AND EXTEND AS SHOWN.
2. IRRIGATION CONTROLLER-
THE CONTROLLER, INTENDED PRIMARILY FOR THE PARKWAYS OF THE MASTER HOA, IS OUTSIDE THE LIMITS OF THIS PROJECT. THESE PLANS CALL FOR THE INSTALLATION OF CONTROL WIRE FROM THIS CONTROLLER TO THE LOCATION SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CONNECT TO CONTROL WIRES AT THIS APPROXIMATE LOCATION AND EXTEND AS NEEDED.
3. LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OTHER AUTHORIZED REPRESENTATIVE. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE APPROXIMATELY AS SHOWN.
4. DRIP IRRIGATION FOR SHRUB AND VINE PLANTINGS OF THE MSE WALL. DRIP TUBING WITH PRE-INSERTED, .40 GPH PRESSURE COMPENSATING EMITTERS AT 12" O.C. TUBING TO BE ROUTED THROUGH MANUFACTURED NOTCH OF THE MSE BLOCK AND SECURE WITH STAPLES AT EVERY OPEN CELL. ALL TUBING TO FITTING CONNECTIONS INSTALLED ON THE MSE WALL SHALL BE SECURED WITH OETIKER STAINLESS STEEL CLAMPS-PAR# #21055- AS RECOMMENDED BY NETAFIM. (AVG. APPLICATION RATE = .642 in/hr. ASSUMING A 12" WETTED WIDTH)
5. DRIP IRRIGATION FOR SHRUB AND VINE PLANTINGS AT BASE OF MSE WALL. DRIP TUBING WITH PRE-INSERTED, 40 GPH PRESSURE COMPENSATING EMITTERS AT 12" O.C. TUBING TO BE ROUTED ON THE UP-HILL SIDE OF THE PLANTED ROW. DRIPLINE TO BE LOCATED AS TO PLACE THE TUBING ADJACENT TO THE ORIGINAL ROOT BALL.
THIS IS A SUB-SURFACE INSTALLATION- TUBING WITH 4" TOPSOIL COVER AND SECURES WITH STAPLES 4' O.C. (AVG. APPLICATION RATE = .642 in/hr. ASSUMING A 12" WETTED WIDTH)
6. AIR/VACUUM RELIEF VALVE. REQUIRED FOR ALL SUBSURFACE DRIP TUBING. LOCATION SHOWN DIAGRAMMATICALLY; VALVE TO BE INSTALLED AT HIGHEST LOCAL ELEVATION (TYP. THROUGHOUT).
7. FLUSH VALVES INSTALLED AT LATERAL ENDS OR ON FLUSH MANIFOLDS OF ALL DRIP SYSTEMS (TYP.)
8. CHECK VALVES FOR REDUCTION OF LATERAL LINE DRAINAGE ARE PLACED TO DIVIDE SYSTEMS INTO CHECKED ZONES. ALL CHECKED ZONES MUST BE SEPARATED AT THE LATERAL ENDS. THERE CAN BE NO FLUSH MANIFOLD CROSSING FROM ONE CHECKED ZONE TO ANOTHER.
   - 8a) SWING TYPE:
   FOR USE WHEN OPERATIONAL FLOW IS FROM LOW TO HIGH ELEVATION.
   - 8b) SPRING TYPE:
   FOR USE WHEN OPERATIONAL FLOW IS FROM HIGH TO LOW ELEVATION.
9. REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)

ALL BASE INFORMATION FOR THESE PLANS HAS BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND REFLECTS ARCHITECTURAL, CIVIL AND/OR MECHANICAL DESIGN AND/OR PLANS. THE LANDSCAPE ARCHITECT OR IRRIGATION COISULTANT DEPENDS ON ACCURACY OF THIS OBTAINED INFORMATIOI. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

Notes:
1) See sheets LP-22 - LP-24 for wall specific plant palettes.
2) Wall elevations correspond to station points reference on sheets LP-1 - LP-22.
3) All MSE walls shown on the plan will be approved by separate permit



OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 CALIFORNIA 5/5/17 5/15/17

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	1" = 40'
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (FYI # 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE	
Horizontal	1" = 40'
Vertical	N / A

Office ____ Field ____ Traffic ____

Designed By ____ Drawn By ____ Checked By ____

Plans Prepared Under Supervision Of ____ Date ____ / ____ / ____
THOMAS A. PICARD R.L.A. No. 4001

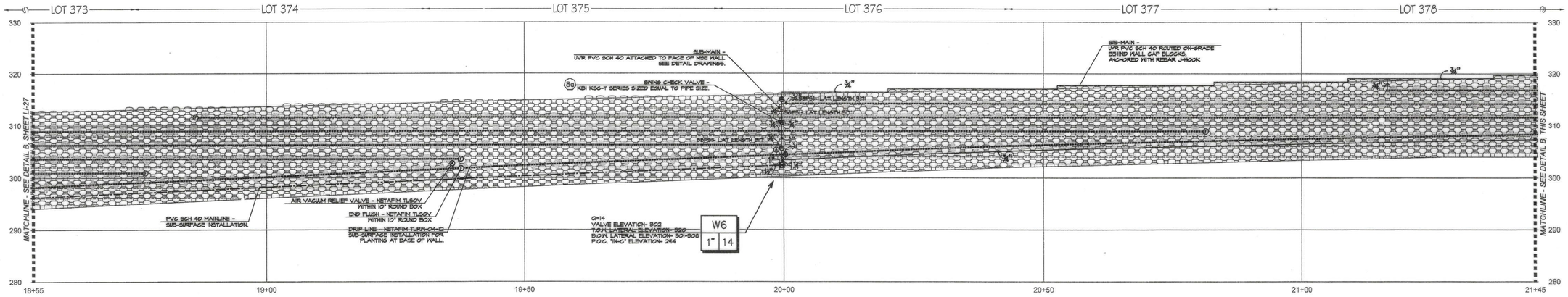
Approved: Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
MSE WALL PLANTING PLANS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 37
Sheet 37 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-27

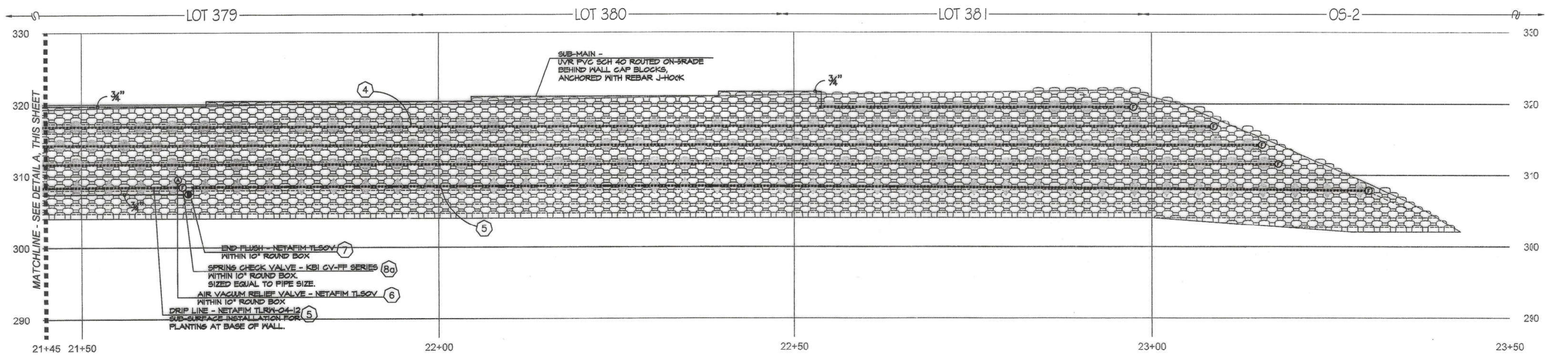
Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
Print Date: 10 APR '17



A WALL #3 PROFILE - IRRIGATION (SEGMENT 4)

STA. 18+55 to 21+45 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)

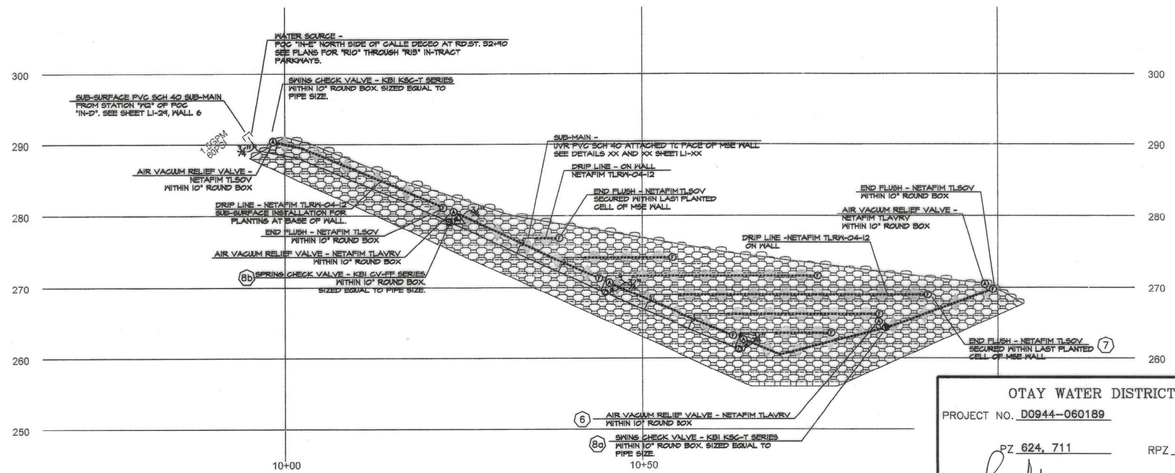
SCALE: 1" = 10'-0"



B WALL #3 PROFILE - IRRIGATION (SEGMENT 5)

STA. 21+45 to 23+50 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)

SCALE: 1" = 10'-0"



C WALL #4 PROFILE - IRRIGATION (SEGMENT 1)

STA. 10+00 to 10+98.72 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)

SCALE: 1" = 10'-0"

Notes:
1) See sheets LP-22 - LP-24 for wall specific plant palettes.
2) Wall elevations correspond to station points reference on sheets LP-1 - LP-22.
3) All MSE walls shown on the plan will be approved by separate permit

CONSTRUCTION NOTES:

1. IRRIGATION POINT OF CONNECTION (P.O.C.)
THE WATER SOURCE, PRIMARILY FOR THE PARKWAYS OF THE MASTER HOA, IS FROM AN R.W. WATER METER AND ALL REQUIRED BACKFLOW PREVENTION EQUIPMENT OUTSIDE THE LIMITS OF THIS PROJECT. THESE PLANS CALL FOR THE INSTALLATION OF A MAINLINE STUB-OUT FROM THIS SOURCE TO THE LOCATION SHOWN. THE CONTRACTOR SHALL CONNECT TO THE MAINLINE STUB-OUT AT THIS APPROXIMATE LOCATION AND EXTEND AS SHOWN.
2. IRRIGATION CONTROLLER-
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4. DRIP IRRIGATION FOR SHRUB AND VINE PLANTINGS OF THE MSE WALL. DRIP TUBING WITH PRE-INSERTED, .40 GPH PRESSURE COMPENSATING EMITTERS AT 12" O.C. TUBING TO BE ROUTED THROUGH MANUFACTURED NOTCH OF THE MSE BLOCK AND SECURE WITH STAPLES AT EVERY OPEN CELL. ALL TUBING TO FITTING CONNECTIONS INSTALLED ON THE MSE WALL SHALL BE SECURED WITH OETIKER STAINLESS STEEL CLAMPS-PART #21058- AS RECOMMENDED BY NETAFIM. (AVG. APPLICATION RATE = .642 in/hr. ASSUMING A 12" WETTED WIDTH)
5. DRIP IRRIGATION FOR SHRUB AND VINE PLANTINGS AT BASE OF MSE WALL. DRIP TUBING WITH PRE-INSERTED, .40 GPH PRESSURE COMPENSATING EMITTERS AT 12" O.C. TUBING TO BE ROUTED ON THE UP-HILL SIDE OF THE PLANTED ROW. DRIP LINE TO BE LOCATED AS TO PLACE THE TUBING ADJACENT TO THE ORIGINAL ROOT BALL. THIS IS A SUB-SURFACE INSTALLATION- TUBING WITH 4" TOPSOIL COVER AND SECURES WITH STAPLES 4' O.C. (AVG. APPLICATION RATE = .642 in/hr. ASSUMING A 12" WETTED WIDTH)
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   - 8a SWING TYPE; FOR USE WHEN OPERATIONAL FLOW IS FROM LOW TO HIGH ELEVATION.
   - 8b SPRING TYPE; FOR USE WHEN OPERATIONAL FLOW IS FROM HIGH TO LOW ELEVATION.
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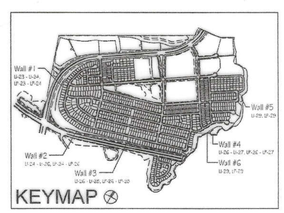

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

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REGISTERED LANDSCAPE ARCHITECT - THOMAS A. PICARD - 4001 - 9/5/17 - CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
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760.434.9300 office
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DATE:	10 APR '17
SCALE:	1" = 40'
JOB NO.	15024
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W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
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SCALE: Horizontal 1" = 40' Vertical N/A
Office Field Traffic
Designed By Drawn By Checked By
Plans Prepared Under Supervision Of Date / /
THOMAS A. PICARD R.L.A. No. 4001

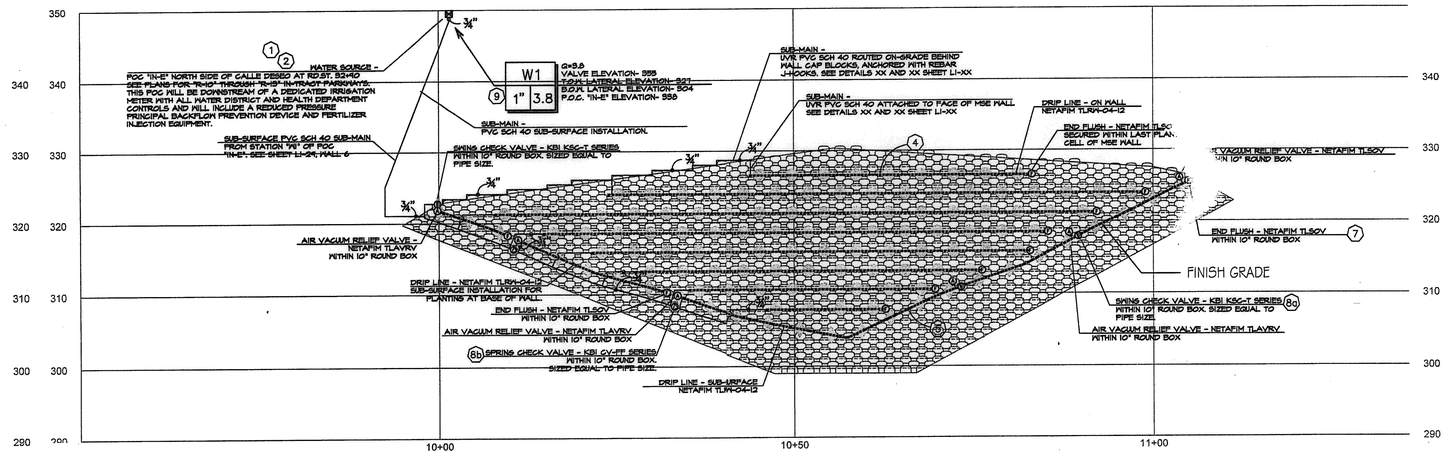
Approved: Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
MSE WALL PLANTING PLANS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 38
Sheet 38 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-28

Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
Print Date: 10 APR '17



A WALL #5 PROFILE - IRRIGATION (SEGMENT 1)

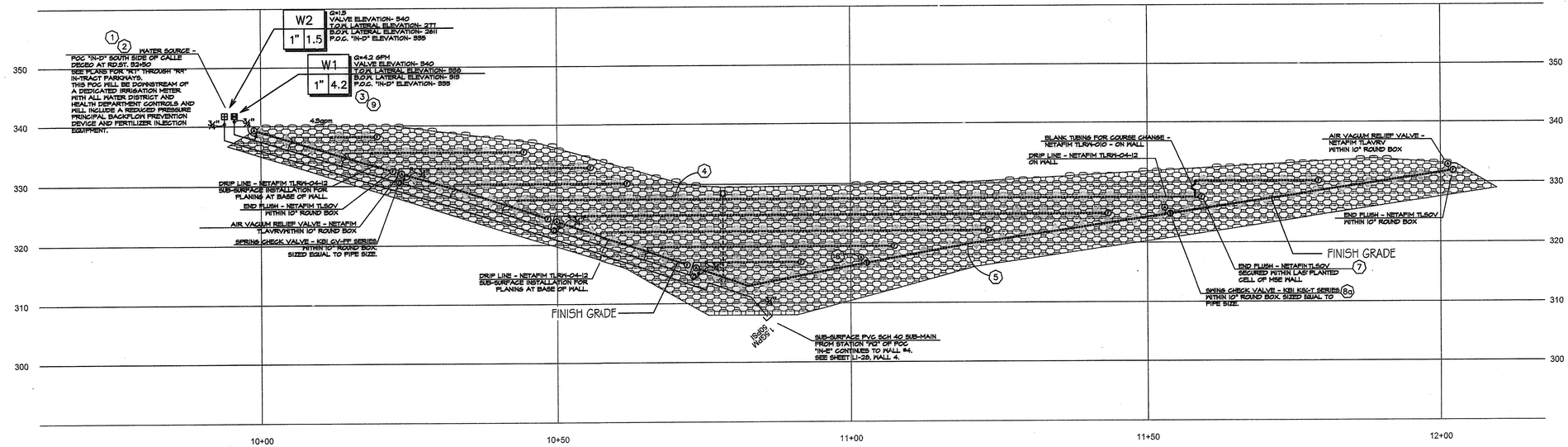
STA. 10+00 to 11+04.86 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)

SCALE: 1" = 10'-0"

CONSTRUCTION NOTES:

1. IRRIGATION POIN' OF CONNECTION (P.O.C.)
THE WATER SOURCE, PRIMARILY FOR THE PARKWAYS OF THE MASTER HOA, IS FROM AN R.W. WATER METER AND ALL REQUIRED BACKFLOW PREVENTION EQUIPMENT OUTSIDE THE LIMITS OF THIS PROJECT. THESE PLANS CALL FOR THE INSTALLATION OF A MAINLINE STUB-OUT FROM THIS SOURCE TO THE LOCATION SHOWN. THE CONTRACTOR SHALL CONNECT TO THE MAINLINE STUB-OUT AT THIS APPROXIMATE LOCATION AND EXTEND AS SHOWN.
2. IRRIGATION CONTROLLER-
THE CONTROLLER, INTENDED PRIMARILY FOR THE PARKWAYS OF THE MASTER HOA, IS OUTSIDE THE LIMITS OF THIS PROJECT. THESE PLANS CALL FOR THE INSTALLATION OF CONTROL WIRE FROM THIS CONTROLLER TO THE LOCATION SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CONNECT TO CONTROL WIRES AT THIS APPROXIMATE LOCATION AND EXTEND AS NEEDED.
3. LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OTHER AUTHORIZED REPRESENTATIVE. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE APPROXIMATELY AS SHOWN.
4. DRIP IRRIGATION FOR SHRUB AND VINE PLANTINGS OF THE MSE WALL. DRIP TUBING WITH PRE-INSERTED, .40 GPH PRESSURE COMPENSATING EMITTERS AT 12" O.C. TUBING TO BE ROUTED THROUGH MANUFACTURED NOTCH OF THE MSE BLOCK AND SECURE WITH STAPLES A' EVERY OPEN CELL. ALL TUBING TO FITTING CONNECTIONS INSTALLED ON THE MSE WALL SHALL BE SECURED WITH OETIKER STAINLESS STEEL CLAMPS-PART #21095- AS RECOMMENDED BY NETAFIM. (AVG. APPLICATION RATE = .642 In/hr. ASSUMING A 12" NETTED WIDTH)
5. DRIP IRRIGATION FOR SHRUB AND VINE PLANTINGS AT BASE OF MSE WALL. DRIP TUBING WITH PRE-INSERTED, .40 GPH PRESSURE COMPENSATING EMITTERS AT 12" O.C. TUBING TO BE ROUTED ON THE UP-HILL SIDE OF THE PLANTED ROW. DRIP LINE TO BE LOCATED AS TO PLACE THE TUBING ADJACENT TO THE ORIGINAL ROOT BALL. THIS IS A SUB-SURFACE INSTALLATION- TUBING WITH 4" TOPSOIL COVER AND SECURES WITH STAPLES 4' O.C. (AVG. APPLICATION RATE = .642 In/hr. ASSUMING A 12" WETTED WIDTH)
6. AIR/VACUUM RELIEF VALVE. REQUIRED FOR ALL SUBSURFACE DRIP TUBING. LOCATION SHOWN DIAGRAMMATICALLY; VALVE TO BE INSTALLED AT HIGHEST LOCAL ELEVATION (TYP. THROUGHOUT).
7. FLUSH VALVES INSTALLED AT LATERAL ENDS OR ON FLUSH MANIFOLDS OF ALL DRIP SYSTEMS (TYP.)
8. CHECK VALVES FOR REDUCTION OF LATERAL LINE DRAINAGE ARE PLACED TO DIVIDE SYSTEMS INTO CHECKED ZONES. ALL CHECKED ZONES MUST BE SEPARATED AT THE LATERAL ENDS. THERE CAN BE NO FLUSH MANIFOLD CROSSING FROM ONE CHECKED ZONE TO ANOTHER.
   - 8a SWING TYPE: FOR USE WHEN OPERATIONAL FLOW IS FROM LOW TO HIGH ELEVATION.
   - 8b SPRING TYPE: FOR USE WHEN OPERATIONAL FLOW IS FROM HIGH TO LOW ELEVATION.
9. REMOTE CONTROL VALVES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR OWNER'S REPRESENTATIVE. (TYPICAL ALL LOCATIONS)

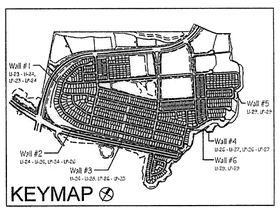
ALL BASE INFORMATION FOR THESE PLANS HAS BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND REFLECTS ARCHITECTURAL, CIVIL AND/OR MECHANICAL DESIGN AND/OR PLANS. THE LANDSCAPE ARCHITECT OR IRRIGATION CONSULTANT DEPENDS ON ACCURACY OF THIS OBTAINED INFORMATION. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.



B WALL #6 PROFILE - IRRIGATION (SEGMENT 1)

STA. 10+00 to 12+02.67 (Station points refer to those represented on Verdura® Retaining Wall Plans Soil Retention Designs, Inc.)

SCALE: 1" = 10'-0"



Notes:
1) See sheets LP-22 - LP-24 for wall specific plant palettes.
2) Wall elevations correspond to station points reference on sheets LP-1 - LP-22.
3) All MSE walls shown on the plan will be approved by separate permit

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG! CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING 1-800-227-2600 UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT - THOMAS A. PICARD - CALIFORNIA - 9/5/17 - 9/5/19

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE: 10 APR '17
SCALE: 1" = 40'
JOB NO. 15024
DRAWN BY: T.P. / T.G.
W.O. NO. OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.
Inspector		
Date Completed		

REVISIONS	Date	App'd

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 40' / Vertical N/A
Office / Field / Traffic

Designed By / Drawn By / Checked By
Plans Prepared Under Supervision Of
THOMAS A. PICARD Date / / R.L.A. No. 4001

Approved: Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
MSE WALL PLANTING PLANS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 39
Sheet 39 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-29

Print Date: 10 APR '17
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

IRRIGATION CONTROL EQUIPMENT LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER / MODEL	REMARKS	DETAIL
SC	SATELLITE OR CONTROLLER FOR C.F.D. MAINTENANCE AREAS	RAINMASTER EAGLE PLUS 1-CENTRAL AS ASSEMBLY WITHIN STAINLESS STEEL ENCLOSURE.	ALL CONTROLLER/SATELLITE ASSEMBLIES BY SITEONE GREEN TECH (800) 427-0779. TEXT WITHIN SYMBOL IDENTIFIES SATELLITE. SEE SHEETS T-2 / T-3 / T-4 FOR MODEL NUMBER AND STATION COUNT.	A1 / LI-31 SDRSD I-17
R	CONTROLLER HOA MAINTENANCE AREAS	RAINMASTER EAGLE PLUS-1 AS ASSEMBLY WITHIN STAINLESS STEEL ENCLOSURE.	ALL CONTROLLER ASSEMBLIES BY GREEN TECH DIVISION OF SITEONE LANDSCAPE (800) 427-0779. SHEETS T-2 AND T-3 AND FOR MODEL NUMBERS AND STATION COUNT. TEXT ON SYMBOL IDENTIFIES CONTROLLER.	A1 / LI-31 SDRSD I-17
C	CONTROLLER PRIVATE LOTS	TORO EVOLUTION SERIES WITH STATION MODULES APPROPRIATE FOR THE REQUIRED STATION COUNT.	ALL CONTROLLER ASSEMBLIES FOR PRIVATE LOT SYSTEMS WILL BE BY THE LANDSCAPE CONTRACTOR, INSTALLED WITHIN GARAGE OF PRIVATE RESIDENCE. COORDINATE POWER, CONDUIT FOR CONTROL WIRE WITH APPROPRIATE ON-SITE PERSONNEL.	A2 / LI-31
®	WEATHER / ETo SENSOR	TORO WIRELESS ET SENSOR	INSTALL ON FACIA BOARD OR TOP RAIL OF FENCE. SENSOR TO HAVE CLEAR VIEW OF SKY. (FOR USE ON PRIVATE SYSTEMS)	A2 / LI-31

IRRIGATION EQUIPMENT LEGEND - RECYCLED WATER

SYMBOL	DESCRIPTION	MANUFACTURER / MODEL	REMARKS	DETAIL
RW	WATER METER POINT OF CONNECTION	RECYCLED WATER IRRIGATION METER BY OWNER	SEE PLANS FOR DIAGRAMMATIC LOCATIONS OF ALL POINTS OF CONNECTION. SEE ALSO CIVIL DRAWINGS FOR EXACT SERVICE LINE LOCATIONS	B-SERIES /LI-31
[symbol]	POC ASSEMBLY- Y-STRAINER CHECK VALVE	WILKINS 500 SERIES STRAINER WITH 30 MESH. WILKINS 40XL2 CHECK VALVE.	THIS EQUIPMENT IS FOR USE WITH RECYCLED WATER SERVICE THAT DO NOT INCLUDE A FERTILIZER INJECTOR ONLY. SEE DETAIL DRAWINGS FOR GENERAL ARRANGEMENT AND BOX SIZES. ASSEMBLIES TO BE WITHIN VALVE BOXES AS SHOWN IN WATER AGENCIES STANDARD DRAWINGS WR-03 AND WR-04 THIS SHEET.	B-SERIES /LI-31
PR	PRESSURE REGULATOR	WILKINS 500XL HR PRESSURE REG.	FABRICATE AND INSTALL AS DETAILED AND TO THE SATISFACTION OF OWD AND/OR DEH INSPECTOR. SET PRESSURE AS SHOWN ON PRESSURE CALCULATIONS. TO BE PAINTED WITH OWD APPROVED PURPLE AND INCLUDE P.O.C. I.D. AND R.W. WARNING TAGS.	B-SERIES /LI-31
	CROSS CONNECTION TEST STATION.	CONTRACTOR FABRICATED	FABRICATE AND INSTALL AS REQUIRED BY OWD AND AS DETAILED BY W.A.S. DRAWING #WR-03. TO BE PAINTED WITH OWD APPROVED PURPLE AND INCLUDE P.O.C. I.D. AND R.W. WARNING TAGS.	B-SERIES /LI-32
[symbol]	MASTER CONTROL VALVE	HUNTER INDUSTRIES IBV-XXXG-FS (XXX=VALVE SIZE)	VALVE SIZE EQUALS PIPE LINE SIZES AS SHOWN ON PLANS. NORMALLY CLOSED R.C.V. WITH CONTROLLER I.D. AND R.W. WARNING TAG FOR USE WITH "FSF" OPTION BY SITEONE GREENTECH. TO BE PAINTED WITH OWD APPROVED PURPLE AND INCLUDE P.O.C. I.D. AND R.W. WARNING TAGS.	B6 / LI-32 D8, D9 / LI-34
FS	FLOW SENSOR	RAINMASTER FS-B150 OR FS-B200	AS PROVIDED WITH CONTROLLER/SATELLITE ASSEMBLY BY SITEONE GREEN TECH - SIZE AS NOTED ON SHEET T-2. TO BE PAINTED WITH OWD APPROVED PURPLE AND INCLUDE P.O.C. I.D. AND R.W. WARNING TAGS.	B7 / LI-32 D8, D9 / LI-34
[symbol]	PVC BALL VALVE 2" AND SMALLER	HAYWARD TB SERIES (SCH-80) PVC BALL VALVE WITH INTEGRAL UNIONS	SIZED EQUAL TO PIPE SIZE. FOR MAINLINE AND MANIFOLD ISOLATION ON LINES 3" AND SMALLER. INSTALL WITH UNIONS BOTH SIDES. TO BE PAINTED WITH OWD APPROVED PURPLE AND INCLUDE P.O.C. I.D. AND R.W. WARNING TAGS.	B10 / LI-32 D8, D9 / LI-34
[symbol]	SPRING CHECK VALVE	KING BROTHERS INDUSTRIES CV-XXX-FF (XXX=SIZE)	TO MINIMIZE LATERAL LINE DRAINAGE WHERE OPERATIONAL FLOW IS DOWN-HILL. SIZED EQUAL TO LATERAL LINE PIPE SIZE; 1" MAXIMUM. INSTALL WITHIN 12" ROUND VALVE BOX AS DETAILED.	F1, F2 / LI-35 D8, D9 / LI-34
[symbol]	SWING CHECK VALVE	KING BROTHERS INDUSTRIES KSC-XXX-T (XXX=SIZE)	TO MINIMIZE LATERAL LINE DRAINAGE WHERE OPERATIONAL FLOW IS UP-HILL. SIZED EQUAL TO LATERAL LINE PIPE SIZE; 2" MAXIMUM. INSTALL WITHIN 12" ROUND VALVE BOX AS DETAILED.	F1, F2 / LI-35 D8, D9 / LI-34
AVR	AIR/VACUUM RELIEF VALVE	1" BURMAD MODEL 02-ARC AND SPEARS 2121 SERIES PVC BALL VALVE	INSTALL AT HIGHEST LOCAL ELEVATION OF MAINLINE DOWNSTREAM OF 1" ISOLATION BALL VALVE. TO BE PAINTED WITH OWD APPROVED PURPLE AND INCLUDE P.O.C. I.D. AND R.W. WARNING TAGS.	D2 / LI-34 D8, D9 / LI-34
[symbol]	REMOTE CONTROL VALVE CFD MAINTAINED	HUNTER INDUSTRIES IBV-XXXG-FS-AS-ADJ (XXX=VALVE SIZE)	SIZE AS SHOWN. BRASS PRESSURE REGULATING REMOTE CONTROL VALVE FOR OVERHEAD SYSTEMS. TO BE PAINTED WITH OWD APPROVED PURPLE AND INCLUDE P.O.C. I.D. AND R.W. WARNING TAGS.	D-SERIES LI-33, LI-34
[symbol]	REMOTE CONTROL VALVE PRIVATE/HOA MAINTAINED	HUNTER INDUSTRIES ICV-XXXG-FS-AS-ADJ (XXX=VALVE SIZE)	SIZE AS SHOWN. PLASTIC PRESSURE REGULATING REMOTE CONTROL VALVE FOR OVERHEAD SYSTEMS. TO BE PAINTED WITH OWD APPROVED PURPLE AND INCLUDE P.O.C. I.D. AND R.W. WARNING TAGS.	D-SERIES LI-33, LI-34
[symbol]	QUICK COUPLER VALVE -	HUNTER INDUSTRIES HQ-44RC-AW-R WITH HK-44A KEY AND HS2 SWIVEL- 1 KEY ASSEMBLY PER 10 QCV'S INSTALLED	INSTALL WHERE SHOWN (APPROX. 200' O.C. MAX) WITHIN 10" ROUND VALVE BOX. ACME THREADED WITH LOCKING PURPLE COVER. QUICK COUPLER TO BE FED BY A 1.5" LINE MIN.TO BE PAINTED WITH OWD APPROVED PURPLE AND INCLUDE P.O.C. I.D. AND R.W. WARNING TAGS.	D1 / LI-33 D9 / LI-34
NO SYMBOL	CONTROL WIRE AND CONDUIT -	SEE SPECIFICATIONS	CONTROL WIRE WITHIN PVC SCH 40 CONDUIT WITH SWEEP FITTINGS. COMPLETE CONDUIT RUN CONTROLLER TO RCV TO FOLLOW IRRIGATION MAINLINE IN COMMON TRENCH WHENEVER POSSIBLE.	C-SERIES/LI-32 D-SERIES/LI-34
P	PULL BOX -	CONTRACTOR FABRICATED SEE DETAIL DRAWINGS AND SPECIFICATIONS	PULL BOXES TO BE INSTALLED IN CONDUIT RUNS IN EXCESS OF 200 FEET AND AT ROAD OR DRIVE CROSSINGS.	E-SERIES/LI-34 D8, D9 /LI-34
— — —	PVC MAINLINE 3" AND SMALLER	PACIFIC PLASTICS CYCLE FLOW RECYCLED WATER PVC	1" - 1.5" = PVC SCH 40; 2" AND 3" = PVC CLASS 315 W/ PVC SCH 80 DEEP BELL FITTINGS. (PURPLE PVC PIPE FOR USE WITH RECYCLED WATER)	C-SERIES LI-32, LI-33
———	PVC LATERAL LINE (SUB-GRADE)	PACIFIC PLASTICS CYCLE FLOW RECYCLED WATER PVC	SIZED PER PLAN - .75" MINIMUM; PVC SCH 40 (PURPLE PVC PIPE FOR USE WITH RECYCLED WATER)	C-SERIES LI-32, LI-33
•	PVC LATERAL LINE TRANSITION	PACIFIC PLASTICS CYCLE FLOW TO PACIFIC PLASTICS SOLAR PROOF	APPROXIMATE LOCATION OF SUB-GRADE TO ON-GRADE TRANSITION. (ON-GRADE SOLAR PROOF PIPE TO BE IDENTIFIED TO CONTAIN RECYCLED WATER)	C-SERIES LI-32, LI-33
- - - - -	PVC LATERAL LINE (ON-GRADE)	PACIFIC PLASTICS SOLAR PROOF UVR PVC.	ALL PIPE SIZING IS BASED ON OPERATING WATER VELOCITIES NOT TO EXCEED 5 FEET PER SEC. CONTRACTOR TO PLACE R.W. WARNING LABELS EVERY 10 FEET ALONG THE LENGTH OF THE PIPE.	
[symbol]	SLEEVE MARKER	CONTRACTOR FABRICATED SEE DETAIL DRAWINGS AND SPECIFICATIONS	INSTALL OVER ENDS OF ALL PIPE SLEEVES AT ROAD OR DRIVE CROSSINGS AS DETAILED.	C-SERIES LI-32, LI-33
======	PVC SLEEVE	PACIFIC PLASTICS CYCLE FLOW RECYCLED WATER PVC	PVC SCH 40; TWO TIMES DIA. OF PIPE OR WIRE BUNDLE. (3" MIN. - NON-VEHICULAR; 4" MIN. - VEHICULAR)	C SERIES LI-32, LI-33
[symbol]	RECYCLED WATER WARNING SIGN	T. CHRISTY ENTERPRISES MODEL# ID-SIGN-4 MOUNTED ON POST AS DETAILED.	SIGNS TO BE LOCATED APPROXIMATELY WHERE SHOWN ON PLANS, OR AS DIRECTED BY O.W.D. INSPECTOR.	RW / T-2

POTABLE WATER IRRIGATION EQUIPMENT LEGEND (FOR PRIVATE SLOPES)

SYMBOL	DESCRIPTION	MANUFACTURER / MODEL	REMARKS	DETAIL
M	METER	POTABLE WATER METER BY OWNER OR BUILDER	SEE PLANS FOR DIAGRAMATIC LOCATIONS OF ALL POINTS OF CONNECTION. SEE ALSO CIVIL DRAWINGS FOR EXACT SERVICE LINE LOCATIONS	B1 / LI-31 B12 / LI-32
[symbol]	CONNECTION- PRIVATE LOT SYSTEMS	WIKINS 850 BALL VALVE AND WILKINS BR4 PRESSURE REGULATING VALVE	LOCATIONS SHOWN DIAGRAMATICALLY. SEE CIVIL FOR SPECIFIC LOCATIONS. TO BE INSTALLED DOWNSTREAM OF SIDE OUTLET ON PRIVATE SERVICE LINE TO RESIDENCE AS DETAILED.	B1 / LI-31 B12 / LI-32
[symbol]	REMOTE CONTROL VALVE PRIVATE LOT SYSTEMS	IRRITROL 2600TF	1" REMOTE CONTROL VALVE FOR PRIVATE LOT SLOPES INSTALLED UPSTREAM OF ATMOSPHERIC VACUUM BREAKER. INSTALL RCV ASSEMBLY WITH CONTROLLER I.D. TAG TO EQUAL LOT NUMBER.	G1, G2 LI-35
[symbol]	ATMOSPHERIC VACUUM BREAKER	CHAMPION	INSTALL DOWNSTREAM OF CONTROL VALVE AT SUBMAIN TO LATERAL LINE CONNECTION. AVB TO BE INSTALLED ON RISERS SO THAT DEVICE IS 12" ABOVE HIGHEST DOWNSTREAM OUTLET.	G1, G2 LI-35
— . — . —	PVC MAINLINE PIPE	PACIFIC PLASTICS SOLVENT WELD PIPE	PVC SCH 40; 1-1/4" MINIMUM (SEE PRODUCT SPECIFICATION SHEET LI-20 SECTION 2.13) (WHITE PVC PIPE FOR USE WITH POTABLE WATER)	C SERIES LI-32, LI-33
———	PVC LATERAL LINE PIPE	PACIFIC PLASTICS SOLVENT WELD PIPE	PVC SCH 40; 3/4" MINIMUM (SEE PRODUCT SPECIFICATION SHEET LI-20 SECTION 2.13) (WHITE PVC PIPE FOR USE WITH POTABLE WATER)	C SERIES LI-32, LI-33
======	PVC SLEEVE	PACIFIC PLASTICS SOLVENT WELD PIPE	PVC SCH 40; TWO TIMES DIA. OF PIPE OR WIRE BUNDLE. (3" MIN.) (WHITE PVC PIPE FOR USE WITH POTABLE WATER)	C SERIES LI-32, LI-33

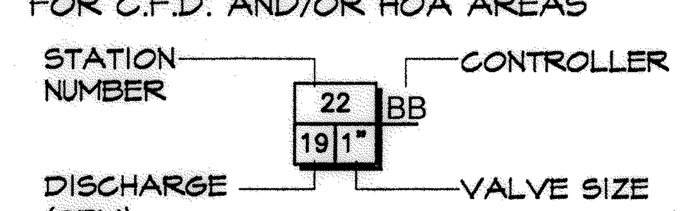
IRRIGATION SPRINKLER HEAD LEGEND

	SYMBOL 360°	VAN >180°	180°	VAN <180°	120°	90°	EST RCS/LCS	SST/CST	DESCRIPTION	MANUFACTURER / MODEL	PSI	RAD.	DISCHARGE (GPM)	360°	VAN >180°	180°	VAN <180°	120°	90°	EST	SST/CST	PRECIP. RATE	DETAIL
	3F	3V	3H	3V	3T	3Q	RS/LS	ST	POP-UP SPRAY HEAD	HUNTER PROS-12-CV-R W/ 15 SERIES NOZ. HUNTER PROS-06-CV-R W/ 15 SERIES NOZ.	30	13' - 15'	-	3.70	VAR	1.85	VAR	1.23	0.93	0.65	1.20	.87"	H SERIES LI-35, LI-36 C8, C9, C10, C11 LI-33
	2F	2V	2H	2V	2T	2Q			POP-UP SPRAY HEAD	HUNTER PROS-12-CV-R W/ 12 SERIES NOZ. HUNTER PROS-12-CV W/ 12 SERIES NOZ.	30	11' - 12'	-	2.60	VAR	1.30	VAR	0.87	0.65	-	-	.87"	
	1F	1V	1H	1V	1T	1Q			POP-UP SPRAY HEAD	HUNTER PROS-12-CV-R W/ 10 SERIES NOZ. HUNTER PROS-12-CV W/ 10 SERIES NOZ.	30	9' - 10'	-	1.60	VAR	0.80	VAR	0.52	0.39	-	-	.87"	
	8F	8V	8H	8V	8T	8Q			POP-UP SPRAY HEAD (SHORT RADIUS)	HUNTER PROS-12-CV-R W/ 8 SERIES NOZ. HUNTER PROS-12-CV W/ 8 SERIES NOZ.	30	6' - 8'	-	0.90	-	0.40	-	0.30	0.20	-	-	.87"	
	F			H		Q			POP-UP SPRAY HEAD (SHORT RADIUS)	HUNTER PROS-12-CV-R W/ 5 SERIES NOZ. HUNTER PROS-12-CV W/ 5 SERIES NOZ.	30	3' - 5'	-	0.60	-	0.30	-	0.20	0.20	-	-	.87"	
	3F	3V	3H	3V	3T	3Q	RS/LS	ST	SPRAY HEAD ON RISER	HUNTER PROS-00-PRS30-CV-R W/ 15 SERIES NOZ. (RW) HUNTER PROS-00-PRS30-CV W/ 15 SERIES NOZ. (PW)	30	13' - 15'	-	3.70	VAR	1.85	VAR	1.23	0.93	0.65	1.20	.87"	H SERIES LI-35, LI-36 C8, C9, C10, C11 LI-33
	2F	2V	2H	2V	2T	2Q			SPRAY HEAD ON RISER	HUNTER PROS-00-PRS30-CV-R W/ 12 SERIES NOZ. (RW) HUNTER PROS-00-PRS30-CV W/ 12 SERIES NOZ. (PW)	30	11' - 12'	-	2.60	VAR	1.30	VAR	0.87	0.65	-	-	.87"	
	1F	1V	1H	1V	1T	1Q			SPRAY HEAD ON RISER	HUNTER PROS-00-PRS30-CV-R W/ 10 SERIES NOZ. (RW) HUNTER PROS-00-PRS30-CV W/ 10 SERIES NOZ. (PW) [overprinted]	30	9' - 10'	-	1.60	VAR	0.80	VAR	0.52	0.39	-	-	.87"	
	8F	8V	8H	8V	8T	8Q			SPRAY HEAD ON RISER	HUNTER PROS-00-PRS30-CV W/ 8 SERIES NOZ. (PW)	30	6' - 8'	-	0.90	-	0.40	-	0.30	0.20	-	-	.87"	
	F			H		Q			SPRAY HEAD ON RISER (SHORT RADIUS)	HUNTER PROS-00-PRS30-CV-R W/ 5 SERIES NOZ. (RW) HUNTER PROS-00-PRS30-CV W/ 5 SERIES NOZ. (PW)	30	3' - 5'	-	0.60	-	0.30	-	0.20	0.20	-	-	.87"	
	•								SPRAY HEAD ON RISER (TREES)	HUNTER PROS-00-PRS30-CV-R W/ 5 SERIES FULL NOZ. (RW) HUNTER PROS-00-PRS30-CV W/ 5 SERIES FULL NOZ. (PW)	30	5'	-	-	-	24 GPH PER UNIT 0.40 GPM PER TREE			-	-	-	.90"	H8, H9 LI-36
360/PC 6.0	360/PC 5.0	360/PC 4.5-4.0	360/PC 3.5-3.0	360/PC 2.5	360/PC 2.0	360/PC 1.5	360/PC 1.0	360/PC .75			PSI	RAD. NOZ.# →	360/PC 6.0	360/PC 5.0	360/PC 4.5-4.0	360/PC 3.5-3.0	360/PC 2.5	360/PC 2.0	360/PC 1.5	360/PC 1.0	360/PC .75		DETAIL
			3.0 SR		2.0 SR	1.5 SR	1.0 SR	0.75 SR	POP-UP STREAM ROTOR (SHORT RADIUS)	HUNTER INDUSTRIES I-20-12-R (R.W.) or I-20-12 (P.W.) W/ SHORT RADIUS NOZZLES	45	17' - 25'	-	-	-	2.85	-	1.85	1.40	0.95	0.63	.72" PC .36" FC	H SERIES LI-35, LI-36 C8, C9, C10, C11 LI-33
		4.5 LA	3.5 LA	2.5 LA	2.0 LA				POP-UP STREAM ROTOR (LOW ANGLE)	HUNTER INDUSTRIES I-20-12-R (R.W.) or I-20-12 (P.W.) W/ LOW ANGLE NOZZLES	45	22' - 35'	-	-	4.15	3.30	2.65	2.00	-	-	-	.72" PC .36" FC	
6.0	5.0	4.0	3.0	2.5	2.0	1.5			POP-UP STREAM ROTOR (STANDARD)	HUNTER INDUSTRIES I-20-12-R (R.W.) or I-20-12 (P.W.) W/ STANDARD NOZZLES	45	23' - 45'	6.00	5.00	4.00	3.00	2.50	2.00	1.50	-	-	.72" PC .36" FC	
			3.0 SR		2.0 SR	1.5 SR	1.0 SR	0.75 SR	STREAM ROTOR ON RISER (SHORT RADIUS)	HUNTER INDUSTRIES I-20-00-R (R.W.) or I-20-00 (P.W.) W/ SHORT RADIUS NOZZLES AND CHECK VALVE IN RISER.	45	17' - 25'	-	-	-	2.85	-	1.85	1.40	0.95	0.63	.72" PC .36" FC	
		4.5 LA	3.5 LA	2.5 LA	2.0 LA				STREAM ROTOR ON RISER (LOW ANGLE)	HUNTER INDUSTRIES I-20-00-R (R.W.) or I-20-00 (P.W.) W/ LOW ANGLE NOZZLES AND CHECK VALVE IN RISER.	45	22' - 35'	-	-	4.15	3.30	2.65	2.00	-	-	-	.72" PC .36" FC	
6.0	5.0	4.0	3.0	2.5	2.0	1.5			STREAM ROTOR ON RISER (STANDARD)	HUNTER INDUSTRIES I-20-00-R (R.W.) or I-20-00 (P.W.) W/ STANDARD NOZZLES AND CHECK VALVE IN RISER.	45	23' - 45'	6.00	5.00	4.00	3.00	2.50	2.00	1.50	-	-	.72" PC .36" FC	

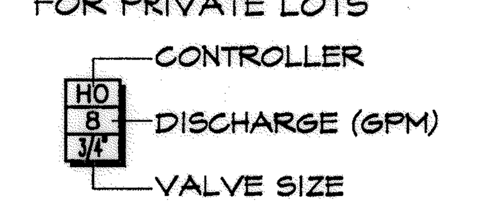
DRIP IRRIGATION EQUIPMENT LEGEND (SUB-ASSOCIATION)

1" [symbol] / [symbol] 1" / 1.5" [symbol]	DRIP VALVE ASSEMBLY- REMOTE CONTROL VALVE PRE-SET PRESSURE RED. VALVE, BASKET SCREEN FILTER, ISOLATION BALL VALVE.	RAINBIRD 100-DVF WITH QKCHK-100 FOR FLOWS .2 TO 4 GPM RAINBIRD 100-PESB-R WITH WITH QKCHK-100 FOR FLOWS 4 TO 15 GPM RAINBIRD 150-PESB-R WITH 2 QKCHK-100 FOR FLOWS 15 TO 30 GPM	ALL EQUIPMENT TO BE SIZED AS ILLUSTRATED IN THE DETAIL DRAWING. INSTALL WITH STATION ID, R.W. WARNING TAG AND WITHIN VALVE BOX AS FOLLOWS: 1" ASSEMBLY WITHIN STANDARD RECTANGULAR VALVE BOX W/ PURPLE LID. 1-1/2" ASSEM. WITHIN JUMBO RECTANGULAR VALVE BOX W/ PURPLE LID.	J1, J2 LI-36
NO SYMBOL	DRIP START CONNECTION	CONTRACTOR FABRICATED AS DETAILED	TRANSITION FROM PVC OR PE MANIFOLD TO DRIPPER LINES IN GRID.	J-SERIES LI-36, LI-37
A	AIR / VACUUM RELIEF VALVE	RAINBIRD AVR-050	TRANSITION FROMPVC OR PE MANIFOLD TO DRIP LINES IN GRID.	J-SERIES LI-36, LI-37
F	DRIP LINE FLUSH VALVE	CONTRACTOR FABRICATED AS DETAILED	MANUAL SHUT-OFF VALVE WITHIN 10" ROUND VALVE BOX. INSTALL AT LATERAL LINE END RUNS OR ON EXHAUST MANIFOLD APPROXIMATELY WHERE SHOWN AND AS DETAILED.	J-SERIES LI-36, LI-37
I	DRIP OPERATION INDICATOR	RAINBIRD RD06-SAM WITH 18 SERIES VAN NOZZLE	INSTALL AT LEAST TWO PER DRIP ZONE, ONE NEAR THE REMOTE CONTROL VALVE AND ONE AT THE DISTAL END, NEAR THE FLUSH MANIFOLD. INDICATORS TO BE VISIBLE FROM A PAVED SURFACE.	J-SERIES LI-36, LI-37
— . —	POLYETHELE DRIPPER LINE WITH PREINSERTED EMITTERS. (SUSURAFCE APPLICATIONS ON SHRUB AND GROUND COVER PLANTINGS ADNJECENT TO NON PERMEABLE AREAS)	RAINBIRD XFS-P-CV-09-18 (PURPLE COLORED FOR R.W.)	DRIPPER LINE W/ PRE-INSERTED 0.9 GPH PRESSURE COMPENSATING EMITTERS @ 18" O.C. DRIPPER LINES PLACED IN GRID PATTERN WITH LINES SPACED 16' TO 18" O.C. (FOR DEEP ROOTED PLANT MATERIAL) ALL DRIPER LINES TO BE SECURED TO BOTTOM OF TRENCH WITH RAINBIRD TDS-050 STAPLES SPACED 5' O.C. AND COVERED WITH 4" TO 5" APPROVED SOIL. ALL DRIPER LINE CONNECTION TO BE WITH RAINBIRD XFD AND/OR XFF INSERT FITTINGS.	J-SERIES LI-36, LI-37

VALVE CALL-OUT SYMBOL FOR C.F.D. AND/OR HOA AREAS



VALVE CALL-OUT SYMBOL FOR PRIVATE LOTS



R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

NOTE:
REFER TO ADDITIONAL SPECIFICATIONS SECTION 15152 OF WATER AGENCY STANDARDS. ALL SPRINKLERS, VALVE BOXES AND VALVES FOR THE DISTRIBUTION OF RECYCLED WATER WITH EXTERIOR EXPOSURE ARE TO BE PURPLE. SPRINKLERS, VALVE BOXES AND VALVES CONNECTED TO A POTABLE WATER SOURCE ARE TO BE GREEN OR WITHOUT PURPLE MARKINGS.
DECALS AND/OR ADHESIVE LABELS ON RISERS ARE NOT ACCEPTABLE.

*THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
*ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ. 624, 711 RPZ 680
REVIEWED BY: DATE 08/21/18
SIGNATURE EXPIRES AFTER 1 YEAR

"AS-BUILT"
SGNED: DATE:
PRINT NAME: R.L.A. #
DSCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 Signature 9/30/19 Renewal Date Date ★CALIFORNIA★

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

(A)	3 JUL 18
DATE:	15 FEB '18
SCALE:	NO SCALE
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	(A) Add on-grade pipe and pipe labels to legend and details.	7/3/18	
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A; Vertical N/A

Office ____ Field ____ Traffic ____

Designed By | Drawn By | Checked By
Plans Prepared Under Supervision Of THOMAS A. PICARD Date 6/4/15 R.L.A. No. 4001

ORIGINALLY APPROVED 5-15-17
Approved: Date: 8-31-18
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION EQUIPMENT LEGEND AND NOTES FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 40
Sheet 40 of 88

(A) REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014

LI-30

Print Date: 15 FEB '18
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

IRRIGATION NOTES

THE PROJECT

1. IRRIGATION SYSTEMS DESCRIBED BY THESE PLANS ARE PRIMARILY FOR THE SUPPORT OF EROSION CONTROL PLANTINGS. ALL SLOPES EQUAL TO OR GREATER THAN 3' IN HEIGHT AS DETERMINED BY THE LANDSCAPE ARCHITECT ARE TO INCLUDE PERMANENT IRRIGATION.
2A. ALL IRRIGATION SYSTEMS AND WORK WITHIN THE CFD MAINTAINED AREAS, ASSOCIATION MAINTAINED PROPERTIES AND MULTIFAMILY DEVELOPMENTS SHALL BE CONNECTED TO A P.O.C. INTENDED FOR USE OF RECYCLED WATER. USE OF RECYCLED WATER REQUIRES THAT ALL PIPE, SLEEVES, SPRINKLER HEADS, REMOTE CONTROL VALVES, QUICK COUPLER VALVES AND VALVE BOXES BE IDENTIFIED AS CONTAINING RECYCLED WATER. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE. ALL INSTALLATIONS SHALL BE ACCORDING TO RULES AND REGULATIONS OF THE SERVING WATER DISTRICT AND ALL OTHER CODES AND ORDINANCES AFFECTING CONSTRUCTION WITH OR USE OF RECYCLED WATER.
2B. ALL IRRIGATION SYSTEMS OF PRIVATELY MAINTAINED, INDIVIDUAL LOTS SHALL BE CONNECTED TO A P.O.C. INTENDED FOR USE OF POTABLE WATER. ALL SYSTEMS INTENDED FOR POTABLE WATER DISTRIBUTION SHALL BE INSTALLED ACCORDING TO THE RULES AND REGULATIONS OF LOCAL GOVERNING AGENCIES. ALL ASSOCIATION MAINTAINED IRRIGATION SYSTEMS SHALL BE DOWNSTREAM OF AN APPROVED REDUCED PRESSURE TYPE BACKFLOW PREVENTION DEVICE WITH SECURITY ENCLOSURE. THE CONTRACTOR SHALL VERIFY THAT ALL CONNECTIONS ARE DOWNSTREAM OF A REDUCED PRESSURE TYPE BACKFLOW PREVENTION DEVICE. ALL BACKFLOW PREVENTION DEVICES SHALL BE TESTED BY A CERTIFIED TECHNICIAN AT THE EXPENSE OF THE CONTRACTOR. TEST CERTIFICATION SHALL BE DOCUMENTED WITH THE LANDSCAPE ARCHITECT OR OTHER DESIGNATED OWNER'S REPRESENTATIVE.

WATER SOURCE

1. STATIC WATER PRESSURE FOR THIS PROJECT IS CALCULATED FROM HYDRAULIC GRADIENT INFORMATION TAKEN FROM THE VILLAGE 3N SUB-AREA MASTER PLAN (SAMP), DATED SEP. '16 OBTAINED FROM OTAY WATER DISTRICT. HYDRAULIC INFORMATION AS FOLLOWS:
RECYCLED WATER HGL = 680 FT. POTABLE WATER HGL = 624 FT.
WATER PRESSURE AT THE POINT OF CONNECTION SHALL BE APPROXIMATELY AS SHOWN BY THE PRESSURE CALCULATIONS.
ON SYSTEMS WITH FERTILIZER INJECTION AND SUBSEQUENT R/P DEVICE AND STATIC PRESSURE EXCEEDS 150 PSI, THE PRESSURE REGULATOR AND STRAINER WILL BE INSTALLED ON THE UPSTREAM RISER. SEE W.A.S. DWG. #WR-03, NOTE 4.
2. CONTRACTOR SHALL INSTALL AND MONITOR A PRESSURE READING RECORDER AT AN EXISTING RECYCLED IRRIGATION METER, NEARBY THE PROJECT LOCATION, AS DIRECTED BY THE CITY'S LANDSCAPE INSPECTOR. THE RECORDER SHALL MEASURE A CONSTANT PRESSURE READING FOR A PERIOD OF NO LESS THAN 72 CONTINUOUS HRS. IF THE READINGS ARE FOUND TO CONSISTENTLY CONTAIN SIGNIFICANTLY LOWER PRESSURE THEN THE DESIGN PRESSURE STATED ON THE PLANS (AS DETERMINED BY THE CITY'S LANDSCAPE INSPECTOR), AN IRRIGATION BOOSTER PUMP SHALL BE INSTALLED AT NO COST TO THE CITY. BOOSTER PUMP SHALL BE INCLUDED AS AN ADDITIVE ALTERNATE BID ITEM.
IRRIGATION BOOSTER PUMP ASSEMBLY TO BE AS ASSEMBLED BY AND PURCHASED FROM BARRETT ENGINEERED PUMPS. CONTACT GREEN PRODUCT SALES (944) 585-7311. FINAL SPECIFICATION OF PUMP TO BE DETERMINED SUBSEQUENT TO PRESSURE RECORDING AND JUDGEMENT OF THE CITY'S LANDSCAPE INSPECTOR.
3. PURCHASE OF EQUIPMENT AND ANY INSTALLATIONS WHEN EXISTING STATIC PRESSURE IS BELOW THAT STATED ABOVE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
4. THE IRRIGATION POINT OF CONNECTION SHALL BE DOWNSTREAM OF RECYCLED WATER IRRIGATION METER PROVIDED BY OTHERS (SEE CIVIL DRAWINGS). THE CONTRACTOR SHALL CONNECT DOWNSTREAM OF THE METER AND EXTEND COPPER OR BRASS PIPE AND FITTINGS TO THE SPECIFIED STRAINER, CHECK VALVE, OR IN THE CASE OF SYSTEMS USING FERTILIZER INJECTION, R/P DEVICE AND PRESSURE CONTROL EQUIPMENT. PVC PIPE AND FITTINGS SHALL BE INSTALLED DOWNSTREAM OF THE W.A.S P.O.C. ASSEMBLY.

GENERAL

1. PLANS ARE DEVELOPED OVER BASE INFORMATION PROVIDED BY THE LANDSCAPE ARCHITECT AND CIVIL ENGINEER. DRAWINGS ARE DIAGRAMMATIC. THE SCALE OF THE PLANS SOMETIMES MAKES IT NECESSARY TO SHOW IRRIGATION PIPELINES WITHIN THE BUILDINGS, WALKS OR OTHERWISE OUTSIDE OF THE PLANTING AREAS. THIS IS ONLY FOR CLARITY OF THE PLANS. ALL IRRIGATION EQUIPMENT SHALL BE INSTALLED IN PLANTER AREAS WHEREVER POSSIBLE. IN THE FOLLOWING PLANS THE IRRIGATION MAINLINE IS OFTEN SHOWN IN THE WALKWAY. IT IS TO BE INSTALLED 12" TO 18" FROM FACE OF WALKWAY WITHIN THE PLANTING AREA. ALTHOUGH VALVE LOCATIONS ARE SHOWN DIAGRAMMATICALLY, THEY ARE INTENDED TO BE INSTALLED OUT OF SIGHT. LOCATION OF ALL VALVE ASSEMBLIES WITH VALVE BOXES SHALL BE STAKED FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
2. THE CONTRACTOR SHALL NOT INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS THAT FIELD CONDITIONS SUCH AS OBSTRUCTIONS, GRADING DIFFERENCES OR DIFFERENCES IN SIZE AND SHAPE OF THE PLANTED AREAS MAY NOT HAVE BEEN ACCOMMODATED IN THE ORIGINAL DESIGN. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OF SUCH CHANGE IN FIELD CONDITIONS. IF NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE INSTALLATION AND FOR ANY NEED OF SUBSEQUENT REVISIONS.
3A. UNLESS OTHERWISE SPECIFIED ON THE PLANS:
* ALL LATERAL END RUNS ARE TO BE 3/4"
* ALL SUB-MAINS NON-PRESSURE LINE CONNECTED DIRECTLY DOWNSTREAM OF THE REMOTE CONTROL VALVE) SHALL BE ONE SIZE LARGER THAN THAT REMOTE CONTROL VALVE.
* MAINLINE END RUNS ARE TO BE 1 1/2".
* ALL PIPE SHALL BE DOWNSIZED IN DIRECTION OF FLOW ONLY.
3B. PIPE SIZING IS BASED ON OPERATING WATER VELOCITIES NOT TO EXCEED 5 FEET PER SECOND.
4. ALL PIPE LINES AND CONTROL WIRE CONDUIT CROSSING UNDER PAVING SHALL BE SLEEVED. SLEEVES SHALL BE PVC SCH 40 PIPE WITH BELLED ENDS AND SHALL BE TWO TIMES THE DIAMETER OF THE SLEEVED PIPE OR WIRE CONDUIT (3" MIN. - NON-VEHICULAR; 4" MIN. - VEHICULAR) OR SIZED AS SHOWN ON THE PLANS. CONTROL WIRE TO BE SLEEVED SEPARATELY FROM PIPE.
5. THIS PROJECT INCLUDES VERY CONFINED PLANTING AREAS. OVER-SPRAY IS NOT ACCEPTABLE. THE CONTRACTOR SHALL UTILIZE PRESSURE COMPENSATING SCREENS WHERE SPECIFIED OR WHERE NECESSARY AND ADJUST RADIUS OF SPRAY TO PREVENT OVER-SPRAY BEYOND INTENDED AREAS OF COVERAGE, INCLUDING BUT NOT LIMITED TO THE V-DITCHES ON THE SLOPES AS WELL.
6. ALL EQUIPMENT SHALL BE INSTALLED AS DETAILED. USE TEFLON TAPE ON MALE THREADS OF ALL THREADED CONNECTIONS.
7. ALL SPRINKLER HEADS ADJACENT TO PEDESTRIAN WALKS, CURBS, ROADS, IN AND ADJACENT TO TURF AREAS SHALL BE POP/UP TYPE SPRINKLERS AS LISTED IN THE LEGEND AND AS INDICATED ON THE PLANS.

GENERAL NOTES continued

8. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE, WITH THE EXCEPTION OF SLOPE CONDITIONS WHERE HEAD SHALL BE SET BETWEEN PLUMB AND NORMAL TO SLOPE. ALL SPRINKLER HEADS SHALL BE SET AT HEIGHT AS SHOWN IN THE DETAIL DRAWINGS.
9. IN CASE OF POSSIBLE CONTROL WIRE FAILURE AND TO COMPLY WITH REQUIREMENTS SET FOR BY CITY OF CHULA VISTA THE CONTRACTOR SHALL INSTALL IRRIGATION CONTROL WIRE FROM THE CONTROLLER TO ALL REMOTE CONTROL VALVES.
10. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES WITHIN WORK AREA PRIOR TO START OF CONSTRUCTION. AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL REQUEST MARKOUT OF UNDERGROUND UTILITIES BY CALLING THE REGIONAL NOTIFICATION CENTER FOR AN INQUIRY IDENTIFICATION NUMBER. THE CONTRACTOR SHALL ALSO REFER TO ALL OTHER IMPROVEMENT PLANS FOR THIS PROJECT FOR UTILITY LOCATIONS.

CONTROLS

1. SYSTEMS OF THIS PROJECT ARE CONTROLLED BY A SOLID STATE IRRIGATION CONTROLLERS/SATELLITES AND WEB BASED CENTRAL CONTROL V/A GSM CELLULAR SIGNAL. THE CONTRACTOR SHALL EXERCISE STRICT COMPLIANCE WITH THE MANUFACTURERS' INSTRUCTIONS FOR PROPER GROUNDING, INSTALLATION AND USE.
2. CONTROLLER LOCATIONS ARE SHOWN DIAGRAMMATICALLY. FINAL LOCATION TO BE APPROVED BY THE OWNER'S REPRESENTATIVE. POWER FOR THE IRRIGATION CONTROLLERS SHALL BE PROVIDED BY THE OWNER LOCATED APPROXIMATELY WHERE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF THE IRRIGATION CONTROLLERS AND CONNECTION TO THE POWER SOURCE IN COMPLIANCE WITH ALL GOVERNING CODES
3. AS REQUIRED BY THE MUNICIPALITY, ALL IRRIGATION CONTROLLERS/SATELLITES SHALL INCLUDE A RAIN SENSING DEVICE. THIS DEVICE SHALL BE INCLUDED AS PART OF EACH CONTROL ASSEMBLY, MOUNTED ON THE ENCLOSURE.
4. FOR TECHNICAL ASSISTANCE, FOR OPERATION TESTING AND APPROVAL THE CONTRACTOR SHALL CONTACT THE CONTROL EQUIPMENT SUPPLIER: CONTROLLERS -SITEONE GREEN-TECH (800) 427-0779.

FINAL EQUIPMENT LOCATION

1. MAJOR IRRIGATION EQUIPMENT IN PLANTER BEDS SHALL BE HIDDEN FROM CASUAL VIEW.
2. THE FINAL LOCATION OF ALL VALVES SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT AND THE CITY OF CHULA VISTA LANDSCAPE INSPECTOR IN THE FIELD PRIOR TO INSTALLATION. SEE PLANS FOR PARTICULAR INFORMATION ON VALVE PLACEMENT.
3. THE CONTRACTOR SHALL STAKE LOCATIONS FOR REVIEW AND ADJUSTMENT BY THE LANDSCAPE ARCHITECT AND THE CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR PRIOR TO INSTALLATION. NECESSARY RELOCATION OF IRRIGATION EQUIPMENT AS A RESULT OF THE CONTRACTORS FAILURE TO STAKE LOCATION AND RECEIVE APPROVAL SHALL BE AT THE CONTRACTORS EXPENSE.

MEANS AND METHODS

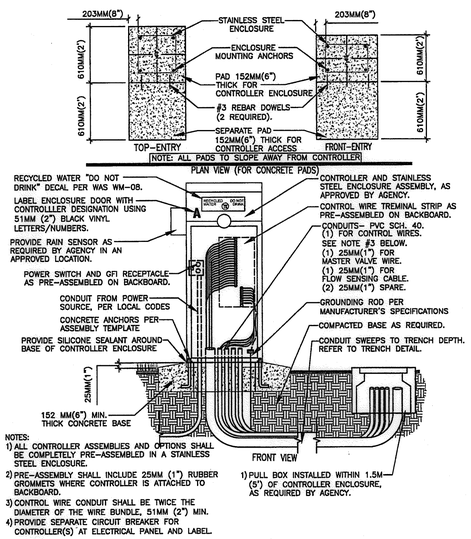
IRRESPECTIVE OF ANY OTHER TERM IN THESE CONSTRUCTION DOCUMENTS, THE IRRIGATION CONSULTANT SHALL NOT CONTROL OR BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SCHEDULES, SEQUENCES OR PROCEDURES, OR FOR CONSTRUCTION SAFETY OR ANY OTHER RELATED PROGRAMS, OR FOR ANOTHER PARTIES' ERRORS OR OMISSIONS OR FOR ANOTHER PARTIES' FAILURE TO COMPLETE THEIR WORK OR SERVICES IN ACCORDANCE WITH IRRIGATION CONSULTANT'S DOCUMENTS.

PROJECT MAINTENANCE

A LACK OF MAINTENANCE OR IMPROPER MAINTENANCE IN AREAS SUCH AS OR ASSOCIATED WITH, BUT NOT LIMITED TO, LANDSCAPE PLANTING, HARDSCAPE, LIGHTING, GRADING, DRAINAGE, WATER FEATURES, FURNISHINGS, AND IRRIGATION OR WATER MANAGEMEN" WHETHER ASSOCIATED WITH THE PROJECT OR NOT MAY RESULT IN DAMAGE TO PROPERTY OR PERSONS. THE CONTRACTOR ACKNOWLEDGES AND AGREES THAT PROPER PROJECT MAINTENANCE IS REQUIRED AFTER THE PROJECT IS COMPLETE AND TO INFORM THE OWNER OF HIS/HER SOLE RESPONSIBILITY FOR THE RESULTS OF ANY LACK OF MAINTENANCE OR IMPROPER MAINTENANCE.

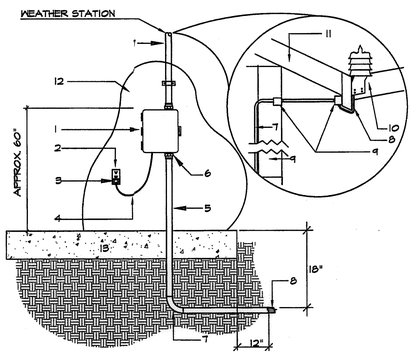
NOTE:

1. SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR A PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC.
2. ALL SPRAY HEADS LOCATED IN TURF AREAS SHALL USE A RAINBIRD 1806-SAM-PRS-NP 6" POP-UP BODY AND PRESSURE COMPENSATING SCREEN -PCS-, SIZED FOR REQUIRED RADIUS REDUCTION.
3. ALL SPRAY HEADS LOCATED IN SHRUB AREAS AND ADJACENT TO CURBS, SIDEWALKS, MOW CURBS, UTILITY PEDESTALS OR ANY OTHER PAVING SURFACE, SHALL USE A RAINBIRD 1812-SAM-PRS-NP 12" POP-UP BODY AND PRESSURE COMPENSATING SCREEN -PCS-, SIZED FOR REQUIRED RADIUS REDUCTION.
4. ALL BUBBLER HEADS LOCATED IN TURF AREAS SHALL USE A RAINBIRD 1806-SAM-PRS-NP 6" POP-UP BODY AND PRESSURE COMPENSATING SCREEN -PCS-, SIZED FOR REQUIRED RADIUS REDUCTION.
5. ALL BUBBLER HEADS SHALL USE A RANBIRD 1806-SAM-PRS-NP 6" POP-UP BODY AND PRESSURE COMPENSATING SCREENS -PCS- AS REQUIRED FOR RADIUS REDUCTION. IRRIGATION INSTALLATION AT EACH TREE SHALL INCLUDE TWO BUBBLERS AS DETAILED.



NOTES:
1) ALL CONTROLLER ASSEMBLIES AND OPTIONS SHALL BE COMPLETELY PRE-ASSEMBLED IN A STAINLESS STEEL ENCLOSURE.
2) PRE-ASSEMBLY SHALL INCLUDE 25MM (1") RUBBER GROMMETS WHERE CONTROLLER IS ATTACHED TO BACKBOARD.
3) CONTROL WIRE CONDUIT SHALL BE TWICE THE DIAMETER OF THE WIRE BUNDLE, 51MM (2") MIN.
4) PROVIDE SEPARATE CIRCUIT BREAKER FOR CONTROLLER(S) AT ELECTRICAL PANEL AND LABEL.
1) FULL BOX INSTALLED WITHIN 1.5M (5') OF CONTROLLER ENCLOSURE, AS REQUIRED BY AGENCY.

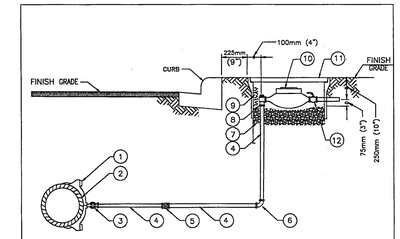
A1 SATELLITE WITH STAINLESS STEEL ENCLOSURE
DWG. NO. 1-17 CITY OF C.V.
SECTION - NO SCALE



1- CONTROLLER.
2- 6FT RECEPTACLE (BY OTHERS)
3- 24 VAC TRANSFORMER FROM CONTROLLER
4- POWER CORD
5- 1-1/2" SCH 40 CONDUIT FOR CONTROL WIRES.
6- PVC SCH 40 MALE ADAPTER.
7- 1/2" CONDUIT FOR SENSOR LEADS ATTACHED TO WALL.
8- LEAD WIRES FROM RAIN SENSOR AND TEMPERATURE SENSOR.
9- ELECTRICAL JUNCTION BOX AS REQUIRED BY ELECTRICAL CODE
10- WEATHER STATION
11- FACIA BOARD
12- INTERIOR WALL.
13- CONCRETE FLOOR OR FOOTING

NOTE:
A. DETAIL FOR ILLUSTRATION OF GENERAL CONDITIONS ONLY. CONTRACTOR SHALL FOLLOW MANUFACTURERS INSTRUCTIONS FOR MOUNTING & GROUNDING.

A2 IRRIGATION CONTROLLER INDOOR WALL-MOUNT WITH WEATHER STATION-POTABLE SYS.
SECTION - NO SCALE



NOTES:
1) REFER TO SECTION 15057 OF THE SPECIFICATIONS
2) INSTALL CORPORATION STOP WITH KEY IN THE SIDE POSITION
3) SET TOP OF METER BOX FLUSH WITH SIDEWALK. CURB OR FINISH GRADE
4) LOCATE METER BOX AS SHOWN ON WS-03
5) INSTALL WARNING/IDENTIFICATION TAPE AS SHOWN ON WP-01
6) WATER LATERALS INSTALLED FOR THE USE OF RECLAIMED WATER SHALL BE IDENTIFIED AS DESCRIBED IN SECTION 15151 OF THE SPECIFICATIONS
7) CONNECTIONS TO STEEL MAINS SHALL BE IN ACCORDANCE WITH SECTION 15061
8) MATERIALS SHALL BE SELECTED FROM THE APPROVED MATERIALS LIST

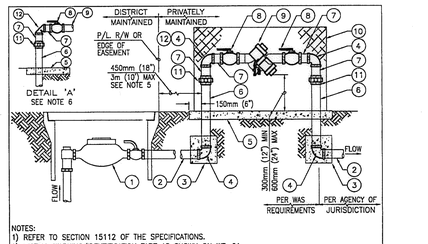
W 50mm (2")
M 50mm (2")
LEGEND ON PLANS

ITEM NO	SIZE AND DESCRIPTION	ITEM NO	SIZE AND DESCRIPTION
1	SIZE x 50mm (2") SERVICE SADDLE	8	50mm (2") BRONZE ANGLE METER STOP WITH LOCKWING
2	WATER MAIN	9	TRACER WIRE (AS REQUIRED). SEE WP-01
3	50mm (2") BRONZE CORPORATION STOP	10	WATER METER FURNISHED AND INSTALLED BY THE WATER AGENCY OF JURISDICTION
4	50mm (2") x REQUIRED LENGTH COPPER PIPE TYPE "K" SOFT/RIGID	11	METER BOX WITH LID. 425MM x 750mm (17" x 30")
5	50mm (2") BRONZE COMPRESSING COUPLING COPPER TO COPPER (IF REQUIRED)	12	CUSTOMER SHUT-OFF VALVE (LOCKABLE)
6	50mm (2") 90° BRONZE COMPRESSION ELL		
7	10mm (3/8") ROCK. 100mm x 150mm (4" TO 6") DEEP		

50mm (2") WATER SERVICE INSTALLATION

WATER AGENCIES STANDARDS
COMMITTEE APPROVAL: 12/11/2003
DRAWING NUMBER: WS -02

B1 2" COPPER SERVICE INSTALLATION
SECTION - NO SCALE



NOTES:
1) REFER TO SECTION 15112 OF THE SPECIFICATIONS.
2) INSTALL WARNING/IDENTIFICATION TAPE AS SHOWN ON WP-01.
3) LOCATE BACKFLOW PREVENTION DEVICE(BPD) IN SUCH A MATTER THAT WILL ALLOW THE DEVICE TO READILY ACCESSIBLE FOR INSPECTION & REPAIR.
4) ALL ABOVE GROUND PIPING, UNIONS, ELBOWS, & NIPPLES SHALL BE SOLDERED OR THREADED BRASS.
5) NO CONNECTIONS OF ANY KIND WILL BE ALLOWED IN THIS AREA. INSPECTION BY THE DISTRICT SHALL TAKE PLACE PRIOR TO BACKFILL. INSTALL A CASING ENCASED IN CONCRETE WHEN THE DISTANCE BETWEEN THE METER BOX AND THE RISER TO THE BPD EXCEEDS 450mm (18")
6) INSTALL AN ANGLE PRESSURE REDUCING VALVE IN LIEU OF THE FIRST 90° ELL WHEN SYSTEM PRESSURE EXCEEDS 1.03 MPa (150 PSI) OR WHEN RECOMMENDED BY THE BACKFLOW MANUFACTURER.
7) TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 15112 OF THE SPECIFICATIONS PRIOR TO ACCEPTANCE BY THE DISTRICT.
8) BPD & APPURTENANCES INSTALLED FOR THE USE OF RECYCLED WATER SHALL BE IDENTIFIED AS DESCRIBED IN SECTION 15151 OF THE SPECIFICATIONS.
9) MATERIALS SHALL BE SELECTED FROM THE APPROVED MATERIALS LIST

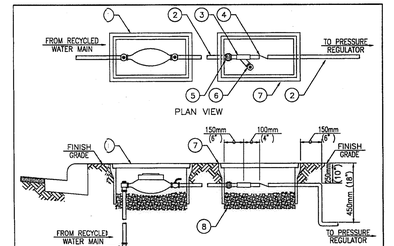
RP(W)
RP(W)
LEGEND ON PLANS

ITEM NO	SIZE AND DESCRIPTION	ITEM NO	SIZE AND DESCRIPTION
1	METER BOX AND METER ASSEMBLY SEE WS-01 & WS-02	6	BRASS OR COPPER PIPE SEE NOTE 4
2	SCH 80 PVC, BRASS OR COPPER PIPE	7	75 mm (3") LONG NIPPLE SEE NOTE 4
3	CONCRETE THRUST BLOCK SEE WT-01	8	BALL VALVE "SHUT-OFF"
4	90° ELL SEE NOTES 4 & 6	9	REDUCED PRESSURE BACKFLOW DEVICE
5	CONCRETE SLAB, MINIMUM 100 mm (4") THICK X 450 mm (18") WIDE	10	ENCLOSURE (OPTIONAL)
		11	UNION SEE NOTE 4
		12	ANGLE PRV SEE NOTES 4 & 6

19 mm THRU 50 mm (3/4" THRU 2") REDUCED PRESSURE BACKFLOW PREVENTION DEVICE

WATER AGENCIES STANDARDS
COMMITTEE APPROVAL: 11/16/2007
DRAWING NUMBER: WR -01

B2 BACKFLOW PREVENTION DEVICE
SECTION - NO SCALE



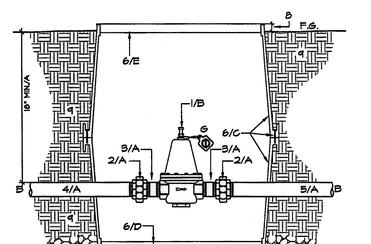
NOTES:
1) REFER TO SECTION 15151 AND 15152 OF THE SPECIFICATIONS
2) SET TOP OF METER BOX LUSH WITH SIDEWALK, CURB OR FINISH GRADE
3) INSTALL WARNING/IDENTIFICATION TAPE AS SHOWN ON WP-01
4) WATER LATERALS INSTALLED FOR THE USE OF RECYCLED WATER SHALL BE IDENTIFIED AS DESCRIBED IN SECTION 15151 OF THE SPECIFICATIONS
5) INSTALL WYE STRAINER HORIZONTAL TO SERVICE LATERAL
6) MATERIALS SHALL BE SELECTED FROM THE APPROVED MATERIALS LIST
7) A MORE STRINGENT METHOD OF BACKFLOW PREVENTION MAY BE REQUIRED AS SHOWN ON THE APPROVED PLANS.

ITEM NO	SIZE AND DESCRIPTION	ITEM NO	SIZE AND DESCRIPTION
1	METER ASSEMBLY PER WS-01 & WS-02	6	13mm (1/2") BRASS BALL VALVE
2	BRASS OR COPPER 'SPC'	7	METER BOX WITH LID 250mm X 300mm
3	WYE STRAINER, SEE NOTE 5		(10" X 20") OR 425mm X 750mm (17" X 30")
4	BRASS CHECK VALVE	8	10mm (3/8") ROCK, 100mm TO 150mm
5	SCREWED BRASS UNION		(4" TO 6") DEEP

25mm AND 50mm (1" and 2") RECYCLED WATER IRRIGATION CHECK VALVE INSTALLATION

WATER AGENCIES STANDARDS
COMMITTEE APPROVAL: 11/16/2007
DRAWING NUMBER: WR -03

B3 RECYCLED WATER CHECK VALVE
SECTION - NO SCALE



1- BRASS PRESSURE REGULATOR.
2- BRASS UNION- CLASS 150 LBS.
3- BRASS NIPPLE- SCH 40.
4- SCH 40 THREADED BRASS PIPE FROM CHECK VALVE.
5- SCH 40 THREADED BRASS PIPE TO TEST STATION.
6- STANDARD RECT. DURA DRI-BOX- #1324-DB-2-DS W/ PURPLE LOCKING LID.
7- 5/8" GRAVEL LEVELING PAD, 8" DEEP MIN.
8- AT FINISH GRADE IN TURF, 1" IN SHRUB AREA
9- UNDISTURBED OR COMPACTED SUBGRADE.

NOTE:
A. METALLIC PIPE TO BE SCH 40 IPS THREADED YELLOW BRASS. METALLIC FITTINGS TO BE CLASS 150 LBS YELLOW BRASS.
B. ALL PLUMBING AND INCLUDED APPURTENANCE TO BE SIZED EQUAL TO METER SIZE.
C. TWO VALVE BOXES, BOTTOMS FACE-TO-FACE, ATTACHED WITH STAINLESS STEEL COARSE THREADED SCREWS- ONE AT EACH CORNER.
D. GASKETS AT LID OF INVERTED VALVE BOX REMOVED TO ALLOW DRAINAGE.
E. VALVE BOX LID SHALL BE BRANDED AS SHOWN IN VALVE BOX INSTALLATION AND IDENTIFICATION DETAIL DRAWINGS.
F. SET PRESSURE AS NOTED ON THE DRAWINGS.
G. CONTRACTOR SHALL INCLUDE A CHRISTY'S R.W. WARNING AND STATION I.D. TAG INDICATING CONTROLLER AND PRESSURE REGULATOR. RECYCLED WATER WARNING TAG AND TO BE IN ENGLISH AND SPANISH.

B4 1"&1.5" PRESSURE REGULATING VALVE WITH UNIONS
SECTION - NO SCALE

* THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
* NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
* ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 9/5/17 CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE: 10 APR '17
SCALE: NO SCALE
JOB NO. 15024
DRAWN BY: T.P. / T.G.
W.O. NO. OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTN: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD., ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (TP# 1359 PER R.O.S. 14841) ELEV=529.319' (NAVD'88)

SCALE: Horizontal N/A, Vertical N/A

Office ____ Field ____ Traffic ____

Designed By ____ Drawn By ____ Checked By ____

Plans Prepared Under Supervision Of ____ Date __/__/__
THOMAS A. PICARD R.L.A. No. 4001

Approved: Kelly Broughton Date: 5-15-17
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION DETAIL DRAWINGS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 41 Sheet 41 of 85

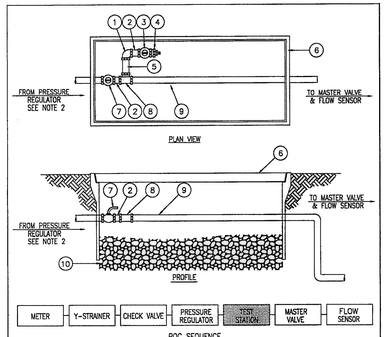
OWD WO# D0944-060189 OWD PERMIT# PLR-16-014

LI-31

Otay Ranch, Village 3 - Slope & Erosion Control

OWD WO# D0944-060189

Print Date: 10 APR '17



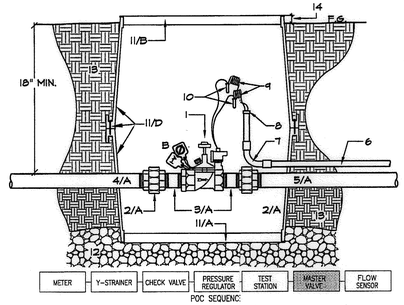
NOTES:
1) REFER TO SECTION 15151 AND 15152 OF THE SPECIFICATIONS
2) INSTALL ONE TEST STATION LOCATED DIRECTLY DOWNSTREAM OF IRRIGATION CHECK AND PRESSURE REGULATING VALVE PER WR-03
3) SECOND CROSS CONNECTION TEST STATION INSTALLED AT FAR END OF ON-SITE MAINLINE
4) BRAND "IS" ON PLASTIC TEST STATION LIDS

ITEM NO	SIZE AND DESCRIPTION	ITEM NO	SIZE AND DESCRIPTION
1	19 mm (3/4") SCH 80 PVC 90 ELL	1	19 mm (3/4") SCHEDULE 80 BRASS NIPPLE
2	19 mm (3/4") SCH 80 BRASS CLOSE NIPPLE	6	VALVE BOX WITH PURPLE COLORED LID
3	19 mm (3/4") BRASS LOCKABLE BALL VALVE	7	LINE SIZED BRASS BALL VALVE
	FIP X METER SWIVEL	8	LINE SIZE BY 19mm (3/4") SCH 80 TEE
4	19mm X 6mm (3/4" X 1/4") BRASS THREADED BUSHING WITH 8.3mm (1/4") CAPPED OUTLET	9	TYPE "K" COPPER OR BRASS PIPE ONLY
		10	150mm (6") BASE OF 19mm (3/8") ROCK

25mm (1") AND 50mm (2") RECYCLED WATER IRRIGATION CROSS CONNECTION TEST STATION

WATER AGENCIES STANDARDS
COMMITTEE APPROVAL: 11/05/2006
DRAWING NUMBER: WR -04

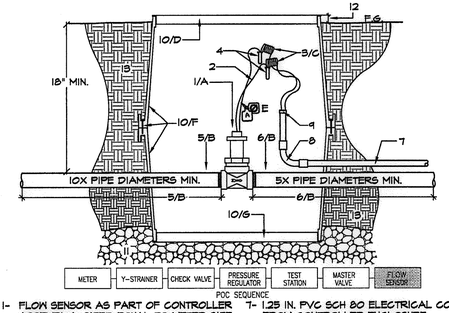
B5 RECYCLED WATER CROSS CONNECTION TEST STATION — SECTION - NO SCALE



1- MASTER CONTROL VALVE-SIZED EQUAL TO METER SIZE
2- BRASS UNION -VALVE SIZE-
3- BRASS NIPPLE -VALVE SIZE -L.A.R.
4- BRASS PIPE FROM TEST STATION-SINGLE SECTION, THREADED.
5- BRASS PIPE TO FLOW SENSOR-SINGLE SECTION, THREADED.
6- 1.25" PVC SCH 80 ELECT. CONDUIT FROM PULL BOX AT CONTROLLER
7- 1.25" PVC SCH 80 ELECT. CONDUIT SWEEP ELL.
8- 1.25" PVC SCH 80 CONDUIT BUSHING.
9- CONTROL WIRES- MCV STATION WIRE AND COMMON.
10- WATERPROOF WIRE SPLICE- 3M DBY.
11- STANDARD RECT. DURA DRI-BOX- #1324-DB-2-DS W/ PURPLE LOCKING LID.
12- 3/4" GRAVEL SUMP AND LEVELING PAD, 3" DEEP MINIMUM.
13- UNDISTURBED/COMPACTED SUBGRADE.
14- FLUSH IN TURF, 1" IN GROUNDCOVER.

NOTES:
A. METALLIC PIPE TO BE SCH 40 IPS THREADED YELLOW BRASS. METALLIC FITTINGS TO BE CLASS 150 LBS YELLOW BRASS.
B. VALVE BOX LID SHALL BE BRANDED AS SHOWN IN VALVE BOX INSTALLATION AND IDENTIFICATION DETAIL DRAWING. CONTRACTOR SHALL INCLUDE A CHRISTY'S R.W. WARNING TAG AND IRRIGATION I.D.
C. TAG INDICATING CONTROLLER AND MASTER CONTROL VALVE. WARNING TAG TO BE IN ENGLISH AND SPANISH. TAGS SHALL BE ATTACHED TO VALVE BONNET BOLT.
D. TWO VALVE BOXES, BOTTOMS FACE-TO-FACE ATTACHED WITH STAINLESS STEEL COARSE THREADED SCREWS- ONE AT EACH CORNER.
E. GASKETS AT LID OF INVERTED VALVE BOX REMOVED TO ALLOW DRAINAGE.

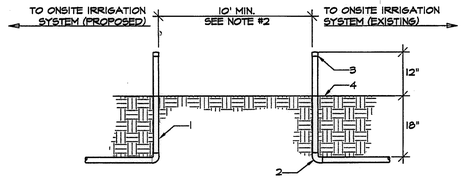
B6 MASTER CONTROL VALVE — SECTION - NO SCALE



1- FLOW SENSOR AS PART OF CONTROLLER ASSEMBLY- SIZED EQUAL TO METER SIZE
2- SENSOR WIRE LEADS
3- COMM. CABLE FROM CONTROLLER- COIL W/ 4' EXTRA WIRE.
4- WATER PROOF CONNECTORS- 3M DBY.
5- BRASS PRESSURE MAIN FROM MASTER CONTROL VALVE. SIZED EQUAL TO METER SIZE
6- BRASS PRESSURE MAIN FOR REQUIRED LENGTH SIZED EQUAL TO FLOW SENSOR.
7- 1.25 IN. PVC SCH 80 ELECTRICAL CONDUIT FROM CONTROLLER ENCLOSURE.
8- 1.25 IN. PVC SCH 80 SWEEP ELL.
9- 1.25 IN. PVC SCH 80 CONDUIT BUSHING.
10- STANDARD RECT. DURA DRI-BOX. #1325-DB-3 W/ PURPLE LOCKING LID.
11- 3/8" GRAVEL LEVELING PAD, 3" DEEP MINIMUM.
12- AT FINISH GRADE IN TURF; 1" IN SHRUB AREA.
13- UNDISTURBED OR COMPACTED SUBGRADE.

NOTE:
A. FOLLOW MANUFACTURERS DIRECTIONS FOR CORRECT INSTALLATION.
B. NO SIZE OR DIRECTION CHANGE WITHIN 10x PIPE DIAMETER UPSTREAM AND 5x PIPE DIAMETER DOWNSTREAM OF SENSOR.
C. COMMUNICATION CABLE SHALL BE TWO CONDUCTOR, SHEILDED CABLE AEF 4516-2SP.
D. VALVE BOX LID SHALL BE BRANDED AS SHOWN IN VALVE BOX INSTALLATION AND IDENTIFICATION DETAIL DRAWING.
E. CONTRACTOR SHALL INCLUDE A CHRISTY'S R.W. WARNING AND STATION I.D. TAG INDICATING CONTROLLER AND FLOW SENSOR. RECYCLED WATER WARNING TAG AND TO BE IN ENGLISH AND SPANISH.
F. TWO VALVE BOXES, BOTTOMS FACE-TO-FACE, ATTACHED WITH STAINLESS STEEL COARSE THREADED SCREWS- ONE AT EACH CORNER.
G. GASKETS AT LID OF INVERTED VALVE BOX REMOVED TO ALLOW DRAINAGE.

B7 FLOW SENSOR — SECTION - NO SCALE

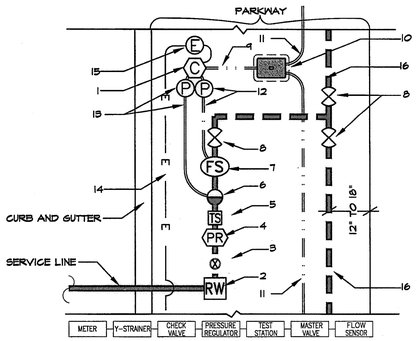


1- PROPOSED IRRIGATION MAINLINE- SEE NOTE #3
2- EXISTING IRRIGATION MAINLINE
3- STUB-OUT WITH SOLVENT-WELD CAP
4- EXISTING GRADE

NOTES:
1. STUB-OUTS SHALL BE VISIBILE AT ALL TIMES- MINIMUM 12" ABOVE EXISTING GRADE.
2. MAINTAIN 10 FOOT MINIMUM SEPARATION BETWEEN EXISTING AND PROPOSED IRRIGATION SYSTEMS AT ALL TIMES DURING CONSTRUCTION.
3. CONTRACTOR SHALL SATISFY ALL REQUIREMENTS OF THE SD WAS STANDARD SPECIFICATIONS AND DRAWINGS PRIOR TO SCHEDULING FINAL CONNECTION WITH OTAY WATERDISTRICT.
4. CONTRACTOR SHALL PERFORM FINAL CONNECTION WITH DISTRICT REPRESENTATIVE & PRESENT AT TIME OF FINAL CONNECTION BETWEEN EXISTING AND PROPOSED IRRIGATION SYSTEMS.

WAS - "STANDARD SPECIFICATIONS FOR FOR POTABLE WATER, RECYCLED WATER AND SEWER FACILITIES." WATER AGENCY STANDARDS COMMITTEE.

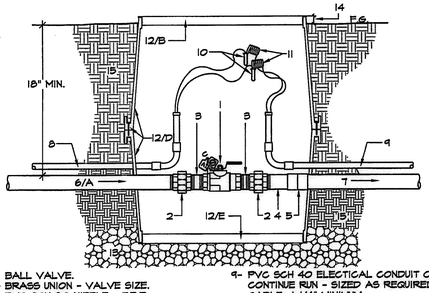
B8 TIE-IN SEFARATION — SECTION - NO SCALE



1- IRRIGATION CONTROLLER, SEE CONTROLLER DETAIL-SECTION VIEW.
2- WATER METER-W.A.S. 715-02
3- STRAINER/CHECK VALVE-W.A.S. MR-03
4- PRESSURE REGULATOR
5- TEST STATION-W.A.S. MR-04
6- MASTER CONTROL VALVE.
7- FLOW SENSOR.
8- MAINLINE ISOLATION VALVES.
9- CONTROL WIRE CONDUIT TO PULL BOX.
10- CONTROL WIRE PULL BOX- STND. REC..
11- CONTROL WIRE IN CONDUIT TO RCV'S
12- 1" CONDUIT AND 12" ROUND PULL BOX FOR FLOW SENSOR.
13- 1" CONDUIT AND 12" ROUND PULL BOX FOR MCV.
14- 1-1/4" CONDUIT FROM METER - 120 VAC
15- 120 VAC ELECTRICAL HAND HOLE.
16- IRRIGATION MAINLINE TO REST OF THE SYSTEMS.

NOTE: ALL CONTROL WIRE CONDUIT TO BE SIZED BY THE CONTRACTOR AND APPROVED BY THE CITY INSPECTOR. SCHEMATIC DRAWING ILLUSTRATES CONCEPT OF CONNECTIONS. ARRANGEMENT, SIZES AND DISTANCES WILL DEPEND ON SPECIFIC CONDITIONS AND VARY FROM PROJECT TO PROJECT. PER CITY OF CHULA VISTA. ALL PLUMBING TO THE FIRST ISOLATION GATE VALVE TO BE BRASS.
W.A.S.= WATER AGENCY STANDARDS.

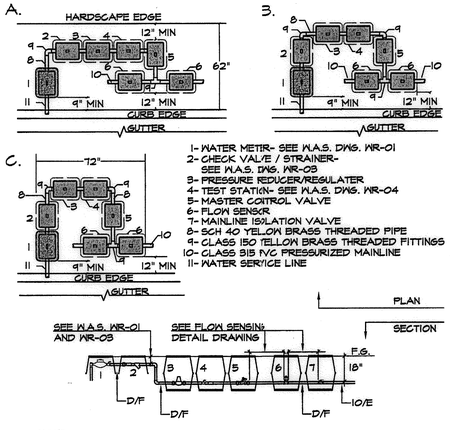
B9 POC AND CONTROL EQUIPMENT, ELECTRICAL CABLE, CONTROL WIRE ROUTING SCHEMATIC — SCHEMATIC



1- BALL VALVE.
2- BRASS UNION - VALVE SIZE.
3- PVC SCH 80 NIPPLE - T.B.E.
4- PVC SCH 80 NIPPLE - T.O.E.
5- PVC SCH 80 SS COUPLING-MAINLINE SIZE
6- BRASS PRESSURE MAIN FROM FLOW SENSOR. SIZED EQUAL TO METER SIZE
7- PVC PRESSURE MAIN TO IRRIGATION SYSTEM - SIZE PER PLAN
8- PVC SCH 40 ELECTICAL CONDUIT FROM CONTROLLER - SIZED AS REQUIRED FOR CABLE- 1-1/4" MINIMUM.
9- PVC SCH 40 ELECTICAL CONDUIT ON A CONTINUE RUN - SIZED AS REQUIRED FOR CABLE- 1-1/4" MINIMUM.
10- WIRE SPLICE - 3M DBY. IF REQUIRED
11- CONTROL WIRES WITH SPARE STATION WIRES LOOPED INTO EACH ISOLATION VALVE BOX ON RUN.
12- STANDARD RECT. DURA DRI-BOX. #1325-DB-3 W/ PURPLE LOCKING LID.
13- 3/8" GRAVEL LEVELING PAD, 3" DEEP MINIMUM.
14- AT FINISH GRADE IN TURF; 1" IN SHRUB AREA.
15- UNDISTURBED OR COMPACTED SUBGRADE.

NOTE:
A- METALLIC PIPE TO BE SCH-40 IPS THREADED YELLOW BRASS. METTALIC FITTINGS TO BE CLASS 150 LBS YELLOW BRASS.
B- VALVE BOX LID SHALL BE BRANDED AS SHOWN IN VALVE BOX INSTALLATION AND IDENTIFICATION DETAIL DRAWING.
C- CONTRACTOR SHALL INCLUDE A CHRISTY'S R.W. WARNING AND STATION I.D. TAG INDICATING CONTROLLER AND BALL VALVE. RECYCLED WATER WARNING TAG AND TO BE IN ENGLISH AND SPANISH.
D- TWO VALVE BOXES, BOTTOMS FACE-TO-FACE, ATTACHED WITH STAINLESS STEEL COARSE THREADED SCREWS- ONE AT EACH CORNER.
E- GASKETS AT LID OF INVERTED VALVE BOX REMOVED TO ALLOW DRAINAGE.

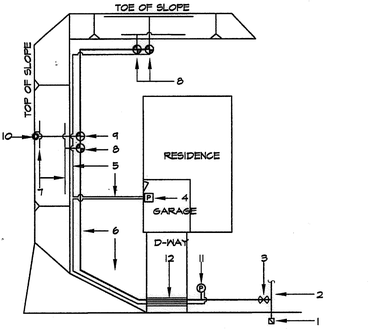
B10 BALL VALVE FOR MAINLINE ISOLATION DOWNSTREAM OF P.O.C. WITH CONTROL WIRE IN CONDUIT — SECTION - NO SCALE



1- WATER METER- SEE W.A.S. DWG. MR-01
2- CHECK VALVE / STRAINER- SEE W.A.S. DWG. MR-03
3- PRESSURE REDUCER/REGULATOR
4- TEST STATION- SEE W.A.S. DWG. MR-04
5- MASTER CONTROL VALVE
6- FLOW SENSOR
7- MAINLINE ISOLATION VALVE
8- SCH 40 YELLOW BRASS THREADED PIPE
9- CLASS 150 YELLOW BRASS THREADED FITTINGS
10- CLASS 315 P.V.C PRESSURIZED MAINLINE
11- WATER SERVICE LINE

NOTE:
A- VERTICALLY EFFICIENT BOX PLACEMENT
B- TYPICAL BOX PLACEMENT (I.E. SYMMETRICAL BOX PLACEMENT)
C- HORIZONTALLY EFFICIENT BOX PLACEMENT
D- ALL PLUMBING FROM THE METER TO THE FIRST ISOLATION VALVE/S TO BE SCH 40 IPS THREADED YELLOW BRASS. ALL METALLIC FITTINGS TO BE CLASS 150 LBS YELLOW BRASS.
E- ALL PLUMBING DOWNSTREAM OF THE FIRST ISOLATION VALVE/S TO BE PVC AS DESCRIBED IN THE IRRIGATION LEGEND, NOTES AND SPECIFICATIONS.
F- ALL METALLIC PLUMBING AND INCLUDED APPURTENANCE TO BE SIZED EQUAL TO METER SIZE.

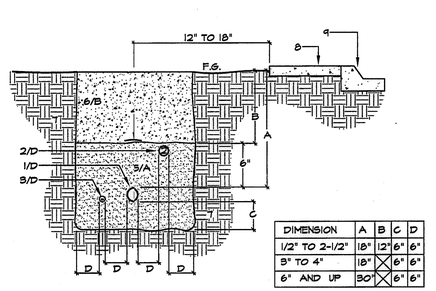
B11 SUGGESTED POINT OF CONNECTION ARRANGEMENT — SCHEMATIC



1- WATER METER.
2- SERVICE LINE.
3- P.O.C.-ISOLATION BALL VALVE WITH PRESSURE REGULATOR (MAINLINE SIZE).
4- CONTROLLER - INSIDE GARAGE NEAR SERVICE DOOR AND POWER SOURCE - COORDINATE ON-SITE.
5- CONTROL WIRE PATH.
6- IRRIGATION MAINLINE.
7- LATERAL LINE (TYP.)
8- REMOTE CONTROL ANTI-SIPHON VALVE
9- REMOTE CONTROL ANGLE VALVE
10- ATMOSPHERIC VACUUM BREAKER
11- STUB-OUT FOR FUTURE USE
12- SLEEVED DRIVE CROSSING

NOTE:
A. MAINLINE SHALL BE ROUTED 18" FROM TOE OF SLOPE AND 36" FROM TOP OF SLOPE AND SHALL NOT CUT ACCROSS THE LOT.
B. SPARE CONTROL WIRES SHALL BE ROUTED THROUGH ALL VALVE MANIFOLDS AND/OR STUB-OUT.
C. MAINLINE SHALL BE SIZED ACCORDINGLY;
1" FOR FLOWS TO 12 G.P.M.
1-1/4" FOR FLOWS TO 20 G.P.M.
1-1/2" FOR FLOWS TO 30 G.P.M.
D. REGULATOR AND ISOLATION VALVE SHALL BE MAINLINE SIZE.

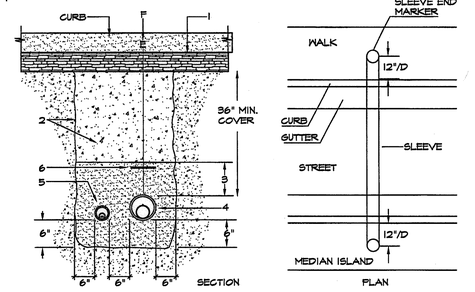
B12 TYPICAL SYSTEM LAYOUT FOR PRIVATE LOT IRRIGATION WITH SLOPE CONDITIONS — SECTION - NO SCALE



1- R.W. IRRIGATION MAINLINE
2- R.W. IRRIGATION LATERAL LINE
3- DECODER CABLE AND/OR CONTROL WIRES IN PVC SCH 40 ELETRICAL CONDUIT
4- R.W. WARNING TAPE 3" WIDE
5- SAND BEDDING- OR APPROVED NATIVE SOIL.
6- CLEAN BACKFILL- APPROVED NATIVE SOIL.
7- UNDISTURBED NATIVE SOIL
8- SIDEWALK
9- CURB AND GUTTER

NOTE:
E. PRESSURE MAINLINE SHALL BE INSTALLED ON A 6" SAND BED & COVERED BY 6" OF SAND PRIOR TO ANY OTHER BACKFILL MATERIAL.
F. SEE SPECIFICATIONSFOR APPROVED BACKFILL AND OTHER REQUIREMENTS.
G. IRRIGATION PIPE LINES SHOWN DIAGRAMMATICALLY. PIPE SHALL BE INSTALLED 12" TO 18" FROM WALK OR CURB.
H. PIPE AND CONDUIT TO BE INSTALLED IN SLEEVES UNDER ALL PAVING AND EXTEND 12" PAST EDGE OF PAVING. DECODER CABLE AND/OR CONTROL WIRE TO BE INSTALLED IN PVC SCH 40 ELECTRICAL CONDUIT AND BE AT INCREASED DEPTH UNDER PAVING AS FOLLOWS.
SLEEVES AND CONDIT UNDER PAVING TO BE;
-30"TO 36" COVER UDER ROADS AND DRIVES.
-18" TO 24" COVER UDER WALKS.

C1 TRENCHING — SECTION - NO SCALE



1- PAVING SURFACE BY OTHERS.
2- REFER TO ENGINEER FOR SPECIFIC MATERIAL AND COMPACTION REQUIREMENTS.
3- SAND BEDDING- PER CIVIL ENG. REQUIREMENTS.
4- R.W. PRESSURE MAIN LINE WITH TRACER WIRE AND WITHIN SLEEVE.
5- LOW VOLTAGE CONTROL WIRES IN CONDUIT WITHIN SLEEVE SIZE AS REQUIRED.
6- DETECTABLE RW WARNING TAPE - 3" WIDE T.CHRISTY'S MOD # TA-2A-3-PRW

THIS DRAWING SHOWS RELATIVE PIPE DEPTHS AND SLEEVE MARKING ONLY. BACKFILL MATERIAL, COMPACTION REQUIREMENTS, ROAD BED REQUIREMENTS SHALL BE ACCORDING TO CIVIL PLANS.

NOTE:
A. TRACER WIRE TAPED TO TOP OF MAINLINE AT 3' INTERVALS.
B. ALL SLEEVES TO BE PVC SCH 40 PIPE.
C. USE R.W. PURPLE PIPE FOR PIPE SLEEVES.
D. ALL SLEEVES TO BE SIZED TWICE THE DIA. OF INTERNAL PIPE (2" MIN.) SLEEVING FOR UNDER VEHICULAR PAVING TO BE 4" MINIMUM.
E. ALL SLEEVES TO RUN A MIN. OF 12" TO 18" BEYOND HARDSCAPE EDGES.
F. SLEEVE ENDS SHALL BE MARKED WITH 10" ROUND VALVE BOX WITH PURPLE LOCKING COVER.
G. ETCH THE LETTER "E" INTO CURB DIRECTLY ABOVE THE SLEEVE. SEE ALSO SLEEVE MARKER DETAIL DRAWING.

C2 PIPE AND WIRE UNDER PAVING — SECTION - NO SCALE

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

*THE OTAY WATER DISTRICT SHALL BE NOTFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO RE-ECTION AND REMOVAL.
*NO DECORATIVE FOUNTAINS, DRINKING FOINTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
*ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/16/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — CALIFORNIA — 5/15/17

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	NO SCALE
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.
Inspector		
Date Completed		

REVISIONS	Date	App'd

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PTH 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE	
Horizontal	N/A
Vertical	N/A

Office
Field
Traffic

Designed By | Drawn By | Checked By

Plans Prepared Under Supervision Of / /
Date
THOMAS A. PICARD R.L.A. No. 4001

Approved: Date: 5-15-17.
Kelly Broughton
Director of Development services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION DETAIL DRAWINGS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 42
Sheet 42 of 88

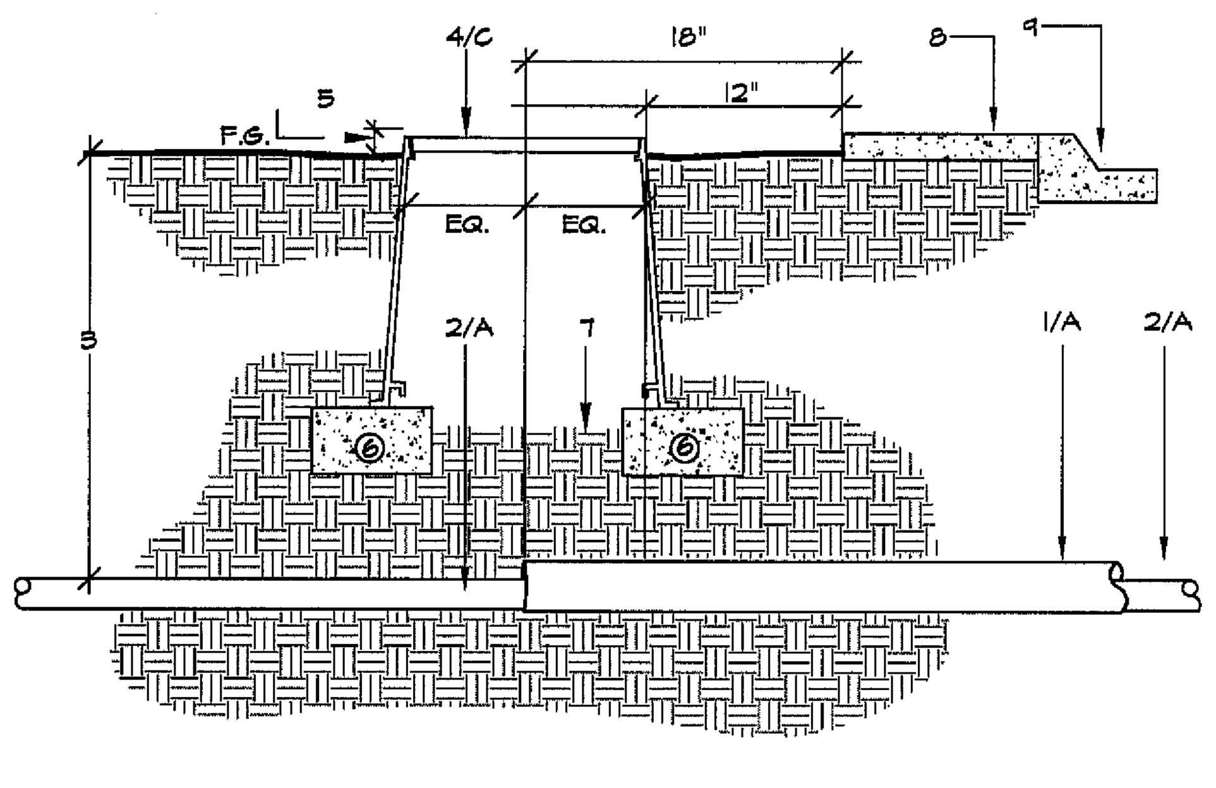
OWD WO# D0944-060189 OWD PERMIT# PLR-16-014

LI-32

Otay Ranch, Village 3 - Slope & Erosion Control

OWD WO# D0944-060189

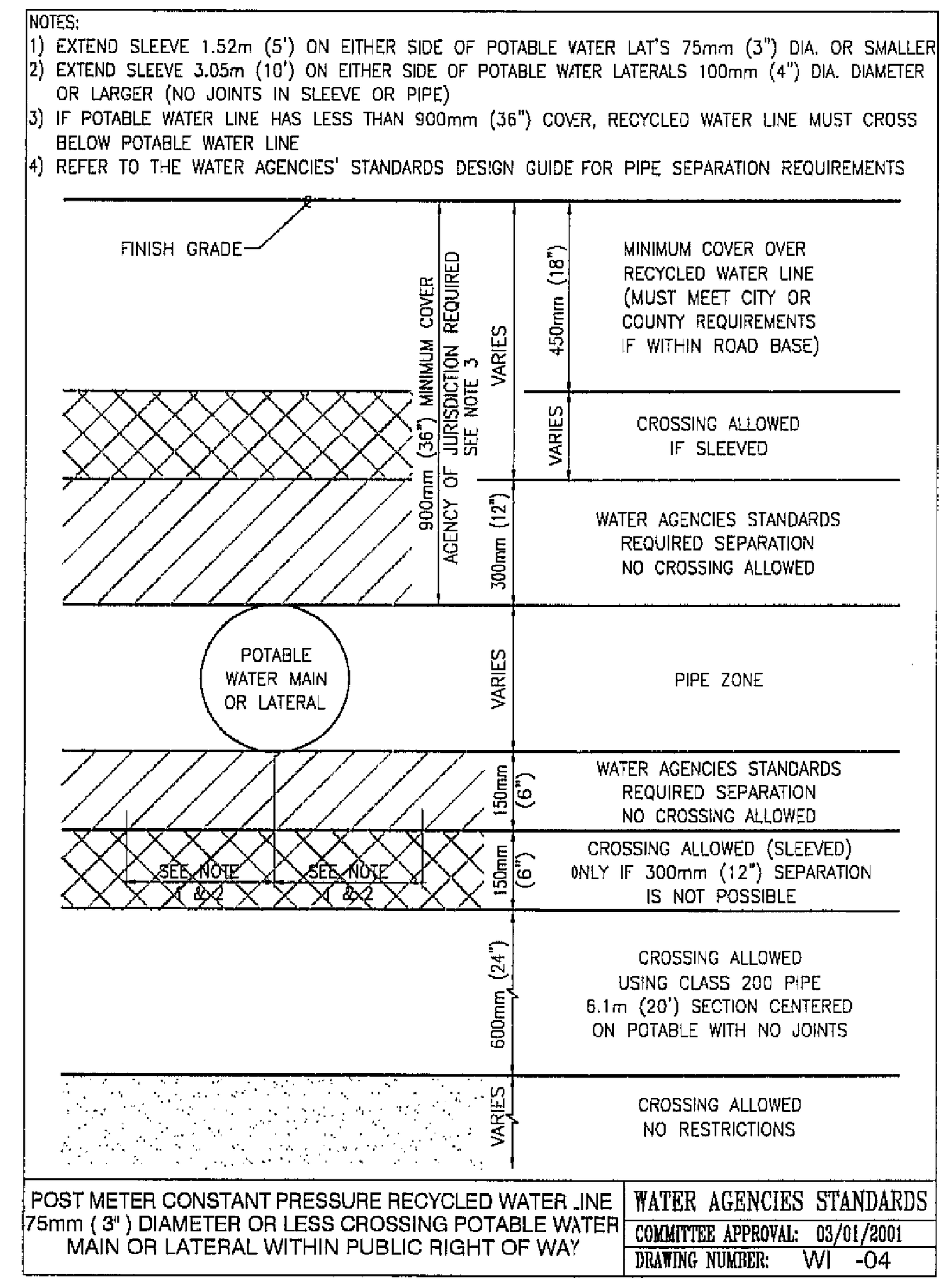
Print Date: 10 APR '17



1- PVC SCH 40 OR 80 SLEEVE.
2- SLEEVED PIPE.
3- SEE SPECS. AND TRENCHING DETAILS.
4- 10" ROUND VALVE BOX.
5- FLUSH IN TURF, 1" IN GROUND COVER.
6- BRICK SUPPORT- ONE EACH SIDE
7- UNDISTURBED OR COMPACTED SUB-GRADE.
8- SIDEWALK
9- CURB AND GUTTER

NOTE:
A. SLEEVE TO BE 2 TIMES THE DIAMETER OF PIPE TO BE SLEEVED.
B. SLEEVE MARKER BOX TO BE CENTERED OVER END OF SLEEVE.
C. SLEEVE MARKER BOX COVER SHALL BE PERMANENTLY MARKED AS SHOWN IN VALVE BOX ID DETAIL DRAWING.

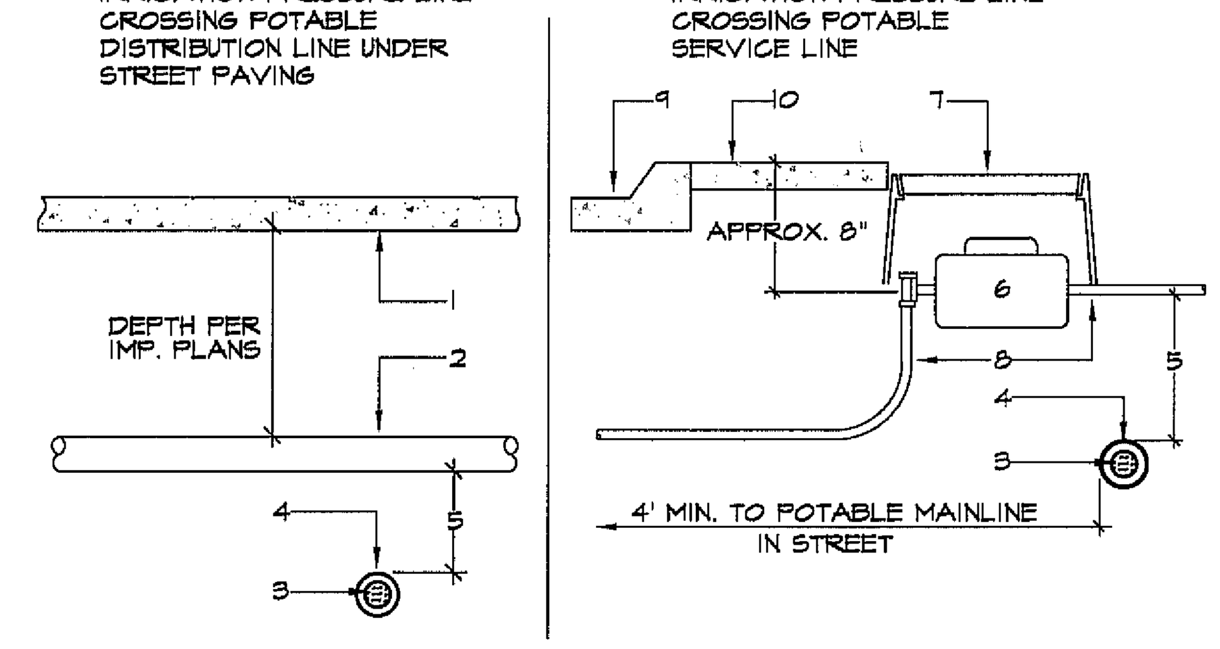
C3 SLEEVE MARKER
SECTION - NO SCALE



C4 RECYCLED / POTABLE PIPE CROSSING
SECTION - NO SCALE

RECYCLED WATER IRRIGATION PRESSURE LINE CROSSING POTABLE DISTRIBUTION LINE UNDER STREET PAVING

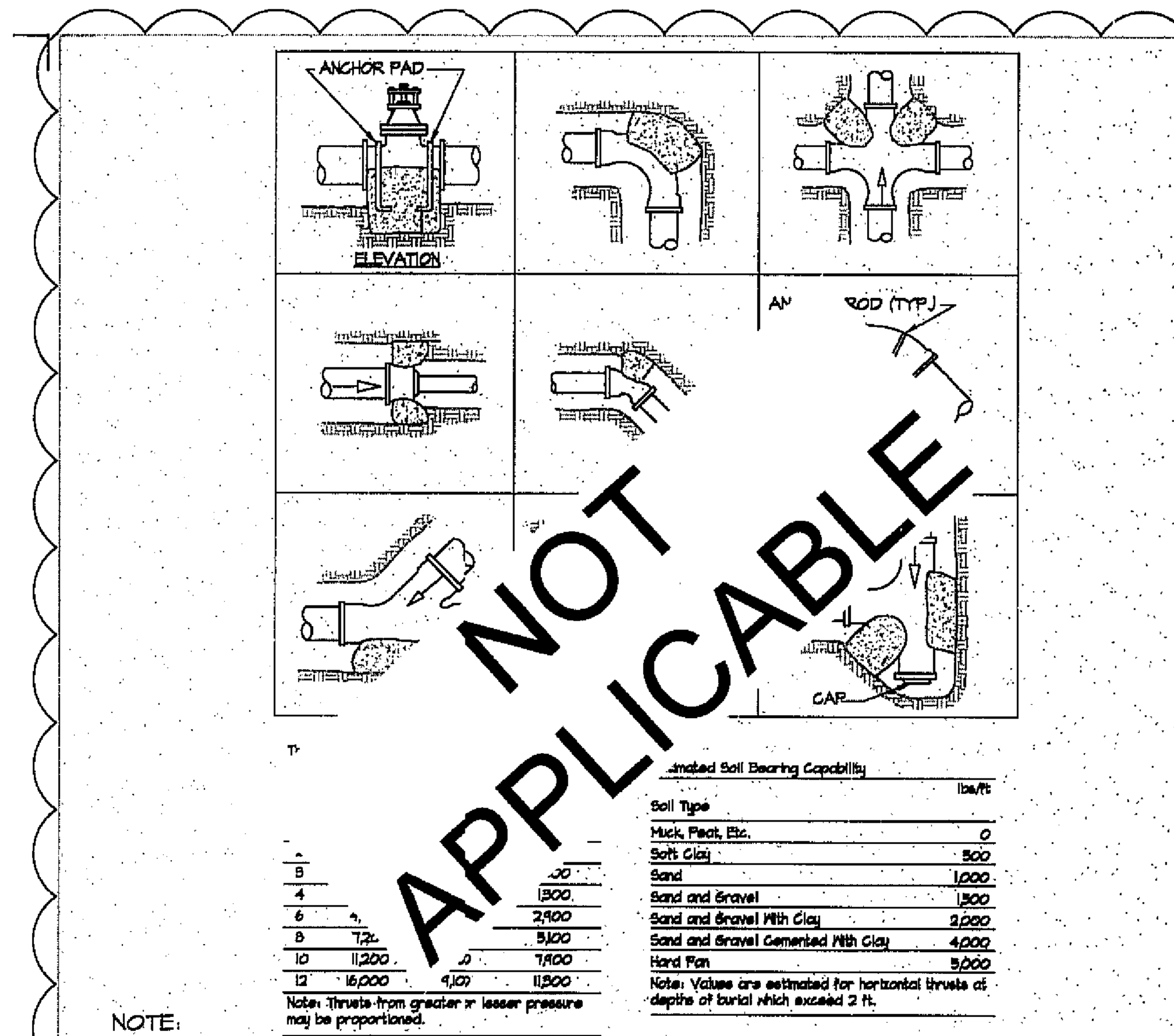
RECYCLED WATER IRRIGATION PRESSURE LINE CROSSING POTABLE SERVICE LINE



1- STREET SURFACE.
2- POTABLE MAINLINE - SEE IMPROVEMENT DRAWINGS.
3- RECYCLED WATER IRRIGATION MAINLINE.
4- SLEEVE.
5- 12" MINIMUM REQUIRED VERTICAL SEPERATION.
6- POTABLE WATER METER.
7- METER BOX.
8- POTABLE SERVICE LINE.
9- CURB.
10- SIDEWALK.

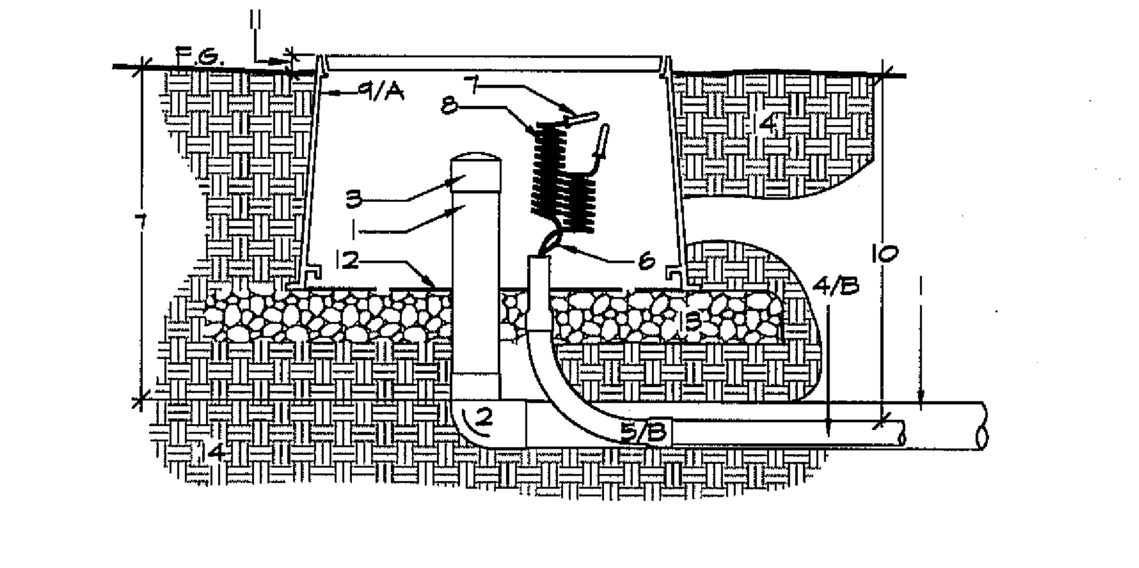
NOTE:
A. VERTICAL CLEARANCE OF 12" MIN. IS MANDATORY WHEN CROSSING PATH OF A POTABLE WATER LINE. INSTALLATION OF RECYCLED WATER IRRIGATION MAINLINE OUTSIDE OF ASSOCIATION SETBACK WILL PROVIDE THE NECESSARY 10' HORIZONTAL CLEARANCE FROM POTABLE MAINLINE IN STREET.
B. ALL RECYCLED WATER IRRIGATION PIPE AND SLEEVES SHALL BE PURPLE AND LABELED AS SPECIFIED IN:
"STANDARD SPECIFICATIONS FOR FOR POTABLE WATER, RECYCLED WATER AND SEWER FACILITIES." WATER AGENCY STANDARDS COMMITTEE.' DECEMBER 2003

C5 RECYCLED WATER PRESSURE LINE CROSSING POTABLE WATER LINE
SECTION - NO SCALE



NOTE:
A. ALL RING-TITE PLASTIC PIPE TO BE INSTALLED ACCORDING TO THESE DETAILS UNLESS OTHERWISE NOTED OR DETAILED.
B. THE PORTLAND CEMENT CONCRETE USED FOR THRUST BLOCKS SHALL BE 420-C-2000 CONCRETE.
C. ALL ANCHOR RODS SHALL BE GALVANIZED STEEL, MINIMUM 1/2 INCH DIAMETER, WRAPPED AROUND PIPE.
D. SIZE OF THRUST BLOCKS SHALL BE SPECIFIED ON PLANS.
E. FLOW DIRECTION INDICATED BY ARROW.
F. ALL VIEWS ARE PLAN VIEW UNLESS OTHERWISE SHOWN.
G. THRUST BLOCKS (REQ'D) ON LINE SIZES 2 1/2 OR GREATER, OR (AS REQ'D) BY MNWD INSPECTOR.
H. GET BEARING AREAS FROM SDRSD.

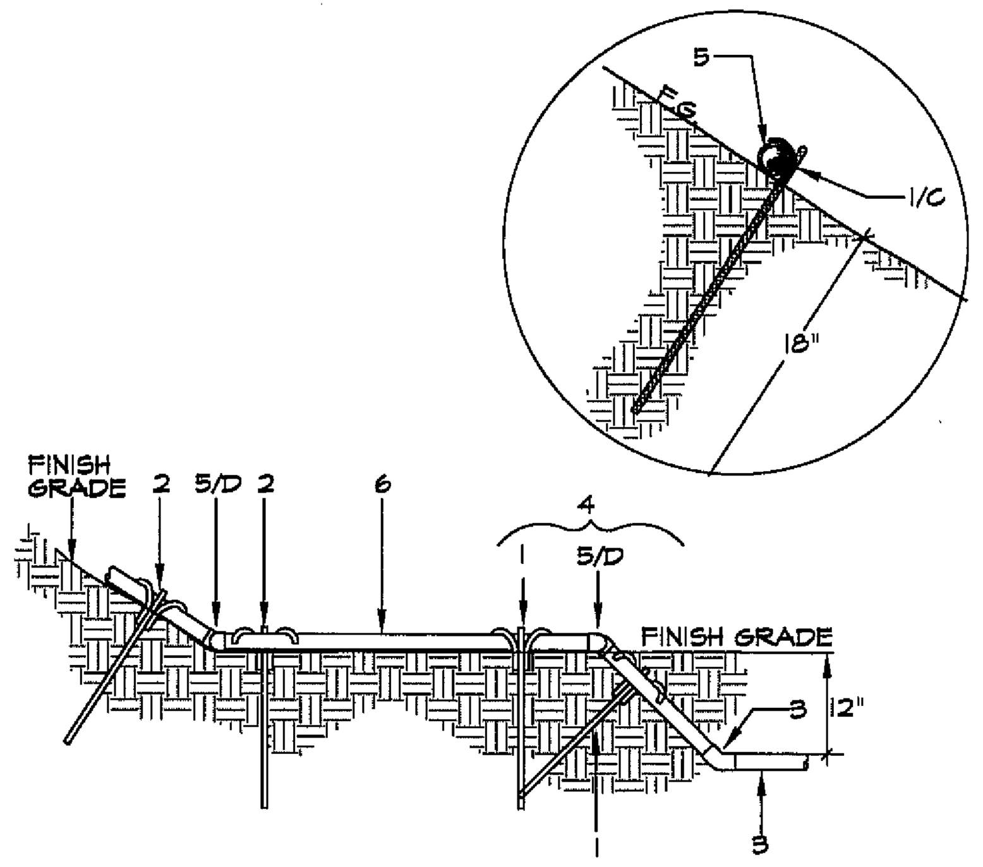
C6 THRUST BLOCK FOR PLASTIC PIPE
SECTION - NO SCALE



1- PVC PRESSURE PIPE
2- PVC SCH 80 ELL -SXS
3- PVC SCH 80 CAP -SLIP
4- PVC SCH 40 ELECTRICAL CONDUIT
5- PVC SCH 40 90 DEG. SWEEP ELL
6- DIRECT BURIAL CONTROL WIRE
7- APPROVED WATERPROOF WIRE SPLICE CONNECTORS TO PROTECT COPPER.
8- EXPANSION LOOP- 3 FT. EXTRA WIRE
9- STANDARD RECT. DURA DRI-BOX. #123-DB-2-DS W/ PURPLE LOCKING LID.
10- 18" MINIMUM-SEE SPECS. AND TRENCH DETAIL FOR DEPTHS.
11- FLUSH IN TURF: 1" IN GROUND COVER.
12- DIRT SKIRT OF THE DURA DRI-BOX.
13- 3/8" GRAVEL SUMP AND LEVELING PAD, 3" DEEP, MINIMUM.
14- UNDISTURBED/COMPACTED SUBGRADE.

NOTE:
A. INSTALL STUB-OUT FOR FUTURE USE AND SYSTEM EXPANSION WHERE SHOWN ON PLANS.
B. ALL CONTROL WIRES TO BE INSTALLED WITHIN CONDUIT. SIZE CONDUIT APPROPRIATE TO WIRE BUNDLE.
C. VALVE BOX LID SHALL BE PERMANENTLY MARKED AS SHOWN IN VALVE BOX IDENTIFICATION DETAIL DRAWING.
D. CONDUCTORS FOR EACH CONTROLLER CLOCK SHALL BE WITHIN SEPERATE CONDUIT.
E. ALL SPARE WIRE ENDS SHALL BE INSULATED IN THE SAME MANNER AS WIRE SPLICES.
F. MINIMUM SIZE PULL BOX SHALL BE AS SHOWN ABOVE. LARGER BOXES AND/OR EXTENSIONS MAY BE NECESSARY.
D. ALL SPLICES ARE TO BE MADE WITHIN A PULL BOX OR VALVE BOX.

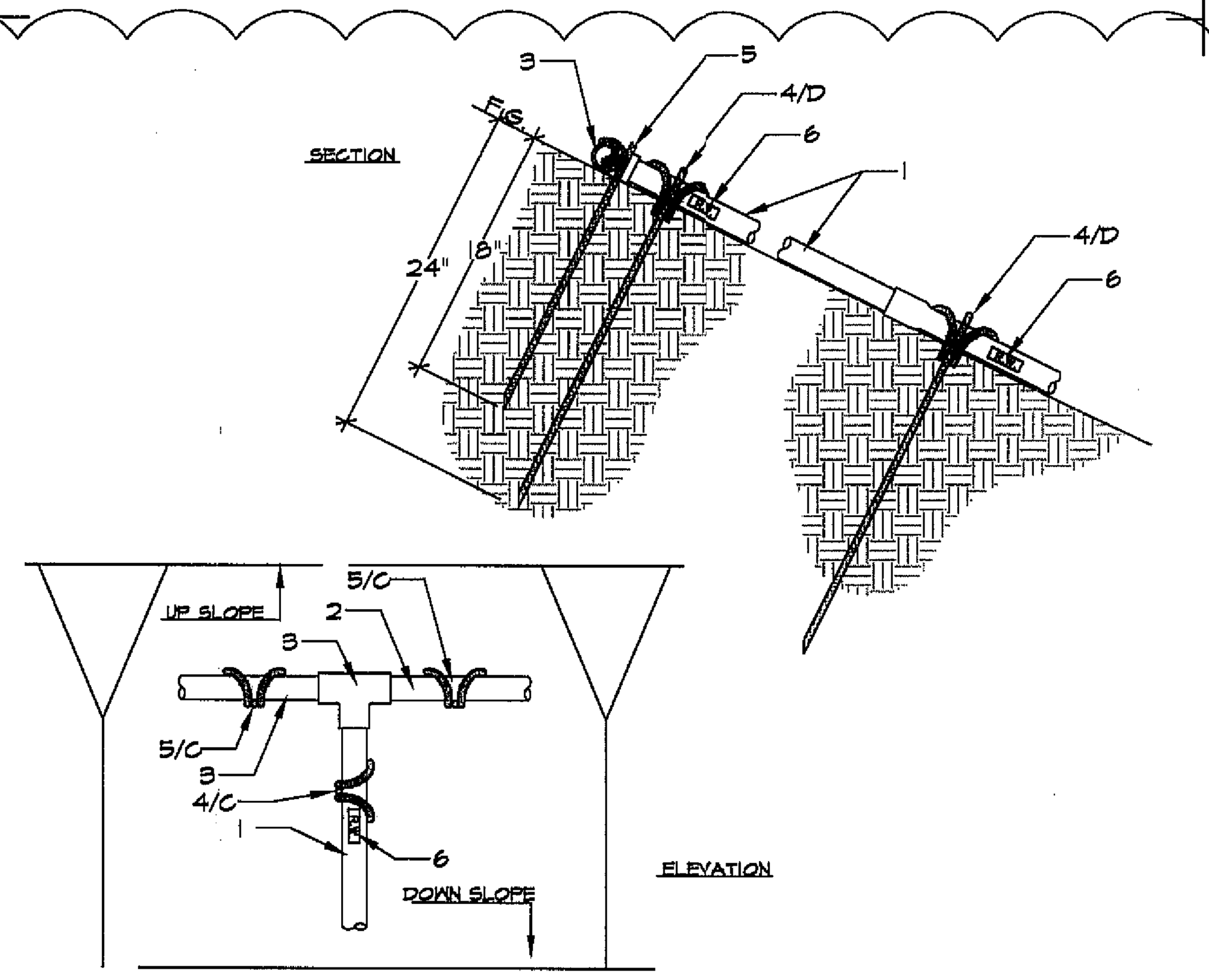
C7 MAINLINE STUB-OUT WITH CONTROL WIRE IN CONDUIT
SECTION - NO SCALE



1- V.I.T. PIPE STABILIZER MOD.# PS24 AT TRANSITION.
2- V.I.T. PIPE STABILIZER MOD.# PS18 ON EXTENDED RUN
3- SUBSURFACE LATERAL LINE FROM RCV (NON-UVR PVC)
4- TRANSITION TO ON-GRADE.
5- SWING JOINT ASSEMBLED FROM SCH 40 UVR PVC- 1 MIPT X SOCKET ELL & 1 FIPT X SOCKET ELL).
6- UVR-PVC SCH 40 LATERAL LINE AND FITTINGS, SIZE AS NOTED ON PLANS.

NOTE:
A. UVR PVC PIPE TO BE INSTALLED AND SECURELY FASTENED TO FINISH GRADE.
B. V.I.T. STABILIZERS TO BE INSTALLED AT SLOPE TRANSITIONS AS SHOWN. ALONG EXTENDED RUN OF ALL SURFACE INSTALLED PIPE. STABILIZER SPACING NOT TO EXCEED 15 FT. AND/OR BETWEEN EVERY HEAD.
C. STABILIZER TO BE POSITIONED ON DOWNHILL SIDE OF ALL HORIZONTAL PIPE RUNS.
D. SWING JOINTS INSTALLED AT ALL GRADE TRANSITIONS TO ALLOW FOR CHANGE OF DIRECTION AND/OR SLIGHT MOVEMENT RESULTING FROM EXPANSION/CONTRACTION.

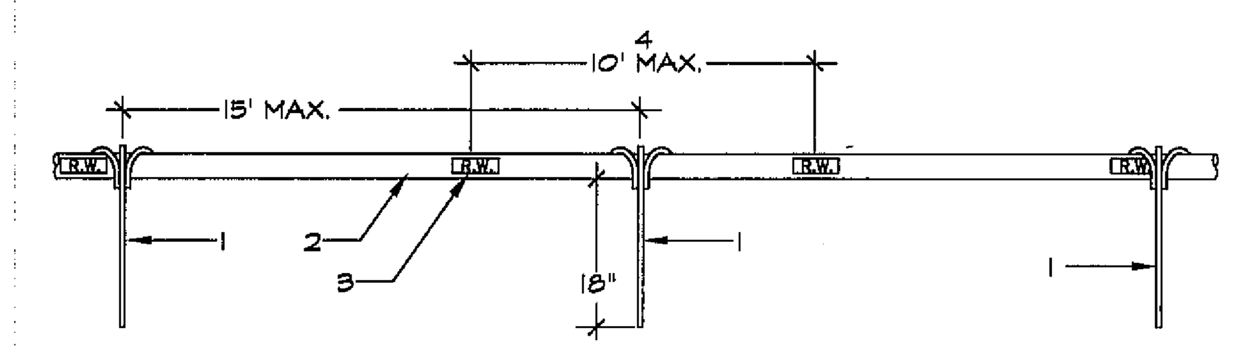
C8 SUBGRADE TO ON-GRADE TRANSITION
SECTION - NO SCALE



1- UVR SCH 40 PVC SUBMAIN
2- UVR SCH 40 PVC LATERAL LINE
3- UVR SCH 40 PVC TEE AT SUBMAIN/LATERAL LINE CONNECTION.
4- V.I.T. PIPE STABILIZER MOD.# PS24 ON SUBMAIN.
5- V.I.T. PIPE STABILIZER MOD.# PS18 ON LATERAL LINES
6- RECYCLED WATER WARNING LABEL. T. CHRISTY'S ENTERPRISES MODEL #ID-4200. SPACING NOT TO EXCEED 10' O.C.

NOTE:
A. UVR PVC PIPE TO BE INSTALLED AND SECURELY FASTENED TO FINISH GRADE.
B. V.I.T. STABILIZERS INSTALLED ON SUBMAIN AT AND BETWEEN EVERY PIPE JOINT.
C. STABILIZER TO BE POSITIONED ON DOWNHILL SIDE OF ALL HORIZONTAL PIPE RUNS.
D. STABILIZER TO BE POSITIONED ON DOWNHILL SIDE OF ALL PIPE JOINTS RUNNING UP SLOPE.

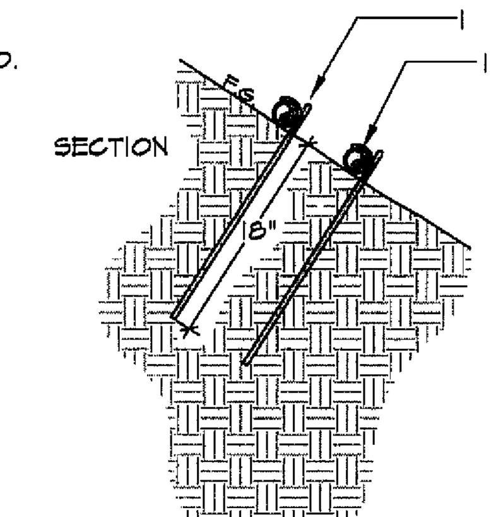
C9 ON-GRADE PIPE ON SLOPE STABILIZATION
SECTION - NO SCALE



ELEVATION

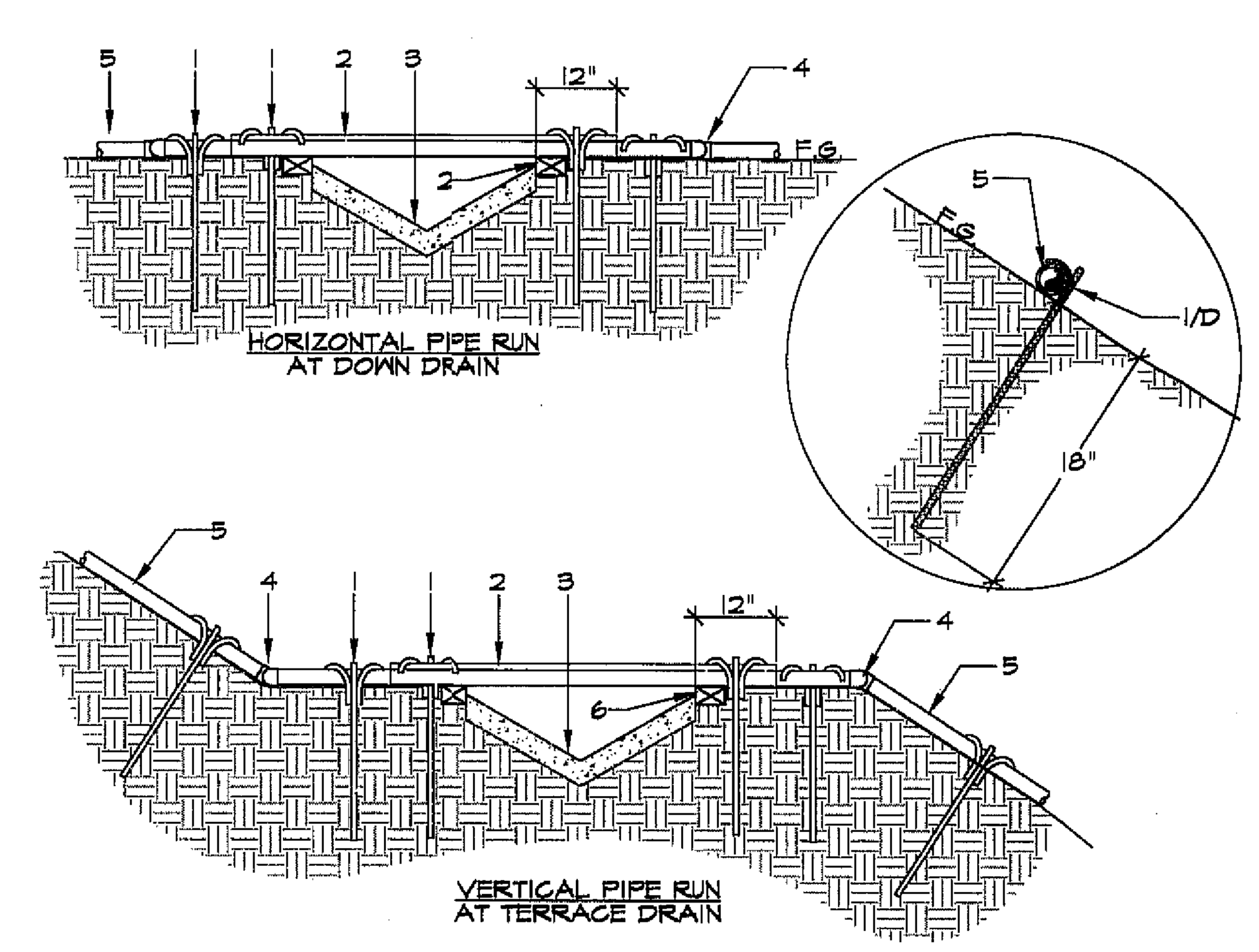
1- V.I.T. PIPE STABILIZER MOD.# PS18
2- SCH 40 UVR PVC LATERAL LINE WITH UVR SCH 40 FITTINGS.
3- RECYCLED WATER WARNING LABEL. T. CHRISTY'S ENTERPRISES MODEL #ID-4200.
4- SPACING NOT TO EXCEED 10' O.C.

SECTION



NOTE:
A. UVR PVC PIPE TO BE INSTALLED AND SECURELY FASTENED TO FINISH GRADE WITH V.I.T. STABILIZERS AS SHOWN.
B. STABILIZER SPACING NOT TO EXCEED 15 FT. AND/OR BETWEEN EVERY SPRINKLER HEAD.
C. STABILIZER TO BE POSITIONED ON DOWNHILL SIDE OF ALL HORIZONTAL PIPE RUNS.
D. LATERAL LINE FITTINGS TO BE UVR PVC SCH 40.

C10 PIPE ON-GRADE
SECTION - NO SCALE



HORIZONTAL PIPE RUN AT DOWN DRAIN

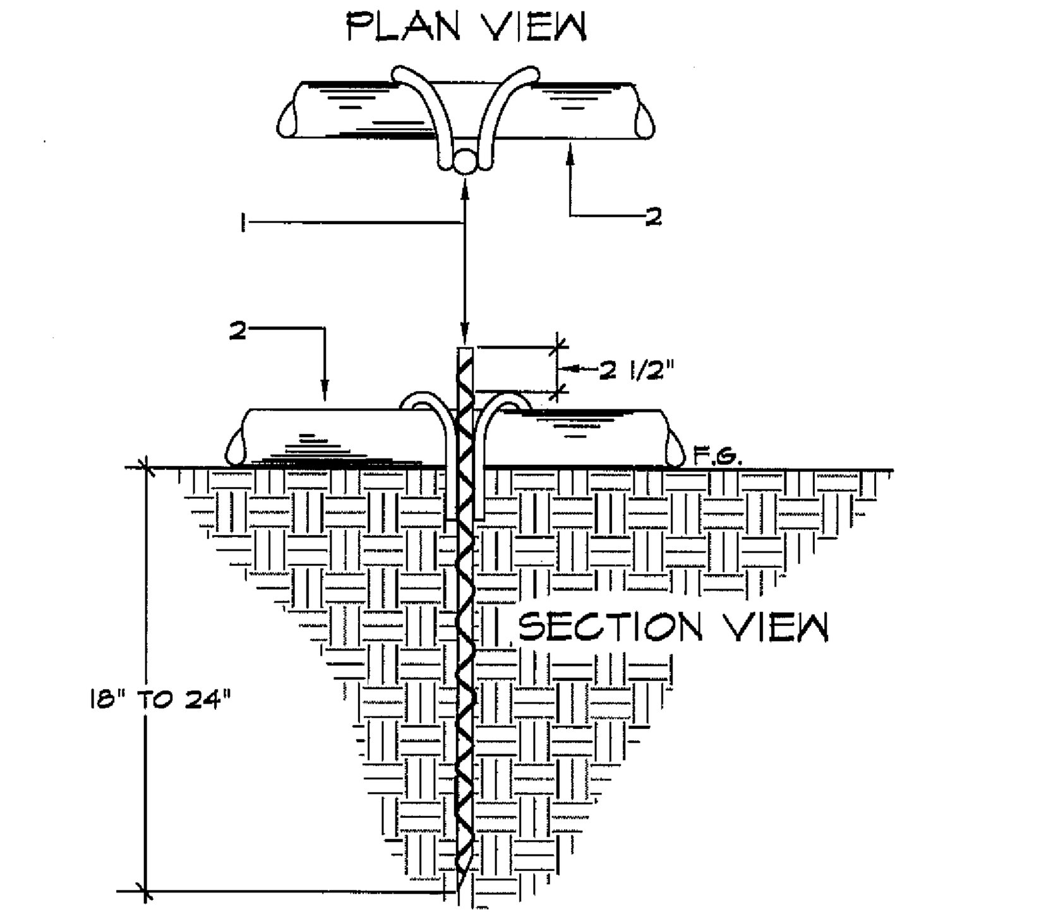
VERTICAL PIPE RUN AT TERRACE DRAIN

1- V.I.T. PIPE STABILIZER MOD.# PS18
2- SCH 40 GALVANIZED STEEL PIPE SLEEVE.
3- CONCRETE TERRACE OR DOWN DRAIN.
4- UVR PVC FITTING SWING JOINT - 1 MIPT X SLP ELL & 1 FIPT X SLP ELL.
5- UVR-PVC SCH 40 PIPE LATERAL LINE AND FITTINGS, SIZE AS NOTED ON PLANS.
6- REDWOOD BLOCKING, AS REQUIRED.

NOTE:
A. UVR PVC PIPE TO BE INSTALLED AND SECURELY FASTENED TO FINISH GRADE.
B. GALVANIZED SLEEVE TO BE 2 TIMES THE DIAMETER OF SLEEVED PVC PIPE.
C. V.I.T. STABILIZERS TO BE INSTALLED AT SLOPE TRANSITIONS AND DRAIN CROSSINGS AS SHOWN. ALONG EXTENDED RUN OF ALL SURFACE INSTALLED PIPE STABILIZER SPACING NOT TO EXCEED 10 FT. AND/OR BETWEEN. EVERY HEAD.
D. STABILIZER TO BE POSITIONED ON DOWNHILL SIDE OF ALL HORIZONTAL PIPE RUNS.
E. SWING JOINTS INSTALLED AT EVERY SLOPE TRANSITIONS AND AT EVERY DRAIN CROSSING TO ALLOW FOR CHANGE OF DIRECTION AND SLIGHT MOVEMENT RESULTING FROM EXPANSION AND CONTRACTION.

C11 TERRACE DRAIN CROSSING
SECTION - NO SCALE

PLAN VIEW



SECTION VIEW

1- V.I.T. PIPE STABILIZER MOD.# PS24 AT MAINLINE. V.I.T. PIPE STABILIZER MOD.# PS18 AT LATERAL LINE.
2- PIPE LINE-
LATERAL LINE - UVR-PVC SCH 40 WITH SCH 40 UVR FITTINGS.
MAINLINE - UVR-PVC SCH 40 WITH SCH 80 FITTINGS.

NOTES:
A. UVR PVC PIPE TO BE INSTALLED AND SECURELY FASTENED TO FINISH GRADE. V.I.T. STABILIZERS TO BE INSTALLED AT SLOPE TRANSITIONS, GRADE CHANGES, SUB-GRADE TO ON-GRADE TRASITIONS AND ALONG EXTENDED RUN OF ALL SURFACE INSTALLED PIPE.
B. STABILIZER SPACING NOT TO EXCEED 15 FT. AND/OR BETWEEN EVERY HEAD.
C. STABILIZER TO BE POSITIONED ON DOWNHILL SIDE OF ALL HORIZONTAL PIPE
D. RUNS.
E. SWING JOINTS INSTALLED AT ALL GRADE TRANSITIONS TO ALLOW FOR CHANGE OF DIRECTION AND/OR SLIGHT MOVEMENT RESULTING FROM EXPANSION/CONTRACTION.
F. STAKE TO PENETRATE SOIL TO SPECIFIED DEPTH AND SECURE PIPE FIRMLY.
G. EXCERSISE CARE NOT TO DAMAGE PIPE WHILE DRIVING STAKE.

C12 UVR PVC ON-GRADE W/ PIPE STABILIZERS
SECTION - NO SCALE

R.W. IDENTIFICATION BY COLOR CODING:
SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

* THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
* NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
* ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

OTAY WATER DISTRICT
Project No. D0944-060189
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: [signature] DATE: 5/10/19
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT
REGIST. EXP. 9/30/19

ITS THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — 9/30/19 — 3/26/19 — CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	26 MAR '19
SCALE:	NO SCALE
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	A ADD ON-GRADE PIPE DETAILS	7/3/18	[signature]
Inspector			B REMOVE THRUST BLOCK DETAIL.	5-19-19 5-22-19	[signature]
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A; Vertical N/A
Office / Field / Traffic

Designed By	Drawn By	Checked By

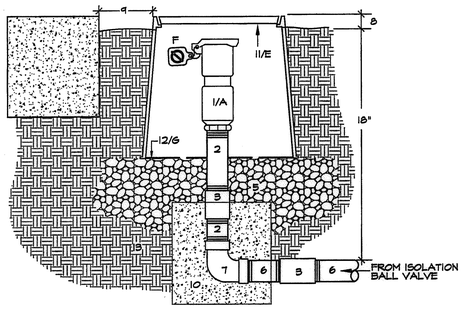
Plans Prepared Under Supervision Of [signature] THOMAS A. PICARD Date 3/26/19 R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: Mark A. Caro Date: 5.22.19
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION DETAIL DRAWINGS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 43
Sheet 43 of 88

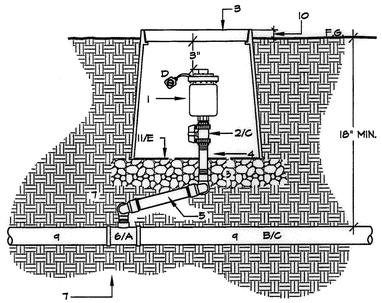
B REPLACEMENT SHEET
OWD WO# D0944-060189 OWD PERMIT# PLR-16-014



1- QUICK COUPLER VALVE, W/PURPLE LOCKING COVER AND ACME THREAD
2- BRASS RISER. - LENGTH AS REQUIRED.
3- BRASS COUPLER (THREADED)
4- BRICKS, CONTINUOUS AROUND BASE
5- 3/8" GRAVEL SUMP AND LEVELING PAD, 6" DEEP MINIMUM.
6- BRASS NIPPLE FROM ISOLATION VALVE, DEPTH AS SPECIFIED.
7- BRASS STREET ELL
8- 1" IN TURF- 2" IN SHRUB AREA.
9- 12" FROM WALKS, CURBS OR WALLS.
10- 1 CU.FT. CONCRETE THRUST BLOCK -SEE SPECS
11- 10" ROUND DURA DRI-BOX, #1013-DB-2-DS W/ PURPLE LOCKING LID.
12- DIRT SKIRT OF THE DURA DRI-BOX.
13- UNDISTURBED/COMPACTED SUBGRADE
14- SEE SPECS.

NOTE:
A. ALL QCV SHOULD BE ISOLATED DOWNSTREAM OF BALL VALVE.
B. USE TEFLON TAPE ON ALL THREADED CONNECTIONS.
C. MIN. LINE SIZE SUPPLING A QCV IS 1-1/2".
D. COMPACT SOIL AROUND VALVE BOX TO SAME DENSITY AS UNDISTRUBED SOIL.
E. VALVE BOX LID SHALL BE BRANDED AS SHOWN IN VALVE BOX INSTALLATION AND IDENTIFICATION DETAIL DRAWING.
F. CONTRACTOR SHALL INCLUDE A CHRISTY'S R.W. WARNING TAG. WARNING TAG TO BE IN ENGLISH AND SPANISH.
G. DIRT SKIRT OF THE DURA DRI-BOX TO BE DRILLED FOR DRAINAGE AND/OR NEATLY CUT AROUND PENETRATIONS.
H. QUICK COUPLER VALVES SHALL BE OF A TYPE APPROVED FOR RECYCLED WATER USE AND INSTALLED EVERY 200' O.C. MAX. ON LEVEL GROUND WHENEVER POSSIBLE.

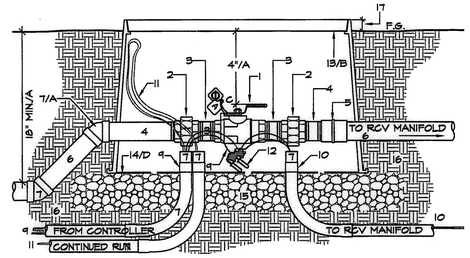
D2 QUICK COUPLER VALVE IN BOX — SECTION - NO SCALE



1- VACUUM / AIR RELIEF VALVE.
2- ISOLATION BALL VALVE
3- VALVE BOX; STND RECT. DURA DRI-BOX WITH LOCKING PURPLE LID
4- PVC SCH 80 NIPPLE L.A.R.
5- O-RING SEALED SWING JOINT
6- DURA PVC SCH 80 TEE-SSS OR EL-SS ON PRESSURE PIPE
7- UNDISTURBED OR COMPACTED SUBGRADE.
8- 3/8" #RAVEL SUMP AND LEVELING PAD, 3" DEEP MINIMUM
9- PVC PRESSURE PIPE.
10- PLUSH IN TURF AREAS, 1" IN GROUND COVER AREAS.
11- DIRT SKIRT OF THE DURA DRI-BOX.

NOTE:
A. SERVICE TEE TO BE INSTALLED WITH SIDE-OUTLET DIRECTED UPWARDS AS SHOWN.
B. PIPE EXTENSION TO BE SLOPED 2% MIN. UPFROM MAINLINE OR INSTALL AT HEIGHEST LOCAL ELEVATION OI MAINLINE RUN.
C. INSTALL AIR/VACUUM RELIEF VALVE DOWNSTREAM OF EQUAL SIZE ISOLATION BALL VALVE
D. R.W. WARNING TAG. ATTACH TO BOLT.
E. DIRT SKIRT OF THE DURA DRI-BOX TO BE ?RILLED FOR DRAINAGE AND/OR NEATLY CUT AROUND PENETRATIOIS.

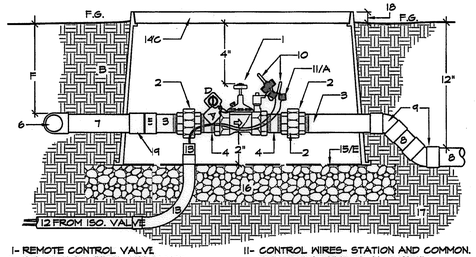
D3 VACUUM / AIR RELIEF VALVE WITH ISOLATION BALL VALVE — SECTION - NO SCALE



1- BALL VALVE.
2- PVC SCH 80 UNION. -VALVE SIZE- WITH REDUCING BUSHING IF REQUIRED.
3- PVC SCH 80 NIPPLE - T.B.E.
4- PVC SCH 80 NIPPLE - T.O.E.
5- PVC SCH 80 COUPLING
6- PVC PRESSURE MAIN - TYP.
7- PVC SCH 80 45 DEGREE ELLS - TYP. 2 PLACES.
8- PVC SCH 40 ELECTICAL CONDUIT, SWEEP ELLS AND BUSHINGS- SIZED AS REQ. FOR WIRE BUNDLE - 1-1/4" MINIMUM.
9- CONTROL WIRES IN CONDUIT FROM CONTROLLER TO ISOLATION VALVE BOX.
10- CONTROL WIRES IN CONDUIT TO RCV MANIFOLD.
11- 9 SPARE CONTROL WIRES ON CONTINUED RUN, 2 #12 PILOT WIRES AND 1 #10 COMMON WIRE.
12- WATERPROOF CONNECTORS- 3M DBY OR EQUAL.
13- STANDARD RECT. DURA DRI-BOX.
14- #1123-DB-2-DS W/ PURPLE LOCKING LID.
15- DIRT SKIRT OF THE DURA DRI-BOX.
16- 3/8" GRAVEL SUMP AND LEVELING PAD, 3" DEEP MINIMUM.
17- UNDISTURBED OR COMPACTED SUBGRADE. AT FINISH GRADE IN TURF, 1" IN SHRUB AREA

NOTE:
A. 2-45 DEGREE PVC SCH 80 ELBOW FITTINGS SHALL BE USED TO RAISE BALL HANDLE TO WITHIN 4" OF FINISH GRADE.
B. VALVE BOX LID SHALL BE BRANDED TO IDENTIFY VALVE.
C. R.W. WARNING TAG AS SPECIFIED AND CONTROLLER I.D. TAG. WARNING TAG TO BE IN ENGLISH AND SPANISH
D. DIRT SKIRT OF THE DURA DRI-BOX TO BE DRILLED FOR DRAINAGE AND/OR NEATLY CUT AROUND PENETRATIONS.

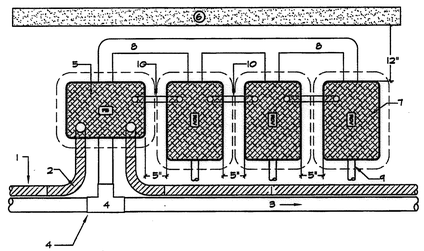
D4 BALL VALVE FOR MANIFOLD ISOLATION WITH CONTROL WIRES IN CONDUIT — SECTION - NO SCALE



1- REMOTE CONTROL VALVE
2- PVC SCH 80 UNION -VALVE SIZE- WITH REDUCING BUSHING IF REQUIRED.
3- PVC SCH 80 NIPPLE -T.O.E.- L.A.R.
4- PVC SCH 80 NIPPLE -T.B.E.- L.A.R.
5- PVC SCH 80 COUPLING.
6- PVC SCH 80 TEE OR ELL AT MANIFOLD.
7- PVC PRESSURE PIPE.
8- PVC NON-PRESSURE PIPE
9- PVC SCH 40 45 DEG. ELL -TYP. 2X.
10- WATERPROOF CONNECTORS- 3M DBY OR EQUAL.
11- CONTROL WIRES- STATION AND COMMON.
12- PVC SCH 40 ELECTICAL CONDUIT- FROM MANIFOLD ISOLATION VALVE.
13- PVC SCH 40 ELECTRICAL CONDUIT SWEEP ELLS AND CONDUIT BUSHINGS. -SIZED AS REQ. - 1" MINIMUM.
14- STANDARD RECT. DURA DRI-BOX. #1123-DB-2-DS W/ PURPLE LOCKING LID.
15- DIRT SKIRT OF THE DURA DRI-BOX.
16- 3/8" GRAVEL SUMP AND LEVELING PAD, 3" DEEP, MINIMUM.
17- UNDISTURBED/COMPACTED SUBGRADE.
18- FLUSH IN TURF, 1" IN GROUNDCOVER.

NOTES:
A. PROVIDE EXPANSION COILS AT EACH WIRE CONNECTION WITHIN VALVE BOX- WRAP AROUND 1/2" PIPE 15 TIMES. REMOVE PIPE.
B. COMPACT SOIL AROUND VALVE BOX TO SAME DENSITY AS UNDISTRUBED ADJACENT SOIL.
C. VALVE BOX LID SHALL BE BRANDED AS SHOWN IN VALVE BOX INSTALLATION AND IDENTIFICATION DETAIL DRAWING.
D. CONTRACTOR SHALL INCLUDE A CHRISTY'S R.W. WARNING TAG AND IRRIGATION I.D. TAG INDICATING CONTROLLER AND STATION NUMBER. WARNING TAG TO BE IN ENGLISH AND SPANISH. TAGS SHALL BE ATTACHED TO VALVE BONNET BOLT.
E. DIRT SKIRT OF THE DIRA DRI-BOX TO BE DRILLED FOR DRAINAGE AND/OR NEATLY CUT AROUND PENETRATIONS.
F. DEPTH AS REQUIRED FOR PROPER MANIFOLD INSTALLATION.

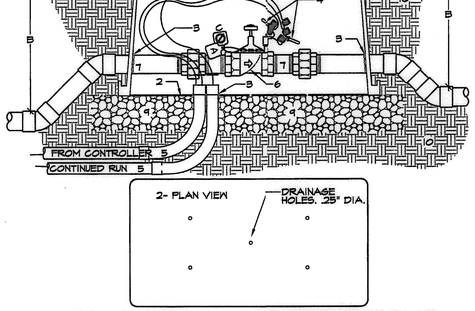
D5 REMOTE CONTROL VALVE FROM MANIFOLD WITH CONTROL WIRES IN CONDUIT — SECTION - NO SCALE



1- PVC SCH 40 ELECTRICAL CONDUIT.
2- CONDUIT SWEEP ELL - TYP.
3- IRRIGATION MAINLINE RUN.
4- PVC SCH 80 FITTINGS
5- RECTANGULAR VALVE BOX W/ISOLATION VALVE. USED ALSO AS PULL BOX
6- EDGE OF AREA, CURB OR WALL.
7- STANDARD RECTANGULAR VALVE BOX.
8- RCV MAINLINE MANIFOLD.
9- LATERAL RUN -TYP.-
10- CONTROL WIRE IN SCH 40 ELEC. CONDUIT FROM PULL BOX AND FROM VALVE BOX-TO-VALVE BOX

NOTES:
A- ALL LOW VOLTAGE CONTROL WIRE TO BE INSTALLED WITHIN PVC SCH 40 ELECTRICAL CONDUIT.
B- CONTROL WIRE CONDUIT TO FOLLOW IRRIGATION MAINLINE WHENEVER POSSIBLE.
C- CONDUIT TO BE SIZED BY CONTRACTOR AND APPROVED BY INSPECTOR.
D- 1" CONDUIT FROM MANIFOLD PULL BOX AND FROM VALVE BOX-TO-VALVE BOX.

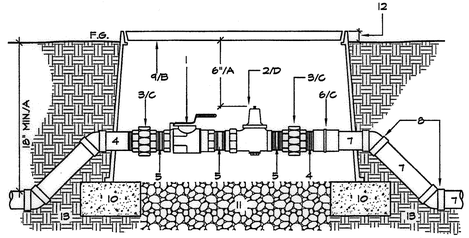
D6 ELECTRICAL COUNDUIT, PULL BOX, AND VALVE MANIFOLD — SECTION - NO SCALE



1- VALVE BOX - DRI-BOX BY DURA PURPLE FOR USE OF R.W. GREEN FOR USE OF P.W.
2- DURA DIRT SKIRT - DRILL .25" DRAINAGE HOLES.
3- AT PIPE AND/OR CONDUIT, CUT NEATLY FOR PENETRATIONS. FILL VOID AROUND PIPE AND/OR CONDUIT WITH EXPANDING FOAM.
4- WATER PROOF CONNECTORS. 3M DBY OR EQUAL.
5- PCV CONDUIT FOR CONTROL WIRE.
6- ENCLOSED APPURTENANCE - SEE OTHER DETAILS.
7- INCLUDED PLUMBING - SEE OTHER DETAILS
8- CONTROL WIRE.
9- PEA GRAVEL LEVELING PAD - 3" MIN.
10- COMPACTED BACKFILL.
12- 1 - 2" IN SHRUB/ GROUND COVER. AT FINISHED GRADE TO TURF.

A. VALVE BOX LID SHALL BE BRANDED AS SHOWN IN VALVE BOX INSTALLATION AND IDENTIFICATION DETAIL DRAWING.
B. SEE OTHER DETAIL DRAWINGS FOR PIPE DEPTHS AND OTHER INFORMATION.
C. CONTROLLER/STATION I.D. TAG AND R.W. WARNING TAG

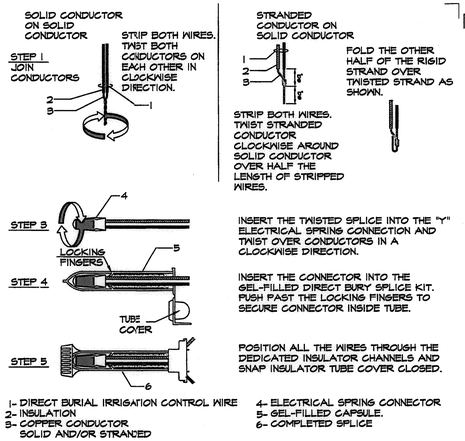
D7 VALVE BOX — SECTION and PLAN - NO SCALE



1- BALL VALVE.
2- PRESSURE REGULATOR WITH INTEGRAL UNION.
3- PVC SCH 80 UNION.
4- PVC SCH 80 NIPPLE - T.O.E.
5- PVC SCH 80 NIPPLE - T.B.E.
6- PVC SCH 80 FEMALE ADAPTER.
7- PVC PRESSURE MAIN - TYP.
8- PVC SCH 80 45 DEGREE ELLS TYP. 4 PLACE.
9- VALVE BOX.
10- BRICK OR BLOCK SUPPORTS - 1 EA. CORNER.
11- PEA GRAVEL SUMP 3" DEEP. 3/8"
12- AT FINISH GRADE IN TURF, 1" IN SHRUB AREA
13- UNDISTURBED OR COMPACTED SUBGRADE.

NOTE:
A. 4-45 DEGREE PVC SCH 80 ELBOW FITTINGS SHALL BE USED TO RAISE ADJUSTER BOLT ON PRESSURE REDUCER TO WITHIN 6" OF FINISH GRADE.
B. VALVE BOX LID SHALL BE BRANDED TO IDENTIFY VALVE.
C. UNION AND FEMALE ADAPTERS TO BE LINE SIZED WITH REDUCING BUSHINGS AS NEEDED FOR VALVE SIZE.
D. PRESSURE REGULATING VALVE SAME SIZE AS GATE VALVE.

D9 BALL VALVE WITH PRESSURE REGULATOR P.O.C FOR PRIVATE POTABLE SYSTEMS — SECTION - NO SCALE



1- DIRECT BURIAL IRRIGATION CONTROL WIRE
2- INSULATION
3- COPPER CONDUCTOR SOLID AND/OR STRANDED
4- ELECTRICAL SPRING CONNECTOR
5- GEL-FILLED CAPSULE.
6- COMPLETED SPLICE

NOTE:
A. ALL WIRE SPLICES TO BE WITHIN A VALVE BOX.
B. WIRE CONNECTOR SHAL BE DBY OR DBY-6 DIRECT BURY SPLICE KIT BY THE 3M COMPANY.
KIT SHALL INCLUDE A SCOTCHLOK SPRING CONNECTOR, A POLYPROPYLENE TUBE AND
C. A WATERPROOF SEALING GEL. TUBE SHALL BE SUPPLIED PREFILLED WITH GEL
D. DIRECT BURY SPLICE K" SHALL BE USED TO ELECTRICALLY CONNECT 2 - 3 #14 OR 2 #12 PRE-STRIPPED COPPER WIRES. LARGER WIRES OR GREATER QUANTITIES OF WIRESSHALL REQUIRE A LARGER APPROVED WIRE CONNECTION.

D10 WATERPROOF WIRE CONNECTOR/SPLICE — SECTION - NO SCALE

SAMPLE.
RECYCLED WATER SYSTEM OF CONTROLLER "A" REMOTE CONTROL VALVE ON STATION 12.

NOTES:
A- VALVE BOXES SHALL BE LABELED BY HOT IRON BRANDING OR ALLUMINIUM ASPHALTIC BASE WATER-PROOF PAINT. IN ADDITION, LABEL INSIDE SURFACE OF EACH VALVE BOX WITH PERMANENT BLACK MARKER OR PAINT.
B- CONTROL VALVES SHALL BE INSTALLED TO ALLOW ORDERLY ARRANGEMENT OF VALVE BOXES.
C- LOCATE VALVE ASSEMBLIES IN SHRUB OR GROUND COVER AREAS WHEN POSSIBLE.
D- LOCATION OF VALVE ASSEMBLIES SHALL BE STAKED FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
E- CENTER VALVE BOXES OVER VALVE ASSEMBLE TO FACILITATE ACCESS AND MAINTENANCE.
F- SET VALVE BOXES AT EQUAL ELEVATIONS WITH TOPS AT FINISH GRADE IN TURF AREAS OR 1" ABOVE FINISH GRADE IN SHRUB/ GROUND COVER AREAS.
G- VALVE BOXES SHALL BE SET PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF AREA.
H- DO NOT DEFORM OR COLLAPSE VALVE BOX BY EXCESSIVE SOIL COMPACTION AROUND BOX.
I- SEE ALSO INDIVIDUAL VALVE INSTALLATION DETAILS.
J- ALL SPRAY HEADS, VALVE BOXES AND QUICK COUPLING VALVES SHALL BE CLEARLY COLORED (PURPLE) TO INDICATE THE USE OF RECYCLED WATER.

E1 VALVE BOX IDENTIFICATION AND INSTALLATION — SECTION - NO SCALE

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

* THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
* NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
* ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: REGIST.
LANDSCAPE ARCHITECT EXP.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 9/5/17 — CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	NO SCALE
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF FRONMENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 16841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A; Vertical N/A
Office ____ Field ____ Traffic ____
Designed By ____ Drawn By ____ Checked By ____
Plans Prepared Under Supervision Of ____ Date ____
THOMAS A. PICARD R.L.A. No. 4001

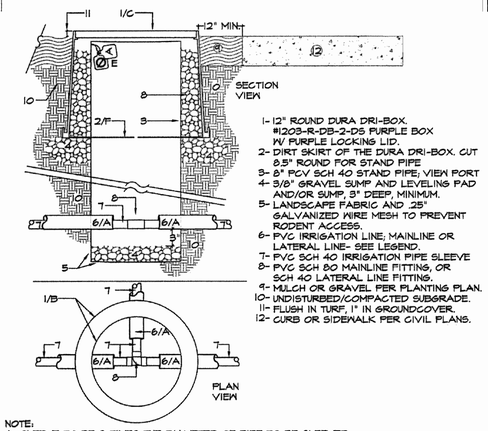
Approved: Mary Bradley Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION DETAIL DRAWINGS AND PRESSURE REQUIREMENT CALCULATIONS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 44
Sheet 44 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014 LI-34

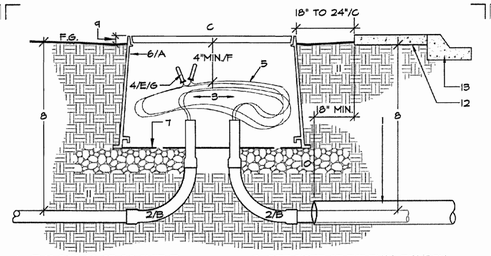
Print Date: 10 APR '17
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



1- 12" ROUND DURA DRI-BOX. #1203-R-DB-2-DS PURPLE BOX W/ PURPLE LOCKING LID.
2- DIRT SKIRT OF THE DURA DRI-BOX. CUT 8.5" ROUND FOR STAND PIPE
3- 8" PCV SCH 40 STAND PIPE, VIEW PORT
4- 3/8" GRAVEL SUMP AND LEVELING PAD AND/OR SUMP, 8" DEEP, MINIMUM.
5- LANDSCAPE FABRIC AND .25" GALVANIZED WIRE MESH TO PREVENT RODENT ACCESS.
6- PVC IRRIGATION LINE; MAINLINE OR LATERAL LINE- SEE LEGEND.
7- PVC SCH 40 IRRIGATION PIPE SLEEVE
8- PVC SCH 80 MAINLINE FITTING, OR SCH 40 LATERAL LINE FITTING.
9- MULCH OR GRAVEL PER PLANTING PLAN.
10- UNDISTURBED/COMPACTED SUBGRADE.
11- FLUSH IN TURF, 1" IN GROUND COVER.
12- CURB OR SIDEWALK PER CIVIL PLANS.

NOTE:
A. SLEEVE TO BE 2 TIMES THE DIAMETER OF PIPE TO BE SLEEVED.
B. SLEEVE VIEWPORT TO BE CENTERED OVER FITTING.
C. SLEEVE VIEWPORT BOX COVER SHALL BE BRANDED WITH "SV" TO INDICATE SLEEVE VIEWPORT.
D. SOIL COMPACTION PER CIVIL ENG.
E. CONTRACTOR SHALL INCLUDE A CHRISTY'S R.W. WARNING TAG AND IRRIGATION I.D. TAG INDICATING CONTROLLER NUMBER. WARNING TAG TO BE IN ENGLISH AND SPANISH. TAGS SHALL BE ATTACHED THROUGH DRILLED HOLE IN STAND PIPE.
F. DIRT SKIRT OF THE DURA DRI-BOX TO BE NEATLY CUT AROUND STAND PIPE PENETRATION TO PREVENT RODENT INTRUSION.
G. FILL VOID BETWEEN VALVE BOX AND STAND PIPE WITH 3/8" CRUSHED ROCK.

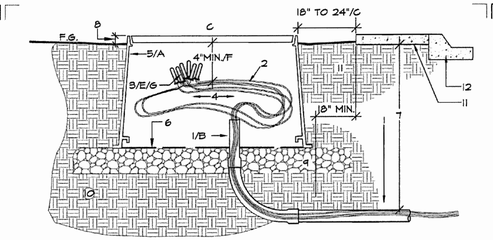
E1 VIEWPORT FOR SLEEVE WITHIN PLANTING AREA
SECTION / PLAN - NO SCALE



1- PVC SCH 40 OR 80 SLEEVE.
2- 90 DEG. SWEEP ELL
3- CONTROL WIRE OR COMMUNICATION CABLE PER SPECIFICATIONS.
4- APPROVED WATERPROOF WIRE CONNECTORS FOR SPLICED CONNECTION.
5- EXPANSION LOOP- 4 FT. EXTRA WIRE OR CABLE IN BOX
6- STANDARD RECT. DURA DRI-BOX. #1128-DB-2-DS W/ PURPLE LOCKING LID.
7- DIRT SKIRT OF THE DURA DRI-BOX.
8- 18 " MINIMUM-SEE SPECS. AND TRENCH DETAIL FOR DEPTHS.
9- FLUSH IN TURF, 1" IN GROUND COVER.
10- 3/8" GRAVEL LEVELING PAD AND SUMP- MIN. 8"DEEP.
11- UNDISTURBED / COMPACTED SUB-GRADE.
12- SIDEWALK
13- CURB AND GUTTER

NOTE:
A. INSTALL FULL BOXES AS SHOWN ON PLANS, AT ALL STREET CROSSINGS AND OTHER PAVING CROSSINGS IN EXCESS OF 20 FEET. MAINLINE ISOLATION VALVES WILL ALSO ACT AS FULL BOXES ON THE CONDUIT ROUTE. SEE MAINLINE ISOLATION VALVE DETAIL DRAWING.
B. ALL CONTROL WIRES TO BE INSTALLED WITHIN CONDUIT. SIZE CONDUIT APPROPRIATE TO WIRE BUNDLE.
C. PULL BOX COVER SHALL BE PERMANENTLY MARKED AS SHOWN IN VALVE BOX IDENTIFICATION DETAIL DRAWING AND LOCATED AS SHOWN BY DETAIL "M2" AND "N" AND AS REQUIRED BY THE CITY OF CHULA VISTA.
D. CONDUCTORS FOR EACH CONTROLLER CLOCK SHALL BE WITHIN SEPERATE CONDUIT.
E. ALL SPARE WIRE ENDS SHALL BE INSULATED IN THE SAME MANNER AS WIRE SPLICES.
F. WIRE BUNDLES INSIDE PULL BOXES SHALL BE AT LEAST 4" FROM THE UNDER SIDE OF THE BOX COVER. MINIMUM SIZE FULL BOX SHALL BE AS SHOWN ABOVE. LARGER BOXES AND/OR EXTENSIONS MAY BE NECESSARY TO MEET THE 4" CLEARANCE REQUIREMENT.
G. LOOP CONTROL WIRES INTO PULL BOX. ALL SPLICES ARE TO BE MADE IN PULL BOXES OR REMOTE CONTROL VALVE BOXES.

E2 CONTROL WIRE OR FLOW SENSING CABLE WITHIN CONDUIT AND PULL BOX
SECTION - NO SCALE



1- 90 DEG. SWEEP ELL
2- CONTROL WIRE OR COMMUNICATION CABLE PER SPECIFICATIONS.
3- APPROVED WATERPROOF WIRE CONNECTORS WIRE PROTECTION.
4- EXPANSION LOOP- 10 FT. EXTRA WIRE OR CABLE IN BOX
5- STANDARD RECT. DURA DRI-BOX. #1128-DB-2-DS W/ PURPLE LOCKING LID.
6- DIRT SKIRT OF THE DURA DRI-BOX.
7- 18 " MINIMUM-SEE SPECS. AND TRENCH DETAIL FOR DEPTHS.
8- FLUSH IN TURF, 1" IN GROUND COVER.
9- 3/8" GRAVEL LEVELING PAD AND SUMP- MIN. 8"DEEP.
10- UNDISTURBED / COMPACTED SUB-GRADE.
11- SIDEWALK
12- CURB AND GUTTER

NOTE:
A. INSTALL FULL BOXES AS SHOWN ON PLANS, AFTER THE LAST REMOTE CONTROL VALVE ON EVERY MAINLINE TERMINAL.
B. ALL CONTROL WIRES TO BE INSTALLED WITHIN CONDUIT. SIZE CONDUIT APPROPRIATE TO WIRE BUNDLE.
C. PULL BOX COVER SHALL BE PERMANENTLY MARKED AS SHOWN IN VALVE BOX IDENTIFICATION DETAIL DRAWING AND LOCATED AS SHOWN BY DETAIL "X" AND "X" AND AS REQUIRED BY THE CITY OF CHULA VISTA.
D. CONDUCTORS FOR EACH CONTROLLER CLOCK SHALL BE WITHIN SEPARATE CONDUIT.
E. ALL SPARE WIRE ENDS SHALL BE INSULATED WITH WATER PROOF CONNECTORS, IN THE SAME MANNER AS WIRE SPLICES.
F. WIRE BUNDLES INSIDE FULL BOXES SHALL BE AT LEAST 4" FROM THE UNDER SIDE OF THE BOX COVER. MINIMUM SIZE FULL BOX SHALL BE AS SHOWN ABOVE. LARGER BOXES AND/OR EXTENSIONS MAY BE NECESSARY TO MEET THE 4" CLEARANCE REQUIREMENT.
G. LOOP CONTROL WIRES INTO FULL BOX.

E3 CONTROL WIRE AT LAST RCV MANIFOLD WITHIN CONDUIT AND PULL BOX
SECTION - NO SCALE

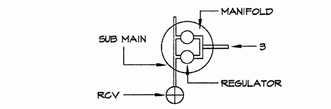
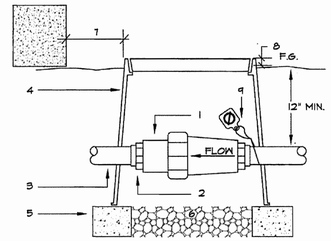


DIAGRAM SHOWING MULTIPLE INSTALLATION



1- REGULATOR OR CHECK VALVE.
2- PVC SCH 40 MALE ADAPTER.
3- PVC LATERAL.
4- 6" ROUND VALVE BOX.
5- BRICK SUPPORTS - TWO.
6- PEA GRAVEL SUMP 8" DEEP.
7- 12" FROM WALL OR PAVING.
8- FLUSH IN TURF, 1" IN GROUND COVER.
9- R.W. WARNING TAG IF REQ.

F1 IN-LINE CHECK VALVE OR REGULATOR ON LATERAL
SECTION - NO SCALE

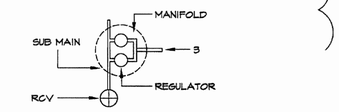
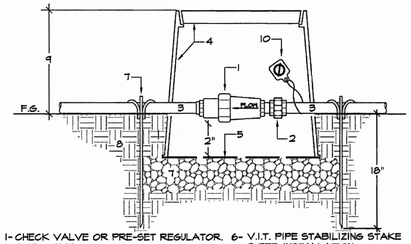
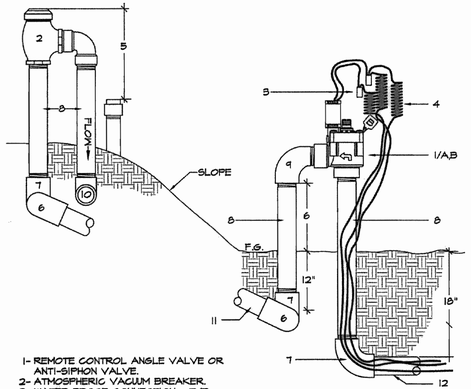


DIAGRAM SHOWING MULTIPLE INSTALLATION



1- CHECK VALVE OR PRE-SET REGULATOR. SLIP X SLIP
2- PVC UNION SCH 40
3- UVR PVC LATERAL.
4- 10" ROUND VALVE BOX. DURA DRI-BOX. #1210-DB-2-DS W/ CAM-LOC LID.
5- DURA DIRT SKIRT.
6- V.I.T. PIPE STABILIZING STAKE 2 PER INSTALLATION
7- 3/8" GRAVEL SUMP AND LEVELING PAD, 8" DEEP, MINIMUM.
8- UNDISTURBED/COMPACTED SUB-GRADE.
9- 5" IN GROUND COVER.
10- R.W. WARNING TAG IF REQ.

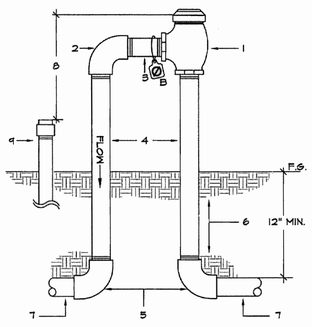
F2 IN-LINE CHECK VALVE OR REGULATOR ON LATERAL. ON-GRADE INSTALLATION
SECTION - NO SCALE



1- REMOTE CONTROL ANGLE VALVE OR ANTI-SIPHON VALVE.
2- ATMOSPHERIC VACUUM BREAKER.
3- WATER PROOF CONNECTION - TYP.
4- 9FT. LENGTH OF WIRE, COILED.
5- INSTALL 12-INCH MIN. ABOVE HIGHEST DOWNSTREAM OUTLET.
6- PVC SCH 40 ELL-SS
7- PVC SCH 40 ELL-ST
8- PVC SCH 80 RISER - TBE -LAR.
9- PVC SCH 80 STREET ELL-ST.
10- PVC SCH 40 TEE OR ELL TO SPRINKLER SYSTEM.
11- PVC LATERAL PIPE TO AVB.
12- PVC PRESSURE PIPE.

NOTES:
A. FOR SYSTEMS AT TOP OF SLOPE USE ANGLE VALVE AND AVB INSTALLED 8" ABOVE THE HIGHEST OUTLET.
FOR SYSTEMS AT TOE OF SLOPE USE ANTI-SIPHON VALVE.
B. CONTRACTOR SHALL INCLUDE A CHRISTY'S IRRIGATION I.D. TAG ATTACHED TO VALVE BONNET BOLT. TAG SHALL INDICATE CONTROLLER AND STATION NUMBER. SEE ALSO DETAIL

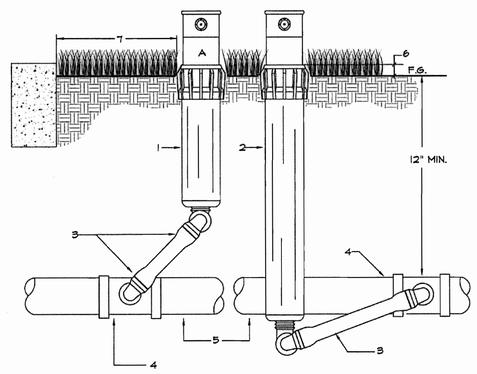
G1 REMOTE CONTROL VALVE ANTI-SIPHON
SECTION - NO SCALE



1- ATMOSPHERIC VACUUM BREAKER.
2- PVC SCH 80 ELL - TT.
3- PVC SCH 80 NIPPLE.
4- PVC SCH 80 RISER - LAR.
5- PVC SCH 40 ELL -ST.
6- UNDISTURBED OR COMPACTED SUBGRADE.
7- PVC NON-PRESSURE PIPE.
8- HEIGHT TO BE 12" ABOVE HIGHEST DOWNSTREAM OUTLET.
9- DOWNSTREAM SPRINKLER HEAD.

NOTES:
A. ATMOSPHERIC VACUUM BREAKER AS A BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL ORDINANCE, HEALTH AND WATER AGENCY REGULATIONS.
B. R.W. WARNING TAG IF REQ.

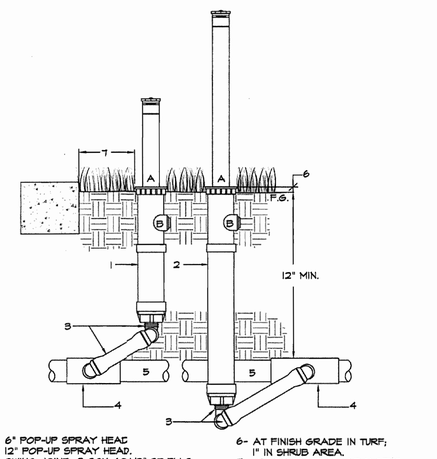
G2 ATMOSPHERIC VACUUM BREAKER
SECTION - NO SCALE



1- 6" POP-UP ROTOR HEAD.
2- 12" POP-UP ROTOR HEAD.
3- SWING JOINT ASSEMBLY- 3 SCH 40 3/4" ST ELLS, 1 SCH 80 1/4" X 12" NIPPLE
4- PVC SCH 40 TEE-SST OR EL-ST.
5- PVC NON-PRESSURE LATERAL.
6- AT FINISH GRADE IN TURF; 1" IN SHRUB AREA.
7- DISTANCE FROM HARDSCAPE- WALKS = 6"

NOTE:
A. R.W. WARNING CAP IF REQUIRED.

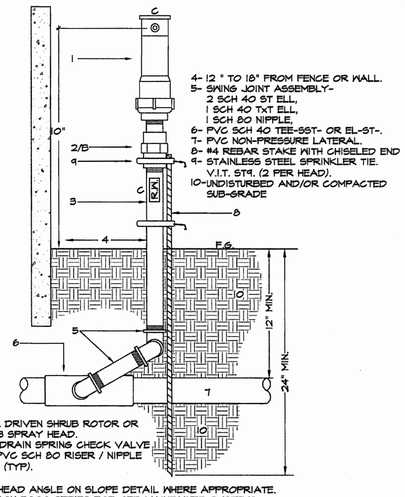
H1 POP-UP ROTOR HEAD
SECTION - NO SCALE



1- 6" POP-UP SPRAY HEAD
2- 12" POP-UP SPRAY HEAD.
3- SWING JOINT- 3 SCH 40 1/2" ST ELLS, 1 SCH 80 1/2" X 12" NIPPLE
4- PVC SCH 40 TEE-SST OR EL-ST.
5- PVC NON-PRESSURE LATERAL.
6- AT FINISH GRADE IN TURF; 1" IN SHRUB AREA.
7- 4" MINIMUM FROM ADJACENT WALLS AND/OR HARDSCAPE.

NOTE:
A. RECYCLED WATER WARNING CAP.
B. DO NOT USE SIDE INLET.

H2 POP-UP SPRAY HEAD
SECTION - NO SCALE



1- GEAR DRIVEN SHRUB ROTOR OR SHRUB SPRAY HEAD.
2- ANTI-DRAIN SPRING CHECK VALVE.
3- UVR PVC SCH 80 RISER / NIPPLE L.A.R. (TYP).

NOTES:
A. SEE HEAD ANGLE ON SLOPE DETAIL WHERE APPROPRIATE.
B. VALCON 5000 SERIES FOR CPD MAINTAINED SYSTEMS. HUNTER INDUST. HCV, FIPT X MIPT FOR PRIVATELY MAINTAINED SYSTEMS.
C. R. W. WARNING CAP AND/OR RISER WHENEVER RECYCLED WATER IS EMPLOYED. REBAR STAKE TO BE DRIVEN WITH CARE NOT TO DAMAGE LATERAL LINE OR SWING JOINT.

H3 SHRUB ROTOR ON RISER
SECTION - NO SCALE

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER APPLICATION OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

* THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
* NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
* ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE SANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RTZ 680
(REVIEWED BY:) DATE: 07/27/18
SIGNATURE EXPIRES AFTER 1 YEAR.

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 9/30/19 CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

3 JUL '18	
DATE:	15 FEB '18
SCALE:	NO SCALE
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd.
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	3 ADD SHUTOFF VALVES & INDUSTRIAL PAD SLOPES	7/6/18	DSM
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PRMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. SFB 1339 PER R.O.S. 14841 ELEV=529.319 (NAVD'88)

SCALE	
Horizontal	N/A
Vertical	N/A

Office
Field
Traffic

Designed By | Drawn By | Checked By

Plans Prepared Under Supervision Of
Date 6/4/18
THOMAS A. PICARD R.L.A. No. 4001

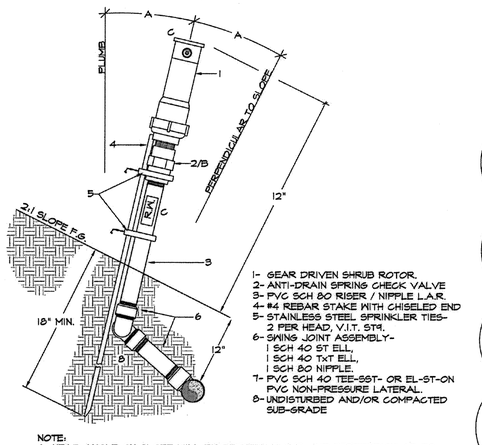
Approved: Date: 8-31-18 (ORIGINALLY APPROVED 5-15-17)
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 45
Sheet 45 of 88

REPLACEMENT SHEET
OWD WO# D0944-060189 OWD PERMIT# PLR-16-014
LI-35

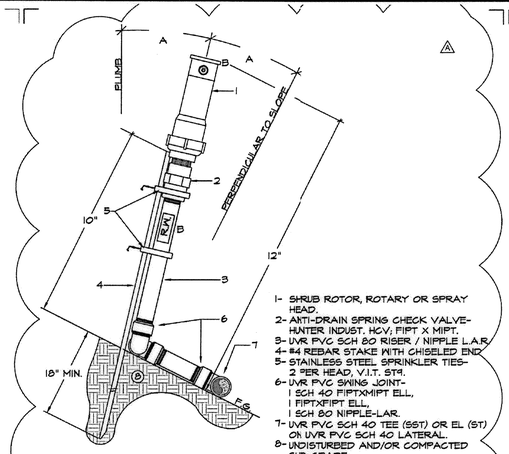
Print Date: 15 FEB '18
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



1- GEAR DRIVEN SHRUB ROTOR.
2- ANTI-DRAIN SPRING CHECK VALVE
3- PVC SCH 80 RISER / NIPPLE L.A.R.
4- #4 REBAR STAKE WITH CHISELED END
5- STAINLESS STEEL SPRINKLER TIES- 2 PER HEAD, V.I.T. STR.
6- SWING JOINT ASSEMBLY- 1 SCH 40 ST ELL, 1 SCH 40 TXT ELL, 1 SCH 80 NIPPLE.
7- PVC SCH 40 TEE-SST- OR EL-ST-ON PVC NON-PRESSURE LATERAL.
8- UNDISTURBED AND/OR COMPACTED SUB-GRADE

NOTE:
A. HEAD ANGLE ON SLOPE WILL BE BETWEEN PLUMB AND PERPENDICULAR TO SLOPED SURFACE. ANGLE WILL DEPEND ON TRAJECTORY OF NOZZLE. SWING JOINT WILL ALLOW ADJUSTMENT FOR ACTUAL CONDITIONS. SEE ALSO HEAD ANGLE ON SLOPE DETAIL WHERE APPROPRIATE.
B. VALCON 5000 SERIES FOR CFD MAINTAINED SYSTEMS HUNTER INDUST. HCV, FIPT X MIPT FOR PRIVATELY MAINTAINED SYSTEMS.
C. R. W. WARNING CAP AND/OR RISER WHENEVER RECYCLED WATER IS EMPLOYED.

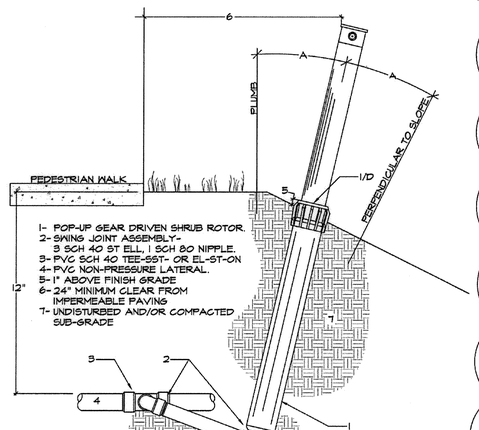
H4a GEAR DRIVEN SHRUB ROTOR ON SLOPE. SECTION - NO SCALE



1- SHRUB ROTOR, ROTARY OR SPRAY HEAD.
2- ANTI-DRAIN SPRING CHECK VALVE- HUNTER INDUST. HCV, FIPT X MIPT.
3- UVR PVC SCH 80 RISER / NIPPLE L.A.R.
4- #4 REBAR STAKE WITH CHISELED END
5- STAINLESS STEEL SPRINKLER TIES- 2 PER HEAD, V.I.T. STR.
6- UVR PVC SWING JOINT- 1 SCH 40 FIPTXMIPT ELL, 1 FIPTXFIPT ELL, 1 SCH 80 NIPPLE-LAR.
7- UVR PVC SCH 40 TEE (SST) OR EL (ST) ON UVR PVC SCH 40 LATERAL.
8- UNDISTURBED AND/OR COMPACTED SUB-GRADE

NOTE:
A. HEAD ANGLE ON SLOPE WILL BE BETWEEN PLUMB AND PERPENDICULAR TO SLOPED SURFACE. ANGLE WILL DEPEND ON TRAJECTORY OF NOZZLE. SWING JOINT WILL ALLOW ADJUSTMENT FOR ACTUAL CONDITIONS. SEE ALSO HEAD ANGLE ON SLOPE DETAIL DRAWING. SEE HEAD ANGLE ON SLOPE DETAIL WHERE APPROPRIATE.
B. R. W. WARNING CAP AND/OR RISER LABEL WHERE REQUIRED.

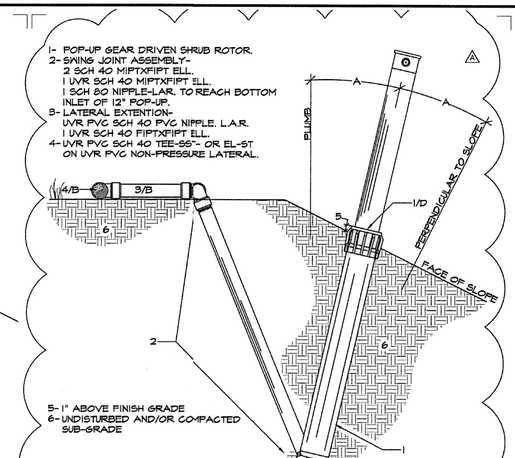
H4b SHRUB ROTOR, ROTATOR OR SPRAY HEAD ON RISER. ON-GRADE INSTALLATION. SECTION - NO SCALE



1- POP-UP GEAR DRIVEN SHRUB ROTOR.
2- SWING JOINT ASSEMBLY- 3 SCH 40 ST ELL, 1 SCH 80 NIPPLE.
3- PVC SCH 40 TEE-SST- OR EL-ST-ON
4- PVC NON-PRESSURE LATERAL.
5- 1" ABOVE FINISH GRADE
6- 24" MINIMUM CLEAR FROM IMPERMEABLE PAVING
7- UNDISTURBED AND/OR COMPACTED SUB-GRADE

NOTE:
A. SWING JOINT AND LATERAL SHOWN ROTATED 90 DEG FROM SECTION VIEW.
B. OUTLET OF TEE OR ELBOW AND SWING JOINT TO BE SIZED EQUAL TO HEAD INLET
C. HEAD ANGLE ON SLOPE WILL BE BETWEEN PLUMB AND PERPENDICULAR TO SLOPED SURFACE. ANGLE WILL DEPEND ON TRAJECTORY OF NOZZLE. SWING JOINT WILL ALLOW ADJUSTMENT FOR ACTUAL CONDITIONS. SEE ALSO HEAD ANGLE DETAIL DRAWING.
D. R. W. WARNING CAP AND/OR RISER LABEL WHERE REQUIRED.

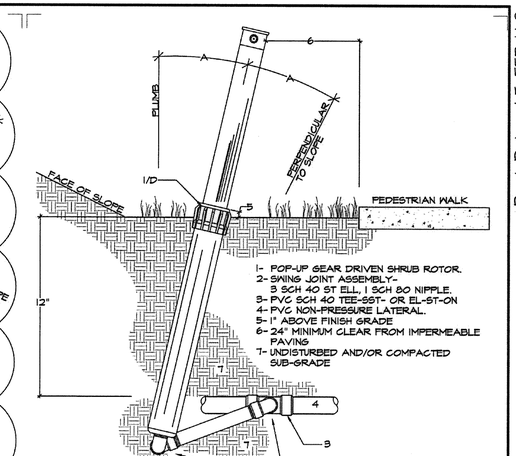
H5a POP-UP ROTOR OR SPRAY HEAD AT TOP OF SLOPE SECTION - NO SCALE



1- POP-UP GEAR DRIVEN SHRUB ROTOR.
2- SWING JOINT ASSEMBLY- 2 SCH 40 MIPTXFIPT ELL, 1 UVR SCH 40 MIPTXFIPT ELL, 1 SCH 80 NIPPLE-LAR. TO REACH BOTTOM INLET OF 12" POP-UP.
3- LATERAL EXTENTION- UVR PVC SCH 40 PVC NIPPLE. L.A.R. 1 UVR SCH 40 FIPTXFIPT ELL.
4- UVR PVC SCH 40 TEE-SS- OR EL-ST ON UVR PVC NON-PRESSURE LATERAL.
5- 1" ABOVE FINISH GRADE
6- UNDISTURBED AND/OR COMPACTED SUB-GRADE

NOTE:
A. SWING JOINT AND LATERAL SHOWN ROTATED 90 DEG FROM SECTION VIEW.
B. OUTLET OF TEE OR ELBOW AND SWING JOINT TO BE SIZED EQUAL TO HEAD INLET
C. HEAD ANGLE ON SLOPE WILL BE BETWEEN PLUMB AND PERPENDICULAR TO SLOPED SURFACE. ANGLE WILL DEPEND ON TRAJECTORY OF NOZZLE. SWING JOINT WILL ALLOW ADJUSTMENT FOR ACTUAL CONDITIONS. SEE ALSO HEAD ANGLE DETAIL DRAWING.
D. R. W. WARNING CAP AND/OR RISER LABEL WHERE REQUIRED.

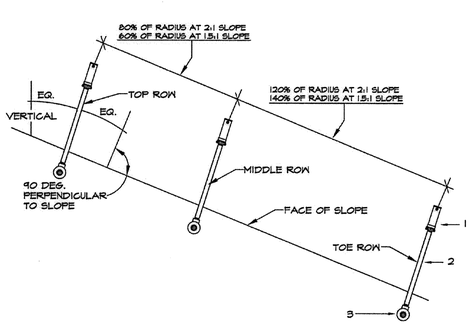
H5b POP-UP ROTOR OR SPRAY HEAD AT TOP OF SLOPE SECTION - NO SCALE



1- POP-UP GEAR DRIVEN SHRUB ROTOR.
2- SWING JOINT ASSEMBLY- 3 SCH 40 ST ELL, 1 SCH 80 NIPPLE.
3- PVC SCH 40 TEE-SST- OR EL-ST-ON
4- PVC NON-PRESSURE LATERAL.
5- 1" ABOVE FINISH GRADE
6- 24" MINIMUM CLEAR FROM IMPERMEABLE PAVING
7- UNDISTURBED AND/OR COMPACTED SUB-GRADE

NOTE:
A. SWING JOINT AND LATERAL SHOWN ROTATED 90 DEG FROM SECTION VIEW.
B. OUTLET OF TEE OR ELBOW AND SWING JOINT TO BE SIZED EQUAL TO HEAD INLET
C. HEAD ANGLE ON SLOPE WILL BE BETWEEN PLUMB AND PERPENDICULAR TO SLOPED SURFACE. ANGLE WILL DEPEND ON TRAJECTORY OF NOZZLE. SWING JOINT WILL ALLOW ADJUSTMENT FOR ACTUAL CONDITIONS. SEE ALSO HEAD ANGLE DETAIL DRAWING.
D. R. W. WARNING CAP AND/OR RISER LABEL WHERE REQUIRED.

H6 POP-UP ROTOR OR SPRAY HEAD AT TOE OF SLOPE SECTION - NO SCALE

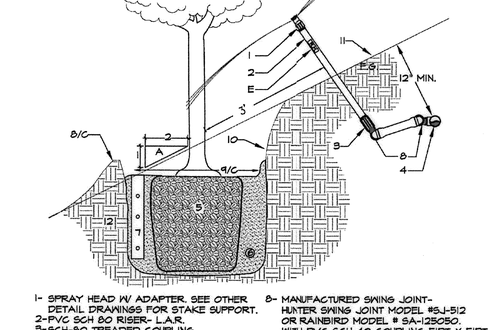


1- SPRINKLER HEAD AND CHECK VALVE.
2- PVC SCH 80 RISER.
3- PVC LATERAL.

NOTE:

A. ANGLE OF HEAD AND RISER ASSEMBLY TO BE BETWEEN VERTICLE AND PERPENDICULAR TO SLOPE. THIS IS A GENERAL RULE AND ADJUSTMENTS MAY BE NECESSARY IN THE FIELD DEPENDING ON ANGLE OF SLOPE AND PERFORMANCE OF SPRINKLER. THE INTENTION IS TO MAXIMIZE UNIFORMITY OF COVERAGE.
B. RELATIVE LATERAL SPACING ON SLOPE WITH THE MIDDLE ROW, OR ROWS CLOSER TO THE TOP OF SLOPE THAN THE TOE. THIS APPLIES TO ALL MIDDLE ROW LATERALS, BUT AS A UNIT. THE SPACINGS BETWEEN ALL MIDDLE ROW LATERALS IS TO BE UNIFORM AND ALL ARE TO BE ADJUSTED UP THE SLOPE EQUALLY.

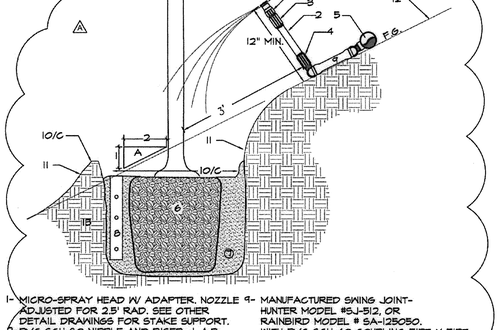
H7 HEAD ANGLE AND PLACEMENT FOR SLOPE CONDITION SECTION - NO SCALE



1- SPRAY HEAD W/ ADAPTER, SEE OTHER DETAIL DRAWINGS FOR STAKE SUPPORT.
2- PVC SCH 80 RISER- L.A.R.
3- SCH-80 TREADED COUPLING
4- PVC SCH 40 SST TEE OR ST ELBOW ON NON-PRESSURE LATERAL RUN.
5- TREE ROOT BALL.
6- PLANTING PIT.
7- BREATHER TUBE-PER PLANTING SPECS.
8- MANUFACTURED SWING JOINT- HUNTER SWING JOINT MODEL #SJ-512 OR RAINBIRD MODEL # SA-12505O. WITH PVC SCH 40 COUPLING FIPT X FIPT.
9- TREE BASIN.
10- EROSION RESISTANT FABRIC. SEE PLANTING PLAN AND DETAIL DRAWINGS.
11- FACE OF SLOPE.
12- COMPACTED OR UNDISTURBED SUBGRADE.

NOTE.
A. DETAIL DRAWING ILLUSTRATES METHOD OF SUPPLEMENTAL WATER APPLICATION FOR TREE ON 2:1 SLOPE CONDITION.
B. ALL PLANTING INFORMATION AND PLANTING RELATED IMAGE SHOWN FOR CONCEPT ONLY. SEE LANDSCAPE PLANTING PLAN, DETAIL DRAWINGS AND SPECIFICATIONS.
C. TREE BASIN MUST BE SUBSTANTIALLY CONSTRUCTED AND COMPACTED TO PROVIDE FOR DETENTION OF IRRIGATION WATER AT CONTRACTOR DETERMINED IRRIGATION INTERVAL AND WATER TIME.
D. GRADED SURFACE GREATER THAN 2:1 TO BE PROTECTED WITH USE OF MECHANICAL METHODS SUCH AS EROSION RESISTANT FABRIC. SEE PLANTING PLANS AND SPECS.
E. R.W. WARNING LABEL IF REQUIRED.

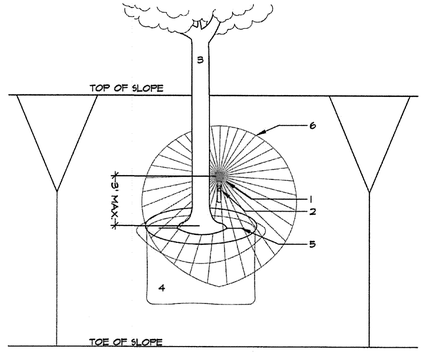
H8a SPRAY HEAD FOR SUPPLEMENTAL TREE IRRIGATION ON SLOPES SECTION - NO SCALE



1- MICRO-SPRAY HEAD W/ ADAPTER, NOZZLE ADJUSTED FOR 2.5' RAD. SEE OTHER DETAIL DRAWINGS FOR STAKE SUPPORT.
2- PVC SCH 80 NIPPLE AND RISER- L.A.R.
3- CHECK VALVE -FIPTXFIPT
4- SCH-80 TREADED COUPLING
5- PVC SCH 40 SST TEE OR ST ELBOW ON NON-PRESSURE LATERAL RUN.
6- TREE ROOT BALL.
7- PLANTING PIT.
8- BREATHER TUBE-PER PLANTING SPECS.
9- MANUFACTURED SWING JOINT- HUNTER SWING JOINT MODEL #SJ-512, OR RAINBIRD MODEL # SA-12505O. WITH PVC SCH 40 COUPLING FIPT X FIPT.
10- TREE BASIN.
11- EROSION RESISTANT FABRIC. SEE PLANTING PLAN AND DETAIL DRAWINGS.
12- FACE OF SLOPE.
13- COMPACTED OR UNDISTURBED SUBGRADE.

NOTE.
A. DETAIL DRAWING ILLUSTRATES METHOD OF SUPPLEMENTAL WATER APPLICATION FOR TREE ON 2:1 SLOPE CONDITION.
B. ALL PLANTING INFORMATION AND PLANTING RELATED IMAGE SHOWN FOR CONCEPT ONLY. SEE LANDSCAPE PLANTING PLAN, DETAIL DRAWINGS AND SPECIFICATIONS.
C. TREE BASIN MUST BE SUBSTANTIALLY CONSTRUCTED AND COMPACTED TO PROVIDE FOR DETENTION OF IRRIGATION WATER AT CONTRACTOR DETERMINED IRRIGATION INTERVAL AND WATER TIME.
D. GRADED SURFACE GREATER THAN 2:1 TO BE PROTECTED WITH USE OF MECHANICAL METHODS SUCH AS EROSION RESISTANT FABRIC. SEE PLANTING PLANS AND SPECS.

H8b MICRO-SPRAY HEAD FOR SUPPLEMENTAL TREE IRRIGATION ON SLOPES SECTION - NO SCALE



1- SPRAY HEAD W/ ADAPTER.
2- PVC SCH 80 RISER (L.A.R)
3- TREE.
4- PLANTING PIT.
5- TREE BASIN.
6- SPRAY PATTERN

NOTE.
A. DETAIL DRAWING ILLUSTRATES METHOD OF SUPPLEMENTAL WATER APPLICATION FOR TREE ON 2:1 SLOPE CONDITION.
B. ALL PLANTING INFORMATION AND RELATED IMAGE SHOWN FOR CONCEPT ONLY. SEE LANDSCAPE PLANTING PLAN, DETAIL DRAWINGS AND SPECIFICATIONS.
C. TREE BASIN MUST BE SUBSTANTIALLY CONSTRUCTED AND COMPACTED TO PROVIDE FOR DETENTION OF IRRIGATION WATER AT CONTRACTOR DETERMINED IRRIGATION INTERVAL AND RUN TIME.

H9 SPRAY HEAD FOR SUPPLEMENTAL TREE IRRIGATION ON SLOPES SECTION - NO SCALE

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RINS OR DISC. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

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* ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

OTAY WATER DISTRICT
PROJECT No. DO944- 060189
PZ 624, 711 PZ2 680
REVIEWED BY DATE:
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG!
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"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 9/30/19 CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

3 JUL 18	
DATE:	15 FEB '18
SCALE:	NO SCALE
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	3 ADD SHUTOFF VALVES & INDUSTRIAL PAD SLOPES	7/31/18	MM
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PERMANENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT # 1359 PER R.O.S. 14841) ELEV=529.319' (NAVD 88)

SCALE		Designed By	Drawn By	Checked By
Horizontal N/A	Office			
Vertical N/A	Field	Plans Prepared Under Supervision Of	Date	
	Traffic	THOMAS A. PICARD	R.L.A. No. 4001	

Approved: Date: 8-31-18
Kelly Broughton (ORIGINALLY APPROVED 5-15-17)
Director of Development Services or designee.

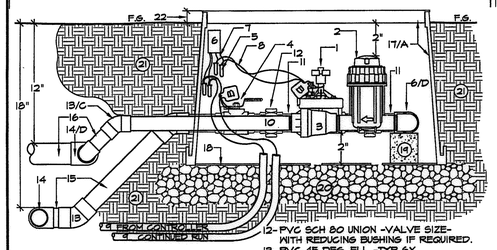
CITY OF CHULA VISTA
LANDSCAPE IRRIGATION SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 46
Sheet 46 of 88

REPLACEMENT SHEET OWD WO# DO944-060189 OWD PERMIT# PLR-16-014

LI-36

Print Date: 15 FEB '18
OWD WO# DO944-060189
Otay Ranch, Village 3 - Slope & Erosion Control



1- REMOTE CONTROL VALVE.
2- QUICK CHECK FILTER- X2.
3- PRE SET PRV- X2
4- ISOLATION BALL VALVE- EQUAL TO RCV SIZE
5- WATERPROOF WIRE SPLICE- 3M DBY.
6- STATION DECODER
7- DECODER LEADS COIL W/ 2' EXTRA WIRE.
8- SOLENOID WIRES
9- NETAFIM SINGLE NET CABLE AND CONDUIT OR SCH 40 PVC WITH DECODER CABLE
10- PVC SCH 80 NIPPLE -TOE- L.A.R.
11- PVC SCH 80 NIPPLE -TBE- L.A.R. BEHIND
12- PVC SCH 80 UNION -VALVE SIZE- WITH REDUCING BUSHING IF REQUIRED.
13- PVC 45 DEG. ELL -TYP 6X.
14- PVC TEE. -SCH 80 ON MAINLINE. SCH 40 ON LATERAL LINE
15- PVC PRESSURE PIPE
16- PVC NON-PRESSURE PIPE
17- JUMBO RECTANGULAR VALVE BOX W/ PURPLE LOCKING LID.
18- FILTER FABRIC.
19- BRICK OR BLOCK SUPPORT
20- 3/8" GRAVEL SUMP AND LEVELING PAD, 3" DEEP, MINIMUM.
21- UNDISTURBED/COMPACTED SUBGRADE.
22- FLUSH IN TURF, 1" IN GROUNDCOVER.

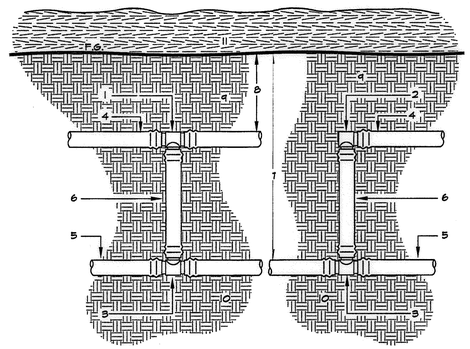
NOTES:
A. DRIP VALVE ASSEMBLIES FOR MEDIUM TO HIGH FLOW SITUATIONS.
B. CONTRACTOR SHALL INCLUDE CHRISTY'S RJH WARNING TAG AND STATION I.D. TAG INDICATING CONTROLLER AND STATION NUMBER. TAGS SHALL BE ATTACHED TO VALVE BONNET BOLT.
C. PVC FITTINGS TO BE SCH 80 UPSTREAM, SCH 40 DOWNSTREAM.
D. HIGH FLOW TEE TO BE 1"XI"XI.5". MEDIUM FLOW TEE TO 1"XI"XI".
E. SIZE ASSEMBLY ACCORDING TO FLOW AS FOLLOWS:

GPM	RCV	FILTER	REGULATOR
15.1 - 20	150-PESB-R	GKCHK-100 (X2)	PMR-HF-40-4F4P (X2)
20.1 - 30	150-PESB-R	GKCHK-100 (X2)	PR-HF-40-4FSF (X2)

BOX VB-JMBP
RCV, FILTER, VALVE BOX BY RAINBIRD.
REGULATOR BY SENNINGER

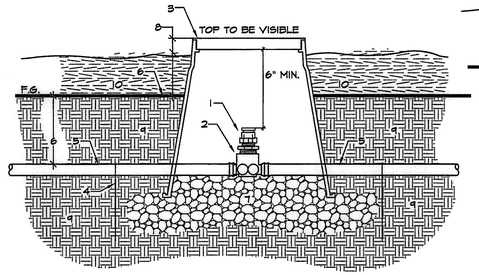
PLAN VIEW

J2 DRIP IRRIGATION RCV ASSEMBLY MEDIUM AND HIGH FLOW SITUATIONS
SECTION - NO SCALE



1- XFD 17 MM INSERT TEE
2- XFD 17 MM INSERT ELL.
3- XFD 17 MM INSERT TEE OR ELBOW ON MANIFOLD
4- XFS DRIPLINE- SEE SPECS & LEGEND.
5- XFD BLANK TUBING - INLET OR EXHAUST MANIFOLD.
6- XFD BLANK POLY TUBING RISER.
7- AT PVC LATERAL LINE DEPTH
8- 45" TO 5' TOP SOIL COVER TO TOP OF DRIP LINE SEE SPECS FOR DEPTH.
9- TOP SOIL COMPACTED TO PLANTING SPECIFICATIONS
10- UNDISTURBED/COMPACTED SOIL
11- MULCH - SEE PLANTING PLANS

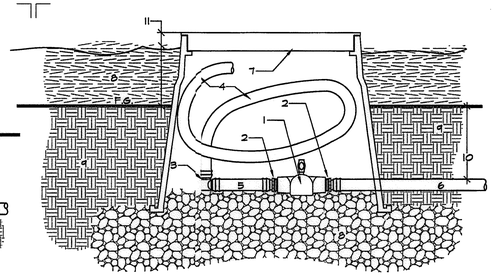
H1 START CONNECTION POLY SUB-GRADE
SECTION - NO SCALE

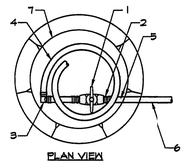


1- RAINBIRD ARV050 RELIEF VALVE.
2- RAINBIRD XFD-TFA-075 TEE.
3- 7" ROUND VALVE BOX.
4- SECURE DRIPLINE WITH RAINBIRD TDS-050 TIE DOWN STAKES, 5' O.C.
5- XFS DRIPLINE OR BLANK TUBING ON COMMON MANIFOLD.
6- 4" MINIMUM COVER. SEE OTHER DETAIL AND SPECIFICATIONS FOR COVER DEPTH.
7- .75" CRUSHED GRAVEL LEVELING PAD AND SUMP. FILL TO SUPPORT BASE OF VALVE.
8- BOX TO BE EXPOSED ABOVE MULCH. SEE PLANTING PLAN FOR DEPTH OF MULCH TO DETERMINE DEPTH OF BOX BELOW FINISH GRADE.
9- UNDISTURBED OR COMPACTED SUB-GRADE.
10- MULCH.

NOTE:
A. AIR/VAC TO BE INSTALLED AT HIGHEST LOCAL ELEVATION ON MANIFOLD LINE SO THAT ALL LATERALS SEE VACUUM RELIEF, SEE DRIP LAYOUT DETAILS.
B. THREAD AIR VACUUM RELIEF VALVE INTO ADAPTOR TEE WITH TEFLON TAPE.
C. NOTCH SIDE OF BOX FOR UNOBSTRUCTED LINE ACCESS.
D. PROVIDE CONT. SUPPORT OF TUBING & AIR/VACUUM VALVE.
E. BRAND "AVR", CONTROLLER AND STATION NUMBER INTO VALVE BOX I.D. DETAIL DRAWING.

H2 AIR/VACUUM RELIEF FOR DRIPLINE SUB-GRADE IN SHRUB/ GROUND COVER PLANTING
SECTION - NO SCALE



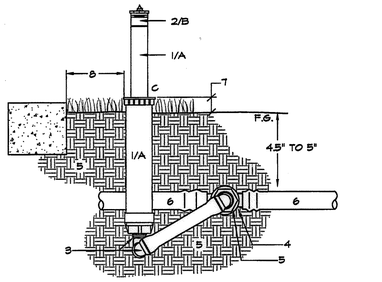


PLAN VIEW

1- .5" PVC BALL VALVE - KBI EBV-0500 OR EQUAL
2- RAINBIRD XFD-MA-050 INSERT ADAPTER
3- RAINBIRD XFD-ELBOW INSERT FITTING
4- 18" X .556" I.D. FLEX PVC HOSE.
5- RAINBIRD XFS OR XFD DRIP TUBING
6- BLANK TUBING FLUSH MANIFOLD.
7- 10" ROUND VALVE BOX.
8- .75" CRUSHED GRAVEL LEVELING PAD AND SUMP. FILL TO SUPPORT BASE OF VALVE.
9- UNDISTURBED OR COMPACTED SUB-GRADE
10- SEE OTHER DETAILS, NOTES AND SPECIFICATIONS FOR DRIP LINE INSTALLATION AND DEPTH OF COVER.
11- BOX TO BE EXPOSED ABOVE MULCH. SEE PLANTING PLAN FOR DEPTH OF MULCH TO DETERMINE DEPTH OF BOX BELOW FINISH GRADE.

NOTE.
A. BRAND "DBO" - DRIP BLOWOUT, CONTROLLER AND STATION NUMBER INTO VALVE BOX LID. REFER TO TECHNICAL SPECIFICATIONS.

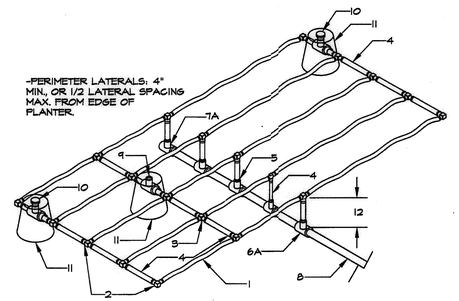
H3 DRIP LINE BLOW-OUT (MANUAL)
SECTION AND PLAN - NO SCALE



1- 6" POP-UP SPRAY HEAD
2- 17A- ADJUSTABLE ARC NOZZLE
3- MANUFACTURED SWING JOINT- HUNTER SWING JOINT MODEL #SJ-506
4- HUNTER PLD-075 TEE INSERT TEE
5- SCH 40 .75"X.5" TT BUSHING.
6- POLYETHLENE BLANK TUBING-17MM.
6- COMPACTED SOIL
7- AT FINISH GRADE IN TURF; 2" IN SHRUB AREA.
8- 6" TO 10" FROM HARDSCAPE

NOTE:
A. POP-UP BODY TO BE WITHOUT SIDE INLET
B. NOZZLE TO BE ADJUSTED CLOSED DURING NORMAL OPERATION, OPENED DURING SYSTEM FLUSHING MAINTENANCE OPERATION.
C. RECYCLED WATER WARNING CAP IF REQUIRED.

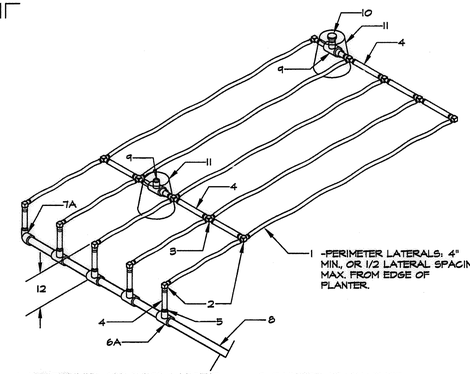
H4 DRIP SYSTEM OPERATION INDICATOR
ISOMETRIC - NO SCALE



1- XFS DRIPLINE- SEE SPECS & LEGEND.
2- XFD 17 MM INSERT TEE OR ELL.
3- XFD 17 MM INSERT CROSS
4- BLANK DRIPLINE TUBING
5- XFD-MA-050 X 1/2" MPT ADAPTER
6- PVC TEE - SXSXI/2" THREADED.
7- PVC EL - SXI/2" THREADED
8- PVC PIPING INLET OR EXHAUST MANIFOLD.
9- RAINBIRD AR VALVE KIT
10- NETAFIM TLOSOMFV-I LINE FLUSH VALVE
11- 10" ROUND VALVE BOX- SEE ACCOMPANYING DETAILS FOR INSTALLATION
12- BURY DEPTH- SEE NOTES AND SPECS

NOTE:
A. RUN OF EL OR TEE TO BE SIZED EQUAL TO LATERAL.
B. DRIP-LINES TO BE LAID FLAT AND SECURED TO SUBGRADE WITH STAPLES AT 5' CENTERS PRIOR TO BACK-FILL WITH MIN. 4" / MAX. 5" COVER.
C. USE CAUTION WHEN SECURING DRIP-LINE WITH STAPLES. DRIP-LINE SHALL NOT BE OBSTRUCTED, KINKED, OR STRETCHED.

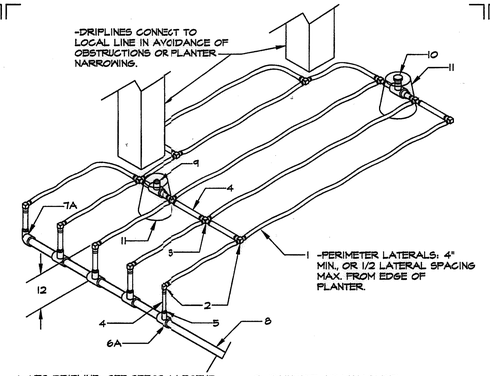
H5 START CONNECTION CENTER FEED PVC TO POLY SUB-GRADE
ISOMETRIC - NO SCALE



1- XFS DRIPLINE- SEE SPECS & LEGEND.
2- XFD INSERT TEE OR ELL.
3- XFD INSERT CROSS
4- BLANK DRIPLINE TUBING
5- RAINBIRD XFD-MA-050 X 1/2" MPT ADAPTER
6- PVC TEE - SXSXI/2" THREADED.
7- PVC EL - SXI/2" THREADED
8- PVC PIPING INLET OR EXHAUST MANIFOLD.
9- RAINBIRD AR VALVE KIT
10- NETAFIM TLOSOMFV-I LINE FLUSH VALVE
11- 10" ROUND VALVE BOX- SEE ACCOMPANYING DETAILS FOR INSTALLATION
12- BURY DEPTH- SEE NOTES AND SPECS

NOTE:
A. RUN OF EL OR TEE TO BE SIZED EQUAL TO LATERAL.
B. DRIP-LINES TO BE LAID FLAT AND SECURED TO SUBGRADE WITH STAPLES AT 5' CENTERS PRIOR TO BACK-FILL WITH MIN. 4" / MAX. 5" COVER.
C. USE CAUTION WHEN SECURING DRIP-LINE WITH STAPLES. DRIP-LINE SHALL NOT BE OBSTRUCTED, KINKED, OR STRETCHED.

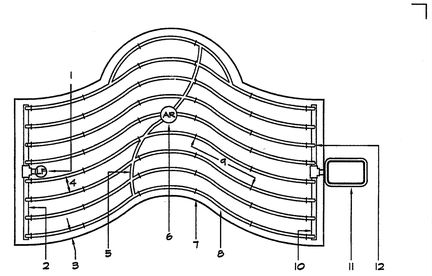
H6 START CONNECTION END FEED PVC TO POLY SUB-GRADE
ISOMETRIC - NO SCALE



1- XFS DRIPLINE- SEE SPECS & LEGEND.
2- XFD INSERT TEE OR ELL.
3- XFD INSERT CROSS
4- BLANK DRIPLINE TUBING
5- RAINBIRD XFD-MA-050 X 1/2" MPT ADAPTER
6- PVC TEE - SXSXI/2" THREADED.
7- PVC EL - SXI/2" THREADED
8- PVC PIPING INLET OR EXHAUST MANIFOLD.
9- RAINBIRD AR VALVE KIT
10- NETAFIM TLOSOMFV-I LINE FLUSH VALVE
11- 10" ROUND VALVE BOX- SEE ACCOMPANYING DETAILS FOR INSTALLATION
12- BURY DEPTH- SEE NOTES AND SPECS

NOTE:
A. RUN OF EL OR TEE TO BE SIZED EQUAL TO LATERAL.
B. DRIP-LINES TO BE LAID FLAT AND SECURED TO SUBGRADE WITH STAPLES AT 5' CENTERS PRIOR TO BACK-FILL WITH MIN. 4" / MAX. 5" COVER.
C. USE CAUTION WHEN SECURING DRIP-LINE WITH STAPLES. DRIP-LINE SHALL NOT BE OBSTRUCTED, KINKED, OR STRETCHED.

H7 START CONNECTION END FEED (OBSTRUCTED) PVC TO POLY SUB-GRADE
ISOMETRIC - NO SCALE



1- FLUSHING VALVE PLUMBED TO PVC OR POLY EXHAUST MANIFOLD.
2- PVC OR POLY EXHAUST MANIFOLD.
3- PERIMETER LATERALS SPACING- MIN. 4" - MAX. 1/2 LATERAL SPACING.
4- INTERIOR LATERAL SPACING TO BE AS NOTED IN THE LEGEND AND PLANS.
5- BLANK TUBING MANIFOLD FOR AIR VAC RELIEF.
6- AIR/VACUUM RELIEF VALVE - INSTALL AT HIGHEST LOCAL ELEVATION.
7- AREA PERIMETER / EDGE OF PLANTER.
8- DRIP TUBING LATERAL LINE.
9- SECURE POLY LINES WITH JUTE NET STAPLES, OR EQUAL 5' O.C.
10- PVC OR POLY SUPPLY MANIFOLD.
11- REMOTE CONTROL VALVE WITH FILTER AND PRV.
12- START CONNECTION AS APPROPRIATE SEE OTHER DETAILS.

NOTE:
A. DRIP-LINES TO BE PLACED IN PARALLEL AND CONCETRIC LINES EQUALLY AND UNIFORMILY SPACED FOR ENTIRE LENGTH OF RUN. SPACE LINES AS SHOWN AND/OR NOTED ON DRAWINGS AND SPECS.
B. SEE RAINBIRD "SUBSURFACE DRIP IRRIGATION DESIGN, INSTALLATION AND MAINTENANCE GUIDE" FOR ADDITIONAL INFORMATION.
C. DRIP-LINES TO BE LAID FLAT AND SECURED TO TRENCH BOTTOM OR FINISH GRADE MINUS 5" WITH STAPLES AT 5' CENTERS PRIOR TO BACK-FILL.
D. USE CAUTION WHEN SECURING DRIP-LINE WITH STAPLES. DRIP-LINE SHALL NOT BE OBSTRUCTED OR KINKED.

H8 DRIP SYSTEM LAYOUT FOR CURVILINEAR AREA
PLAN - NO SCALE

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

*THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
*ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT
THOMAS A. PICARD
9/5/17
CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	NO SCALE
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 13 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PIONMENT 10' HIGH BOULDER & 1700' SOUTHERLY O' WATER STORAGE FACILITY. (TYP 1359 PER R.O.S. 1-841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A; Vertical N/A
Office ____ Field ____ Traffic ____
Designed By ____ Drawn By ____ Checked By ____
Plans Prepared Under Supervision Of THOMAS A. PICARD Date ____/____/____ R.L.A. No. 4001

Approved: Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION WATER PRSSSURE CALCULATIONS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 47
Sheet 47 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014
LI-37

Print Date: 10 APR '17
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

VILLAGE 3 EROSION CONTROL
CONTROLLER "SC" STATION "4" @ 58 - FARTHEST STATION

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	215.00 FT.
PRESSURE AVAILABLE AT P.O.C.	201.35 PSI
REGULATED PRESSURE	100.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	58	2"	30	2.40	0.72 PSI
METER	58	2"			2.50 PSI
WYE STRAINER	58	2"			0.10 PSI
PRESSURE REGULATOR	58	2"			1.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	58	2"			0.72 PSI
FLOW SENSOR	58	2"			0.30 PSI
MCV	58	2"			1.70 PSI
MAINLINE TRUNK	58	3"	10	0.41	0.04 PSI
MAINLINE TRUNK	58	2-1/2"	697	1.00	6.97 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	58	2"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					19.75 PSI
+10% FOR FITTINGS					1.98 PSI
TOTAL LOSSES					21.73 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					55.00 FT.
PRESSURE DIFFERENTIAL					-23.82 PSI
REQUIRED					90.54 PSI
SURPLUS PRESSURE	10%				9.46 PSI

VILLAGE 3 EROSION CONTROL - FARTHEST STATION HIGHEST ELE
CONTROLLER "SA1" STATION "4" @ 31 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	335.00 FT.
PRESSURE AVAILABLE AT P.O.C.	149.39 PSI
REGULATED PRESSURE	90.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	31	2"	30	0.81	0.24 PSI
METER	31	1-1/2"			2.00 PSI
WYE STRAINER	31	1-1/2"			0.50 PSI
PRESSURE REGULATOR	31	1-1/2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	31	1-1/2"			0.41 PSI
FLOW SENSOR	31	1-1/2"			0.50 PSI
MCV	31	1-1/2"			0.50 PSI
MAINLINE TRUNK	31	3"	0	0.08	0.00 PSI
MAINLINE TRUNK	31	2-1/2"	1610	0.33	5.31 PSI
ISOLATION VALVES (4 VALVES)	VAR	3"			0.40 PSI
RCV SINGLE STATION	31	1-1/2"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					15.77 PSI
+10% FOR FITTINGS					1.58 PSI
TOTAL LOSSES					17.34 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-57.00 FT.
PRESSURE DIFFERENTIAL					24.68 PSI
REQUIRED					37.66 PSI
SURPLUS PRESSURE	139%				52.34 PSI

VILLAGE 3 EROSION CONTROL-FARTHEST STATION HIGHEST ELEV
CONTROLLER "SI" STATION "1" @ 33 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	245.00 FT.
PRESSURE AVAILABLE AT P.O.C.	188.36 PSI
REGULATED PRESSURE	140.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	33	2"	30	1.05	0.32 PSI
METER	33	2"			0.85 PSI
WYE STRAINER	33	2"			0.50 PSI
PRESSURE REGULATOR	33	2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	33	2"			0.25 PSI
FLOW SENSOR	33	2"			0.50 PSI
MCV	33	2"			3.84 PSI
MAINLINE TRUNK	33	3"	1775	0.14	2.49 PSI
MAINLINE TRUNK	33	2-1/2"	757	0.38	2.88 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	33	1-1/5"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					17.92 PSI
+10% FOR FITTINGS					1.79 PSI
TOTAL LOSSES					19.71 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					92.00 FT.
PRESSURE DIFFERENTIAL					-39.84 PSI
REQUIRED					104.54 PSI
SURPLUS PRESSURE	34%				35.46 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SH" STATION "25" @ 32 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	305.00 FT.
PRESSURE AVAILABLE AT P.O.C.	162.38 PSI
REGULATED PRESSURE	60.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	32	2"	10	1.02	0.10 PSI
METER	32	2"			0.80 PSI
WYE STRAINER	32	2"			0.01 PSI
PRESSURE REGULATOR	32	2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	32	2"			0.14 PSI
FLOW SENSOR	32	2"			0.50 PSI
MCV	32	2"			1.50 PSI
MAINLINE TRUNK	32	3"	1622	0.14	2.27 PSI
MAINLINE TRUNK	32	2-1/2"	970	0.36	3.49 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	32	1-1/2"			2.90 PSI
LATERALS					3.00 PSI
SUBTOTAL					15.11 PSI
+10% FOR FITTINGS					1.51 PSI
TOTAL LOSSES					16.62 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-55.00 FT.
PRESSURE DIFFERENTIAL					23.82 PSI
REQUIRED					37.81 PSI
SURPLUS PRESSURE	59%				22.19 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SG" STATION "4" @ 28 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	335.00 FT.
PRESSURE AVAILABLE AT P.O.C.	149.39 PSI
REGULATED PRESSURE	90.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	28	2"	35	0.69	0.24 PSI
METER	28	2"			0.00 PSI
WYE STRAINER	28	2"			0.25 PSI
PRESSURE REGULATOR	28	2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	28	2-1/2"			0.07 PSI
FLOW SENSOR	28	2"			0.50 PSI
MCV	28	2			1.50 PSI
MAINLINE TRUNK	28	3"	2800	0.11	3.08 PSI
MAINLINE TRUNK	28	2-1/2"		0.00	0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	28	1-1/2"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					11.95 PSI
+10% FOR FITTINGS					1.19 PSI
TOTAL LOSSES					13.14 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					55.00 FT.
PRESSURE DIFFERENTIAL					-15.16 PSI
REQUIRED					73.29 PSI
SURPLUS PRESSURE	23%				16.71 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SE" STATION "18" @ 39 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	380.00 FT.
PRESSURE AVAILABLE AT P.O.C.	129.90 PSI
REGULATED PRESSURE	90.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	39	2"	80	1.34	1.07 PSI
METER	39	1-1/2"			3.30 PSI
WYE STRAINER	39	1-1/2"			0.25 PSI
PRESSURE REGULATOR	39	1-1/2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	39	1-1/2"			0.69 PSI
FLOW SENSOR	39	1-1/2"			0.50 PSI
MCV	39	1-1/2"			4.00 PSI
MAINLINE TRUNK	39	2-1/2"	777	0.53	4.12 PSI
MAINLINE TRUNK	39	3"			0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	39	1-1/2"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					19.13 PSI
+10% FOR FITTINGS					1.91 PSI
TOTAL LOSSES					21.05 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					20.00 FT.
PRESSURE DIFFERENTIAL					-8.66 PSI
REQUIRED					74.71 PSI
SURPLUS PRESSURE	20%				15.29 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SD" STATION "5" @ 24 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	325.00 FT.
PRESSURE AVAILABLE AT P.O.C.	153.72 PSI
REGULATED PRESSURE	85.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	24	2"	35	0.52	0.18 PSI
METER	24	1-1/2"			1.20 PSI
WYE STRAINER	24	1-1/2"			1.80 PSI
PRESSURE REGULATOR	24	1-1/2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	24	1-1/2"			0.48 PSI
FLOW SENSOR	24	1-1/2"			0.50 PSI
MCV	24	1-1/2"			7.00 PSI
MAINLINE TRUNK	24	2"	517	0.52	2.69 PSI
MAINLINE TRUNK	24	2-1/2"	1022	0.21	2.15 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	24	1-1/2"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					21.19 PSI
+10% FOR FITTINGS					2.12 PSI
TOTAL LOSSES					23.31 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-45.00 FT.
PRESSURE DIFFERENTIAL					19.49 PSI
REQUIRED					48.83 PSI
SURPLUS PRESSURE	74%				36.17 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SB" STATION "3" @ 28 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	173.00 FT.
PRESSURE AVAILABLE AT P.O.C.	219.53 PSI
REGULATED PRESSURE	100.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	28	2"	35	0.69	0.24 PSI
METER	28	1-1/2"			1.60 PSI
WYE STRAINER	28	1-1/2"			0.00 PSI
PRESSURE REGULATOR	28	1-1/2"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	28	1-1/2"			1.03 PSI
FLOW SENSOR	28	1-1/2"			2.50 PSI
MCV	28	1-1/2"			2.50 PSI
MAINLINE TRUNK	28	2-1/2"	660	0.27	1.78 PSI
MAINLINE TRUNK	28	3"			0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	28	1-1/2"			2.30 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					20.35 PSI
+10% FOR FITTINGS					2.03 PSI
TOTAL LOSSES					22.38 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					37.00 FT.
PRESSURE DIFFERENTIAL					-16.02 PSI
REQUIRED					83.41 PSI
SURPLUS PRESSURE	20%				16.59 PSI

VILLAGE 3 EROSION CONTROL - HIGHEST FLOW
CONTROLLER "SA2" STATION "23" @ 56 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	158.00 FT.
PRESSURE AVAILABLE AT P.O.C.	226.03 PSI
REGULATED PRESSURE	100.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	56	2"	30	2.20	0.66 PSI
METER	56	1-1/2"			6.20 PSI
WYE STRAINER	56	1-1/2"			0.50 PSI
PRESSURE REGULATOR	56	1-1/2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	56	1-1/2"			1.10 PSI
FLOW SENSOR	56	1-1/2"			0.50 PSI
MCV	56	2"			3.53 PSI
MAINLINE TRUNK	56	3"			0.00 PSI
MAINLINE TRUNK	56	2-1/2"	463	0.98	4.54 PSI
ISOLATION VALVES (4 VALVES)	VAR	3"			0.40 PSI
RCV SINGLE STATION	56	1-1/2"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					23.33 PSI
+10% FOR FITTINGS					2.33 PSI
TOTAL LOSSES					25.66 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					12.00 FT.
PRESSURE DIFFERENTIAL					-5.20 PSI
REQUIRED					75.86 PSI
SURPLUS PRESSURE	32%				24.14 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SB2" STATION "12" @ 12

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	255.00 FT.
PRESSURE AVAILABLE AT P.O.C.	184.03 PSI
REGULATED PRESSURE	100.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	12	2"	35	0.14	0.05 PSI
METER	12	1-1/5"			0.00 PSI
WYE STRAINER	12	1-1/5"			1.60 PSI
PRESSURE REGULATOR	12	1-1/5"			13.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	12	1-1/5"			2.20 PSI
FLOW SENSOR	12	1-1/5"			5.00 PSI
MCV	12	1-1/5"			7.88 PSI
MAINLINE TRUNK	12	2"	250	0.14	0.35 PSI
MAINLINE TRUNK	12	2-1/2"	423	0.06	0.25 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	12	1"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					35.53 PSI
+10% FOR FITTINGS					3.55 PSI
TOTAL LOSSES					39.08 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					15.00 FT.
PRESSURE DIFFERENTIAL					-6.50 PSI
REQUIRED					90.58 PSI
SURPLUS PRESSURE	16%				8.42 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "I-3C" STATION "1" @ 21 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	375.00 FT.
PRESSURE AVAILABLE AT P.O.C.	132.07 PSI
REGULATED PRESSURE	80.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	21	2"	28	0.71	0.20 PSI
METER	21	1.5"			2.50 PSI
WYE STRAINER	21	1.5"			1.00 PSI
PRESSURE REGULATOR	21	1.5"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	21	1.5"			1.30 PSI
FLOW SENSOR	21	1.5"			0.50 PSI
MCV	21	1.5"			3.10 PSI
MAINLINE TRUNK	21	2"	200	0.71	1.42 PSI
MAINLINE TRUNK					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	21	1.5"			3.10 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					21.52 PSI
+10% FOR FITTINGS					2.15 PSI
TOTAL LOSSES					23.68 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					4.00 FT.
PRESSURE DIFFERENTIAL					-1.73 PSI
REQUIRED					65.41 PSI
SURPLUS PRESSURE	22%				14.59 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "R-20" STATION "4" @ 28 GPM

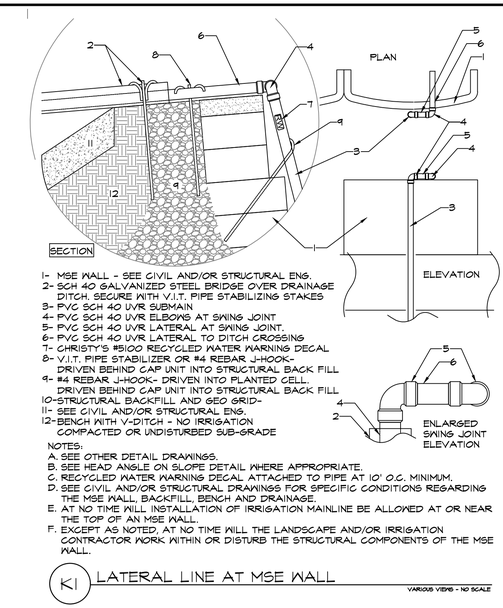
HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	265.00 FT.
PRESSURE AVAILABLE AT P.O.C.	179.70 PSI
REGULATED PRESSURE	80.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	28	2"	28	0.71	0.20 PSI
METER	28	1.5"			2.50 PSI
WYE STRAINER	28	1.5"			1.00 PSI
PRESSURE REGULATOR	28	1.5"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	28	1.5"			1.30 PSI
FLOW SENSOR	28	1.5"			0.50 PSI
MCV	28	1.5"			3.10 PSI
MAINLINE TRUNK	28	2"	236	0.71	1.68 PSI
MAINLINE TRUNK					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	28	1.5"			3.10 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					21.78 PSI
+10% FOR FITTINGS					2.18 PSI
TOTAL LOSSES					23.96 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					4.00 FT.
PRESSURE DIFFERENTIAL					-1.73 PSI
REQUIRED					65.69 PSI
SURPLUS PRESSURE	22%				14.31 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "R-6" STATION "2" @ 15 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	295.00 FT.
PRESSURE AVAILABLE AT P.O.C.	166.71 PSI
REGULATED PRESSURE	80.00 PSI

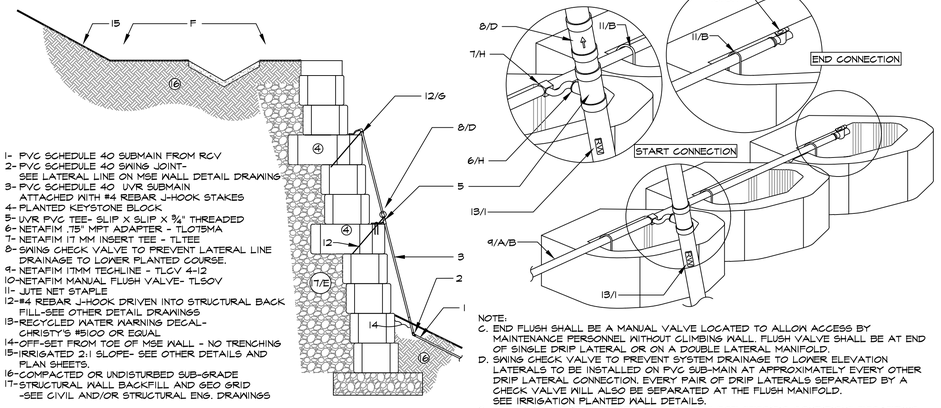
	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	15	2"	28	0.71	0.20 PSI
METER	15	1.5"			2.50 PSI
WYE STRAINER	15	1.5"			1.00 PSI
PRESSURE REGULATOR	15	1.5"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	15	1.5"			1.30 PSI
FLOW SENSOR	15	1.5"			0.50 PSI
MCV	15	1.5"			3.10 PSI
MAINLINE TRUNK	15	2"	250	0.71	1.78 PSI
MAINLINE TRUNK					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	15	1"			3.10 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					21.88 PSI
+10% FOR FITTINGS					2.19 PSI
TOTAL LOSSES					24.07 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					4.00 FT.
PRESSURE DIFFERENTIAL					-1.73 PSI
REQUIRED					65.80 PSI
SURPLUS PRESSURE	22%				14.20 PSI



1- MSE WALL - SEE CIVIL AND/OR STRUCTURAL ENG.
2- SCH 40 GALVANIZED STEEL BRIDGE OVER DRAINAGE DITCH. SECURE WITH V.I.T. PIPE STABILIZING STAKES
3- PVC SCH 40 UVR SUBMAIN
4- PVC SCH 40 UVR ELBOWS AT SWING JOINT
5- PVC SCH 40 UVR LATERAL AT SWING JOINT.
6- PVC SCH 40 UVR LATERAL TO DITCH CROSSING
7- CHRISTY'S #5100 RECYCLED WATER WARNING DECAL
8- V.I.T. PIPE STABILIZER OR #4 REBAR J-HOOK- DRIVEN BEHIND CAP UNIT INTO STRUCTURAL BACK FILL
9- #4 REBAR J-HOOK- DRIVEN INTO PLANTED CELL. DRIVEN BEHIND CAP UNIT INTO STRUCTURAL BACK FILL
10-STRUCTURAL BACKFILL AND GEO GRID-
11- SEE CIVIL AND/OR STRUCTURAL ENG.
12-BENCH WITH V-DITCH - NO IRRIGATION COMPACTED OR UNDISTURBED SUB-GRADE

NOTES:
A. SEE OTHER DETAIL DRAWINGS.
B. SEE HEAD ANGLE ON SLOPE DETAIL WHERE APPROPRIATE.
C. RECYCLED WATER WARNING DECAL ATTACHED TO PIPE AT 10' O.C. MINIMUM.
D. SEE CIVIL AND/OR STRUCTURAL DRAWINGS FOR SPECIFIC CONDITIONS REGARDING THE MSE WALL, BACKFILL, BENCH AND DRAINAGE.
E. AT NO TIME WILL INSTALLATION OF IRRIGATION MAINLINE BE ALLOWED AT OR NEAR THE TOP OF AN MSE WALL.
F. EXCEPT AS NOTED, AT NO TIME WILL THE LANDSCAPE AND/OR IRRIGATION CONTRACTOR WORK WITHIN OR DISTURB THE STRUCTURAL COMPONENTS OF THE MSE WALL.

K1 LATERAL LINE AT MSE WALL
VARIOUS VIEWS - NO SCALE



1- PVC SCHEDULE 40 SUBMAIN FROM RCV
2- PVC SCHEDULE 40 SWING JOINT- SEE LATERAL LINE ON MSE WALL DETAIL DRAWING
3- PVC SCHEDULE 40 UVR SUBMAIN ATTACHED WITH #4 REBAR J-HOOK STAKES
4- PLANTED KEYSTONE BLOCK
5- UVR PVC TEE- SLIP X SLIP X ¾" THREADED
6- NETAFIM .75" MPT ADAPTER - TL075MA
7- NETAFIM 17 MM INSERT TEE - TL TEE
8- SWING CHECK VALVE TO PREVENT LATERAL LINE DRAINAGE TO LOWER PLANTED COURSE.
9- NETAFIM 17MM TECHLINE - TLCV 4-12
10-NETAFIM MANUAL FLUSH VALVE- TLSOV
11- JUTE NET STAPLE
12-#4 REBAR J-HOOK DRIVEN INTO STRUCTURAL BACK FILL-SEE OTHER DETAIL DRAWINGS
13-RECYCLED WATER WARNING DECAL- CHRISTY'S #5100 OR EQUAL
14-OFF-SET FROM TOE OF MSE WALL - NO TRENCHING
15-IRRIGATED 2:1 SLOPE- SEE OTHER DETAILS AND PLAN SHEETS.
16-COMPACTED OR UNDISTURBED SUB-GRADE
17-STRUCTURAL WALL BACKFILL AND GEO GRID -SEE CIVIL AND/OR STRUCTURAL ENG. DRAWINGS

NOTE:
A. POLYETHYLENE DRIP LINE SHALL BE ROUTED ALONG PLANTED COURSE THROUGH SPECIFIC IRRIGATION NOTCH OF EACH PLANTED CELL.
B. USE CAUTION WHEN SECURING DRIP-LINE WITH STAPLES. DRIP-LINE SHALL NOT BE OBSTRUCTED OR KINKED, STRETCHED OR OTHERWISE STRESSED. COORDINATE WITH PROPER ONSITE PERSONNEL TO ENSURE FLOW IS NOT DISRUPTED IN ANY WAY. SEE NETAFIM PRODUCT LITERATURE FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

NOTE:
C. END FLUSH SHALL BE A MANUAL VALVE LOCATED TO ALLOW ACCESS BY MAINTENANCE PERSONNEL WITHOUT CLIMBING WALL. FLUSH VALVE SHALL BE AT END OF SINGLE DRIP LATERAL OR ON A DOUBLE LATERAL MANIFOLD.
D. SWING CHECK VALVE TO PREVENT SYSTEM DRAINAGE TO LOWER ELEVATION LATERALS TO BE INSTALLED ON PVC SUB-MAIN AT APPROXIMATELY EVERY OTHER DRIP LATERAL CONNECTION. EVERY PAIR OF DRIP LATERALS SEPARATED BY A CHECK VALVE WILL ALSO BE SEPARATED AT THE FLUSH MANIFOLD. SEE IRRIGATION PLANTED WALL DETAILS.
E. SEE CIVIL AND/OR STRUCTURAL DRAWINGS FOR SPECIFIC CONDITIONS REGARDING THE MSE WALL, BACKFILL, BENCH AND DRAINAGE.
F. AT NO TIME WILL INSTALLATION OF PRESSURE MAINLINE BE ALLOWED AT OR NEAR THE TOP OF MSE WALL.
G. EXCEPT AS NOTED FOR THE REBAR STAKES, AT NO TIME WILL THE LANDSCAPE AND/OR IRRIGATION CONTRACTOR WORK WITHIN OR DISTURB THE STRUCTURAL COMPONENTS OF THE MSE WALL.
H. ALL TUBING TO INSERT FITTING CONNECTION SHALL BE REINFORCED WITH A OTIKER STAINLESS STEEL HOSE CLAMP APPROPRIATE FOR NETAFIM BIOLINE.
I. RECYCLED WATER WARNING DECAL ATTACHED TO PIPE AT 10' O.C. MINIMUM.

K2 DRIP SYSTEM TO TUBING ON MSE WALL. SUB-GRADE INSTALLATION SUB-MAIN
SECTION - NO SCALE

DETAIL DRAWINGS SPECIFIC TO THE HOA MAINTAINED MSE WALLS

PC PRESSURE REQUIREMENT AND FRICTION LOSS CALCULATIONS FOR HIGHEST FLOW CFD SYSTEMS

CALCULATED SURPLUS PRESSURE BASED UPON REGULATED PRESSURE AT POC SHOWS A LOWER VALUE THEN THAT CALCULATED FROM THE TRUE AVAILABLE PRESSURE.

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No.2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT
REGIST. EXP.

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — CALIFORNIA — 9/30/23 — Renew 5/23/22

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	⚠ 23 MAY '22
SCALE:	NO SCALE
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	⚠ ADDED WATER CALCS. FOR NEW METER 13C.	5/23/22	
Inspector			⚠ ADDED WATER CALCS. FOR METERS 9G & R20'.		
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD., ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (FT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N / A; Vertical N / A
Office ____ Field ____ Traffic ____
Designed By ____ Drawn By ____ Checked By ____
Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date ____ / ____ / ____
R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: ____ Date: ____
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION WATER PRESSURE CALCULATIONS AND SCHEDULING GUIDELINES FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 48
Sheet 48 of 88

⚠ REPLACEMENT SHEET

LRWS# 2016-625
Print Date: 23 MAY '22
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

VILLAGE 3 EROSION CONTROL
CONTROLLER "SC" STATION "17" @ 65 - HIGHEST FLOW

HYDRAULIC GRADIENT					680.00 FT.
ELEVATION AT P.O.C.					215.00 FT.
PRESSURE AVAILABLE AT P.O.C.					201.35 PSI
REGULATED PRESSURE					80.00 PSI
	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	65	2"	30	2.97	0.89 PSI
METER	65	2"			3.20 PSI
WYE STRAINER	65	2"			0.10 PSI
PRESSURE REGULATOR	65	2"			1.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	65	2"			0.85 PSI
FLOW SENSOR	65	2"			0.30 PSI
MCV	65	2"			1.70 PSI
MAINLINE TRUNK	65	3"	10	0.50	0.05 PSI
MAINLINE TRUNK	65	2-1/2"	665	1.31	8.71 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	65	2"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					22.51 PSI
+10% FOR FITTINGS					2.25 PSI
TOTAL LOSSES					24.76 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-55.00 FT.
PRESSURE DIFFERENTIAL					23.82 PSI
REQUIRED					45.94 PSI
SURPLUS PRESSURE	74%				34.06 PSI

VILLAGE 3 EROSION CONTROL - HIGHEST FLOW
CONTROLLER "SA1" STATION "X" @ XX GPM

HYDRAULIC GRADIENT					680.00 FT.
ELEVATION AT P.O.C.					158.00 FT.
PRESSURE AVAILABLE AT P.O.C.					226.03 PSI
REGULATED PRESSURE					160.00 PSI
	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	56	2"	30	2.20	0.66 PSI
METER	56	1-1/2"			2.30 PSI
WYE STRAINER	56	1-1/2"			0.50 PSI
PRESSURE REGULATOR	56	1-1/2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	56	1-1/2"			0.52 PSI
FLOW SENSOR	56	1-1/2"			0.50 PSI
MCV	56	1-1/2"			3.53 PSI
MAINLINE TRUNK	56	3"	463	0.37	1.71 PSI
MAINLINE TRUNK	56	2-1/2"	0	0.00	0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	3"			0.40 PSI
RCV SINGLE STATION	56	1-1/2"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					16.02 PSI
+10% FOR FITTINGS					1.60 PSI
TOTAL LOSSES					17.62 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					12.00 FT.
PRESSURE DIFFERENTIAL					-5.20 PSI
REQUIRED					67.82 PSI
SURPLUS PRESSURE	136%				92.18 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SI" STATION "15" @ 60 GPM

HYDRAULIC GRADIENT					680.00 FT.
ELEVATION AT P.O.C.					158.00 FT.
PRESSURE AVAILABLE AT P.O.C.					226.03 PSI
REGULATED PRESSURE					95.00 PSI
	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	60	2"	30	2.85	0.86 PSI
METER	60	2"			2.70 PSI
WYE STRAINER	60	2"			0.50 PSI
PRESSURE REGULATOR	60	2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	60	3"			0.61 PSI
FLOW SENSOR	60	2"			0.50 PSI
MCV	60	2"			3.84 PSI
MAINLINE TRUNK	60	3"	1140	0.43	4.90 PSI
MAINLINE TRUNK	60	2-1/2"			0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	60	2"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					20.21 PSI
+10% FOR FITTINGS					2.02 PSI
TOTAL LOSSES					22.23 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					37.00 FT.
PRESSURE DIFFERENTIAL					-16.02 PSI
REQUIRED					83.25 PSI
SURPLUS PRESSURE	14%				11.75 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SH" STATION "6" @ 56 GPM

HYDRAULIC GRADIENT					680.00 FT.
ELEVATION AT P.O.C.					335.00 FT.
PRESSURE AVAILABLE AT P.O.C.					149.39 PSI
REGULATED PRESSURE					60.00 PSI
	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	56	2"	10	2.45	0.25 PSI
METER	56	2"			2.30 PSI
WYE STRAINER	56	2"			0.01 PSI
PRESSURE REGULATOR	56	2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	56	2"			0.38 PSI
FLOW SENSOR	56	2"			0.50 PSI
MCV	56	2"			1.50 PSI
MAINLINE TRUNK	56	3"	690	0.39	2.69 PSI
MAINLINE TRUNK	56	2-1/2"			0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	56	1-1/2"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					13.93 PSI
+10% FOR FITTINGS					1.39 PSI
TOTAL LOSSES					15.32 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-35.00 FT.
PRESSURE DIFFERENTIAL					15.16 PSI
REQUIRED					45.17 PSI
SURPLUS PRESSURE	33%				14.83 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SG" STATION "22" @ 59 GPM

HYDRAULIC GRADIENT					680.00 FT.
ELEVATION AT P.O.C.					335.00 FT.
PRESSURE AVAILABLE AT P.O.C.					149.39 PSI
REGULATED PRESSURE					90.00 PSI
	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	59	2"	35	2.84	0.99 PSI
METER	59	2"			2.70 PSI
WYE STRAINER	59	2"			0.25 PSI
PRESSURE REGULATOR	59	2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	59	2-1/2"			0.59 PSI
FLOW SENSOR	59	2"			0.50 PSI
MCV	59	2			1.50 PSI
MAINLINE TRUNK	59	3"	120	0.43	0.52 PSI
MAINLINE TRUNK	59	2-1/2"		0.21	0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	59	1-1/2"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					13.35 PSI
+10% FOR FITTINGS					1.34 PSI
TOTAL LOSSES					14.69 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					1.00 FT.
PRESSURE DIFFERENTIAL					-0.43 PSI
REQUIRED					60.12 PSI
SURPLUS PRESSURE	50%				29.88 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SE" STATION "8" @ 64 GPM

HYDRAULIC GRADIENT					680.00 FT.
ELEVATION AT P.O.C.					380.00 FT.
PRESSURE AVAILABLE AT P.O.C.					129.90 PSI
REGULATED PRESSURE					90.00 PSI
	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	64	2"	80	3.19	2.48 PSI
METER	64	1-1/2"			8.10 PSI
WYE STRAINER	64	1-1/2"			0.25 PSI
PRESSURE REGULATOR	64	1-1/2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	64	1-1/2"			1.62 PSI
FLOW SENSOR	64	1-1/2"			0.50 PSI
MCV	64	1-1/2"			4.00 PSI
MAINLINE TRUNK	64	2-1/2"	450	1.31	5.90 PSI
MAINLINE TRUNK	64	3"			0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	64	2"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					28.05 PSI
+10% FOR FITTINGS					2.80 PSI
TOTAL LOSSES					30.85 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					2.00 FT.
PRESSURE DIFFERENTIAL					-0.87 PSI
REQUIRED					76.72 PSI
SURPLUS PRESSURE	17%				13.28 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SD" STATION "28" @ 56 GPM

HYDRAULIC GRADIENT					680.00 FT.
ELEVATION AT P.O.C.					325.00 FT.
PRESSURE AVAILABLE AT P.O.C.					153.72 PSI
REGULATED PRESSURE					85.00 PSI
	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	56	2"	35	2.44	0.85 PSI
METER	56	1-1/2"			6.20 PSI
WYE STRAINER	56	1-1/2"			1.80 PSI
PRESSURE REGULATOR	56	1-1/2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	56	1-1/2"			1.33 PSI
FLOW SENSOR	56	1-1/2"			0.50 PSI
MCV	56	1-1/2"			7.00 PSI
MAINLINE TRUNK	56	2"			0.00 PSI
MAINLINE TRUNK	56	2-1/2"	165	0.96	1.58 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	56	2"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					24.47 PSI
+10% FOR FITTINGS					2.45 PSI
TOTAL LOSSES					26.91 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					10.00 FT.
PRESSURE DIFFERENTIAL					-4.33 PSI
REQUIRED					76.24 PSI
SURPLUS PRESSURE	11%				8.76 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SB" STATION "16" @ 32 GPM

HYDRAULIC GRADIENT					680.00 FT.
ELEVATION AT P.O.C.					173.00 FT.
PRESSURE AVAILABLE AT P.O.C.					219.53 PSI
REGULATED PRESSURE					100.00 PSI
	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	32	2"	35	0.84	0.29 PSI
METER	32	1-1/2"			2.10 PSI
WYE STRAINER	32	1-1/2"			0.00 PSI
PRESSURE REGULATOR	32	1-1/2"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	32	1-1/2"			1.11 PSI
FLOW SENSOR	32	1-1/2"			2.50 PSI
MCV	32	1-1/2"			2.50 PSI
MAINLINE TRUNK	32	2-1/2"	858	0.42	3.60 PSI
MAINLINE TRUNK	32	3"			0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	32	1-1/2"			2.30 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					22.81 PSI
+10% FOR FITTINGS					2.28 PSI
TOTAL LOSSES					25.09 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					27.00 FT.
PRESSURE DIFFERENTIAL					-11.69 PSI
REQUIRED					61.78 PSI
SURPLUS PRESSURE	22%				18.22 PSI

VILLAGE 3 EROSION CONTROL - HIGHEST FLOW
CONTROLLER "SA2" STATION "23" @ 56 GPM

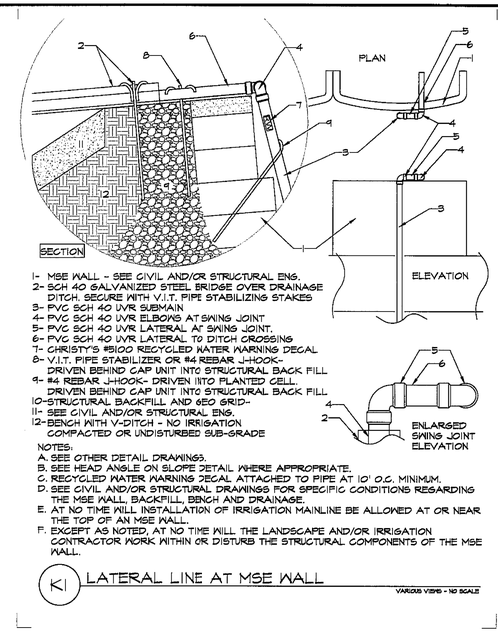
HYDRAULIC GRADIENT					680.00 FT.
ELEVATION AT P.O.C.					158.00 FT.
PRESSURE AVAILABLE AT P.O.C.					226.03 PSI
REGULATED PRESSURE					100.00 PSI
	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	56	2"	30	2.20	0.66 PSI
METER	56	1-1/2"			6.20 PSI
WYE STRAINER	56	1-1/2"			0.50 PSI
PRESSURE REGULATOR	56	1-1/2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	56	1-1/2"			1.10 PSI
FLOW SENSOR	56	1-1/2"			0.50 PSI
MCV	56	2"			3.53 PSI
MAINLINE TRUNK	56	3"			0.00 PSI
MAINLINE TRUNK	56	2-1/2"	463	0.98	4.54 PSI
ISOLATION VALVES (4 VALVES)	VAR	3"			0.40 PSI
RCV SINGLE STATION	56	1-1/2"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					23.33 PSI
+10% FOR FITTINGS					2.33 PSI
TOTAL LOSSES					25.66 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					12.00 FT.
PRESSURE DIFFERENTIAL					-5.20 PSI
REQUIRED					75.86 PSI
SURPLUS PRESSURE	32%				24.14 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SB2" STATION "12" @ 12

HYDRAULIC GRADIENT					680.00 FT.
ELEVATION AT P.O.C.					255.00 FT.
PRESSURE AVAILABLE AT P.O.C.					184.03 PSI
REGULATED PRESSURE					100.00 PSI
	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	12	2"	35	0.14	0.05 PSI
METER	12	1-1/5"			0.00 PSI
WYE STRAINER	12	1-1/5"			1.60 PSI
PRESSURE REGULATOR	12	1-1/5"			13.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	12	1-1/5"			2.20 PSI
FLOW SENSOR	12	1-1/5"			5.00 PSI
MCV	12	1-1/5"			7.88 PSI
MAINLINE TRUNK	12	2"	250	0.14	0.35 PSI
MAINLINE TRUNK	12	2-1/2"	423	0.06	0.25 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	12	1"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					35.53 PSI
+10% FOR FITTINGS					3.55 PSI
TOTAL LOSSES					39.08 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					15.00 FT.
PRESSURE DIFFERENTIAL					-6.50 PSI
REQUIRED					90.58 PSI
SURPLUS PRESSURE	10%				9.42 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "I-3C" STATION "1" @ 21 GPM

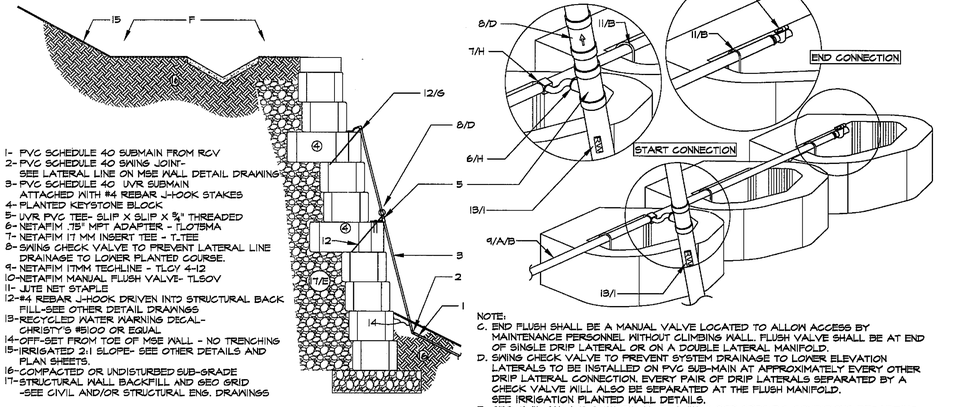
HYDRAULIC GRADIENT					680.00 FT.
ELEVATION AT P.O.C.					375.00 FT.
PRESSURE AVAILABLE AT P.O.C.					132.07 PSI
REGULATED PRESSURE					80.00 PSI
	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	21	2"	28	0.71	0.20 PSI
METER	21	1.5"			2.50 PSI
WYE STRAINER	21	1.5"			1.00 PSI
PRESSURE REGULATOR	21	1.5"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	21	1.5"			1.30 PSI
FLOW SENSOR	21	1.5"			0.50 PSI
MCV	21	1.5"			3.10 PSI
MAINLINE TRUNK	21	2"	200	0.71	1.42 PSI
MAINLINE TRUNK					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	21	1.5"			3.10 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					21.52 PSI
+10% FOR FITTINGS					2.15 PSI
TOTAL LOSSES					23.68 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					4.00 FT.
PRESSURE DIFFERENTIAL					-1.73 PSI
REQUIRED					65.41 PSI
SURPLUS PRESSURE	22%				14.59 PSI



1- MSE WALL - SEE CIVIL AND/OR STRUCTURAL ENG.
2- SCH 40 GALVANIZED STEEL BRIDGE OVER DRAINAGE DITCH. SECURE WITH V.I.T. PIPE STABILIZING STAKES
3- PVC SCH 40 UVR SUBMAIN
4- PVC SCH 40 UVR ELBOWS AT SWING JOINT
5- PVC SCH 40 UVR LATERAL AT SWING JOINT.
6- PVC SCH 40 UVR LATERAL TO DITCH CROSSING
7- CHRISTY'S #3100 RECYCLED WATER WARNING DECAL
8- V.I.T. PIPE STABILIZER OR #4 REBAR J-HOOK- DRIVEN BEHIND CAP UNIT INTO STRUCTURAL BACK FILL
9- #4 REBAR J-HOOK- DRIVEN INTO PLANTED CELL. DRIVEN BEHIND CAP UNIT INTO STRUCTURAL BACK FILL
10- STRUCTURAL BACKFILL AND GEO GRID-
11- SEE CIVIL AND/OR STRUCTURAL ENG.
12- BENCH WITH V-DITCH - NO IRRIGATION COMPACTED OR UNDISTURBED SUB-GRADE

NOTES:
A. SEE OTHER DETAIL DRAWINGS.
B. SEE HEAD ANGLE ON SLOPE DETAIL WHERE APPROPRIATE.
C. RECYCLED WATER WARNING DECAL ATTACHED TO PIPE AT 10' O.C. MINIMUM.
D. SEE CIVIL AND/OR STRUCTURAL DRAWINGS FOR SPECIFIC CONDITIONS REGARDING THE MSE WALL, BACKFILL, BENCH AND DRAINAGE.
E. AT NO TIME WILL INSTALLATION OF IRRIGATION MAINLINE BE ALLOWED AT OR NEAR THE TOP OF AN MSE WALL.
F. EXCEPT AS NOTED, AT NO TIME WILL THE LANDSCAPE AND/OR IRRIGATION CONTRACTOR WORK WITHIN OR DISTURB THE STRUCTURAL COMPONENTS OF THE MSE WALL.

K1 LATERAL LINE AT MSE WALL
VARIOUS VIEWS - NO SCALE



1- PVC SCHEDULE 40 SUBMAIN FROM RCV
2- PVC SCHEDULE 40 SWING JOINT- SEE LATERAL LINE ON MSE WALL DETAIL DRAWING
3- PVC SCHEDULE 40 UVR SUBMAIN ATTACHED WITH #4 REBAR J-HOOK STAKES
4- PLANTED KEYSTONE BLOCK
5- UVR PVC TEE- SLIP X SLIP X ¾" THREADED
6- NETAFIM ¾" NPT ADAPTER - TLOTSMA
7- NETAFIM 17 MM INSERT TEE - T_TEE
8- SWING CHECK VALVE TO PREVENT LATERAL LINE DRAINAGE TO LOWER PLANTED COURSE.
9- NETAFIM 17MM TECHLINE - TLCV 4-12
10- NETAFIM MANUAL FLUSH VALVE- TLSOV
11- JUTE NET STAPLE
12- #4 REBAR J-HOOK DRIVEN INTO STRUCTURAL BACK FILL-SEE OTHER DETAIL DRAWINGS
13- RECYCLED WATER WARNING DECAL- CHRISTY'S #5100 OR EQUAL
14- OFF-SET FROM TOE OF MSE WALL - NO TRENCHING
15- IRRIGATED 2:1 SLOPE- SEE OTHER DETAILS AND PLAN SHEETS.
16- COMPACTED OR UNDISTURBED SUB-GRADE
17- STRUCTURAL WALL BACKFILL AND GEO GRID -SEE CIVIL AND/OR STRUCTURAL ENG. DRAWINGS

NOTE:
A. POLYETHYLENE DRIP LINE SHALL BE ROUTED ALONG PLANTED COURSE THROUGH SPECIFIC IRRIGATION NOTCH OF EACH PLANTED CELL.
B. USE CAUTION WHEN SECURING DRIP-LINE WITH STAPLES. DRIP-LINE SHALL NOT BE OBSTRUCTED OR KINKED, STRETCHED OR OTHERWISE STRESSED. COORDINATE WITH PROPER ONSITE PERSONNEL TO ENSURE FLOW IS NOT DISRUPTED IN ANY WAY. SEE NETAFIM 'PRODUC' LITERATURE FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

NOTE:
C. END FLUSH SHALL BE A MANUAL VALVE LOCATED TO ALLOW ACCESS BY MAINTENANCE PERSONNEL WITHOUT CLIMBING WALL. FLUSH VALVE SHALL BE AT END OF SINGLE DRIP LATERAL OR ON A DOUBLE LATERAL MANIFOLD.
D. SWING CHECK VALVE TO PREVENT SYSTEM DRAINAGE TO LOWER ELEVATION LATERALS TO BE INSTALLED ON PVC SUB-MAIN AT APPROXIMATELY EVERY OTHER DRIP LATERAL CONNECTION. EVERY PAIR OF DRIP LATERALS SEPARATED BY A CHECK VALVE WILL ALSO BE SEPARATED AT THE FLUSH MANIFOLD. SEE IRRIGATION PLANTED WALL DETAILS.
E. SEE CIVIL AND/OR STRUCTURAL DRAWINGS FOR SPECIFIC CONDITIONS REGARDING THE MSE WALL, BACKFILL, BENCH AND DRAINAGE.
F. AT NO TIME WILL INSTALLATION OF PRESSURE MAINLINE BE ALLOWED AT OR NEAR THE TOP OF MSE WALL.
G. EXCEPT AS NOTED FOR THE REBAR STAKES, AT NO TIME WILL THE LANDSCAPE AND/OR IRRIGATION CONTRACTOR WORK WITHIN OR DISTURB THE STRUCTURAL COMPONENTS OF THE MSE WALL.
H. ALL TUBING TO INSERT FITTING CONNECTION SHALL BE REINFORCED WITH A OTIKER STAINLESS STEEL HOSE CLAMP APPROPRIATE FOR NETAFIM BIOLINE.
I. RECYCLED WATER WARNING DECAL ATTACHED TO PIPE AT 10' O.C. MINIMUM.

K2 DRIP SYSTEM TO TUBING ON MSE WALL. SUB-GRADE INSTALLATION SUB-MAIN
SECTION - NO SCALE

DETAIL DRAWINGS SPECIFIC TO THE HOA MAINTAINED MSE WALLS

PC PRESSURE REQUIREMENT AND FRICTION LOSS CALCULATIONS FOR HIGHEST FLOW CFD SYSTEMS

CALCULATED SURPLUS PRESSURE BASED UPON REGULATED PRESSURE AT POC SHOWS A LOWER VALUE THEN THAT CALCULATED FROM THE TRUE AVAILABLE PRESSURE.

OTAY WATER DISTRICT
Project No. D0944-060189
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE: 5/10/19
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: THOMAS PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/19

IT'S THE LAW! DIAL BEFORE YOU DIG! CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING 1-800-227-2600 UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 9/30/19 CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE: 26 MAR '19
SCALE: NO SCALE
JOB NO. 15024
DRAWN BY: T.P. / T.G.
W.O. NO. OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	1 ADDED WATER CALCS. FOR NEW METER.	5-22-19	
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE
LOCATION: 1.2 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (ITM 1359 PER R.O.S. 14141) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A; Vertical N/A
Office ____ Field ____ Traffic ____
Designed By ____ Drawn By ____ Checked By ____
Plans Prepared Under Supervision Of
THOMAS A. PICARD Date 5/20/19 R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: Mark A. Cano Date: 5-22-19
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION WATER PRESSURE CALCULATIONS AND SCHEDULING GUIDELINES FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 48
Sheet 48 of 88

REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014

LI-38

Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
Print Date: 26 MAR '19

VILLAGE 3 EROSION CONTROL
CONTROLLER "SC" STATION "4" @ 58 - FARTHEST STATION

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	215.00 FT.
PRESSURE AVAILABLE AT P.O.C.	201.35 PSI
REGULATED PRESSURE	100.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	58	2"	30	2.40	0.72 PSI
METER	58	2"			2.50 PSI
WYE STRAINER	58	2"			0.10 PSI
PRESSURE REGULATOR	58	2"			1.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	58	2"			0.72 PSI
FLOW SENSOR	58	2"			0.30 PSI
MCV	58	2"			1.70 PSI
MAINLINE TRUNK	58	3"	10	0.41	0.04 PSI
MAINLINE TRUNK	58	2-1/2"	697	1.00	6.97 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	58	2"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					19.75 PSI
+10% FOR FITTINGS					1.98 PSI
TOTAL LOSSES					21.73 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					55.00 FT.
PRESSURE DIFFERENTIAL					-23.82 PSI
REQUIRED					90.54 PSI
SURPLUS PRESSURE	10%				9.46 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SG" STATION "4" @ 28 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	335.00 FT.
PRESSURE AVAILABLE AT P.O.C.	149.39 PSI
REGULATED PRESSURE	90.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	28	2"	35	0.69	0.24 PSI
METER	28	2"			0.00 PSI
WYE STRAINER	28	2"			0.25 PSI
PRESSURE REGULATOR	28	2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	28	2-1/2"			0.07 PSI
FLOW SENSOR	28	2"			0.50 PSI
MCV	28	2			1.50 PSI
MAINLINE TRUNK	28	3"	2800	0.11	3.08 PSI
MAINLINE TRUNK	28	2-1/2"		0.00	0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	28	1-1/2"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					11.95 PSI
+10% FOR FITTINGS					1.19 PSI
TOTAL LOSSES					13.14 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					35.00 FT.
PRESSURE DIFFERENTIAL					-15.16 PSI
REQUIRED					73.29 PSI
SURPLUS PRESSURE	23%				16.71 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SB2" STATION "3" @ 39

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	255.00 FT.
PRESSURE AVAILABLE AT P.O.C.	184.03 PSI
REGULATED PRESSURE	80.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	39	2"	35	1.33	0.47 PSI
METER	39	1-1/5"			3.30 PSI
WYE STRAINER	39	1-1/5"			1.60 PSI
PRESSURE REGULATOR	39	1-1/5"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	39	1-1/5"			1.55 PSI
FLOW SENSOR	39	1-1/5"			5.00 PSI
MCV	39	1-1/5"			7.88 PSI
MAINLINE TRUNK	39	2-1/2"	825	0.53	4.37 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	39	1-1/2"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					34.37 PSI
+10% FOR FITTINGS					3.44 PSI
TOTAL LOSSES					37.81 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-35.00 FT.
PRESSURE DIFFERENTIAL					15.16 PSI
REQUIRED					67.66 PSI
SURPLUS PRESSURE	18%				12.34 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "I-3a" STATION "2" @ 19 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	345.00 FT.
PRESSURE AVAILABLE AT P.O.C.	145.06 PSI
REGULATED PRESSURE	65.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	19	2"	80	0.14	0.11 PSI
METER	19	1.5"			0.50 PSI
WYE STRAINER	19	1.5"			1.00 PSI
PRESSURE REGULATOR	19	1.5"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	19	1.5"			0.99 PSI
FLOW SENSOR	19	1.5"			0.50 PSI
MCV	19	1.5"			3.50 PSI
MAINLINE TRUNK	19	2"	260	0.14	0.36 PSI
MAINLINE TRUNK					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	19	1"			3.50 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					18.87 PSI
+10% FOR FITTINGS					1.89 PSI
TOTAL LOSSES					20.75 PSI
OPERATION					30.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					0.00 FT.
PRESSURE DIFFERENTIAL					0.00 PSI
REQUIRED					50.75 PSI
SURPLUS PRESSURE	28%				14.25 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "MU2" STATION "3" @ 35 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	370.00 FT.
PRESSURE AVAILABLE AT P.O.C.	134.23 PSI
REGULATED PRESSURE	80.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	35	2"	28	0.71	0.20 PSI
METER	35	1.5"			2.50 PSI
WYE STRAINER	35	1.5"			1.00 PSI
PRESSURE REGULATOR	35	1.5"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	35	1.5"			1.30 PSI
FLOW SENSOR	35	1.5"			0.50 PSI
MCV	35	1.5"			3.10 PSI
MAINLINE TRUNK	35	2"	200	0.71	1.42 PSI
MAINLINE TRUNK					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	35	1.5"			3.10 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					21.52 PSI
+10% FOR FITTINGS					2.15 PSI
TOTAL LOSSES					23.68 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					3.00 FT.
PRESSURE DIFFERENTIAL					-1.30 PSI
REQUIRED					64.97 PSI
SURPLUS PRESSURE	23%				15.03 PSI

VILLAGE 3 EROSION CONTROL - FARTHEST STATION HIGHEST ELE
CONTROLLER "SA2" STATION "1" @ 22 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	158.00 FT.
PRESSURE AVAILABLE AT P.O.C.	226.03 PSI
REGULATED PRESSURE	110.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	22	2"	30	0.44	0.13 PSI
METER	22	1-1/2"			2.00 PSI
WYE STRAINER	22	1-1/2"			0.50 PSI
PRESSURE REGULATOR	22	1-1/2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	22	1-1/2"			0.39 PSI
FLOW SENSOR	22	1-1/2"			0.50 PSI
MCV	22	2"			0.50 PSI
MAINLINE TRUNK	22	3"	0	0.08	0.00 PSI
MAINLINE TRUNK	22	2-1/2"	1880	0.18	3.38 PSI
ISOLATION VALVES (4 VALVES)	VAR	3"			0.40 PSI
RCV SINGLE STATION	22	1-1/2"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					13.71 PSI
+10% FOR FITTINGS					1.37 PSI
TOTAL LOSSES					15.08 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					100.00 FT.
PRESSURE DIFFERENTIAL					-43.30 PSI
REQUIRED					103.38 PSI
SURPLUS PRESSURE	6%				6.62 PSI

VILLAGE 3 EROSION CONTROL - FARTHEST STATION HIGHEST ELE
CONTROLLER "SA1" STATION "4" @ 31 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	335.00 FT.
PRESSURE AVAILABLE AT P.O.C.	149.39 PSI
REGULATED PRESSURE	90.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	31	2"	30	0.81	0.24 PSI
METER	31	1-1/2"			2.00 PSI
WYE STRAINER	31	1-1/2"			0.50 PSI
PRESSURE REGULATOR	31	1-1/2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	31	1-1/2"			0.41 PSI
FLOW SENSOR	31	1-1/2"			0.50 PSI
MCV	31	1-1/2"			0.50 PSI
MAINLINE TRUNK	31	3"	0	0.08	0.00 PSI
MAINLINE TRUNK	31	2-1/2"	1610	0.33	5.31 PSI
ISOLATION VALVES (4 VALVES)	VAR	3"			0.40 PSI
RCV SINGLE STATION	31	1-1/2"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					15.77 PSI
+10% FOR FITTINGS					1.58 PSI
TOTAL LOSSES					17.34 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-57.00 FT.
PRESSURE DIFFERENTIAL					24.68 PSI
REQUIRED					37.66 PSI
SURPLUS PRESSURE	139%				52.34 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SE" STATION "18" @ 39 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	380.00 FT.
PRESSURE AVAILABLE AT P.O.C.	129.90 PSI
REGULATED PRESSURE	90.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	39	2"	80	1.34	1.07 PSI
METER	39	1-1/2"			3.30 PSI
WYE STRAINER	39	1-1/2"			0.25 PSI
PRESSURE REGULATOR	39	1-1/2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	39	1-1/2"			0.69 PSI
FLOW SENSOR	39	1-1/2"			0.50 PSI
MCV	39	1-1/2"			4.00 PSI
MAINLINE TRUNK	39	2-1/2"	777	0.53	4.12 PSI
MAINLINE TRUNK	39	3"			0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	39	1-1/2"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					19.13 PSI
+10% FOR FITTINGS					1.91 PSI
TOTAL LOSSES					21.05 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					20.00 FT.
PRESSURE DIFFERENTIAL					-8.66 PSI
REQUIRED					74.71 PSI
SURPLUS PRESSURE	20%				15.29 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "I-1a" STATION "1" @ 31 GPM

NOT A PART – REFER TO LANDSCAPE & IRRIGATION PLANS BY RIDGE LANDSCAPE ARCHITECTURE.

OWD# D1019–060288
DEH# DEH2021–LRWS–001351
CV WO# GR210042

VILLAGE 3 EROSION CONTROL
CONTROLLER "R-16" STATION "10" @ 41 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	338.00 FT.
PRESSURE AVAILABLE AT P.O.C.	148.09 PSI
REGULATED PRESSURE	70.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	41	2"	35	1.34	0.47 PSI
METER	41	1.5"			3.40 PSI
WYE STRAINER	41	1.5"			1.00 PSI
PRESSURE REGULATOR	41	1.5"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	41	1.5"			1.48 PSI
FLOW SENSOR	41	1.5"			0.50 PSI
MCV	41	1.5"			1.30 PSI
MAINLINE TRUNK	41	2"	380	1.34	5.09 PSI
MAINLINE LOOP					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	41	1.5"			1.30 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					22.94 PSI
+10% FOR FITTINGS					2.29 PSI
TOTAL LOSSES					25.24 PSI
OPERATION					30.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					0.00 FT.
PRESSURE DIFFERENTIAL					0.00 PSI
REQUIRED					55.24 PSI
SURPLUS PRESSURE	27%				14.76 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "O-1" STATION "1" @ 33 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	375.00 FT.
PRESSURE AVAILABLE AT P.O.C.	132.07 PSI
REGULATED PRESSURE	86.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	33	2"	20	0.68	0.14 PSI
METER	33	1.5"			2.30 PSI
WYE STRAINER	33	1.5"			1.30 PSI
PRESSURE REGULATOR	33	1.5"			4.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	33	1.5"			1.24 PSI
FLOW SENSOR	33	1.5"			5.50 PSI
MCV	33	1.5"			3.10 PSI
MAINLINE TRUNK	33	2"	350	0.68	2.38 PSI
MAINLINE TRUNK					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	33	1.5"			3.10 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					26.95 PSI
+10% FOR FITTINGS					2.70 PSI
TOTAL LOSSES					29.65 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					2.00 FT.
PRESSURE DIFFERENTIAL					-0.87 PSI
REQUIRED					70.51 PSI
SURPLUS PRESSURE	22%				15.49 PSI

VILLAGE 3 SOUTH EROSION CONTROL
TYPICAL PRIVATE SLOPE @ 7 GPM

HYDRAULIC GRADIENT	711.00 FT.
ELEVATION AT P.O.C.	415.00 FT.
PRESSURE AVAILABLE AT P.O.C.	128.17 PSI
REGULATED PRESSURE	50.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	7	2"	35	0.05	0.02 PSI
METER	7	5/8"			1.80 PSI
BALL VALVE	7	1"			1.50 PSI
PRESSURE REGULATING VALVE	7	1"			1.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	7	1"			0.72 PSI
MAINLINE TRUNK	7	1 1/4"	105	0.05	0.05 PSI
AVB	7	1"			1.00 PSI
RCV SINGLE STATION	7	1"			1.00 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					10.59 PSI
+10% FOR FITTINGS					1.06 PSI
TOTAL LOSSES					11.65 PSI
OPERATION					30.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					2.00 FT.
PRESSURE DIFFERENTIAL					-0.87 PSI
REQUIRED					42.52 PSI
SURPLUS PRESSURE	18%				7.48 PSI

VILLAGE 3 EROSION CONTROL - FARTHEST STATION HIGHEST ELE
CONTROLLER "SI" STATION "1" @ 33 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	158.00 FT.
PRESSURE AVAILABLE AT P.O.C.	226.03 PSI
REGULATED PRESSURE	140.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	33	2"	30	1.05	0.32 PSI
METER	33	2"			0.85 PSI
WYE STRAINER	33	2"			0.50 PSI
PRESSURE REGULATOR	33	2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	33	2"			0.25 PSI
FLOW SENSOR	33	2"			0.50 PSI
MCV	33	2"			3.84 PSI
MAINLINE TRUNK	33	3"	1775	0.14	2.49 PSI
MAINLINE TRUNK	33	2-1/2"	757	0.38	2.88 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	33	1-1/5"			2.90 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					17.92 PSI
+10% FOR FITTINGS					1.79 PSI
TOTAL LOSSES					19.71 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					92.00 FT.
PRESSURE DIFFERENTIAL					-39.84 PSI
REQUIRED					104.54 PSI
SURPLUS PRESSURE	34%				35.46 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SD" STATION "5" @ 24 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	325.00 FT.
PRESSURE AVAILABLE AT P.O.C.	153.72 PSI
REGULATED PRESSURE	85.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	24	2"	35	0.52	0.18 PSI
METER	24	1-1/2"			1.20 PSI
WYE STRAINER	24	1-1/2"			1.80 PSI
PRESSURE REGULATOR	24	1-1/2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	24	1-1/2"			0.48 PSI
FLOW SENSOR	24	1-1/2"			0.50 PSI
MCV	24	1-1/2"			7.00 PSI
MAINLINE TRUNK	24	2"	517	0.52	2.69 PSI
MAINLINE TRUNK	24	2-1/2"	1022	0.21	2.15 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	24	1-1/2"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					21.19 PSI
+10% FOR FITTINGS					2.12 PSI
TOTAL LOSSES					23.31 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-45.00 FT.
PRESSURE DIFFERENTIAL					19.49 PSI
REQUIRED					48.83 PSI
SURPLUS PRESSURE	74%				36.17 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "BB" STATION "13" @ 53 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	155.00 FT.
PRESSURE AVAILABLE AT P.O.C.	227.33 PSI
REGULATED PRESSURE	85.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	53	2"	95	2.20	2.09 PSI
METER	53	1-1/2"			5.50 PSI
WYE STRAINER	53	1-1/2"			1.00 PSI
PRESSURE REGULATOR	53	1-1/2"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	53	1-1/2"			2.04 PSI
FLOW SENSOR	53	1-1/2"			0.50 PSI
MCV	53	1-1/2"			1.80 PSI
MAINLINE TRUNK	53	2-1/2"	100	0.90	0.90 PSI
MAINLINE TRUNK					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	53	2"			1.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					24.03 PSI
+10% FOR FITTINGS					2.40 PSI
TOTAL LOSSES					26.43 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					5.00 FT.
PRESSURE DIFFERENTIAL					-2.17 PSI
REQUIRED					73.60 PSI
SURPLUS PRESSURE	15%				11.40 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "R-14" STATION "2" @ 48 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	370.00 FT.
PRESSURE AVAILABLE AT P.O.C.	134.23 PSI
REGULATED PRESSURE	70.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	48	2"	8	1.98	0.16 PSI
METER	48	1.5"			4.50 PSI
WYE STRAINER	48	1.5"			1.00 PSI
PRESSURE REGULATOR	48	1.5"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	48	1.5"			1.60 PSI
FLOW SENSOR	48	1.5"			0.50 PSI
MCV	48	1.5"			1.30 PSI
MAINLINE TRUNK	48	2-1/2"	720	0.78	5.62 PSI
MAINLINE TRUNK					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	48	2"			3.10 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					26.17 PSI
+10% FOR FITTINGS					2.62 PSI
TOTAL LOSSES					28.79 PSI
OPERATION					30.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					0.00 FT.
PRESSURE DIFFERENTIAL					0.00 PSI
REQUIRED					58.79 PSI
SURPLUS PRESSURE	19%				11.21 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "S-1a" STATION "4" @ 20 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	350.00 FT.
PRESSURE AVAILABLE AT P.O.C.	142.89 PSI
REGULATED PRESSURE	80.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	20	2"	20	0.25	0.05 PSI
METER	20	1.5"			0.80 PSI
WYE STRAINER	20	1.5"			1.30 PSI
PRESSURE REGULATOR	20	1.5"			4.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	20	1.5"			1.00 PSI
FLOW SENSOR	20	1.5"			5.50 PSI
MCV	20	1.5"			3.10 PSI
MAINLINE TRUNK	20	2"	740	0.25	1.85 PSI
MAINLINE TRUNK					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	20	1.5"			3.10 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					24.60 PSI
+10% FOR FITTINGS					2.46 PSI
TOTAL LOSSES					27.06 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					2.00 FT.
PRESSURE DIFFERENTIAL					-0.87 PSI
REQUIRED					67.92 PSI
SURPLUS PRESSURE	18%				12.08 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SH" STATION "25" @ 32 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	335.00 FT.
PRESSURE AVAILABLE AT P.O.C.	149.39 PSI
REGULATED PRESSURE	60.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	32	2"	10	1.02	0.10 PSI
METER	32	2"			0.80 PSI
WYE STRAINER	32	2"			0.01 PSI
PRESSURE REGULATOR	32	2"			0.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	32	2"			0.14 PSI
FLOW SENSOR	32	2"			0.50 PSI
MCV	32	2"			1.50 PSI
MAINLINE TRUNK	32	3"	1622	0.14	2.27 PSI
MAINLINE TRUNK	32	2-1/2"	970	0.36	3.49 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	32	1-1/2"			2.90 PSI
LATERALS					3.00 PSI
SUBTOTAL					15.11 PSI
+10% FOR FITTINGS					1.51 PSI
TOTAL LOSSES					16.62 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-55.00 FT.
PRESSURE DIFFERENTIAL					23.82 PSI
REQUIRED					37.81 PSI
SURPLUS PRESSURE	59%				22.19 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "SB" STATION "3" @ 28 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	173.00 FT.
PRESSURE AVAILABLE AT P.O.C.	219.53 PSI
REGULATED PRESSURE	100.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	28	2"	35	0.69	0.24 PSI
METER	28	1-1/2"			1.60 PSI
WYE STRAINER	28	1-1/2"			0.00 PSI
PRESSURE REGULATOR	28	1-1/2"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	28	1-1/2"			1.03 PSI
FLOW SENSOR	28	1-1/2"			2.50 PSI
MCV	28	1-1/2"			2.50 PSI
MAINLINE TRUNK	28	2-1/2"	660	0.27	1.78 PSI
MAINLINE TRUNK	28	3"			0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	28	1-1/2"			2.30 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					20.35 PSI
+10% FOR FITTINGS					2.03 PSI
TOTAL LOSSES					22.38 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					37.00 FT.
PRESSURE DIFFERENTIAL					-16.02 PSI
REQUIRED					83.41 PSI
SURPLUS PRESSURE	20%				16.59 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "I-2" STATION "3" @ 40 GPM

NOT A PART – REFER TO LANDSCAPE & IRRIGATION PLANS BY RIDGE LANDSCAPE ARCHITECTURE.

OWD# D1019–060288
DEH# DEH2021–LRWS–001351
CV WO# GR210042

VILLAGE 3 EROSION CONTROL
CONTROLLER "MU-1" STATION "2" @ 18 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	358.00 FT.
PRESSURE AVAILABLE AT P.O.C.	139.43 PSI
REGULATED PRESSURE	70.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	18	2"	30	0.31	0.09 PSI
METER	18	1.5"			0.60 PSI
WYE STRAINER	18	1.5"			1.00 PSI
PRESSURE REGULATOR	18	1.5"			5.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	18	1.5"			1.00 PSI
FLOW SENSOR	18	1.5"			0.50 PSI
MCV	18	1.5"			1.30 PSI
MAINLINE TRUNK	18	2"	580	0.31	1.80 PSI
MAINLINE TRUNK					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	30	1.5"			3.10 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					17.79 PSI
+10% FOR FITTINGS					1.78 PSI
TOTAL LOSSES					19.57 PSI
OPERATION					30.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					2.00 FT.
PRESSURE DIFFERENTIAL					-0.87 PSI
REQUIRED					50.44 PSI
SURPLUS PRESSURE	39%				19.56 PSI

VILLAGE 3 EROSION CONTROL
CONTROLLER "S-1b" STATION "6" @ 46 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	350.00 FT.
PRESSURE AVAILABLE AT P.O.C.	142.89 PSI
REGULATED PRESSURE	86.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	46	2"	20	1.15	0.23 PSI
METER	46	1.5"			4.20 PSI
WYE STRAINER	46	1.5"			1.30 PSI
PRESSURE REGULATOR	46	1.5"			4.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	46	1.5"			1.53 PSI
FLOW SENSOR	46	1.5"			5.50 PSI
MCV	46	1.5"			3.10 PSI
MAINLINE TRUNK	46	2.5"	210	0.46	0.97 PSI
MAINLINE TRUNK					0.00 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	46	2"			3.10 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					27.83 PSI
+10% FOR FITTINGS					2.78 PSI
TOTAL LOSSES					30.61 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					15.00 FT.
PRESSURE DIFFERENTIAL					-6.50 PSI
REQUIRED					77.11 PSI
SURPLUS PRESSURE	12%				8.89 PSI

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

PRESSURE REQUIREMENT AND FRICTION LOSS CALCULATIONS - FOR FARTHEST VALVE.

* THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
* NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
* ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

CALCULATED SURPLUS PRESSURE BASED UPON REGULATED PRESSURE AT POC SHOWS A LOWER VALUE THEN THAT CALCULATED FROM THE TRUE AVAILABLE PRESSURE.

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE: 5/10/17
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — CALIFORNIA — Renewal Date 9/30/23 — Date 5/23/22

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE:	⚠F 23 MAY '22
SCALE:	NO SCALE
JOB NO.	15024
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	⚠E ADJ. IRRIG FOR ADDED ENTRY DRIVEWAY AT INDUSTRIAL PAD.	4-20-22	
Inspector			⚠F ADJ. PRESSURE CALCS. FOR RELOCATED POC'S 'SH' & 'SI'.		
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A, Vertical N/A
Office / Field / Traffic
Designed By / Drawn By / Checked By
Plans Prepared Under Supervision Of THOMAS A. PICARD Date / / R.L.A. No. 4001
Plans Originally Approved: 5-15-17
Approved: Date:
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION SCHEDULING GUIDELINES FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 49
Sheet 49 of 88

⚠F REPLACEMENT SHEET — OWD WO# D0944-060189 — OWD PERMIT# PLR-16-014

LI-39

LRWS# 2016-625 — Print Date: 23 MAY '22 — OWD WO# D0944-060189 — Otay Ranch, Village 3 - Slope & Erosion Control

ESTIMATED WATER REQUIREMENTS USING NORMAL YEAR CIMIS DATA.
OTAY RANCH VILLAGE 3 EROSION CONTROL
CHULA VISTA,CA

WEATHER DATA AND REFERENCE REQUIRED IRRIGATION

	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
ETo; CIMIS #147 @ Otay Lakes	2.30	2.70	3.90	4.60	5.60	6.10	6.30	6.10	4.90	3.70	2.70	2.30
HISTORICAL AVERAGE PRECIPITATION	2.10	2.10	1.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50	1.00	2.10
EFFECTIVE PRECIPTATION	1.24	1.24	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.50	1.24
REFERENCE REQUIRED IRRIGATION	1.06	1.46	3.40	4.60	5.60	6.10	6.30	6.10	4.90	3.53	2.20	1.06

EVAPOTRANSPIRATION 51.20 INCHES **EFFECTIVE PRECIPITATION 4.89 INCHES** **REFERENCE REQUIRED IRRIGATION 46.31 INCHES**

BASE IRRIGATION REQUIREMENT IN INCHES PER MONTH FOR EACH ZONE

	ZONE				JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
TURF	SUN	trim	1	Cco= .80	0.85	1.17	2.72	3.68	4.48	4.88	5.04	4.88	3.92	2.83	1.76	0.85
	SHADE	trim	0.8	Cco= .80	0.68	0.93	2.17	2.94	3.58	3.90	4.03	3.90	3.14	2.26	1.41	0.68
	AT PAVING	trim	1.25	Cco= .80	1.06	1.46	3.40	4.60	5.60	6.10	6.30	6.10	4.90	3.53	2.20	1.06
SHRUB/G.C.	SUN	trim	1	Cco= .40	0.42	0.58	1.36	1.84	2.24	2.44	2.52	2.44	1.96	1.41	0.88	0.42
	SHADE	trim	0.8	Cco= .40	0.34	0.47	1.09	1.47	1.79	1.95	2.02	1.95	1.57	1.13	0.70	0.34
	AT PAVING	trim	1.25	Cco= .40	0.53	0.73	1.70	2.30	2.80	3.05	3.15	3.05	2.45	1.77	1.10	0.53

SCHEDULING GUIDELINES
ZONE WATER TIMES IN MINUTES PER DAY

HYDROZONE	Pr	IEa	Days/ Week	Station Trim	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
SHRUB / GOUND COVER-S.W. EXP.																
ROTORS TOP SLOPE SOUTH/WEST EXP.	.72	.75	5	1.00	2.20	3.03	7.05	9.54	11.61	12.65	13.07	12.65	10.16	7.33	4.56	2.20
ROTORS MID SLOPE SOUTH/WEST EXP.	.36	.75	5	1.00	4.40	6.06	14.09	19.08	23.23	25.30	26.13	25.30	20.33	14.65	9.12	4.40
ROTORS MID SLOPE SOUTH/WEST EXP.	.36	.75	5	1.00	4.40	6.06	14.09	19.08	23.23	25.30	26.13	25.30	20.33	14.65	9.12	4.40
ROTORS TOE SLOPE SOUTH/WEST EXP.	.72	.75	5	1.00	2.20	3.03	7.05	9.54	11.61	12.65	13.07	12.65	10.16	7.33	4.56	2.20
MPR STREAM BUBBLER	1.20	.75	5	1.00	1.65	2.27	5.29	7.16	8.71	9.49	9.80	9.49	7.62	5.50	3.42	1.65
SPRAY TOP SLOPE SOUTH/WEST EXP.	1.85	.75	5	1.00	0.86	1.18	2.74	3.71	4.52	4.92	5.09	4.92	3.96	2.85	1.77	0.86
SPRAY TOE SLOPE SOUTH/WEST EXP.	1.85	.75	5	1.00	0.86	1.18	2.74	3.71	4.52	4.92	5.09	4.92	3.96	2.85	1.77	0.86
SHRUB / GOUND COVER-N.E. EXP.																
ROTORS TOP SLOPE NORT/EAST EXP.	.72	.75	5	1.00	1.76	3.03	7.05	9.54	11.61	12.65	13.07	12.65	10.16	7.33	4.56	2.20
ROTORS MID SLOPE NORT/EAST EXP.	.36	.75	5	1.00	3.52	6.06	14.09	19.08	23.23	25.30	26.13	25.30	20.33	14.65	9.12	4.40
ROTORS MID SLOPE NORT/EAST EXP.	.36	.75	5	1.00	3.52	6.06	14.09	19.08	23.23	25.30	26.13	25.30	20.33	14.65	9.12	4.40
ROTORS TOE SLOPE NORT/EAST EXP.	.72	.75	5	1.00	1.76	2.42	5.64	7.63	9.29	10.12	10.45	10.12	8.13	5.86	3.65	1.76
MPR STREAM BUBBLER	1.20	.75	5	1.00	1.06	1.82	4.23	5.72	6.97	7.59	7.84	7.59	6.10	4.40	2.73	1.32
SPRAY TOP SLOPE NORT/EAST EXP.	1.85	.75	5	1.00	0.68	1.18	2.74	3.71	4.52	4.92	5.09	4.92	3.96	2.85	1.77	0.86
SPRAY TOE SLOPE NORT/EAST EXP.	1.85	.75	5	1.00	0.68	1.18	2.74	3.71	4.52	4.92	5.09	4.92	3.96	2.85	1.77	0.86

* BASIS FOR SCHEDULING

CONTROLLER "SE"
ZONE WATER TIMES IN MINUTES PER DAY — 5 DAYS PER WEEK S.W. EXP — 5 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1,9,12,18,21,26	6	ROTORS TOP SLOPE SOUTH/WEST EXP.	1.65	2.27	5.29	7.16	8.71	9.49	9.80	9.49	7.62	5.50	3.42	1.65
3,4,6,7,10,14,15,19,22,23,24,27,28,	13	ROTORS MID SLOPE SOUTH/WEST EXP.	3.30	4.54	10.57	14.31	17.42	18.98	19.60	18.98	15.24	10.99	6.84	3.30
20,31,32	3	ROTORS MID SLOPE SOUTH/WEST EXP.	3.30	4.54	10.57	14.31	17.42	18.98	19.60	18.98	15.24	10.99	6.84	3.30
2,5,8,11,25,29,30	7	ROTORS TOE SLOPE SOUTH/WEST EXP.	1.65	2.27	5.29	7.16	8.71	9.49	9.80	9.49	7.62	5.50	3.42	1.65
13,16	2	SPRAY TOP SLOPE SOUTH/WEST EXP.	0.77	1.06	2.47	3.34	4.07	4.43	4.58	4.43	3.56	2.57	1.60	0.77
17	1	SPRAY TOE SLOPE SOUTH/WEST EXP.	0.77	1.06	2.47	3.34	4.07	4.43	4.58	4.43	3.56	2.57	1.60	0.77
33,34	2	TREES SOUTH/WEST EXP.	1.04	1.43	3.33	4.51	5.49	5.98	6.18	5.98	4.81	3.47	2.16	1.04
	34	MINUTES PER DAY TURF	79	108	252	341	415	452	467	452	363	262	163	79
		HOURS PER DAY TURF	1.31	1.80	4.20	5.68	6.92	7.54	7.78	7.54	6.05	4.37	2.72	1.31
		TOTAL RUN TIME IN MINUTES PER DAY	**79**	**108**	**252**	**341**	**415**	**452**	**467**	**452**	**363**	**262**	**163**	**79**
		TOTAL RUN TIME HOURS PER DAY	**1.31**	**1.80**	**4.20**	**5.68**	**6.92**	**7.54**	**7.78**	**7.54**	**6.05**	**4.37**	**2.72**	**1.31**

CONTROLLER "SD"
ZONE WATER TIMES IN MINUTES PER DAY — 5 DAYS PER WEEK S.W. EXP — 5 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
3,5,9,14,19,24,28	7	ROTORS TOP SLOPE SOUTH/WEST EXP.	1.65	2.27	5.29	7.16	8.71	9.49	9.80	9.49	7.62	5.50	3.42	1.65
6,7,10,11,12,15,16,17,20,21,22,25,26	13	ROTORS MID SLOPE SOUTH/WEST EXP.	3.30	4.54	10.57	14.31	17.42	18.98	19.60	18.98	15.24	10.99	6.84	3.30
		ROTORS MID SLOPE SOUTH/WEST EXP.	3.30	4.54	10.57	14.31	17.42	18.98	19.60	18.98	15.24	10.99	6.84	3.30
4,8,13,18,23,27,29	7	ROTORS TOE SLOPE SOUTH/WEST EXP.	1.65	2.27	5.29	7.16	8.71	9.49	9.80	9.49	7.62	5.50	3.42	1.65
1,30	2	SPRAY TOP SLOPE SOUTH/WEST EXP.	0.77	1.06	2.47	3.34	4.07	4.43	4.58	4.43	3.56	2.57	1.60	0.77
2,31	2	SPRAY TOE SLOPE SOUTH/WEST EXP.	0.77	1.06	2.47	3.34	4.07	4.43	4.58	4.43	3.56	2.57	1.60	0.77
32,33,34	3	TREES SOUTH/WEST EXP.	1.04	1.43	3.33	4.51	5.49	5.98	6.18	5.98	4.81	3.47	2.16	1.04
	34	MINUTES PER DAY TURF	72	99	231	313	381	415	429	415	334	240	150	72
		HOURS PER DAY TURF	1.20	1.66	3.85	5.22	6.35	6.92	7.15	6.92	5.56	4.01	2.49	1.20
		TOTAL RUN TIME IN MINUTES PER DAY	**72**	**99**	**231**	**313**	**381**	**415**	**429**	**415**	**334**	**240**	**150**	**72**
		TOTAL RUN TIME HOURS PER DAY	**1.20**	**1.66**	**3.85**	**5.22**	**6.35**	**6.92**	**7.15**	**6.92**	**5.56**	**4.01**	**2.49**	**1.20**

CONTROLLER "SB"
ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK S.W. EXP — 3 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
5,19	2	ROTORS TOP SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
4,7,8,12,13	5	ROTORS MID SLOPE SOUTH/WEST EXP.	5.50	7.57	17.62	23.85	29.04	31.63	32.67	31.63	25.41	18.32	11.39	5.50
		ROTORS MID SLOPE SOUTH/WEST EXP.	5.50	7.57	17.62	23.85	29.04	31.63	32.67	31.63	25.41	18.32	11.39	5.50
3,6,14,15,16,18	6	ROTORS TOE SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
10,11,17	3	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
9,20	2	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
21	1	TREES SOUTH/WEST EXP.	1.73	2.39	5.56	7.52	9.16	9.97	10.30	9.97	8.01	5.78	3.59	1.73
	19	MINUTES PER DAY TURF	58	79	185	250	304	332	342	332	266	192	119	58
		HOURS PER DAY TURF	0.96	1.32	3.08	4.17	5.07	5.53	5.71	5.53	4.44	3.20	1.99	0.96
		TOTAL RUN TIME IN MINUTES PER DAY	**58**	**79**	**185**	**250**	**304**	**332**	**342**	**332**	**266**	**192**	**119**	**58**
		TOTAL RUN TIME HOURS PER DAY	**0.96**	**1.32**	**3.08**	**4.17**	**5.07**	**5.53**	**5.71**	**5.53**	**4.44**	**3.20**	**1.99**	**0.96**

B C

CONTROLLER "O-1"
ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK S.W. EXP — 3 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	1	ROTORS TOP SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
1	1	ROTORS TOE SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
	2	MINUTES PER DAY TURF	5	8	18	24	29	32	33	32	25	18	11	5
		HOURS PER DAY TURF	0.09	0.13	0.29	0.40	0.48	0.53	0.54	0.53	0.42	0.31	0.19	0.09
		TOTAL RUN TIME IN MINUTES PER DAY	**5**	**8**	**18**	**24**	**29**	**32**	**33**	**32**	**25**	**18**	**11**	**5**
		TOTAL RUN TIME HOURS PER DAY	**0.09**	**0.13**	**0.29**	**0.40**	**0.48**	**0.53**	**0.54**	**0.53**	**0.42**	**0.31**	**0.19**	**0.09**

CONTROLLER "S-1a"
ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK S.W. EXP — 3 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
2,4,6,8,9	5	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
1,3,5,7	4	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
		TREES SOUTH/WEST EXP.	1.73	2.39	5.56	7.52	9.16	9.97	10.30	9.97	8.01	5.78	3.59	1.73
	9	MINUTES PER DAY TURF	12	16	37	50	61	66	69	66	53	38	24	12
		HOURS PER DAY TURF	0.19	0.27	0.62	0.84	1.02	1.11	1.14	1.11	0.89	0.64	0.40	0.19
		TOTAL RUN TIME IN MINUTES PER DAY	**12**	**16**	**37**	**50**	**61**	**66**	**69**	**66**	**53**	**38**	**24**	**12**
		TOTAL RUN TIME HOURS PER DAY	**0.19**	**0.27**	**0.62**	**0.84**	**1.02**	**1.11**	**1.14**	**1.11**	**0.89**	**0.64**	**0.40**	**0.19**

CONTROLLER "S-1b"
ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK S.W. EXP — 3 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
2,4,6,8	4	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
1,3,5,7	4	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
	8	MINUTES PER DAY TURF	10	14	33	45	54	59	61	59	47	34	21	10
		HOURS PER DAY TURF	0.17	0.24	0.55	0.74	0.90	0.98	1.02	0.98	0.79	0.57	0.35	0.17
		TOTAL RUN TIME IN MINUTES PER DAY	**10**	**14**	**33**	**45**	**54**	**59**	**61**	**59**	**47**	**34**	**21**	**10**
		TOTAL RUN TIME HOURS PER DAY	**0.17**	**0.24**	**0.55**	**0.74**	**0.90**	**0.98**	**1.02**	**0.98**	**0.79**	**0.57**	**0.35**	**0.17**

CONTROLLER "SB2"
ZONE WATER TIMES IN MINUTES PER DAY — 4 DAYS PER WEEK S.W. EXP — 4 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
5,6,19,20,21,25	6	ROTORS TOP SLOPE SOUTH/WEST EXP.	2.06	2.84	6.61	8.94	10.89	11.86	12.25	11.86	9.53	6.87	4.27	2.06
1,2,4,7,8,12,13,22,23,26	10	ROTORS MID SLOPE SOUTH/WEST EXP.	4.12	5.68	13.21	17.89	21.78	23.72	24.50	23.72	19.06	13.74	8.55	4.12
		ROTORS MID SLOPE SOUTH/WEST EXP.	4.12	5.68	13.21	17.89	21.78	23.72	24.50	23.72	19.06	13.74	8.55	4.12
3,9,14,15,16,18,24	7	ROTORS TOE SLOPE SOUTH/WEST EXP.	2.06	2.84	6.61	8.94	10.89	11.86	12.25	11.86	9.53	6.87	4.27	2.06
10,11,17	3	SPRAY TOP SLOPE SOUTH/WEST EXP.	0.96	1.33	3.09	4.18	5.09	5.54	5.72	5.54	4.45	3.21	2.00	0.96
		SPRAY TOE SLOPE SOUTH/WEST EXP.	0.96	1.33	3.09	4.18	5.09	5.54	5.72	5.54	4.45	3.21	2.00	0.96
27	1	TREES SOUTH/WEST EXP.	1.30	1.79	4.17	5.64	6.87	7.48	7.73	7.48	6.01	4.33	2.69	1.30
	27	MINUTES PER DAY TURF	72	99	231	313	381	416	429	416	334	241	150	72
		HOURS PER DAY TURF	1.20	1.66	3.86	5.22	6.36	6.93	7.15	6.93	5.56	4.01	2.49	1.20
		TOTAL RUN TIME IN MINUTES PER DAY	**72**	**99**	**231**	**313**	**381**	**416**	**429**	**416**	**334**	**241**	**150**	**72**
		TOTAL RUN TIME HOURS PER DAY	**1.20**	**1.66**	**3.86**	**5.22**	**6.36**	**6.93**	**7.15**	**6.93**	**5.56**	**4.01**	**2.49**	**1.20**

B

OTAY RANCH VILLAGE 3 EROSION CONTROL
CONTROLLER "I-3C"
ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK S.W. EXP — 3 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1	1	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
2	1	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
		TREES SOUTH/WEST EXP.	1.73	2.39	5.56	7.52	9.16	9.97	10.30	9.97	8.01	5.78	3.59	1.73
	2	MINUTES PER DAY TURF	3	4	8	11	14	15	15	15	12	9	5	3
		HOURS PER DAY TURF	0.04	0.06	0.14	0.19	0.23	0.25	0.25	0.25	0.20	0.14	0.09	0.04
		TOTAL RUN TIME IN MINUTES PER DAY	**3**	**4**	**8**	**11**	**14**	**15**	**15**	**15**	**12**	**9**	**5**	**3**
		TOTAL RUN TIME HOURS PER DAY	**0.04**	**0.06**	**0.14**	**0.19**	**0.23**	**0.25**	**0.25**	**0.25**	**0.20**	**0.14**	**0.09**	**0.04**

F

OTAY RANCH VILLAGE 3 EROSION CONTROL
CONTROLLER "R-6"
ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK — 3 DAYS PER WEEK

STATIONS	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
5	1	ROTORS TOP SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
3	1	ROTORS TOE SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
1	1	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
2	1	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
4	1	TREES SOUTH/WEST EXP.	1.73	2.39	5.56	7.52	9.16	9.97	10.30	9.97	8.01	5.78	3.59	1.73
	5	MINUTES PER DAY TURF	10	13	31	43	52	56	58	56	45	33	20	10
		HOURS PER DAY TURF	0.16	0.22	0.52	0.71	0.86	0.94	0.97	0.94	0.75	0.54	0.34	0.16
		TOTAL RUN TIME IN MINUTES PER DAY	**10**	**13**	**31**	**43**	**52**	**56**	**58**	**56**	**45**	**33**	**20**	**10**
		TOTAL RUN TIME HOURS PER DAY	**0.16**	**0.22**	**0.52**	**0.71**	**0.86**	**0.94**	**0.97**	**0.94**	**0.75**	**0.54**	**0.34**	**0.16**

OTAY RANCH VILLAGE 3 EROSION CONTROL
CONTROLLER "R-20"
ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK — 3 DAYS PER WEEK

STATIONS	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
4,7	2	ROTORS TOP SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
3,6	2	ROTORS TOE SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
1,9	2	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
2,8	2	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
5	1	TREES SOUTH/WEST EXP.	1.73	2.39	5.56	7.52	9.16	9.97	10.30	9.97	8.01	5.78	3.59	1.73
	9	MINUTES PER DAY TURF	18	25	57	78	94	103	106	103	83	60	37	18
		HOURS PER DAY TURF	0.30	0.41	0.95	1.29	1.57	1.71	1.77	1.71	1.38	0.99	0.62	0.30
		TOTAL RUN TIME IN MINUTES PER DAY	**18**	**25**	**57**	**78**	**94**	**103**	**106**	**103**	**83**	**60**	**37**	**18**
		TOTAL RUN TIME HOURS PER DAY	**0.30**	**0.41**	**0.95**	**1.29**	**1.57**	**1.71**	**1.77**	**1.71**	**1.38**	**0.99**	**0.62**	**0.30**

* IRRIGATION SCHEDULING GUIDELINES

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC.
DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

* THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
* NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
* ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — CALIFORNIA — Signature — 9/30/23 Renewal Date — 5/23/22 Date

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE: F 23 MAY '22
SCALE: NO SCALE
JOB NO. 15024
DRAWN BY: T.P. / T.G.M.
W.O. NO. OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	B ADJUST SCHEDULING FOR CONTROLLERS.	5.22.19	/ NC
Inspector			C ADJUST SCHEDULING FOR CONTROLLERS.	10.23.19	/ NC
Date Completed			E ADJ. SCHEDULING FOR ADDED ENTRY DRIVEWAY AT INDUSTRIAL PAD.	4.20.22	NC
			F ADDED SCHEDULING FOR NEW 'R-6' & 'R-20' METERS		

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A; Vertical N/A
Office ____ Field ____ Traffic ____
Designed By | Drawn By | Checked By
Plans Prepared Under Supervision Of THOMAS A. PICARD Date / / R.L.A. No. 4001
Plans Originally Approved: 5-15-17
Approved: ____ Date: ____
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 50
Sheet 50 of 88

F REPLACEMENT SHEET OWD WO# D0944-060189 OWD PERMIT# PLR-16-014

LI-40

LRWS# 2016-625
Print Date: 23 MAY '22
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

CONTROLLER "SC"

ZONE WATER TIMES IN MINUTES PER DAY — 4 DAYS PER WEEK S.W. EXP — 4 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
5,19,20,21,25,30	6	ROTORS TOP SLOPE SOUTH/WEST EXP.	2.06	2.84	6.61	8.94	10.89	11.86	12.25	11.86	9.53	6.87	4.27	2.06
1,2,4,7,8,12,13,22,23	7	ROTORS MID SLOPE SOUTH/WEST EXP.	4.12	5.68	13.21	17.89	21.78	23.72	24.50	23.72	19.06	13.74	8.55	4.12
26,27,28,29,31,32	7	ROTORS MID SLOPE SOUTH/WEST EXP.	4.12	5.68	13.21	17.89	21.78	23.72	24.50	23.72	19.06	13.74	8.55	4.12
3,6,14,15,16,18	5	ROTORS TOE SLOPE SOUTH/WEST EXP.	2.06	2.84	6.61	8.94	10.89	11.86	12.25	11.86	9.53	6.87	4.27	2.06
10,11,17	3	SPRAY TOP SLOPE SOUTH/WEST EXP.	0.96	1.33	3.09	4.18	5.09	5.54	5.72	5.54	4.45	3.21	2.00	0.96
9	1	SPRAY TOE SLOPE SOUTH/WEST EXP.	0.96	1.33	3.09	4.18	5.09	5.54	5.72	5.54	4.45	3.21	2.00	0.96
30,31	2	TREES SOUTH/WEST EXP.	1.30	1.79	4.17	5.64	6.87	7.48	7.73	7.48	6.01	4.33	2.69	1.30
	31	MINUTES PER DAY TURF	87	120	278	377	459	500	516	500	401	289	180	87
		HOURS PER DAY TURF	1.45	1.99	4.64	6.28	7.65	8.33	8.60	8.33	6.69	4.82	3.00	1.45
		TOTAL RUN TIME IN MINUTES PER DAY	**87**	**120**	**278**	**377**	**459**	**500**	**516**	**500**	**401**	**289**	**180**	**87**
		TOTAL RUN TIME HOURS PER DAY	**1.45**	**1.99**	**4.64**	**6.28**	**7.65**	**8.33**	**8.60**	**8.33**	**6.69**	**4.82**	**3.00**	**1.45**

CONTROLLER "SA1"

ZONE WATER TIMES IN MINUTES PER DAY — 5 DAYS PER WEEK S.W. EXP — 5 DAYS PER WEEK N.E. EXP.

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1,4,7,9	4	ROTORS TOP SLOPE SOUTH/WEST EXP.	1.65	2.27	5.29	7.16	8.71	9.49	9.80	9.49	7.62	5.50	3.42	1.65
2,3,8,10	4	ROTORS TOE SLOPE SOUTH/WEST EXP.	1.65	2.27	5.29	7.16	8.71	9.49	9.80	9.49	7.62	5.50	3.42	1.65
5,12,13,15	4	SPRAY TOP SLOPE SOUTH/WEST EXP.	0.77	1.06	2.47	3.34	4.07	4.43	4.58	4.43	3.56	2.57	1.60	0.77
6,11,14,16	4	SPRAY TOE SLOPE SOUTH/WEST EXP.	0.77	1.06	2.47	3.34	4.07	4.43	4.58	4.43	3.56	2.57	1.60	0.77
17	1	TREES SOUTH/WEST EXP.	1.04	1.43	3.33	4.51	5.49	5.98	6.18	5.98	4.81	3.47	2.16	1.04
	17	MINUTES PER DAY TURF	20	28	65	88	108	117	121	117	94	68	42	20
		HOURS PER DAY TURF	0.34	0.47	1.09	1.47	1.80	1.96	2.02	1.96	1.57	1.13	0.70	0.34
		TOTAL RUN TIME IN MINUTES PER DAY	**20**	**28**	**65**	**88**	**108**	**117**	**121**	**117**	**94**	**68**	**42**	**20**
		TOTAL RUN TIME HOURS PER DAY	**0.34**	**0.47**	**1.09**	**1.47**	**1.80**	**1.96**	**2.02**	**1.96**	**1.57**	**1.13**	**0.70**	**0.34**

OTAY RANCH VILLAGE 3 EROSION CONTROL

CONTROLLER "SA1"

ZONE WATER TIMES IN MINUTES PER DAY — 5 DAYS PER WEEK S.W. EXP — 5 DAYS PER WEEK N.E. EXP.

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1,4,7,9	4	ROTORS TOP SLOPE SOUTH/WEST EXP.	1.65	2.27	5.29	7.16	8.71	9.49	9.80	9.49	7.62	5.50	3.42	1.65
2,3,8,10	4	ROTORS TOE SLOPE SOUTH/WEST EXP.	1.65	2.27	5.29	7.16	8.71	9.49	9.80	9.49	7.62	5.50	3.42	1.65
5,12,13,15	4	SPRAY TOP SLOPE SOUTH/WEST EXP.	0.77	1.06	2.47	3.34	4.07	4.43	4.58	4.43	3.56	2.57	1.60	0.77
6,11,14,16	4	SPRAY TOE SLOPE SOUTH/WEST EXP.	0.77	1.06	2.47	3.34	4.07	4.43	4.58	4.43	3.56	2.57	1.60	0.77
17	1	TREES SOUTH/WEST EXP.	1.04	1.43	3.33	4.51	5.49	5.98	6.18	5.98	4.81	3.47	2.16	1.04
	17	MINUTES PER DAY TURF	20	28	65	88	108	117	121	117	94	68	42	20
		HOURS PER DAY TURF	0.34	0.47	1.09	1.47	1.80	1.96	2.02	1.96	1.57	1.13	0.70	0.34
		TOTAL RUN TIME IN MINUTES PER DAY	**20**	**28**	**65**	**88**	**108**	**117**	**121**	**117**	**94**	**68**	**42**	**20**
		TOTAL RUN TIME HOURS PER DAY	**0.34**	**0.47**	**1.09**	**1.47**	**1.80**	**1.96**	**2.02**	**1.96**	**1.57**	**1.13**	**0.70**	**0.34**

CONTROLLER "SI"

ZONE WATER TIMES IN MINUTES PER DAY — 4 DAYS PER WEEK S.W. EXP — 4 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
5,19,20,21,25	5	ROTORS TOP SLOPE SOUTH/WEST EXP.	2.06	2.84	6.61	8.94	10.89	11.86	12.25	11.86	9.53	6.87	4.27	2.06
1,2,4,7,8,12,13,22,23	6	ROTORS MID SLOPE SOUTH/WEST EXP.	4.12	5.68	13.21	17.89	21.78	23.72	24.50	23.72	19.06	13.74	8.55	4.12
26	5	ROTORS MID SLOPE SOUTH/WEST EXP.	4.12	5.68	13.21	17.89	21.78	23.72	24.50	23.72	19.06	13.74	8.55	4.12
3,6,14,15,16,18	5	ROTORS TOE SLOPE SOUTH/WEST EXP.	2.06	2.84	6.61	8.94	10.89	11.86	12.25	11.86	9.53	6.87	4.27	2.06
10,11,17	3	SPRAY TOP SLOPE SOUTH/WEST EXP.	0.96	1.33	3.09	4.18	5.09	5.54	5.72	5.54	4.45	3.21	2.00	0.96
9	1	SPRAY TOE SLOPE SOUTH/WEST EXP.	0.96	1.33	3.09	4.18	5.09	5.54	5.72	5.54	4.45	3.21	2.00	0.96
27	2	TREES SOUTH/WEST EXP.	1.30	1.79	4.17	5.64	6.87	7.48	7.73	7.48	6.01	4.33	2.69	1.30
	27	MINUTES PER DAY TURF	72	100	232	314	383	417	430	417	335	241	150	72
		HOURS PER DAY TURF	1.21	1.66	3.87	5.24	6.38	6.94	7.17	6.94	5.58	4.02	2.50	1.21
		TOTAL RUN TIME IN MINUTES PER DAY	**72**	**100**	**232**	**314**	**383**	**417**	**430**	**417**	**335**	**241**	**150**	**72**
		TOTAL RUN TIME HOURS PER DAY	**1.21**	**1.66**	**3.87**	**5.24**	**6.38**	**6.94**	**7.17**	**6.94**	**5.58**	**4.02**	**2.50**	**1.21**

CONTROLLER "BB"

ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK S.W. EXP — 3 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
B 8,9,10,11,12,13,18,19,25,26,28,29,30,31	14	ROTORS TOP SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
1,3,5,7,14,16,17,20,24,27,33	11	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
A 2,4,6,15,21,22,32	7	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
23	1	TREES SOUTH/WEST EXP.	1.73	2.39	5.56	7.52	9.16	9.97	10.30	9.97	8.01	5.78	3.59	1.73
	33	MINUTES PER DAY TURF	63	87	203	275	334	364	376	364	293	211	131	63
		HOURS PER DAY TURF	1.06	1.45	3.38	4.58	5.57	6.07	6.27	6.07	4.88	3.52	2.19	1.06
		TOTAL RUN TIME IN MINUTES PER DAY	**63**	**87**	**203**	**275**	**334**	**364**	**376**	**364**	**293**	**211**	**131**	**63**
		TOTAL RUN TIME HOURS PER DAY	**1.06**	**1.45**	**3.38**	**4.58**	**5.57**	**6.07**	**6.27**	**6.07**	**4.88**	**3.52**	**2.19**	**1.06**

CONTROLLER "SH"

ZONE WATER TIMES IN MINUTES PER DAY — 4 DAYS PER WEEK S.W. EXP — 4 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
5,19,20,21,25	5	ROTORS TOP SLOPE SOUTH/WEST EXP.	2.06	2.84	6.61	8.94	10.89	11.86	12.25	11.86	9.53	6.87	4.27	2.06
1,2,4,7,8,12,13,22,23	9	ROTORS MID SLOPE SOUTH/WEST EXP.	4.12	5.68	13.21	17.89	21.78	23.72	24.50	23.72	19.06	13.74	8.55	4.12
26,24	2	ROTORS MID SLOPE SOUTH/WEST EXP.	4.12	5.68	13.21	17.89	21.78	23.72	24.50	23.72	19.06	13.74	8.55	4.12
3,6,14,15,16,18	6	ROTORS TOE SLOPE SOUTH/WEST EXP.	2.06	2.84	6.61	8.94	10.89	11.86	12.25	11.86	9.53	6.87	4.27	2.06
10,11,17	3	SPRAY TOP SLOPE SOUTH/WEST EXP.	0.96	1.33	3.09	4.18	5.09	5.54	5.72	5.54	4.45	3.21	2.00	0.96
9	1	SPRAY TOE SLOPE SOUTH/WEST EXP.	0.96	1.33	3.09	4.18	5.09	5.54	5.72	5.54	4.45	3.21	2.00	0.96
27,28	2	TREES SOUTH/WEST EXP.	1.30	1.79	4.17	5.64	6.87	7.48	7.73	7.48	6.01	4.33	2.69	1.30
	28	MINUTES PER DAY TURF	75	103	239	323	393	429	443	429	344	248	154	75
		HOURS PER DAY TURF	1.24	1.71	3.98	5.39	6.56	7.14	7.38	7.14	5.74	4.14	2.57	1.24
		TOTAL RUN TIME IN MINUTES PER DAY	**75**	**103**	**239**	**323**	**393**	**429**	**443**	**429**	**344**	**248**	**154**	**75**
		TOTAL RUN TIME HOURS PER DAY	**1.24**	**1.71**	**3.98**	**5.39**	**6.56**	**7.14**	**7.38**	**7.14**	**5.74**	**4.14**	**2.57**	**1.24**

CONTROLLER "SG"

ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK S.W. EXP — 3 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1,2,4,6,8,11,17,19	8	ROTORS TOP SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
9,15,16,18	4	ROTORS MID SLOPE SOUTH/WEST EXP.	5.50	7.57	17.62	23.85	29.04	31.63	32.67	31.63	25.41	18.32	11.39	5.50
	0	ROTORS MID SLOPE SOUTH/WEST EXP.	5.50	7.57	17.62	23.85	29.04	31.63	32.67	31.63	25.41	18.32	11.39	5.50
3,5,7,10,14	5	ROTORS TOE SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
12	1	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
13	1	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
20,21,22	3	TREES SOUTH/WEST EXP.	1.73	2.39	5.56	7.52	9.16	9.97	10.30	9.97	8.01	5.78	3.59	1.73
	22	MINUTES PER DAY TURF	66	90	210	284	346	377	389	377	303	218	136	66
		HOURS PER DAY TURF	1.09	1.50	3.50	4.74	5.77	6.28	6.49	6.28	5.04	3.64	2.26	1.09
		TOTAL RUN TIME IN MINUTES PER DAY	**66**	**90**	**210**	**284**	**346**	**377**	**389**	**377**	**303**	**218**	**136**	**66**
		TOTAL RUN TIME HOURS PER DAY	**1.09**	**1.50**	**3.50**	**4.74**	**5.77**	**6.28**	**6.49**	**6.28**	**5.04**	**3.64**	**2.26**	**1.09**

CONTROLLER "I-1a"

A NOT A PART – REFER TO LANDSCAPE & IRRIGATION PLANS BY RIDGE LANDSCAPE ARCHITECTURE.

OWD# D1019-060288
DEH# DEH2021-LRWS-001351
CV WO# GR210042

CONTROLLER "I-3a"

ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK S.W. EXP — 3 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
A 4,5,6	2	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
2,3	2	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
1	1	TREES SOUTH/WEST EXP.	1.73	2.39	5.56	7.52	9.16	9.97	10.30	9.97	8.01	5.78	3.59	1.73
	5	MINUTES PER DAY TURF	7	9	22	30	36	40	41	40	32	23	14	7
		HOURS PER DAY TURF	0.11	0.16	0.37	0.50	0.60	0.66	0.68	0.66	0.53	0.38	0.24	0.11
		TOTAL RUN TIME IN MINUTES PER DAY	**7**	**9**	**22**	**30**	**36**	**40**	**41**	**40**	**32**	**23**	**14**	**7**
		TOTAL RUN TIME HOURS PER DAY	**0.11**	**0.16**	**0.37**	**0.50**	**0.60**	**0.66**	**0.68**	**0.66**	**0.53**	**0.38**	**0.24**	**0.11**

CONTROLLER "I-2a"

A NOT A PART – REFER TO LANDSCAPE & IRRIGATION PLANS BY RIDGE LANDSCAPE ARCHITECTURE.

OWD# D1019-060288
DEH# DEH2021-LRWS-001351
CV WO# GR210042

		TOTAL RUN TIME HOURS PER DAY	**0.07**	**0.10**	**0.23**	**0.31**	**0.38**	**0.41**	**0.43**	**0.41**	**0.33**	**0.24**	**0.15**	**0.07**

CONTROLLER "R-14"

ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK S.W. EXP — 3 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
2,4,5,7	4	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
1,3,6	3	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
	7	MINUTES PER DAY TURF	9	12	29	39	47	52	53	52	42	30	19	9
		HOURS PER DAY TURF	0.15	0.21	0.48	0.65	0.79	0.86	0.89	0.86	0.69	0.50	0.31	0.15
		TOTAL RUN TIME IN MINUTES PER DAY	**9**	**12**	**29**	**39**	**47**	**52**	**53**	**52**	**42**	**30**	**19**	**9**
		TOTAL RUN TIME HOURS PER DAY	**0.15**	**0.21**	**0.48**	**0.65**	**0.79**	**0.86**	**0.89**	**0.86**	**0.69**	**0.50**	**0.31**	**0.15**

CONTROLLER "R-16"

ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK S.W. EXP — 3 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
7,9,	2	ROTORS TOP SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
10,11	2	ROTORS MID SLOPE SOUTH/WEST EXP.	5.50	7.57	17.62	23.85	29.04	31.63	32.67	31.63	25.41	18.32	11.39	5.50
6,8	2	ROTORS TOE SLOPE SOUTH/WEST EXP.	2.75	3.79	8.81	11.93	14.52	15.81	16.33	15.81	12.70	9.16	5.70	2.75
4,5,13	3	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
2,3,12	3	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
1	1	TREES SOUTH/WEST EXP.	1.73	2.39	5.56	7.52	9.16	9.97	10.30	9.97	8.01	5.78	3.59	1.73
	13	MINUTES PER DAY TURF	31	43	101	136	166	181	187	181	145	105	65	31
		HOURS PER DAY TURF	0.52	0.72	1.68	2.27	2.77	3.01	3.11	3.01	2.42	1.75	1.09	0.52
		TOTAL RUN TIME IN MINUTES PER DAY	**31**	**43**	**101**	**136**	**166**	**181**	**187**	**181**	**145**	**105**	**65**	**31**
		TOTAL RUN TIME HOURS PER DAY	**0.52**	**0.72**	**1.68**	**2.27**	**2.77**	**3.01**	**3.11**	**3.01**	**2.42**	**1.75**	**1.09**	**0.52**

CONTROLLER "MU-1"

ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK S.W. EXP — 3 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
2,4	2	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
1,3	2	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
		TREES SOUTH/WEST EXP.	1.73	2.39	5.56	7.52	9.16	9.97	10.30	9.97	8.01	5.78	3.59	1.73
	4	MINUTES PER DAY TURF	5	7	16	22	27	30	31	30	24	17	11	5
		HOURS PER DAY TURF	0.09	0.12	0.27	0.37	0.45	0.49	0.51	0.49	0.40	0.29	0.18	0.09
		TOTAL RUN TIME IN MINUTES PER DAY	**5**	**7**	**16**	**22**	**27**	**30**	**31**	**30**	**24**	**17**	**11**	**5**
		TOTAL RUN TIME HOURS PER DAY	**0.09**	**0.12**	**0.27**	**0.37**	**0.45**	**0.49**	**0.51**	**0.49**	**0.40**	**0.29**	**0.18**	**0.09**

CONTROLLER "MU-2"

ZONE WATER TIMES IN MINUTES PER DAY — 3 DAYS PER WEEK S.W. EXP — 3 DAYS PER WEEK N.E. EXP

STATIONS W/ S.W. EXPOSURE	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
2,4	2	SPRAY TOP SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
1,3	2	SPRAY TOE SLOPE SOUTH/WEST EXP.	1.28	1.77	4.11	5.57	6.78	7.39	7.63	7.39	5.93	4.28	2.66	1.28
		TREES SOUTH/WEST EXP.	1.73	2.39	5.56	7.52	9.16	9.97	10.30	9.97	8.01	5.78	3.59	1.73
	4	MINUTES PER DAY TURF	5	7	16	22	27	30	31	30	24	17	11	5
		HOURS PER DAY TURF	0.09	0.12	0.27	0.37	0.45	0.49	0.51	0.49	0.40	0.29	0.18	0.09
		TOTAL RUN TIME IN MINUTES PER DAY	**5**	**7**	**16**	**22**	**27**	**30**	**31**	**30**	**24**	**17**	**11**	**5**
		TOTAL RUN TIME HOURS PER DAY	**0.09**	**0.12**	**0.27**	**0.37**	**0.45**	**0.49**	**0.51**	**0.49**	**0.40**	**0.29**	**0.18**	**0.09**

* IRRIGATION SCHEDULING GUIDELINES

- THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO RE-EXCTION AND REMOVAL.
- NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
- ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

OTAY WATER DISTRICT
Project No. D0944-060189 LRWS No. 2019-00134
P.Z. 624, 711 R.P.Z. 680
REVIEWED BY: DATE: 10-22-19
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — 9/30/23 — CALIFORNIA

Tributary LA, Inc.
Landscape Architecture and Planning
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office 760.434.9303 fax

DATE: △7 APR '22
SCALE: NO SCALE
JOB NO. 15024
DRAWN BY: T.P. / T.G.M.
W.O. NO. OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.	△ ADJUST SCHEDULING FOR CONTROLLERS.	5-24-22	
Inspector			△ ADJUST SCHEDULING FOR CONTROLLERS.	10-25-22	
Date Completed			△ ADJ. 'BBSI' FOR ADDED ENTRY DRIVEWAY AT INDUSTRIAL PAD.	4-20-22	

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD., ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PER 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A; Vertical N/A
Office ____ Field ____ Traffic ____
Designed By ____ Drawn By ____ Checked By ____
Plans Prepared Under Supervision Of
Date 4 / 7 / 22
THOMAS A. PICARD R.L.A. No. 4001

Plans Originally Approved: 5-15-17
Approved: ____ Date: ____
Tiffany Allen
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 51
Sheet 51 of 88

△REPLACEMENT SHEET

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014

LI-41

Otay Ranch, Village 3 - Slope & Erosion Control
OWD WO# D0944-060189
Print Date: 7 APR '22

WATER AGENCIES' STANDARDS
STANDARD SPECIFICATIONS
SECTION 15152 RECYCLED WATER FACILITIES (ONSITE)
PART 1 GENERAL

1.01 DESCRIPTION
THIS SECTION INCLUDES SPECIAL PROVISIONS, MATERIALS, AND IDENTIFICATION OF ONSITE (POST METER, PRIVATE) RECYCLED WATER IRRIGATION OR PLUMBING SYSTEMS. THE PURPOSE OF THIS SECTION IS TO PROVIDE RULES AND REGULATIONS AND ESTABLISH PROCEDURES AND SPECIFICATIONS FOR THE DEVELOPMENT AND OPERATION OF RECYCLED WATER SYSTEMS IN THE DISTRICT'S SERVICE AREA.

1.02 REFERENCE STANDARDS
THE PUBLICATIONS LISTED BELOW FORM PART OF THIS SPECIFICATION TO THE EXTENT REFERENCED AND ARE REFERRED TO IN THE TEXT BY THE BASIC DESIGNATION ONLY. REFERENCE SHALL BE MADE TO THE LATEST EDITION OF SAID STANDARDS UNLESS OTHERWISE CALLED FOR.
AWWA - AMERICAN WATER WORKS ASSOCIATION GUIDELINES FOR DISTRIBUTION OF NON-POTABLE WATER
CCR - CALIFORNIA CODE OF REGULATIONS TITLE 22 AND TITLE 17.
DOHS - DEPARTMENT OF HEALTH SERVICES
RECYCLED WATER PLAN CHECK AND INSPECTION MANUAL, COUNTY OF SAN DIEGO, DEPARTMENT OF ENVIRONMENTAL HEALTH

1.03 RELATED WORK SPECIFIED ELSEWHERE
WAS STANDARD DRAWINGS
WAS STANDARD SPECIFICATION 01000

1.04 OFFSITE AND ONSITE CRITERIA
RECYCLED WATER FACILITIES ARE SEPARATED INTO TWO CATEGORIES:
A. "OFFSITE" (PRE-METER, PUBLIC) RECYCLED WATER FACILITIES CONSIST OF THOSE FACILITIES WHICH ARE ON THE UPSTREAM SIDE OF THE METER. THESE FACILITIES ARE, OR WILL BE, OWNED, OPERATED AND MAINTAINED BY THE DISTRICT. SPECIFICATION SECTION 15151 DETAILS THE REQUIREMENTS FOR CONSTRUCTION OF OFFSITE RECYCLED WATER FACILITIES.
B. "ONSITE" (POST-METER, PRIVATE) RECYCLED WATER FACILITIES CONSIST OF THOSE FACILITIES WHICH ARE ON THE DOWNSTREAM SIDE OF THE WATER METER. THESE ARE FACILITIES WHICH WILL BE OWNED, OPERATED AND MAINTAINED BY THE CUSTOMER. THIS SPECIFICATION WILL DETAIL THE REQUIREMENTS FOR THE DESIGN, INSTALLATION AND TESTING OF ONSITE RECYCLED IRRIGATION AND PLUMBING SYSTEMS ONLY.

1.05 POLICY
THE DISTRICT OPERATES AND MAINTAINS A RECYCLED WATER DISTRIBUTION SYSTEM WITHIN ITS SERVICE AREA ENABLING IT TO PROVIDE DISINFECTED TERTIARY TREATED RECYCLED WATER FOR A VARIETY OF BENEFICIAL USES. RECYCLED WATER USAGE AS AN ALTERNATE WILL CONSERVE AN EQUAL AMOUNT OF POTABLE WATER FOR DOMESTIC USE. THE BENEFICIAL USE OF RECYCLED WATER IS REGULATED BY THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD (CWRCB). CALIFORNIA WATER CODE SECTION 13551 ESTABLISHES A STATE POLICY TO ENCOURAGE THE USE OF RECYCLED WATER. PERMISSION TO USE RECYCLED WATER IS BASED ON THE ABILITY TO ADEQUATELY TREAT WASTEWATER TO THE POINT THAT THE RECYCLED WATER (EFFLUENT) MEETS OR EXCEEDS THE REQUIREMENTS OF EXISTING TITLE 22, CHAPTER 3, REGULATIONS OF THE CALIFORNIA CODE OF REGULATIONS. TITLE 22 WAS PROMULGATED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES (DOHS) TO ENSURE PROPER HEALTH PROTECTION AND SPECIFY THE TREATMENT DEGREE TO MATCH THE INTENDED APPLICATIONS. IN ACCORDANCE WITH WASTE DISCHARGE REQUIREMENTS FOR WATER RECLAMATION PROJECTS, THE REGIONAL WATER QUALITY CONTROL BOARD, SAN DIEGO REGION, (RWQCB) REQUIRES THAT RULES AND REGULATIONS FOR FACILITIES USING RECYCLED WATER BE ESTABLISHED.

1.06 APPROVED USE
THESE RULES AND REGULATIONS PERTAIN TO RECYCLED WATER SERVICE TO LANDS AND/OR IMPROVEMENTS LYING WITHIN THE LEGAL BOUNDARIES OF THE DISTRICT UNLESS OTHERWISE STATED. IT IS THE INTENT OF THE DISTRICT TO PROVIDE RECYCLED WATER SERVICE IN ACCORDANCE WITH THESE RULES AND REGULATIONS TO ALL AREAS IDENTIFIED IN THE DISTRICT'S WATER RECLAMATION MASTER PLAN, INCLUDING ALL SUBSEQUENT REVISIONS FOR THE USE OF RECYCLED WATER. RECYCLED WATER SERVICE SHALL BE PROVIDED TO THE SERVICE AREA WHEN RELATED TRANSMISSION DISTRIBUTION FACILITIES ARE COMPLETED AND SERVICE BECOMES AVAILABLE. IN ACCORDANCE WITH THE GOALS OF THE DISTRICT, THE USES OF RECYCLED WATER INCLUDE ONLY THOSE USES APPROVED BY THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES (DOHS), THE COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH (DEH) AND FOR WHICH TITLE 22 OF THE CALIFORNIA CODE OF REGULATIONS PROVIDES TREATMENT REQUIREMENTS. ALL POTENTIAL APPLICATIONS OF RECYCLED WATER SHALL BE REVIEWED AND APPROVED BY THE DISTRICT PRIOR TO INSTALLATION OF FACILITIES. PRIOR TO APPROVAL AND AT ITS DISCRETION, THE DISTRICT MAY SET FORTH SPECIFIC REQUIREMENTS AS CONDITIONS FOR PROVIDING SERVICE AND/OR REQUIRE SPECIFIC PRIOR APPROVAL FROM THE APPROPRIATE REGULATORY AGENCIES. THE FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS OF THE DISTRICT. NO RECYCLED WATER MAINS OR CONNECTIONS TO THE RECYCLED WATER MAINS SHALL BE INSTALLED UNLESS SHOWN ON THE APPROVED PLANS.

1.07 CONDITIONS OF SERVICE
RECYCLED WATER SERVICE SHALL BE PROVIDED BY THE DISTRICT ONLY IF SUCH SERVICE IS OBTAINED IN THE MANNER PROVIDED IN THESE RULES AND REGULATIONS. RECYCLED WATER SERVICE SHALL BE AVAILABLE, PROVIDED, AND USED IN ACCORDANCE WITH OTHER CODES, RULES, AND REGULATIONS REFERENCED IN THIS SPECIFICATION. IF ANY OF THE FOLLOWING CONDITIONS OF SERVICE ARE NOT SATISFIED AT ALL TIMES RECYCLED WATER SERVICE MAY BE REVOKED BY THE DISTRICT.
A. FINANCIAL: CONDITIONS RELATING TO SERVICE RATES, FEES AND BILLING SHALL BE ESTABLISHED BY THE BOARD OF DIRECTORS.
B. OPERATIONAL: 1. LIABILITY: THE DISTRICT SHALL NOT BE LIABLE FOR ANY WATER-RELATED DAMAGE RESULTING FROM, BUT NOT LIMITED TO:
A. DEFECTIVE PLUMBING
B. BROKEN OR FAULTY SERVICES
C. ONSITE FACILITIES FAILURES
D. HIGH OR LOW PRESSURE CONDITIONS
E. INTERRUPTIONS OF SERVICE
F. UNAUTHORIZED CONNECTIONS
2. SERVICE: ALL RECYCLED WATER WILL BE PROVIDED TO THE USER AS SPECIFIED IN THE APPLICATION/PERMIT FOR RECYCLED WATER SERVICE. RECYCLED WATER USE WILL BE SUBJECT TO THE SAME RESTRICTIONS AS STATED IN THESE SPECIFICATIONS AND THE REGULATORY REQUIREMENTS OF DOHS AND DEH.
C. REGULATORY: RECYCLED WATER SERVICE MAY BE SUSPENDED WHENEVER THE QUALITY OF THE RECYCLED WATER DOES NOT COMPLY WITH THE REQUIREMENTS OF THE REGULATORY AGENCIES OR AT ANY TIME THESE RULES AND REGULATIONS FOR RECYCLED WATER SERVICE ARE VIOLATED.

1.08 DESIGN CRITERIA - ONSITE RECYCLED SYSTEMS
A. THE DESIGN OF ONSITE RECYCLED WATER FACILITIES, INCLUDING THE PREPARATION OF PLANS AND SPECIFICATIONS, SHALL BE UNDER THE RESPONSIBILITY OF A LICENSED LANDSCAPE ARCHITECT OR CIVIL ENGINEER REGISTERED WITH THE STATE OF CALIFORNIA. A DECLARATION OF RESPONSIBLE CHARGE SHALL APPEAR ON THE TITLE SHEET OF THE PLANS.
B. THE DESIGN OF ONSITE RECYCLED FACILITIES SHALL CONFORM TO THE MOST CURRENT PROVISIONS SET FORTH HEREIN AND TO ANY OTHER CONDITIONS, STANDARDS, AND REQUIREMENTS SET FORTH BY THE DISTRICT.
C. IN THOSE AREAS WHERE RECYCLED WATER IS NOT IMMEDIATELY AVAILABLE AND THE DISTRICT HAS DETERMINED THAT RECYCLED WATER WILL BE SUPPLIED IN THE FUTURE, THE ONSITE FACILITIES SHALL BE DESIGNED TO USE RECYCLED WATER. PROVISIONS SHALL BE MADE, AS DIRECTED BY THE DISTRICT, TO ALLOW FOR CONNECTION TO THE RECYCLED DISTRIBUTION MAIN WHEN IT BECOMES AVAILABLE. IN THE INTERIM, POTABLE WATER SHALL BE SUPPLIED THROUGH A TEMPORARY POTABLE WATER CONNECTION USING A MASTER REDUCED PRESSURE PRINCIPAL BACKFLOW DEVICE INSTALLED PER THESE STANDARD SPECIFICATIONS. WHEN RECYCLED WATER BECOMES AVAILABLE, THE OWNER SHALL REMOVE THE BACKFLOW PREVENTION DEVICE IN THE PRESENCE OF, AND AS DIRECTED BY, THE DISTRICT ENGINEER. THE ONSITE SYSTEM WILL BE CONNECTED TO THE RECYCLED WATER DISTRIBUTION MAIN PER THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AT THE TIME THE CONNECTION IS MADE.
D. ONSITE RECYCLED WATER SYSTEMS SHALL BE DESIGNED TO INCLUDE BACKFLOW PREVENTION PER THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. IN SOME CASES, MORE STRINGENT BACKFLOW PROTECTION MAY BE REQUIRED.
E. THE RECYCLED WATER SYSTEM SHALL BE SEPARATE AND INDEPENDENT OF ANY POTABLE WATER SYSTEM. CROSS CONNECTIONS BETWEEN POTABLE WATER FACILITIES AND RECYCLED WATER FACILITIES ARE PROHIBITED.
F. HOSE BIBS ON RECYCLED WATER FACILITIES ARE PROHIBITED.
G. FIRE HYDRANTS, WHARF HEADS, OR OTHER APPURTENANCES SHALL ONLY BE INCLUDED IN THE DESIGN WHEN THESE APPURTENANCES ARE EXPRESSLY APPROVED BY THE DISTRICT AND DOHS.
H. DRINKING FOUNTAINS SHALL BE PROTECTED FROM THE SPRAY OF RECYCLED WATER. THERE SHALL BE NO DIRECT CONTACT OF RECYCLED WATER WITH A DRINKING FOUNTAIN. PROTECTION OF DRINKING FOUNTAINS CAN BE ACCOMPLISHED EITHER BY MAINTAINING A HORIZONTAL SEPARATION OF AT LEAST 9M (30') BETWEEN THE DRINKING FOUNTAIN AND THE NEAREST SPRAY TYPE EMITTER, SPRAY HEAD MODIFICATION OR BY THE USE OF A COVERED FOUNTAIN. THE MANNER USED TO PROTECT DRINKING FOUNTAINS FROM THE SPRAY OF RECYCLED WATER SHALL BE APPROVED BY THE DISTRICT AND DOHS.
I. POTABLE AND RECYCLED LINES SHALL NOT TO BE INSTALLED IN THE SAME TRENCH. RECYCLED LINES SHALL BE DESIGNED TO BE INSTALLED BELOW THE POTABLE LINES WHERE THE TWO PIPELINES RUN PARALLEL TO EACH OTHER. WHERE THIS IS NOT POSSIBLE, THE RECYCLED LINE SHALL BE INSTALLED IN A CASING. DETAILS OF THIS INSTALLATION SHALL BE CLEARLY DRAWN ON THE PLANS.
J. ONSITE RECYCLED WATER IRRIGATION SYSTEMS SHALL BE DESIGNED TO MEET THE PEAK MOISTURE DEMAND OF THE PLANT MATERIAL TO BE IRRIGATED. THE USE OF MOISTURE SENSORS IS ENCOURAGED, BUT NOT MANDATORY.
K. ONSITE RECYCLED WATER IRRIGATION SYSTEMS SHALL BE DESIGNED TO APPLY IRRIGATION WATER IN A MANNER COMPATIBLE WITH THE INFILTRATION RATES OF THE SOIL TYPES WITHIN THE APPROVED USE AREA. EVIDENCE THAT INFILTRATION RATES HAVE BEEN ASSESSED SHALL BE INCLUDED WITH THE DESIGN. WHERE VARYING SOIL TYPES ARE PRESENT, THE SYSTEM DESIGN SHALL BE COMPATIBLE WITH THE LOWEST INFILTRATION RATE PRESENT.
L. ONSITE RECYCLED WATER SYSTEMS SHALL BE DESIGNED TO PREVENT DISCHARGE ONTO AREAS NOT UNDER CONTROL OF THE OWNER. APPROPRIATE SPRINKLERS, BUBBLERS, EMITTERS, ROTORS, ETC., SHALL BE EMPLOYED IN THE DESIGN TO CONFINE THE DISCHARGE TO THE APPROVED USE AREA. THE DESIGN SHALL AVOID SPRAY PATTERNS WHICH DISCHARGE ONTO OBSTRUCTIONS THAT TEND TO CONCENTRATE WATER WHICH RESULTS IN PONDING AND/OR RUNOFF.
M. ONSITE RECYCLED IRRIGATION SYSTEMS SHALL BE DESIGNED TO PROVIDE A PHYSICAL SEPARATION BETWEEN ADJACENT AREAS IRRIGATED WITH POTABLE WATER. THE MEANS OF SEPARATION SHALL BE PROVIDED BY EITHER A DISTANCE OF 3M (10'), CONCRETE MOW STRIPS, APPROVED FENCE OR OTHER APPROVED MEANS. WHERE CONCRETE MOW STRIPS OR OTHER MEANS ARE USED, THEY SHALL BE SHOWN ON THE PLANS.
N. ONSITE RECYCLED WATER SYSTEMS SHALL BE DESIGNED TO OPERATE DURING PERIODS OF MINIMAL PUBLIC USE OF THE AREA. THE TOTAL TIME REQUIRED TO IRRIGATE THE DESIGN AREA SHALL NOT EXCEED NINE (9) HOURS IN ANY TWENTY FOUR (24) HOUR PERIOD. THE SYSTEM SHALL BE DESIGNED TO OPERATE BETWEEN THE HOURS OF 9 PM AND 6 AM.
O. ONSITE RECYCLED WATER SYSTEM DESIGNS SHALL INCLUDE AUTOMATIC SYSTEM CONTROL DEVICES WHICH CAN BE EASILY ADJUSTED TO MINIMIZE PONDING AND RUNOFF.
P. ONSITE RECYCLED WATER SYSTEM DESIGN PLANS SHALL CONTAIN THE FOLLOWING INFORMATION FOR EACH METER REQUESTED:
1. METER LOCATION AND SIZE
2. GROSS AND NET IRRIGATION AREA SERVED BY EACH METER (SQ. FT. OR ACRES)
3. PEAK FLOW THROUGH THE METER IN GALLONS/MINUTE (GPM)
4. ESTIMATE OF THE YEARLY DEMAND (ACRE-FEET)
5. DESIGN OPERATING PRESSURE AT THE METER IN POUNDS/SQ.IN. (PSI)
Q. ONSITE RECYCLED WATER SYSTEM DESIGN PLANS SHALL CONTAIN A LEGEND SHOWING THE PERTINENT DATA FOR THE MATERIALS TO BE USED IN THE SYSTEM CONSTRUCTION. INCLUDED SHALL BE A PIPE SCHEDULE (LISTING PIPE SIZES AND MATERIALS OF CONSTRUCTION), VALVE TYPES (INCLUDING QUICK-COUPLING TYPE VALVES), AND THE FOLLOWING INFORMATION FOR EACH TYPE OF SPRINKLER DEVICE:
1. MANUFACTURER AND MODEL NUMBER
2. SPRINKLER RADIUS IN FEET
3. OPERATING PRESSURE IN PSI
4. FLOW IN GPM
5. SPRINKLER PATTERN
R. ONSITE RECYCLED WATER DESIGN PLANS SHALL CONTAIN THE FOLLOWING DETAILED INFORMATION:
1. POINTS OF CONNECTION
2. ROUTING OF ALL PIPES
3. GATE VALVES
4. CONTROL VALVES
5. QUICK-COUPLING VALVES
6. ROUTING OF CONTROL WIRES
7. CONTROL STATIONS
8. THE AREA CONTROLLED BY EACH CONTROL STATION
9. SIGNAGE PLAN AND SIGN DETAIL
10. CROSS CONNECTION TEST STATION LOCATIONS AND DETAIL
11. LOCATION OF MOW STRIPS, FENCES, WALLS, OR OTHER BARRIERS
12. ADJACENT PARCELS, LOTS OR HOME SITES IRRIGATED WITH POTABLE WATER
S. ONSITE RECYCLED WATER DESIGN PLANS SHALL CLEARLY DETAIL BACKFLOW PREVENTION DEVICES, ALL POTABLE WATER LINES, BUILDINGS, WALLS, EXTERIOR DRINKING, AND DECORATIVE FOUNTAINS, SWIMMING POOLS, PLAYGROUNDS, OR ANY OTHER PERMANENT FACILITIES IN THE DESIGN AREA. IF NONE OF THE ITEMS LISTED IN THIS PARAGRAPH ARE PRESENT IN THE DESIGN AREA, IT SHALL BE SPECIFICALLY STATED ON THE PLANS THAT NONE EXIST.
T. ONSITE RECYCLED WATER DESIGN PLANS SHALL CLEARLY INDICATE THE FOLLOWING MINIMUM TOP OF PIPE DEPTH REQUIREMENTS:
1. INTERMITTENT PRESSURE LINES 50MM (2") IN DIAMETER AND SMALLER: 300MM (12") DEEP.
2. CONSTANT PRESSURE LINES LESS THAN 150MM (6") IN DIAMETER: 450MM (18") DEEP.
3. CONSTANT PRESSURE LINES 150MM (6") IN DIAMETER AND LARGER: 750MM (30") DEEP.
U. THE DISTRICT'S RECYCLED WATER USE NOTES ARE TO BE INCLUDED ON ALL ONSITE RECYCLED WATER SYSTEM DESIGN PLANS. THESE NOTES, AS APPENDED, MAY BE EXPANDED OR OTHERWISE MODIFIED AS DIRECTED BY THE DISTRICT.
V. THE NAME(S) AND 24-HOUR CONTACT TELEPHONE NUMBER FOR THE PARTY RESPONSIBLE FOR OPERATION AND MAINTENANCE OF THE SYSTEM SHALL APPEAR ON THE COVER SHEET OF THE DESIGN PLANS.
W. AN INSPECTION NOTE SHALL BE SHOWN ON EACH PAGE OF THE DESIGN PLANS. THE NOTE SHALL BE AS FOLLOWS: THE DISTRICT INSPECTION DIVISION SHALL BE NOTIFIED 48 HOURS (2 WORKING DAYS) PRIOR TO THE START OF CONSTRUCTION. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.

1.09 WARNING/IDENTIFICATION TAPE
ALL IRRIGATION PIPE, BOTH POTABLE AND RECYCLED, SHALL INCLUDE THE INSTALLATION OF WARNING/IDENTIFICATION TAPE.

PART 2 MATERIALS

2.01 ONSITE RECYCLED WATER FACILITIES
A. PIPE SHALL BE SOLID PURPLE-COLORED PVC MATERIAL CONFORMING TO THE FOLLOWING:
1. 75MM (3") OR SMALLER PIPE SHALL CONFORM TO ASTM-D1784, TYPE 1, GRADE 1, PVC-1120 FOR SCHEDULE 40 OR 80, OR ASTM-D2241, TYPE 1, GRADE 1, PVC-120 FOR SDR RATED PIPE. ENDS SHALL BE SOLVENT WELDED JOINTS CONFORMING TO ASTM-D2672.
2. 100MM (4") AND LARGER PIPE SHALL CONFORM TO EITHER AWWA C900 OR C905 WITH ELASTOMERIC RING BELL-TYPE PIPE ENDS, CONFORMING TO ASTM-D3139. WHERE PURPLE PIPE IS UNAVAILABLE, 0.203MM (0.008" OR 8 MILS) PURPLE PLASTIC SLEEVE MATERIAL MAYBE USED IN ACCORDANCE WITH SECTION 15151.
3. IDENTIFICATION MARKINGS SHALL BE CONTINUOUS ON TWO SIDES OF THE PIPE. MARKINGS SHALL INCLUDE THE NOMINAL PIPE SIZE, PVC TYPE, ASTM OR AWWA DESIGNATION, PRESSURE RATING AND THE WORDS "CAUTION-RECYCLED WATER".
B. FITTINGS FOR PVC PIPE SHALL CONFORM TO THE FOLLOWING:
1. 75MM (3") AND SMALLER PIPE SHALL USE SOLVENT WELD JOINT TYPE FITTINGS, MINIMUM SCHEDULE 40, WITH A WORKING PRESSURE RATING NO LOWER THAN THAT OF THE PIPE. SCHEDULE 40 FITTINGS SHALL CONFORM TO ASTM-D2466 AND SCHEDULE 80 FITTINGS TO ASTM-D2464 AND D-2467 PVC SOLVENT CEMENT SHALL CONFORM TO ASTM-D2564.
2. 100MM (4") AND LARGER PIPE SHALL USE EITHER MECHANICAL JOINT DUCTILE-IRON CLASS 350 FITTINGS CONFORMING TO AWWA C153; OR GRIP TITE FITTINGS CONFORMING TO AWWA C110 AND C111.
C. WARNING TAPE SHALL BE AN INERT PLASTIC FILM FORMULATED FOR PROLONGED UNDERGROUND CONDITIONS. THE MINIMUM THICKNESS SHALL BE 0.102MM (0.004 OR 4 MILS) AND THE OVERALL WIDTH SHALL BE A MINIMUM OF 75MM (3"). THE TAPE SHALL HAVE PURPLE PRINTING ON A SILVER BACKGROUND OR BLACK PRINTING ON A PURPLE BACKGROUND WITH THE WORDS "CAUTION: RECYCLED WATERLINE BELOW".
D. QUICK-COUPLING VALVES SHALL BE ACME THREAD TYPE FOR OPERATION WITH A SPECIAL COUPLER KEY. THEY SHALL BE CONSTRUCTED OF BRASS WITH A SOLID PURPLE-COLORED LOCKING RUBBER OR VINYL COVER. THE LOCKING COVER SHALL HAVE THE WARNING "NON-POTABLE-DO NOT DRINK" IN ENGLISH AND SPANISH, AND THE INTERNATIONAL "DO NOT DRINK" SYMBOL. THE WARNINGS SHALL BE PERMANENTLY MOLDED INTO THE COVER.
E. SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC.
F. VALVE BOXES SHALL BE PER INDUSTRY STANDARDS WITH SOLID PURPLE-COLORED LIDS AS A MINIMUM. THE ENTIRE BOX MAY BE MOLDED FROM PURPLE-COLORED PVC. THE LIDS SHALL HAVE THE WARNING "NON-POTABLE- DO NOT DRINK" IN ENGLISH AND SPANISH AND THE INTERNATIONAL "DO NOT DRINK" SYMBOL. THE WARNINGS SHALL BE PERMANENTLY MOLDED INTO THE LID.
G. VALVES SHALL HAVE THEIR EXTERIOR SURFACE PAINTED PURPLE AND BE TAGGED WITH IDENTIFICATION TAGS. THE PURPLE PAINT SHALL BE AS LISTED ON THE APPROVED MATERIALS LIST. IDENTIFICATION TAGS SHALL BE 75MM X 100MM (3" X 4") WEATHERPROOF PURPLE PLASTIC. THE PLASTIC TAGS SHALL BE IMPRINTED IN BLACK PERMANENT MARKINGS WITH THE WORDS "CAUTION: RECYCLED WATER- DO NOT DRINK" ON ONE SIDE AND "PELIGRO: AGUA IMPURA- NO BEBER" ON THE OPPOSITE SIDE.
H. WARNING LABELS AND SIGNS SHALL BE REQUIRED AND INSTALLED PER THE APPROVED SIGNAGE PLANS. LABELS AND SIGNS SHALL BE SUBMITTED TO THE DISTRICT ENGINEER FOR APPROVAL PRIOR TO INSTALLATION. THE LABELS AND SIGNS SHALL NOTIFY THAT THE SYSTEM CONTAINS RECYCLED WATER THAT IS UNSAFE TO DRINK. THEY SHALL BE IN ENGLISH AND SPANISH WITH THE INTERNATIONAL "DO NOT DRINK" SYMBOL. AS A MINIMUM, SIGNS SHALL BE INSTALLED AT IMPOUNDMENTS, INGRESS AND EGRESS POINTS, AND ON THE EXTERIOR FRONT PANEL OF IRRIGATION CONTROLLERS. I. STRAINERS SHALL BE THE SAME NOMINAL SIZE AS THE SERVICE METER AND SHALL HAVE A BALL VALVE ON THE STRAINER LEG FOR FLUSHING. 50MM (2") AND SMALLER WYE PATTERN STRAINERS SHALL BE BRONZE BODY, IN-LINE TYPE WITH STAINLESS STEEL SCREENS. STRAINERS SHALL HAVE A 13MM (1/2") BRONZE BALL VALVE INSTALLED ON THE STRAINER'S WYE LEG. 75MM (3") AND LARGER WYE PATTERN STRAINERS SHALL BE CAST-OR DUCTILE-IRON AND HAVE THE SIZE BALL VALVE RECOMMENDED BY THE MANUFACTURER INSTALLED ON THE STRAINER'S WYE LEG.
J. CHECK VALVES SHALL BE IN-LINE, SPRING-LOADED, BRONZE-BODY CONSTRUCTION. CHECK VALVES SHALL BE GLOBE, WAFER, OR DUAL CHECK TYPE VALVES WITH STAINLESS STEEL SPRINGS. CHECK VALVES SHALL BE THE SAME SIZE AS THE SERVICE METER.
K. A MORE STRINGENT METHOD OF BACKFLOW PREVENTION MAY BE REQUIRED WHEN A FERTILIZER OR PESTICIDE INJECTION SYSTEM IS SHOWN ON THE APPROVED PLANS.

2.02 ONSITE POTABLE WATER FACILITIES
A. PIPE SHALL BE WHITE-OR BLUE-COLORED PVC MATERIAL CONFORMING TO THIS SPECIFICATION.
B. QUICK-COUPLING VALVES SHALL NOT BE ACME THREAD TYPE. THEY SHALL HAVE A COVER MADE OF BRASS, YELLOW RUBBER OR VINYL.
C. ONSITE SYSTEMS DISTRIBUTING POTABLE WATER SHALL NOT HAVE PURPLE MARKINGS.

2.03 WARNING/IDENTIFICATION TAPE
WARNING/IDENTIFICATION TAPE MATERIALS SHALL CONFORM TO SECTION 15000.

PART 3 EXECUTION

3.01 ONSITE RECYCLED WATER FACILITIES
A. ONSITE RECYCLED WATER FACILITIES SHALL NOT BE INSTALLED UNTIL THE PLANS HAVE BEEN APPROVED BY THE DISTRICT ENGINEER AND THE SAN DIEGO COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH SERVICES (DOHS), AND A PRE-CONSTRUCTION MEETING HAS BEEN HELD WITH THE DISTRICT INSPECTION DIVISION. IF ANY PORTION OF THE ONSITE RECYCLED SYSTEM IS INSTALLED PRIOR TO PLAN APPROVAL AND/OR INSPECTION, ALL OR ANY PORTION OF THE SYSTEM SHALL BE EXPOSED AND CORRECTED AS DIRECTED BY THE DISTRICT ENGINEER.
B. ONSITE RECYCLED WATER FACILITIES SHALL BE INSTALLED AS SHOWN ON THE APPROVED PLANS DEVIATIONS FROM THESE PLANS BY THE INSTALLER SHALL NOT BE PERMITTED UNTIL THE REVISED PLANS HAVE BEEN SUBMITED TO, AND APPROVED BY, THE GOVERNING REGULATORY AGENCIES.
C. INSTALLATION OF ONSITE RECYCLED WATER FACILITIES SHALL CONFORM TO THE FOLLOWING:
1. THE RECYCLED WATER SYSTEM SHALL BE SEPARATE AND INDEPENDENT OF ANY POTABLE WATER SYSTEM. CROSS CONNECTIONS BETWEEN POTABLE WATER FACILITIES AND ONSITE RECYCLED WATER FACILITIES ARE PROHIBITED.
2. HOSE BIBS ON RECYCLED WATER FACILITIES ARE PROHIBITED.
3. DRINKING FOUNTAINS SHALL BE PROTECTED FROM THE SPRAY OF RECYCLED WATER IN A MANNER APPROVED BY THE GOVERNING REGULATORY AGENCIES AND AS DIRECTED BY THE DISTRICT ENGINEER.
4. CONDITIONS THAT CAUSE OVERSPRAY, PONDING AND RUNOFF SHALL BE LIMITED OR PREVENTED.
D. ONSITE RECYCLED WATER AND POTABLE WATER FACILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:
1. THE HORIZONTAL SEPARATION BETWEEN ONSITE RECYCLED AND POTABLE LINES SHALL BE A MINIMUM OF 1200MM (48"), MEASURED BETWEEN OUTSIDE DIAMETERS.
2. IN GENERAL, ONSITE RECYCLED WATER LINES SHALL BE INSTALLED BELOW POTABLE WATER LINES, WITH A MINIMUM VERTICAL SEPARATION OF 300MM (12"), MEASURED BETWEEN OUTSIDE DIAMETERS. EXCEPTIONS TO THIS GENERAL REQUIREMENT ARE AS FOLLOWS:
A. RECYCLED WATER LINES MAY BE INSTALLED ABOVE POTABLE WATER LINES WHERE THE RECYCLED LINES (LATERALS) ARE INTERMITTENTLY PRESSURIZED. NO SPECIAL CONSTRUCTION REQUIREMENTS ARE NECESSARY, PROVIDED THE 300MM (12") VERTICAL SEPARATION IS MAINTAINED.
B. CONSTANTLY PRESSURIZED RECYCLED WATER LINES MAY BE INSTALLED ABOVE POTABLE WATER LINES PROVIDING THE RECYCLED PRESSURED LINE HAS AN AUTOMATIC FLOW CONTROL/SHUT-OFF DEVICE INSTALLED, OR THE RECYCLED LINE IS SLEEVED. AN AUTOMATIC FLOW CONTROL/SHUT-OFF DEVICE SHALL TERMINATE ALL FLOW TO A LATERAL AUTOMATICALLY SHOULD THE FLOW EXCEED A PRESET MAXIMUM FLOW (GPM). SLEEVING SHALL EXTEND 1.5M (5') EACH SIDE FROM THE CENTER-LINE OF THE POTABLE LINE, FOR A TOTAL LENGTH OF 3M (10'). THE SLEEVE SHALL BE PURPLE PVC. IN ALL CASES, THE 300MM (12") VERTICAL SEPARATION SHALL BE MAINTAINED.
E. ONSITE RECYCLED WATER SYSTEMS SHALL BE INSTALLED TO PREVENT DISCHARGE ONTO AREAS NOT UNDER CONTROL OF THE OWNER. APPROPRIATE IRRIGATION COMPONENTS SHALL BE EMPLOYED IN THE INSTALLATION TO CONFINE THE DISCHARGE TO THE APPROVED USE AREA. THE INSTALLATION SHALL AVOID SPRAY PATTERNS WHICH DISCHARGE ONTO OBSTRUCTIONS THAT TEND TO CONCENTRATE WATER TO PRODUCE PONDING AND/OR RUNOFF.

3.03 MONITORING AND INSPECTION
THE DISTRICT SHALL MONITOR AND INSPECT THE ENTIRE RECYCLED DISTRIBUTION FACILITY, INCLUDING BOTH OFFSITE AND ONSITE FACILITIES. THE DISTRICT SHALL CONDUCT MONITORING PROGRAMS, MAINTAIN RECORDS AS DEEMED NECESSARY, INSPECT F. ONSITE RECYCLED WATER SYSTEMS SHALL BE INSTALLED TO OPERATE DURING PERIODS OF MINIMAL PUBLIC USE OF THE AREA. THE TOTAL TIME REQUIRED TO IRRIGATE THE DESIGN AREA SHALL NOT EXCEED NINE (9) HOURS IN ANY 24-HOUR PERIOD. THE SYSTEM SHALL BE INSTALLED TO OPERATE BETWEEN THE HOURS OF 9 PM AND 6 AM.
G. ONSITE RECYCLED WATER SYSTEMS SHALL BE INSTALLED TO THE FOLLOWING MINIMUM TOP OF PIPE DEPTH REQUIREMENTS:
1. INTERMITTENT PRESSURE LINES 50MM (2") AND SMALLER - 300MM (12").
2. CONSTANT PRESSURE LINES SMALLER THAN 150MM (6") - 450MM (18").
3. CONSTANT PRESSURE LINES 150MM (6") AND LARGER - 750MM (30").
H. WARNING/IDENTIFICATION TAPE SHALL BE INSTALLED ON ALL ONSITE POTABLE AND RECYCLED LINES AS CALLED FOR IN SECTION 15000.

3.04 VIOLATION AND NOTIFICATION
A. THE DISTRICT RESERVES THE RIGHT TO DETERMINE WHETHER A VIOLATION OF THE RULES AND REGULATIONS HAS RESULTED FROM ANY ACTION OR OCCURRENCE THAT IS THE RESPONSIBILITY OF A CUSTOMER. INSOFAR AS THE VIOLATION OF THESE STANDARDS SPECIFICATIONS CONSTITUTES A VIOLATION OF ANY REGULATORY AGENCY REQUIREMENT, THE DISTRICT SHALL MAKE ITS DETERMINATION WITH CONSULTATION ON BEHALF OF THE CONCERNED AGENCY.
B. SPECIFIC VIOLATIONS SHALL INCLUDE THOSE THAT DIRECTLY CAUSE NONCOMPLIANCE WITH ANYONE OF THE SPECIFIC PROHIBITIONS AS LISTED IN THESE RULES AND REGULATIONS. HOWEVER, BY DEFINITION, NONCOMPLIANCE WITH ANY CONDITION OR CONDITIONS OF THESE RULES AND REGULATIONS, WHETHER WILLFULLY OR BY ACCIDENT, SHALL CONSTITUTE A VIOLATION. C. IT IS THE RESPONSIBILITY OF THE CUSTOMER TO NOTIFY THE DISTRICT OF ANY AND ALL FAILURES IN THE ONSITE RECYCLED WATER SYSTEM WHETHER OR NOT IN THE CUSTOMER'S OPINION THE FAILURES RESULTED IN VIOLATIONS. FAILURES MAY OCCUR AS A RESULT OF THE CUSTOMER'S ACTION, AN ACTION BY UNAUTHORIZED PERSONNEL OR ANY NON-DESIGNATED USE OF THE RECYCLED WATER SERVICE. IF THERE ARE ANY DOUBTS REGARDING WHETHER A VIOLATION HAS OCCURRED, THE CUSTOMER SHOULD NOTIFY THE DISTRICT SO THAT A DETERMINATION CAN BE MADE.
D. NOTIFICATION OF FAILURES AND VIOLATIONS SHOULD BE MADE BY TELEPHONE, AS SOON AS POSSIBLE, TO THE DISTRICT. IF THE FAILURE OCCURS AFTER NORMAL BUSINESS HOURS, NOTIFICATION SHOULD BE MADE NO LATER THAN 9:00 A.M. ON THE NEXT REGULAR BUSINESS DAY FOLLOWING THE OCCURRENCE.

3.05 CORRECTIVE ACTION
A. IF THE DISTRICT'S INVESTIGATION RESULTS IN THE DETERMINATION THAT A VIOLATION HAS OCCURRED, THEN IT SHALL BE THE RESPONSIBILITY OF THE CUSTOMER TO INITIATE CORRECTIVE ACTION. PERTINENT VIOLATIONS WILL BE DOCUMENTED AND A COPY OF THIS NOTICE WILL BE HAND-DELIVERED OR MAILED TO THE CUSTOMER.
B. A TIMETABLE FOR COMPLETING THE CORRECTIVE ACTION SHOULD BE NEGOTIATED WITH THE DISTRICT BY THE CUSTOMER. SUCH CORRECTIONS CAN INVOLVE HUMAN FACTORS, SUCH AS ADDITIONAL TRAINING OR PROCEDURES MODIFICATIONS, AS WELL AS PHYSICAL ALTERATIONS TO THE SYSTEM. CORRECTIONS NOT MADE IN ACCORDANCE WITH THE TIMETABLE SHALL RESULT IN THE TERMINATION OF SERVICE BY SHUTTING OFF AND LOCKING THE METER.
C. IF, IN THE OPINION OF THE DISTRICT, THE VIOLATION CONSTITUTES AN IMMEDIATE DANGER TO THE PUBLIC HEALTH, THEN SERVICE SHALL BE TERMINATED IMMEDIATELY BY SHUTTING OFF THE METER OR SERVICE AND LOCKING IT. SERVICE SHALL BE RESUMED ONLY AFTER THE VIOLATION HAS BEEN CORRECTED TO THE SATISFACTION OF THE DISTRICT.
D. THE CUSTOMER IS TO MAINTAIN A WRITTEN LOG OF ALL SYSTEM FAILURES AND VIOLATIONS, INCLUDING CORRECTIVE ACTION TAKEN. THE LOG WILL BE REVIEWED BY THE DISTRICT REGULARLY.

WATER AGENCY STANDARDS (WAS) SECTION 15152 SHALL TAKE PRECEDENCE IN THE EVENT OF CONFLICT.

3.06 ADMINISTRATIVE REVIEW
A MANDATORY ADMINISTRATIVE REVIEW WILL BE CONDUCTED TO EXAMINE CUSTOMER'S IRRIGATION PRACTICE IF THREE WRITTEN VIOLATIONS ARE ISSUED WITHIN A 30-DAY PERIOD. THE DISTRICT AND CUSTOMER OR AGENT IS REQUIRED TO PRESENT REASONS FOR NON-COMPLIANCE WITH THESE RULES AND REGULATIONS. THE CUSTOMER SHALL PRESENT A PLAN FOR CORRECTIVE ACTION ACCEPTABLE TO THE DISTRICT AND THE REGULATORY AGENCIES. THE ACCEPTED PLAN AND IMPLEMENTATION SCHEDULE SHALL BE ADHERED TO OR SERVICE MAY BE SUSPENDED.

LANDSCAPE IRRIGATION SPECIFICATIONS

PART 1 - GENERAL PROVISIONS

PART 1 SHALL CONFORM TO PART 1 SECTION 15152 OF THE WATER AGENCIES' STANDARDS, LATEST EDITION, WHERE APPLICABLE, EXCEPT AS HEREINAFTER MODIFIED, REVISED AND/OR CHANGED:

1.1. DEFINITIONS:
1.1.1. CITY: CITY OF CHULA VISTA
1.1.2. OWNER: HOME FED CORP.
1.1.3. LANDSCAPE ARCHITECT: TRIBUTARY 17 L.A.

1.2. SCOPE OF CONTRACT:
1.2.1. THE FOLLOWING TERMS, CONDITIONS, AND INSTRUCTIONS, AS WELL AS THE LANDSCAPE ARCHITECT'S PLANS AND SPECIFICATIONS, THE CONTRACTOR'S CONTRACT AND SHOP DRAWINGS AND ANY CHANGE ORDERS AND/OR ADDENDUM'S ISSUED BY LANDSCAPE ARCHITECT SHALL FORM THE GENERAL CONTRACT.
1.2.2. NO CHANGE FROM THE GENERAL CONTRACT SHALL BE MADE WITHOUT AUTHORIZATION FROM THE LANDSCAPE ARCHITECT AND OWNER. ALL SUCH INSTRUCTIONS SHALL BE IN WRITING ON A "CHANGE ORDER" FORM. UNLESS CONTRACTOR NOTIFIES LANDSCAPE ARCHITECT WITHIN FORTY-EIGHT (48) HOURS UPON RECEIPT OF A CHANGE ORDER, SUCH ORDER SHALL CONSTITUTE A PART OF THE GENERAL CONTRACT. THE LANDSCAPE ARCHITECT SHALL HAVE AUTHORITY TO MAKE MINOR CHANGES. ANY CHANGES INVOLVING EXTRA COST OR ALTERATION OF THE OVERALL APPEARANCE OF THE PROJECT SHALL BE COUNTER-SIGNED BY THE OWNER. THE LANDSCAPE ARCHITECT MAY INSTRUCT THE CONTRACTOR TO ISSUE CHANGE ORDERS FOR ANY ADDITION, ALTERATION, OR DEDUCTION HE WISHES TO MAKE. THE CONTRACT PRICE SHALL BE ADJUSTED BY EQUITABLE AGREEMENT TO COVER SUCH CHANGES. IF ANY INSTRUCTION BY LANDSCAPE ARCHITECT INVOLVES EXTRA COST TO THE CONTRACTOR, HE SHALL GIVE WRITTEN NOTICE TO THE OWNER BEFORE PROCEEDING WITH WORK.

1.3. LANDSCAPE CONSTRUCTION DOCUMENTS:
1.3.1. THE OWNER SHALL FURNISH THE CONTRACTOR WITH ALL DRAWINGS, SPECIFICATIONS, REVISIONS ORDERED BY THE LANDSCAPE ARCHITECT, AND CHANGE ORDERS. THE CONTRACTOR WILL FURNISH HIS CONTRACT, ANY SHOP DRAWINGS REQUIRED AND A WORK SHEET ON WHICH HE WILL NOTE ANY DEVIATION FROM THE CONTRACT NOT OTHERWISE COVERED. THE CONTRACTOR WILL KEEP ON THE JOB AT ALL TIMES A FIELD SET OF DRAWINGS, WORK SHEET AND SHOP DRAWINGS, UPDATED WEEKLY, UPON WHICH DEVIATIONS ARE NOTED.
1.3.2. THESE PLANS ARE PREPARED FOR THE CONVENIENCE OF THE CONTRACTOR; THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS, WHICH MAY AFFECT THE INTENDED DESIGN OF THE LANDSCAPE WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.
1.3.3. THE IRRIGATION DESIGN AS INDICATED ON THE PLANS IS DIAGRAMMATIC. SCALED DIMENSIONS ARE APPROXIMATE. VERIFY ALL SITE DIMENSIONS PRIOR TO PROCEEDING WITH THE WORK.

1.4. RELATED DOCUMENTS:
1.4.1. LOCAL, MUNICIPAL AND STATE CODES, LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY MADE A PART OF THESE PLANS AND SPECIFICATIONS AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK) 2000 EDITION, AND ASSOCIATED SUPPLEMENTS.
1.4.2. CITY OF CHULA VISTA'S LANDSCAPE MANUAL, LATEST EDITION AND THE DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS, LATEST EDITION.
1.4.3. THE OTAY WATER DISTRICT'S STANDARD SPECIFICATIONS FOR WATER, SEWER AND RECYCLED FACILITIES, DATED LATEST EDITION.
1.4.4. COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH, RECYCLED WATER PLAN CHECK AND INSPECTION MANUAL, DATED LATEST EDITION.
1.4.5. AWWA - AMERICAN WATER WORKS ASSOCIATION GUIDELINES FOR DISTRIBUTION OF NON-POTABLE WATER
1.4.6. CCR - CALIFORNIA CODE OF REGULATIONS TITLE 22 AND TITLE 17.
1.4.7. DOHS - DEPARTMENT OF HEALTH SERVICES
1.4.8. WAS STANDARD DRAWINGS
1.4.9. WAS STANDARD SPECIFICATION 01000

1.5. DESCRIPTION OF WORK:
1.5.1. THE WORK CONSISTS OF FURNISHING LABOR, TOOLS, MACHINERY, MATERIALS, AND PROCESSES REQUIRED TO COMPLETE THE SPRINKLER IRRIGATION SYSTEM DESCRIBED HEREIN AND SHOWN ON THE DRAWINGS.
1.5.2. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO INDICATE AND SPECIFY A COMPLETE SPRINKLER SYSTEM, INSTALLED READY FOR USE WITHOUT FURTHER COST IN LABOR OR MATERIALS TO THE OWNER AND COMPLYING WITH ALL APPLICABLE CODES, SPECIFICATIONS AND DETAILS.

1.6. QUALITY ASSURANCE:
1.6.1. SUBCONTRACT WORK TO A SINGLE FIRM SPECIALIZING IN IRRIGATION WORK. CONTRACTOR SHALL POSSESS ALL LICENSES AND PERMITS REQUIRED TO PERFORM THE WORK OF THIS CONTRACT INCLUDING A C-27 LANDSCAPING LICENSE.

1.7. PRODUCT DATA SUBMITTALS:
1.7.1. THE CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT CATALOG DATA AND FULL DESCRIPTIVE LITERATURE FOR APPROVAL OF ITEMS DIFFERENT THAN THOSE SPECIFIED. APPROVAL OF ANY ITEM, ALTERNATE OR SUBSTITUTE INDICATES ONLY THAT THE PRODUCT(S) APPARENTLY MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS ON THE BASIS OF THE INFORMATION OR SAMPLES SUBMITTED.

1.8. RECORD DRAWINGS:
1.8.1. PRIOR TO THE INITIATION OF IRRIGATION WORK, THE LANDSCAPE CONTRACTOR SHALL REQUEST FROM THE OWNER, TWO BLUELINE SETS OF IRRIGATION PLANS AND A REPRODUCIBLE SET OF IRRIGATION PLANS FOR THEIR USE IN PREPARING THE AS-BUILT RECORD DRAWINGS.
1.8.2. AS-BUILT RECORD DRAWINGS SHALL INCLUDE ALL FIELD REVISIONS TO THE IRRIGATION SYSTEMS AND THE FOLLOWING:
WATER METER/POINT OF CONNECTIONS
ELECTRICAL METER
CROSS CONNECTION CONTROL STATION
BACKFLOW ASSEMBLY
AUTOMATIC CONTROLLER ASSEMBLY
AUTOMATIC CONTROL VALVES
REMOTE CONTROL VALVES W/ STATION DESIGNATION.
ISOLATION AND QUICK COUPLING VALVES
PRESSURE SUPPLY LINE ROUTE
CONTROL WIRE ROUTE.
SLEEVING UNDER VEHICULAR USE AREAS
1.8.3. IMMEDIATELY UPON THE INSTALLATION OF ANY BURIED PIPE OR EQUIPMENT, THE CONTRACTOR SHALL INDICATE ON THE DRAWINGS THE LOCATIONS OF SAID EQUIPMENT. DIMENSIONS SHALL BE PROVIDED FROM TWO SEPARATE GIVEN PERMANENT OBJECTS SUCH AS BUILDINGS, SIDEWALKS, CURBS AND DRIVEWAYS.
1.8.4. PRIOR TO FINAL ACCEPTANCE OF WORK, THE CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT A COMPLETE SET OF AS-BUILT DRAWINGS IN A REPRODUCIBLE FORMAT.
1.8.5. UPON APPROVAL FROM THE CITY OF CHULA VISTA, ALL FIELD REVISIONS SHALL BE RECORDED ON THE RECORD MYLAR DRAWINGS AND RESUBMITTED TO THE CITY OF CHULA VISTA.
1.8.6. THE CONTRACTOR/LANDSCAPE ARCHITECT SHALL PROVIDE TO THE CITY OF CHULA VISTA AN ELECTRONIC FILE (IN PDF FORMAT OR AS DIRECTED BY THE CITY LANDSCAPE INSPECTOR) OF THE APPROVED "AS-BUILT" PLANS. EACH VALVE SYSTEM AND ASSOCIATED CALLOUTS SHALL BE COLOR CODED TO THE SATISFACTION OF THE CITY LANDSCAPE INSPECTOR.
1.8.7. PRIOR TO THE CITY OF CHULA VISTA'S ACCEPTANCE OF A LANDSCAPE AREA WITHIN THE COMMUNITIES FACILITIES DISTRICT, A SEPARATE 11" X 17" REDUCED SCALE LANDSCAPE MAINTENANCE MAP, PREPARED IN COMPLIANCE WITH THE CITY OF CHULA VISTA'S OPEN SPACE TURN OVER REQUIREMENTS, SHALL BE SUPPLIED TO THE CITY OF CHULA VISTA'S MAINTENANCE STAFF.

*THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
*ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC.
DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: [signature] DATE: 5/11/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — Signature 9/5/17 — Renewal Date 4/30/17 — CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	NO SCALE
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: .5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A; Vertical N/A
Office ____ Field ____ Traffic ____

Designed By	Drawn By	Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD Date / / R.L.A. No. 4001

Approved: [signature] Date: 5-15-17.
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 52
Sheet 52 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014

LI-42

Print Date: 10 APR '17
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

1.9. CONTROLLER CHARTS:
1.9.1. THE CONTRACTOR SHALL PREPARE COLOR-CODED CHARTS SHOWING THE VALVES, MAINLINE, AND SPRINKLER HEADS SERVICED BY THAT PARTICULAR CONTROLLER.
1.9.2. WITHIN EACH CONTROLLER, EACH VALVE/SYSTEM SHALL BE IDENTIFIED BY A UNIQUE COLOR.
1.9.3. ALL VALVES SHALL BE NUMBERED TO MATCH THE OPERATION SCHEDULE AND THE DRAWINGS. ONLY THOSE AREAS CONTROLLED BY THAT CONTROLLER SHALL BE SHOWN.
1.9.4. CONTROLLER CHARTS SHALL BE A PLOT PLAN, ENTIRE OR PARTIAL, SHOWING BUILDINGS, WALKS, ROADS AND WALLS. A PHOTOSTATIC PRINT OF THIS PLAN, REDUCED AS NECESSARY AND LEGIBLE IN ALL DETAILS, SHALL BE MADE TO A SIZE THAT WILL FIT INTO THE CONTROLLER COVER.
1.9.5. THIS PRINT SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR THE OWNER'S AUTHORIZED REPRESENTATIVE AND SHALL BE HERMETICALLY SEALED BETWEEN TWO PIECES OF TEN MILLIMETER PLASTIC.
1.9.6. FOR EACH CONTROLLER, THE CONTRACTOR SHALL PROVIDE TWO SETS OF 11" X 17" CONTROLLER CHARTS AS FOLLOWS: ONE COLOR CODED LAMINATED SET TO: THE OTAY WATER DISTRICT.
ONE COLOR CODED LAMINATED SET TO: SECURED ON THE INSIDE SURFACE OF THE COVER OF EACH AUTOMATIC CONTROLLER.

1.10. EQUIPMENT, KEYS, MANUALS & CERTIFICATIONS:
1.10.1. UPON COMPLETION OF THE CONTRACTOR'S MAINTENANCE PERIOD, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING EQUIPMENT TO THE CITY OF CHULA VISTA:
A. (2) CONTROLLER/ C.C.U. ENCLOSURE KEYS FOR EACH ENCLOSURE.
B. (2) KEYS TO ACCESS SPECIAL ELECTRICAL SWITCH INSIDE EACH CONTROLLER ENCLOSURE.
C. (1) ACME THREAD QUICK COUPLING KEYS AND MATCHING SWIVELS FOR RECYCLED WATER IRRIGATION SYSTEMS.
D. (2) SETS OF TOOLS REQUIRED FOR SERVICING AND/OR ADJUSTING EACH SPRINKLER AND VALVE TYPE.
E. (1) COPY OF THE BACKFLOW PREVENTION DEVICE CERTIFICATION.
1.0.1. IN ADDITION TO THE EQUIPMENT REQUIRED BY THE CITY OF CHULA VISTA, THE CONTRACTOR SHALL SUBMIT THE FOLLOWING TO THE OWNER'S REPRESENTATIVE:
A. (1) CONTROLLER/C.C.U. ENCLOSURE KEYS FOR EACH ENCLOSURE.
B. (1) CONTROLLER/ C.C.U. KEYS FOR EACH CONTROLLER.
C. (1) KEYS TO ACCESS SPECIAL ELECTRICAL SWITCH INSIDE EACH CONTROLLER ENCLOSURE.
D. (1) STANDARD QUICK COUPLING LOCKING COVER KEYS
E. (1) ACME THREAD QUICK COUPLING KEYS AND MATCHING SWIVELS FOR RECYCLED WATER IRRIGATION SYSTEMS.
F. (2) SETS OF TOOLS REQUIRED FOR SERVICING AND/OR ADJUSTING EACH SPRINKLER AND VALVE TYPE.
G. (1) COPY OF THE BACKFLOW PREVENTION DEVICE CERTIFICATION.
H. (2) SETS OF SERVICE MANUALS FOR ALL IRRIGATION EQUIPMENT INSTALLED.

1.1. GUARANTEES:
1.1.1. CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE IN ACCORDANCE WITH THE GENERAL CONDITIONS, FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE AND CONCLUSION OF THE ONE (1) YEAR MAINTENANCE PERIOD. GUARANTEE SHALL COVER THE COMPLETE IRRIGATION SYSTEM, INCLUDING SETTLING OF THE BACKFILL IN TRENCHES AND REPAIRS AND/OR REPLACEMENT OF ANY MATERIAL DAMAGED THEREBY OR THERE FROM.
1.1.2. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTY SHALL ONLY SUPPLEMENT THE GUARANTEE.

1.2. WATER SERVICE:
1.2.1. POINT OF CONNECTIONS SHOWN ON PLANS ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE WITH OWNER'S AUTHORIZED REPRESENTATIVE AND GOVERNING WATER DISTRICT TO HAVE WATER AVAILABLE WHEN REQUIRED.
1.2.2. INDIVIDUALLY OWNED, ACCESSED OR MAINTAINED AREAS SHALL BE SEPARATELY METERED AND CONTROLLED.
1.2.3. EACH POINT OF CONNECTION SHALL BE SERVICED BY A CHECK VALVE, LOCATED DOWN STREAM OF THE METER AND APPROVED BY THE CITY OF CHULA VISTA, OTAY WATER DISTRICT AND THE COUNTY OF SAN DIEGO EPARTMENT OF ENVIRONMENTAL HEALTH.

1.3. ELECTRICAL SERVICE:
1.3.1. POINT OF CONNECTION SHOWN ON PLANS IS APPROXIMATE. CONTRACTOR SHALL COORDINATE WITH OWNER'S AUTHORIZED REPRESENTATIVE TO HAVE POWER AVAILABLE WHEN REQUIRED.
1.3.2. INDIVIDUALLY OWNED, ACCESSED OR MAINTAINED AREAS SHALL BE SEPARATELY METERED AND CONTROLLED.
1.3.3. CONTROLLERS SHALL OPERATE ON SINGLE PHASE, 110 TO 120 VOLT, 60 CYCLE, ALTERNATING CURRENT AND "U.L." LISTED.
1.3.4. CONTROLLERS SHALL BE ENCLOSED IN A U.L. LISTED WEATHERPROOF CORROSION-RESISTANT ENCLOSURE WITH LOCKING COVER.
1.3.5. CONDUIT FOR 120 VOLT AND 24 VOLT WIRING SHALL BE APPROVED BY GOVERNING BUILDING CODES AND INSPECTIONS FOR ELECTRICAL SERVICE.

1.4. COMMUNICATION SERVICE:
1.4.1. CENTRAL CONTROL SYSTEM AND METHOD OF COMMUNICATION TO INDIVIDUAL CONTROLLERS, SHALL BE AS SPECIFIED ON PLANS.
1.4.2. POINT OF CONNECTION SHOWN ON PLANS IS APPROXIMATE. CONTRACTOR SHALL COORDINATE WITH OWNER'S AUTHORIZED REPRESENTATIVE TO HAVE COMMUNICATION LINE AVAILABLE WHEN REQUIRED.
1.4.3. PRIOR TO INSTALLATION, CONTRACTOR SHALL FIELD VERIFY THAT PHONE COMMUNICATION TO EACH CCU LOCATION IS ADEQUATE AND UNOBSTRUCTED.

PART 2 - PRODUCTS

PART 2 SHALL CONFORM TO PART 2 SECTION 15152 OF THE WATER AGENCIES' STANDARDS, LATEST EDITION, WHERE APPLICABLE, EXCEPT AS HEREINAFTER MODIFIED, REVISED AND/OR CHANGED:

2.1. GENERAL:
2.1.1. ALL MATERIALS AND EQUIPMENT SHALL BE PURCHASED NEW, SPECIFICALLY FOR THIS PROJECT, UNLESS OTHERWISE NOTED ON THE PLANS.
2.1.2. THE CONTRACTOR SHALL FURNISH THE ARTICLES, EQUIPMENT, MATERIALS OR PROCESSES SPECIFIED BY NAME IN THE DRAWINGS AND SPECIFICATIONS. NO SUBSTITUTION WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT, OR THE OWNER'S AUTHORIZED REPRESENTATIVE. EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT THE PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT MAY BE REJECTED AND THE CONTRACTOR REQUIRED TO REMOVE AND REPLACE SUCH MATERIALS FROM THE SITE AT HIS OWN EXPENSE.
2.1.3. CROSS CONNECTION TEST STATIONS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE APPROVED PLANS AND DETAILED ON THE STANDARD DRAWINGS. IN GENERAL, ONE TEST STATION SHALL BE INSTALLED DIRECTLY DOWNSTREAM OF EACH POINT OF CONNECTION, DOWNSTREAM OF ANY PRESSURE REDUCING VALVES. ADDITIONAL CROSS CONNECTION STATION(S) MAY BE REQUIRED AS INDICATED ON THE APPROVED PLANS.

2.2. BACKFLOW PREVENTION DEVICES:
2.2.1. FOR POTABLE WATER SYSTEMS: ONLY POTABLE WATER SHALL BE USED FOR HYDROTESTING, FLUSHING, THE OPERATIONAL TEST AND THE CROSS CONNECTION TEST (IF REQUIRED). POTABLE WATER SHALL BE SUPPLIED THROUGH A SEPARATE TEMPORARY WATER METER OBTAINED FROM THE DISTRICT AND LOCATED AT A DISTRICT-APPROVED POTABLE WATER SOURCE. A REDUCED PRESSURE PRINCIPAL BACKFLOW DEVICE SHALL BE INSTALLED AT
GROUND LEVEL IMMEDIATELY DOWNSTREAM OF THE TEMPORARY POTABLE WATER METER. A TEMPORARY HIGH LINE SHALL BE INSTALLED TO SUPPLY THE PROPOSED RECYCLED IRRIGATION SYSTEM DURING THE CONSTRUCTION AND TESTING PERIOD.
2.2.1.1. REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTERS SHALL BE BRASS, BRONZE, OR EPOXY COATED CAST IRON BODIES WITH ALL BRONZE OR STAINLESS STEEL TRIM AND ALL MOVING PARTS OF NON-CORROSIVE MATERIALS, AND SHALL COMPLETELY AND POSITIVELY PREVENT BACK-SIPHONING OF WATER. THE BACKFLOW PREVENTER ASSEMBLY SHALL INCLUDE INLET AND DISCHARGE SHUTOFF BALL VALVES WITH ALL RISERS, CONNECTORS, AND APPURTENANCES OF CLASS 1 RED BRASS PIPE, CONFORMING TO WW-P-351, AND RED BRASS FITTINGS WITH PRESSURE RATING 1 CONFORMING TO WW-P-460. BACKFLOW PREVENTERS SHALL BE OF THE TYPE AND SIZE DESIGNATED ON THE DRAWINGS.
2.2.1.2. ATMOSPHERIC AND ANTI-SIPHON BACKFLOW PREVENTERS SHALL BE BRASS WITH NON-CORROSIVE PARTS AND SHALL COMPLETELY AND POSITIVELY PREVENT BACK-SIPHONING OF WATER. ANTI-SIPHON VALVES SHALL BE CONVERTIBLE TO AUTOMATIC CONTROL. BACKFLOW PREVENTERS SHALL BE TYPE AND SIZE AS DESIGNATED ON THE DRAWINGS.
2.2.2. FOR RECYCLED WATER SYSTEMS: SPRING CHECK VALVE WITH WYE-STRAINER. CONSTRUCTED OF ASTM B-584 CAST BRONZE. CHECK VALVE SHALL BE IN-LINE AND SPRING LOADED WITH STAINLESS STEEL SPRING AND BRASS SEATS. WYE STRAINER WITH EPDM O-RING CAP GASKET. WYE STRAINER TO BE WITH 30 MESH STAINLESS STEEL SCREEN. WYE STRAINER SHALL HAVE 1/2" BRONZE BALL VALVE ON THE WYE LEG. SIZES TO MATCH WATER METER. SEE LEGEND FOR MANUFACTURES AND PART NUMBERS.
2.2.3. ATMOSPHERIC AND ANTI-SIPHON BACKFLOW PREVENTERS SHALL BE BRASS WITH NON-CORROSIVE PARTS AND SHALL COMPLETELY AND POSITIVELY PREVENT BACK-SIPHONING OF WATER. ANTI-SIPHON VALVES SHALL BE CONVERTIBLE TO AUTOMATIC CONTROL. BACKFLOW PREVENTERS SHALL BE TYPE AND SIZE AS DESIGNATED ON THE DRAWINGS.

2.3. PRESSURE REGULATION DEVCES: AS SPECIFIED IN DRAWINGS.
2.4. AUTOMATIC CONTROL SYSTEM: AS SPECIFIED IN DRAWINGS.
2.4.1. CONTRACTOR SHALL FURNISH LOW VOLTAGE SYSTEM MANUFACTURED EXPRESSLY FOR CONTROL OF AUTOMATIC CIRCUIT VALVES OF UNDERGROUND IRRIGATON SYSTEMS. PROVIDE UNIT OF CAPACITY TO SUIT NUMBER OF CIRCUITS AS INDICATED.
2.4.2. MECHANISM SHALL BE HOUSED IN A STURDY, VANDAL-PROOF ENCLOSURE, MANUFACTURED OF 14 GAUGE STEEL, OR CASE ALUMINUM; FURNISHED FOR MAXINUM PROTECTION, AS CALLED FOR ON THE DRAWINGS (SIZE AS REQUIRED).

2.5. AUTOMATIC CONTROL WIRE: LOW VOLTAGE
2.5.1. DIRECT BURIAL COPPER WIRE AWG-U.F. 600 VOLT, SINGLE CONDUCTOR SOLID COPPER, PLASTIC INSULATED CABLE, U.L. APPROVED FOR DIRECT BURIAL APPLICATION.
2.5.2.1. FOR TRADITIONAL CONTROL SYSTEMS WITH SINGLE PILOT WIRE TO EACH REMOTE CONTROL VALVE, WIRE SIZE SHALL BE AS FOLLOWS:

WIRE RUN	PILOT WIRE SIZE	COMMON WIRE SIZE
TO 1200'	14 GA.	12 GA.
EXCEEDING 1200'	12 GA.	12 GA.

2.5.2.2. FOR TRADITIONAL CONTROL SYSTEMS WITH SINGLE PILOT WIRE TO EACH REMOTE CONTROL VALVE, WIRE COLOR SHALL BE AS FOLLOWS:
PILOT WIRES SHALL NOT BE WHITE OR RED AND MUST BE UNIQUE IN COLOR FOR EACH CONTROLLER. COMMON WIRE SHALL BE WHITE WITH COLORED STRIP EQUAL IN COLOR TO PILOT WIRE.
EXAMPLE:

CONTROLLER	PILOT WIRE	COMMON WIRE	SPARE WIRE
"H-1"	BLACK	WHITE W/BLACK STRIPE	RED W/BLACK STRIPE
"H-2"	BLUE	WHITE W/BLUE STRIP	RED W/BLUE STRIPE
"H-3"	YELLOW	WHITE W/YELLOW STRIPE	RED W/YELLOW STRIPE

2.5.2.3. WIRE CONNECTORS FOR SPLICING 24 VAC CONTROL WIRE SHALL BE WATERPROOF, DIRECT BURY, PRE-FILLED SPLICE HOUSING WITH DIELECTRIC SILICON SEALANT WITH WIRE NUTS OR BRASS CRIMP. WIRE CONNECTOR SHALL BE MODEL DBY AS MANUFACTURED BY THE 3M COMPANY, OR EQUAL.

2.6. FLOW, RAIN, MOISTURE SENSNG DEVICES:
2.6.1. ALL SENSING DEVICES SHALL BE AS SPECIFIED IN DRAWINGS.

2.7. MASTER CONTROL / REMOTE CONTROL VALVES: AS SPECIFIED IN DRAWINGS.
2.7.1. VALVES SHALL BE OPERABLE MANUALLY WITHOUT ELECTRICITY BY MEANS OF AN INTERNAL BLEED. THE VALVE SHALL HAVE A PRESSURE REGULATING MODULE CAPABLE OF REGULATING OUTLET PRESSURE BETWEEN 15 AND 100 P.S.I. (+OR- 5 P.S.I.). MODULE SHALL HAVE AN ADJUSTING SCREW FOR SETTING PRESSURE AND A SCHRADER VALVE CONNECTION FOR MONITORING PRESSURE. PRESSURE REGULATOR SHALL BE ADJUSTED AT EACH VALVE FOR PROPER DOWNSTREAM PRESSURE REQUIRED.

2.8. QUICK COUPLING VALVES:
2.8.1. QUICK COUPLING VALVES SHALL BE 1" SIZE, 2-PIECE BRASS BODY WITH STAINLESS SPRING. AS SPECIFIED ON THE DRAWINGS.
2.8.2. QUICK COUPLING VALVES SERVICING POTABLE WATER IRRIGATION SYSTEMS SHALL ACCEPT A STANDARD BAYONET STYLE KEY. VALVE BODY SHALL BE WITH LOCKING YELLOW RUBBER COVER.
2.8.3. QUICK COUPLING VALVES SERVICING RECYCLED WATER IRRIGATION SYSTEMS SHALL ACCEPT AN ACME-THREADED KEY. VALVE BODY SHALL BE WITH LOCKNG PURPLE RUBBER COVER. COVER SHALL BE MARKED "DO NOT DRINK" IN SPANISH AND ENGLISH, AND THE INTERNATIONAL "DO NOT DRINK" SYMBOL. THE WARNING SHALL BE PERMANENTLY MOLDED ON THE COVER.
2.8.3.1. ACME THREADED QUICK COUPLING VALVES ARE NOT PERMITTED ON POTABLE WATER SYSTEMS.
2.8.4. QUICK COUPLING KEY SHALL BE OF BRASS/BRONZE WITH SWIVEL ASSEMBLY. SUPPLY TWO (2) KEY/SWIVEL ASSEMBLIES FOR EACH TYPE OF QUICK COUPLING VALVE USED.

2.9. BALL VALVES OR GATE VALVES: AS SPECIFIED IN DRAWINGS.

2.10. NON-PRESSURE LATERAL LINE ANTI-DRAIN VALVES:
2.10.1. ANTI-DRAIN VALVES SHALL BE REQUIRED TO PREVENT LOW HEAD DRAINAGE OF IRRIGATION WATER FROM SPRINKLER SYSTEM DUE TO CHANGES IN ELEVATION
2.10.2. ANTI-DRAIN VALVES SPECIFIED WITHIN CITY OF CHULA VISTA C.F.D. MAINTAINED AREAS SHALL BE VALCON 5000-SERIES.
2.10.3. ANTI-DRAIN VALVES SPECIFIED WITHIN HOME OWNER ASSOCIATION MAINTAINED AREAS SHALL BE HUNTER HCV-SERIES.

2.11. MANUAL AND ANTI-SIPHON VALVES:
2.11.1. MANUAL AND ANTI-SIPHON CONTROL VALVES SHALL BE BRASS OR PLASTIC WITH NON-CORROSIVE INTERNAL PARTS AND CONVERTIBLE TO AUTOMATIC CONTROL. VALVES SHALL BE THE TYPE AND SIZE AS DESIGNATED ON THE DRAWINGS.

2.12. VALVE AND PULL BOXES:
2.12.1. VALVE BOX OR BOX ASSEMBLIES FOR USE WITH RECYCLED WATER:
2.12.1.1. MASTER CONTROL VALVE/PRESSURE REGULATOR ASSEMBLY:
2.12.1.1.1. 1" VALVE ASSEMBLY. SHALL BE A STANDARD RECTANGULAR PLASTIC VALVE BOX AND 6" EXTENSION WITH LOCKABLE PURPLE TOP. MANUFACTURED BY DURA PLASTICS, PART #123-DB-2-DS, OR EQUAL.
2.12.1.1.2. 1-1/2" AND 2" VALVE ASSEMBLY. SHALL BE A JUMBO RECTANGULAR PLASTIC VALVE BOX AND 6" EXTENSION WITH LOCKABLE PURPLE TOP MANUFACTURED BY RAINBIRD, PART #PVBJMBP (BOX) AND #PVBJMBEXTP (EXTENSION).
2.12.1.2. REMOTE CONTROL VALVE, ISOLATION BALL VALVE ASSEMBLY:
2.12.1.2.1. SHALL BE A STANDARD RECTANGULAR PLASTIC VALVE BOX WITH LOCKABLE PURPLE TOP. MANUFACTURED BY DURA PLASTICS, PART #123-DB-2-DS, OR EQUAL.
2.12.1.3. QUICK COUPLER VALVE ASSEMBLY:
2.12.1.3.1. SHALL BE A 12" ROUND PLASTIC VALVE BOX WITH LOCKABLE PURPLE TOP. MANUFACTURED BY DURA PLASTICS, PART #103-DB-2-DS, OR EQUAL.
2.12.1.4. MAINLINE STUB-OUT
2.12.1.4.1. SHALL BE A STANDARD RECTANGULAR PLASTIC VALVE BOX AND 6" EXTENSION WITH LOCKABLE PURPLE TOP MANUFACTURED BY DURA PLASTICS PART #123-DB-2-DS.

2.12.2 VALVE BOX OR BOX ASSEMBLIES FOR USE WITH POTABLE WATER:
2.12.2.1. MASTER CONTROL VALVE/PRESSURE REGULATOR ASSEMBLY:
2.12.2.1.1. 1" VALVE ASSEMBLY. SHALL BE A STANDARD RECTANGULAR PLASTIC VALVE BOX AND 6" EXTENSION WITH LOCKABLE GREEN TOP. MANUFACTURED BY DURA PLASTICS, PART #121-DB-2-DS, OR EQUAL.
2.12.2.1.2. 1-1/2" AND 2" VALVE ASSEMBLY. SHALL BE A JUMBO RECTANGULAR PLASTIC VALVE BOX AND 6" EXTENSION WITH LOCKABLE GREEN TOP MANUFACTURED BY RAINBIRD, PART #PVBJMB (BOX) AND #PVBJMBEXT (EXTENSION).
2.12.2.2. REMOTE CONTROL VALVE, ISOLATION BALL VALVE ASSEMBLY:
2.12.2.2.1. SHALL BE A STANDARD RECTANGULAR PLASTIC VALVE BOX WITH LOCKABLE GREEN TOP. MANUFACTURED BY DURA PLASTICS, PART #121-DB-2-DS, OR EQUAL.
2.12.2.3. QUICK COUPLER VALVE ASSEMBLY:
2.12.2.3.1. SHALL BE A 12" ROUND PLASTIC VALVE BOX WITH LOCKABLE GREEN TOP. MANUFACTURED BY DURA PLASTICS, PART #101-DB-2-DS, OR EQUAL.
2.12.2.4. MAINLINE STUB-OUT
2.12.2.4.1. SHALL BE A STANDARD RECTANGULAR PLASTIC VALVE BOX AND 6" EXTENSION WITH LOCKABLE GREEN TOP MANUFACTURED BY DURA PLASTICS PART #121-DB-2-DS.

2.12.3. PULL OR SPLICE BOXES:
FOR 16 CONTROL WIRES OR LESS SHALL BE A 12" ROUND PLASTIC VALVE BOX WITH LOCKABLE GREEN TOP. MANUFACTURED BY DURA PLASTICS, PART #101-DB-2-DS, OR EQUAL.
FOR MORE THAN 16 CONTROL WIRES OR FOR CONDUITED PULL BOX. SHALL BE A STANDARD RECTANGULAR PLASTIC VALVE BOX WITH LOCKABLE GREEN TOP. MANUFACTURED BY DURA PLASTICS, PART #121-DB-2-DS, OR EQUAL.

2.13. PIPE AND FITTINGS:
2.13.1. Polyvinyl chloride (PVC) pipe and fittings:
2.13.1.1. All on-site recycled water irrigation piping, and on-site potable water piping installed under this design shall be identified in accordance with the district's standard specifications.
2.13.1.2. All PVC pipe shall be made from N.S.F. approved, Type I, Grade II PVC compound conforming to ASTM resin specification D1784. Pipe shall meet requirements set forth in federal specification PS-22-70 with an appropriate standard dimension ratio.
2.13.1.3. Furnish plastic pipe continuously and permanently marked with following information: manufacturer's name or trade mark, size, class and type of pipe, working pressure at 73.4 degrees F, and national sanitation foundation (N.S.F.) rating.
2.13.1.4. All pressure supply lines located upstream of remote control valves and quick couplers shall meet the following criteria:
2.13.1.4.1. All two (2) inch and larger sized pipe shall be class 315 polyvinyl chloride (PVC) with a standard dimension ratio (SDR) of 13.5. Conforming to ASTM resin specification D1784 and product design specification ASTM D2241.
2.13.1.4.2. All One and one-half (1-1/2) inch and smaller sized pipe shall be schedule 40 polyvinyl chloride (PVC conforming to ASTM resin specification D1784 and product design specification ASTM 1785.
2.13.1.5. All non-pressure distribution (lateral) lines located downstream of remote control valves shall meet the following criteria:
2.13.1.5.1. For irrigated areas, located within a City of Chula Vista community facilities district, all non-pressure lateral lines shall be schedule 40 polyvinyl chloride (PVC) conforming to ASTM resin specification d1784 and product design specification ASTM D1785
2.13.1.5.2. For irrigated areas, located within a home owner's association maintained area, all non-pressure lateral lines shall be Class 200 polyvinyl chloride (PVC) with SDR of 21
Conforming to ASTM resin specification d1784 and product design specification ASTM d2241.
2.13.1.5.3. Minimum lateral line pipe size is 3/4". 1/2" diameter pipe is not permitted.
2.13.1.6. No close nipples shall be used.
2.13.1.7. All on-site potable water piping shall be white PVC.
2.13.1.8. All on-site recycled water piping shall be purple colored PVC, continuously stenciled on opposite sides of the pipe with the words "CAUTION-RECYCLED WATER". Pacific plastic cycle slow recycled water pipe or equal.
2.13.1.9. Polyvinyl chloride pipe fittings and connections shall be produced from Type I, Grade 1, polyvinyl chloride conforming to ASTM resin specification D1784. Fittings shall be high impact molded fittings, manufactured from virgin compounds as specfied for piping tapered socket or molded thread type, suitable for either solvent weld or screwed connections. Machine threaded fittings and plastic sacdb and flange fittings are not acceptable. Furnish fittings permanently marked with the following information: nominal pipe size, type and schedule of material, and national sanitation foundation (N.S.F.) seal of approval.
2.13.1.9.1. Fittings for pressure supply lines located upstream of remote control valves and quick couplers shall meet the following criteria:
Fittings shall be schedule 80 socket and/or threaded type conforming product design specification ASTM D2467 and ASTM D2464.
2.13.1.9.2. Fittings for non-pressure distribution lines located downstream of remote control valves shall meet the following criteria:
Fittings shall be schedule 40 socket and/or threaded type conforming product design specification ASTM D2466.
2.13.1.10. Sleeves servicing water lines and electrical conduit shall be schedule 40 polyvinyl chloride (PVC) conforming to ASTM resin specification D1784 and product design specification ASTM D1785
2.13.1.11. Electrical conduit for low voltage control wire to be PVC Sch 40 grey.
2.13.1.12. Solvent cements shall comply with ASTM D2564. Socket joints shall be made per recommended procedures for joining PVC plastic pipe and fittings with PVC solvent cement by the pipe and fitting manufacturer and procedures outlined in the appendix of ASTM D2564.
2.13.1.13. Thread lubricant shall be Teflon ribbon-type, or approved equal, suitable for threaded installations as per manufacturer's recommendations.

2.13.2. METALLIC PIPE AND FITTINGS
2.13.2.1. Copper pipe shall be Type K hard copper. For plumbing installations between the water meter and the backflow prevention device as required by the district and illustrated by the water agency standards detail drawings.
2.13.2.2. Fittings for copper tubing shall meet ANSI B 16.22 wrought copper or cast brass, recessed solder joint type fittings.
2.13.2.3 Brass pipe shall be IPS standard weight 125 pounds, 85% red brass.
2.13.2.4. Brass fittings shall be standard 125 pound class 85% red brass fittings and connections.
2.13.2.5. Galvanized steel pipe shall be schedule 40 ASTM, 120-gip threaded, coupled and hot-dip galvanized.
2.13.2.6. Galvanized steel fittings shall be heavy pattern, banded, and galvanized malleable iron.

2.14. CONCRETE THRUST BLOCK AND SUPPORTS:
2.14.1. All concrete work shall be 2,000 PSI minimum compressive strength at twenty-eight (28) days, 5 sack mix, tool finished on exposed surfaces.

2.15. IDENTIFICATION TAPE:
2.15.1. Warning/Identification Tape materials shall conform to W.A.S Part 2.08 of Section 15000.
2.15.2. Marker tape shall be 5 mil polyethylene, 3" wide with a 20 gauge solid aluminum foil core as manufactured by T. Christy Enterprises at (800) 258-4583. Further marking tape shall meet the following criteria:
2.15.2.1. For constant pressure lines of systems connected to a potable water source, tape shall be blue in color with the words, "CAUTION WATER LINE BELOW" in 1" high black letters. Model number TA-DT -03-BW or equal.
2.15.2.2. For constant pressure lines of systems connected to a recycled water source, tape shall be purple in color with the words, "CAUTION RECYCLED/RECLAIMED WATER LINE BELOW" in 1" high black letters. Model number TA-DT-03-PRW or equal.
2.15.2.3. For control wire not installed with a constant pressure line, tape shall be red in color with the words, 'CAUTION ELECTRICAL LINE BELOW" in 1" high black letters. Model number TA-DT -03-RE or equal.

2.16. WARNING AND VALVE/STATION IDENTIFICATION TAGS:
2.16.1. Recycled water identification tags shall be weatherproof plastic 3" x 4", purple in color with words in black letters reading, "CAUTION-RECYCLED WATER- DO NOT DRINK", imprinted on one side and "PELIGRO-AGUA IMPURA - NO TOMAR", printed on the other side.
2.16.2. Warning tags shall be model # ID -MAX-P2-RC006 manufactured by T. Christy Enterprises, or equal.
2.16.3. Valve/station identification tags for recycled water systems shall be weatherproof plastic 3" x 4", purple in color with controller and station number printed in 1-1/8" high black letters. Tags shall be model # ID -STD-P1 as manufactured by T. Christy Enterprises or equal.
2.16.4. Valve/station identification tags for potable water systems shall be weatherproof plastic 3" x 4", yellow in color with words in black letters reading, "potable water used for irrigation - do not drink", imprinted on one side. On the blank side the contractor shall provide the controller and station number in 1" high, black letters/numbers using permanent weatherproof ink. Tags shall be model # ID -MAX-Y2-PW016 as manufactured by T. Christy Enterprises, or equal.
2.16.5. Weatherproof black ink marker to be model # ID-TAGPEN as manufactured by T. Christy Enterprises, or equal.

2.17. SPRINKLERS:
2.17.1. Sprinkler heads shall be of the types and sizes with diameter (or radius) of throw, pressure, nozzle discharge and/or other designations indicated on the drawings.
2.17.2. All sprinkler heads of the same type and size shall be of the same manufacturer. Heads shall be equipped with all options and equipment per the irrigation legend.
2.17.3. All sprinkler heads shall be equipped with a manufacturer installed internal check valve, when available.
2.17.4. All sprinkler heads used on recycled water systems shall be equipped with manufacturer's purple covers.

2.18. DRIP EQUIPMENT (See irrigation Legend, Notes and Detail Drawings):
2.18.1. Pressure Regulators:
2.18.1.1. Pressure regulating valve for drip systems shall be a preset device for the design flows.
2.18.1.2. Pressure regulator shall be constructed of durable high-impact, engineering-grade thermoplastics and high quality stainless steel compression spring and internal hardware.
2.18.1.3. Pressure regulating valve shall be as specified in the irrigation legend and sized according to notes in the detail drawings.
A. Pressure regulating valve may be a separate component of the drip control valve assembly as shown in the irigation equipment legend.
B. Pressure regulating valve may be an integrated component of the drip control valve kit as distributed by the manufacturer.
2.18.2. Strainer / Filter Units:
2.18.2.1. Screen filter for drip systems shall be a basket type body allowing for top access. Screen filter shall be manufactured of high-impact, engineering-grade thermoplastics with polyester mesh screen element welded to a color-coded polypropylene frame. Color coding indicating mesh size (all filters to have white elements indicating 200 mesh).
2.18.2.2. Screen filter inlet and outlet to be at the bottom of the body allowing continuous progression of instalaton from valve to sub-main at equal elevation.
2.18.2.3. Screen filter to have a pressure differential indicator on the top cover.
2.18.2.4. Screen filter shall be sized according to notes in the detail drawings and legend.
2.18.2.5. Screen filter to be model qkchk-075 or qkchk-100 and be an integral component of the drip control valve assembly.
2.18.3. Drip Lateral Blow-Out:
2.18.3.1. Drip lateral blow-out shall be a manual device fabricated as detailed. Manual flushing at regular intervals will allow high flow velocity for sediment removal.
2.18.4. Drip lateral air/vacuum relief valve:
2.18.4.1. Drip system air/vacuum relief valve shall be a true vacuum relief appurtenance.
2.18.4.2. Drip lateral air/vacuum relief valve to be model TLAVRV valve kit as manufactured and distributed by Netafim.
2.18.5. Drip Tubing (lateral):
2.18.5.1. Drip tubing shall be constructed of premium grade, linear, low density, polyethylene resin with 2% carbon black added or U.V. protection.
2.18.5.2. Drip tubing shall be with integral pressure compensating emitters, pre-inserted within the tubing interior during the extrusion process.
2.18.5.3. Pressure compensating emitters shall operate at a wide range of pressure 15 to 60 psi while emitting water at +/- 5% of the design discharge.
2.18.6. Drip fittings: barbed insert fittings for the joining of drip tubing shall be from the same manufacturer and as recommended by the tubing manufacturer. See the detail drawings.
2.18.6.1. Drip fitting to tubing reinforcement: all joining of drip tubing installed upon a Mechanically Stabilized Earth (MSE) wall shall be reinforced with stainless steel clamps. Clamps shall be manufactured by "Oetiker" and shall be one "ear" type. Nominal size that is recommended for use with Netafim Bioline is 13/16", Part No. 210SS.

PART 3 - EXECUTION

Part 3 Shall conform to Part 3 Section 15152 of the Water Agencies' Standards, latest edition, where applicable, except as hereinafter modified, revised and/or changed:

3.1. GENERAL:
3.1.1. Plans Are Diagrammatic. All piping, valve boxes, and associated equipment shall be located in landscape areas. No irrigation equipment shall be located in hardscape. Group valve boxes together and locate in shrub areas, whenever possible.
3.1.2. Unless Otherwise Indicated: Contractor shall comply with requirements of uniform plumbing code.
3.1.3. Plant Material Installed Prior To Irrigation: All 24" box size and larger shall be planted prior to the installation of irrigation piping.
3.1.4. Water Pressure Verification: At each point of connection prior to initiating work. Notify the owner's authorized representative if pressure is less then indicated on drawings. Contractor is responsible for all field revisions if owner's authorized representative is not informed of discrepancies.
3.1.5. Point Of Connection: Connect to existing street service line at location indicated.

3.1.6. SYSTEM DESIGN:
3.1.6.1. All scaled dimensions are approximate. The contractor shall check and verify all dimensions on the site prior to proceeding with work under this contract.
3.1.6.2. The contractor shall locate and mark all existing utilities such as power, telephone, domestic water, water, and tile drains. Extreme care shall be taken by the contractor when excavating or working in these areas and coordination and cooperation between the owner's representative and the contractor is required as the work progress to the area. Contractor shall give 24 hours notice to representative as work progresses to underground utility areas. Contractor shall be responsible for damage to any utilities.
3.1.6.3. Should utilities not located or marked be found during excavation, the contractor shall promptly notify the owner and shall discontinue with work in the area, except necessary emergency work, to repair or prevent damage until instructions are given to the contractor by the owner's representative.
3.1.6.4. Failure to notify the owner of discovery of such utilities or damage thereto will result in the contractor being liable for any and all damage caused to the utilities as a result of his actions.
3.1.6.5. The contractor shall, before starting work on the sprinkler system, carefully note all finish grades in order to satisfy himself that he may proceed with the work, and to restore finish grades to original contours before completion.
3.1.6.6. The installation of all sprinkler materials, including pipe, shall be coordinated with the landscape drawings to avoid interfering with the trees, shrubs, or other planting.
3.1.6.7. Lay out sprinkler heads and make any minor adjustments required due to difference between site and drawings. Any such deviations in layout shall be within the intent of the original drawings, and without additional cost to the owner. When directed by the owner, the layout shall be approved before installation.
3.1.6.8. Do not willfully install the sprinkler system as indicated on the drawings when it is obvious in the field that previously unknown obstructions or grade differences exist that might not have been considered in the engineering. Such obstructions or differences should be brought to the attention of the landscape architect.
3.1.6.9. The contractor shall connect to the water source as indicated on the drawings. The contractor shall verify static pressure as stated on the plans prior to beginning work. If static pressure at the point of connection differs from that shown on the plans, the contractor will promptly notify landscape architect before starting work.
3.1.6.10. The routing of the pressure supply lines as indicated on the drawings is diagrammatic. Locate all pressure supply lines in planting areas. Cross perpendicular under pavement in a sleeve as described in these specifications.

3.2. BACKFLOW PREVENTER:
3.2.1. Backflow preventer assembly shall be installed in accordance with manufacturer's specifications, located and as directed on drawings adjacent to the point of connection, and shall conform to all applicable health code and ordinance requirements.
3.2.2. Backflow preventer assemblies shall be located in shrub areas where possible. Exact location and positioning shall be verified on the site and shall be approved by the district.
3.2.3. Backflow preventer assemblies for potable water irrigation systems shall be painted flat black.
3.2.4. Backflow preventer assemblies for recycled water irrigation systems shall be painted purple.

3.3. PRESSURE REGULATION DEVICES:
3.3.1. Pressure regulation devices shall be installed as directed by the plans and detailed drawings.

3.4. AUTOMATIC CONTROL SYSTEM:
3.4.1. Automatic controller shall be installed as shown and as directed. Controller shall be tested with complete electrical connections. The contractor shall be responsible for power to the controller for operation and testing purposes.
3.4.2. Connections to control wiring shall be made within automatic controller enclosure. All wire shall follow the pressure main insofar as possible.
3.4.3. Electrical wiring for 120 VAC power shall be within a rigid PVC plastic conduit from controller to electrical outlet. The electrical contractor shall be responsible for installing all wiring to the sub-panels, clocks, or elsewhere as required, in order to complete this installation. A disconnect switch shall be included.
3.4.4. Controllers shall have a master switch. It shall be possible to operate each valve manually independent of the clock or any other valve.
3.4.5. Contractor shall supply and install a manufacturer approved battery in controller to prevent loss of program.
3.4.6. Control system shall be programmed to operate one system at a time.
3.4.7. System enclosures shall be equipped with an automatic rain shut-off device.
3.4.8. Prior to substantial completion of project installation, SiteOne GreenTech and/or the controller manufacturer will test the controller, including a test from a remote location, to ensure that it is in full working order and issue the City of Chula Vista with a certificate stating that this test has been successfully completed. The test shall be repeated at the end of the developer's one year maintenance period.
3.4.8.1. For technical assistance during installation contact:
SiteOne GreenTech (800) 427-0779.
Controller manufacturer - Rainmaster (800) 777-1477.
3.4.8.2. For certification and project turn-over contact:
SiteOne GreenTech (800) 427-0779.

3.5. AUTOMATIC CONTROL (STATION) WIRE AND COMMUNICATION CABLE - Low Voltage:
3.5.1. Install control wire within PVC Schedule 40 electrical conduit from the controller to all remote control valves. Control wire/conduit shall be routed with the irrigation mainline piping in common trenches wherever possible. Provide a minimum of 4" from mainline pipe or fittings except at terminal points.
3.5.2. When not routed with mainline, install control wire/conduit at least 18" below finish grade.
3.5.3. Wire conduit to run through sleeves shown on the drawings. Pull boxes shown at crossings of vehicular paving are to be used as hand-holes and/or splice locations. Control wire/conduit sleeve to be separate from water line sleeves and sleeves for 120V electrical service line.
3.5.4. End of spare wires shall be encased in a waterproof connector.
3.5.4.1. All splices, when approved for use, shall be with DBY connectors as manufactured by The 3M Company.
3.5.4.2. Install communication cable from controller/satellite to flow sensor within 1" PVC Sch. 40 electrical conduit as noted and detailed and to the satisfaction of the city landscape inspector.
3.5.4.3. Splices for flow sensor cable are permitted only at the flow sensor within the valve box. Water proof connectors shall DBY splice kit as manufactured by The 3M Company.
3.5.4.4. No splices shall be allowed on wire runs less than 500 ft. Wire splices, when approved for use, shall be encased in pre-approved waterproof connectors and installed within pull box as detailed.

WATER AGENCY STANDARDS (WAS) SECTION 15152 SHALL TAKE PRECEDENCE IN THE EVENT OF CONFLICT.

*THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
*ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY [signature] DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — Signature 9/5/17 — Renewal Date 4/13/17 — STATE OF CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	NO SCALE
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.5 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 14141) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A; Vertical N/A
Office / Field / Traffic

Designed By	Drawn By	Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD Date / / R.L.A. No. 4001

Approved: [signature] Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 53
Sheet 53 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014
LI-43

Print Date: 10 APR '17
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control

3.6. FLOW, RAIN, MOISTURE SENSING DEVICE:
3.6.1. ALL SENSING DEVICES SHALL BE LOCATED AND/OR ARRANGED APPROXIMATELY AS INDICATED ON PLANS AND SUBJECT TO FIELD APPROVAL BY THE LANDSCAPE ARCHITECT.
3.6.1.1. IN GENERAL LOCATIONS SHALL BE AS FOLLOWS:
FLOW SENSING - LOCATED DOWNSTREAM OF MASTER CONTROL VALVE ON COMMON MAINLINE SECTION.
RAIN SENSING - LOCATED TO PROVIDE A CLEAR VIEW OF THE SKY AND WHERE IT WILL NOT BE AFFECTED BY SPRAY FROM AN IRRIGATION SYSTEM.
MOISTURE SENSING - LOCATED IN REPRESENTATIVE HYDROZONE WITHIN ROOTED SOIL PROFILE.
3.6.2. ALL SENSING DEVICE SHALL BE INSTALLED PER MANUFACTURER'S DIRECTIONS, INSTRUCTIONS AND SPECIFICATIONS.
3.6.3. EACH CONTROLLER ASSEMBLY SHALL BE EQUIPPED WITH ITS OWN RAIN SENSING DEVICE, UNLESS SYSTEM IS OPERATED BY A CENTRAL CONTROL SYSTEM.
3.6.3. EACH CONTROLLER ASSEMBLY SHALL BE EQUIPPED WITH ITS OWN FLOW SENSING DEVICE.

3.7. MASTER CONTROL / REMOTE CONTROL VALVE:
3.7.1. LOCATE AND INSTALL IN SHRUB AREAS, AT APPROXIMATE LOCATIONS AS SHOWN ON THE DRAWINGS.
3.7.2. INSTALLATION SHALL INCLUDE A PVC OR BRASS UNION ON THE DOWNSTREAM SIDE OF THE VALVE. ALL CONNECTIONS TO VALVES SHALL BE MADE HORIZONTALLY.
3.7.3. LOCATE MASTER CONTROL VALVE ON COMMON MAINLINE SECTION DOWNSTREAM OF THE BACKFLOW PREVENTION EQUIPMENT AND UPSTREAM OF THE FLOW SENSING DEVICE.
3.7.4. WHERE POSSIBLE, VALVES SHALL BE GROUPED TOGETHER IN A MANIFOLD DOWNSTREAM OF A MANIFOLD ISOLATION VALVE AS DETAILED AND SHOWN ON THE PLANS.

3.8. QUICK COUPLING VALVES:
3.8.1. WHERE POSSIBLE, INSTALL QUICK COUPLING VALVES IN SHRUB AREAS, AT APPROXIMATE LOCATIONS AS SHOWN ON THE DRAWINGS.
3.8.2. QUICK COUPLING VALVES SHALL BE INSTALLED WITHIN A VALVE BOX AS DETAILED AND SPECIFIED IN PART 2. VALVE AND BOX SHALL BE LOCATED TO ALLOW APPROXIMATELY 12 INCH CLEARANCE FROM VALVE BOX TO PAVING, WALKS, HEADERS OR CURBS, AND AS SHOWN ON PLANS AND AS DIRECTED.
3.8.3. QUICK COUPLING VALVES ON RECYCLED WATER SYSTEMS MUST BE SUCH THAT ACCESS AND OPERATION CAN BE ACCOMPLISHED ONLY WITH A SPECIAL ACME THREADED KEY.

3.9. BALL VALVES:
3.9.1. WHERE POSSIBLE, INSTALL BALL VALVES IN SHRUB AREAS, AT APPROXIMATE LOCATIONS AS SHOWN ON THE DRAWINGS.
3.9.2. BALL VALVES SHALL BE INSTALLED TO ISOLATE INDIVIDUAL VALVES OR VALVE MANIFOLDS AND/OR SECTIONS OF THE IRRIGATION MAINLINE.
3.9.3. BALL VALVES SHALL BE INSTALLED TO SECTION THE IRRIGATION MAINLINE INTO MANAGEABLE AREAS, TO LIMIT DRAINING OF MAINLINE DURING REPAIRS.

3.10. NON-PRESSURE LATERAL LINE ANTI DRAIN VALVES:
3.10.1. PROVIDE MANUFACTURER'S INSTALLED ANTI-DRAIN VALVES IN ALL POP-UP SPRINKLER HEADS.
3.10.2. WHERE MANUFACTURER'S INSTALLED ANTI-DRAIN VALVES ARE NOT AVAILABLE INSTALL ANTI-DRAIN VALVES ON POP-UP SPRINKLERS SWING JOINT ASSEMBLY OR BELOW THE HEAD FOR SHRUB HEADS ON RISERS.
3.10.3. ADDITIONAL IN-LINE ANTI-DRAIN VALVES SHALL BE INSTALLED WHEREVER NECESSARY TO PREVENT LOW HEAD DRAINAGE AFTER THE SYSTEM IS SHUT OFF.

3.11. MANUAL AND ANTI-SIPHON VALVES:
3.11.1. MANUAL AND ANTI-SIPHON CONTROL VALVES SHALL BE INSTALLED AS DIRECTED BY THE PLANS AND DETAIL DRAWINGS.
3.11.2. MANUAL AND ANTI-SIPHON CONTROL VALVES SHALL BE LOCATED IN INCONSPICUOUS LOCATION AS APPROVED BY THE OWNER'S REPRESENTATIVE.

3.12. VALVE AND PULL BOXES:
3.12.1. INSTALL NO MORE THAN ONE VALVE PER BOX.
3.12.2. VALVE BOXES SHALL BE INSTALLED ADJACENT TO PAVED SURFACES WITH CLEARANCE AS DETAILED, WHERE POSSIBLE.
3.12.3. VALVE BOXES SHALL BE SET AT HEIGHTS AS FOLLOWS:
IN SHRUB AREAS - TOP OF COVER SET ONE INCH ABOVE FINISH GRADE.
IN TURF AREAS - TOP OF COVER SET ONE-HALF INCH ABOVE OR EVEN WITH FINISH GRADE
IN ALL CONDITIONS - TOP OF COVER SET NO HIGHER THAN ADJACENT PAVING SURFACE.
3.12.4. ON THE INSIDE SURFACE OF EACH REMOTE CONTROL VALVE BOX, PULL BOX AND QUICK COUPLING BOX, WRITE THE VALVE DESIGNATION NUMBER IN PERMANENT BLACK MARKER OR PAINT. DO NOT WRITE ON VALVE BOX LID.
3.12.5. ALL VALVE BOX LIDS SHALL MARKED TO IDENTIFY INCLUDED EQUIPMENT AS SHOWN IN THE VALVE BOX I.D. DETAIL DRAWING.
3.12.6. IN ADDITION TO THE "E" IDENTIFICATION FOR A PULL BOX, WHERE PULL BOXES ARE LOCATED AT STREET CROSSINGS, THE CONTRACTOR SHALL STAMP OR ETCH THE LETTER "E" INTO THE IMPROVEMENT DIRECTLY OVER THE SLEEVE.

3.13. INSTALLATION OF PIPE:
3.13.1. INSTALLATION OF POLYVINYL CHLORIDE PIPE:
3.13.1.1. BECAUSE OF THE FRAGILE NATURE OF PLASTIC PIPE AND FITTINGS, EXERCISE CAUTION IN HANDLING, LOADING AND STORING, TO AVOID DAMAGE.
3.13.1.2. THE PIPE AND FITTINGS SHALL BE STORED UNDER COVER UNTIL USED AND SHALL BE TRANSPORTED IN A VEHICLE WITH A BED LONG ENOUGH TO ALLOW THE LENGTH OF PIPE TO LAY FLAT SO AS NOT BE SUBJECTED TO UNDUE BENDING OR CONCENTRATED EXTERNAL LOAD AT ANY POINT.
3.13.1.3. ANY PIPE THAT HAS BEEN DENTED OR DAMAGED SHALL BE DISCARDED UNLESS SUCH DENT OR DAMAGED SECTION IS CUT OUT AND PIPE REJOINED WITH A COUPLING.
3.13.1.4. TRENCH DEPTH SHALL BE AS SPECIFIED ABOVE FROM THE FINISH GRADE TO THE TOP OF THE PIPE. THE BOTTOM OF THE TRENCH SHALL BE FREE OF ROCKS, CLODS, AND OTHER SHARP-EDGED OBJECTS.
3.13.1.5. PIPE ENDS AND FITTINGS SHALL BE WIPED WITH "MEK" PRIMER, OR APPROVED EQUAL, BEFORE WELDING SOLVENT IS APPLIED. WELDED JOINTS SHALL BE GIVEN A MINIMUM OF 15 MINUTES TO SET BEFORE MOVING OR HANDLING. ALL FIELD CUTS SHALL BE BEVELED TO REMOVE BURRS AND EXCESS MATERIAL BEFORE FITTING AND GLUING TOGETHER.
3.13.1.6. PIPE SHALL BE SNAKED FROM SIDE-TO-SIDE OF TRENCH BOTTOM TO ALLOW FOR EXPANSION AND CONTRACTION.
3.13.1.7. CENTER LOAD PIPE WITH SMALL AMOUNT OF BACKFILL TO PREVENT ARCHING AND SLIPPING UNDER PRESSURE. LEAVE JOINTS EXPOSED FOR SITE OBSERVATION DURING TESTING.
3.13.1.8. NO WATER SHALL BE PERMITTED IN THE PIPE UNTIL SITE OBSERVATION HAS BEEN COMPLETED AND A PERIOD OF AT LEAST 24 HOURS HAS ELAPSED FOR SOLVENT WELD SETTING AND CURING.
3.13.1.9. PLASTIC TO METAL JOINTS SHALL BE MADE WITH PLASTIC MALE ADAPTERS, METAL NIPPLE HAND TIGHTENED, PLUS ONE TURN WITH A STRAP WRENCH.
3.13.1.10. PLASTIC TO PLASTIC JOINTS: SOLVENT-WELD, USING SOLVENT RECOMMENDED BY PIPE MANUFACTURER ONLY.
3.13.1.11. SOLVENT-WELD JOINTS: ASSEMBLE PER MANUFACTURER'S RECOMMENDATIONS.
3.13.1.12. PROVIDE MINIMUM OF 6" OF CLEARANCE BETWEEN PIPES SHARING THE SAME TRENCH.
3.13.1.13. ALL SLEEVES FOR INSTALLATION OF PIPE, WIRE OR WIRE CONDUIT UNDER PAVING SHALL RUN CONTINUOUSLY UNDER THE PAVED AREA AND EXTEND A MINIMUM OF 12 INCHES PAST EDGE OF HARDSCAPE. SEE DETAIL DRAWINGS.

3.13.2. INSTALLATION OF METALLIC PIPE:
3.13.2.1 CUT BY POWER HACKSAW, CIRCULAR CUTTING MACHINE USING AN ABRASIVE WHEEL, OR HAND HACKSAW. CUT NO PIPING WITH METALLIC WHEEL CUTTER OF ANY DESCRIPTION. REAM AND REMOVE ROUGH EDGES OF BURRS SO SMOOTH AND UNOBSTRUCTED FLOW IS OBTAINED.
3.13.2.2. CAREFULLY AND SMOOTHLY PLACE THREAD LUBRICANT ON MALE THREAD ONLY. TIGHTEN SCREWED JOINTS WITH TONGS OR WRENCHES. CAULKING IS NOT PERMITTED.
3.13.2.3. USE DIELECTRIC FITTINGS AT CONNECTION WHERE PIPES OF DISSIMILAR METAL ARE JOINED.

3.13.3. EXCAVATION OF TRENCHES:
3.13.3.1. EXCAVATE TRENCHES, PREPARE SUB GRADE, AND BACKFILL TO LINE AND GRADE WITH SUFFICIENT ROOM FOR PIPE FITTINGS, TESTING AND INSPECTING OPERATIONS. DO NOT BACKFILL UNTIL THE PIPE SYSTEM HAS BEEN SUBJECTED TO A HYDROSTATIC TEST AS SPECIFIED.
3.13.3.2. TRENCH DEPTH, MEASURED FROM FINISH GRADE TO TOP OF PIPE, FOR IRRIGATION PIPE LINES SHALL BE AS FOLLOWS:
3.13.3.3. RECYCLED AND POTABLE PRESSURE SUPPLY LINE:
2-1/2" I.D. PIPE AND SMALLER 18" MIN.
3" AND LARGER 24" MIN.
3.13.3.4. RECYCLED NON-PRESSURE LINE:
2-1/2" I.D. PIPE AND SMALLER 15" MIN.
3" AND LARGER 24" MIN.
3.13.3.5. POTABLE NON-PRESSURE LINE:
2-1/2" I.D. PIPE AND SMALLER 12" MIN.
3" AND LARGER 18" MIN.
3.13.3.6. RECYCLED AND POTABLE PRESSURE SUPPLY LINE IN SLEEVE:
UNDER VEHICULAR PAVING 36" MIN.
UNDER PEDESTRIAN PAVING,
WALLS OR DRAINAGE FEATURES 18" MIN.
3.13.3.7. RECYCLED AND POTABLE NON-PRESSURE LINE IN SLEEVE:
UNDER VEHICULAR PAVING 30" MIN.
UNDER PEDESTRIAN PAVING,
WALLS OR DRAINAGE FEATURES 18" MIN.
3.13.3.8. ELECTRICAL AND COMMUNICATION CABLE IN SLEEVE:
ALL CASES 36" MIN.
3.13.4. SUBSOIL SHALL BE FREE OF ALL ROCKS OVER ONE (1) INCH DIAMETER, DEBRIS, AND LITTER PRIOR TO USE AS BACKFILL.
3.13.5. REPAIR ANY LEAKS AND REPLACE ALL DEFECTIVE PIPE OR FITTINGS UNTIL LINES MEET TEST REQUIREMENTS. DO NOT COVER ANY LINES UNTIL THEY HAVE BEEN CHECKED AND APPROVED FOR TIGHTNESS, QUALITY OF WORKMANSHIP AND MATERIALS.
3.13.6. BACKFILL TRENCHES, AFTER APPROVAL OF PIPING, WITH SUITABLE AND APPROVED MATERIAL, TAMP SOIL AROUND PIPE AND THOROUGHLY COMPACT ALL TRENCH FILLS UNTIL 90% COMPACTION HAS BEEN ACHIEVED.
3.13.7. BACKFILL MATERIAL SHALL BE AN APPROVED SOIL, FREE FROM ROCKS AND CLODS. PROVIDE BACKFILL UNDER, AROUND AND ABOVE TOP OF PIPE FOR PVC PLASTIC PIPE AND BRASS PIPING.

3.14. CONCRETE THRUST BLOCKS AND SUPPORTS:
3.14.1. THRUST BLOCKS AND FOOTINGS SHALL BE FORMED AND PLACED ON NINETY-PERCENT (90%) MINIMUM COMPACTED OR UNDISTURBED SUB GRADE. CONSTRUCT TO SHAPES SPECIFIED AND PARALLEL TO WALKWAYS. TOOL FINISH EXPOSED SURFACE.

3.15. WARNING/IDENTIFICATION TAPE:
3.15.1. WARNING/IDENTIFICATION TAPE SHALL BE INSTALLED ON ALL ONSITE POTABLE AND RECYCLED LINES AS CALLED FOR IN SECTION 15000

3.16. RECYCLED WATER WARNING AND VALVE/STATION IDENTIFICATION TAG:
3.16.1. PROVIDE AND INSTALL AS DIRECTED BY THE PLANS AND DETAIL DRAWINGS AND AS REQUIRED BY THE DISTRICT.
3.16.2. RECYCLED WATER WARNING TAG SHALL BE INSTALLED AS DIRECTED BY THE PLANS AND DETAIL DRAWINGS AND AS REQUIRED BY THE DISTRICT.
3.16.3. VALVE/STATION IDENTIFICATION TAG SHALL BE INSTALLED AS DIRECTED BY THE PLANS AND DETAIL DRAWINGS.

3.17. SPRINKLER HEADS:
3.17.1. ALL SPRINKLER HEADS SHALL BE INSTALLED AS PER DETAILS SHOWN.
3.17.2. SHRUB HEADS ON RISERS ARE NOT PERMITTED ADJACENT TO PAVING SURFACES, HEADERS, AT TOP OF RETAINING WALLS, IN FRONT OF PROJECT SIGNAGE OR IN TURF AREAS.
3.17.3. TOP OF POP-UP SPRINKLER HEADS SHALL BE INSTALLED FLUSH WITH ADJACENT PAVING SURFACE.
3.17.4. POP-UP SPRINKLER HEADS SHALL BE INSTALLED APPROXIMATELY FOUR INCHES AWAY FROM ANY PAVING SURFACE. IN SHRUB AREAS, WHERE POP-UP SPRINKLER HEADS ARE LOCATED AT THE HEAD ON A PARKING STALL, POP-UP SPRINKLERS SHALL BE LOCATED EIGHTEEN INCHES FROM BACK OF CURB.
3.17.5. SPRINKLER HEADS SHALL BE LOCATED OR ADJUSTED TO MINIMIZE OR ELIMINATE OVER-SPRAYING ON SIDEWALKS, STREETS, WINDOWS, WALLS AND ALL OTHER NON-DESIGNATED USE AREAS.
3.17.6. SPRINKLER HEADS WITHIN THE SAME CIRCUIT SHALL BE OF THE SAME MANUFACTURER AND SERIES AND HAVE A UNIFORM PRECIPITATION RATE.
3.17.7. SPACING OF SPRINKLER HEADS SHALL NOT EXCEED MAXIMUM DISTANCES AS INDICATED IN THE IRRIGATION LEGEND.
3.17.8. ADJUST NOZZLES ARCS AND PRESSURE COMPENSATING DEVICES TO SUIT ANY PARTICULAR CONDITIONS OF THE AREA. THIS SHALL BE DONE AFTER THE SYSTEM HAS BEEN THOROUGHLY TESTED, IMMEDIATELY AFTER WRITTEN NOTIFICATION BY THE LANDSCAPE ARCHITECT TO DO SO.

3.18. DRIP IRRIGATION EQUIPMENT: SEE DETAIL DRAWINGS.
3.18.1. PRESSURE REGULATORS
3.18.1.1. PRESSURE REGULATING SHALL BE AN INTEGRAL PART OF THE DRIP IRRIGATION CONTROL VALVE ASSEMBLY INSTALLED WITHIN A VALVE BOX AS DETAILED.
3.18.2. STRAINER/FILTER UNITS
3.18.2.1. SCREEN FILTER SHALL BE AN INTEGRAL PART OF THE DRIP IRRIGATION CONTROL VALVE ASSEMBLY INSTALLED WITHIN A VALVE BOX AS DETAILED.
3.18.3. DRIP LATERAL BLOW-OUT:
3.18.3.1. DRIP LATERAL BLOW-OUT SHALL BE CONTRACTOR FABRICATED AS DETAILED.
3.18.3.2. DRIP LATERAL BLOW-OUT SHALL BE INSTALLED AT HYDRAULIC END POINTS (SINGLE DRIP LINES OR EXHAUST MANIFOLDS) WITHIN VALVE BOX AS DETAILED.
3.18.4. DRIP LATERAL AIR/VACUUM RELIEF VALVE:
3.18.4.1. DRIP LATERAL AIR/VACUUM RELIEF VALVE SHALL BE INSTALLED AT LOCAL HIGH POINTS TO ALLOW AIR TO ENTER THE LATERALS UPON SYSTEM SHUT-DOWN TO ELIMINATE A VACUUM CONDITION THAT MAY DRAW CONTAMINATION INTO THE SYSTEM AS SHOWN ON THE DRAWINGS THESE VALVES ARE PLACED ON, AT OR, NEAR MANIFOLDS SO THAT ALL LATERALS CAN "SEE" THE VACUUM RELIEF.
3.18.4.2. DRIP LATERAL AIR/VACUUM RELIEF VALVE SHALL BE INSTALLED WITHIN VALVE BOX AS DETAILED.
3.18.5. DRIP TUBING (LATERAL):
3.18.5.1. DRIP TUBING FOR SUBSURFACE IRRIGATION OF DENSE SHRUB AND/OR GROUND COVER PLANTINGS SHALL BE INSTALLED IN A GRID NETWORK WITH EMISSION POINT AND LATERAL SPACING AS LISTED IN THE IRRIGATION LEGEND, AS ILLUSTRATED BY THE PLANS AND DETAIL DRAWINGS AND AS NOTED.
3.18.5.2. INSTALLATION METHOD
A. DRIP TUBING CAN BE PLACED AND SECURED TO PREPARED AND FINISHED GRADE MINUS 4.5" THEN COVERED TO SPECIFIED DEPTH WITH APPROVED TOP SOIL.
B. DRIP TUBING CAN BE SECURED TO BOTTOM OF SHALLOW "SLIT" TRENCHES THEN COVERED TO SPECIFIED DEPTH WITH APPROVED TOP SOIL.
C. INSTALLATION OF TUBING IS CRITICAL AND AT ALL TIMES DURING INSTALLATION MUST BE PROTECTED TO ABSOLUTELY PREVENT INTRODUCTION OF DEBRIS.
D. AFTER DRIP TUBING INSTALLATION AND BEFORE ATTACHMENT TO INLET AND/OR EXHAUST MANIFOLDS OR TO AIR VACUUM RELIEF VALVES TUBING TO BE PROTECTED BY CONTRACTOR CHOSEN METHOD OF KINKING OR PLUGGING OF EXPOSED ENDS.
3.18.6. DISTRIBUTION TUBING: DISTRIBUTION TUBING SHALL BE USED TO LOCATE EMISSION POINTS AS DETAILED. TUBING SHALL BE PROVIDED WITH 4" OF SOIL COVER AS NOTED.
3.18.7. DRIP FITTINGS: ALL DRIP FITTING FOR THE JOINING OF DRIP TUBING SHALL BE INSTALLED SO THAT TUBING BUTTS TO THE STOP AS INSTRUCTED BY THE MANUFACTURER.
3.18.7.1. DRIP FITTINGS: FOR ALL TUBING INSTALLED UPON AN MSE WALL INSERT FITTINGS WILL BE REINFORCED WITH STAINLESS STEEL CLAMPS. STAINLESS STEEL CLAMPS ARE TO BE SLIPPED OVER THE TUBING BEFORE BEING FITTED TO BARBED INSERT FITTINGS. PLACE THE CLAMP BETWEEN THE FIRST AND SECOND RIDGE OF THE BARBED INSERT FITTINGS. CRIMP THE "EAR" OF THE CLAMP TIGHTLY WITH AN OETIKER PINCER TOOL. CRIMP THE CLAMP TWICE TO ENSURE PROPER SEATING.
3.18.8. DRIP STAKES OR STAPLES: DRIP STAKES OR STAPLES FOR SECURING DRIP TUBING SHALL BE INSTALLED SO THAT NO TUBING BECOMES KINKED AS INSTRUCTED BY THE MANUFACTURER.

3.18. FLUSHING SYSTEMS:
3.18.1. AFTER PIPING AND RISERS ARE IN PLACE, BUT PRIOR TO THE INSTALLATION OF THE SPRINKLER HEADS, A FULL HEAD OF WATER SHALL BE USED TO FLUSH OUT THE SYSTEM. AFTER SYSTEM IS THOROUGHLY FLUSHED, CAP ALL RISERS.

3.19. TESTING:
TESTING SHALL BE CONDUCTED IN THE PRESENCE OF CITY AND/OR WATER DISTRICT INSPECTORS AND THE LANDSCAPE ARCHITECT AS REQUIRED. NOTIFY APPROPRIATE PARTY IN WRITING WHEN TESTING WILL BE CONDUCTED.
3.19.1. TESTING OF CONTROL WIRE AND/OR COMMUNICATION CABLE-
3.19.1.1. PRIOR TO BACKFILL OF TRENCHES EACH CIRCUIT SHALL BE TESTED FOR CONTINUITY.
3.19.1.2. EACH CONTROL WIRE AND/OR COMMUNICATION CABLE SHALL BE TESTED FOR LEAKS TO GROUND WITH AN OHM METER AFTER EACH INTERCONNECT CIRCUIT HAS BEEN INSTALLED AND CONNECTIONS HAVE BEEN MADE. NO CIRCUIT CHECKING LOWER THAN 1 MEGA OHM WILL BE ACCEPTABLE.
3.19.1.3. THE CONTRACTOR WILL OBTAIN WRITTEN VERIFICATION OF THE WIRE CONTINUITY. THE TEST SHALL CONDUCTED BY THE CONTROLLER ASSEMBLER, SITEONE GREENTECH. THIS TEST AND CERTIFICATION WILL BE COMPLETED AT NO ADDITIONAL COST.
3.19.2. TESTING OF PIPE-
3.19.2.1. ALL PRESSURE LINES SHALL BE TESTED UNDER HYDROSTATIC PRESSURE OF 125 LBS PER SQUARE INCH AND ALL NON PRESSURE LINES SHALL BE TESTED UNDER THE EXISTING STATIC PRESSURE AND BOTH BE PROVEN WATERTIGHT. (CONTRACTOR TO SUPPLY ALL HYDROSTATIC TEST EQUIPMENT NEEDED FOR TESTING.)
3.19.2.2. TEST PRESSURE SHALL BE SUSTAINED IN THE LINES FOR NOT LESS THAN FOUR HOURS. IF LEAKS DEVELOP, THE JOINTS SHALL BE REPLACED AND THE TEST REPEATED UNTIL THE ENTIRE SYSTEM IS PROVEN WATERTIGHT.
3.19.2.3. PRESSURE TEST SHALL BE OBSERVED AND APPROVED BY CITY AND WATER DISTRICT INSPECTORS, LANDSCAPE ARCHITECT AND/OR OWNER PRIOR TO BACKFILL. BACKFILLING TRENCHES PRIOR TO INSPECTION WILL NOT BE ALLOWED AND ALL PREMATURELY FILLED TRENCHES SHALL BE SUBJECT TO REOPENING AS DIRECTED BY THE LANDSCAPE ARCHITECT.
3.19.3. TESTING OF SYSTEM PERFORMANCE (COVERAGE TEST)-
3.19.3.1. OPERATIONAL TESTING SHALL OCCUR AFTER BACKFILL IS IN PLACE, AND SPRINKLER HEADS ADJUSTED TO FINAL POSITION. PERFORMANCE WILL ILLUSTRATE COMPLETE COVERAGE (HEAD-TO-HEAD) WITHOUT OVERSPRAY.
3.19.3.2. AFTER COMPLETION OF LANDSCAPE WORK, CAREFULLY ADJUST HEADS SO THEY WILL BE FLUSH WITH LAWN AREAS OR NOT MORE THAN 1" ABOVE FINISH GRADE IN GROUNDCOVER AREAS.
AT NO TIME WILL SPRINKLER HEAD OR VALVE BOX BE ABOVE ADJACENT CURB OR PEDESTRIAN PAVING.

3.20. SITE OBSERVATION VISITS BY THE ARCHITECT:
3.20.1. IN ALL CASES WHERE SITE OBSERVATION VISITS OF THE IRRIGATION SYSTEM WORK IS REQUIRED AND/OR WHERE PORTIONS OF THE WORK ARE SPECIFIED TO BE PERFORMED UNDER THE DIRECTION AND/OR SITE OBSERVATON OF THE ARCHITECT, CITY INSPECTOR OR THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PARTY AT LEAST THREE (3) WORKING DAYS IN ADVANCE OF THE TIME SUCH SITE OBSERVATION AND/OR WHEN DIRECTION S REQUIRED.
3.21.2. SITE OBSERVATION WILL BE REQUIRED FOR THE FOLLOWING PARTS OF THE WORK:
3.21.2.1. UPON INSTALLATION OF SLEEVES, MAINLINES AND LATERAL LINES; WHEN PIPES ARE LAID AND ARE TO BE SUBMITTED TO PRESSURE TESTS. DO NOT COVER ANY LINES UNTIL THEY HAVE BEEN CHECKED AND APPROVED.
3.21.2.2. UPON INSTALLATION AND TESTING OF VALVES, QUICK COUPLERS, DEVICES, AUTOMATIC CONTROLLERS, AND CONTROL VALVES AND WIRES.
3.21.2.3. WHEN THE SPRINKLER SYSTEM IS COMPLETED PRIOR TO PLANTING, THE CONTRACTOR, IN THE PRESENCE OF THE CITY INSPECTOR AND ARCHITECT, SHALL PERFORM A COVERAGE TEST TO DETERMINE IF THE COVERAGE OF WATER AFFORDED THE LAWN AND PLANTING AREAS IS COMPLETE AND ADEQUATE. THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES.
3.21.2.4. FINAL SITE OBSERVATION VISIT BY THE ARCHITECT AND PERFORMANCE TEST SHALL BE AT THE SAME TIME AS THE FINAL SITE OBSERVATION OF THE SPECIFIED LANDSCAPE MAINTENANCE PERIOD WORK.

3.22. PRESSURE TEST:
3.22.1. NOTIFY LANDSCAPE ARCHITECT IN WRITING WHEN PRESSURE TESTING WILL BE CONDUCTED. CONDUCT TESTS IN PRESENCE OF THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE.
3.22.2. ALL PRESSURE LINES SHALL BE TESTED UNDER HYDROSTATIC PRESSURE OF 150 LBS. PSI AND ALL NON PRESSURE LINES SHALL BE TESTED UNDER THE EXISTING STATIC PRESSURE AND BOTH BE PROVEN WATERTIGHT. (CONTRACTOR TO SUPPLY ALL HYDROSTATIC TEST EQUIPMENT NEEDED FOR TESTING.)
3.22.3. PRESSURE SHALL BE SUSTAINED IN THE LINES FOR NOT LESS THAN FOUR HOURS. IF LEAKS DEVELOP, THE JOINTS SHALL BE REPLACED AND THE TEST REPEATED UNTIL THE ENTIRE SYSTEM IS PROVEN WATERTIGHT.
3.22.4. TESTS SHALL BE OBSERVED AND APPROVED BY THE CITIES AND WATER DISTRICT'S INSPECTOR, LANDSCAPE ARCHITECT AND/OR OWNER PRIOR TO BACKFILL. BACKFILLING TRENCHES PRIOR TO INSPECTION WILL NOT BE ALLOWED AND ALL PREMATURELY FILLED TRENCHES SHALL BE SUBJECT TO REOPENING AS DIRECTED BY THE LANDSCAPE ARCHITECT.

3.23. COVERAGE TEST:
3.23.1. NOTIFY LANDSCAPE ARCHITECT IN WRITING WHEN COVERAGE TESTING WILL BE CONDUCTED. CONDUCT TESTS IN PRESENCE OF THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE.
3.23.2. COVERAGE TESTING: PERFORM OPERATIONAL TESTING AFTER HYDROSTATIC TESTING IS COMPLETED, BACKFILL IS IN PLACE, AND SPRINKLER HEADS ADJUSTED TO FINAL POSITION.
3.23.3. AFTER COMPLETION OF LANDSCAPE WORK, CAREFULLY ADJUST HEADS SO THEY WILL BE FLUSH WITH LAWN AREAS OR NOT MORE THAN 1/2" ABOVE FINISH GRADE IN GROUNDCOVER AREA.

3.24. SITE OBSERVATION VISITS BY THE ARCHITECT:
3.24.1. IN ALL CASES WHERE SITE OBSERVATION VISITS OF THE IRRIGATION SYSTEM WORK IS REQUIRED AND/OR WHERE PORTIONS OF THE WORK ARE SPECIFIED TO BE PERFORMED UNDER THE DIRECTION AND/OR SITE OBSERVATON OF THE ARCHITECT OR THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL NOTIFY THE CITY INSPECTOR, OWNER'S REPRESENTATIVE AND ARCHITECT AT LEAST THREE (3) WORKING DAYS IN ADVANCE OF THE TIME SUCH SITE OBSERVATION AND/OR WHEN DIRECTION IS REQUIRED.
3.24.2. SITE OBSERVATION WILL BE REQUIRED FOR THE FOLLOWING PARTS OF THE WORK:
3.24.2.1. UPON INSTALLATION AND TESTING OF SLEEVES, MAINLINES AND LATERAL LINES; WHEN PIPES ARE LAID AND ARE TO BE SUBMITTED TO PRESSURE TESTS. DO NOT COVER ANY LINES UNTIL THEY HAVE BEEN CHECKED AND APPROVED.
3.24.2.2. UPON INSTALLATION AND TESTING OF VALVES, QUICK COUPLERS, DEVICES, AUTOMATIC CONTROLLERS, AND CONTROL VALVES AND WIRES.
3.24.2.3. WHEN THE SPRINKLER SYSTEM IS COMPLETED PRIOR TO PLANTING, THE CONTRACTOR, IN THE PRESENCE OF THE CITY INSPECTOR AND ARCHITECT, SHALL PERFORM A COVERAGE TEST TO DETERMINE IF THE COVERAGE OF WATER AFFORDED THE LAWN AND PLANTING AREAS IS COMPLETE AND ADEQUATE. THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES.
3.24.2.4. FINAL SITE OBSERVATION VISIT BY THE ARCHITECT AND PERFORMANCE TEST SHALL BE AT THE SAME TIME AS THE FINAL SITE OBSERVATION OF THE SPECIFIED LANDSCAPE MAINTENANCE PERIOD WORK.

3.25. IRRIGATION SYSTEM MAINTENANCE
3.25.1. GENERAL IRRIGATION SYSTEM MAINTENANCE:
3.25.1.1. AS A STANDARD PRACTICE, THE IRRIGATION SYSTEMS SHALL BE MAINTAINED IN A CONTINUOUS AND PROPER WORKING CONDITION FOR THE ENTIRE MAINTENANCE PERIOD
3.25.1.2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE IRRIGATION SYSTEMS IN A PROPER WORKING CONDITION AT ALL TIMES. THIS INCLUDES, BUT IS NOT LIMITED TO:
- CONTINUOUSLY MONITORING AND ADJUSTING THE SPRINKLERS TO INSURE PROPER COVERAGE, WHILE AVOIDING OVER-SPRAY.
- INSURING PROPER OPERATION OF ALL IRRIGATION APPURTENANCES.
- MONITORING, ADJUSTING AND RECORDING IRRIGATION SCHEDULING, AS REQUIRED.
- RESPONSIBLY APPLYING WATER EFFICIENTLY AND BELOW THE OTAY WATER DISTRICT'S "MAXIMUM APPLIED WATER ALLOWANCE" (MAWA), AS PROVIDED IN THE APPROVED PLANS.

3.25.1.3. AS SHRUBS MATURE, RISERS MAY NEED TO BE USED TO EXTEND OVER THE TOP OF THE SHRUBS OR GROUND-COVERS TO PROVIDE PROPER COVERAGE.
3.25.1.4. SHRUBS MAY NOT BE PRUNED TO ACCOMMODATE IRRIGATION COVERAGE BEING BLOCK BY FOLIAGE. THE CONTRACTOR SHALL SUBMIT A CHANGE ORDER TO THE OWNER FOR APPROVAL, IF ADDITIONAL SPRINKLERS ARE REQUIRED TO PROVIDE ADEQUATE COVERAGE.
3.25.1.5. THE MAINTENANCE FOREMAN SHALL HAVE THE EXPERIENCE AND KNOWLEDGE TO OPERATE AND REPAIR ALL EQUIPMENT SPECIFIED ON THIS PROJECT. THIS INCLUDES SPRINKLERS, APPURTENANCES AND THE IRRIGATION CONTROL SYSTEM.

3.26. IRRIGATION REPAIRS & REPLACEMENTS
3.26.1. IRRIGATION COMPONENTS WILL REQUIRE ROUTINE REPAIR, ADJUSTMENTS AND REPLACEMENT. REPAIRS TO ANY IRRIGATION SYSTEM SHALL BE DONE IN ACCORDANCE WITH THE ORIGINAL INSTALLATION DETAILS.
3.26.2. ALL MATERIALS USED IN REPAIRS ARE TO OF THE SAME MAKE AND KIND AS ORIGINALLY INSTALLED.
3.26.3. SUBSTITUTIONS SHALL NOT BE ALLOWED UNLESS THE ORIGINALLY SPECIFIED EQUIPMENT HAS BEEN DISCONTINUED BY THE MANUFACTURER. ANY PROPOSED REPLACEMENT EQUIPMENT FOR DISCONTINUED IRRIGATION MATERIALS MUST BE ADHERED TO THE ORIGINAL DESIGN CRITERIA, MAINTAINING COVERAGE UNIFORMITY, FLOW RATES AND PRECIPITATION RATES. ALL PROPOSED SUBSTITUTIONS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE AND CITY OF CHULA VISTA LANDSCAPE INSPECTOR.

3.27. WATER USE
3.27.1. TWELVE MONTHS PRIOR TO THE SCHEDULED TURN-OVER DATE OF ANY LANDSCAPE AREA, PROPOSED WITH A CITY OF CHULA VISTA CFD, THE CONTRACTOR MUST HAVE THE PERMANENT WATER METER INSTALLED AND CERTIFIED BY THE OTAY WATER DISTRICT & SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.
3.27.2. THE CONTRACTOR IS LIMITED BY THE "MAXIMUM APPLIED WATER ALLOWANCE", AS DICTATED BY THE OTAY WATER DISTRICT.
3.27.3. THE CONTRACTOR WILL ONLY BE PERMITTED TO EXCEED THE MAXIMUM APPLIED WATER ALLOWANCE, SHOULD THE PLANT ESTABLISHMENT PERIOD OCCUR DURING THE SUMMER MONTHS (MAY THROUGH SEPTEMBER). REGARDLESS OF WHEN THE MAINTENANCE PERIOD WAS INITIATED, THE WATER USE SHOULD NEVER EXCEED THE MAXIMUM APPLIED WATER ALLOWANCE AFTER THE MONTH OF SEPTEMBER, UNLESS THERE IS DOCUMENTED UNSEASONABLY HOT WEATHER.
3.27.4. AT THE END OF SEPTEMBER, THE CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE TO THE OWNER'S REPRESENTATIVE AND CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR, WRITTEN COPIES OF ALL WATER SCHEDULING OVER THE PAST SUMMER MONTHS AND THE PROPOSED SCHEDULES FOR THE UPCOMING FALL, WINTER & SPRING MONTHS.
3.27.5. THE CONTRACTOR (OR OWNER) SHALL SUBMIT INVOICES TO THE CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR (FROM THE OTAY WATER DISTRICT), TO VERIFY THAT THE WATER USE IS EQUAL TO OR LOWER THAN THE CALCULATED "ESTIMATED WATER USE" (EWU), FOR THE FIVE SUMMER MONTHS (MAY THROUGH SEPTEMBER).
3.27.6. WATERING SHALL ONLY OCCUR AT NIGHT, WITHIN THE WATERING WINDOW SPECIFIED IN THESE PLANS. THE CONTRACTOR SHALL OPERATE THE SPRINKLER SYSTEM IN COMPLIANCE WITH THE SCHEDULING GUIDELINES PROVIDED IN THESE PLANS. ANY DEVIATION FROM THE SCHEDULING GUIDELINES WILL BE PERMITTED WITH WRITTEN DOCUMENTATION OF ALL CHANGES PROVIDED TO THE OWNER'S REPRESENTATIVE AND CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR WITHIN SEVEN DAYS OF THE ADJUSTMENT. FAILURE TO RECORD SCHEDULING CHANGES MAY RESULT IN AN EXTENSION OF THE MAINTENANCE PERIOD, AT THE CONTRACTOR'S EXPENSE.

3.28. MAINTENANCE PERIODS
3.28.1. ALL AREAS PROPOSED TO BE CITY OF CHULA VISTA CFD SHALL BE MAINTAINED FOR A PERIOD OF NO LESS THAN TWO YEARS.
3.28.2. ALL OTHER AREAS PROPOSED TO BE MAINTAINED AS PART OF A HOME OWNER'S ASSOCIATION OR PRIVATELY MAINTAINED, SHALL BE MAINTAINED FOR A PERIOD OF NO LESS THE NINETY DAYS.
3.28.3. THE MAINTENANCE PERIOD SHALL BEGIN ON THE FIRST DAY AFTER ALL OF THE WORK (AS DEFINED IN THE CONTRACTOR'S SCOPE OF SERVICES), IS COMPLETE AND ACCEPTED WITH WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE AND CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR.
3.28.4. THE CONTRACTOR'S MAINTENANCE PERIOD WILL BE EXTENDED WHEN IT IS OF THE OPINION OF THE OWNER'S REPRESENTATIVE AND THE CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR, THAT THE CONTRACTOR HAS NOT FULFILLED THEIR MAINTENANCE RESPONSIBILITIES, AS DEFINED IN THEIR CONTRACT. THE CONTRACTOR WILL BE RESPONSIBLE (AT THEIR OWN EXPENSE), FOR THE ADDITIONAL MAINTENANCE REQUIRED UNTIL THE AREA IS IN AN ACCEPTABLE CONDITION, AS DETERMINED BY THE OWNER'S REPRESENTATIVE AND THE CITY OF CHULA VISTA LANDSCAPE INSPECTOR.

WATER AGENCY STANDARDS (WAS) SECTION 15152 SHALL TAKE PRECEDENCE IN THE EVENT OF CONFLICT.

*THE OTAY WATER DISTRICT SHALL BE NOTIFIED 5 WORKING DAYS PRIOR TO CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.
*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAYGROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.
*ALL SCREENED FACILITIES ARE EXISTING OR PROPOSED PER CIVIL PLANS. TRIBUTARY LA LANDSCAPE ARCHITECTURE CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

R.W. IDENTIFICATION BY COLOR CODING:

SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. DECALS AND/OR ADHESIVE LABELS ARE NOT ACCEPTABLE.

OTAY WATER DISTRICT
PROJECT NO. D0944-060189
PZ 624, 711 RPZ 680
REVIEWED BY: [signature] DATE: 5/10/17
SIGNATURE EXPIRES AFTER 1 YEAR

IT'S THE LAW! DIAL BEFORE YOU DIG!
CALL AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING
1-800-227-2600
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
BEFORE EXCAVATING, THE CONTRACTOR SHALL VERIFY THE LOCATION OF UNDERGROUND UTILITIES BY CONTACTING UTILITY UNDERGROUND SERVICE ALERT AT 1-800-227-2600

"AS-BUILT"
SIGNED: DATE:
PRINT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD 4001 — Signature 9/5/17 Renewal Date 6/13/17 Date — STATE OF CALIFORNIA

Tributary LA, Inc.
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760.434.9300 office
760.434.9303 fax

DATE:	10 APR '17
SCALE:	NO SCALE
JOB NO.	15024
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-3001G

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	16026-01 - 16026-93	HUNSAKER & ASSOC.			
Inspector					
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 15 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY. (PT# 1359 PER R.O.S. 11841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A; Vertical N/A
Office / Field / Traffic

Designed By	Drawn By	Checked By

Plans Prepared Under Supervision Of
THOMAS A. PICARD Date / / R.L.A. No. 4001

Approved: [signature] Date: 5-15-17
Kelly Broughton
Director of Development Services or designee.

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 SLOPE & EROSION CONTROL
CHULA VISTA TENTATIVE TRACT MAP NO. 13-02

Drawing No. 16050 - 54
Sheet 54 of 88

OWD WO# D0944-060189 OWD PERMIT# PLR-16-014
LI-44

Print Date: 10 APR '17
OWD WO# D0944-060189
Otay Ranch, Village 3 - Slope & Erosion Control