Landscape & Irrigation Plans for:

OTAY RANCH VILLAGE 3 HERITAGE ROAD

A Development of HomeFed Corporation

LRWS 2019-1116

Print Date: 2 DEC '22

OWD PROJ # D0944-060186

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-837G, DRAWING NO. 14023-01 THROUGH 14023-18, DATED 3/3/15; AND IMPROVEMENT PLANS W.O. # OR-837C, DRAWING NO. 14032-01THROUGH 14032-31.
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)

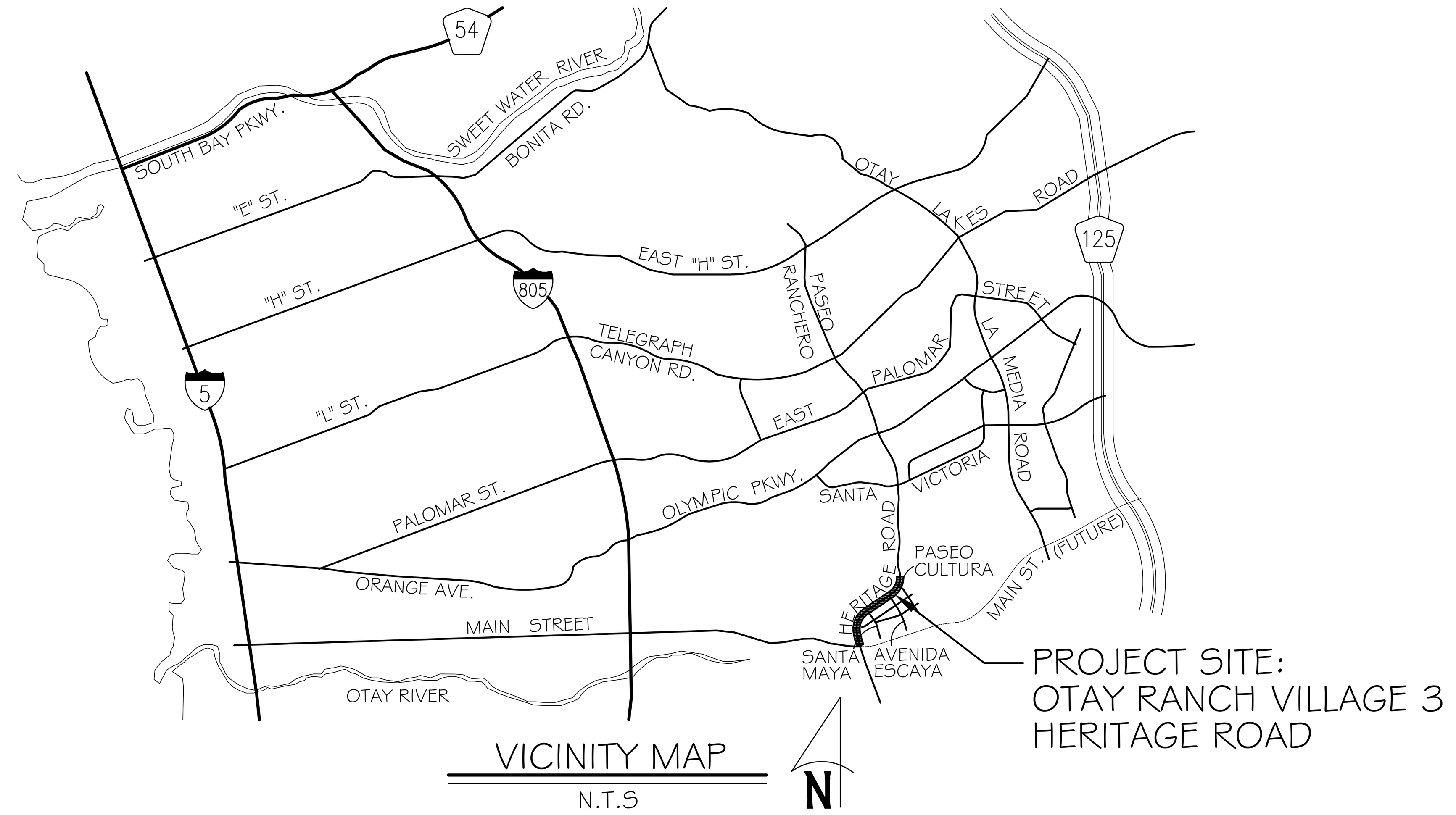
NOTE: "LANDSCAPE" SHALL REFER TO ALL IMPROVEMENTS WITHIN THIS SET OF DOCUMENTS THAT HAVE BEEN DESIGNED BY THIS OFFICE.

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

THE CONTRACTOR SHALL CONTACT THE CITY OF CHULA VISTA SENIOR LANDSCAPE INSPECTOR, DAVE DEFACCI (619-397-6018 AND DDEFACCI@CHULAVISTACA.GOV) FOR ALL STREET TREE PLACEMENT AND SPOTTING PRIOR TO INSTALLATION.

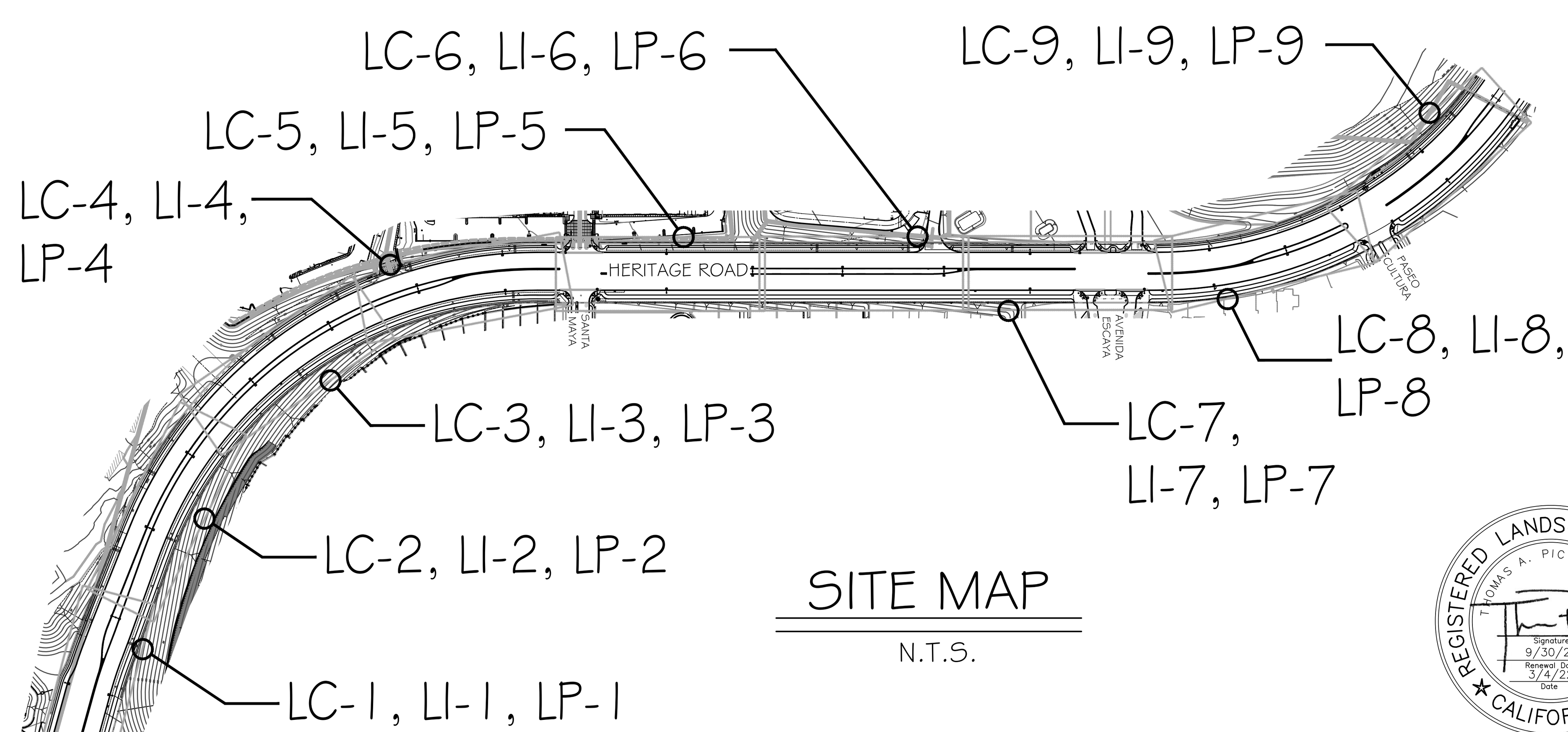
UPON COMPLETION OF THE LANDSCAPE AND IRRIGATION IMPROVEMENTS, THE CONTRACTOR SHALL CONTACT THE CITY OF CHULA VISTA SENIOR LANDSCAPE INSPECTOR, DAVE DEFACCI, FOR A LANDSCAPE INSPECTION PACKET AND TO SCHEDULE AN INSPECTION OF IMPROVEMENTS.

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. LANDSCAPE IMPROVEMENTS SHOWN ON THESE PLANS ARE TO BE CFD MAINTAINED. THE DEVELOPER / CONTRACTOR SHALL PROVIDE FULL MAINTENANCE OF ALL LANDSCAPE AREA FOR A MINIMUM OF ONE YEAR AFTER INITIAL WRITTEN CITY APPROVAL.
27. THESE PLANS AND ALL WORK SHALL COMPLY WITH THE 2016 CBC (BASED ON 2015 IBC), 2016 CRC, 2016 CMC (BASED ON 2015 UMC), 2016 CPC (BASED ON 2015 UPC), 2016 CEC (BASED ON 2014 NEC), 2016 CFC (BASED ON 2016 IFC), 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE, AND 2016 CALIFORNIA ENERGY CODE, AS ADOPTED AND AMENDED BY THE STATE OF CALIFORNIA AND 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. LANDSCAPE CONTRACTOR SHALL NOT MAKE ANY CONNECTIONS WITHOUT THE BENEFIT OF INSPECTION BY THE OWD INSPECTOR. ALL CONNECTIONS ARE TO BE COORDINATED WITH THE OWD INSPECTOR. FAILURE TO COMPLY WILL RESULT IN THE IMMEDIATE REMOVAL OF THE RECYCLED WATER METER AND MAY RESULT IN FINES.



VICINITY MAP

N.T.S.



SITE MAP

N.T.S.

SHEET INDEX

*NOT A PART OF OWD APPROVAL

LRWS TABLE	
Construction Change	LRWS Number
Original	2016-624
A	2019-1063
B	2019-1116

OWNER / DEVELOPER
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

IRRIGATION CONSULTANT
INDEPENDENT IRRIGATION CONSULTANTS, INC.
512 CIVIC CENTER DRIVE, SUITE B
OCEANSIDE, CA 92054
(760) 967-0177
CONTACT: JAIME COVARRUBIAS

GOVERNING MUNICIPALITY
THE CITY OF CHULA VISTA
276 FOURTH AVENUE
CHULA VISTA, CALIFORNIA 91910
(619) 476-2385
CONTACT: ZACH TANNER

GOVERNING WATER AGENCY
OTAY WATER DISTRICT
2554 SWEETWATER SPRINGS BLVD
SPRING VALLEY, CALIFORNIA 91978
(619) 670-2241
CONTACT: PUBLIC SERVICES

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

V3 HERITAGE ROAD - METER INFORMATION TABLE - RECYCLED WATER

POC ID	METER LOCATION	STATION COUNT	IRRIG. AREA (SQ.FT)	DEMAND GPM	ANNUAL USAGE (ACRE-FT)	LATERAL SIZE	METER SIZE
A	HERITAGE RD. 25+00	22	71,149	32	4.6858	2"	1-1/2"
B	HERITAGE RD. 25+50	20	52,724	31	3.1232	2"	1-1/2"
C	HERITAGE RD. 43+50	23	63,400	29	4.1176	2"	1-1/2"
D	HERITAGE RD. 50+20	15	62,637	30	3.7105	2"	1-1/2"
		TOTALS	249,910	121	15.6371		

Responsibility Disclaimer

All screened facilities, existing or proposed, were obtained from Civil Plans OR-837G and OR-837C. For this project, 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.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — CALIFORNIA. Signature; Renewal Date 9/30/23; Date 3/4/22

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — CALIFORNIA. Signature; Renewal Date 9/30/21; Date 4/19/21

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — CALIFORNIA. Signature; Renewal Date 9-30-19; Date 3-20-19

Assessor's Parcel No.

644-0607 & 15

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.

These plans have been prepared in substantial conformance with the Landscape Concept Plans, Water Conservation Plan, and Conditions of Approval related to landscape.

TRIBUTARY LA, INC. 2725 JEFFERSON ST. SUITE 14 CARLSBAD, CA 92008

R.L.A. NO. 4001 EXP. DATE: 9-30-17 — DATE 7/18/17
THOMAS A. PICARD

R.L.A. NO. 4001 EXP. DATE: 9-30-23 — DATE 3/4/22
THOMAS A. PICARD

DETAILED CONSTRUCTION CHANGE HISTORY	
A	ADJUST @ FILTRATION FACILITY ENTRANCE (SHT 1), INDUSTRIAL PARK ENTRIES (SHTS 6&7) AND @ TRANSFORMER & PRESSURE REDUCER (SHT 9)
B	REVISE SOUTH MAINLINE AT SANTA MAYA
C	FINAL OWD AS-BUILT
D	ADD AREA IN GUE, REMOVE AREA FOR IND'L. CENTER DWYS. UPDATE TO AS-BUILT UNDER OWD PROJECT D0944-060293

OWD AS BUILT
Signature and Date
Field Services Mngr. Brandon DiPietro

COUNTY OF SAN DIEGO D.E.H. REVISIONS	Date
A 4-19-19	
B 8-29-19	

OTAY WATER DISTRICT REVISIONS	Date
A DAN MARTIN	4-23-19
B DAN MARTIN	9-17-19
C Brandon DiPietro	5-11-21

OTAY WATER DISTRICT REVISIONS
D Brandon DiPietro — Digitally signed by Brandon DiPietro DN: cn=Brandon DiPietro, o, ou, email=brandond@otaywater.gov, c=US Date: 2022.03.22 15:38:02 -07'00'

COUNTY OF SAN DIEGO
Department of Environmental Health
Land and Water Quality Division
8-2-17 Date
Environmental Health Specialist
Glenn Leeks

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
DAN MARTIN, P.E. RCE 49389 DATE: 8/16/17
REVIEWED BY: DATE: 8/15/17
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

CITY OF CHULA VISTA SUBMITTALS	
1ST SUBMITTAL	6/9/16
2ND SUBMITTAL	1/18/17
3RD SUBMITTAL	6/1/17
AS-BUILT	4/19/21

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: 4/19/21
PRINT NAME: THOMAS A PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT — REGIST. EXP. 9/30/21

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

Update 2 DEC '22 - AsBuilt
4 MAR '22 - CC-D
19 APR '21 - As Built
19 AUG '20 - CC-B

DATE:	17 JUL '17
SCALE:	N / A
JOB NO.	15021
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	OR-837C	HUNSAKER & ASSOC.
Inspector	OR-837G	HUNSAKER & ASSOC.
Date Completed		

REVISIONS	Date	App'd
A ADJ. @ FILTRATION FAC. & INDUSTRIAL PARK ENTRIES	4-23-19 5-7-19	DSM / JC
B REVISE SOUTH MAINLINE AT SANTA MAYA	9-17-19 9-23-19	DSM / JC
C FINAL OWD AS-BUILT	5/11/21	
D ADD'L AREA @ GUE, ADJ. @ IND'L PARK DWYS	5/3/22	JC

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
T.P.	T.G. / A.P.	T.P.

Plans Prepared Under Supervision Of THOMAS A. PICARD — Date 7/18/17 — R.L.A. No. 4001

Approved: P. Fermán, PLA Date: 8/30/17
Director of Development Services or Designee

CITY OF CHULA VISTA
TITLE SHEET AND NOTES FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 01
Sheet 1 of 44

Otay Ranch Village 3 Heritage Road

LRWS 2019-1116

Print Date: 4 MAR '22

OWD PROJ # D0944-060186

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 BE ADHERE TO TITLE 22, DIVISION 4, CHAPTER 3 OF THE CALIFORNIA CODE OF REGULATIONS AND CURRENT RULES, REGULATIONS AND SPECIFICATIONS OF THE DISTRICT.
4. OTYA WATER DISTRICT INSPECTION SHALL BE NOTIFIED (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, DECORATIVE FOUNTAINS, OUTDOOR EATING AREAS, COMFORT STATION, 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 OTAY WATER DISTRICTS' "APPROVED MATERIALS LIST".
8. ALL ON-SITE POTABLE WATER LINES SHALL BE WHITE PVC UNLESS OTHERWISE APPROVED BY THE DISTRICT.
9. UNLESS OTHERWISE DIRECTED BY THE DISTRICT, A 10-FOOT HORIZONTAL AND ONE-FOOT VERTICAL SEPARATION BETWEEN POTABLE WATER AND CONSTANT PRESSURE RECYCLED WATER LINES SHALL BE MAINTAINED AT ALL TIMES. THE POTABLE WATER LINES SHALL BE INSTALLED ABOVE THE RECYCLED LINES.
10. WHERE POTABLE LINES AND CONSTANT PRESSURE RECYCLED WATER LINES CROSS, THE RECYCLED WATER LINE SHALL BE INSTALLED BELOW THE POTABLE WATER LINE IN A CLASS 200 PURPLE COLORED PVC SLEEVE. THE SLEEVE SHALL EXTEND TEN-FEET ON EITHER SIDE OF THE POTABLE LINE, FOR A TOTAL OF TWENTY-FEET.
11. A MINIMUM VERTICAL SEPARATION OF TWELVE (12) INCHES SHALL BE MAINTAINED BETWEEN UTILITIES AT ALL TIMES.
12. HOSE BIBS ARE STRICTLY PROHIBITED ON RECYCLED WATER SYSTEMS.
13. ALL SPRAY HEADS, VALVE BOXES, AND QUICK COUPLING VALVES SHALL BE CLEARLY COLORED 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 PRESSURE LINES SHALL BE TESTED WITH HYDROSTATIC PRESSURE AS REQUIRED IN THE DISTRICT STANDARD SPECIFICATIONS, AND ALL NON-PRESSURE LINES SHALL BE TESTED WITH THE EXISTING STATIC LINE PRESSURE. 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 FOR (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 A BACKFLOW PREVENTION DEVICE. IRRIGATION SYSTEMS BEING SUPPLIED WITH RECYCLED WATER SHALL INSTALL BACKFLOW PREVENTION DEVICE AND WYE STRAINER PER DISTRICT STANDARD DRAWING WR-03. IRRIGATION SYSTEMS CURRENTLY BEING SUPPLIED WITH POTABLE WATER SHALL INSTALL A REDUCED PRESSURE BACKFLOW PREVENTION DEVICE PER DISTRICT STANDARD DRAWINGS WR-01 OR WR-02. WHEN RECYCLED WATER BECOMES AVAILABLE, THE REDUCED PRESSURE BACKFLOW DEVICE SHALL BE REMOVED BY THE OWNER AND REPLACED WITH A BACKFLOW DEVICE AND WYE STRAINER PER DISTRICT STANDARD DRAWING WR-03.
19. PRIOR TO ENERGIZING THE ON-SITE SYSTEM WITH WATER, ONE (1) COMPLETE SET OF LAMINATED CONTROLLER CHARTS 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 ONE INCH HIGH ON A PURPLE, PANTONE 512, BACKGROUND. THE SIGN SHALL BE SO 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 OVERSPRAY, 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 AND ANNUAL CROSS-CONNECTION INSPECTION WILL BE DONE ON SITE WITH BOTH POTABLE AND RECYCLED WATER SERVICED BY THE DISTRICT AND/OR THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH. COPIES OF INSPECTION REPORTS WILL BE FORWARDED TO THE NON-INSPECTING PARTY.
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 USER/SUPERVISOR SHALL BE DESIGNATED IN WRITING. THIS INDIVIDUAL SHALL BE FAMILIAR WITH THE PLUMBING SYSTEMS WITHIN THE PROPERTY, WITH THE BASIC CONCEPTS OF BACKFLOW/CROSS CONNECTION PROTECTION, THE DISTRICT'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 DISTRICT AND SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.

IN CASE OF AN 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. RECYCLED WATER QUICK COUPLING VALVES SHALL BE OF A TYPE DESIGNATED FOR USE ON RECYCLED WATER DISTRIBUTION SYSTEMS (SPIKES NOT INTERCHANGEABLE WITH POTABLE WATER QUICK COUPLING VALVE SPIKES) PER OTAY WATER DISTRICT'S RULES AND REGULATIONS.
29. 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.
30. ALL BOX LIDS SHALL BE BRANDED.
31. 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.
32. RECYCLED WATER IRRIGATION PROJECTS THAT REQUIRE PHASING OF CONSTRUCTION SHALL REQUIRE A DETAILED PHASING PLAN TO 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.
33. 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 POTABLE CROSS-CONNECTION TESTING. PROPOSED ALTERNATIVE TEST METHODS MUST BE APPROVED BY THE OTAY WATER DISTRICT AND SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.

CITY OF CHULA VISTA SUPPLEMENTAL RECYCLED WATER 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 BROW 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 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.

DEPARTMENT OF ENVIRONMENTAL HEALTH RECYCLED WATER NOTES:

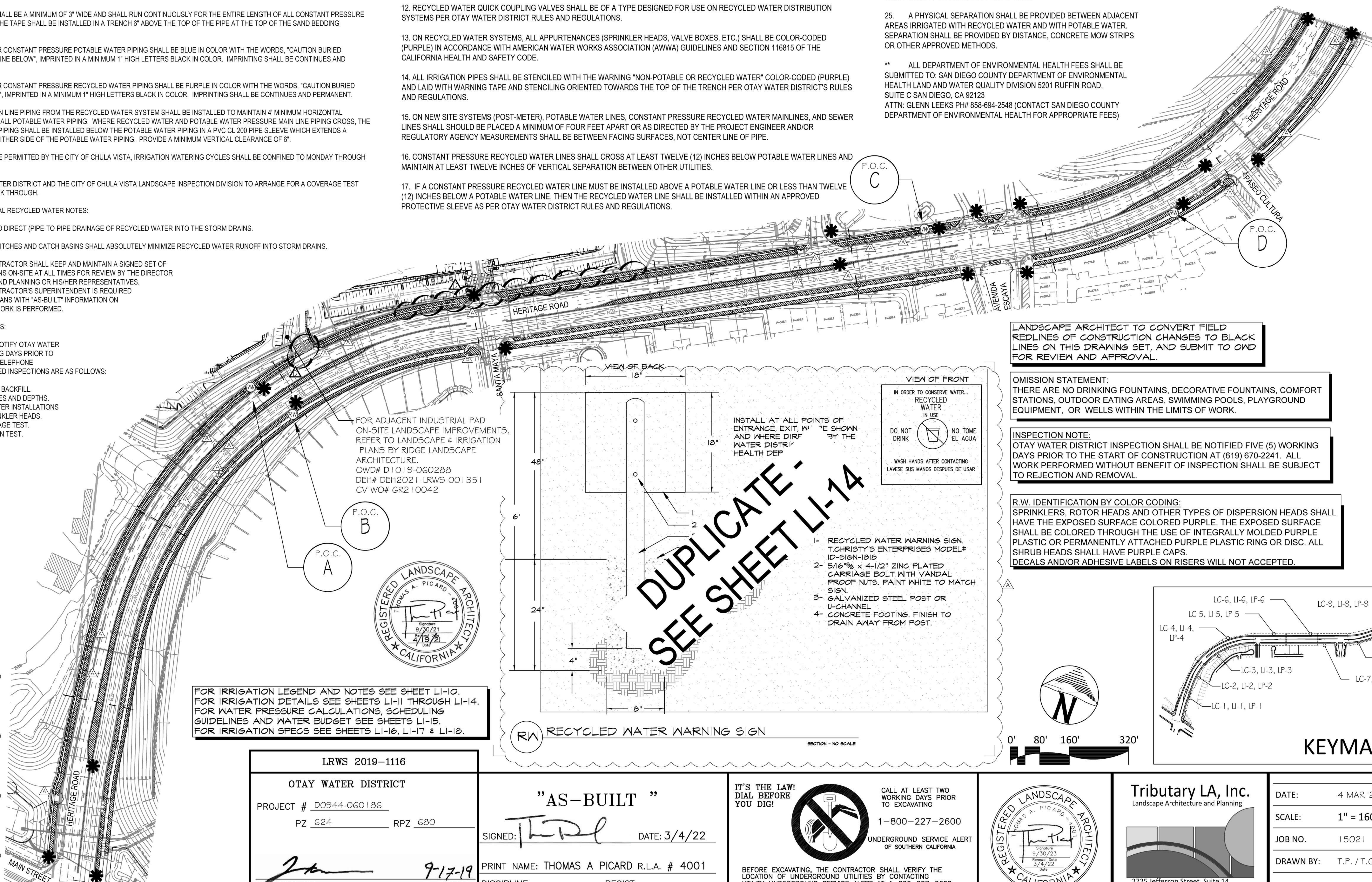
1. ALL WORK SHALL BE IN ACCORDANCE OTAY WATER DISTRICT RULES AND REGULATIONS.
2. DRINKING WATER FOUNTAINS AND DESIGNATED OUTDOOR EATING AREAS SHALL BE PROTECTED AGAINST CONTACT WITH RECYCLED WATER SPRAY, MIST, OR RUNOFF.
3. BEST MANAGEMENT PRACTICES SHALL BE USED TO ELIMINATE OR CONTROL TO THE BEST EXTENT 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 PRACTICE, 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 SHOULD 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) 520-0429

OR AFTER HOURS, CONTACT: BRIAN CANARIS AT (619) 520-0429

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 C SAN DIEGO, CA 92123
ATTN: GLENN LEEKS PH# 858-694-2548 (CONTACT SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH FOR APPROPRIATE FEES)



LANDSCAPE ARCHITECT TO CONVERT FIELD REDLINES OF CONSTRUCTION CHANGES TO BLACK LINES ON THIS DRAWING SET, AND SUBMIT TO OWD FOR REVIEW AND APPROVAL.

OMISSION STATEMENT:
THERE ARE NO DRINKING FOUNTAINS, DECORATIVE FOUNTAINS, COMFORT STATIONS, OUTDOOR EATING AREAS, SWIMMING POOLS, PLAYGROUND EQUIPMENT, OR WELLS WITHIN THE LIMITS OF WORK.

INSPECTION NOTE:
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.

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. ALL SHRUB HEADS SHALL HAVE PURPLE CAPS.
DECALS AND/OR ADHESIVE LABELS ON RISERS WILL NOT ACCEPTED.

RW RECYCLED WATER WARNING SIGN

SECTION - NO SCALE

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-10.
FOR IRRIGATION DETAILS SEE SHEETS LI-11 THROUGH LI-14.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-15.
FOR IRRIGATION SPECS SEE SHEETS LI-16, LI-17 & LI-18.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 9/30/21 — 4/19/21 — CALIFORNIA

LEGEND

Symbol	Description
(RW)	PROPOSED RECYCLED WATER METER
— — —	PROPOSED IRRIGATION RECYCLED WATER MAINLINE
— W —	POTABLE WATER LINES (PER CIVIL PLANS)
— RW —	RECYCLED WATER LINE (PER CIVIL PLANS)
— S —	SEWER LINE (PER CIVIL PLANS)
✱	PROPOSED RECYCLED WATER SIGN LOCATION
⋈	FIRE HYDRANT PER CIVIL DRAWINGS
(hatched)	AREA PROPOSED FOR RECYCLED WATER USE (CFD MAINTAINED)
'POC'	PROPOSED METER AND EQUIPMENT LOCATION

A — P.O.C. AT ROAD STATION 25+00 SEE LI-3 SHEET 16 FOR CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

B — P.O.C. AT ROAD STATION 25+50 SEE LI-3 SHEET 16 FOR CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

C — P.O.C. AT ROAD STATION 43+50 SEE LI-7 SHEET 20 FOR CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

D — P.O.C. AT ROAD STATION 50+20 SEE LI-8 SHEET 21 FOR CONTROLLER SPECIFICATION, EQUIPMENT, AND CALCULATIONS

LRWS 2019-1116

OTAY WATER DISTRICT

PROJECT # D0944-060186
PZ 624 RPZ 680

REVIEWED BY: 9-17-19 DATE:

NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"

SIGNED: DATE: 3/4/22

PRINT NAME: THOMAS A 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 — 3/4/22 — 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:	4 MAR '22
SCALE:	1" = 160'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD		REFERENCES	BY	REVISIONS	Date	App'd
Contractor		OR-837C	HUNSAKER & ASSOC.	EDIT IRRIG FOR NEW DRWYS & TREES, BROW DITCH ALIGN		
Inspector		OR-837G	HUNSAKER & ASSOC.	REVISE POC-B MAINLINE AT SANTA MAYA		
Date Completed				FINAL OWD AS-BUILT		
				ADD'L AREA @ GUE, ADJ. @ IND'L PARK DWYS	9/3/22	

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 1" = 160' — Vertical N/A

Office / Field / Traffic

Designed By	Drawn By	Checked By
T.P.	T.G.M.	T.P.

Plans Prepared Under Supervision Of — THOMAS A. PICARD — Date 3/4/22 — R.L.A. No. 4001

Plans Originally Approved: 8-30-17

Approved: Date:
Tiffany Allen, Director of Development Services or Designee

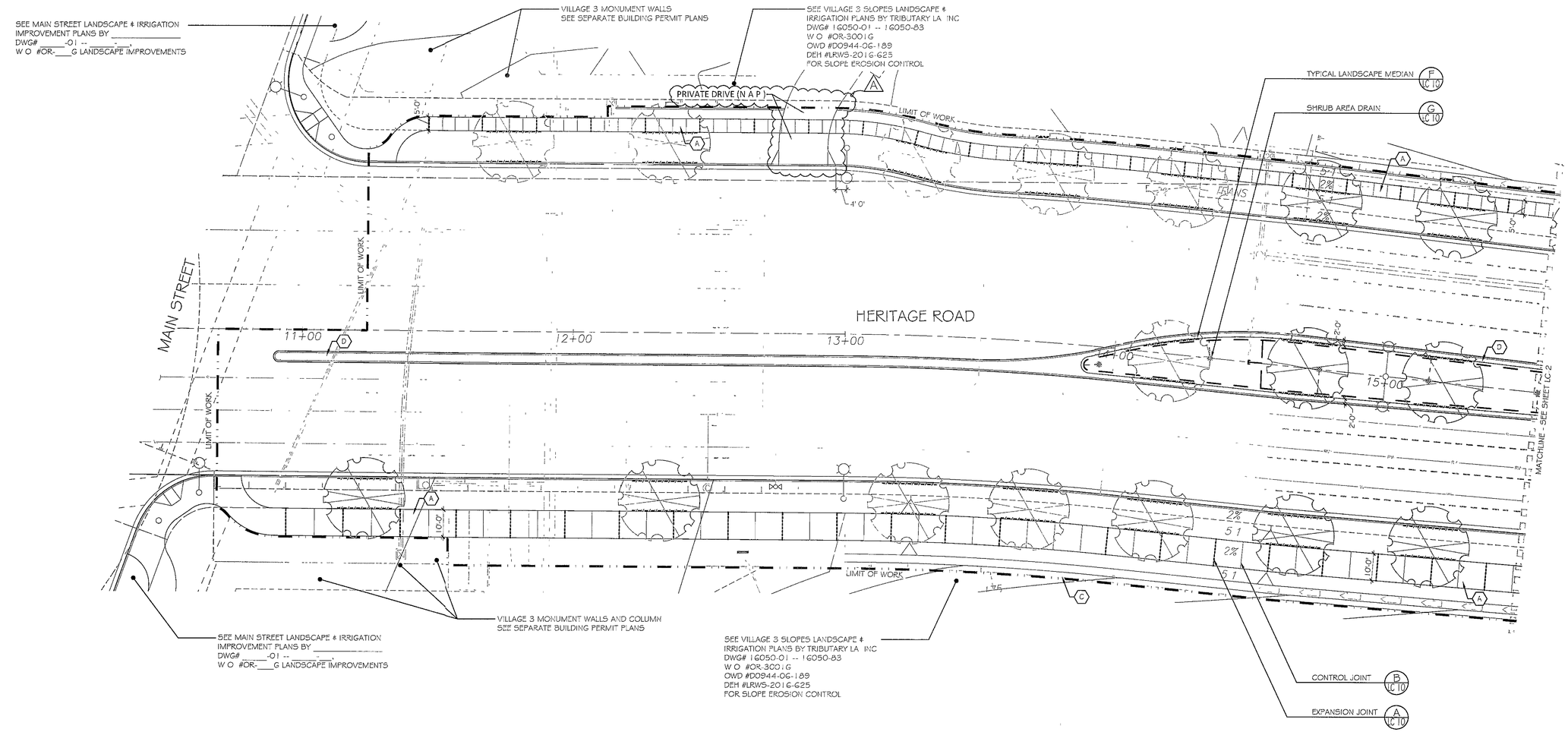
CITY OF CHULA VISTA

WATER METER LOCATION AND RECYCLED WATER AREA USE MAP FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-02
T-2
Sheet 02 of 44

Otay Ranch Village 3 Heritage Road

△ REPLACEMENT SHEET OWD WO # D0944-060186 OWD PERMIT #PLR-16-011 OWD Sheet 02 of 20



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 DETERMINE THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE INITITATION OF ANY WORK ALL WORK SHALL BE PERFORMED IN A MANNER WHICH WILL AVOID POSSIBLE DAMAGE TO UTILITIES HAND EXCAVATE, AS REQUIRED

2 FOR GRADING DOCUMENTATION, REFER TO PLANS PREPARED BY HUNSAKER & ASSOCIATES - CITY OF CHULA VISTA WO # OR-837G, SHEETS 14023-01 TO 14023-18

3 FOR STREET IMPROVEMENT DOCUMENTATION, REFER TO PLANS PREPARED BY HUNSAKER & ASSOCIATES - CITY OF CHULA VISTA WO # OR 837C, SHEETS 14032-01 TO 14032-31

3 FOR UTILITY LOCATIONS, REFER TO PLANS PREPARED BY ENGINEERING PARTNERS FOR ELECTRICITY SDG&E CONSTRUCTION ORDER NO 2520070 PROJECT NO 651333-010 FOR GAS SDG&E CONSTRUCTION ORDER NO _____, PROJECT NO _____

4 FOR CONSTRUCTION DETAILS, SEE SHEET LC-10

5 FOR CONSTRUCTION SPECIFICATIONS, SEE SHEETS LC-11-LC-12

6 FOR PLANTING INFORMATION, SEE SHEETS LP-1 TO LP-11

7 ALL SIDEWALKS AND RAMPS SHOWN ARE FOR REFERENCE TO FINISHES AND SCORING ONLY SEE CIVIL PLANS FOR EXACT LOCATIONS

8 ROOT BARRIERS SHALL BE INSTALLED ADJACENT TO ALL PAVNG SURFACES, WHERE A PAVING SURFACE IS LOCATED WITHIN TEN FEET OF A TREES TRUNK ROOT BARRIERS SHALL EXTEND TEN FEET IN EACH DIRECTION, FROM THE CENTER LINE OF THE TRUNK FOR A TOTAL DISTANCE OF TWENTY FEET INSTALLING ROOT BARRIERS AROUND THE ROOTBALL IS UNACCEPTABLE FOR ROOT BARRIER DETAIL SEE SHEET LP-10

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION	DETAIL
	CONCRETE HEADER	D & H / LC-10
	ROOT BARRIER	D / LP-10
	LIMIT OF WORK	N / A
℄	CENTERLINE	N / A
TYP	TYPICAL	N / A
	4" PERFORATED MAIN DRAIN LINE	F / LC-10
	4" SOLID LATERAL DRAIN LINE	F & G / LC-10
	NDS 6" BLACK ATRIUM GRATE	F & G / LC-10
	POINT OF CONNECTION (P O C)	F & G / LC-10

FINISH SCHEDULE

SEE MASTER FINISH SCHEDULE, SHEET LC-10 FOR DETAILS AND APPLICABLE FINISH

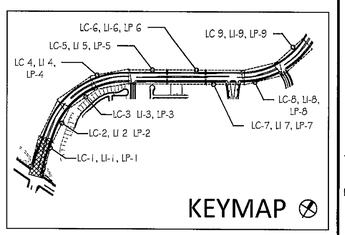
SYMBOL	DESCRIPTION	DETAIL
A	CONCRETE SIDEWALK (PEDESTRIAN USE ONLY)	A & B / LC-10
B	DECOMPOSED GRANITE PATH	D & H / LC-10
C	CONCRETE HEADER	D & H / LC-10
D	18" WIDE MEDIAN MAINTENANCE STRIP	F / LC-10

LANDSCAPE TREE NOTES

TREES SHALL BE LOCATED A MINIMUM OF
- 10' FROM DRIVEWAYS
- 20' FROM TRAFFIC SIGNALS / STOP SIGNS
- 25' (TRIANGLE FOR RESIDENTIAL) FROM INTERSECTIONS
- 5' FROM UNDERGROUND UTILITIES
- 10' FROM ABOVE GROUND UTILITIES
- 10' FROM FIRE HYDRANTS
- 20' FROM LIGHT STANDARDS
- 3' FROM SIDEWALK UNDERDRAINS

ALL SCREENED FACILITIES ARE PER CIVIL PLANS TRIBUTARY L A , INC CANNOT VERIFY ACTUAL LOCATIONS CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS

0' 10' 20' 40'



KEYMAP

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 Exp 8/31/19

Tributary LA, Inc
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760 434 9300 office
760 434 9303 fax

DATE	27 FEB '19
SCALE	1" = 20'
JOB NO	15021
DRAWN BY	T P / T G
W O NO	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC	⚠ ADD PRIVATE DRIVEWAY	5-7-19	
Inspector	OR-837G	HUNSAKER & ASSOC			
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 1484) ELEV=529.319 (NAVD'88)

SCALE: Horizontal 1" = 20' / Vertical N / A

Office _____ Field _____ Traffic _____

Designed By T P — Drawn By T G / A P — Checked By T P

Plans Prepared Under Supervision Of THOMAS A PICARD — Date 3/20/19 — R L A No 4001

Plans Originally Approved 8-30-17

Approved _____ Date 5.7.19
Director of Development Services or Designee

CITY OF CHULA VISTA

LANDSCAPE CONSTRUCTION PLAN FOR
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA 10+67 88 TO 56+70 54)
CHULA VISTA TRACT NO 13-02

Drawing No 16044 - 03
Sheet 3 of 44

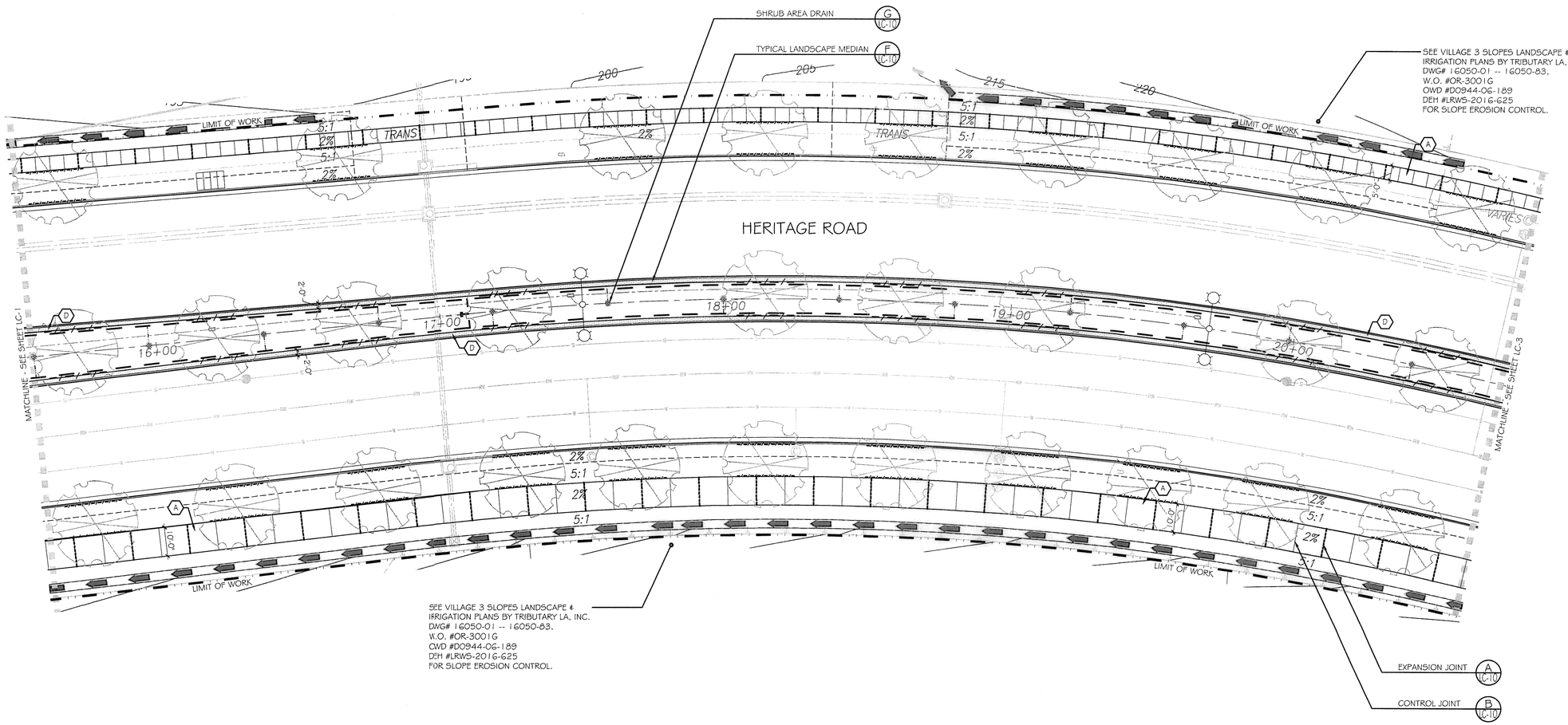
⚠ REPLACEMENT SHEET

OWD D0944-060186 PLR-16-011 LC-1

Otay Ranch Village 3 Heritage Road

Print Date 27 FEB '19

Print Date: 17 JUL '17



UTILITY LEGEND (PER CIVIL PLANS)

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- 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

CONSTRUCTION NOTES

1. DETERMINE THE LOCATION OF ALL UNDERGROUND UTILITES PRIOR TO THE INITITATION OF ANY WORK. ALL WORK SHALL BE PERFORMED IN A MANNER WHICH WILL AVOID POSSIBLE DAMAGE TO UTILITIES. HAND EXCAVATE, AS REQUIRED.
2. FOR GRADING DOCUMENTATION, REFER TO PLANS PREPARED BY HUNSAKER & ASSOCIATES. - CITY OF CHULA VISTA WO # OR-837G, SHEETS 14023-01 TO 14023-18.
3. FOR STREET IMPROVEMENT DOCUMENTATION, REFER TO PLANS PREPARED BY HUNSAKER & ASSOCIATES. - CITY OF CHULA VISTA WO #OR-837C, SHEETS 14032-01 TO 14032-31.
3. FOR UTILITY LOCATIONS, REFER TO PLANS PREPARED BY :NGINEERING PARTNERS. FOR ELECTRICITY: SDG&E CONSTRUCTION ORDER NO. 2520670, PROJECT NO. 651333-010. FOR GAS: SDG&E CONSTRUCTION ORDER NO. _____, PROJECT NO. _____.
4. FOR CONSTRUCTION DETAILS, SEE SHEET: LC-10.
5. FOR CONSTRUCTION SPECIFICATIONS, SEE SHEETS: LC-11-LC-12.
6. FOR PLANTING INFORMATION, SEE SHEETS: LP-1 TO LP-11.
7. ALL SIDEWALKS AND RAMPS SHOWN ARE FOR REFERENCE TO FINISHES AND SCORING ONLY. SEE CIVIL PLANS FOR EXACT LOCATIONS.
8. ROOT BARRIERS SHALL BE INSTALLED ADJACENT TO ALL PAVING SURFACES, WHERE A PAVING SURFACE IS LOCATED WITHIN TEN FEET OF A TREE'S TRUNK. ROOT BARRIERS SHALL EXTEND TEN FEET IN EACH DIRECTION, FROM THE CENTER LINE OF THE TRUNK, FOR A TOTAL DISTANCE OF TWENTY FEET. INSTALLING ROOT BARRIERS AROUND THE ROOTBALL IS UNACCEPTABLE. FOR ROOT BARRIER DETAIL SEE SHEET LP-10.

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION	DETAIL
	CONCRETE HEADER	D & H / LC-10
	ROOT BARRIER	D / LP-10
	LIMIT OF WORK	N / A
℄	CENTERLINE	N / A
TYP	TYPICAL	N / A
	4" PERFORATED MAIN DRAIN LINE	F / LC-10
	4" SOLID LATERAL DRAIN LINE	F & G / LC-10
※	NDS 6" BLACK ATRIUM GRATE	F & G / LC-10
⊓	POINT OF CONNECTION (P.O.C.)	F & G / LC-10

FINISH SCHEDULE

SEE MASTER FINISH SCHEDULE, SHEET LC-10 FOR DETAILS AND APPLICABLE FINISH

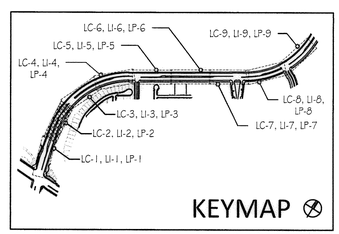
SYMBOL	DESCRIPTION	DETAIL
A	CONCRETE SIDEWALK (PEDESTRIAN USE ONLY)	A & B / LC-10
B	DECOMPOSED GRANITE PATH	D & H / LC-10
C	CONCRETE HEADER	D & H / LC-10
D	18" WIDE MEDIAN MAINTENANCE STRIP	F / LC-10

LANDSCAPE TREE NOTES

TREES SHALL BE LOCATED A MINIMUM OF:
- 10' FROM DRIVEWAYS
- 20' FROM TRAFFIC SIGNALS / STOP SIGNS
- 25' (TRIANGLE FOR RESIDENTIAL) FROM INTERSECTIONS
- 5' FROM UNDER GROUND UTILITIES
- 10' FROM ABOVE GROUND UTILITIES
- 10' FROM FIRE HYDRANTS
- 20' FROM LIGHT STANDARDS
- 3' FROM SIDEWALK UNDERDRAINS

ALL SCREENED FACILITIES ARE PER CIVIL PLANS. TRIBUTARY L.A., INC. CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

0' 10' 20' 40'



KEYMAP

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 — Exp. 9/30/17 — CALIFORNIA

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

DATE:	17 JUL '17
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G. / A.P.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	OR-837C	HUNSAKER & ASSOC.
Inspector	OR-837G	HUNSAKER & ASSOC.
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. (P/# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 20' Vertical N / A

Office _____ Field _____ Traffic _____

Designed By	Drawn By	Checked By
T.P.	T.G. / A.P.	T.P.

Plans Prepared Under Supervision Of: THOMAS A. PICARD Date: 7/17/17 R.L.A. No. 4001

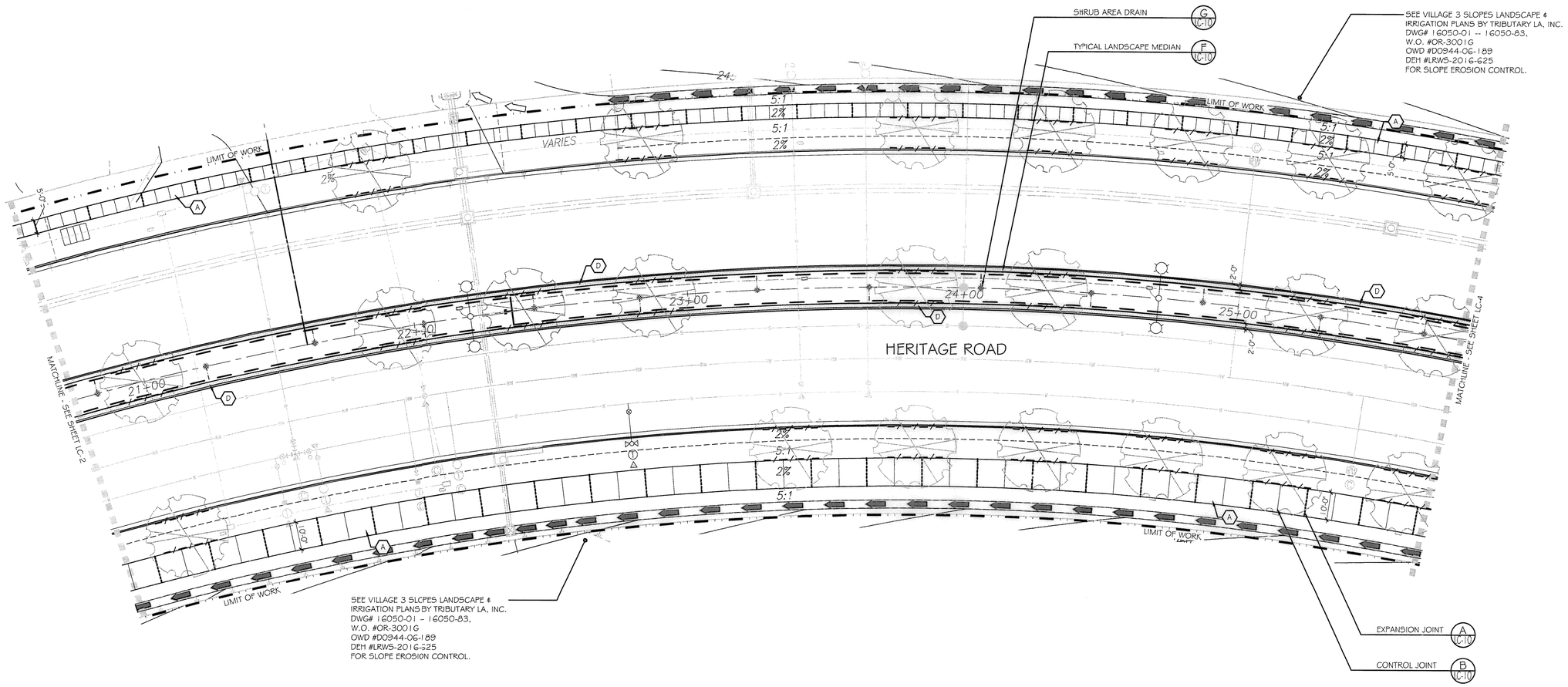
Approved: P. Jermie, P.E. Date: 8/30/17
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE CONSTRUCTION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 04
Sheet 4 of 44

OWD D0944-060186 PLR-16-011 LC-2

Otay Ranch Village 3 Heritage Road



UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
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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

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4. FOR CONSTRUCTION DETAILS, SEE SHEET: LC-10.
5. FOR CONSTRUCTION SPECIFICATIONS, SEE SHEETS: LC-11-LC-12.
6. FOR PLANTING INFORMATION, SEE SHEETS: LP-1 TO LP-11.
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CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION	DETAIL
	CONCRETE HEADER	D & H / LC-10
	ROOT BARRIER	D / LP-10
	LIMIT OF WORK	N / A
℄	CENTERLINE	N / A
TYP	TYPICAL	N / A
	4" PERFORATED MAIN DRAIN LINE	F / LC-10
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	NDS 6" BLACK ATRIUM GRATE	F & G / LC-10
	POINT OF CONNECTION (P.O.C.)	F & G / LC-10

FINISH SCHEDULE

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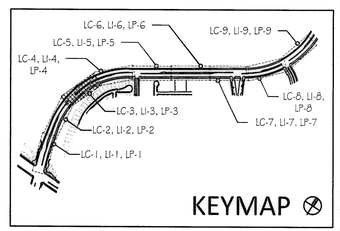

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1-800-227-2600

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 — 9/30/17 — CALIFORNIA

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

DATE:	17 JUL '17
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G. / A.P.
W.O. NO.	OR-837C

CONSTRUCTION RECORD		REFERENCES	BY	REVISIONS	Date	App'd
Contractor		OR-837C	HUNSAKER & ASSOC.			
Inspector		OR-837G	HUNSAKER & ASSOC.			
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. (FF# 1359 PER R.O.S. 14841) ELEV=639.319' (NAVD'88)

SCALE: Horizontal 1" = 20' / Vertical N / A

Office _____ Field _____ Traffic _____

Designed By	Drawn By	Checked By
T.P.	T.G. / A.P.	T.P.

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 7/17/17
R.L.A. No. 4001

Approved: P. Fewins, PLS. Date: 9/30/17
Director of Development Services or Designee

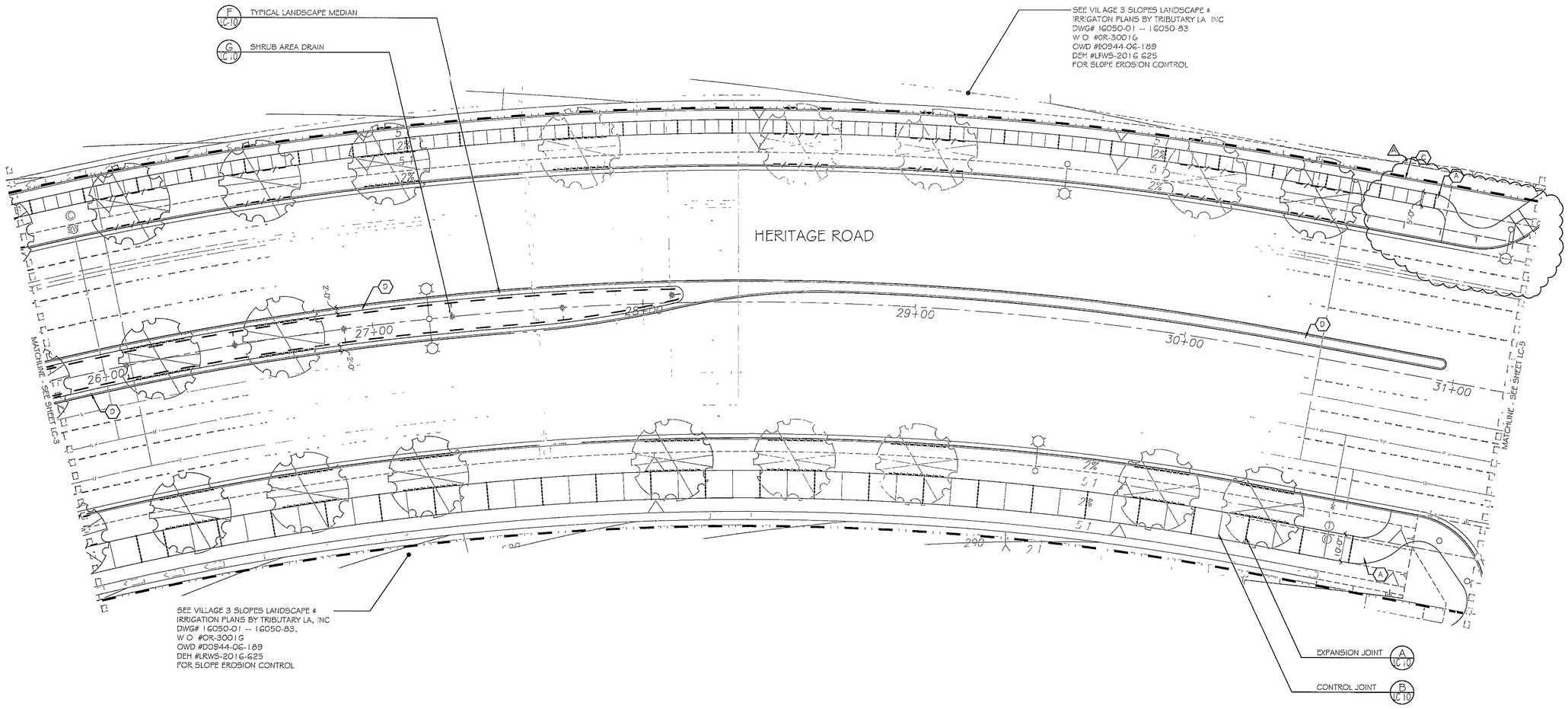
CITY OF CHULA VISTA
LANDSCAPE CONSTRUCTION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 05
Sheet 5 of 44

OWD D0944-060186 PLR-16-011 LC-3

Otay Ranch Village 3 Heritage Road

Print Date: 17 JUL '17



UTILITY LEGEND (PER CIVIL PLANS)

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- BLOWOFF VALVE
- AIR RELEASE VALVE
- FIRE HYDRANT
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- CATHODIC TEST STATION (PER CIVIL PLANS)
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CONSTRUCTION NOTES

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6 FOR PLANTING INFORMATION, SEE SHEETS LP-1 TO LP-11

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CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION	DETAIL
	CONCRETE HEADER	D & H / LC-10
	ROOT BARRIER	D / LP-10
	LIMIT OF WORK	N / A
℄	CENTERLINE	N / A
TYP	TYPICAL	N / A
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⊓	POINT OF CONNECTION (P O C)	F & G / LC-10

FINISH SCHEDULE

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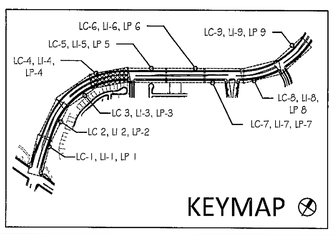


IT'S THE LAW! DIAL BEFORE YOU DIG

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 9/30/19 3/29/19

Tributary LA, Inc
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760 434 9300 office
760 434 9303 fax

DATE	27 FEB '19
SCALE	1" = 20'
JOB NO	15021
DRAWN BY	T P / T G
W O NO	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC	⚠ADJ @ INDUSTRIAL PARK ENTRY	5.7.19	JC
Inspector	OR-837G	HUNSAKER & ASSOC			
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 70 HIGH BOULDER & 1700 SOUTHERLY OF WATER STORAGE FACILITY (PTI@ 1359 PER R O S 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1 = 20' | Vertical N / A

Office _____ Field _____ Traffic _____

Designed By	Drawn By	Checked By
T P	T G / A P	T P

Plans Prepared Under Supervision Of _____ Date 3/29/19
THOMAS A PICARD R L A No 4001

Plans Originally Approved 8-30-17

Approved Mark A Cano Date 5.7.19
Director of Development Services or Designee

CITY OF CHULA VISTA

LANDSCAPE CONSTRUCTION PLAN FOR
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA 10+67 88 TO 56+70 54)
CHULA VISTA TRACT NO 13-02

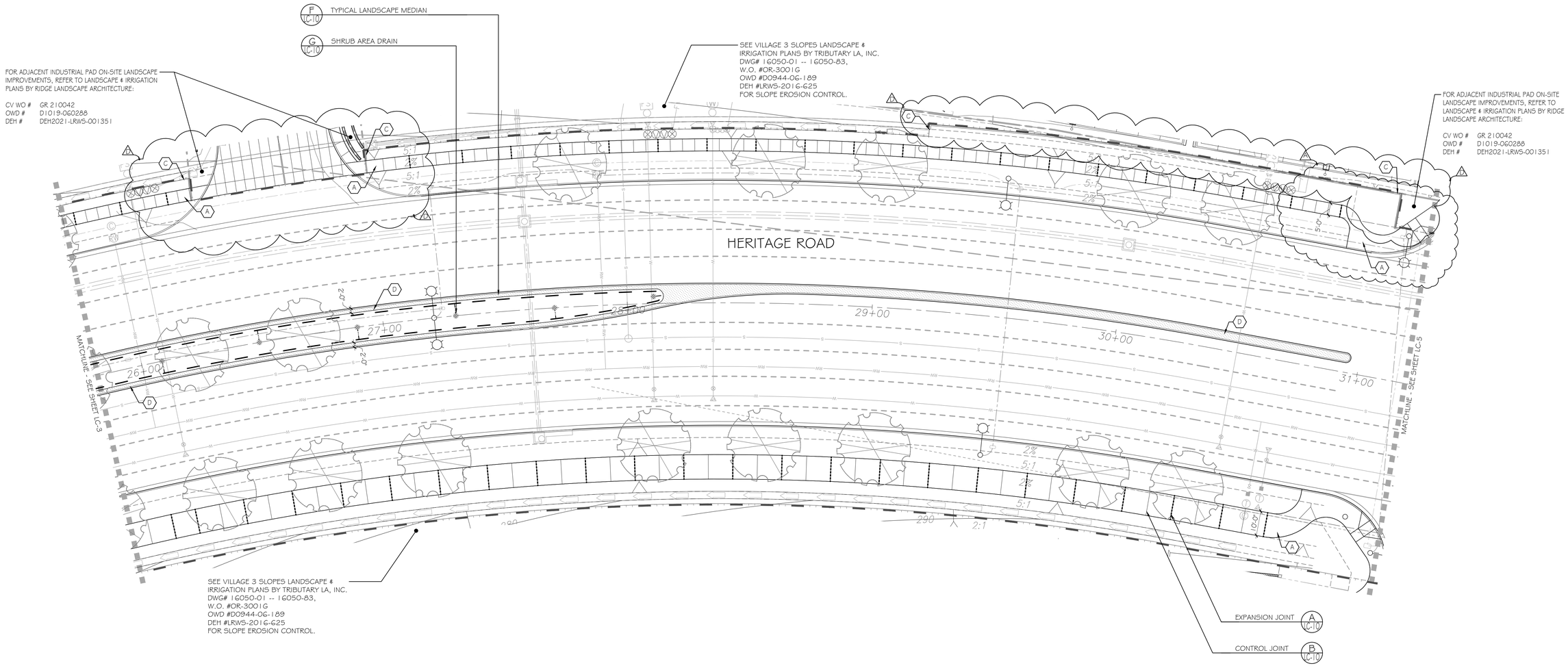
Drawing No 16044 - 06
Sheet 6 of 44

⚠REPLACEMENT SHEET

OWD D0944-060186 PLR-16-011 LC-4

Print Date 27 FEB '19

Otay Ranch Village 3 Heritage Road



UTILITY LEGEND (PER CIVIL PLANS)

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CONSTRUCTION LEGEND

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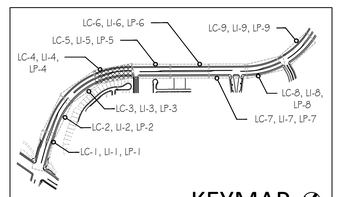

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REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — Renewal Date 9/30/23 — Signature Date 3/4/22 — CALIFORNIA

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

DATE:	4 MAR '22
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	OR-837C	HUNSAKER & ASSOC.
Inspector	OR-837G	HUNSAKER & ASSOC.
Date Completed		

REVISIONS	Date	App'd
1 ADJ. @ INDUSTRIAL PARK ENTRY	5.7.19	
2 ADJ. HDSP @ IND. PARK DRIVEWAYS	6/3/22	

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. (Y# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1"=20' / Vertical N/A

Office _____ Field _____ Traffic _____

Designed By T.P. Drawn By T.G.M. Checked By T.P.

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 3/4/22
R.L.A. No. 4001

Plans Originally Approved: 8-30-17

Approved:_____ Date:_____
Tiffany Allen, Director of Development Services or Designee

CITY OF CHULA VISTA

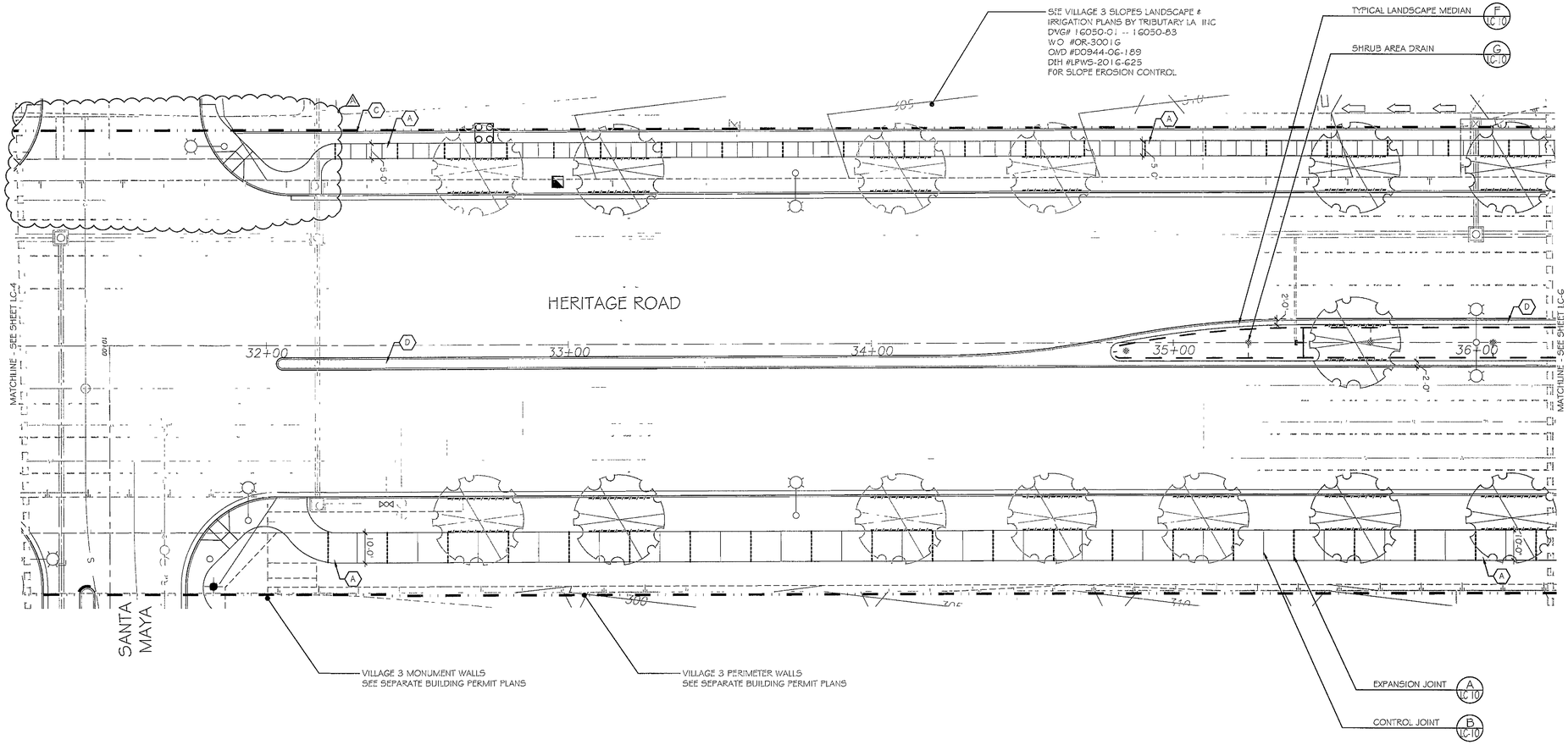
LANDSCAPE CONSTRUCTION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-06
LC-4
Sheet 6 of 44

1 REPLACEMENT SHEET

Print Date: 4 MAR '22

Otay Ranch Village 3 Heritage Road



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- CATHODIC TEST STATION (PER CIVIL PLANS)
- STREET LIGHT

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4 FOR CONSTRUCTION DETAILS, SEE SHEET LC-10

5 FOR CONSTRUCTION SPECIFICATIONS SEE SHEETS LC-11-LC-12

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CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION	DETAIL
	CONCRETE HEADER	D & H / LC-10
	ROOT BARRIER	D / LP-10
	LIMIT OF WORK	N / A
℄	CENTERLINE	N / A
TYP	TYPICAL	N / A
	4" PERFORATED MAIN DRAIN LINE	F / LC-10
	4" SOLID LATERAL DRAIN LINE	F & G / LC-10
※	NDS 6" BLACK ATRIUM GRATE	F & G / LC-10
⊓	POINT OF CONNECTION (P O C)	F & G / LC-10

FINISH SCHEDULE

SEE MASTER FINISH SCHEDULE, SHEET LC-10 FOR DETAILS AND APPLICABLE FINISH

SYMBOL	DESCRIPTION	DETAIL
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C	CONCRETE HEADER	D & H / LC-10
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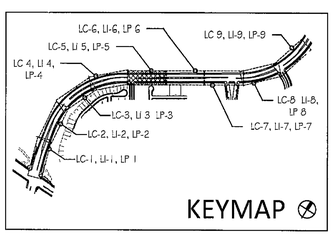
ALL SCREENED FACILITIES ARE PER CIVIL PLANS TRIBUTARY L A , INC CANNOT VERIFY ACTUAL LOCATIONS CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS

0' 10' 20' 40'



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 PICARO — No 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	27 FEB '19
SCALE	1" = 20'
JOB NO	15021
DRAWN BY	T P / T G
W O NO	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC	⚠1 ADJ @ INDUSTRIAL PARK ENTRY	5 7 19	JC
Inspector	OR-837G	HUNSAKER & ASSOC			
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 ROS 14841) ELEV=629 319' (NAVD'88)

SCALE: Horizontal 1" = 20' / Vertical N / A

Office _____ Field _____ Traffic _____

Designed By T P — Drawn By T G / A P — Checked By T P

Plans Prepared Under Supervision Of — Date 5/20/19
THOMAS A PICARO — R L A No 4001

Plans Originally Approved 8-30-17

Approved Mark A. Cano Date 5.7.19
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE CONSTRUCTION PLAN FOR
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA 10+67 88 TO 56+70 54)
CHULA VISTA TRACT NO 13-02

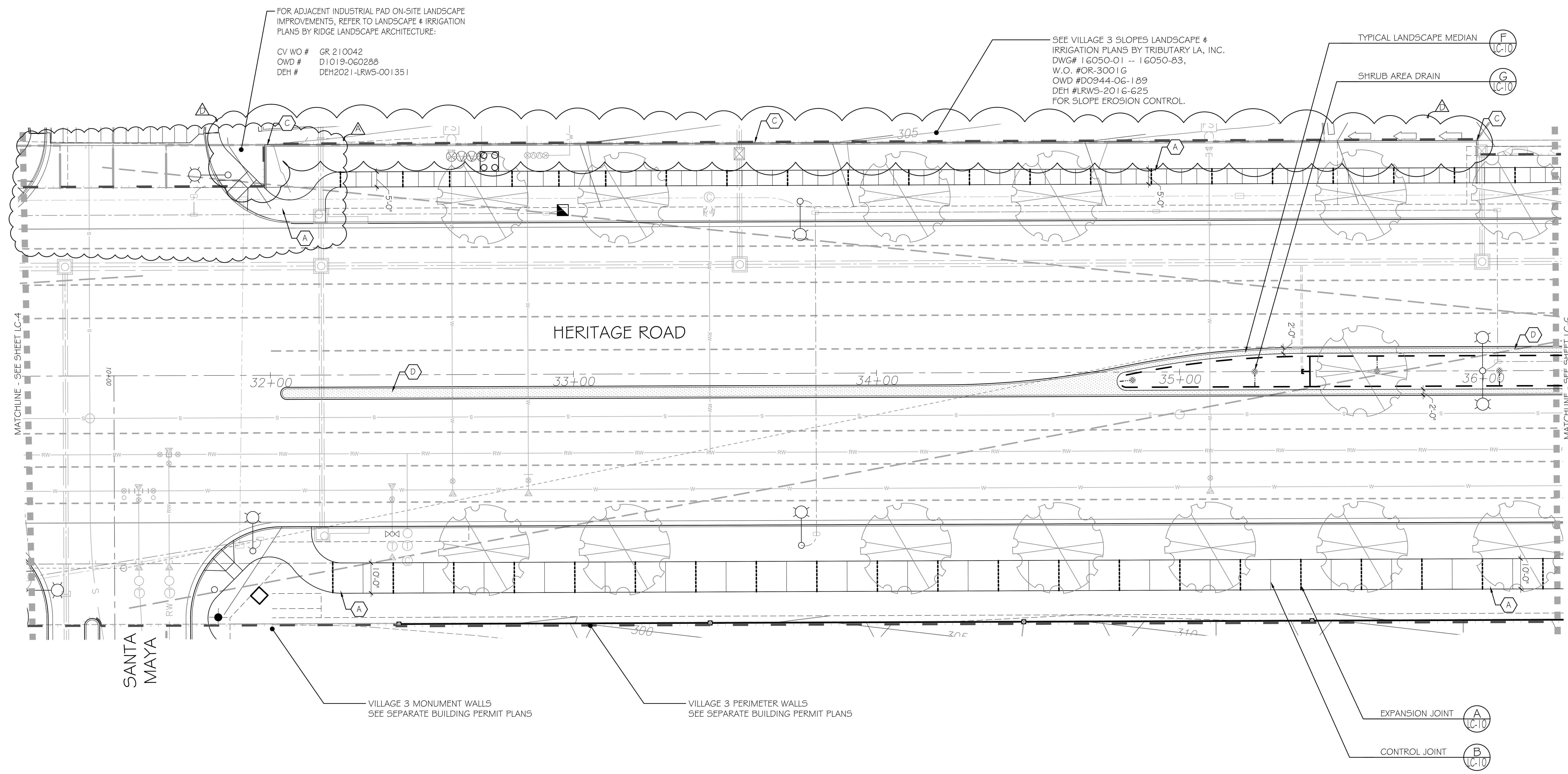
Drawing No 16044 - 07
Sheet 7 of 44

⚠REPLACEMENT SHEET

OWD D0944-060186 PLR-16-011 LC-5

Print Date 27 FEB '19

Otay Ranch Village 3 Heritage Road



UTILITY LEGEND (PER CIVIL PLANS)

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- STORM DRAINS (PER CIVIL PLANS)
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- AIR RELEASE VALVE
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SYMBOL	DESCRIPTION	DETAIL
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	ROOT BARRIER	D / LP-10
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℄	CENTERLINE	N / A
TYP	TYPICAL	N / A
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	POINT OF CONNECTION (P.O.C.)	F & G / LC-10

FINISH SCHEDULE

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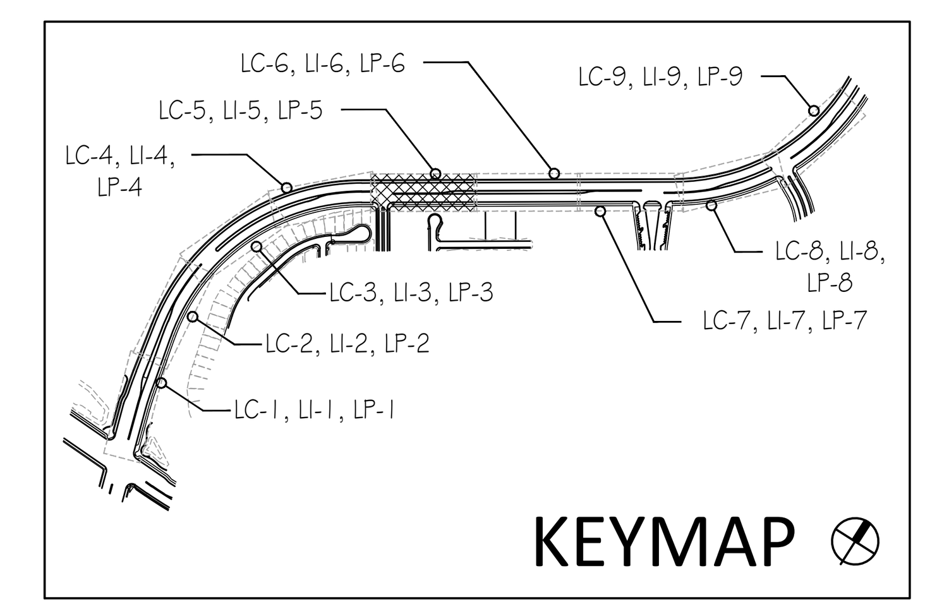

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REGISTERED LANDSCAPE ARCHITECT
THOMAS A. PICARD - 4001
Signature
9/30/23
Renewal Date
3/4/22
Date
CALIFORNIA

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

DATE:	4 MAR '22
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor ________	OR-837C	HUNSAKER & ASSOC.	A ADJ. @ INDUSTRIAL PARK ENTRY	5.7.19	
Inspector ________	OR-837G	HUNSAKER & ASSOC.	D ADJ. HEADER AT GUE SPACE	5/3/22	
Date Completed ________					

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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" = 20'
Vertical N / A

Office ________
Field ________
Traffic ________

Designed By	Drawn By	Checked By
T.P.	T.G.M.	T.P.

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 3/4/22
R.L.A. No. 4001

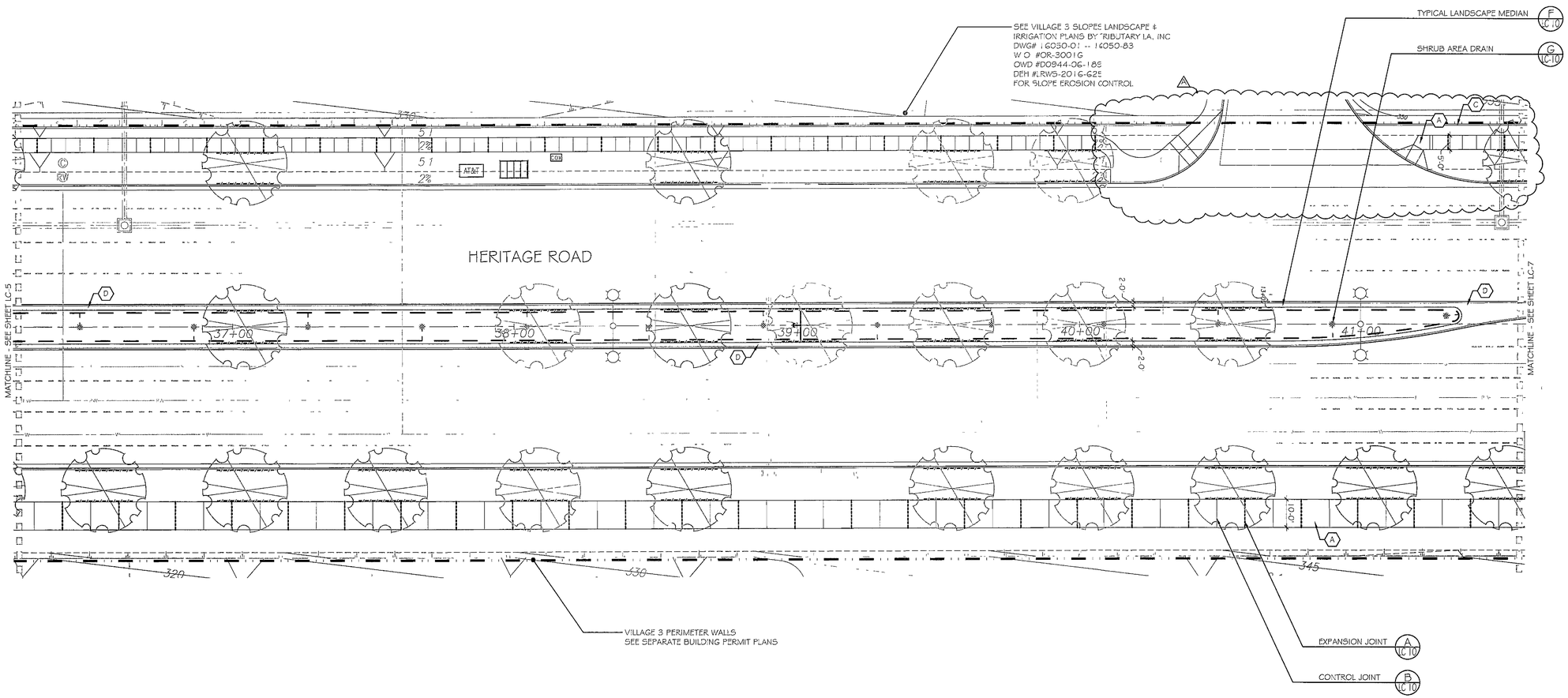
Plans Originally Approved: 8-30-17
Approved:________ Date:________
Tiffany Allen, Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE CONSTRUCTION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-07
LC-5
Sheet 7 of 44

D REPLACEMENT SHEET

Otay Ranch Village 3 Heritage Road



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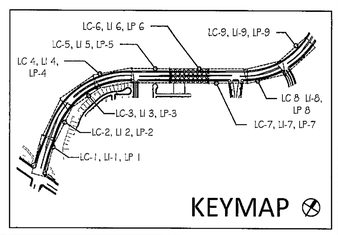

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REGISTERED LANDSCAPE ARCHITECT — THOMAS A PICARD — 4001 — 9/30/19 — CALIFORNIA

Tributary LA, Inc
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760 434 9300 office
760 434 9303 fax

DATE	27 FEB '19
SCALE	1" = 20'
JOB NO	15021
DRAWN BY	T P / T G
W O NO	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	OR-837C	HUNSAKER & ASSOC
Inspector	OR-837G	HUNSAKER & ASSOC
Date Completed		

REVISIONS	Date	App'd
⚠ ADJ @ INDUSTRIAL PARK ENTRIES	5 7 19	JC

BENCH MARK
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SCALE: Horizontal 1" = 20' / Vertical N/A
Office _____ Field _____ Traffic _____

Designed By T P
Drawn By T G / A P
Checked By T P
Plans Prepared Under Supervision Of
THOMAS A PICARD — Date 5/28/19 — R L A No 4001

Plans Originally Approved 8-30-17
Approved _____ Date 5.7.19
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE CONSTRUCTION PLAN FOR
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO 13-02

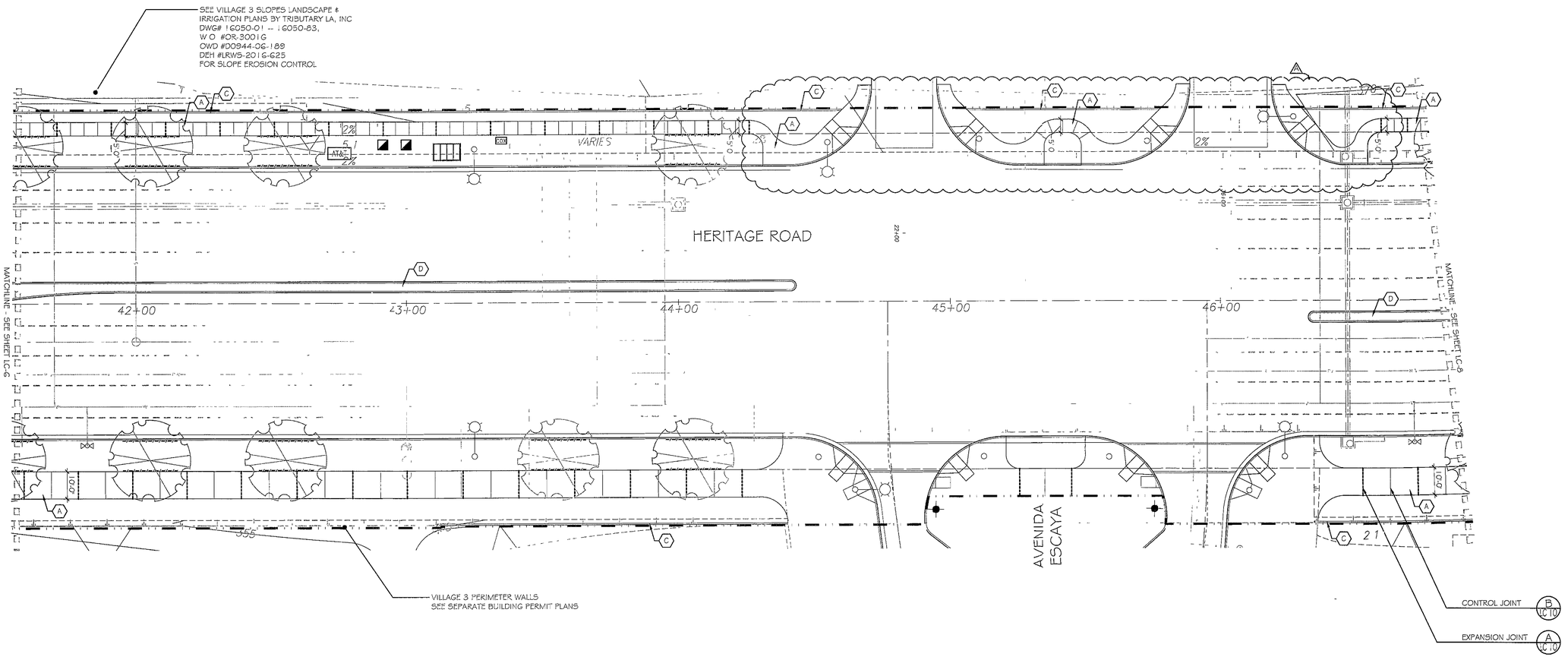
Drawing No 16044 - 08
Sheet 8 of 44

⚠ REPLACEMENT SHEET
OWD D0944-060186 PLR-16-011 LC-6

Otay Ranch Village 3 Heritage Road

Print Date 27 FEB '19

Plnnt Date 27 FEB '19



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- 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) — 1
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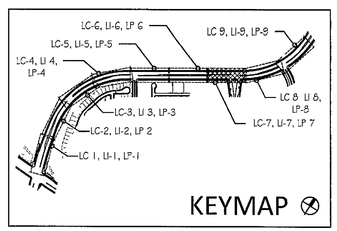

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Tributary LA, Inc
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Carlsbad, CA 92008
760 434 9300 office
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SCALE	1" = 20'
JOB NO	15021
DRAWN BY	T P / T G
W O NO	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY
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Inspector	OR-837G	HUNSAKER & ASSOC
Date Completed		

REVISIONS	Date	App'd
⚠1 ADJ @ INDUSTRIAL PARK ENTRIES	5.7.19	

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SCALE
Horizontal 1" = 20'
Vertical N / A

Office _____
Field _____
Traffic _____

Designed By T P
Drawn By T G / A P
Checked By T P

Plans Prepared Under Supervision Of
THOMAS A PICARD
Date 3/30/19
R L A No 4001

Plans Originally Approved 8-30-17
Approved _____ Date 5.7.19
Director of Development Services or Designee

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CHULA VISTA TRACT NO 13-02

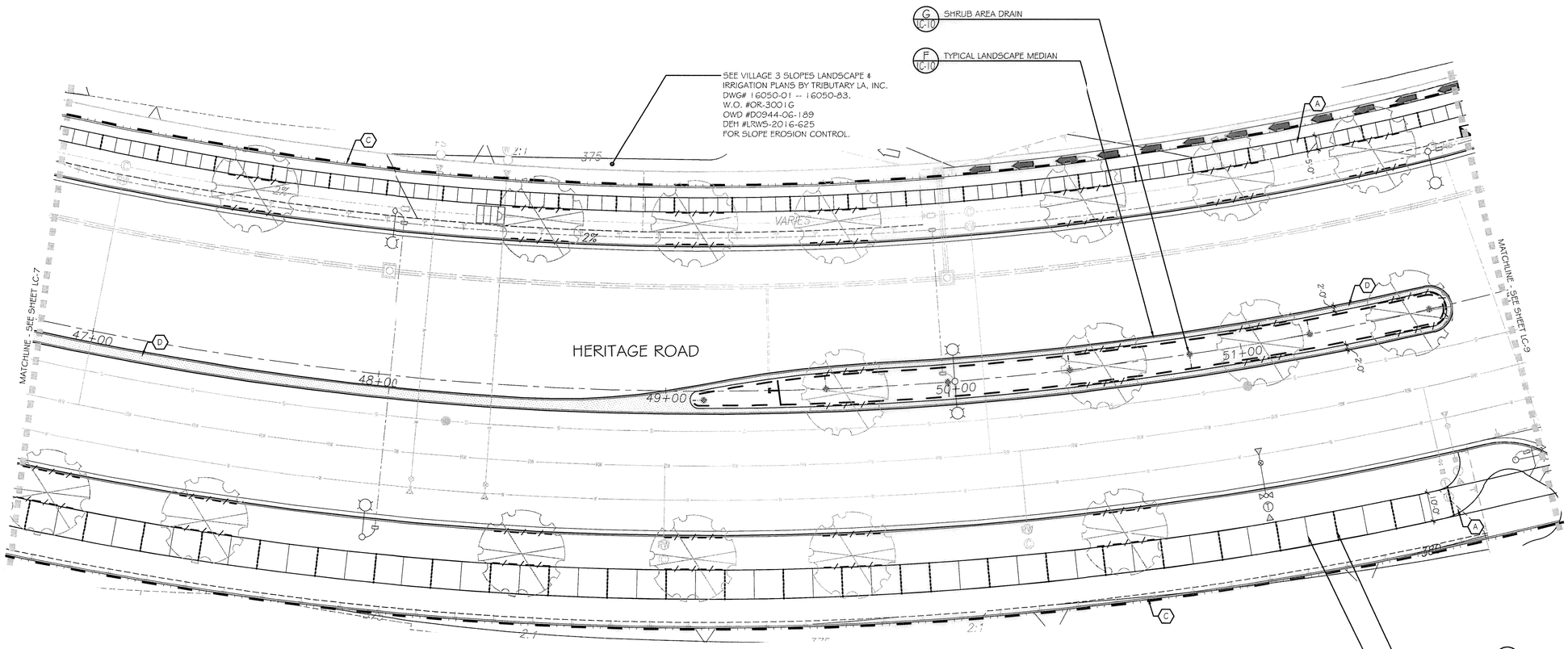
Drawing No 16044 - 09
Sheet 9 of 44

⚠REPLACEMENT SHEET

OWD D0944-060186 PLR-16-011 LC-7

Otay Ranch Village 3 Heritage Road

Print Date: 17 JUL '17



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. DETERMINE THE LOCATION OF ALL UNDERGROUND UTILITES PRIOR TO THE INITITATION OF ANY WORK. ALL WORK SHALL BE PERFORMED IN A MANNER WHICH WILL AVOID POSSIBLE DAMAGE TO UTILITIES. HAND EXCAVATE, AS REQUIRED.
2. FOR GRADING DOCUMENTATION, REFER TO PLANS PREPARED BY HUNSAKER & ASSOCIATES. - CITY OF CHULA VISTA WO # OR-837G, SHEETS 14023-01 TO 14023-18.
3. FOR STREET IMPROVEMENT DOCUMENTATION, REFER TO PLANS PREPARED BY HUNSAKER & ASSOCIATES. - CITY OF CHULA VISTA WO #OR-837C, SHEETS 14032-01 TO 14032-31.
3. FOR UTILITY LOCATIONS, REFER TO PLANS PREPARED BY ENGINEERING PARTNERS. FOR ELECTRICITY: SDG&E CONSTRUCTION ORDER NO. 2520670, PROJECT NO. 651333-010. FOR GAS: SDG&E CONSTRUCTION ORDER NO. _____, PROJECT NO. _____.
4. FOR CONSTRUCTION DETAILS, SEE SHEET: LC-10.
5. FOR CONSTRUCTION SPECIFICATIONS, SEE SHEETS: LC-11-LC-12.
6. FOR PLANTING INFORMATION, SEE SHEETS: LP-1 TO LP-11.
7. ALL SIDEWALKS AND RAMPS SHOWN ARE FOR REFERENCE TO FINISHES AND SCORING ONLY. SEE CIVIL PLANS FOR EXACT LOCATIONS.
8. ROOT BARRIERS SHALL BE INSTALLED ADJACENT TO ALL PAVING SURFACES. WHERE A PAVING SURFACE IS LOCATED WITHIN TEN FEET OF A TREE'S TRUNK. ROOT BARRIERS SHALL EXTEND TEN FEET IN EACH DIRECTION, FROM THE CENTER LINE OF THE TRUNK, FOR A TOTAL DISTANCE OF TWENTY FEET. INSTALLING ROOT BARRIERS AROUND THE ROOTBALL IS UNACCEPTABLE. FOR ROOT BARRIER DETAL SEE SHEET LP-10.

CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION	DETAIL
	CONCRETE HEADER	D & H / LC-10
	ROOT BARRIER	D / LP-10
	LIMIT OF WORK	N / A
℄	CENTERLINE	N / A
TYP	TYPICAL	N / A
	4" PERFORATED MAIN DRAIN LINE	F / LC-10
	4" SOLID LATERAL DRAIN LINE	F & G / LC-10
	NDS 6" BLACK ATRIUM GRATE	F & G / LC-10
	POINT OF CONNECTION (P.O.C.)	F & G / LC-10

FINISH SCHEDULE

SEE MASTER FINISH SCHEDULE, SHEET LC-10 FOR DETAILS AND APPLICABLE FINISH

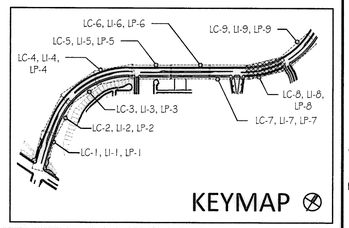
SYMBOL	DESCRIPTION	DETAIL
A	CONCRETE SIDEWALK (PEDESTRIAN USE ONLY)	A & B / LC-10
B	DECOMPOSED GRANITE PATH	D & H / LC-10
C	CONCRETE HEADER	D & H / LC-10
D	18" WIDE MEDIAN MAINTENANCE STRIP	F / LC-10

LANDSCAPE TREE NOTES

TREES SHALL BE LOCATED A MINIMUM OF:
- 10' FROM DRIVEWAYS
- 20' FROM TRAFFIC SIGNALS / STOP SIGNS
- 25' (TRIANGLE FOR RESIDENTIAL) FROM INTERSECTIONS
- 5' FROM UNDER GROUND UTILITIES
- 10' FROM ABOVE GROUND UTILITIES
- 10' FROM FIRE HYDRANTS
- 20' FROM LIGHT STANDARDS
- 3' FROM SIDEWALK UNDERDRAINS

ALL SCREENED FACILITIES ARE PER CIVIL PLANS. TRIBUTARY L.A., INC. CANNOT VERIFY ACTUAL LOCATIONS. CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS.

0' 10' 20' 40'



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 — 9/20/17

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

DATE:	17 JUL '17
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G. / A.P.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.			
Inspector	OR-837G	HUNSAKER & ASSOC.			
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DISK MARKED "SD CITY ENGR." IN 3/4" IRON PIPE.
LOCATION: 1.9 MILES EAST OF INTX OF MAIN ST. & HERITAGE RD. ON ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 17.00' SOUTHERLY OF WATER STORAGE FACILITY. (PT.# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 20' / Vertical N / A

Office _____ Field _____ Traffic _____

Designed By	Drawn By	Checked By
T.P.	T.G. / A.P.	T.P.

Plans Prepared Under Supervision Of
THOMAS A. PICARD Date 9/20/17 R.L.A. No. 4001

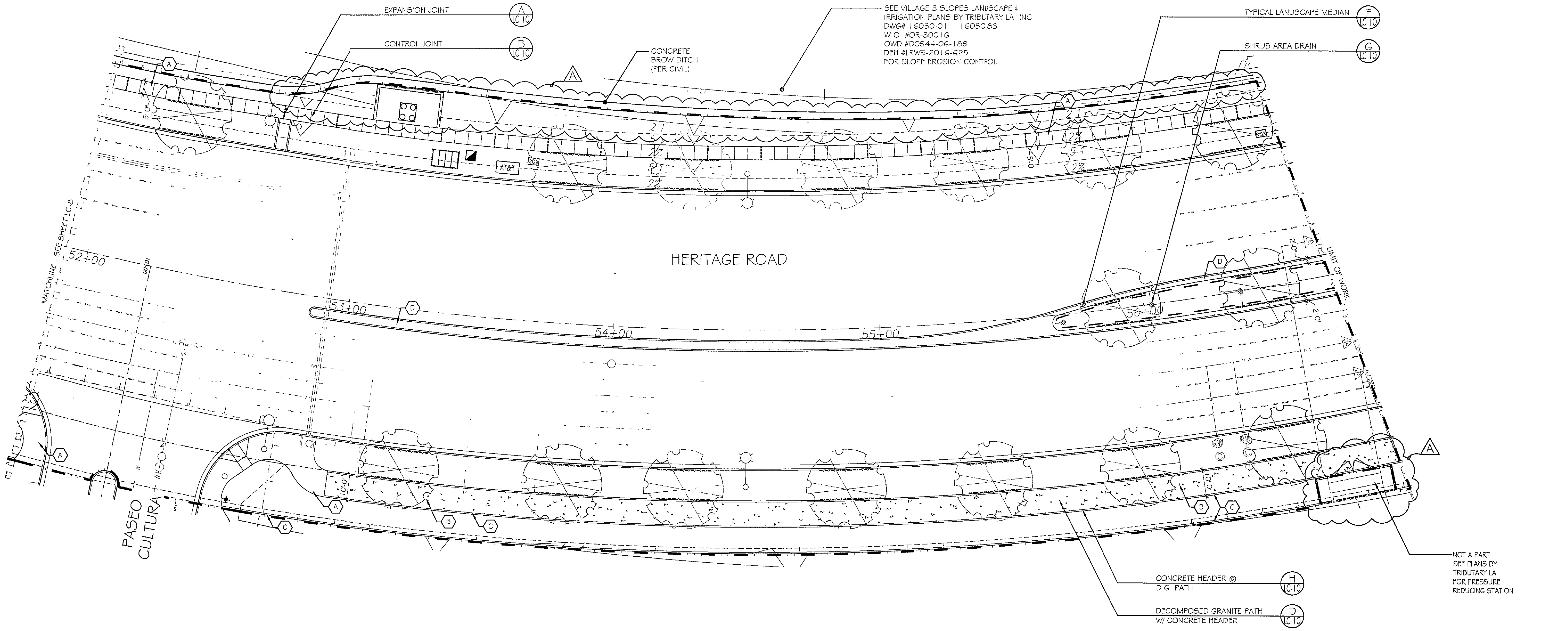
Approved: P. Fernandez, PLA Date: 9/20/17
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE CONSTRUCTION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 10
Sheet 10 of 44

Otay Ranch Village 3 Heritage Road

OWD D0944-060186 PLR-16-011 LC-8



UTILITY LEGEND (PER CIVIL PLANS)

- DOMESTIC WATERLINE (PER CIVIL PLANS)
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- RECYCLED WATERLINE (PER CIVIL PLANS)
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- STREET LIGHT

CONSTRUCTION NOTES

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4 FOR CONSTRUCTION DETAILS, SEE SHEET LC-10

5 FOR CONSTRUCTION SPECIFICATIONS, SEE SHEETS LC-11-LC-12

6 FOR PLANTING INFORMATION, SEE SHEETS LP-1 TO LP-11

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CONSTRUCTION LEGEND

SYMBOL	DESCRIPTION	DETAIL
	CONCRETE HEADER	D & H / LC-10
	ROOT BARRIER	D / LP-10
	LIMIT OF WORK	N / A
℄	CENTERLINE	N / A
TYP	TYPICAL	N / A
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FINISH SCHEDULE

SEE MASTER FINISH SCHEDULE, SHEET LC-10 FOR DETAILS AND APPLICABLE FINISH

SYMBOL	DESCRIPTION	DETAIL
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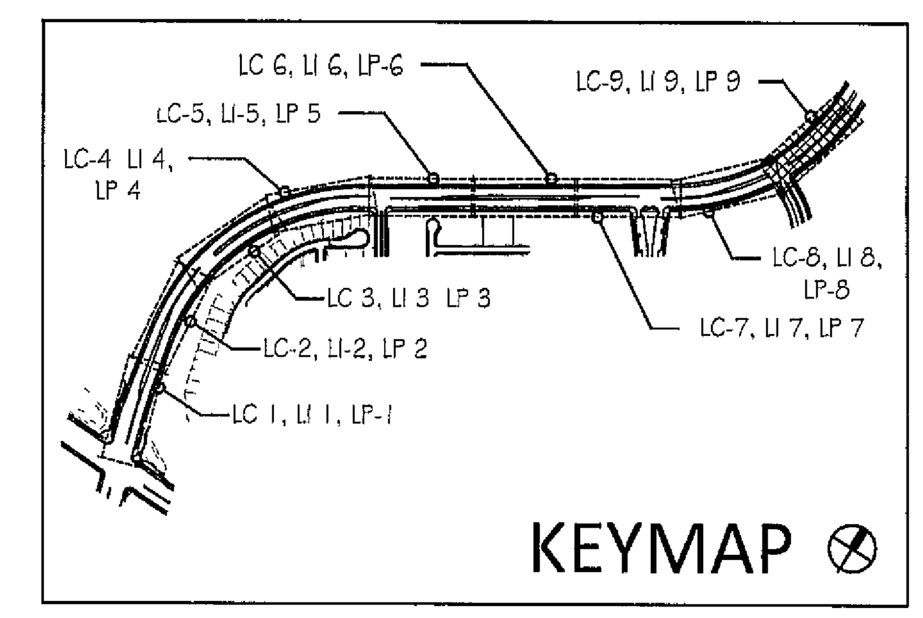
0' 10' 20' 40'



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 STATE OF CALIFORNIA

Tributary LA, Inc
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760 434 9300 office
760 434 9303 fax

DATE	27 FEB '19
SCALE	1" = 20'
JOB NO	15021
DRAWN BY	TP / TG
W O NO	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor ________	OR-837C	HUNSAKER & ASSOC	A ADJ HEADER @ PUMP STATION & BROW DITCH	5 7 19	JC
Inspector ________	OR-837G	HUNSAKER & ASSOC			
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" = 20' ; Vertical N/A
Office ________ Field ________ Traffic ________

Designed By	Drawn By	Checked By
T P	T G / A P	T P

Plans Prepared Under Supervision Of THOMAS A PICARD Date 3/20/19 R L A No 4001

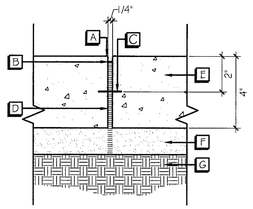
Plans Originally Approved 8-30-17
Approved [signature] Date 5.7.19
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE CONSTRUCTION PLAN FOR
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA 10+67 88 TO 56+70 54)
CHULA VISTA TRACT NO 13-02

Drawing No 16044 - 11

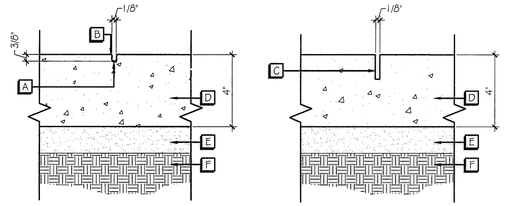
A REPLACEMENT SHEET

OWD D0944-060186 PLR-16-011 LC-9



A 1/8" RADIUS TYPICAL
B POLYURETHANE SEALANT (SEE SPECIFICATIONS)
C STEEL ROD WITH SLEEVE, IF REQUIRED (SEE SOILS REPORT FOR SIZE)
D EXPANSION JOINT (USE "KOLD SEAL ZIPPER STRIP" OR EQUAL)
E CONCRETE (SEE PLAN AND FINISH SCHEDULE FOR COLOR AND FINISH) (DEPTH AND REINFORCEMENT PER SOILS REPORT RECOMMENDATIONS)
F COMPACTED SUB-BASE (SEE SOILS REPORT FOR RECOMMENDATIONS)
G COMPACTED SUB-GRADE (SEE SOILS REPORT FOR RECOMMENDATIONS)

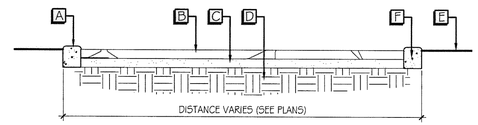
A EXPANSION JOINT
EXP_JNT
N.T.S.

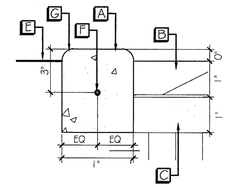


A HAND TOOLED CONTROL JOINT
B 1/8" RADIUS TYPICAL
C 1/8" WIDE SAW CUT CONTROL JOINT - DEPTH TO BE 33% OF PAVING DEPTH FOR CONTROL JOINTS, 1/2" DEEP IN DECORATIVE APPLICATIONS
D CONCRETE (SEE PLAN AND FINISH SCHEDULE FOR COLOR AND FINISH) (DEPTH AND REINFORCEMENT PER SOILS REPORT RECOMMENDATIONS)
E COMPACTED SUB-BASE, IF REQUIRED (SEE SOILS REPORT FOR RECOMMENDATIONS)
F COMPACTED SUBGRADE (SEE SOILS REPORT FOR RECOMMENDATIONS)

B CONTROL JOINTS
Control Joints
N.T.S.

C NOT ASSIGNED

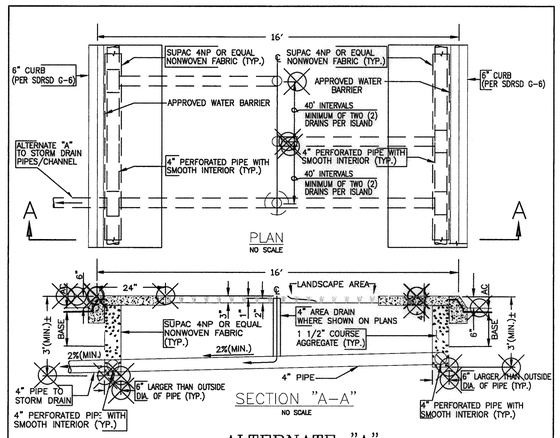




DETAIL ENLARGEMENT

A CONCRETE HEADER (STRENGTH MIN. 2000 PSI) (SEE FINISH SCHEDULE AND DETAIL ENLARGEMENT)
B 3" LAYER STABILIZED DECOMPOSED GRANITE (PYRITE GOLD), AVAILABLE THROUGH: GAIL MATERIALS (951) 279-1095
C 3" MINIMUM DEPTH, 3/4" CLASS 2 AGGREGATE BASE (DEPTH MAY BE INCREASED, PER SOIL ENGINEER'S REPORT)
D COMPACT SUBGRADE (SEE SOIL ENGINEER'S REPORT FOR RECOMMENDATIONS)
E FINISH GRADE / PLANTING AREA
F #4 REBAR CONTINUOUS (TYPICAL)
G 1/2" RADIUS

D DECOMPOSED GRANITE PATH WITH CONCRETE HEADER
DG_PATH_W Conc hdr
N.T.S.



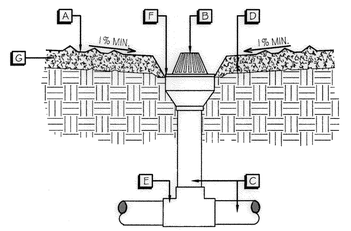
ALTERNATE "A"

NOTES:
1. CITY ENGINEER MAY APPROVED ALTERNATIVE DESIGNS AND PRODUCTS.
2. PIPE PRODUCTS, FABRICS, ETC. SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND/OR THE STANDARD SPECIFICATIONS.

Revised:	Original approval date: 7-10-75	CITY OF CHULA VISTA
CVM 9-05-01	Redrawn By: ARR Date: 7-26-95	PUBLIC WORKS DEPARTMENT
		TYPICAL LANDSCAPE MEDIAN
	CITY ENGINEER Date: 11-7-02	CVCS 5

E NOT ASSIGNED

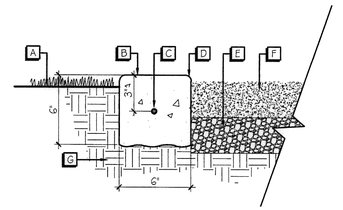
F TYPICAL LANDSCAPE MEDIAN



A SHRUB AREA FINISH GRADE
B ND5-90 6" BLACK ATRIUM GRATE FOR SHRUB AREA
C AD5 4" RIGID SOLID WALL PIPE
D FINISH GRADE
E ND5-4P01 PVC SOLVINT WELD "T" WITH FITTINGS
F ND5-6P07 PVC SOLVENT WELD REDUCE COUPLING
G 3" MULCH LAYER

NOTE: 1. ALL JOINTS TO BE GLUED W/ "WELD-ON" #4707 ABS GLUE
2. MULCH TO BE 6" DIAMETER CLEAR AROUND DRAIN CAP
3. SEE DETAIL F, THIS SHEET FOR ADDITIONAL INFORMATION

G SHRUB AREA DRAIN
SHRUBDRAIN
N.T.S.



A FINISH GRADE (SEE GRADING PLANS)
B 6"X6" CONCRETE HEADER
C #4 REBAR CONTINUOUS (TYPICAL)
D 1/2" RADIUS (TYPICAL @ BOTH EDGES)
E 3" DEPTH, 3/4" CLASS 2 AGGREGATE BASE
F 3" DEPTH, STABILIZED DECOMPOSED GRANITE (COLOR TO MATCH PREVIOUS CONSTRUCTION)
G COMPACTED SUBGRADE (SEE GEOTECHNICAL REPORT FOR RECOMMENDATIONS)

NOTE: CONCRETE HEADER WEAKENED PLANE JOINTS @ 15' O.C., EXPANSION JOINTS @ 80' O.C., OVERLAP REBAR JOINTS @ 15' MINIMUM.

H CONCRETE HEADER AT D.G. TRAIL
CONCHEADER at DG-02
N.T.S.

FINISH SCHEDULE

SYMBOL	DESCRIPTION	FINISH&TEXTURE	DETAIL	COMMENTS
A	CONCRETE SIDEWALK	NATURAL COLORED CONCRETE AND HAND-TOOLED JOINTS	A & B / LC-10	
B	DECOMPOSED GRANITE PATH	3" LAYER OF STABILIZED DECOMPOSED GRANITE "FYRITE GOLD" OVER 3" LAYER OF 3/4" CLASS 2 AGGREGATE BASE	D & H / LC-10	AVAILABLE THROUGH: GAIL MATERIALS (951) 279-1095
C	CONCRETE HEADER	NATURAL COLORED CONCRETE W/ LIGHT BROOM FINISH	D & H / LC-10	
D	18" WIDE MEDIAN MAINTENANCE STRIP	NATURAL GRAY COLORED CONCRETE BROOM FINISH	F / LC-10	

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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 9/30/17 CALIFORNIA

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

DATE:	17 JUL '17
SCALE:	N/A
JOB NO.	15021
DRAWN BY:	T.P. / T.G. / A.P.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.			
Inspector	OR-837G	HUNSAKER & ASSOC.			
Date Completed					

BENCH MARK
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SCALE: Horizontal N/A; Vertical N/A

Office	Designed By	Drawn By	Checked By
Field	T.P.	T.G. / A.P.	T.P.
Traffic	Plans Prepared Under Supervision Of THOMAS A. PICARD	Date 7/17/17	R.L.A. No. 4001

Approved: P. Fennis, P.E.A. Director of Development Services or Designee Date: 9/30/17

CITY OF CHULA VISTA
LANDSCAPE CONSTRUCTION DETAILS:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 12
Sheet 12 of 44

OWD D0944-060186 PLR-16-011 LC-10

Otay Ranch Village 3 Heritage Road

LANDSCAPE CONSTRUCTION SPECIFICATIONS

I. General Conditions

A. Definitions:

1. Governing Municipality: City of Chula Vista
2. Governing Water District: Otay Water District
3. Project Owner: Homefed Corporation
4. Civil Engineer: Hunsaker & Associates
5. Landscape Architect: Tributary LA, Inc.

B. Scope of Services:

1. The contractor shall provide all necessary materials, labor, equipment, permits, supervision and all other services necessary to complete all construction work, as specified within these landscape construction documents. All work shall be performed and completedto the satisfaction of the owner or authorized representative.
2. Field revisions shall not be executed without prior written approval from the owner or authorized representative. The contractor shall assume the risk of not being compensated, when work is performed without an approved change order.
3. The landscape architect shall have the authority to make minor revisions in the field. Revisions shall be documented on a "punch-list" and circulated to the owner, landscape architect and landscape contractor. The owner, prior to proceeding shall approve all such revisions involving additional cost or significant modifications to the projects appearance.
4. Provisions of the 'General Conditions of the Contract for Construction', A.I.A. Document A201, latest edition, shall apply to the work as if part of this contract. Copies are available at the A.I.A. office, 233 'A' Street, San Diego, California 92101.

C. Code Compliance

1. Local, municipal and state codes, laws, rules and regulations governing or relating to any part of this project arehereby made part of these landscape construction documents.
2. All work shall be performed in compliance with the Uniform Building Code, Uniform Plumbing Code, Uniform Fire Code, American Disabilities Act and all other applicable building documents. It is the contractor's responsibility to notify the owner of any design element that may be in conflict with any applicable codes, laws, rules and regulations, prior to construction.

D. Landscape Contractor's Responsibilities

1. These plans are prepared for the convenience of the contractor, the contractor shall verify all site conditions and dimensions shown on the plans affecting the intended design of the construction work. Any discrepancies shall be reported to the owner immediately.
2. The contractor shall carry all necessary compensation, liability and property damage insurance to cover their employees and installation so as to offer full protection to the owner from any possible damage suit or lien on the owner's property.
3. The contractor shall be coordinate the installations of the construction items with all other trades, to avoid potential conflicts with the street improvements, utilities, grading, drainage, irrigation and plant material.
4. The contractor shall be liable for damage to all existing and/or recently installed utilities, construction features, irigation and plant material and shall repair or replace all items damaged improvements, in a manner acceptable to the owner's representative.
5. Prior to construction, the contractor shall locate and stake all construction elements as specified within these plans. Prior to initiating any work, the owner's representative must approve staking.
6. All improvements shall be constructed, assembled and installed in an efficient manner to the highest workmanlike standards. Improvements shall be complete in every aspect and shall be left ready for their intended use and/or operations by the owner.
7. The contractor shall apply and pay for all necessary permits and fees, required by the local governing agencies
8. The contractor shall be responsible for any encroachment onto adjacent properties, right-of-ways, easements, setbacks or any other legal property restriction.
9. The prime landscape contractor shall accept the responsibility for all of their subcontractors and perform all work, coordination and supervision, as required to complete the contract.
10. The contractor shall inform the owner, prior to the initiation of any work, the names of all subcontractors proposed (if any). The owner will retain the right to reject any subcontractor proposed by the prime landscape contractor.
11. There shall be no documentation in the general contract that creates any contractual relationship between he owner and subcontractor.
12. The Contractor shall submit the name and background experience of the proposed foreman/supervisor for this job.
13. The contractor shall provide appropriate supervision for all work performed. When absent from the job site, thejob supervisor shall appoint an assistant capable of discussing minor matters with the landscape architect and/or owner.
14. The Contractor shall commence selection and verify the availability of all necessary construction materials upon award of contract.
15. The contractor shall arrange the acquisition of any necessary deposits to set aside materials (either by owner or by contractor), as soon as possible.
16. The Contractor agrees by submitting a bid, that this project will receive a high priority on his work schedule. The only delays considered acceptable are only those, which can be proven to be beyond the control of the Contractor.
17. The Contractor shall secure and pay for all required permits and fees to complete the work.
18. All materials shall be of standard, approved, and first grade quality, and shall be in prime condition upon acceptance.
19. Work shall be performed when weather conditions permit proper and satisfactory results.

E. Contractor's Insurance

1. The contractor shall carry the workman's compensation, general liability and property damage insurance. If an emergency threatens the safety of life, work or adjoining property, the contractor hereby instructed to act at their discretion to prevent such loss or injuy and shall maintain the minimum liability insurance coverage during the contract period:
   a. Bodily injury: $250,000.00 per individual occurrence
   b. Property damage: $250,000.00 per individual occurrence
2. The contractor shall not cause their insurance policies to be cancelled or permit them to lapse. Each insurancepolicy shall include a clause to the effect that the policy shall not (at any time during the construction period), be cancelled or reduced or limited until fifteen days after all additional insurers have received written notice as evidenced by returned receipts of registered or cancelled letters.
3. By accepting this contract the contractor agrees to hold harmless the owner and landscape architect from any caims arising out of his operations or the operations of any of their subcontractors, material suppliers and agents.

F. Landscape Construction Documents

1. The owner shall furnish the contractor with all applicable drawings, details, specifications, revisions (As requested by the landscape architect) and change orders. Recommendations received directly from the landscape architect must be reviewed and approved by the owner's representative prior to its execution.
2. The contractor shall furnish their contract, all shop drawings specified as part of the contract and a work sheet, which notes all of the deviations from the original contract, not otherwise covered.
3. The contractor shall keep at the job site at all times a "Field Set" of drawings, shop drawings and the work shee indicating updates and deviations as they occur.
4. All construction items shall be located as dimensioned on the plans, unless otherwise indicated in notes, details legends and specifications.
5. Dimensions shall be taken from the vertical improvements unless otherwise noted on plans.
6. Under no circumstances shall working dimensions be scaled from plans, elevations, sections or details from these plans.
7. Where no construction detail are shown or noted for any part of the work, the construction shall be consistent wth similar work, as shown within these plans.
8. The owner shall establish all lot lines and site restrictions. All other improvements, grades and control shall be established by the contractor and shall verify consistency with dimensions, lines, grades, improvements with those indicated on the drawings.

G. Site Conditions

1. Prior to the initiation of any work, the contractor shall locate all cables, conduits, sewers septic tanks and all othr underground utilities that are commonly encountered and shall take the proper precaution not to damage or disturb such improvements. If a conflict exits between such obstacles and the proposed work, the contractor shall promptly notify the owner and landscape architect, who will coordinate the nlocation of the specified feature. The contractor shall proceed in the same manner if natural barriers, such as a solid rock sub-base or any other conotion prevent the specified features from being installed as specified.
2. Discrepancies between the site conditions and the landscape improvement plans and/or design intent, affectingthe successful completion and cost of the project shall be reported to the owner's representative and landscape architect immediately. Any continuation of work prior to the resolution of any discrepancies is at the contractor's risk and expense.

H. Final Conditions & Guarantee

1. Upon completion of all work, the contractor shall request a final review with the owner and landscape architect, at which time the contractor must be present. All modifications and existing conditions shall be noted at time and the contractor shall specify when and how an unacceptable condition will be repaired or replaced. Upon completion of all documented exceptions and the contract area cleaned and cleand of all debris, the job shall be considered complete and the contract executed.
2. The contractor shall unconditionally guarantee that all work performed, materials and equipment furnished under the contract, against defects in materials and workmanship for a period of one year from the date of final acceptance by the Owner of the completed work, except where noted in these specifications.
3. Neither the completion of the job nor the final payment shall relieve the contractor of their responsibility for the guarantees as stated in the contract or of the responsibility for faulty materials or poor craftsmanship. The contractor shall quickly remedy any defect, which occurs during the guarantee period, as specified in the contract. The owner will forward a notice indicating all observed defects to the contractor, for the contractor's review and response. The contractor will return written documentation to the owner, indicating what action was taken to correct the defect.

II. Flatwork

A. Fine Grading

1. Mass grading and rough grading are not part of these construction documents. The contractor shall refer to the civil engineer's drawings for this information.
2. The grades and elevations represented on these drawings are based on information provided by the project's civil engineer. The contractor shall review the civil engineer's fine grading plan prior to the initiation of any work and notify the owner and landscape architect, should there be any discrepancies.
3. The soil's engineer's report shall be considered part of these construction documents. The contractor shall comply with the soil report's recommendations as that relate to their scope of services.
4. The contractor shall verify in the field, the extent of import and export soil to insure final grades. Notify the owner and City of Chula Vista's inspector of any discrepancy, which may impact the contractor's scope of services, prior to the initiation of any work.
5. All existing naturally disturbed soils and fill and shall properly recompacted, as specified in the soil engineer's soil's report. All backfilling and recompaction is to be executed only under the supervision of the soil's engineer.
6. The contractor shall be responsible for removing all excess spoils and debris from the site by the contractor, at their own expense.
7. The contractor shall be responsible for achieving positive drainage at the following minimum gradients:
   a. 1% across all paving surfaces
   b. 2% across all planter areas
8. The contractor shall be responsible for maintaining positive drainage away from any structure for a minimum distance of sixty inches or as specified in the Uniform Building Code.
9. All subsurface drain lines, as indicated on these plans, shall have a minimum of one-half percent constant slope to outlet.

B. Poured-in-Place Concrete Paving

1. For all construction, sub-base requirements, comprehensive strength requirements, slab thickness specifications and reinforcement of paving materials on grade, the contractor shall comply with all recommendations, as provided by the project's geotechnical engineer and/or soil's report.
2. Product Submittals:
   a. The contractor shall submit material samples to the landscape architect including names, sources, and descriptions. This shall include, but is not limited to; normal weight, aggregates fibrous reinforcement and vapor retardant.
   b. The contractor shall submit product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, water-stops, joint systems, curing compounds, dry-shake finish materials, and others as requested by Architect.
3. Sample Submittals:
   a. The contractor shall cast one preliminary set of concrete samples for review and approval by the owner and landscape architect. The sample set shall include a representative sample of every color, texture and finish combination, as specified on the landscape construction documents. Samples shall be a minimum size of twelve inches square and include the exact materials, mix, aggregate, colors, finishes sealers and joint filler, as specified in the landscape construction documents.
   b. Upon approval of the preliminary set of concrete samples, the contractor shall cast a final set of concrete samples for review and approval by the owner and landscape architect. Samples shall be approximately five feet square, with a thickness as determined in the soils report and placed at a predetermined location (where specified on the drawings). Final samples shall include the exact materials, mix, aggregate, colors, finishes sealers and joint filler, as specified in the landscape construction documents. Approval of final samples shall be the standard for all remaining similar work.
4. Testing:
   a. The contractor shall engage a testing laboratory, acceptable to owner and architect, to perform material evaluation tests and to design concrete mixes.
   b. The contractor shall be responsible to insure that all flatwork complies with applicable codes and regulations of the minimum "Wet/Dry" slip coefficient standards of safety for the governmental agencies. Preliminary samples, final samples and finished flatwork be tested for the static coefficient of friction by Twining Laboratories (714) 828-6432 or approved equal, to insure a minimum 0.6 static coefficient of friction on all wet dry surfaces.
   c. All cement, aggregate, reinforcing steel and structural steel shall be from tested stock. Copies of the test reports shall be furnished to the owner and/or landscape architect upon request.
   d. Materials and installed work may require testing and retesting at any time during progress of work. Tests, including retesting of rejected materials for installed work, shall be done at contractor's expense.
5. Quality Control Testing:
   a. The owner will employ a testing laboratory to perform tests and to submit test reports.
   b. Sampling and testing for quality control during placement of concrete may include the following:
      - Sampling Fresh Concrete: ASTM C 172, except modified for slump to comply with ASTM C 94.
      - Slump: ASTM C 143; one test at point of discharge for each day's pour of each type of concrete; additional tests when concrete consistency seems to have changed.
      - Air Content: ASTM C 173, volumetric method for lightweight or normal weight concrete; ASTM C 231 pressure method for normal weight concrete; one for each day's pour of each type of air-entrained concrete.
      - Concrete Temperature: Test hourly when air temperature is 40 deg F (4 deg C) and below, when 80 deg F (27 deg C) and above, and each time a set of compression test specimens is made.
      - Compression Test Specimen: ASTM C 31; one set of 4 standard cylinders for each compressive strength test, unless otherwise directed. Mold and store cylinders for laboratory-cured test specimens, except when field-cure test specimens are required.
      - Compressive Strength Tests: ASTM C 39; one set for each day's pour exceeding five cubic yards, plus additional sets for each 50 cubic yards more than the first 25 cubic yards of each concrete class placed in any one day; one specimen tested at seven days, two specimens tested at twenty-eight days, and one specimen retained in reserve for later testing if required.
   c. When frequency of testing will provide fewer than five strength tests for a given class of concrete, conduct testing from at least five randomly selected batches or from each batch if fewer than five.
6. Materials:
   a. Concrete:
      - Portland Cement: ASTM C 150, Type I.
      - Use one brand of cement throughout project unless otherwise acceptable to Architect.
   b. Fly Ash: ASTM C 618, Type C or Type F.
   c. Aggregates:
      - ASTM C 33 and as herein specified. Provide aggregates from a single source for exposed concrete.
      - For exterior exposed surfaces, do not use fine or coarse aggregates containing spalling-causing deleterious substances.
      - Local aggregates not complying with ASTM C 33 but that special tests or actual service have shown to produce concrete of adequate strength and durability may be used when acceptable to landscape architect.
   d. Water: All water shall be potable.
   e. Admixtures:
      - Provide admixtures for concrete that contain not more than 0.1 percent chloride ions.
      - Air-entraining admixtures shall be ASTM C 260, certified by manufacturer to be compatible with other required admixtures.
   f. Reinforcing:
      - Reinforcing Bars: ASTM A 615, Grade 60, deformed.
      - Welded Wire Fabric: ASTM A 185, welded steel wire fabric.
      - Supports for Reinforcement: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire fabric in place. Use wire-bar-type supports complying with CRSI specifications.
7. Proportioning and Design of Concrete Mixes:
   a. Prepare design mixes for each type and strength of concrete by either laboratory trial batch or field experience methods as specified in ACI 301. If trial batch method used, use an independent testing facility acceptable to Architect for preparing and reporting proposed mix designs. The testing facility shall not be the same as used for field quality control testing.
   b. The use of fly ash shall not exceed 25 percent of cement content by weight.
   c. Submit written reports to landscape architect for each proposed mix and for each class of concrete, at least 15 days prior to start of work. Do not initiate concrete production until the landscape architect has reviewed the proposed concrete mixes.
   d. Design mixes to provide normal weight concrete with the following properties, as indicated on drawings and schedules:
      - 2500-psi, 28-day compressive strength;
      - Water/Cement ratio, 0.67 maximum (non-air-entrained)
      - Water/Cement ratio, 0.54 maximum (air-entrained).
   e. Mix design adjustments may be requested by the contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant, as accepted by the landscape architect. Laboratory test data for revised mix design and strength results must be submitted to and accepted by landscape architect before using in work.
8. Installation
   a. Site Preparation:
      - The contractor shall treat the sub-grade under proposed paved areas, with weed killer in accordance with the manufacturer's printed instruction. Exercise extreme caution to confine the weed killer only to those areas proposed to be paved and provide protection, as necessary, to avoid over-spraying onto existing or proposed planting areas.
      - The contractor shall coordinate the installation of all flatwork with all other subcontractors and irrigation sleeve location, prior to placing any concrete. If specified by other trades, conduits shall be placed within the concrete slab with a minimum of two inches of clearance above and below the conduit. Secure in-place inserts, anchor bolts, ties, dowels and miscellaneous plates prior to placing concrete
      - The contractor shall overlay the irrigation plan and confirm in writing that all irrigation sleeves have been installed per plan. Any deviation from the irrigation plan, with regards to sleeve locations, shall be noted on the contractors record as-built drawings.
   b. Forming:
      - Coat contact surfaces of forms with an approved, non-residual, low-VOC, form-coating compound before reinforcement is placed.
      - Do not allow excess form-coating material to accumulate in forms or to come into contact with in-place concrete surfaces against which fresh concrete will be placed. Apply in compliance with manufacturer's instructions.
      - Design, erect, support, brace, and maintain form work to support vertical and lateral, static and dynamic loads that might be applied until concrete structure can support such loads. Construct form-work so concrete members and structures are of correct size, shape, alignment, elevation, and position. Maintain form-work construction tolerances complying with ACI 347.
      - Construct forms to sizes, shapes, lines, and dimensions shown and to obtain accurate alignment, location, grades, level, and plumb work in finished structures. Provide for openings, offsets, sinkages, keyways, recesses, moldings, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts, and other features required in work. Use selected materials to obtain required finishes. Solidly butt joints and provide backup at joints to prevent leakage of cement paste.
      - Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only.
      - Provide temporary openings where interior area of form-work is inaccessible for cleanout, for inspection before concrete placement, and for placement of concrete. Securely brace temporary openings and set tightly to forms to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.
      - Chamfer exposed corners and edges as indicated, using wood, metal, PVC, or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.
      - Provide openings in concrete form-work to accommodate work of other trades. Determine size and location of openings, recesses, and chases from trades providing such items. Accurately place and securely support items built into forms.
      - Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, or other debris just before concrete is placed. Retighten forms and bracing before concrete placement as required to prevent mortar leaks and maintain proper alignment..
      - The owner's representative shall approve all forming prior to placing any concrete.
   c. Placement of Reinforcement:
      - The installation of reinforcement shall be in accordance with the recommendations of the geotechnical engineer and/or the projects structural engineer.
      - Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars," for details and methods of reinforcement placement and supports and as herein specified.
      - Avoid cutting or puncturing vapor retardant during reinforcement placement and concreting operations.
      - Clean reinforcement of loose rust and mill scale, earth, and other materials that reduce or destroy bond with concrete.
      - Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as approved by landscape architect.
      - Place reinforcement to obtain minimum coverage for concrete protection. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.
      - Install welded wire fabric in as long lengths as practicable. Lap adjoining pieces at least one full mesh and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.
   d. Admixtures:
      - Integral color for concrete shall be as specified in the finish schedule
      - The use of admixtures shall not relieve the contractor of the designated concrete strength requirements.
      - Use water-reducing admixture or high-range water-reducing admixture (Superplasticizer) in concrete as required for placement and workability.
      - Use nonchloride accelerating admixture in concrete slabs placed at ambient temperatures below 50 deg F (10 deg C).
   e. Concrete Mixing:
      - When job-site mixing is required, mix materials for concrete in an appropriate drum-type batch machine mixer. For mixers of one cubic yard or smaller capacity, continue mixing at least one and one-half minutes, but not more than five minutes after ingredients are in mixer, before any part of batch is released. For mixers of capacity larger than one cubic yard, increase minimum one and one-half minutes of mixing time by fifteen seconds for each additional cubic yard or fraction thereof.
      - The contractor shall provide batch tickets for each batch of concrete discharged and used in work. Tickets must indicate the project identification name and number, date, mix type, mix time, quantity, and amount of water introduced.
      - When air temperature is between 85 deg F (30 deg C) and 90 deg F (32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes, and when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.
      - Provide concrete for following conditions with maximum slump limits as follows
        - Ramps, slabs, and sloping surfaces: Not more than three inches.
        - Reinforced foundation systems: Not less than one inch and not more than three inches.
        - Concrete containing HRWR admixture (Superplasticizer): Not more than eight inches after addition of HRWR to site-verified two-inch to three-inch slump concrete.
        - On all other concrete applications the slump limit shall not more than four inches.

Print Date: 17 JUL '17

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 — 9/30/17 — CALIFORNIA

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

DATE:	17 JUL '17
SCALE:	N/A
JOB NO.	15021
DRAWN BY:	T.P. / T.G. / A.P.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.			
Inspector	OR-837G	HUNSAKER & ASSOC.			
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. (PTI# 1359 PER R.O.S. 14841) ELEV=629.318' (NAVD'88)

SCALE
Horizontal N/A
Vertical N/A

Office
Field
Traffic

Designed By	Drawn By	Checked By
T.P.	T.G. / A.P.	T.P.

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 7/17/17
R.L.A. No. 4001

Approved: P. Fennis, PLA Date: 7/30/17
Director of Development Services or Designee

CITY OF CHULA VISTA

LANDSCAPE CONSTRUCTION SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 13
Sheet 13 of 44

OWD D0944-060186 PLR-16-011 LC-11

Otay Ranch Village 3 Heritage Road

f. Placement of Concrete:
- Prior to installation, the contactor shall locate by stakes or other means, all construction elements as specified on the plans, for the landscape architect's and owner's representative's approval.
- Before placing concrete, inspect and complete form-work installation, reinforcing steel, and items to be embedded or cast in. Notify other crafts to permit installation of their work and cooperate with other trades in setting such work.
- Comply with ACI 304, "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete," and as herein specified.
- Place concrete in forms in horizontal layers, no deeper than 24 inches and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.
- Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures for consolidation of concrete in accordance with ACI 309.
- Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine. Place vibrators to rapidly penetrate placed layer and at least 6 inches into previous placed layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing segregation of mix.
- Consolidate concrete during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into corners.
- Maintain reinforcing in proper position during concrete placement.
- When hot weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACI 305 and as herein specified.
  - Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 deg F (32 deg C). Mixing water may be chilled, or chopped ice may be used to control temperature provided water equivalent of ice is calculated to total amount of mixing water. Use of liquid nitrogen to cool concrete is Contractor's option.
  - Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that steel temperature will not exceed the ambient air temperature immediately before embedment in concrete.
  - Fog spray forms, reinforcing steel, and sub-grade just before concrete is placed.
  - Use water-reducing retarding admixture when required by high temperatures, low humidity, or other adverse placing condiions, when acceptable to Architect.
- All concrete shall be free from defects and shall conform to the shapes, dimensions and finish elevations, as specified on the plans.
- All exposed surfaces shall be free from joint and pour lines, with a uniform texture. All concrete work shall conform to the textures and finishes, as specified in the finish schedule.
- When curing compounds are used, the contractor shall protect all adjacent surfaces from overspray.
- All paving surfaces must drain a minimum gradient of one percent.
- Concrete surfaces adjacent to any architectural structure or feature, shall drain a minimum gradient of a one percent with a maximum gradient of two percent, for a minimum distance of sixty inches from vertical surface, per Title 24 of the California State Site Accessibility Code.
- All concrete work constructed per these landscape improvement plans, shall maintain horizontal and vertical consistency with walkways, driveways, pads, decks, patios and all other improvements, as specified on the architect's and civil engineer's improvement plans.
- The cross-pitch on any paved surface may not exceed two percent.
- The contractor shall verify the shape, height and location of all existing stoops and notify the owner's representative of any discrepancies.

g. Construction Joints:
- Locate and install construction joints as indicated or, if not indicated, locate so as not to impair strength and appearance of the structure, as acceptable to landscape architect.
- Place construction joints perpendicular to main reinforcement. Continue reinforcement across construction joints except as otherwise indicated. Do not continue reinforcement through sides of strip placements.
- Use bonding agent on existing concrete surfaces that will be joined with fresh concrete.
- Isolation Joints in Slab-on-Ground: Construct isolation joints in slab-on-ground at points of contact between slabs-on-ground and vertical surfaces, such as column pedestals, foundation walls, grade beams, and elsewhere as indicated.
- Form expansion joints by inserting premolded plastic, hardboard, or fiberboard strip into fresh concrete until top surface of strip is flush with slab surface. Tool slab edges round on each side of insert. After concrete has cured, remove inserts and clean groove of loose debris. Seal with polyurethane sealant (contractor to submit sample for approval by L.A.)
- Locate expansion and keyed joints as specified on drawings, but generally at twenty feet on center for flat work and fifteen feet on center for curbs.
- Locate control joints as specified on drawings, but generally at five feet on center for flat work and fifteen feet on center for curbs.
- Saw -cut joints shall be located as specified on the drawings. Saw-cut joints shall be one-third the depth of the slab and executed immediately after the slab has attained it's initial set.
- Hand-tooled joints shall be true to line and profile. Tooling shall be performed while concrete is still plastic.
- Jointing tool shall be two-inches wide at surface, tapered with top edges round to on-quarter radius.
- Tool or form grooves in accessible ramps in accordance with the landscape construction details and the requirements as dictated in the California Title 24 requirements and American Disability Act.

9. Poured in Place Grass-Crete:
a. Scope: All work in this section shall be designated as Grass-Crete in the landscape improvement plans. The work shall include all labor, equipment, materials and transportation, as required to install the Grass-Crete.
b. Contractor:
- The contractor shall be licensed by Bomanite Corporation, P.O. Box 599, Madera, California (559) 673-2411.
- Prior to the initiation of any work, the concrete contractor shall coordinate with the landscape contractor, landscape architect and authorized City of Chula Vista representative, the locations and installation of all irrigation equipment, sprinklers and service lines.

c. Subgrade:
- The subgrade for the Grass-Crete shall be based on a H20 wheel load and may vary based on soil types and conditions at each specified location, as specified in he soils engineer's report.
- Subgrade for H20 wheel loads shall be in accordance with the local concrete street specifications.
- Unless otherwise specified in the engineer's soil's report, the subgrade shall have a minimum "R" value of 30 and a compaction of 95%.

d. Concrete:
- The concrete shall have a minimum comprehensive strength of 3,000 PSI in 28 days.
- Portland cement shall conform to ASTM C150, Type I, II or IV.
- Aggregates shall conform to AsTM C33 and be 3/8" minus.
- Mixing water shall be fresh, clean and potable. Water reducing admixtures and/or super-plasticizers are permitted and shall conform to ASTM C494.

e. Slab Design:
- The Grass-Crete slab shall have a minimum thickness of 5-1/2" or thicker based on the Soil's Engineer's recommendations.
- All edges shall have a 6" wide exposed concrete border (with a trowel finish), placed monolithically with the subgrade structural concrete.
- The finish surface of the 6" wide concrete border shall be installed flush with the adjacent paving surfaces and/or curbs. The Grass-Crete surfaces shall be established 2" below the 6" wide concrete borders, adjacent paving surfaces and curbs.

f. Preparation for Irrigation Systems:
- Prior to the initiation of any work, the concrete contractor shall coordinate with the landscape contractor the locations and installation of all irrigation equipment, sprinklers and service lines.
- All pressure supply lines, control wires, communication cable and 120v electrical service lines, shall be sleeved under the Grass-Crete area to a depth, as defined in the irrigation specifications.
- Where sprinkler heads are specified within the Grass-Crete area, the contractor shall form a 6" diameter opening to house the specified sprinkler head.
- Sleeves are not permitted for non-pressure lateral lines servicing sprinklers located within the Grass-Crete area. These non-pressure lateral lines shall be Schedule 40. See irrigation plans for lateral line sizes and irrigation specifications for pipe depths.
- Sprinklers located within the Grass-Crete area shall be installed with a standard swing joint assembly.

g. Reinforcement:
- The Grass-Crete shall be continuously reinforced with 6" x 6" - 10 gauge x 10 gauge welded wire mesh.
- Welded wire mesh shall be places 2" - 3" above the subgrade.

h. Construction:
- The subgrade shall be leveled to a uniform plane, 5-1/2" below the final grade of the finish slab.
- Welded wire mesh shall be chaired.
- Grass-Crete forms shall be placed on the subgrade.
- Concrete shall be placed and leveled to the top of the Grass-Crete forms.
- The Grass-Crete finish surface shall be a heavy and rough broom finish. The 6" wide concrete borders shall receive a light broom finish.
- Grass-Crete forms shall be removed after the concrete has hardener sufficiently.
- Do not use curing compounds chemicals which may be harmful to plant materials.

i. Concrete Joints:
- Expansion joints shall be provided where ever the Grass-Crete abuts to other concrete or paving surfaces.
- A minimum of #4 steel dowels at 24" on center shall be used to transfer loads between adjacent slabs and/or paving surfaces. Adjust as required per the soil engineer's recommendations.

j. Backfill & Plant Material:
- All holes are to be filled with on-site amended soil. A 2" layer of on-site amended topsoil shall be placed over the entire Grass-Crete surfaces. No soil shall be placed over the 6" wide concrete borders.
- Apply turf hydroseed mix as specified in the planting legend.
- No traffic of any kind shall be permitted on the Grass-Crete slab until fourteen days after placing of the concrete and only after the soil has been placed within the holes. Thereafter, vehicles are permitted, provided they do not exceed the design capacity for the slab.

10. Finishing:
a. While the surface is still plastic, provide a textured finish as indicated in the landscape construction documents or as directed by the owner's representative.
b. Concrete finishing shall include the application of special finishes to concrete surfaces, as follows:
- Smooth Finish: Steel trowel and burnish to a smooth, dense, hard finish.
- Broom Finish: Apply non-slip broom finish to exterior concrete sidewalks, steps, and ramps, and elsewhere as indicated with fiber-bristle broom perpendicular to main traffic route.

c. Curing and Sealing:
- Seal concrete surfaces with approved sealer. Contractor shall submit proposed sealer to the owner's representative and landscape architect for approval.
- Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. In hot, dry, and windy weather, protect concrete from rapid moisture loss before and during finishing operations with an evaporation-control material. Apply in accordance with manufacturer's instructions after screeding and bull floating, but before power floating and troweling.
- Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Weather permitting, keep continuously moist for not less than 7 days.
- Perform curing of concrete by curing and sealing compound, by moist curing, by moisture-retaining cover curing, and by combinations thereof, as herein specified.
- Provide moisture curing by following methods.
  - Keep concrete surface continuously wet by covering with water.
  - Use continuous water-fog spray.
  - Cover concrete surface with specified absorptive cover, thoroughly saturate cover with water, and keep continuously wet. Place absorptive cover to provide coverage of concrete surfaces and edges, with 4-inch lap over adjacent absorptive covers.
- Provide moisture-cover curing as follows:
  - Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width with sides and ends lapped at least three inches and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
  - Provide curing and sealing compound to exposed interior slabs and to exterior slabs, walks, and curbs as follows:
  - Apply specified curing and sealing compound to concrete slabs as soon as final finishing operations are complete (within 2 hours and after surface water sheen has disappeared). Apply uniformly in continuous operation by power spray or roller in accordance with manufacturer's directions. Recoat areas subjected to heavy rainfall within 3 hours after initial application. Maintain continuity of coating and repair damage during curing period.
  - Use membrane curing compounds that will not affect surfaces to be covered with finish materials applied directly to concrete.
  - Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces, by moist curing with forms in place for full curing period or until forms are removed. If forms are removed, continue curing by methods specified above, as applicable.
  - Final cure concrete surfaces to receive liquid floor hardener or finish flooring by use of moisture-retaining cover, unless otherwise directed.

d. Adjusting: Remove concrete paving which has been damaged, not true to the specified line or plane, not properly finished and not pitch to properly drain. Such work shall be removed and replaced to the standards as described in these specifications.
e. Patching: Patch cracks, rock pockets and honeycombs as directed by the owner's representative or landscape architect.
f. Protection:
- Prevent traffic on surfaces of concrete paving for a period of three days after initial placement of concrete.
- Provide, secure, maintain and remove barricades as required

III. Miscellaneous Construction

A. Concrete Headers/Mow Curbs:
1. Concrete headers/mow curbs shall be 6" wide x 6" deep with #4 rebar continuous unless otherwise specified on plans.

B. Stabilized Decompos :d Granite:
1. Materials:
   a. Decomposed granite shall be derived from crushed and screened natural friable fibers, available through Gail Materials (951) 279-1095. See finish schedule for color specifications.
   b. The decomposed granite shall be screened to include stone particles of one-half inch or less. The particles shall pass through a 200 screen mesh (as determined by ASTM methodology), shall not exceed 18%. The sand equivalent shall be a minimum of 30 and the R-Value shall be a minimum of 70.
   c. The stabiizing organic binder shall have a minimum swell volume of 32 ml/gm. The binder shall be incorporated with the granite fines by the use of a pug mill that includes a weight belt feeder that insures the proper ratio of binder to granite fines. Blending with the use of a bucket loader or similar, is not permitted
2. Installation:
   a. The subgrade for decomposed granite trails, requiring vehicular access shall be based on an H-20 wheel load and may vary based on the engineer's soil report and field conditions.
   b. The subgrade for H-20 wheel load shall be in accordance with local concrete street specifications.
   c. Unless otherwise specified, the subgrade shall have a minimum "R" value of 30 and compacted to a minimum of 95%.
   d. For vehicular access, stabilized decomposed granite shall be placed at a minimum depth of 4" compacted.
   e. For pathways, stabilized decomposed granite shall be placed at a minimum depth of 3" compacted.
   f. For vehicular access, stabilized decomposed granite shall be placed at a minimum depth of 4" compacted.
   g. For each 2" lift, evenly spread the material over the applicable area. Fine grade and smooth as required to achieve a consistent and level layer. Thoroughly water each lift over the entire area so that the entire depth of the material is moist. After a period of approximately six hours, compact the final lift with a 1,000 to 3,000lb. drum roller. Allow a sufficient curing period of approximately four days prior to use.

IV. Guarantee:

A. Guarantee:
1. All construction work shall be guaranteed against all defects of workmanship and materials, including settling of graded areas, for a period of one year from the date of final completion and acceptance by the owner have authorized representative.
2. The contractor shall provide a written guarantee (on company letterhead), at the time of final inspection.

Print Date: 17 JUL '17

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1-800-227-2600
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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

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

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 9/30/17 CALIFORNIA

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

DATE:	17 JUL '17
SCALE:	N/A
JOB NO.	15021
DRAWN BY:	T.P. / T.G. / A.P.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.			
Inspector	OR-837G	HUNSAKER & ASSOC.			
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. (PTJ# 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
T.P.	T.G. / A.P.	T.P.

Plans Prepared Under Supervision Of
THOMAS A. PICARD Date 7/17/17 R.L.A. No. 4001

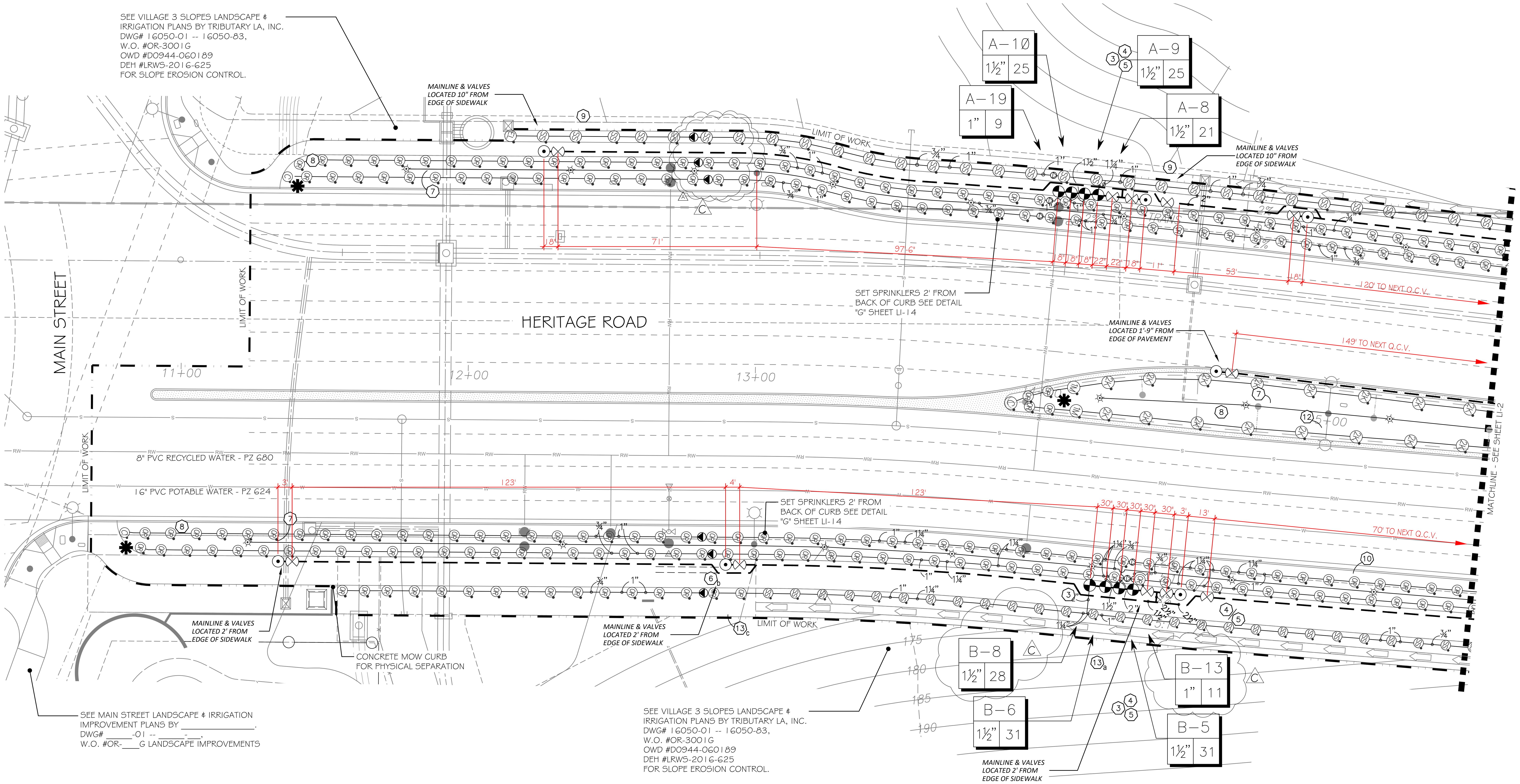
Approved: P. Freeman, PLA Date: 8/30/17
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE CONSTRUCTION SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 14
Sheet 14 of 44

OWD D0944-060186 PLR-16-011 LC-12

Otay Ranch Village 3 Heritage Road



IRRIGATION NOTES:

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(3) REMOTE CONTROL VALVE BOXES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR CITY INSPECTOR PRIOR TO INSTALLATION. (TYP. ALL LOCATIONS)

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(7) HUNTER IND. PROS-06-PRS30 POP-UP BODY AND 5F SPRAY NOZZLE FOR SUPPLEMENTAL TREE IRRIGATION. SEE "H" SERIES DETAILS ON SHEET LI-14

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(9) HUNTER IND. PROS-12-PRS40 POP-UP BODY OR PROS-00-PRS40 ON RISER AND MPSS530 SIDE STRIP SPRAY NOZZLE FOR LANDSCAPE AREAS 3' TO 5' WIDE, SPACE HEADS 11 TO 12 FEET ON CENTER AND ALTERNATE FROM FRONT TO BACK ALONG THE LENGTH OF THE PLANTER. ADJUST RADIUS TO PREVENT OVERSPRAY.

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FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-10.
FOR IRRIGATION DETAILS SEE SHEETS LI-11 THROUGH LI-14.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-15.
FOR IRRIGATION SPECS SEE SHEETS LI-16, LI-17 & LI-18.

OMISSION STATEMENT:
THERE ARE NO DRINKING FOUNTAINS, DECORATIVE FOUNTAINS, COMFORT STATIONS, OUTDOOR EATING AREAS, SWIMMING POOLS, PLAYGROUND EQUIPMENT, OR WELLS WITHIN THE LIMITS OF WORK.

INSPECTION NOTE:
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.

R.W. IDENTIFICATION BY COLOR CODING:
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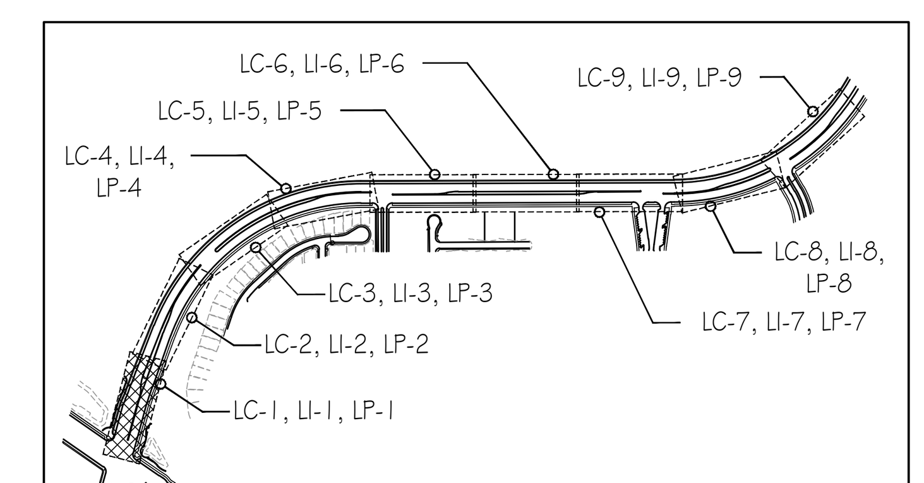
LANDSCAPE ARCHITECT TO CONVERT FIELD REDLINES OF CONSTRUCTION CHANGES TO BLACK LINES ON THIS DRAWING SET, AND SUBMIT TO OWD FOR REVIEW AND APPROVAL.



KEYMAP

0' 10' 20' 40'

LRWS 2019-1116

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
REVIEWED BY: DATE: 5/11/21
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 4/19/21
PRINT NAME: THOMAS A PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/23

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REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — CALIFORNIA — Signature — Renewal Date 9/30/21 — Date 4/19/21

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

DATE:	19 APR '21
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	(A) IRRIGATION ADJUSTMENT FOR NEW DRIVEWAY	4-13-21	
Inspector	OR-837G	HUNSAKER & ASSOC.	(C) FINAL OWD AS-BUILT	5/11/21	
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" = 20'; Vertical N/A

Office ____ Field ____ Traffic ____

Designed By	Drawn By	Checked By
T.P.	T.G.M.	T.P.

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

Plans Originally Approved: 8-30-17
Approved:______ Date:______
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-15
LI-1
Sheet 15 of 44

Otay Ranch Village 3 Heritage Road

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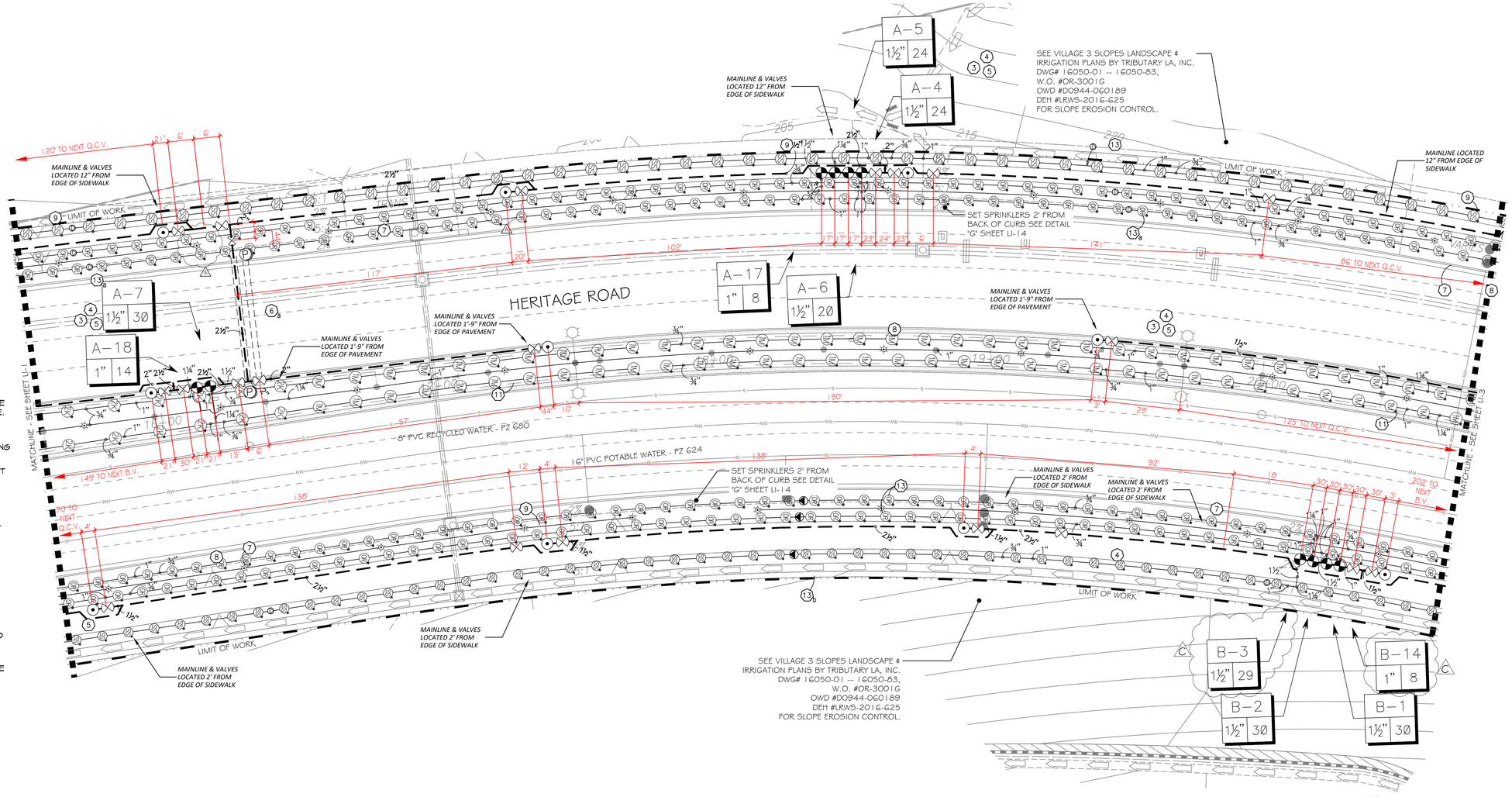

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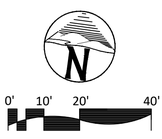

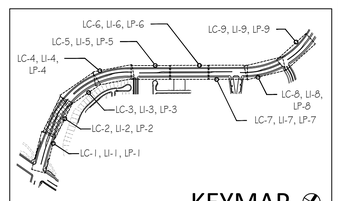

KEYMAP

LRWS 2019-1116

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
REVIEWED BY: 5/11/21 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 4/19/21
PRINT NAME: THOMAS A PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/23

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REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD CALIFORNIA 9/30/21 5/19/21

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

DATE:	19 APR '21
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	1 IRRIGATION ADJUSTMENT FOR ADDED TREES	5-3-21	
Inspector	OR-837G	HUNSAKER & ASSOC.	2 FINAL OWD AS-BUILT	5/11/21	
Date Completed					

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SCALE: Horizontal 1" = 20' Vertical N/A
Office ____ Field ____ Traffic ____

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

Plans Originally Approved: 8-30-17
Approved:____ Date:____
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-16
LI-2
Sheet 16 of 44

REPLACEMENT SHEET

OWD WO # D0944-060186 OWD PERMIT #PLR-16-011 OWD Sheet 4 of 20

Print Date: 19 APR '21
OWD PROJ # D0944-060186
Otay Ranch Village 3 Heritage Road

LRWS 2019-1116

Print Date: 19 APR '21

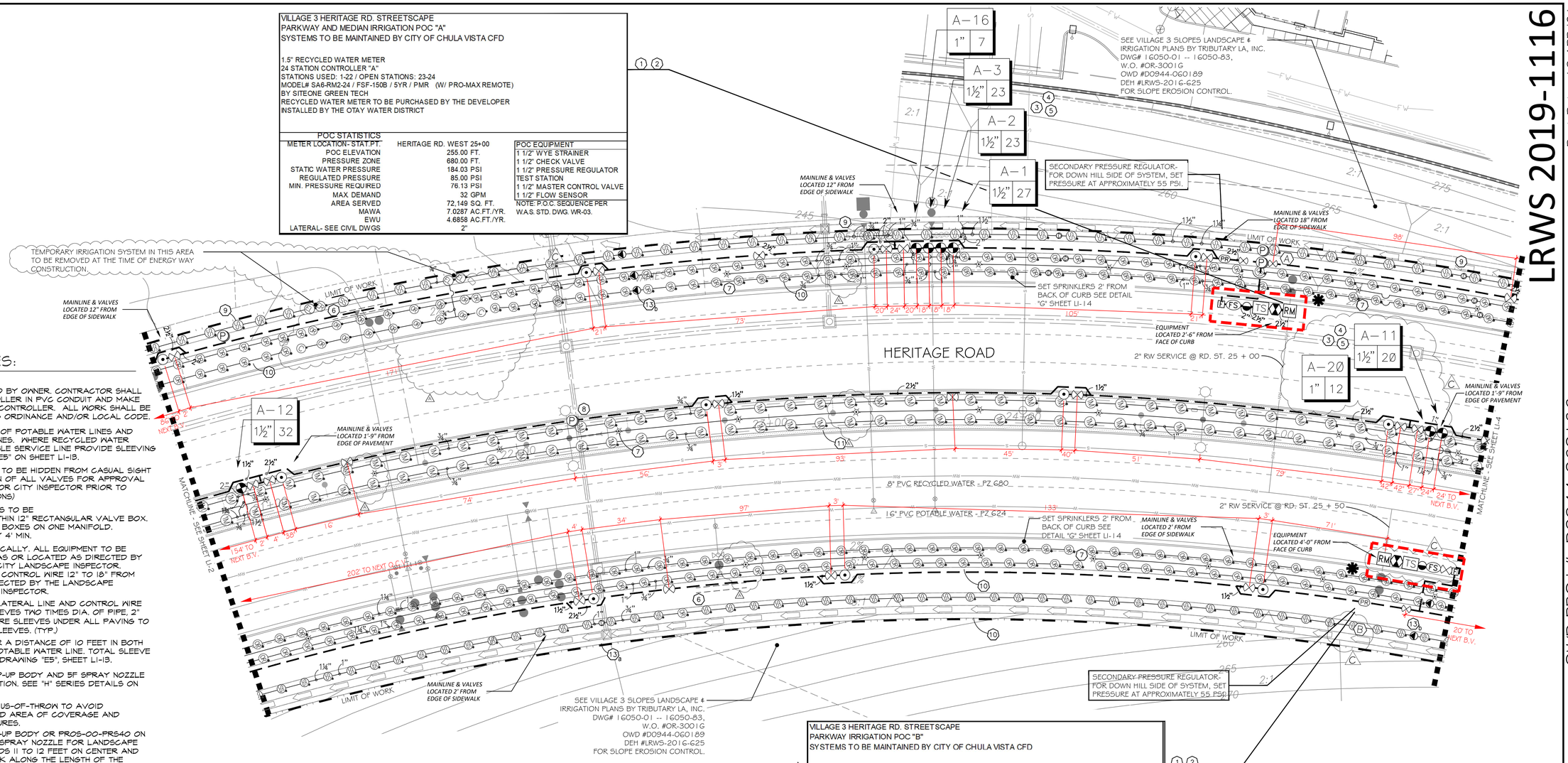
OWD PROJ # D0944-060186

Otay Ranch Village 3 Heritage Road

VILLAGE 3 HERITAGE RD. STREETSCAPE
PARKWAY AND MEDIAN IRRIGATION POC "A"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

1.5" RECYCLED WATER METER
24 STATION CONTROLLER "A"
STATIONS USED: 1-22 / OPEN STATIONS: 23-24
MODEL# SA6-RM2-24 / FSF-150B / 5YR / PMR (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		POC EQUIPMENT
METER LOCATION- STAT.PT.	HERITAGE RD. WEST 25+00	1 1/2" WYE STRAINER
POC ELEVATION	255.00 FT.	1 1/2" CHECK VALVE
PRESSURE ZONE	680.00 FT.	1 1/2" PRESSURE REGULATOR
STATIC WATER PRESSURE	184.03 PSI	TEST STATION
REGULATED PRESSURE	85.00 PSI	1 1/2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	76.13 PSI	1 1/2" FLOW SENSOR
MAX. DEMAND	32 GPM	NOTE: P.O.C. SEQUENCE PER
AREA SERVED	72,149 SQ. FT.	W.A.S. STD. DWG. WR-03.
MAWA	7.0287 AC.FT./YR.	
EWU	4.6858 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	



IRRIGATION NOTES:

1. 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. PROVIDE REQUIRED SEPARATION OF POTABLE WATER LINES AND RECYCLED WATER IRRIGATION LINES. WHERE RECYCLED WATER IRRIGATION LINE CROSSES POTABLE SERVICE LINE PROVIDE SLEEVING AS REQUIRED. SEE DETAIL "E4"& "E5" ON SHEET LI-18.
3. REMOTE CONTROL VALVE BOXES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR CITY INSPECTOR PRIOR TO INSTALLATION. (TYP. ALL LOCATIONS)
4. SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD AND WITHIN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 5 VALVE BOXES ON ONE MANIFOLD. SEPARATE VALVE MANIFOLDS BY 4' MIN.
5. LOCATIONS SHOWN DIAGRAMMATICALLY. ALL EQUIPMENT TO BE INSTALLED WITHIN PLANTING AREAS OR LOCATED AS DIRECTED BY THE LANDSCAPE ARCHITECT OR CITY LANDSCAPE INSPECTOR. ROUTE IRRIGATION MAINLINE AND CONTROL WIRE 12" TO 18" FROM BACK OF CURB OR WALK AS DIRECTED BY THE LANDSCAPE ARCHITECT OR CITY LANDSCAPE INSPECTOR.
6. ROADWAY 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.)
6b. SLEEVE IRRIGATION MAINLINE FOR A DISTANCE OF 10 FEET IN BOTH DIRECTIONS AT A CROSS OF A POTABLE WATER LINE. TOTAL SLEEVE LENGTH OF 20 FEET. SEE DETAIL DRAWING "E5", SHEET LI-13.
7. HUNTER IND. PROS-06-PRS30 POP-UP BODY AND 5F SPRAY NOZZLE FOR SUPPLEMENTAL TREE IRRIGATION. SEE "H" SERIES DETAILS ON SHEET LI-14
8. ADJUST HEAD SPACING AND RADIUS-OF-THROW TO AVOID OVERSPRAY OUTSIDE OF INTENDED AREA OF COVERAGE AND OBSTRUCTION BY UTILITY ENCLOSURES.
9. HUNTER IND. PROS-12-PRS40 POP-UP BODY OR PROS-00-PRS40 ON RISER AND MPSS530 SIDE STRIP SPRAY NOZZLE FOR LANDSCAPE AREAS 3' TO 5' WIDE, SPACE HEADS 11 TO 12 FEET ON CENTER AND ALTERNATE FROM FRONT TO BACK ALONG THE LENGTH OF THE PLANTER. ADJUST RADIUS TO PREVENT OVERSPRAY.
10. HUNTER IND. PROS-12-PRS40 POP-UP BODY AND MP8000S NOZZLE FOR LANDSCAPE AREAS 6' TO 10' WIDE, WITH HEAD SPACING EQUAL TO LATERAL SPACING. ADJUST RADIUS TO PREVENT OVERSPRAY AND OBSTRUCTIONS.
11. HUNTER IND. PROS-12-PRS40 POP-UP BODY AND MP1000 NOZZLE FOR LANDSCAPE AREAS 11' TO 13' WIDE, WITH HEAD SPACING EQUAL TO LATERAL SPACING. ADJUST RADIUS TO PREVENT OVERSPRAY AND OBSTRUCTIONS.
12. HUNTER IND. PROS-12-PRS40 POP-UP BODY AND MP2000 NOZZLE FOR LANDSCAPE AREAS 15' TO 18' WIDE, WITH HEAD SPACING EQUAL TO LATERAL SPACING. ADJUST RADIUS TO PREVENT OVERSPRAY AND OBSTRUCTIONS.
13. CHECK VALVES INSTALLED ON LATERAL LINE TO PREVENT MAJORITY OF LATERAL LINE DRAINAGE WHEN ELEVATION DIFFERENTIAL EXCEEDS THE CAPACITY OF IN-HEAD CHECK VALVE.
13a. SWING CHECK IS TO BE USED WHEN OPERATIONAL FLOW IS FROM LOWER TO HIGHER ELEVATION ONLY.
13b. SPRING CHECK IS TO BE USED WHEN OPERATIONAL FLOW IS FROM HIGHER TO LOWER ELEVATION.
13c. IN THE EVENT LOW HEAD DRAINAGE STILL OCCURS SPRING CHECK VALVES ARE TO BE INSTALLED IN THE RISER OR SWING JOINT ASSEMBLIES OF ALL AFFECTED SPRINKLER HEADS. SPRING CHECK VALVES SHALL BE INSTALLED WHERE NEEDED AT NO ADDITIONAL COST TO THE OWNER.

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-10.
FOR IRRIGATION DETAILS SEE SHEETS LI-11 THROUGH LI-14.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-15.
FOR IRRIGATION SPECS SEE SHEETS LI-16, LI-17 & LI-18.

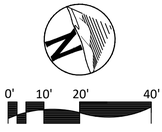
R.W. IDENTIFICATION BY COLOR CODING:
SPRINKLERS, ROTOR HEADS AND OTHER TYPES OF DISPERSION HEADS SHALL HAVE THE EXPOSED SURFACE COLORED PURPLE. THE EXPOSED SURFACE SHALL BE COLORED THROUGH THE USE OF INTEGRALLY MOLDED PURPLE PLASTIC OR PERMANENTLY ATTACHED PURPLE PLASTIC RING OR DISC. ALL SHRUB HEADS SHALL HAVE PURPLE CAPS.
DECALS AND/OR ADHESIVE LABELS ON RISERS WILL NOT ACCEPTED.

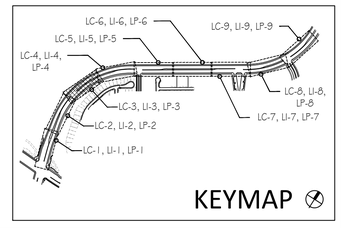
INSPECTION NOTE:
OTAY WATER DISTRICT INSPECTION SHALL BE NOTIFIED FIVE (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.

VILLAGE 3 HERITAGE RD. STREETSCAPE
PARKWAY IRRIGATION POC "B"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

1.5" RECYCLED WATER METER
18 STATION CONTROLLER "B"
STATIONS USED: 1-15 / OPEN STATIONS: 16-18
MODEL# SA6-RM2-18 / FSF-150B / 5YR / PMR (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		POC EQUIPMENT
METER LOCATION- STAT.PT.	HERITAGE RD. EAST 25+50	1 1/2" WYE STRAINER
POC ELEVATION	260.00 FT.	1 1/2" CHECK VALVE
PRESSURE ZONE	680.00 FT.	1 1/2" PRESSURE REGULATOR
STATIC WATER PRESSURE	181.86 PSI	TEST STATION
REGULATED PRESSURE	100.00 PSI	1 1/2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	90.32 PSI	1 1/2" FLOW SENSOR
MAX. DEMAND	31 GPM	NOTE: P.O.C. SEQUENCE PER
AREA SERVED	52,724 SQ. FT.	W.A.S. STD. DWG. WR-03.
MAWA	4.6849 AC.FT./YR.	
EWU	3.1232 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	





LRWS 2019-1116

OTAY WATER DISTRICT

PROJECT # D0944-060186

PZ 624 RPZ 680

REVIEWED BY: 5/11/21 DATE:

NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"

SIGNED: DATE: 4/19/21

PRINT NAME: THOMAS A 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 9/30/21 CALIFORNIA 4/19/21

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

DATE:	19 APR '21
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	1 EDIT IRRIG. FOR TEMP. SYSTEM AND RE-LOCATED TREES	5-11-21	DWY
Inspector	OR-837G	HUNSAKER & ASSOC.	2 REVISE POC-B WATER CALCS. AND CONTROLLER DATA	5-11-21	DWY
Date Completed			3 FINAL OWD AS-BUILT	5/11/21	

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. (ITEM 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE
Horizontal 1" = 20'
Vertical N / A

Office
Field
Traffic

Designed By	Drawn By	Checked By
T.P.	T.G.M.	T.P.

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

Plans Originally Approved: 8-30-17

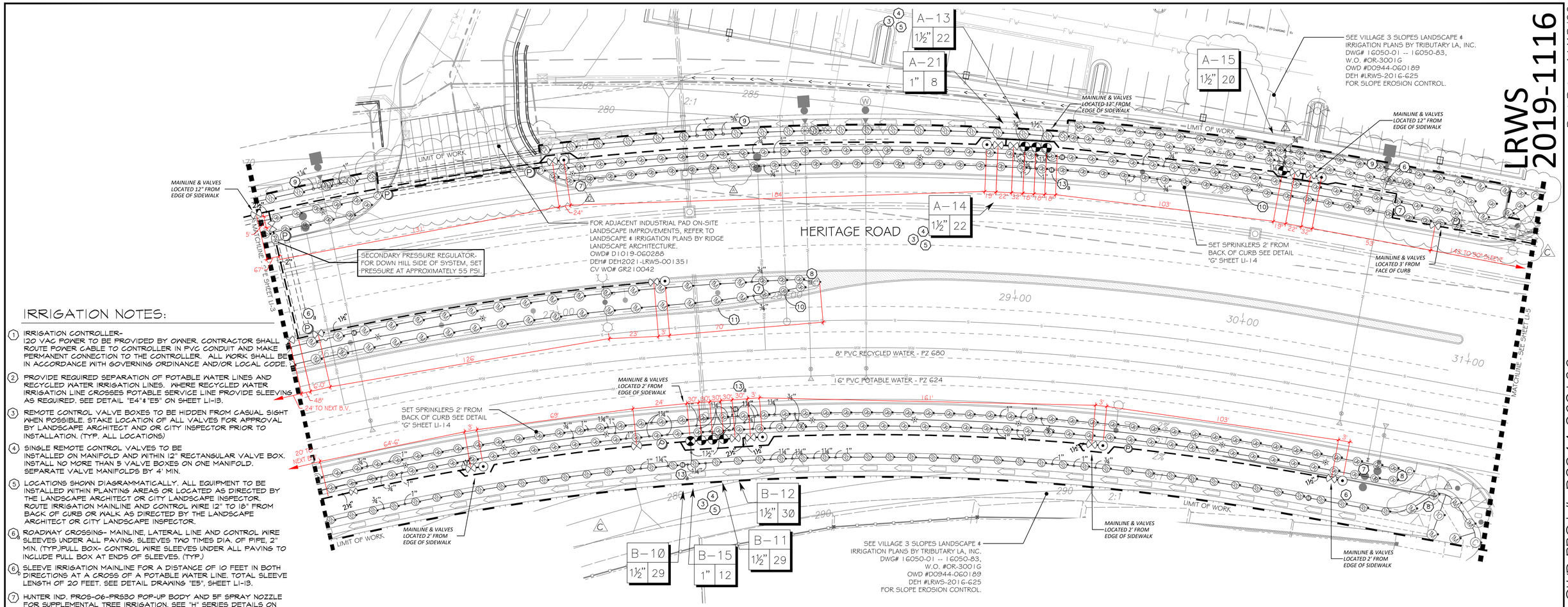
Approved: Date:
Director of Development Services or Designee

CITY OF CHULA VISTA

LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-17
LI-3
Sheet 17 of 44

REPLACEMENT SHEET



IRRIGATION NOTES:

1. 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. PROVIDE REQUIRED SEPARATION OF POTABLE WATER LINES AND RECYCLED WATER IRRIGATION LINES. WHERE RECYCLED WATER IRRIGATION LINE CROSSES POTABLE SERVICE LINE PROVIDE SLEEVING AS REQUIRED. SEE DETAIL "E4" & "E5" ON SHEET LI-13.
3. REMOTE CONTROL VALVE BOXES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR CITY INSPECTOR PRIOR TO INSTALLATION. (TYP. ALL LOCATIONS)
4. SINGLE REMOTE CONTROL VALVES TO BE INSTALLED ON MANIFOLD AND WITHIN 12" RECTANGULAR VALVE BOX. INSTALL NO MORE THAN 5 VALVE BOXES ON ONE MANIFOLD. SEPARATE VALVE MANIFOLDS BY 4' MIN.
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6. ROADWAY 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.)
6. SLEEVE IRRIGATION MAINLINE FOR A DISTANCE OF 10 FEET IN BOTH DIRECTIONS AT A CROSS OF A POTABLE WATER LINE. TOTAL SLEEVE LENGTH OF 20 FEET. SEE DETAIL DRAWING "E5", SHEET LI-13.
7. HUNTER IND. PROS-06-PRS30 POP-UP BODY AND SF SPRAY NOZZLE FOR SUPPLEMENTAL TREE IRRIGATION. SEE "H" SERIES DETAILS ON SHEET LI-14
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10. HUNTER IND. PROS-12-PRS40 POP-UP BODY AND MP8005S NOZZLE FOR LANDSCAPE AREAS 6' TO 10' WIDE, WITH HEAD SPACING EQUAL TO LATERAL SPACING. ADJUST RADIUS TO PREVENT OVERSPRAY AND OBSTRUCTIONS.
11. HUNTER IND. PROS-12-PRS40 POP-UP BODY AND MP1000 NOZZLE FOR LANDSCAPE AREAS 11' TO 13' WIDE, WITH HEAD SPACING EQUAL TO LATERAL SPACING. ADJUST RADIUS TO PREVENT OVERSPRAY AND OBSTRUCTIONS.
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13b. SPRING CHECK IS TO BE USED WHEN OPERATIONAL FLOW IS FROM HIGHER TO LOWER ELEVATION.

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FOR IRRIGATION DETAILS SEE SHEETS LI-11 THROUGH LI-14.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-15.
FOR IRRIGATION SPECS SEE SHEETS LI-16, LI-17 & LI-18.

OMISSION STATEMENT:
THERE ARE NO DRINKING FOUNTAINS, DECORATIVE FOUNTAINS, COMFORT STATIONS, OUTDOOR EATING AREAS, SWIMMING POOLS, PLAYGROUND EQUIPMENT, OR WELLS WITHIN THE LIMITS OF WORK.

INSPECTION NOTE:
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.

R.W. IDENTIFICATION BY COLOR CODING:
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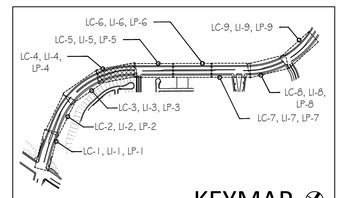
DECALS AND/OR ADHESIVE LABELS ON RISERS WILL NOT ACCEPTED.

LANDSCAPE ARCHITECT TO CONVERT FIELD REDLINES OF CONSTRUCTION CHANGES TO BLACK LINES ON THIS DRAWING SET, AND SUBMIT TO OND FOR REVIEW AND APPROVAL.

0' 10' 20' 40'



KEYMAP

LRWS 2019-1116

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
REVIEWED BY: 5/11/21 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 4/19/21
PRINT NAME: THOMAS A 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 — 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:	4 MAR '22
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	OR-837C	HUNSAKER & ASSOC.
Inspector	OR-837G	HUNSAKER & ASSOC.
Date Completed		

REVISIONS	Date	App'd
1 EDIT IRRIG. FOR SIDEWALK RE-ALIGN & TREE ADJMT	4-25-18	DSMY
2 DELETE POC-B MAINLINE CROSSING AT SANTA MAYA	3-25-19	DSMY
3 FINAL OWD AS-BUILT	5/11/21	
4 ADD'L AREA @ GUE, ADJ. @ IND'L PARK DWYS	5-27-21	

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" = 20' / Vertical N/A

	Designed By	Drawn By	Checked By
Office	T.P.	T.G.M.	T.P.
Field			
Traffic			

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 3/4/22
R.L.A. No. 4001

Plans Originally Approved: 8-30-17
Approved: Date:
Tiffany Allen, Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-18
LI-4
Sheet 18 of 44

REPLACEMENT SHEET
OWD WO # D0944-060186 OWD PERMIT #PLR-16-011 OWD Sheet 6 of 20

LRWS 2019-1116
Print Date: 4 MAR '22
OWD PROJ # D0944-060186
Otay Ranch Village 3 Heritage Road

IRRIGATION NOTES:

(1) 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) PROVIDE REQUIRED SEPARATION OF POTABLE WATER LINES AND RECYCLED WATER IRRIGATION LINES. WHERE RECYCLED WATER IRRIGATION LINE CROSSES POTABLE SERVICE LINE PROVIDE SLEEVING AS REQUIRED. SEE DETAIL "E4"&"E5" ON SHEET LI-13.

(3) REMOTE CONTROL VALVE BOXES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR CITY INSPECTOR PRIOR TO INSTALLATION. (TYP. ALL LOCATIONS)

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(6a) ROADWAY 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.)

(6b) SLEEVE IRRIGATION MAINLINE FOR A DISTANCE OF 10 FEET IN BOTH DIRECTIONS AT A CROSS OF A POTABLE WATER LINE. TOTAL SLEEVE LENGTH OF 20 FEET. SEE DETAIL DRAWING "E5", SHEET LI-13.

(7) HUNTER IND. PROS-06-PRS30 POP-UP BODY AND 5F SPRAY NOZZLE FOR SUPPLEMENTAL TREE IRRIGATION. SEE "H" SERIES DETAILS ON SHEET LI-14

(8) ADJUST HEAD SPACING AND RADIUS-OF-THROW TO AVOID OVERSPRAY OUTSIDE OF INTENDED AREA OF COVERAGE AND OBSTRUCTION BY UTILITY ENCLOSURES.

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(10) HUNTER IND. PROS-12-PRS40 POP-UP BODY AND MP800SS NOZZLE FOR LANDSCAPE AREAS 6' TO 10' WIDE, WITH HEAD SPACING EQUAL TO LATERAL SPACING. ADJUST RADIUS TO PREVENT OVERSPRAY AND OBSTRUCTIONS.

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(12) HUNTER IND. PROS-12-PRS40 POP-UP BODY AND MP2000 NOZZLE FOR LANDSCAPE AREAS 15' TO 18' WIDE, WITH HEAD SPACING EQUAL TO LATERAL SPACING. ADJUST RADIUS TO PREVENT OVERSPRAY AND OBSTRUCTIONS.

(13) CHECK VALVES INSTALLED ON LATERAL LINE TO PREVENT MAJORITY OF LATERAL LINE DRAINAGE WHEN ELEVATION DIFFERENTIAL EXCEEDS THE CAPACITY OF IN-HEAD CHECK VALVE.

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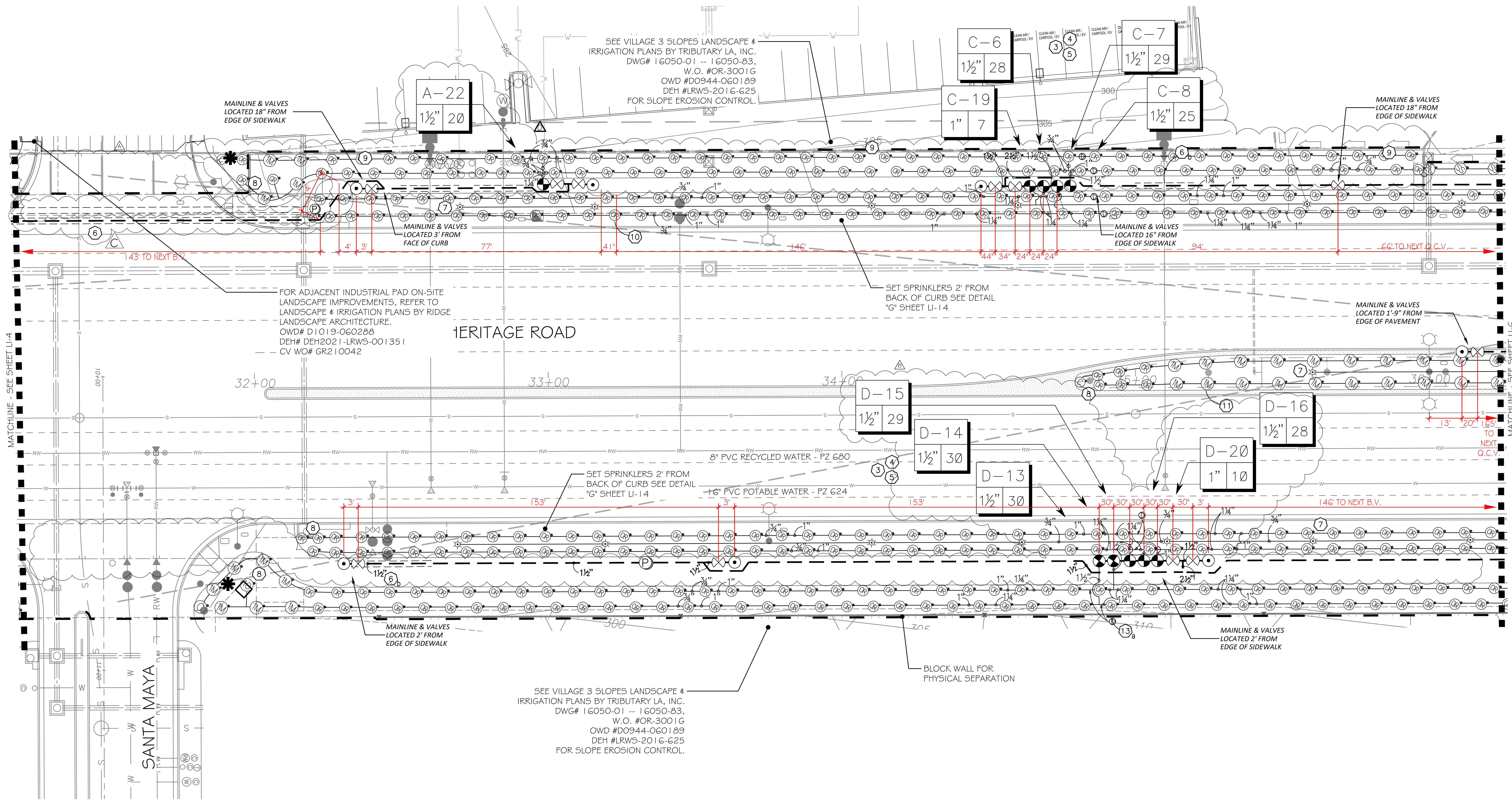


FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-10.
FOR IRRIGATION DETAILS SEE SHEETS LI-11 THROUGH LI-14.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-15.
FOR IRRIGATION SPECS SEE SHEETS LI-16, LI-17 & LI-18.

OMISSION STATEMENT:
THERE ARE NO DRINKING FOUNTAINS, DECORATIVE FOUNTAINS, COMFORT STATIONS, OUTDOOR EATING AREAS, SWIMMING POOLS, PLAYGROUND EQUIPMENT, OR WELLS WITHIN THE LIMITS OF WORK.

INSPECTION NOTE:
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.

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. ALL SHRUB HEADS SHALL HAVE PURPLE CAPS.
DECALS AND/OR ADHESIVE LABELS ON RISERS WILL NOT ACCEPTED.

LRWS 2019-1116

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
REVIEWED BY: DATE: 5/11/21
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

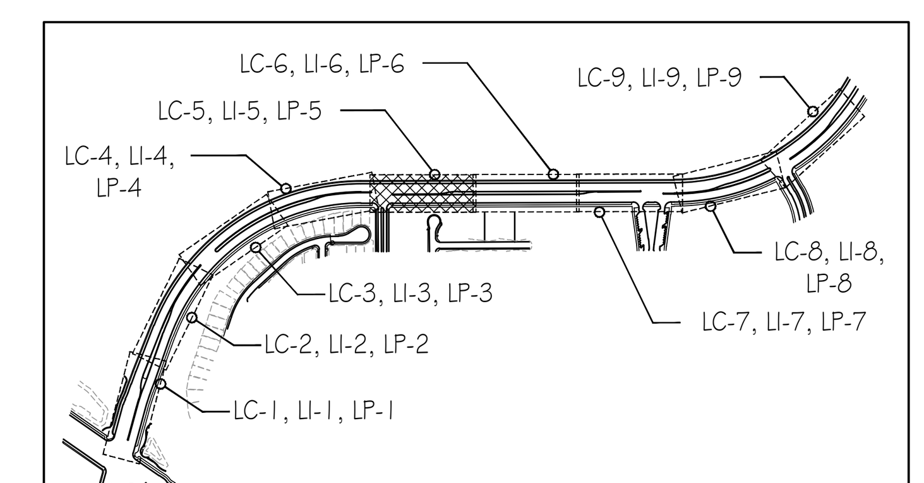
LANDSCAPE ARCHITECT TO CONVERT FIELD REDLINES OF CONSTRUCTION CHANGES TO BLACK LINES ON THIS DRAWING SET, AND SUBMIT TO OWD FOR REVIEW AND APPROVAL.

"AS-BUILT"
SIGNED: DATE: 4/19/21
PRINT NAME: THOMAS A 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 3/4/22
Date
CALIFORNIA

0' 10' 20' 40'



KEYMAP

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

DATE:	4 MAR '22
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	A IRRIGATION ADJUSTMENT FOR NEW DRIVEWAY & TREES	4-23-19	OSM/
Inspector	OR-837G	HUNSAKER & ASSOC.	B DELETE MAINLINE CROSSING AT SANTA MAYA, EXTEND POC-D MAINLINE AND REVISE STATION NUMBERS.	3-18-19	OSM/
Date Completed			C FINAL OWD AS-BUILT	5/11/21	
			D ADD'L AREA @ GUE, ADJ. @ IND'L PARK DWYS	5-3-22	

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 1" = 20'; Vertical N/A

Office ______ Field ______ Traffic ______

Designed By	Drawn By	Checked By
T.P.	T.G.M.	T.P.

Plans Prepared Under Supervision Of
THOMAS A. PICARD Date 3/4/22 R.L.A. No. 4001

Plans Originally Approved: 8-30-17
Approved:______ Date:______
Tiffany Allen, Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-19
LI-5
Sheet 19 of 44

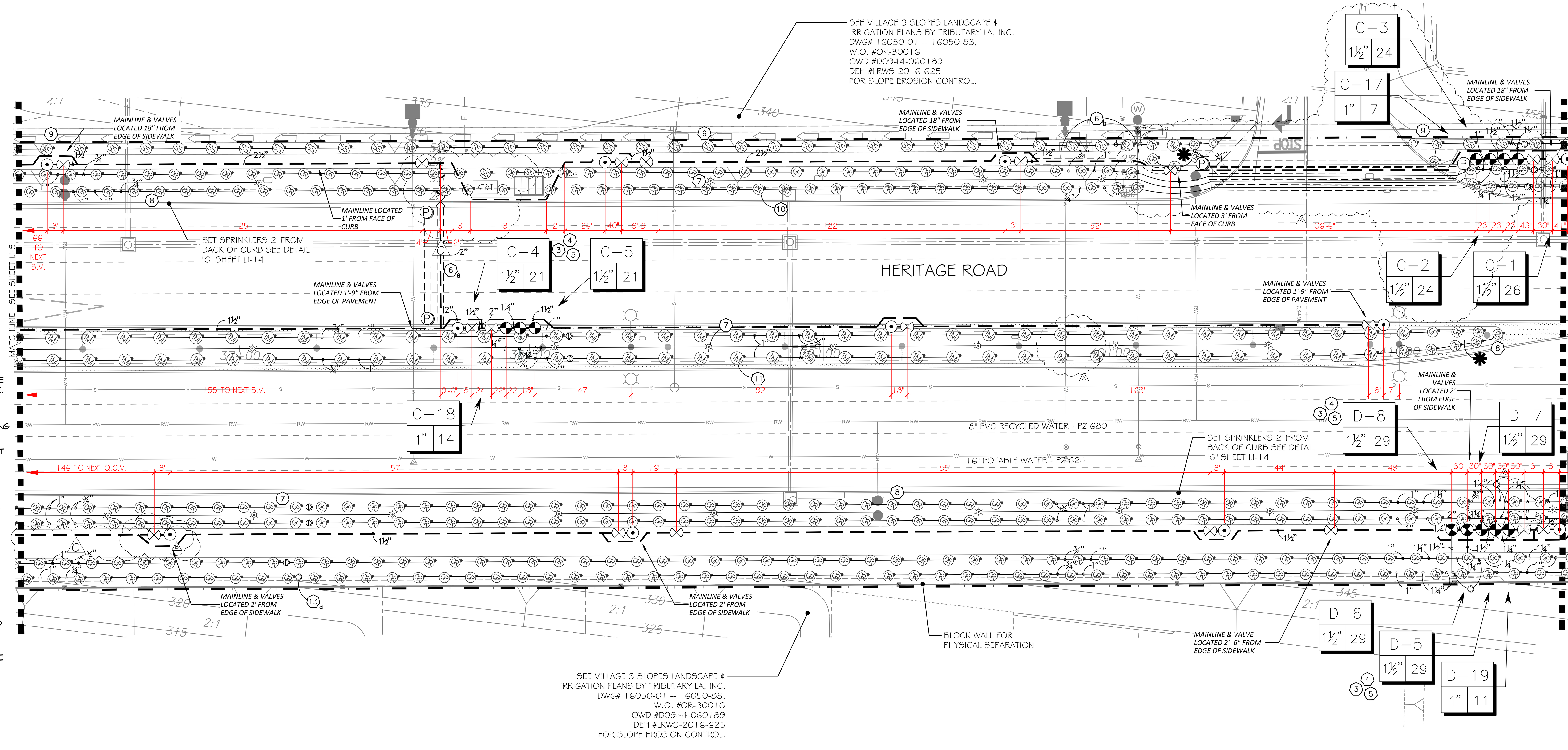
D REPLACEMENT SHEET
OWD WO # D0944-060186 OWD PERMIT #PLR-16-011 OWD Sheet 7 of 20

LRWS 2019-1116
Print Date: 4 MAR '22
OWD PROJ # D0944-060186
Otay Ranch Village 3 Heritage Road

LRWS 2019-1116

Print Date: 19 APR '21

OWD PROJ # D0944-060186



IRRIGATION NOTES:

(1) 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) PROVIDE REQUIRED SEPARATION OF POTABLE WATER LINES AND RECYCLED WATER IRRIGATION LINES. WHERE RECYCLED WATER IRRIGATION LINE CROSSES POTABLE SERVICE LINE PROVIDE SLEEVING AS REQUIRED. SEE DETAIL "E4"&"E5" ON SHEET LI-13.

(3) REMOTE CONTROL VALVE BOXES TO BE HIDDEN FROM CASUAL SIGHT WHEN POSSIBLE. STAKE LOCATION OF ALL VALVES FOR APPROVAL BY LANDSCAPE ARCHITECT AND OR CITY INSPECTOR PRIOR TO INSTALLATION. (TYP. ALL LOCATIONS)

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

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(6a) ROADWAY 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.)

(6b) SLEEVE IRRIGATION MAINLINE FOR A DISTANCE OF 10 FEET IN BOTH DIRECTIONS AT A CROSS OF A POTABLE WATER LINE. TOTAL SLEEVE LENGTH OF 20 FEET. SEE DETAIL DRAWING "E5", SHEET LI-13.

(7) HUNTER IND. PROS-06-PRS30 POP-UP BODY AND 5F SPRAY NOZZLE FOR SUPPLEMENTAL TREE IRRIGATION. SEE "H" SERIES DETAILS ON SHEET LI-14

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(9) HUNTER IND. PROS-12-PRS40 POP-UP BODY OR PROS-00-PRS40 ON RISER AND MPSS530 SIDE STRIP SPRAY NOZZLE FOR LANDSCAPE AREAS 3' TO 5' WIDE, SPACE HEADS 11 TO 12 FEET ON CENTER AND ALTERNATE FROM FRONT TO BACK ALONG THE LENGTH OF THE PLANTER. ADJUST RADIUS TO PREVENT OVERSPRAY.

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(12) HUNTER IND. PROS-12-PRS40 POP-UP BODY AND MP2000 NOZZLE FOR LANDSCAPE AREAS 15' TO 18' WIDE, WITH HEAD SPACING EQUAL TO LATERAL SPACING. ADJUST RADIUS TO PREVENT OVERSPRAY AND OBSTRUCTIONS.

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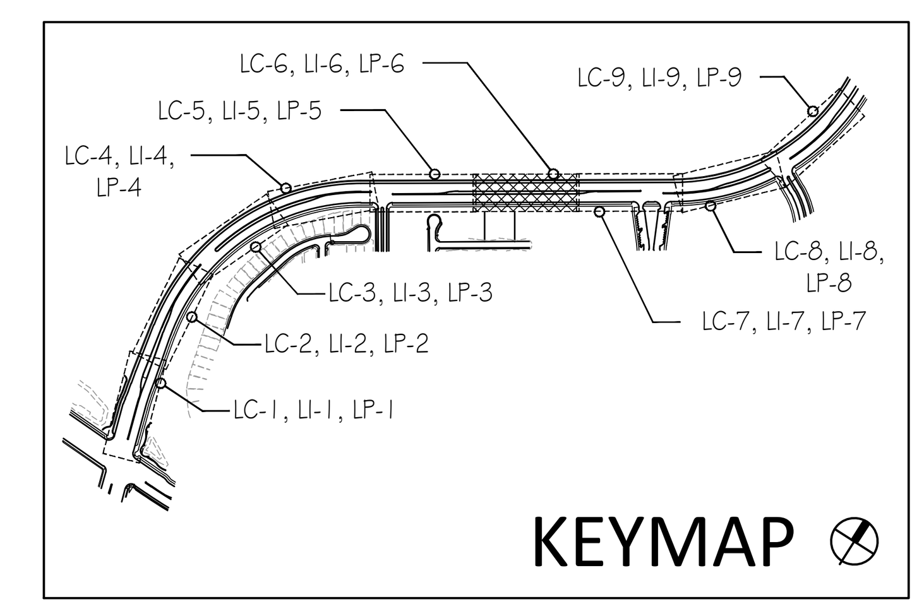
0' 10' 20' 40'



KEYMAP

LRWS 2019-1116

OTAY WATER DISTRICT

PROJECT # D0944-060186
PZ 624 RPZ 680

REVIEWED BY: [signature] DATE: 5/11/21

NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"

SIGNED: [signature] DATE: 4/19/21

PRINT NAME: THOMAS A 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 4001 — Signature — 9/30/21 Renewal Date — 4/19/21 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:	19 APR '21
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	(A) IRRIGATION ADJUSTMENT FOR NEW DRIVEWAY & TREES	4-23-19 5-7-19	DSM / JC
Inspector	OR-837G	HUNSAKER & ASSOC.	(B) EXTEND POC-D MAINLINE WEST TO MATCHLINE	9-13-19 9-23-19	DSM / JC
Date Completed			(C) FINAL OWD AS-BUILT	5/11/21	[signature]

BENCH MARK
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SCALE: Horizontal 1" = 20'; Vertical N/A

Office ____ Field ____ Traffic ____

Designed By	Drawn By	Checked By
T.P.	T.G.M.	T.P.

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

Plans Originally Approved: 8-30-17

Approved:______ Date:______
Director of Development Services or Designee

CITY OF CHULA VISTA

LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-20

LI-6

Sheet 20 of 44

(C) REPLACEMENT SHEET OWD WO # D0944-060186 OWD PERMIT #PLR-16-011 OWD Sheet 8 of 20

Otay Ranch Village 3 Heritage Road

IRRIGATION NOTES:

1. IRRIGATION CONTROLLER-
   I20 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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7. HUNTER IND. PROS-06-PRS30 POP-UP BODY AND SF SPRAY NOZZLE FOR SUPPLEMENTAL TREE IRRIGATION. SEE "H" SERIES DETAILS ON SHEET LI-14
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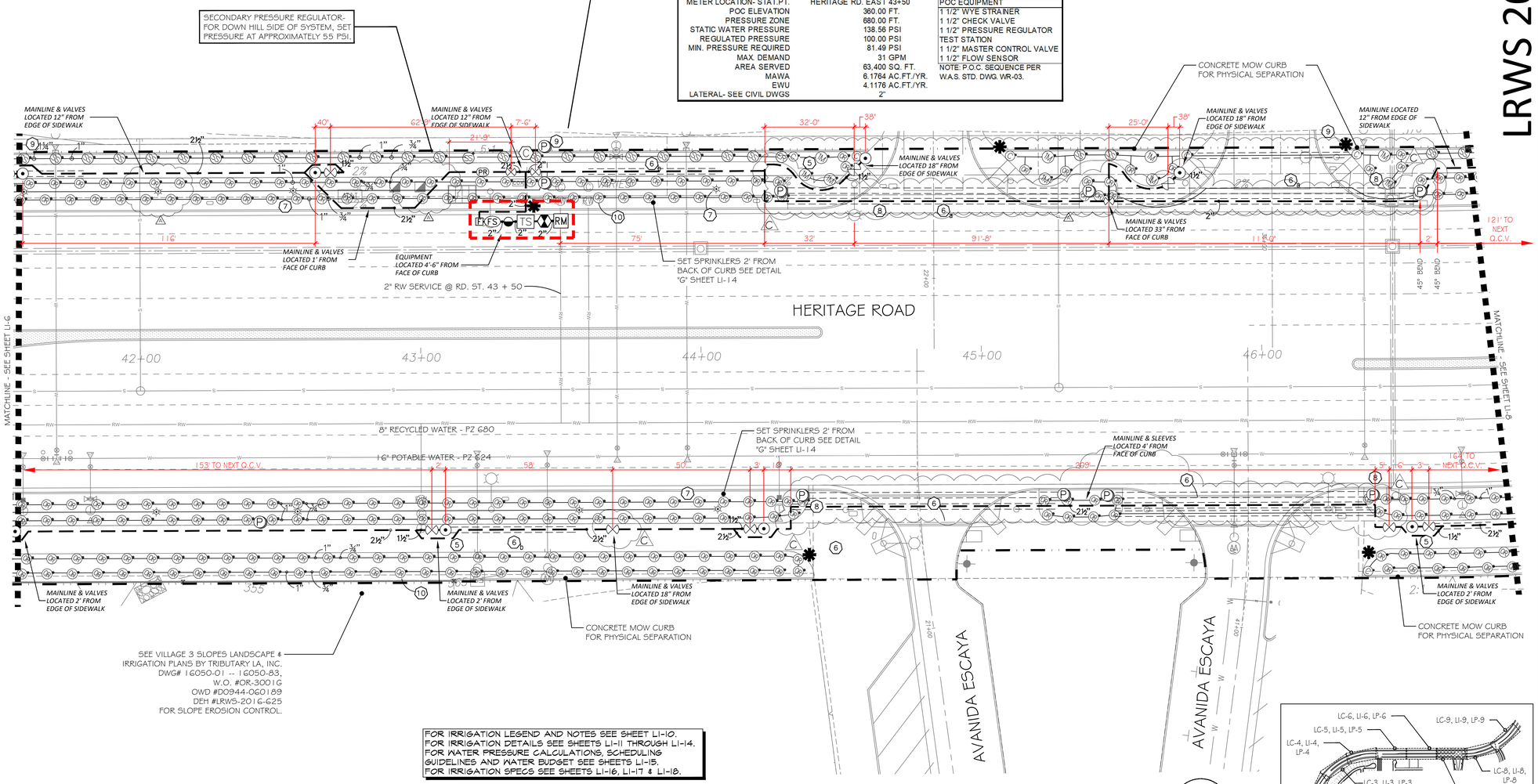
VILLAGE 3 HERITAGE RD. STREETSCAPE
PARKWAY AND MEDIAN IRRIGATION POC "C"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

1.5" RECYCLED WATER METER
24 STATION CONTROLLER "C"
STATIONS USED: 1-23 / OPEN STATIONS: 24
MODEL# SA6-RM2-24 / FSF-150B / 5YR / PMR (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	HERITAGE RD. EAST 43+50	POC EQUIPMENT
METER LOCATION- STAT.PT.		1 1/2" WYE STRAINER
POC ELEVATION	360.00 FT.	1 1/2" CHECK VALVE
PRESSURE ZONE	680.00 FT.	1 1/2" PRESSURE REGULATOR
STATIC WATER PRESSURE	138.56 PSI	TEST STATION
REGULATED PRESSURE	100.00 PSI	1 1/2" MASTER CONTROL VALVE
MIN. PRESSURE REQUIRED	81.49 PSI	1 1/2" FLOW SENSOR
MAX. DEMAND	31 GPM	NOTE: P.O.C. SEQUENCE PER
AREA SERVED	63,400 SQ. FT.	W.A.S. STD. DWG. WR-03.
MAWA	6.1764 AC.FT./YR.	
EWU	4.1176 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	



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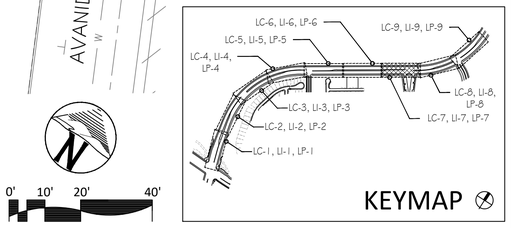

KEYMAP

0' 10' 20' 40'

LRWS 2019-1116

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
REVIEWED BY: 5/11/21 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 4/19/21
PRINT NAME: THOMAS A PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/23

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UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA
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REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 CALIFORNIA 9/30/21 4/19/21

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

DATE:	19 APR '21
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	1 IRRIGATION ADJUSTMENT FOR NEW DRIVEWAY 4 TREES	5-3-21	
Inspector	OR-837G	HUNSAKER & ASSOC.	2 FINAL OWD AS-BUILT	5/11/21	
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
T.P.	T.G.M.	T.P.

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

Plans Originally Approved: 8-30-17
Approved: Date:
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-21
LI-7
Sheet 21 of 44

REPLACEMENT SHEET
OWD WO # D0944-060186 OWD PERMIT #PLR-16-011 OWD Sheet 9 of 20

LRWS 2019-1116
Print Date: 19 APR '21
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Otay Ranch Village 3 Heritage Road

FOR IRRIGATION LEGEND AND NOTES SEE SHEET LI-10.
FOR IRRIGATION DETAILS SEE SHEETS LI-11 THROUGH LI-14.
FOR WATER PRESSURE CALCULATIONS, SCHEDULING GUIDELINES AND WATER BUDGET SEE SHEETS LI-15.
FOR IRRIGATION SPECS SEE SHEETS LI-16, LI-17 & LI-18.

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. ALL SHRUB HEADS SHALL HAVE PURPLE CAPS.
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1. 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. (a) ROADWAY 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.)
6. (b) SLEEVE IRRIGATION MAINLINE FOR A DISTANCE OF 10 FEET IN BOTH DIRECTIONS AT A CROSS OF A POTABLE WATER LINE. TOTAL SLEEVE LENGTH OF 20 FEET. SEE DETAIL DRAWING "E5", SHEET LI-13.
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10. HUNTER IND. PROS-12-PRS40 POP-UP BODY AND MP8005S NOZZLE FOR LANDSCAPE AREAS 6' TO 10' WIDE, WITH HEAD SPACING EQUAL TO LATERAL SPACING. ADJUST RADIUS TO PREVENT OVERSPRAY AND OBSTRUCTIONS.
11. HUNTER IND. PROS-12-PRS40 POP-UP BODY AND MP1000 NOZZLE FOR LANDSCAPE AREAS 11' TO 13' WIDE, WITH HEAD SPACING EQUAL TO LATERAL SPACING. ADJUST RADIUS TO PREVENT OVERSPRAY AND OBSTRUCTIONS.
12. HUNTER IND. PROS-12-PRS40 POP-UP BODY AND MP2000 NOZZLE FOR LANDSCAPE AREAS 15' TO 18' WIDE, WITH HEAD SPACING EQUAL TO LATERAL SPACING. ADJUST RADIUS TO PREVENT OVERSPRAY AND OBSTRUCTIONS.
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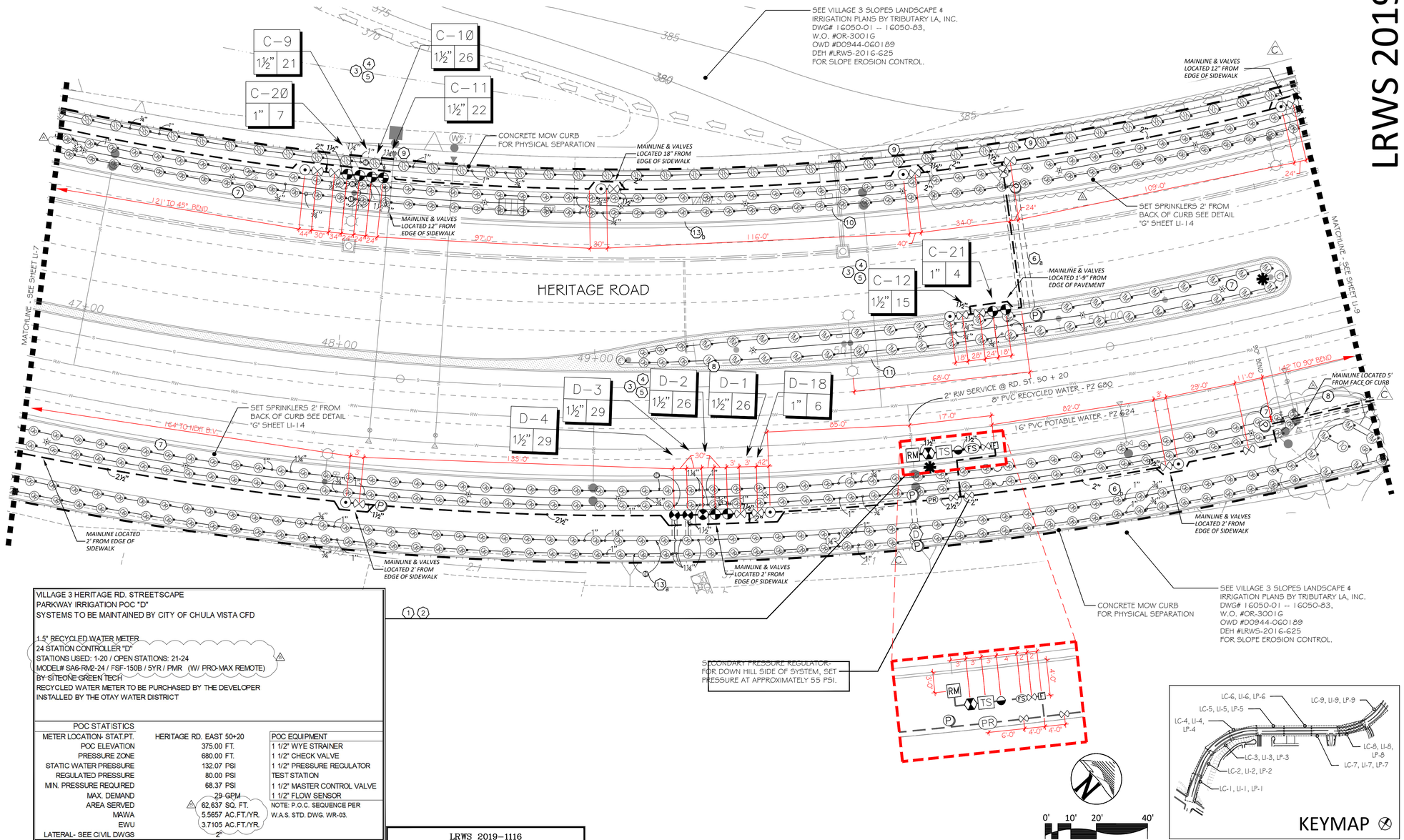

VILLAGE 3 HERITAGE RD. STREETSCAPE
PARKWAY IRRIGATION POC "D"
SYSTEMS TO BE MAINTAINED BY CITY OF CHULA VISTA CFD

1.5" RECYCLED WATER METER
24 STATION CONTROLLER "D"
STATIONS USED: 1-20 / OPEN STATIONS: 21-24
MODEL# SA6-RM2-24 / FSF-150B / 5YR / PMR (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		POC EQUIPMENT
METER LOCATION- STAT.PT.	HERITAGE RD. EAST 50+20	
POC ELEVATION	375.00 FT.	1 1/2" WYE STRAINER
PRESSURE ZONE	680.00 FT.	1 1/2" CHECK VALVE
STATIC WATER PRESSURE	132.07 PSI	1 1/2" PRESSURE REGULATOR
REGULATED PRESSURE	80.00 PSI	TEST STATION
MIN. PRESSURE REQUIRED	68.37 PSI	1 1/2" MASTER CONTROL VALVE
MAX. DEMAND	29 GPM	1 1/2" FLOW SENSOR
AREA SERVED	62,637 SQ. FT.	NOTE: P.O.C. SEQUENCE PER
MAWA	5.5657 AC.FT./YR.	W.A.S. STD. DWG. WR-03.
EWU	3.7105 AC.FT./YR.	
LATERAL- SEE CIVIL DWGS	2"	

KEYMAP

LRWS 2019-1116

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
REVIEWED BY: 5/11/21 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 4/19/21
PRINT NAME: THOMAS A PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/23

IT'S THE LAW! DIAL BEFORE YOU DIG!
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REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD CALIFORNIA Revised 9/30/21 4/19/21

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

DATE:	19 APR '21
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	1 EDIT IRRIG. FOR TREES # BROW DITCH RE-ALIGNMENT.	4-19-21	
Inspector	OR-837G	HUNSAKER & ASSOC.	2 REVISE POC-D WATER CALCS. AND CONTROLLER DATA	5-10-21	
Date Completed			3 FINAL OWD AS-BUILT	5/11/21	

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. (T# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE
Horizontal 1" = 20'
Vertical N/A

Office
Field
Traffic

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

Plans Originally Approved: 8-30-17
Approved: Date:
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-22
LI-8
Sheet 22 of 44

REPLACEMENT SHEET
OWD WO # D0944-060186 OWD PERMIT #PLR-16-011 OWD Sheet 10 of 20

LRWS 2019-1116
Print Date: 19 APR '21
OWD PROJ # D0944-060186
Otay Ranch Village 3 Heritage Road

LRWS 2019-1116

Print Date: 19 APR '21

OWD PROJ # D0944-060186

Otay Ranch Village 3 Heritage Road

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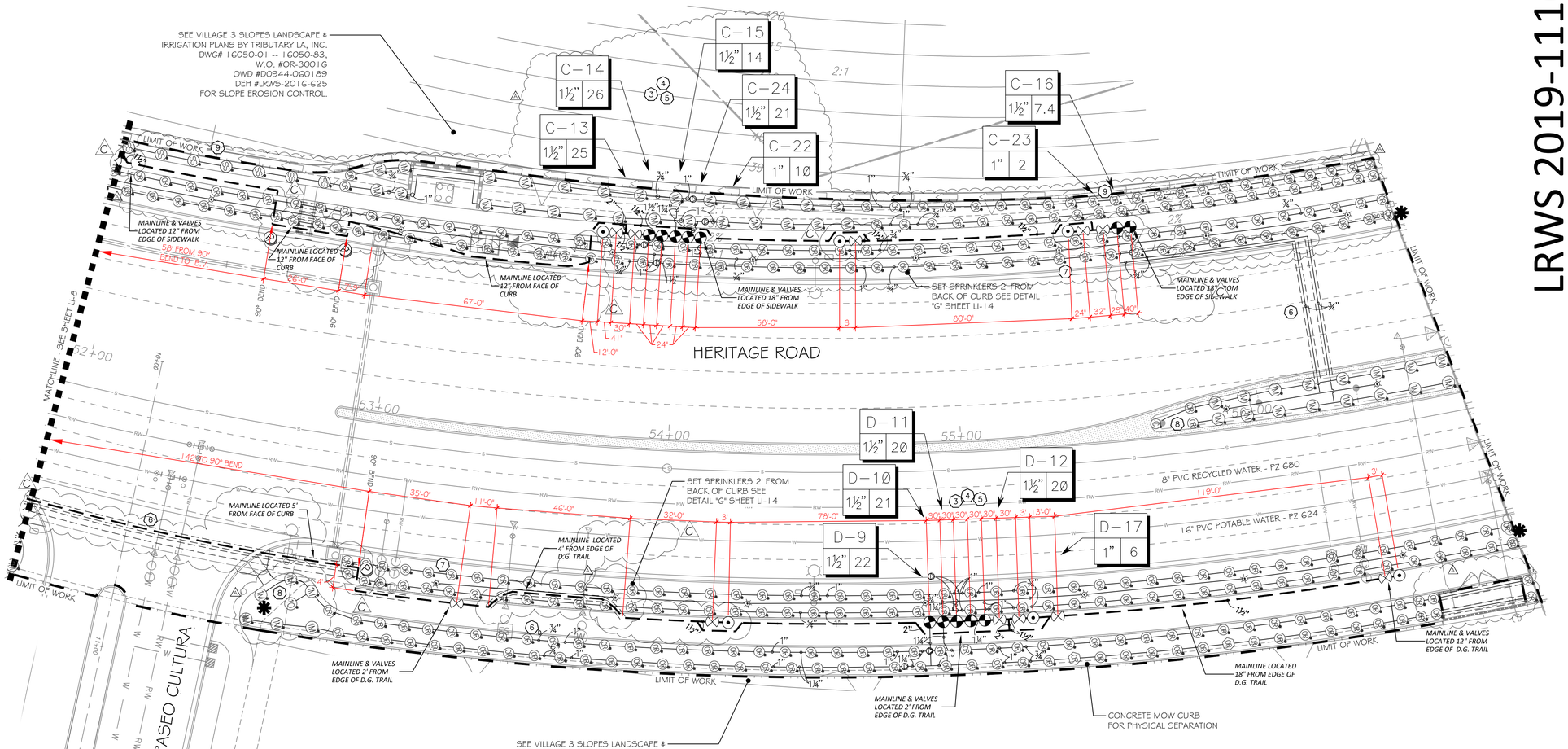

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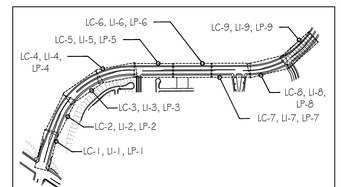
0' 10' 20' 40'



LRWS 2019-1116

OTAY WATER DISTRICT

PROJECT # D0944-060186

PZ 624 RPZ 680

REVIEWED BY: 5/11/21 DATE:

NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"

SIGNED: DATE: 4/19/21

PRINT NAME: THOMAS A PICARD R.L.A. # 4001

DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/23

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REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — Expiration 9/30/23 — 4/19/21 — 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:	19 APR '21
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	OR-837C	HUNSAKER & ASSOC.
Inspector	OR-837G	HUNSAKER & ASSOC.
Date Completed		

REVISIONS	Date	App'd
1 NEW TRANS. & TREES SWALE RE-ALIGN, REMOVE SIGNAGE	5/11/21	
2 FINAL OWD/WD-BUILT	5/11/21	

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SCALE				
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Vertical	N/A	Field		
		Traffic		

Designed By	Drawn By	Checked By
T.P.	T.G.M.	T.P.

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

Plans Originally Approved: 8-30-17

Approved: Date:
Director of Development Services or Designee

CITY OF CHULA VISTA

LANDSCAPE IRRIGATION PLAN FOR:
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CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-23
LI-9
Sheet 23 of 44

REPLACEMENT SHEET

IRRIGATION EQUIPMENT LEGEND – RECYCLED WATER

SYMBOL	DESCRIPTION	MANUFACTURER / MODEL	REMARKS	DETAIL
(A)(B)(C)(D)	SATELLITE OR CONTROLLER FOR C.F.D. MAINTENANCE AREAS	RAINMASTER EAGLE PLUS I–CENTRAL AS ASSEMBLY WITHIN STAINLESS STEEL ENCLOSURE.	ALL CONTROLLER./SATELLITE ASSEMBLIES BY SITEONE GREEN TECH (800) 427–0779. TEXT WITHIN SYMBOL IDENTIFIES SATELLITE. INCLUDE R.W. WARNING DECAL ON STREET SIDE OF ENCLOSURE. SEE SHEETS LI–3, LI–7 AND LI–8 FOR MODEL NUMBER AND STATION COUNT.	AI / LI–10 SDRSD I–1/ A2 / LI–11
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–11
	POC ASSEMBLY– Y–STRAINER CHECK VALVE PRESSURE REGULATOR	– WILKINS 500 SERIES STRAINER WITH 30 MESH. WILKINS 40XL2 CHECK VALVE. WILKINS 500SC	THIS EQUIPMENT IS FOR USE WITH RECYCLED WATER SERVICE ONLY. SEE DETAIL DRAWINGS FOR GENERAL ARRANGEMENT AND BOX SIZES. SET PRESSURE AS SHOWN ON PRESSURE CALCS. ASSEMBLIES TO BE WITHIN VALVE BOXES AS SHOWN IN WATER AGENCIES STANDARD DRAWINGS WR–03 AND PROJECT DETAIL B4 ON SHEET LI–11. SEE ALL W.A.S. DETAILS DRAWINGS FOR REQUIRED SEQUENCE OF ARRANGEMENT.	B–SERIES /LI–11
TS	CROSS CONNECTION TEST STATION.	CONTRACTOR FABRICATED	FABRICATE AND INSTALL AS DETAILED BY W.A.S. WR–04 / B5.	B–SERIES /LI–11
	MASTER CONTROL VALVE	HUNTER INDUSTRIES IBV–151G–FS–R	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 "HFS" OPTION BY GREENTECH.	C1 / LI–11 D / LI–13
FS	FLOW SENSOR	DATA INDUSTRIAL	AS PROVIDED WITH CONTROLLER/SATELLITE ASSEMBLY BY SITEONE GREEN TECH – SIZE AS NOTED ON SHEET T–2. INSTALL WITH RECYCLED WATER WARNING TAG	C2 / LI–12 D / LI–13
	PVC BALL VALVE 3" AND SMALLER	HAYWARD SCH 80 PVC BALL VALVE 1" TO 2" – INTEGRAL UNIONS # TBBXXXXTPEG. 2.5" TO 3" – SEPARATE UNIONS # QV1TXXXTE	SIZED EQUAL TO PIPE SIZE. BALL VALVE WITH INTEGRAL UNIONS FOR MAINLINE AND MANIFOLD ISOLATION ON LINES 2" AND SMALLER. BALL VALVE WITH SEPARATE UNIONS ON BOTH SIDES ON LINES 2.5" AND LARGER . INCLUDE CONTROLLER I.D. AND RECYCLED WATER WARNING TAG.	C6a,b,c / LI–12 D / LI–13
F	FILTER / STRAINER	EATON / HAYWARD MODEL 72 SIMPLEX BASKET STRAINER WITH 150 MESH INSERT	2", STAINLESS STEEL UNIT WITH THREADED INLET AND OUTLET. INSTALL WITHIN DOUBLE VALVE BOX AS DETAILED. INCLUDE R.W. WARNING TAG AND CONTROLLER I.D. TAG.	C4 / LI–12 D / LI–13
PVR	PRESSURE REGULATOR (SECONDARY)	2" WILKINS 500SC WITH REDUCTION BUSHINGS AS REQUIRED.	THIS SECONDARY REGULATOR IS FOR CREATING A SEPARATE PRESSURE ZONE FOR SYSTEMS OF THE DOWN–HILL SIDE OF THE POC. UNIT IS WITH SEALED BELL AND S.S. ADJUSTING SCREW FOR BELOW GROUND INSTALLATIONS. ONE INTEGRAL UNION. THIS SECONDARY UNIT CAN BE PLUMBED WITH PVC CL 315 PIPE UP AND DOWNSTREAM. INSTALL WITHIN DOUBLE VALVE BOX AS DETAILED. INCLUDE R.W. WARNING TAG AND CONTROLLER I.D. TAG.	C11 / LI–13 D / LI–13
	REMOTE CONTROL VALVE OVERHEAD SYSTEMS.	HUNTER INDUSTRIES IBV–XXXG–FS–AS–ADJ–R –XXX–MODEL DESIGNATION FOR SIZE	SIZE AS SHOWN. PRESSURE REGULATING REMOTE CONTROL VALVE FOR OVERHEAD SYSTEMS. INSTALL RCV ASSEMBLY WITH RW WARNING TAG AND CONTROLLER/STATION I.D. TAG.	C7,C8 / LI–12 D / LI–13
	QUICK COUPLER VALVE –	HUNTER INDUSTRIES HQ44–LRC–AW–R WITH HK–44A KEY AND HS–2 SWIVEL– 1 KEY ASSEMBLY PER 10 QCVS 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.	C5 / LI–12 D / LI–13
	SWING CHECK VALVE ON LATERAL LINE	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 DRI–BOX AS DETAILED.	H6 / LI–14 D / LI–13
	SPRING CHECK VALVE ON LATERAL LINE	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 10" ROUND VALVE BOX AS DETAILED.	H6 / LI–14 D / LI–13
NO SYMBOL	CONTROL WIRE AND CONDUIT –	SEE SPECIFICATIONS	CONTROL WIRE WITHIN PVC SCH 40 CONDUIT WITH LONG SWEEP FITTINGS. COMPLETE CONDUIT RUN CONTROLLER TO RCV TO FOLLOW IRRIGATION MAINLINE IN COMMON TRENCH WHENEVER POSSIBLE.	C,D,E–SERIES /LI–12, LI–13
P	PULL BOX –	CONTRACTOR FABRICATED SEE DETAIL DRAWINGS AND SPECIFICATIONS	PULL BOXES TO BE INSTALLED PULL BOXES TO BE INSTALLED IN CONDUIT RUNS IN EXCESS OF 200 FEET AND AT ROAD OR DRIVE CROSSINGS.	F / LI–14 D / LI–13
	PVC MAINLINE 2.5" AND SMALLER	PACIFIC PLASTICS CYCLE FLOW RECYCLED WATER PVC	1" – 1.5" = PVC SCH 40, ASTM–D1784 TYPE 1 GRADE 1 PVC 1120; 2" AND 2.5" = PVC CLASS 315, SDR 13.5, ASTM–D2241, TYPE 1, GRADE 1, PVC–1120. ALL JOINTS TO BE SOLVENT WELDED CONFORMING TO ASTM–D2672 W/ PVC SCH–80 FITTINGS. (PURPLE PVC PIPE FOR USE WITH RECYCLED WATER)	A,B,C,D,E–SERIES LI–11 THRU LI–13
	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,D,E,G,H–SERIES LI–12 THRU LI–14
	SLEEVE MARKER	CONTRACTOR FABRICATED SEE DETAIL DRAWINGS AND SPECIFICATIONS	INSTALL OVER ENDS OF ALL PIPE SLEEVES AT ROAD OR DRIVE CROSSINGS AS DETAILED.	E–SERIES LI–13
	PVC SLEEVE	PACIFIC PLASTICS CYCLE FLOW RECYCLED WATER PVC	PVC SCH 40; TWO TIMES DIA. OF PIPE OR WIRE CONDUIT. MINIMUM SLEEVE SIZES AS FOLLOWS: 4" MIN. UNDER VEHICULAR PAVING 3" MIN. ALL OTHER CONDITIONS	E–SERIES LI–13
	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 / LI–14

IRRIGATION SPRINKLER HEAD LEGEND – RECYCLED WATER

SPEC. NOZ:	360	270–210	210–90	180	105–45 90	45	EST	SST	DESCRIPTION	MANUFACTURER / MODEL	PSI	RAD.	SPEC. NOZ.	360	270–210	210–90	180	105–45 90	45	EST	SST	DETAIL
ARC	360	270	210	180	90	45	EST	SST					ARC	360	270	210	180	90	45	EST	SST	
	ⓖ	Ⓤ	Ⓤ	Ⓜ	Ⓜ				12" POP–UP STREAM ROTATOR SHRUB/GROUND COVER	HUNTER IND. PROS–12–PRS40–CV–R W/ MP1000 WITH VARIABLE ARC NOZZLE AS FOLLOWS: 45, 90–210, 360	40	12'–15'		0.75	–	0.43	0.37	0.19	0.19	0.22	0.44	G&H–SERIES LI–14
			Ⓖ	Ⓖ	Ⓖ				12" POP–UP STREAM ROTATOR SHRUB/GROUND COVER	HUNTER IND. PROS–12–PRS40–CV–R W/ MP800–SR WITH VARIABLE ARC NOZZLE AS FOLLOWS: 45, 90–210, 360	40	6'–12'		0.78	–	0.49	0.42	0.23	–	–	–	G&H–SERIES LI–14
						Ⓒ	Ⓑ/Ⓔ	Ⓔ	12" POP–UP STREAM ROTATOR SHRUB/GROUND COVER	HUNTER IND. PROS–12–PRS40–CV–R W/ MPXXXXX WITH SPECIAL PATTERN NOZZLES AS FOLLOWS: CORNER, L–END STRIP, R–END STRIP, SIDE STRIP	30	C=12–13' E=4x14' S=4x28'							0.17	0.19	0.38	G&H–SERIES LI–14
	*								6" POP–UP SPRAY SUPPLEMENTAL FOR TREES	HUNTER IND. PROS–06–PRS30 W/8H NOZZLE TWO UNITS PER TREE –	30	4'–5'		0.47 PER UNIT 0.94 PER TREE								G&H–SERIES LI–14

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.

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.

INSPECTION NOTE

* 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.

OMISSION STATEMENT

*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAY GROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.

SPECIAL NOTES:

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

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

THE PROJECT

1. IRRIGATION SYSTEMS DESCRIBED BY THESE PLANS ARE PRIMARILY FOR THE SUPPORT OF DECORATIVE PLANTINGS WITHIN THE STREET RIGHT–OF–WAY.
2. ALL IRRIGATION SYSTEMS OF THIS PROJECT ARE TO BE CFD MAINTAINED AND 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.

WATER SOURCE

1. STATIC WATER PRESSURE FOR THIS PROJECT IS CALCULATED FROM HYDRAULIC GRADIENT INFORMATION TAKEN FROM THE VILLAGE 2 SUB–AREA MASTER PLAN, FIGURE 6–2, DATED JAN. '06 OBTAINED FROM THE PROJECT ENGINEER, PBS&J. INFORMATION AS FOLLOWS:
   RECYCLED WATER HGL = 680 FT. POTABLE WATER HGL = 711 FT.
   WATER PRESSURE AT THE POINT OF CONNECTION SHALL BE APPROXIMATELY AS SHOWN BY THE PRESSURE CALCULATIONS.
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 THAN THE DESIGN PRESSURE STATED ON THE PLANS, THE IRRIGATION DESIGN MAY BE REQUIRED TO BE RE–DESIGNED OR AN IRRIGATION BOOSTER PUMP MAY NEED TO BE INSTALLED (AS DETERMINED BY THE CITY'S LANDSCAPE INSPECTOR) AT NO COST TO THE CITY. IRRIGATION BOOSTER PUMP ASSEMBLY TO BE AS ASSEMBLED BY AND PURCHASED FROM BARRETT ENGINEERED PUMPS. CONTACT GREEN PRODUCT SALES (949) 584–7311. 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, PRESSURE CONTROL EQUIPMENT, CROSS CONNECTION TEST STATION, MASTER CONTROL VALVE, FLOW SENSOR AND ISOLATION VALVES. PVC PIPE AND FITTINGS SHALL NOT BE INSTALLED UNTIL DOWNSTREAM OF THE ISOLATION VALVE.

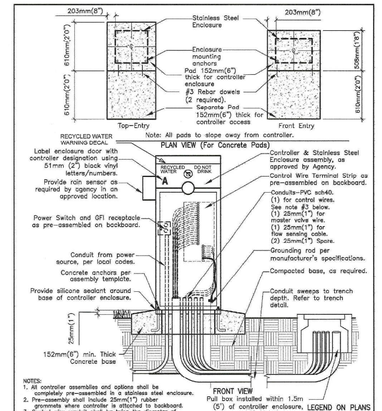
GENERAL

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.
3. 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. PIPE SIZE 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" MINIMUM) 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 AND RUN–OFF IS NOT ACCEPTABLE. THE CONTRACTOR SHALL ADJUST RADIUS OF SPRAY TO PREVENT OVER–SPRAY BEYOND INTENDED AREAS OF COVERAGE.
6. ALL EQUIPMENT SHALL BE INSTALLED AS DETAILED. USE TEFLON TAPE ON MALE THREADS OF ALL THREADED CONNECTIONS.
7. ALL SPRINKLER HEADS WITHIN 15 FEET OF PEDESTRIAN WALKS, CURBS, ROADS, TOP OR TOE OF SLOPE, IN AND ADJACENT TO TURF AREAS SHALL BE POP/UP TYPE SPRINKLERS AS LISTED IN THE LEGEND AND AS INDICATED ON THE PLANS.
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 BY THE 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 VIA 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. IRRIGATION CONTROLLER TO INCLUDE A STANDARD 5 YEAR WARRANTY BY RAIN MASTER
5. IRRIGATION CONTROLLER TO INCLUDE THE PRO MAX REMOTE CONTROL SYSTEM WITH MATCHING FREQUENCY BETWEEN THE TRANSMITTER AND RECEIVER.
6. CONTROL SYSTEM TO INCLUDE 5 YEARS OF CELL SERVICE.
7. FOR TECHNICAL ASSISTANCE, FOR OPERATION TESTING AND APPROVAL THE CONTRACTOR SHALL CONTACT THE CONTROL EQUIPMENT SUPPLIER:
   CONTROLLERS –SITEONE GREEN TECH (800) 427–0779.

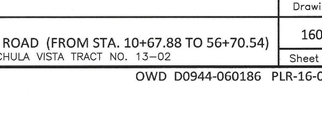


Revision	By	Approved	Date
ORIGINAL		Kerchevall	12/78
Add Words		T. Stanton	03/93
UPDATE		M. Core	05/01

SAN DIEGO REGIONAL STANDARD DRAWING
AUTOMATIC CONTROLLER PEDESTAL MOUNTED
RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
Chairperson S.D.C. 19245 Date
DRAWING NUMBER I–17

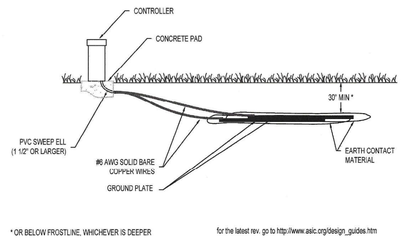
A1 AUTOMATIC CONTROLLER

TOP VIEW



DO NOT INSTALL ANY OTHER WIRES OR CABLE WITHIN THE SPHERE OF INFLUENCE

SIDE VIEW



* OR BELOW FROSTLINE, WHICHEVER IS DEEPER

for the latest rev. go to http://www.asic.org/design_guides.htm

A2 CONTROLLER GROUNDING UP TO 64 STATIONS, ALL SOILS — SECTION – NO SCALE

STATION NUMBER — 22 — CONTROLLER — BB
DISCHARGE (GPM) — 19 — VALVE SIZE — 1"

VALVE CALL–OUT SYMBOL FOR C.F.D. AND/OR HOA AREAS

LRWS 2019–1116

OTAY WATER DISTRICT

PROJECT # D0944-060106

PZ 624 RPZ 680

REVIEWED BY: Signature 8/15/17 DATE:

NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

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: 4/19/21

PRINT NAME: THOMAS A PICARD R.L.A. # 4001

DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/21

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — CALIFORNIA — Signature 8/30/17 — 4/19/21

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

DATE:	17 JUL '17
SCALE:	NO SCALE
JOB NO.	15021
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR 837C

CONSTRUCTION RECORD	REFFERENCES	BY
Contractor	OR-837C	HUNSAKER & ASSOC.
Inspector	OR-837G	HUNSAKER & ASSOC.
Date Completed		

REVISIONS	Date	App'd
1 FINAL OWD AS-BUILT	5/11/21	

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. (FF# 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A; Vertical N/A

Office ____ Field ____ Traffic ____

Designed By T.P. Drawn By T.G. / A.P. Checked By T.P.

Plans Prepared Under Supervision Of: THOMAS A. PICARD Date 7/10/17 R.L.A. No. 4001

Approved: Director of Development Services or Designee Date: 8/30/17

CITY OF CHULA VISTA

LANDSCAPE IRRIGATION EQUIPMENT LEGEND AND NOTES FOR: OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54) CHULA VISTA TRACT NO. 13–02

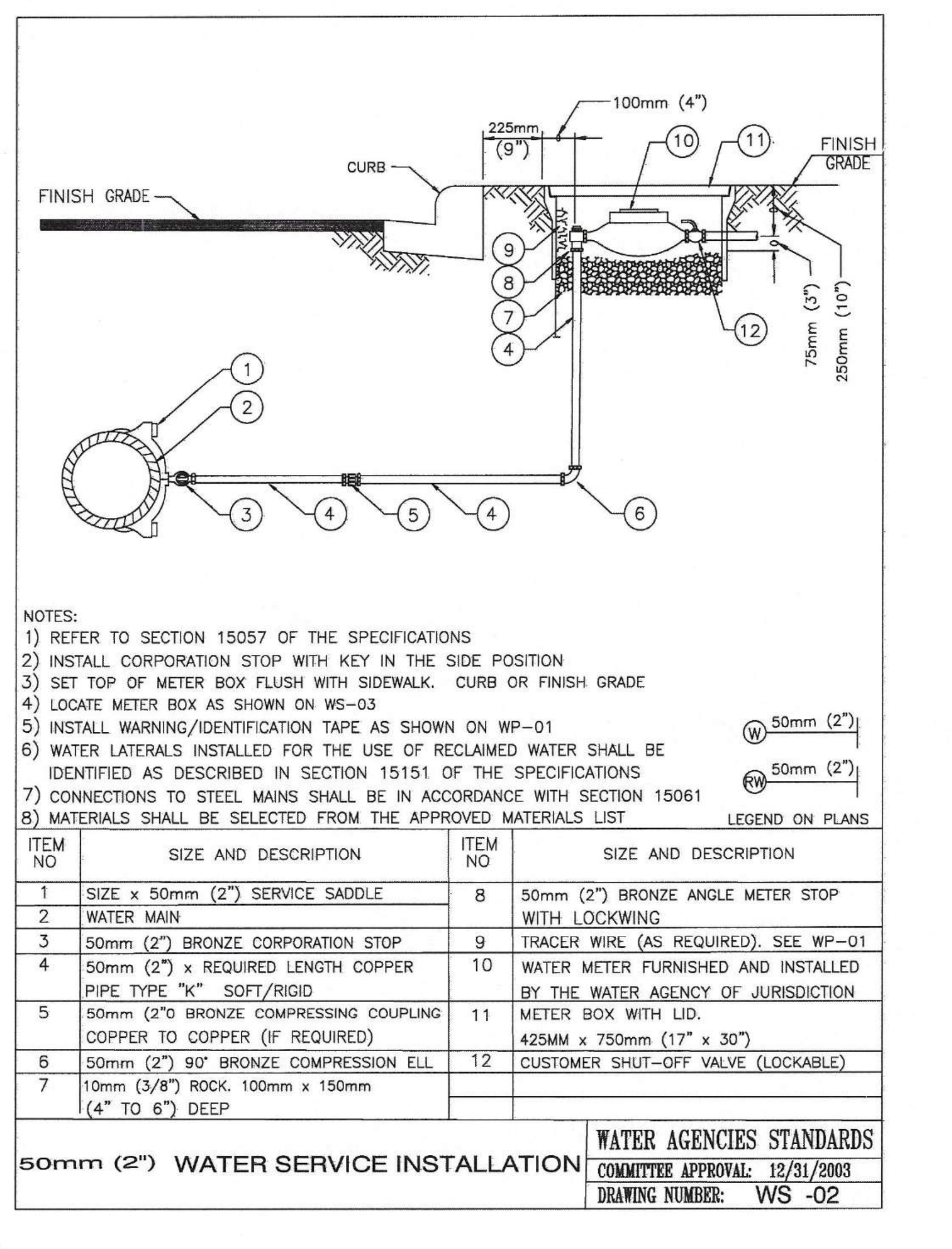
Drawing No. 16044 - -24 Sheet 24 of 44

OWD D0944-060186 PLR-16-011 LI-10

Print Date: 17 JUL '17

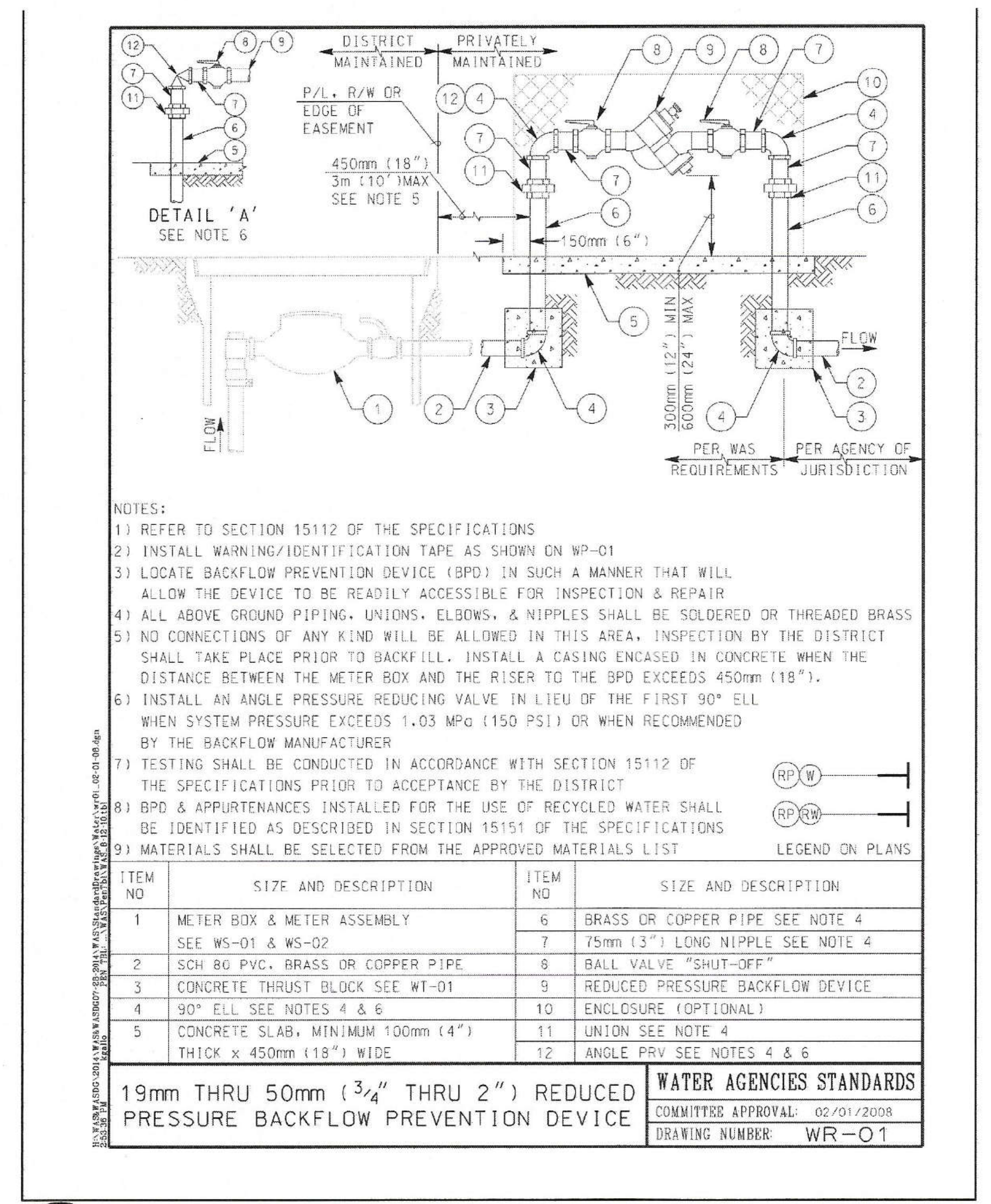
OWD PROJ # D0944-060186

Otay Ranch Village 3 Heritage Road



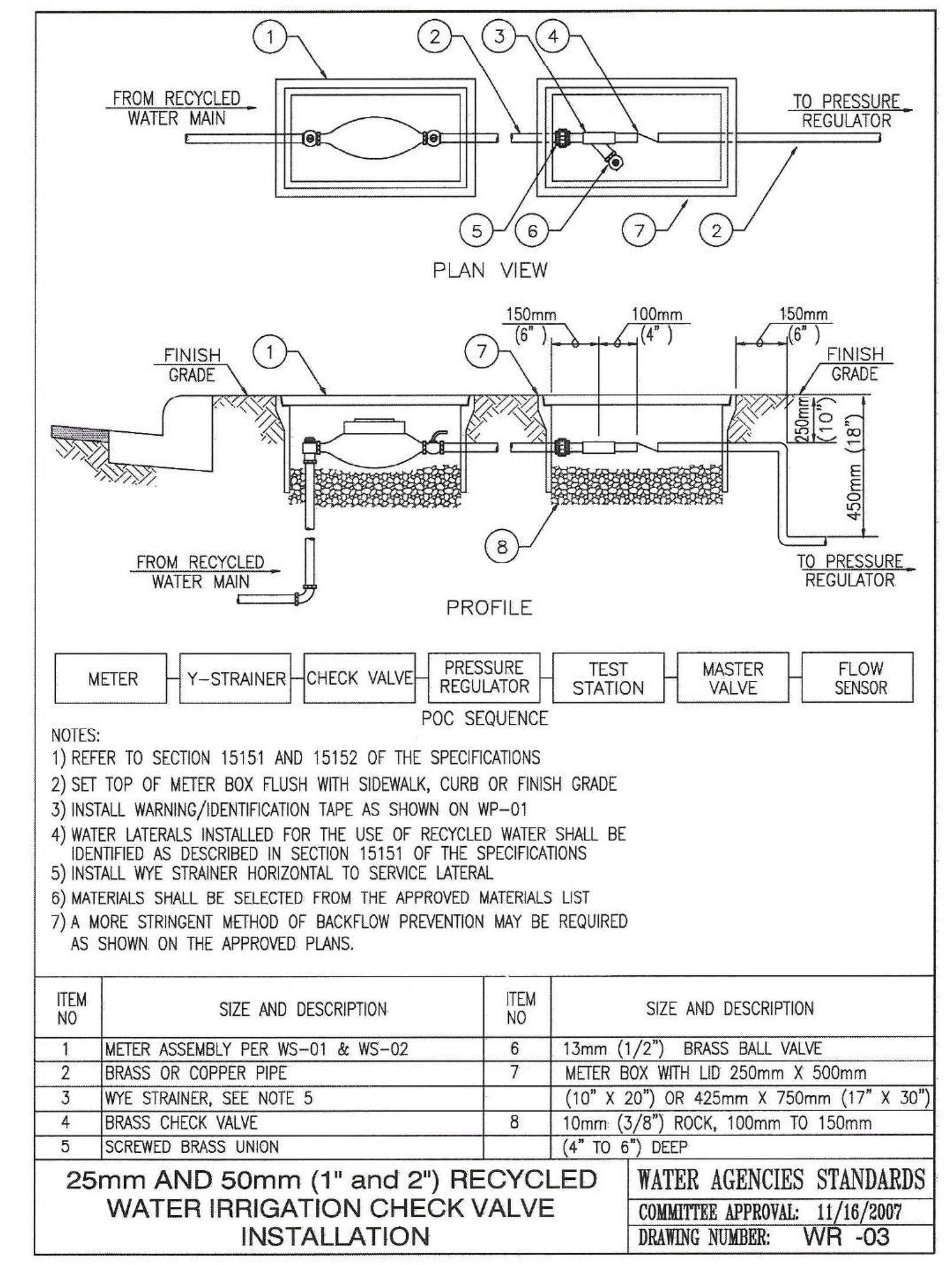
B1 2" COPPER SERVICE INSTALLATION

SECTION – NO SCALE



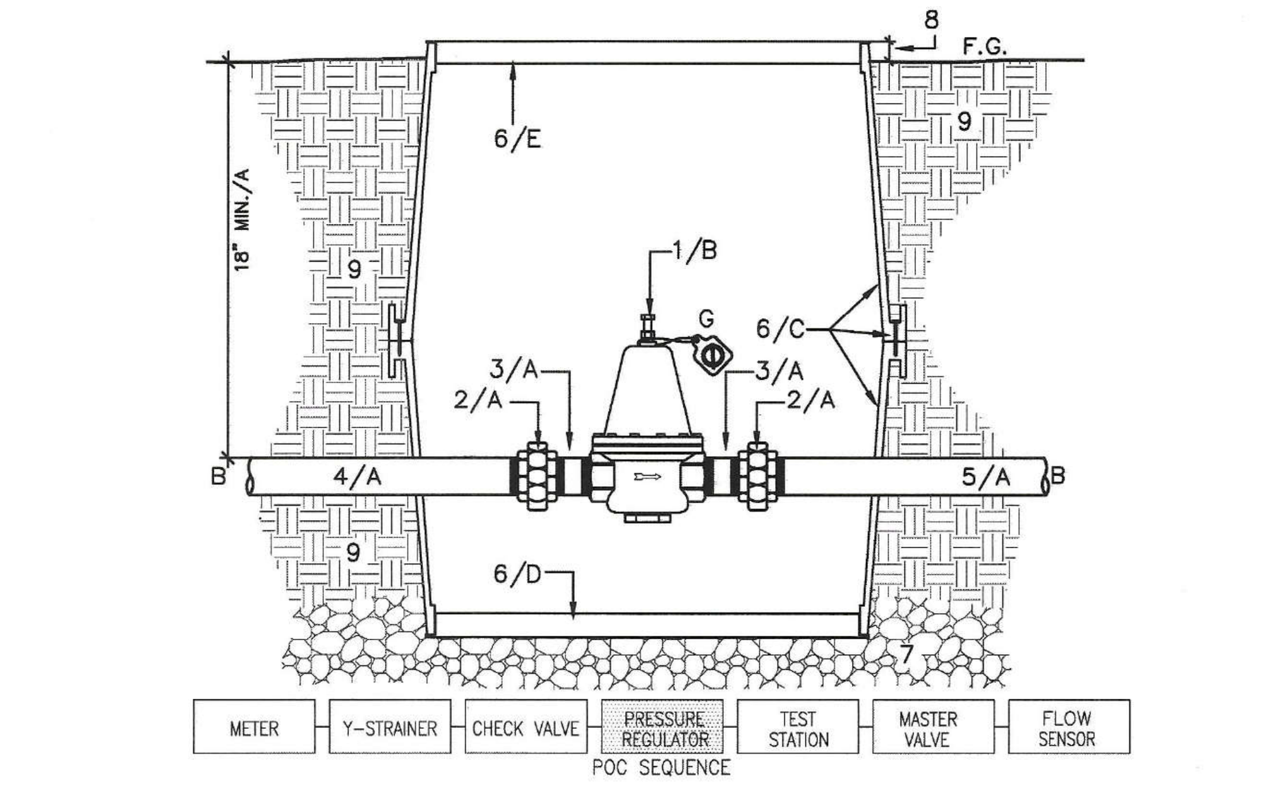
B2 BACKFLOW PREVENTION DEVICE

SECTION – NO SCALE



B3 RECYCLED WATER CHECK VALVE

SECTION – NO SCALE

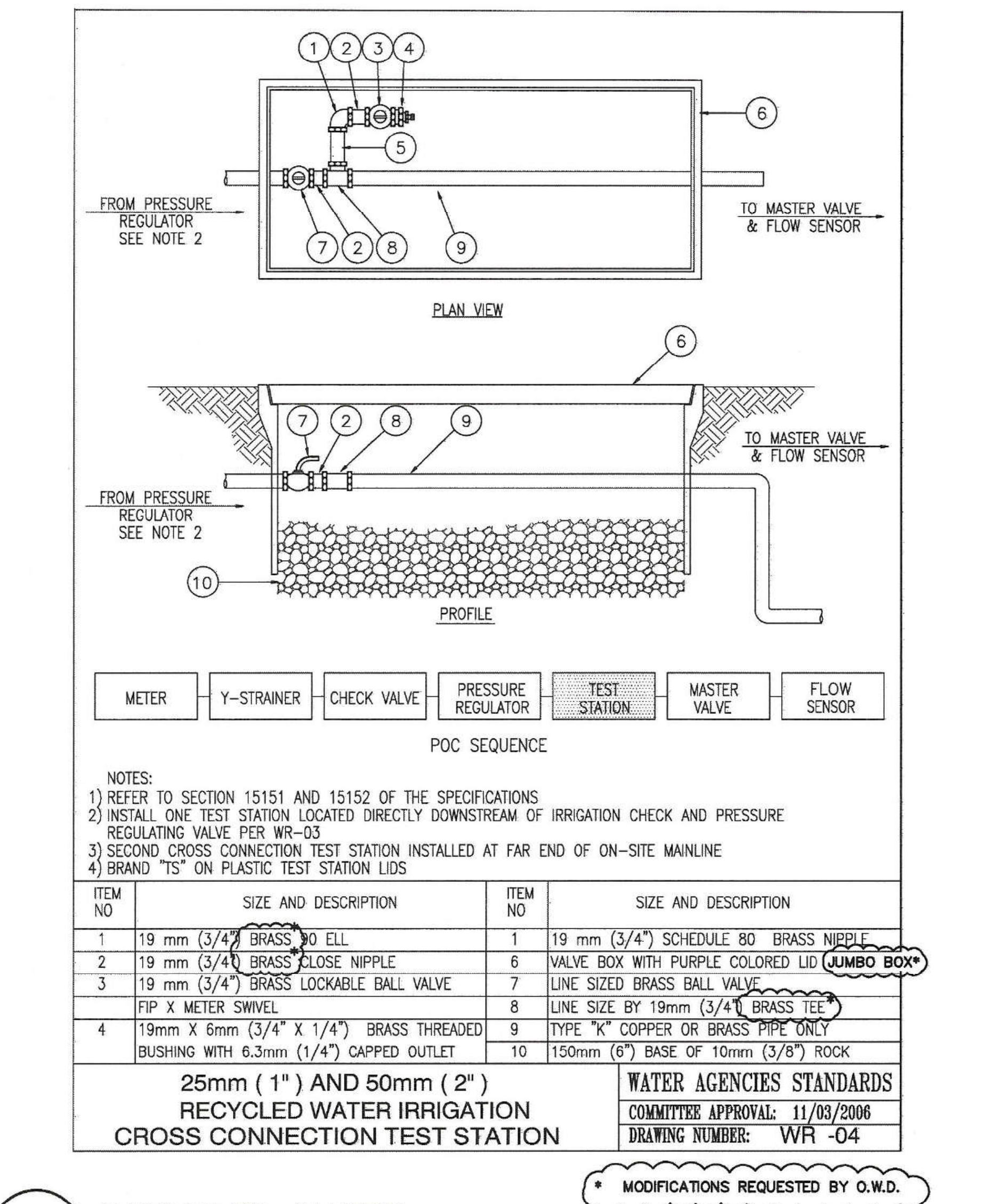


1– BRASS PRESSURE REGULATOR.
2– BRASS UNION– CLASS 150 LBS.
3– BRASS NIPPLE.
4– THREADED BRASS PIPE FROM CHECK VALVE.
5– THREADED BRASS PIPE TO TEST STATION.
6– STANDARD RECT. DURA DRI-BOX– #123-DB-2-DS W/ PURPLE LOCKING LID.
7– 3/8" GRAVEL LEVELING PAD, 3" DEEP MIN.
8– AT FINISH GRADE IN TURF, 1" IN SHRUB AREA
9– UNDISTURBED OR COMPACTED SUBGRADE.

NOTE:
A. METALLIC PIPE TO BE 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 DRAWING.
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.

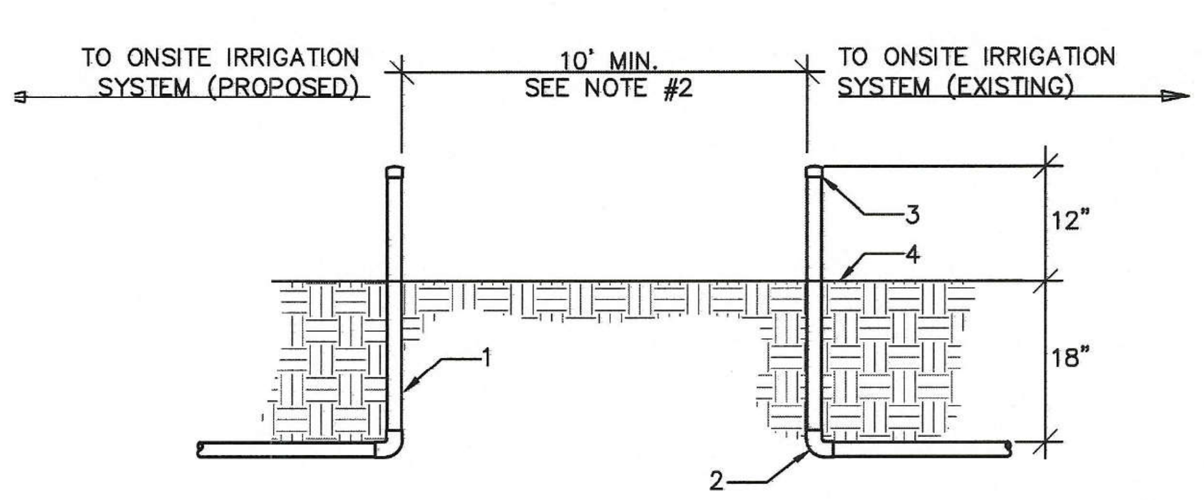
B4 1"&1.5" PRESSURE REGULATING VALVE WITH UNIONS

SECTION – NO SCALE



B5 RECYCLED WATER CROSS CONNECTION TEST STATION

SECTION – NO SCALE



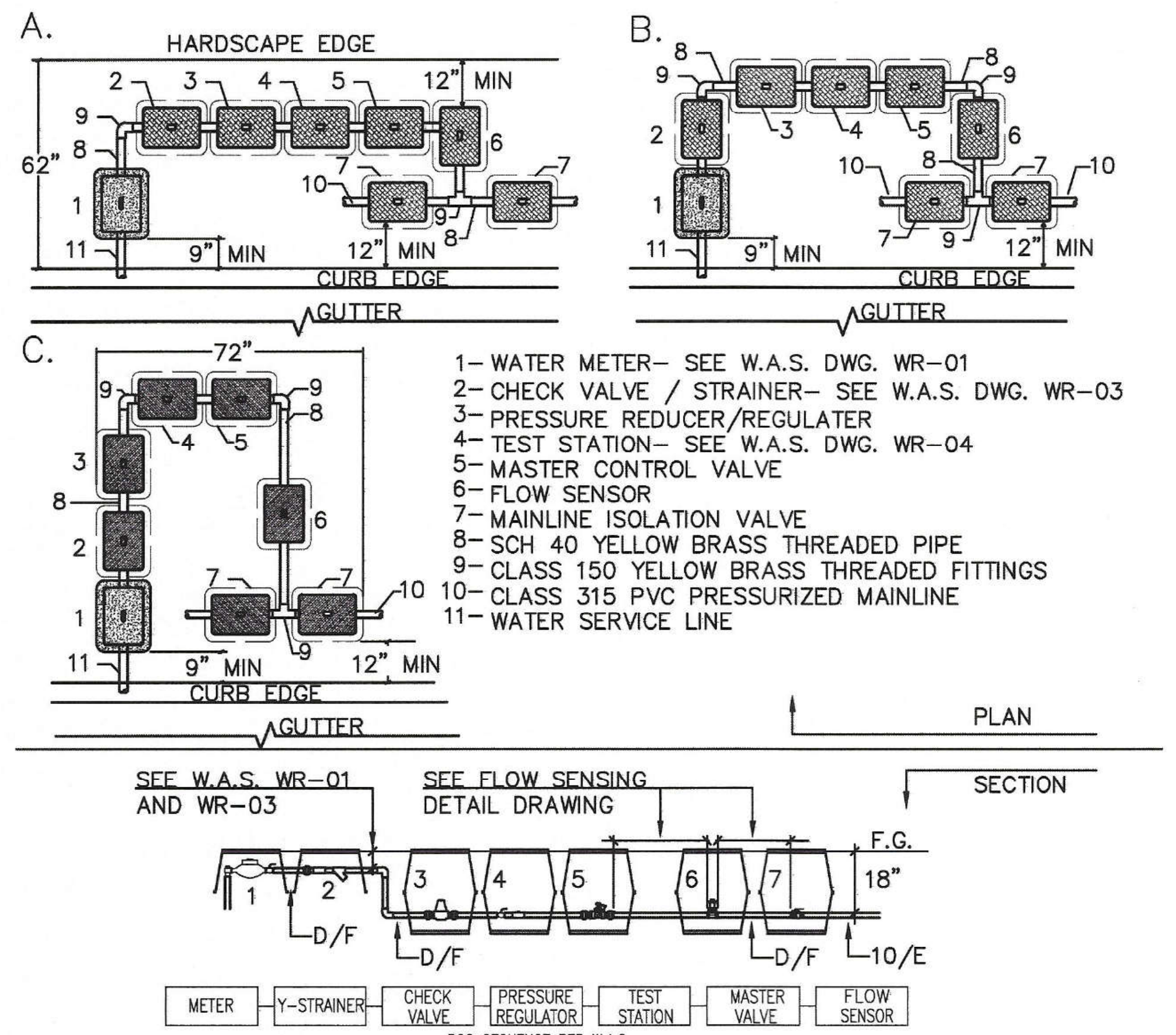
1–PROPOSED IRRIGATION MAINLINE– SEE NOTE #3
2–EXISTING IRRIGATION MAINLINE
3–STUB-OUT WITH SOLVENT-WELD CAP
4–EXISTING GRADE

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 WATER DISTRICT.
4. CONTRACTOR SHALL PERFORM FINAL CONNECTION WITH DISTRICT REPRESENTATIVE (S) 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.'

B6 TIE-IN SEPARATION

SECTION – NO SCALE

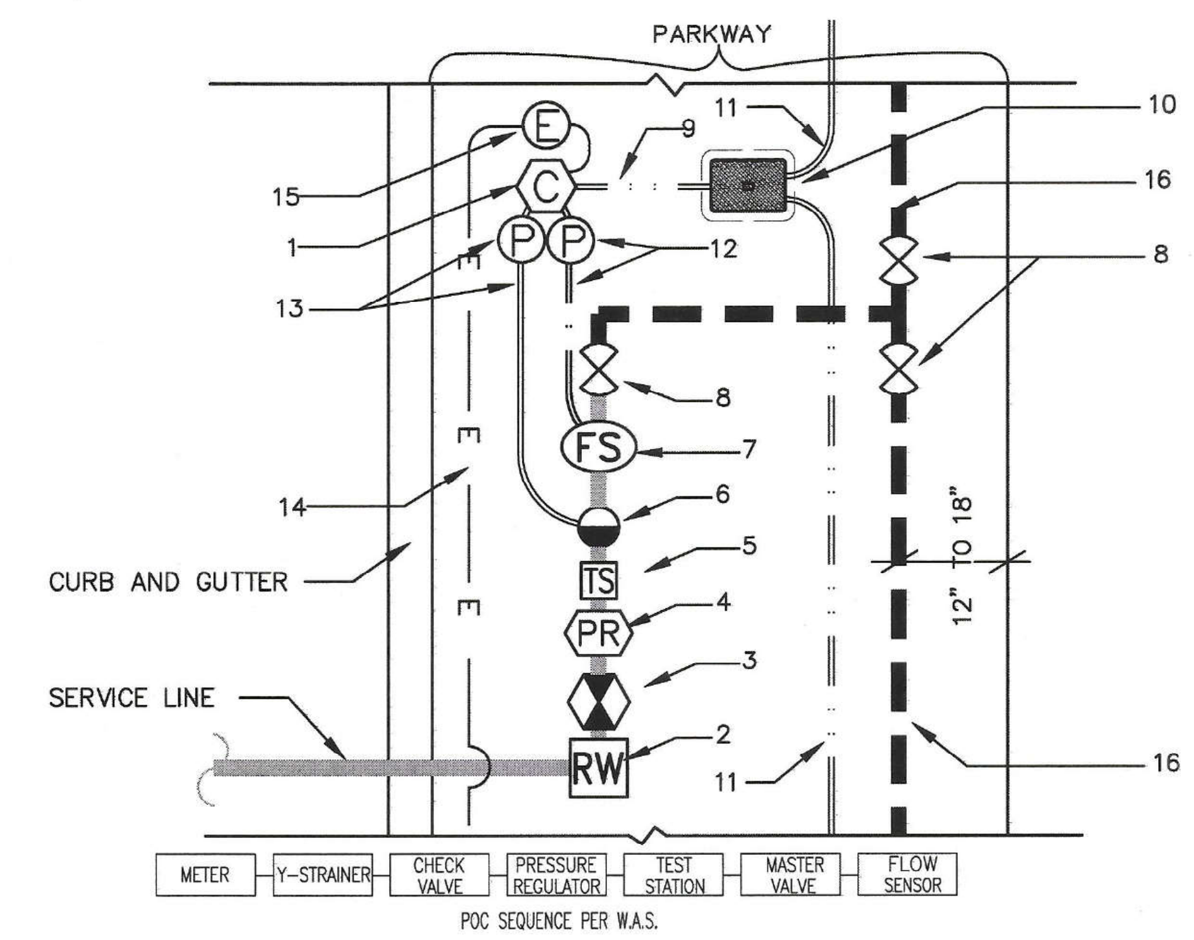


1– WATER METER– SEE W.A.S. DWG. WR-01
2– CHECK VALVE / STRAINER– SEE W.A.S. DWG. WR-03
3– PRESSURE REDUCER/REGULATER
4– TEST STATION– SEE W.A.S. DWG. WR-04
5– MASTER CONTROL VALVE
6– FLOW SENSOR
7– MAINLINE ISOLATION VALVE
8– SCH 40 YELLOW BRASS THREADED PIPE
9– CLASS 150 YELLOW BRASS THREADED FITTINGS
10– CLASS 315 PVC 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 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 THROUGH THE MASTER VALVE TO BE SIZED EQUAL TO METER SIZE.

B7 SUGGESTED POINT OF CONNECTION ARRANGEMENT

SECTION/PLAN – NO SCALE

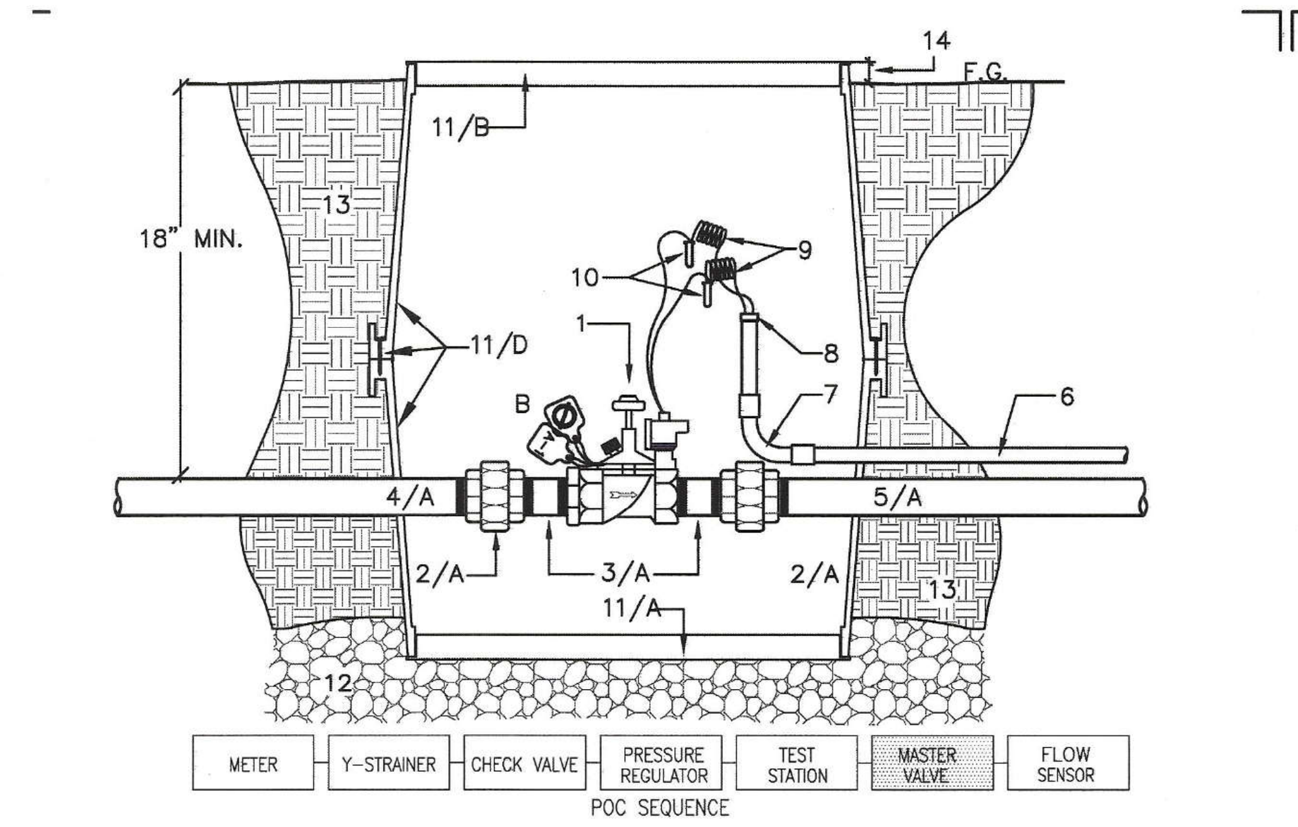


1– IRRIGATION CONTROLLER. SEE CONTROLLER DETAIL-SECTION VIEW.
2– WATER METER-W.A.S. WS-02
3– STRAINER/CHECK VALVE-W.A.S. WR-03
4– PRESSURE REGULATOR
5– TEST STATION-W.A.S. WR-04
6– MASTER CONTROL VALVE.
7– FLOW SENSOR.
8– MAINLINE ISOLATION VALVES.
9– CONTROL WIRE CONDUIT TO PULL BOX.
10– CONTROL WIRE 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.

B8 POC AND CONTROL EQUIPMENT, ELECTRICAL CABLE, CONTROL WIRE ROUTING SCHEMATIC

SCHEMATIC

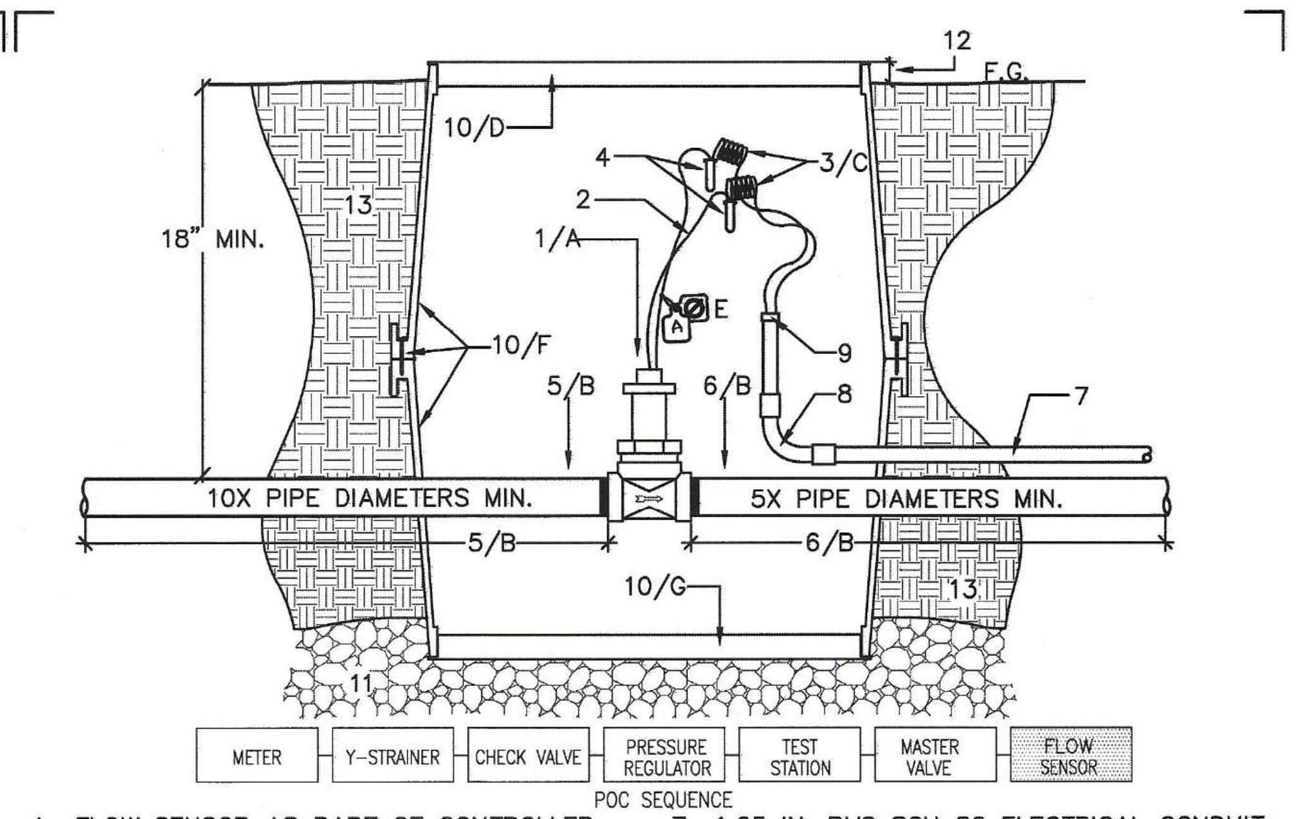


1– MASTER CONTROL VALVE–SIZED EQUAL TO METER SIZE
2– BRASS UNION –VALVE SIZE–
3– BRASS NIPPLE –VALVE SIZE –L.A.R.
4– BRASS PIPE FROM TEST STATION– SINGLE SECTION, THREADED.
5– BRASS PIPE TO FLOW SENSOR– SINGLE SECTION, THREADED.
6– 1.25" PVC SCH 80 ELECT. CONDUIT FROM PULL BOX AT CONTROLLER
7– 1.25" PVC SCH 80 ELECT. CONDUIT SWEEP ELL.
8– 1.25" PVC SCH 80 CONDUIT BUSHING.
9– CONTROL WIRES– MCV STATION WIRE AND COMMON. COIL EACH W/ 4' EXTRA WIRE.
10– WATERPROOF WIRE SPLICE– 3M DBY.
11– STANDARD RECT. DURA DRI-BOX– #123-DB-2-DS W/ PURPLE LOCKING LID.
12– 3/8" PEA 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.
C. CONTRACTOR SHALL INCLUDE A CHRISTY'S R.W. WARNING TAG AND IRRIGATION I.D. 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.

C1 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. #123-DB-S 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 9516-2SP.
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.

C2 FLOW SENSOR

SECTION – NO SCALE

INSPECTION NOTE

* 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.

OMISSION STATEMENT

*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAY GROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.

SPECIAL NOTES:

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.

REGISTERED LANDSCAPE ARCHITECT – THOMAS A. PICARD – 4001 – Signature 9/30/21 – Renewal Date 4/19/21 – Date – CALIFORNIA

LRWS 2019-1116

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
REVIEWED BY: DATE: 8/15/17
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

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: 4/19/21
PRINT NAME: THOMAS A PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/21

REGISTERED LANDSCAPE ARCHITECT – THOMAS A. PICARD – 4001 – 9/30/17 – 7/18/17 – CALIFORNIA

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

DATE:	17 JUL '17
SCALE:	NO SCALE
JOB NO.	15021
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	(C) FINAL OWD AS-BUILT	5/11/21	
Inspector	OR-837G	HUNSAKER & ASSOC.			
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)

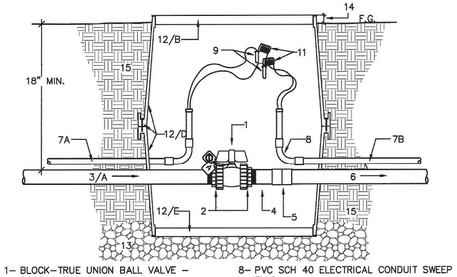
SCALE: Horizontal N/A; Vertical N/A
Office ____ Field ____ Traffic ____
Designed By T.P. | Drawn By T.G. / A.P. | Checked By T.P.
Plans Prepared Under Supervision Of THOMAS A. PICARD Date 7/18/17 R.L.A. No. 4001
Approved: P. Fermán, PLA Date: 8/30/17 Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION DETAIL DRAWINGS FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 25
Sheet 25 of 44

OWD D0944-060186 PLR-16-011 LI-11

Print Date: 17 JUL '17
OWD PROJ # D0944-060186
Otay Ranch Village 3 Heritage Road



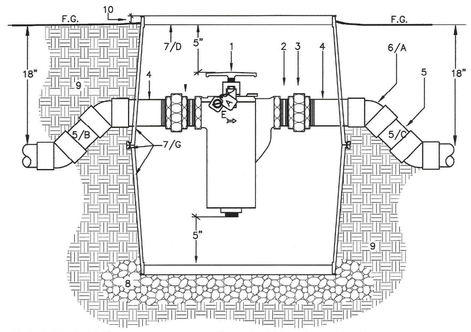
1– BLOCK–TRUE UNION BALL VALVE – SCH 80 PVC.
2– INTEGRAL UNIONS
3– BRASS PRESSURE MAIN FROM FLOW SENSOR. SIZED EQUAL TO SENSOR. PVC SCH 80 NIPPLE – T.O.E.
4– PVC SCH 80 SS COUPLING–MAINLINE SIZE
5– PVC PRESSURE MAIN TO IRRIGATION SYSTEM
6– – SIZE PER PLAN PVC SCH 40 ELECTRICAL CONDUIT.
7– SIZED AS REQUIRED FOR WIRE BUNDLE– 1–1/2" MINIMUM. A–FROM CONTROLLER B–ON A CONTINUE RUN

NOTE:
THIS IS THE FIRST MAINLINE ISOLATION VALVE AS CLOSE AS IS PRACTICAL DOWNSTREAM OF THE POC AS REQUIRED BY THE CITY OF CHULA VISTA.

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.

8– PVC SCH 40 ELECTRICAL CONDUIT SWEEP ELLS.
9– WIRE SPLICE – 3M DBY. IF REQUIRED
10–CONTROL WIRES WITH SPARE STATION WIRES
11–LOOPED INTO EACH ISOLATION VALVE BOX ON MAINLINE RUN.
12–STANDARD RECT. DURA DRI–BOX. #123–DB–S W/ PURPLE BOX AND 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.

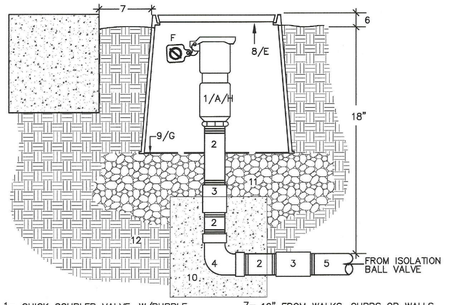
C3a BALL VALVE FOR MAINLINE ISOLATION AT POC WITH CONTROL WIRE IN CONDUIT — SECTION – NO SCALE



1– BASKET STRAINER.
2– BRASS NIPPLE.
3– BRASS UNION–TYP.
4– PVC SCH 80 NIPPLE–T.O.E.
5– PVC CLASS 315 MAINLINE–TYP.
6– PVC SCH 80 45 DEGREE ELLS –TYP. 4 PLACES.
7– STANDARD RECT. DURA DRI–BOX. #123–DB–S PURPLE BOX AND PURPLE LOCKING LID.
8– 3/8" PEA GRAVEL SUMP AND LEVELING PAD. 3" DEEP MINIMUM.
9– UNDISTURBED OR COMPACTED SUB–GRADE.
10– FLUSH IN TURF, 1" IN GROUND COVER.
11– RECYCLED WATER WARNING TAG

NOTE:
A. 4–45 DEGREE PVC SCH 80 ELBOW FITTINGS SHALL BE USED TO RAISE VALVE HANDLE TO WITHIN 5" OF BOX LID.
B. PRESSURE LINE FROM CONTROL HEAD.
C. PRESSURE LINE TO DOWNSTREAM STATION RCV'S.
D. VALVE BOX SHALL BE BRANDED AS SHOWN IN VALVE BOX INSTALLATION AND IDENTIFICATION DETAIL DRAWING.
E. CONTRACTOR SHALL INCLUDE A CHRISTY'S R.W WARNING AND CONTROLLER I.D. TAG. RECYCLED WATER WARNING TAG AND TO BE IN ENGLISH AND SPANISH. TAGS SHALL BE ATTACHED TO YOKE.
F. TWO VALVE BOXES, BOTTOMS FACE–TO–FACE, ATTACHED WITH STAINLESS STEEL COARSE THREADED SCREWS– ONE AT EACH CORNER.
G. GASKET AT LID OF INVERTED VALVE BOX REMOVED TO ALLOW DRAINAGE.

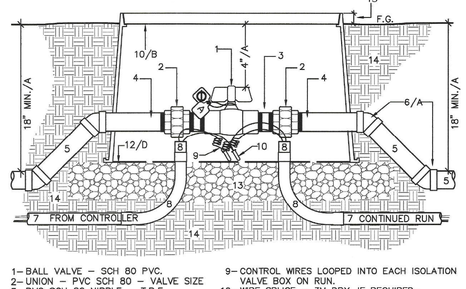
C4 BASKET STRAINER — SECTION – NO SCALE



1– QUICK COUPLER VALVE. W/PURPLE LOCKING COVER AND ACME THREAD
2– BRASS RISER/NIPPLE. – LENGTH AS REQUIRED.
3– BRASS COUPLING–THREADED
4– BRASS REDUCING ELL. 1.5" X 1"
5– PVC SCH 80 1.5" NIPPLE FROM MANIFOLD ISOLATION VALVE
6– AT F.G. IN TURF– 1" IN SHRUB AREA.
7– 12" FROM WALKS, CURBS OR WALLS.
8– 12" ROUND DURA DRI–BOX. #103–DB–2–DS W/ PURPLE LOCKING LID.
9– DIRT SKIRT OF THE DURA DRI–BOX.
10– 1 CU.FT. CONCRETE THRUST BLOCK –SEE SPECS
11– 3/8" GRAVEL SUMP AND LEVELING PAD, 6" DEEP MINIMUM.
12– UNDISTURBED/COMPACTED SUBGRADE

NOTE:
A. ALL QCV'S TO BE ISOLATED DOWNSTREAM OF AN ISOLATION BALL VALVE.
B. USE TEFLON TAPE ON ALL THREADED CONNECTIONS.
C. MIN. LINE SIZE SUPPLYING 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.

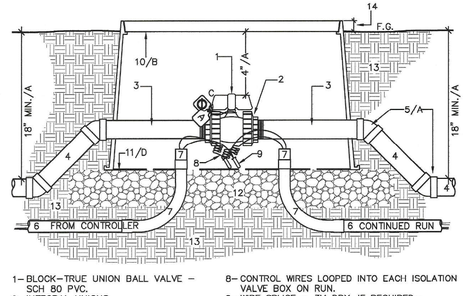
C5 QUICK COUPLER VALVE IN BOX — SECTION – NO SCALE



1– BALL VALVE – SCH 80 PVC.
2– UNION – PVC SCH 80 – VALVE SIZE
3– PVC SCH 80 NIPPLE – T.B.E.
4– PVC SCH 80 NIPPLE – T.O.E.
5– PVC PRESSURE MAIN – TYP.
6– PVC SCH 80 45 DEGREE ELLS – TYP. 4 PLACES.
7– PVC SCH 40 ELECTICAL CONDUIT –SIZED AS REQUIRED FOR WIRE BUNDLE; 1–1/2" MINIMUM.
8– PVC SCH 40 ELECTRICAL CONDUIT SWEEP ELLS AND CONDUIT BUSHINGS.
9– CONTROL WIRES LOOPED INTO EACH ISOLATION VALVE BOX ON RUN.
10– WIRE SPLICE – 3M DBY. IF REQUIRED– MUST BE WITHIN VALVE BOX.
11– STANDARD RECT. DURA DRI–BOX. #123–DB–S–DS W/ PURPLE BOX AND PURPLE LOCKING LID.
12– DIRT SKIRT OF THE DURA DRI–BOX.
13– 3/8" GRAVEL SUMP AND LEVELING PAD, 3" DEEP MINIMUM.
14– UNDISTURBED OR COMPACTED SUBGRADE.
15– AT FINISH GRADE IN TURF, 1" IN SHRUB AREA

NOTE:
A. 4–45 DEGREE PVC SCH 80 ELBOW FITTINGS SHALL BE USED TO RAISE BALL VALVE 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.
E. SPLICING OF CONTROL WIRE WITHIN BOX ONLY OR, WITH APPROVAL OF OWNER REP.

C6a BALL VALVE (2.5" AND LARGER) FOR MAINLINE ISOLATION WITH CONTROL WIRE IN CONDUIT — SECTION – NO SCALE



1– BLOCK–TRUE UNION BALL VALVE – SCH 80 PVC.
2– INTEGRAL UNIONS
3– PVC SCH 80 NIPPLE – T.O.E.
4– PVC PRESSURE MAIN – TYP.
5– PVC SCH 80 45 DEGREE ELLS – TYP. 4 PLACES.
6– PVC SCH 40 ELECTICAL CONDUIT –SIZED AS REQUIRED FOR WIRE BUNDLE; 1–1/2" MINIMUM.
7– PVC SCH 40 ELECTRICAL CONDUIT SWEEP ELLS AND CONDUIT BUSHINGS.
8– CONTROL WIRES LOOPED INTO EACH ISOLATION VALVE BOX ON RUN.
9– WIRE SPLICE – 3M DBY. IF REQUIRED– MUST BE WITHIN VALVE BOX.
10– STANDARD RECT. DURA DRI–BOX. #123–DB–S–DS W/ PURPLE BOX AND PURPLE LOCKING LID.
11– DIRT SKIRT OF THE DURA DRI–BOX.
12– 3/8" GRAVEL SUMP AND LEVELING PAD, 3" DEEP MINIMUM.
13– UNDISTURBED OR COMPACTED SUBGRADE.
14– ALL STATION AND R.W. WARNING TAG

NOTE:
A. 4–45 DEGREE PVC SCH 80 ELBOW FITTINGS SHALL BE USED TO RAISE BALL VALVE 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.
E. SPLICING OF CONTROL WIRE WITHIN BOX ONLY OR, WITH APPROVAL OF OWNER REP.

C6b BALL VALVE (2" AND SMALLER) FOR MAINLINE ISOLATION WITH CONTROL WIRE IN CONDUIT — SECTION – NO SCALE

1– PVC SCH 80 BALL VALVE WITH INTEGRAL UNIONS.
2– PVC SCH 80 NIPPLE – T.O.E.
3– PVC SCH 80 COUPLING
4– PVC SCH 80 PIPE – TYP.
5– PVC SCH 80 45 DEGREE ELLS – TYP. 2 PLACES.
6– PVC SCH 80 TEE ON RCV MANIFOLD
7– PVC SCH 40 ELECTICAL CONDUIT, SWEEP ELLS AND BUSHINGS– SIZED AS REQ. FOR WIRE BUNDLE – 1.5" MINIMUM.
8– CONTROL WIRES IN CONDUIT FROM CONTROLLER TO ISOLATION VALVE BOX.
9– CONTROL WIRES IN CONDUIT TO RCV MANIFOLD – CONDUIT 1.25" MINIMUM.
10– SPARE CONTROL WIRES ON CONTINUED RUN.
11– WATERPROOF CONNECTORS– 3M DBY OR EQUAL.
12– STANDARD RECT. DURA DRI–BOX. #123–DB–2–DS – PURPLE BOX W/ PURPLE LOCKING LID.
13– DIRT SKIRT OF THE DURA DRI–BOX.
14– 3/8" GRAVEL SUMP AND LEVELING PAD, 3" DEEP MINIMUM.
15– UNDISTURBED OR COMPACTED SUBGRADE.
16– 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 AS SHOWN IN VALVE BOX INSTALLATION AND IDENTIFICATION DETAIL DRAWING.
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.
E. DEPTH AS REQUIRED FOR PROPER MANIFOLD INSTALLATION.

C6c 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. #123–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. FLUSH IN TURF, 1" IN GROUNDCOVER.
18– BRASS PLUG

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 DURA DRI–BOX TO BE DRILLED FOR DRAINAGE AND/OR NEATLY CUT AROUND PENETRATIONS.
F. DEPTH AS REQUIRED FOR PROPER MANIFOLD INSTALLATION.

C7 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 FITTING
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.

C8 ELECTRICAL COUNDUIT, PULL BOX, AND VALVE MANIFOLD — SECTION – NO SCALE

1– VALVE BOX – DRI–BOX BY DURA PURPLE BOX AND LID FOR USE OF R.W. GREEN BOX AND LID 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– 3/8" 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

C9 VALVE BOX — SECTION and PLAN – 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 SHALL BE DBY OR DBY–6 DIRECT BURY SPLICE KIT BY THE 3M COMPANY. KIT SHALL INCLUDE A SCOTCHLOK SPRING CONNECTOR, A POLYPROPYLENE TUBE AND A
C. WATERPROOF SEALING GEL. TUBE SHALL BE SUPPLIED PREFILLED WITH GEL.
D. DIRECT BURY SPLICE KIT 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.

C10 WATERPROOF WIRE CONNECTOR/SPLICE — SECTION – NO SCALE

INSPECTION NOTE

* 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.

OMISSION STATEMENT

*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAY GROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.

SPECIAL NOTES:

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.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 9/30/21 — CALIFORNIA

LRWS 2019–1116

OTAY WATER DISTRICT

PROJECT # D0944-060186
PZ 624 RPZ 680

REVIEWED BY: 8/15/17 DATE:

NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

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: 4/19/21
PRINT NAME: THOMAS A PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT
REGIST. EXP. 9/30/21

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 9/30/17 — CALIFORNIA

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

DATE:	17 JUL '17
SCALE:	NO SCALE
JOB NO.	15021
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	1 FINAL OWD AS-BUILT	5/11/21	
Inspector	OR-837G	HUNSAKER & ASSOC.			
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. (PID 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE	Office	Designed By	Drawn By	Checked By
Horizontal N/A	Field	T.P.	T.G. / A.P.	T.P.
Vertical N/A	Traffic	Plans Prepared Under Supervision Of: THOMAS A. PICARD	Date 7/10/17 R.L.A. No. 4001	

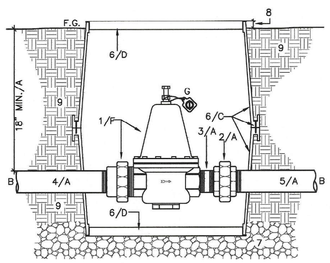
Approved: P. Jerman, PLA Date: 8/30/17
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION DETAIL DRAWINGS FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13–02

Drawing No. 16044 - 26
Sheet 26 of 44

OWD PROJ # D0944-060186
Otay Ranch Village 3 Heritage Road
Pmnt Date: 17 JUL '17

OWD D0944-060186 PLR-16-011 LI-12



1– BRASS PRESSURE REGULATOR. WITH INTEGRAL UNION
2– BRASS UNION– CLASS 150 LBS.
3– BRASS NIPPLE– SCH 40.
4– PVC CL 315 MAINLINE FROM SOURCE
5– PVC CL 315 MAINLINE TO SYSTEMS OF THE CREATED LOWER PRESSURE ZONE.
6– STANDARD RECT. DURA DRI–BOX– #123–DB–2–DS W/ PURPLE LOCKING LID.
7– 3/8" GRAVEL LEVELING PAD, 3" DEEP MIN.
8– AT FINISH GRADE IN TURF, 1" IN SHRUB AREA
9– UNDISTURBED OR COMPACTED SUBGRADE.

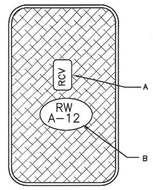
NOTE:
A. METALLIC PIPE TO BE SCH 40 IPS THREADED YELLOW BRASS. METALLIC FITTINGS TO BE CLASS 150 LBS YELLOW BRASS.
B. ALL PLUMBING AND INCLUDED APPURTENANCE TO BE SIZED EQUAL TO PIPE SIZE– 2" MAXIMUM. INCLUDE REDUCING BUSHINGS AS REQUIRED.
C. TWO VALVE BOXES, BOTTOMS FACE–TO–FACE, ATTACHED WITH STAINLESS 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 DRAWING.
F. SET PRESSURE AS NOTED ON THE DRAWINGS.
G. CONTRACTOR SHALL INCLUDE A CHRISTY'S R.W. WARNING AND CONTROLLER I.D. TAG INDICATING CONTROLLER/POC. RECYCLED WATER WARNING TAG AND TO BE IN ENGLISH AND SPANISH.

C11 2" PRESSURE REGULATING VALVE WITH UNIONS
SECTION – NO SCALE

IDENTIFICATION GUIDE

POTABLE WATER	RECLAIMED WATER	CONTROLLER	DESIGNATION	
DW	RW	A	IRR COMM	COMMUNICATION SPLICES
DW	RW	A	(STATION #)	REMOTE CONTROL VALVES
DW	RW	A	MV	MASTER CONTROL VALVES
DW	RW	A	FS	FLOW SENSORS
DW	RW	A	GV	GATE VALVES
DW	RW	A	FI	FERTILIZER INJECTORS
DW	RW	A	BS	BASKET STRAINERS
DW	RW	A	MS	MOISTURE SENSORS
DW	RW	A	PB	PULL BOX
DW	RW	A	QC	QUICK COUPLERS
DW	RW	A	FVA	FLUSH VALVE ASSEMBLY
DW	RW	A	SLV	SLEEVE MARKER
DW	RW	A	BO	BLOW–OUT (MAINLINE)
DW	RW	A	DV	DRAIN VALVE
DW	RW	A	A/V	AIR/VACUUM RELIEF
DW	RW	A	DF	DISK FILTER

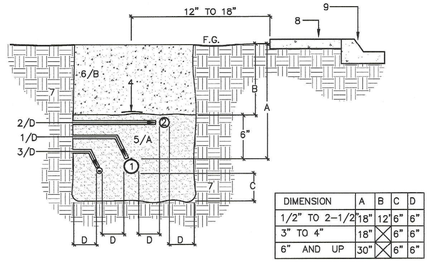
CONTACT IRRIGATION CONSULTANT FOR INFO ON ANY DEVICE IN A BOX NOT LISTED.



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 DEFOREM 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.

D VALVE BOX IDENTIFICATION AND INSTALLATION
SECTION – NO SCALE

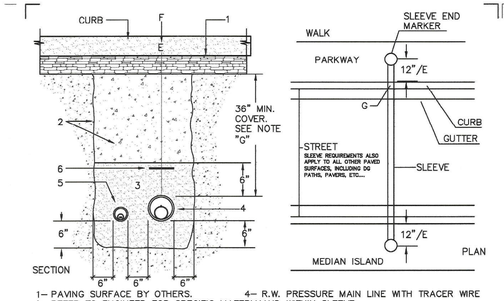


DIMENSION	A	B	C	D
1/2" TO 2–1/2"	18"	12"	6"	6"
3" TO 4"	18"	X	6"	6"
6" AND UP	30"	X	6"	6"

1– R.W. IRRIGATION MAINLINE WITH TRACER WIRE
2– R.W. IRRIGATION LATERAL LINE
3– DECODER CABLE AND/OR CONTROL WIRES IN PVC SCH 40 ELECTRICAL CONDUIT
4– DETECTABLE R.W. WARNING TAPE– 3" WIDE T.CHRISTY'S MOD.# TA–DA–3–PRW
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. TRACER WIRE TAPED TO TOP OF MAINLINE AT 3' INTERVALS.
F. SEE SPECIFICATIONS FOR 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 CONDUIT UNDER PAVING TO BE:
–30"TO 36" COVER UNDER ROADS AND DRIVES.
–18" TO 24" COVER UNDER WALKS.

E1 TRENCHING – PIPE AND LOW VOLTAGE WIRE
SECTION – NO SCALE

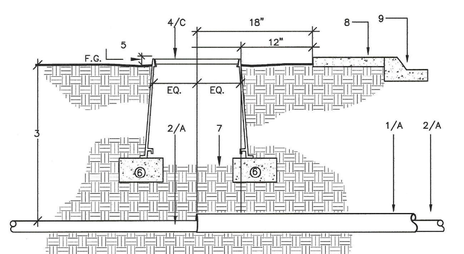


1– PAVING SURFACE BY OTHERS.
2– REFER TO ENGINEER FOR SPECIFIC MATERIA AND COMPACTION REQUIREMENTS. SAND BEDDING. SE30 OR BETTER–
3– PER CIVIL ENG. REQUIREMENTS.
4– R.W. PRESSURE MAIN LINE WITH TRACER WIRE AND WITHIN SLEEVE.
5– LOW VOLTAGE CONTROL WIRES IN CONDUIT WITHIN SLEEVE AS REQUIRED. SLEEVE SIZE AS REQUIRED.
6– DETECTABLE RW WARNING TAPE – 3" WIDE T.CHRISTY'S MOD.# TA–DA–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 AND SHALL BE PURPLE PIPE.
C. ALL SLEEVES TO BE SIZED TWICE THE DIA. OF INTERNAL PIPE OR CONDUIT (4" MIN.) INCLUDING SLEEVES FOR 120VAC, 24VAC, 2–WIRE, FLOW SENSOR, ETC...
D. ALL SLEEVES TO RUN A MIN. OF 12" TO 18" BEYOND HARDSCAPE EDGES.
E. SLEEVE ENDS SHALL BE MARKED WITH 10" ROUND VALVE BOX WITH PURPLE LOCKING COVER.
F. ETCH THE LETTER "E" INTO CURB DIRECTLY ABOVE THE SLEEVE. SEE ALSO SLEEVE MARKER DETAIL DRAWING.
G. DIMENSION FROM BOTTOM OF BASE MATERIAL TO TOP OF SLEEVE.
H. SLEEVES TO END IN SOIL AREA LARGE ENOUGH TO ALLOW ACCESS FOR REPAIRS
I. SLEEVE TO HAVE NO FITTINGS OTHER THAN EXTRUDED BELLED ENDS.
J. BENDS IN SLEEVES SHALL NOT BE LESS THAN MINIMUM BENDING RADIUS AS PUBLISHED BY THE PIPE MANUFACTURER.

E2 PIPE AND LOW VOLTAGE WIRE UNDER PAVING
SECTION AND PLAN – NO SCALE

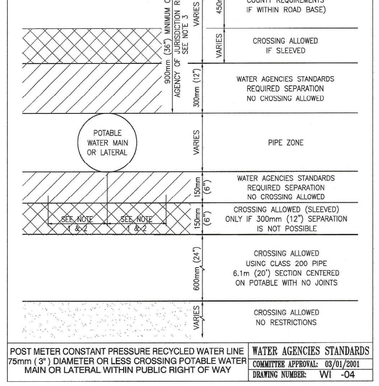


1– PVC SCH 40 OR 80 SLEEVE.
2– SLEEVED PIPE.
3– SEE SPECS. AND TRENCHING DETAILS.
4– 10" ROUND VALVE BOX.
5– FLUSH IN TURF, 1" IN GROUND COVER.
6– BRICK SUPPORT– ONE EACH SIDE
7– UNDISTURBED OR COMPACTED SUB–GRADE.
8– SIDEWALK
9– CURB AND GUTTER

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.

E3 SLEEVE MARKER
SECTION – NO SCALE

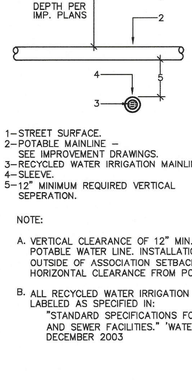
NOTES:
1) EXTEND SLEEVE 1.52m (5') ON EITHER SIDE OF POTABLE WATER LAT'S 75mm (3") DIA. OR SMALLER
2) EXTEND SLEEVE 3.05m (10') ON EITHER SIDE OF POTABLE WATER LATERALS 100mm (4") DIA. DIAMETER OR LARGER (NO JOINTS IN SLEEVE OR PIPE)
3) IF POTABLE WATER LINE HAS LESS THAN 900mm (36") COVER, RECYCLED WATER LINE MUST CROSS BELOW POTABLE WATER LINE
4) REFER TO THE WATER AGENCIES' STANDARDS DESIGN GUIDE FOR PIPE SEPARATION REQUIREMENTS



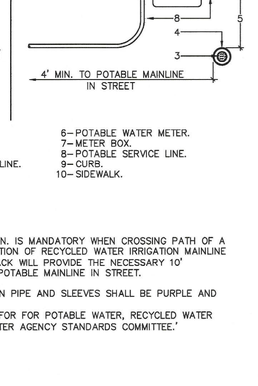
POST METER CONSTANT PRESSURE RECYCLED WATER LINE 75mm (3") DIAMETER OR LESS CROSSING POTABLE WATER MAIN OR LATERAL WITHIN PUBLIC RIGHT OF WAY	WATER AGENCIES STANDARDS
	COMMITTEE APPROVAL: 03/01/2001
	DRAWING NUMBER: WI -04

E4 RECYCLED / POTABLE PIPE CROSSING
SECTION – NO SCALE

RECYCLED WATER IRRIGATION PRESSURE LINE CROSSING POTABLE DISTRIBUTION LINE UNDER STREET PAVING



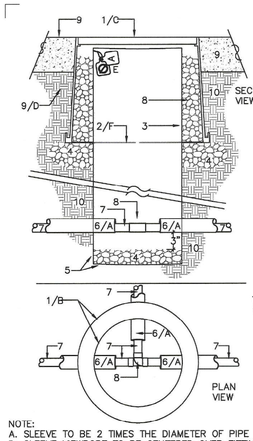
RECYCLED WATER IRRIGATION PRESSURE LINE CROSSING POTABLE SERVICE LINE



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

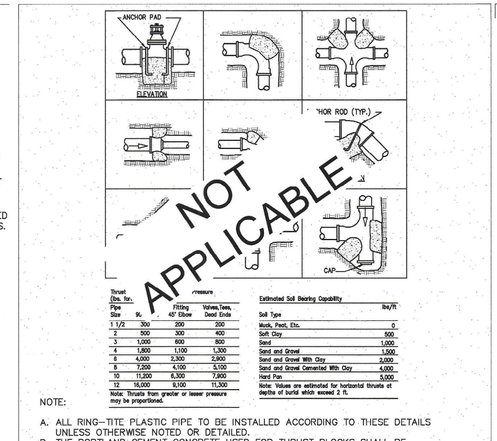
E5 RECYCLED WATER PRESSURE LINE CROSSING POTABLE WATER LINE
SECTION – NO SCALE



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, 3" 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– PAVING AND SUB–BASE PER CIVIL.
10– UNDISTURBED/COMPACTED SUBGRADE.
11– FLUSH IN TURF, 1" IN GROUNDCOVER.

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,

E7 VIEWPORT FOR SLEEVE UNDER PAVING
SECTION / PLAN – NO SCALE



Thrust (lbs. for Pipe Size	90° Elbow	45° Elbow	Valves, Tees, Dead Ends
1 1/2	300	200	200
2	500	300	400
3	1,000	600	800
4	1,800	1,100	1,500
6	4,000	2,300	2,900
8	7,200	4,100	5,100
10	11,300	6,300	7,900
12	16,000	9,100	11,500

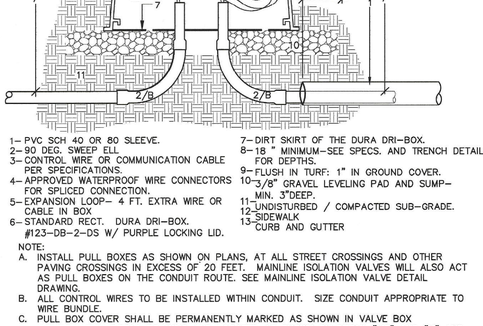
Note: Thrusts from greater or lesser pressure may be proportioned.

Estimated Soil Bearing Capability	
Soil Type	lbs/ft
Muck, Peat, Etc.	0
Soft Clay	500
Sand	1,000
Sand and Gravel	1,500
Sand and Gravel With Clay	2,000
Sand and Gravel Cemented With Clay	4,000
Hard Pan	5,000

Note: Values are estimated for horizontal thrusts at depths of burial which exceed 2 ft.

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.

E6 THRUST BLOCK FOR PLASTIC PIPE
SECTION – 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. #123–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. 3"DEEP.
11– UNDISTURBED / COMPACTED SUB–GRADE.
12– SIDEWALK
13– CURB AND GUTTER

NOTE:
A. INSTALL PULL 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 PULL BOXES ON THE CONDUIT ROUTE. SEE MAINLINE ISOLATION VALVE DETAIL DRAWNG.
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. WIRE BUNDLES INSIDE PULL BOXES SHALL BE AT LEAST 4" FROM THE UNDER SIDE OF THE BOX COVER. MINIMUM SIZE PULL BOX SHALL BE AS SHOWN ABOVE. LARGER BOXES AND/OR EXTENSIONS MAY BE NECESSARY TO MEET THE 4" CLEARANCE REQUIREMENT. LOOP CONTROL WIRES INTO PULL BOX. ALL SPLICES ARE TO BE MADE IN PULL BOXES OR REMOTE CONTROL VALVE BOXES.
G.

F CONTROL WIRE OR FLOW SENSING CABLE WITHIN CONDUIT AND PULL BOX
SECTION – NO SCALE

INSPECTION NOTE
* 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.

OMISSION STATEMENT
*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAY GROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.

SPECIAL NOTES:
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.

REGISTERED LANDSCAPE ARCHITECT – THOMAS A. PICARD – 4001 – 9/30/21 – 4/19/21 – CALIFORNIA

LRWS 2019–1116

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
REVIEWED BY: DATE: 4/22/19
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS–BUILT"
SIGNED: DATE: 4/19/21
PRINT NAME: THOMAS A PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/21
T.P.

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 – 4/19/21 – CALIFORNIA

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

DATE:	27 FEB '19
SCALE:	NO SCALE
JOB NO.	15021
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	1 THRUST BLOCK DETAIL REMOVED.	4/19/21	
Inspector	OR-837G	HUNSAKER & ASSOC.	2 FINAL OWD AS-BUILT	5/11/21	
Date Completed					

BENCH MARK
DESCRIPTION: BRASS DSK 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. (P1# 1309 PER R.O.S. 14841) ELEV=629.319' (NWD'88)

SCALE		Designed By	Drawn By	Checked By
Horizontal N/A	Office	T.P.	T.G. / A.P.	T.P.
Vertical N/A	Field	Plans Prepared Under Supervision Of	Date 4/20/19	
	Traffic	THOMAS A. PICARD	R.L.A. No. 4001	

Plans Originally Approved: 8–30–17
Approved: Mark A. Cano Date: 5.7.19
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION DETAIL DRAWINGS FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13–02

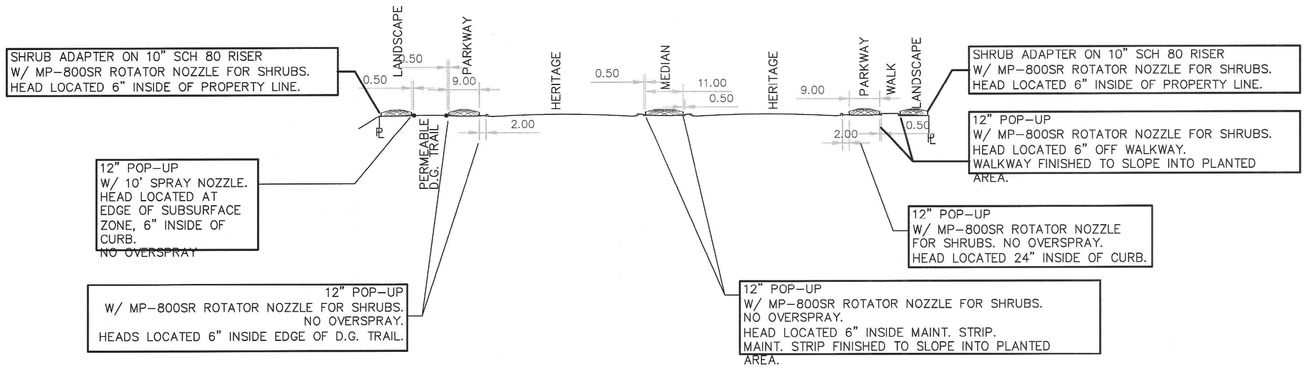
Drawing No. 16044 - 27
Sheet 27 of 44

OWD PROJ # D0944-060186

Otay Ranch Village 3 Heritage Road

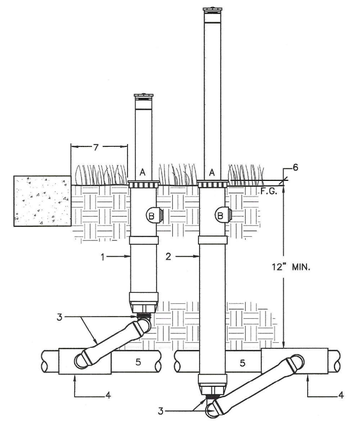
Print Date: 27 FEB '19

OWD D0944-060186 PLR-16-011 LI-13



G IRRIGATION LAYOUT FOR MEDIAN ISLANDS, PARKWAYS AND TRAIL AREAS

SECTION-NO SCALE



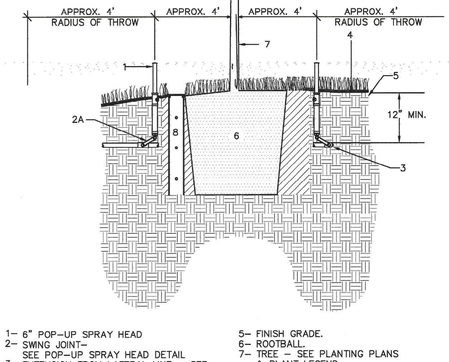
1- 6" POP-UP HEAD BODY.
2- 12" POP-UP HEAD BODY.
3- SWING JOINT- 3 SCH 40 1/2" ST ELLS, 1 SCH 80 1/2" X 12" NIPPLE
4- PVC SCH 40 TEE-SST OR EL-ST.
5- PVC NON-PRESSURE LATERAL.

NOTE:
A. RECYCLED WATER WARNING CAP.
B. DO NOT USE SIDE INLET.

6- AT FINISH GRADE IN TURF; 1" IN SHRUB AREA.
7- DISTANCE FROM WALLS:
4' TO 10' RAD. HEAD = 6"
12' TO 15' RAD. HEAD = 8"
OTHER HARDSCAPE = 3".

H1 POP-UP ROTOTOR OR SPRAY HEAD

SECTION - NO SCALE

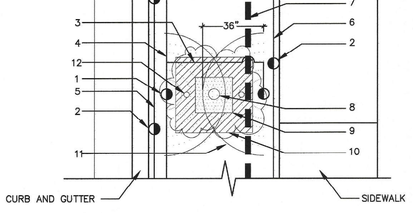


1- 6" POP-UP SPRAY HEAD
2- SWING JOINT-
SEE POP-UP SPRAY HEAD DETAIL
3- EXTENSION FROM LATERAL LINE - SEE PARKWAY DETAIL DRAWING
4- PARKWAY PLANTING - PER PLANTING PLAN
5- FINISH GRADE.
6- ROOTBALL.
7- TREE - SEE PLANTING PLANS & PLANT LEGEND.
8- BREATHER TUBE ON SLOPED SIDE OF TREE PLANTED AREA (TYP) - PER TREE PLANTING DETAIL (SEE L.P. SHEETS).

NOTE:
A. USE TEFLON TAPE ON ALL THREADED CONNECTIONS
B. DO NOT USE SIDE INLET

H3 TREE SPRINKLER HEADS FOR SUPPLEMENTAL TREE IRRIGATION

SECTION - NO SCALE

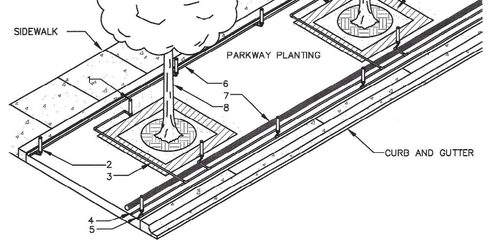


1- SHORT RADIUS SPRAY HEAD- TWO PER TREE.
SEE TREE SPRAY-HEAD DETAIL-SECTION VIEW.
2- SPRINKLER FOR TURF OR GROUND COVER.
3- 3/4" LATERAL FOR OFFSET OF BUBBLER TO TREE PLANTING PIT.
4- TREE SYSTEM LATERAL ROUTED PARALLEL TO CURB.
5- SPRINKLER LATERAL LINE ROUTED PARALLEL TO CURB.
6- SPRINKLER LATERAL LINE ROUTED PARALLEL TO WALK.
7- IRRIGATION MAINLINE AND CONTROL WIRE ROUTED PARALLEL TO WALK.
8- TREE TRUNK.
9- TREE ROOT BALL.
10- TREE PLANTING PIT.
11- APPROXIMATE COVERAGE.
12- BREATHER TUBE (TYP) - PER PLANTING SPECS.

NOTE:
SPRAY HEADS SHALL BE PLACED AT EDGE OF TREE PLANTING PIT AT OPPOSITE SIDES OF TREE ROOT BALL. LINE THROUGH TREE AND HEADS SHALL BE PERPENDICULAR TO WALK AS SHOWN. ADJUSTED RADIUS-OF-THROW NOT TO OVERSPRAY ONTO HARDSCAPE.

H4 TYPICAL LOCATION OF TREE SPRAYHEADS WITHIN PARKWAY

PLAN - NO SCALE

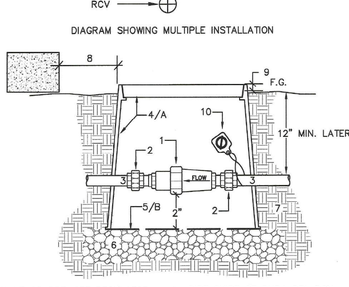


1- SHORT RADIUS SPRAY HEAD- TWO PER TREE.
SEE TREE SPRAY-HEAD DETAIL-SECTION VIEW.
2- SPRINKLER FOR TURF OR GROUND COVER.
3- 3/4" LATERAL FOR OFFSET OF BUBBLER TO TREE PLANTING PIT.
4- TREE SYSTEM LATERAL FROM RCV ROUTED PARALLEL TO CURB.
5- SPRINKLER LATERAL LINE FROM RCV ROUTED PARALLEL TO CURB.
6- SPRINKLER LATERAL LINE FROM RCV ROUTED PARALLEL TO WALK.
7- IRRIGATION MAINLINE AND CONTROL WIRE ROUTED PARALLEL TO WALK.
8- TREE TRUNK.
9- TREE ROOT BALL.
10- TREE PLANTING PIT.
11- APPROXIMATE COVERAGE.

NOTE:
SPRAY HEADS SHALL BE PLACED AT EDGE OF TREE PLANTING PIT AT OPPOSITE SIDES OF TREE ROOT BALL. LINE THROUGH TREE AND HEADS SHALL BE PERPENDICULAR TO WALK AS SHOWN. ADJUSTED RADIUS-OF-THROW NOT TO OVERSPRAY ONTO HARDSCAPE.

H5 TYPICAL LOCATION OF TREE SPRAYHEADS WITHIN PARKWAY

PLAN - NO SCALE

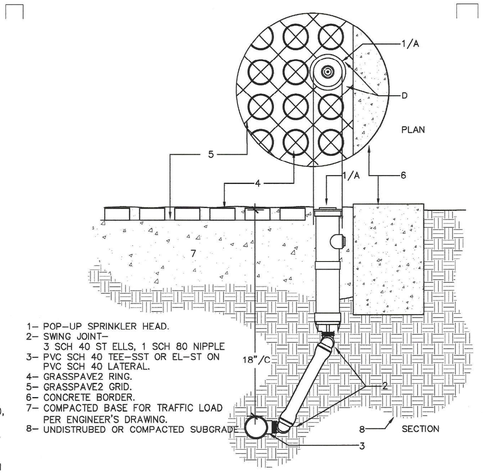


1- CHECK VALVE OR PRE-SET REGULATOR. SLIP X SLIP
2- PVC UNION SCH 40
3- PVC SCH 40 NON-PRESSURE LATERAL LINE.
4- 12" ROUND VALVE BOX. DURA DRI-BOX. #1203-R-DB-2-DS - PURPLE BOX W/ PURPLE CAM-LOC LID.
5- DIRT SKIRT OF DURA DRI-BOX.
6- 3/8" GRAVEL SUMP AND LEVELING PAD, 3" DEEP, MINIMUM.
7- UNDISTURBED/COMPACTED SUB-GRADE.
8- 12" MIN. FROM WALL OR PAVING.
9- FLUSH IN TURF, 1" IN GROUND COVER.
10- R.W. WARNING TAG PRINTED IN ENGLISH AND SPANISH

NOTE:
A. VALVE BOX LID SHALL BE BRANDED AS SHOWN IN VALVE BOX INSTALLATION AND IDENTIFICATION DETAIL DRAWING.
B. DIRT SKIRT OF THE DURA DRI-BOX TO BE DRILLED FOR DRAINAGE AND/OR NEATLY CUT AROUND PENETRATIONS.

H6 IN-LINE CHECK VALVE OR REGULATOR ON LATERAL

SECTION - NO SCALE

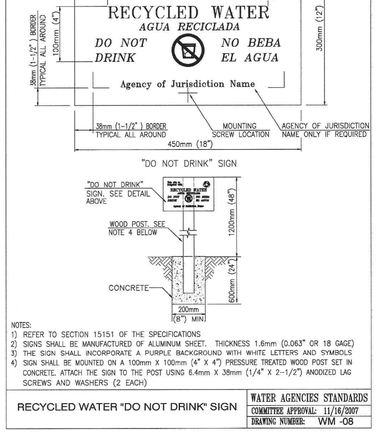


1- POP-UP SPRINKLER HEAD.
2- SWING JOINT-
3 SCH 40 ST ELLS, 1 SCH 80 NIPPLE
3- PVC SCH 40 TEE-SST OR EL-ST ON PVC SCH 40 LATERAL.
4- GRASSPAVE2 RING.
5- GRASSPAVE2 GRID.
6- CONCRETE BORDER.
7- COMPACTED BASE FOR TRAFFIC LOAD PER ENGINEER'S DRAWING.
8- UNDISTRUBED OR COMPACTED SUBGRADE.

NOTE:
A. RECYCLED WATER WARNING CAP.
B. DO NOT USE SIDE INLET.
C. DEPTH TO PROVIDE SUFFICIENT PROTECTION FROM ROAD BASE COMPACTION. CUP OUT SINGLE RING AND ASSOCIATED GRID. SPRINKLER HEAD TO BE
D. PLACED WITHIN SPACE OF REMOVED RING

H7 POP-UP SPRAY HEAD UNDER REINFORCED TURF BLOCK

SECTION - NO SCALE



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

INSPECTION NOTE

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R.W. IDENTIFICATION BY COLOR CODING:
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REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 CALIFORNIA 9/30/21 4/19/21

LRWS 2019-1116

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
REVIEWED BY: 8/15/17 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

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: 4/19/21
PRINT NAME: THOMAS A PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/21

REGISTERED LANDSCAPE ARCHITECT THOMAS A. PICARD 4001 CALIFORNIA 9/30/21 4/19/17

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

DATE: 17 JUL '17
SCALE: NO SCALE
JOB NO. 15021
DRAWN BY: T.P. / T.G.
W.O. NO. OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	FINAL OWD AS-BUILT	5/11/21	
Inspector	OR-837G	HUNSAKER & ASSOC.			
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. (ITEM 1359 PER R.O.S. 14841) ELEV=629.319' (NAVD'88)

SCALE
Horizontal N/A
Vertical N/A

Office
Field
Traffic

Designed By T.P.
Drawn By T.G. / A.P.
Checked By T.P.

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 7/19/17
R.L.A. No. 4001

Approved: P. Jerman, PLA Date: 8/30/17
Director of Development Services or Designee

CITY OF CHULA VISTA

LANDSCAPE IRRIGATION DETAIL DRAWINGS AND PRESSURE REQUIREMENT CALCULATIONS FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 28
Sheet 28 of 44

OWD D0944-060186 PLR-16-011 LI-14

Print Date: 17 JUL '17

OWD PROJ # D0944-060186

Otay Ranch Village 3 Heritage Road

ESTIMATED WATER REQUIREMENTS USING NORMAL YEAR CIMIS DATA.
OTAY RANCH VILLAGE 3 HERITAGE ROAD STREETSCAPE
CHULA VISTA, CA

WEATHER DATA AND REFERENCE REQUIRED IRRIGATION

	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
ETo; Otay Lakes # 147	2.27	2.76	4.06	4.83	5.60	5.96	6.26	6.04	4.84	3.76	2.71	2.11
HISTORICAL AVERAGE PRECIPITATION	1.64	1.27	1.55	0.91	0.17	0.00	0.00	0.00	0.00	0.35	1.18	1.57
EFFECTIVE PRECIPITATION	0.93	0.68	0.87	0.44	0.00	0.00	0.00	0.00	0.00	0.07	0.62	0.88
REFERENCE REQUIRED IRRIGATION	1.34	2.08	3.19	4.39	5.60	5.96	6.26	6.04	4.84	3.69	2.09	1.23

EVAPOTRANSPIRATION 51.20 INCHES **EFFECTIVE PRECIPITATION 4.50 INCHES** **REFERENCE REQUIRED IRRIGATION 46.70 INCHES**

BASE IRRIGATION REQUIREMENT IN INCHES PER MONTH FOR EACH ZONE

SHRUB/G.C.					JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
SUN	trim	1	Cco= .50		0.67	1.04	1.59	2.19	2.80	2.98	3.13	3.02	2.42	1.85	1.04	0.61
SHADE	trim	0.8	Cco= .50		0.54	0.83	1.28	1.76	2.24	2.38	2.50	2.42	1.94	1.48	0.83	0.49
AT PAVING	trim	1.25	Cco= .50		0.84	1.30	1.99	2.74	3.50	3.73	3.91	3.78	3.03	2.31	1.30	0.77

SCHEDULING GUIDELINES
ZONE WATER TIMES IN MINUTES PER DAY

HYDROZONE	H.ZONE			Days/	Station											
SHRUB / GOUND COVER / TREES	NOTE	Pr	lEa	Week	Trim	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
SUN ROTATOR BACK OF WALK 2 SIDE COVER	1	.80	.75	5	1.00	3.12	4.85	7.44	10.24	13.07	13.91	14.61	14.09	11.29	8.62	4.87	2.86
SUN ROTATOR BACK OF WALK 1 SIDE COVER	2	.60	.75	5	1.15	4.79	7.43	11.41	15.70	20.04	21.32	22.40	21.61	17.32	13.21	7.47	4.38
SUN SPRAY TREES	3	.56	.75	5	1.00	4.46	8.65	13.29	18.28	23.33	24.83	26.08	25.17	20.17	15.39	8.70	5.11

BASIS FOR SCHEDULING

CONTROLLER "A"
ZONE WATER TIMES IN MINUTES PER DAY **5 DAYS PER WEEK SHRUB**

SHRUB STATIONS	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
2,3,4,5,7,9,10,11,12,13,14,22	12	SUN ROTATOR BACK OF WALK 2 SIDE COVER	3.12	4.85	7.44	10.24	13.07	13.91	14.61	14.09	11.29	8.62	4.87	2.86
1,8,6,15	4	SUN ROTATOR BACK OF WALK 1 SIDE COVER	4.79	7.43	11.41	15.70	20.04	21.32	22.40	21.61	17.32	13.21	7.47	4.38
16,17,18,19,20,21	6	SUN SPRAY TREES	4.46	8.65	13.29	18.28	23.33	24.83	26.08	25.17	20.17	15.39	8.70	5.11
TOTAL STATION COUNT	22	MINUTES PER DAY SHRUB	83	140	215	295	377	401	421	407	326	249	140	82
		HOURS PER DAY SHRUB	1.39	2.33	3.58	4.92	6.28	6.69	7.02	6.78	5.43	4.14	2.34	1.37

CONTROLLER "B"
ZONE WATER TIMES IN MINUTES PER DAY **5 DAYS PER WEEK SHRUB**

SHRUB STATIONS	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1,2,3,4,5,6,7,8,9,10,11,12	12	SUN ROTATOR BACK OF WALK 2 SIDE COVER	3.12	4.85	7.44	10.24	13.07	13.91	14.61	14.09	11.29	8.62	4.87	2.86
0	0	SUN ROTATOR BACK OF WALK 1 SIDE COVER	4.79	7.43	11.41	15.70	20.04	21.32	22.40	21.61	17.32	13.21	7.47	4.38
13,14,15	3	SUN SPRAY TREES	4.46	8.65	13.29	18.28	23.33	24.83	26.08	25.17	20.17	15.39	8.70	5.11
TOTAL STATION COUNT	15	MINUTES PER DAY SHRUB	51	84	129	178	227	241	254	245	196	150	85	50
		HOURS PER DAY SHRUB	0.85	1.40	2.15	2.96	3.78	4.02	4.23	4.08	3.27	2.49	1.41	0.83

CONTROLLER "C"
ZONE WATER TIMES IN MINUTES PER DAY **5 DAYS PER WEEK SHRUB**

SHRUB STATIONS	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
2,3,4,5,6,7,9,10,12,13,14,16	12	SUN ROTATOR BACK OF WALK 2 SIDE COVER	3.12	4.85	7.44	10.24	13.07	13.91	14.61	14.09	11.29	8.62	4.87	2.86
1,8,11,15	4	SUN ROTATOR BACK OF WALK 1 SIDE COVER	4.79	7.43	11.41	15.70	20.04	21.32	22.40	21.61	17.32	13.21	7.47	4.38
17,18,19,20,21,22,23	7	SUN SPRAY TREES	3.12	8.65	13.29	18.28	23.33	24.83	26.08	25.17	20.17	15.39	8.70	5.11
TOTAL STATION COUNT	23	MINUTES PER DAY SHRUB	79	148	228	314	400	426	447	432	346	264	149	88
		HOURS PER DAY SHRUB	1.31	2.47	3.80	5.23	6.67	7.10	7.46	7.20	5.77	4.40	2.49	1.46

CONTROLLER "D"
ZONE WATER TIMES IN MINUTES PER DAY **5 DAYS PER WEEK SHRUB**

SHRUB STATIONS	STA. CNT.	DESCRIPTION	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16	16	SUN SPRAY TREES	3.12	8.65	13.29	18.28	23.33	24.83	26.08	25.17	20.17	15.39	8.70	5.11
0	0	SUN ROTATOR BACK OF WALK 1 SIDE COVER	4.79	18.17	27.90	38.39	49.00	52.15	54.78	52.85	42.35	32.31	18.26	10.72
17,18,19,20	4	SUN SPRAY TREES	4.46	8.24	12.65	17.41	22.22	23.65	24.84	23.97	19.21	14.65	8.28	4.86
TOTAL STATION COUNT	20	MINUTES PER DAY SHRUB	68	171	263	362	462	492	517	499	399	305	172	101
		HOURS PER DAY SHRUB	1.13	2.86	4.39	6.04	7.70	8.20	8.61	8.31	6.66	5.08	2.87	1.69

NOTE:
The above chart is based on given parameters and is provided as a guideline only. Actual water requirement and replacement is dependent on many site specific conditions beyond the knowledge used to develop this guide.
The guideline provides calculated water times required for evapotranspiration (ETo) replacement at the interval given as water days per week. These guidelines are general in nature and illustrate possible scheduling based on factors that consider water consumption and replacement such as climate, environmental exposure, plant type, rates of application and efficiencies. These guidelines are developed without consideration of topography or soil conditions and do not instruct on methods of soil reservoir management. The calculated water time per station does not necessarily indicate that any particular station should run one time for this duration.
The total run time may need to be divided into cycle-and-soak application to avoid run-off. Multiple stations listed in the station column is not an indication of simultaneous station operation. These stations simply have the same calculated run time. All stations are intended to operate sequentially.
Tree irrigation scheduling to be determined according to conditions

IRRIGATION SCHEDULING GUIDELINES

MAXIMUM APPLIED WATER ALLOWANCE VS. ESTIMATED WATER USE CALCULATIONS
OTAY RANCH VILLAGE 3 HERITAGE ROAD STREETSCAPE
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

ETWU = Estimated Total Water Use

$$\frac{\text{Eto} \times \text{Cco} \times \text{LA}}{\text{IEA}} \times \text{X const} = \text{EWU}$$

Where Eto = Reference Evapotranspiration (CIMIS)
Cco = Crop Coefficient (50% City of C.V.)
LA = Landscape Area (SQ. FT.)
IEA = Irrigation Efficiency (75% -C.V. Muni. Code Chap. 20)
Const = Constant to convert to gallons
GPY = Gallons Per Year

POC A PARKWAY WEST SIDE	51.2 X 1 X 72,149 X 0.62	MAWA =	2,290,298 GPY	7.02867 AC.FT.	3,061.90 HCF/YR
POC A	SHRUB 51.2 X 0.5 / 0.75 X 72,149 X 0.62 = 1,526,865 GPY	ETWU =	4.6858 AC.FT.	2,041.27 HCF/YR	67% MAWA
POC B PARKWAY EAST SIDE	51.2 X 1 X 52,724 X 0.62	MAWA =	1,673,971 GPY	5.13831 AC.FT.	2,237.59 HCF/YR
POC B	SHRUB 51.2 X 0.5 / 0.75 X 52,724 X 0.62 = 1,115,780 GPY	ETWU =	3.4242 AC.FT.	1,491.59 HCF/YR	67% MAWA
POC C PARKWAY WEST SIDE	51.2 X 1 X 63,400 X 0.62	MAWA =	2,012,570 GPY	6.17635 AC.FT.	2,690.60 HCF/YR
POC C	SHRUB 51.2 X 0.5 / 0.75 X 63,400 X 0.62 = 1,341,713 GPY	ETWU =	4.1176 AC.FT.	1,793.74 HCF/YR	67% MAWA
POC D PARKWAY EAST SIDE	51.2 X 1 X 62,637 X 0.62	MAWA =	1,988,349 GPY	6.10202 AC.FT.	2,658.22 HCF/YR
POC D	SHRUB 51.2 X 0.5 / 0.75 X 62,637 X 0.62 = 1,325,566 GPY	ETWU =	4.0680 AC.FT.	1,772.15 HCF/YR	67% MAWA

WATER MANAGEMENT REPORT AND WATER REQUIREMENT CALCULATIONS

VILLAGE 3 HERITAGE RD. STREETSCAPE
FARTHEST STATION, LOWEST ELEVATION
CONTROLLER "A" STATION "10" @ 25 GPM

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	25	2"	80	0.56	0.45 PSI
METER	25	1.5"			1.40 PSI
WYE STRAINER	25	1.5"			0.50 PSI
CHECK VALVE	25	1.5"			3.00 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	25	1.5"			2.50 PSI
FLOW SENSOR	25	1.5"			1.25 PSI
MCV	25	1.5"			1.50 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	25	2"	5	0.56	0.03 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	25	2"	1190	0.56	6.66 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	25	1 1/2"			3.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					24.49 PSI
+10% FOR FITTINGS					2.45 PSI
TOTAL LOSSES					26.94 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-85.00 FT.
PRESSURE DIFFERENTIAL					36.81 PSI
REQUIRED					30.13 PSI
SURPLUS PRESSURE	165%				49.87 PSI

VILLAGE 3 HERITAGE RD. STREETSCAPE
HIGHEST FLOW STATION, HIGHEST ELEVATION
CONTROLLER "A" STATION "12" @ 32 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	255.00 FT.
PRESSURE AVAILABLE AT P.O.C.	184.03 PSI
REGULATED PRESSURE	85.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	32	2"	80	0.56	0.45 PSI
METER	32	1.5"			1.40 PSI
WYE STRAINER	32	1.5"			3.00 PSI
CHECK VALVE	32	1.5"			2.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	32	1.5"			1.10 PSI
FLOW SENSOR	32	1.5"			1.45 PSI
MCV	32	1.5"			1.50 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	32	2"	5	0.56	0.03 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	32	2"	430	0.56	2.41 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	32	1 1/2"			3.80 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					21.04 PSI
+10% FOR FITTINGS					2.10 PSI
TOTAL LOSSES					23.14 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					30.00 FT.
PRESSURE DIFFERENTIAL					-12.99 PSI
REQUIRED					76.13 PSI
SURPLUS PRESSURE	12%				8.87 PSI

VILLAGE 3 HERITAGE RD. STREETSCAPE
FARTHEST STATION, LOWEST ELEVATION
CONTROLLER "B" STATION "5" @ 30 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	260.00 FT.
PRESSURE AVAILABLE AT P.O.C.	181.86 PSI
REGULATED PRESSURE (AT SECONDARY REGULATOR)	60.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	31	2"	40	0.79	0.32 PSI
METER	31	1.5"			2.10 PSI
WYE STRAINER	31	1.5"			3.00 PSI
CHECK VALVE	31	1.5"			2.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	31	1.5"			1.19 PSI
FLOW SENSOR	31	1.5"			1.35 PSI
MCV	31	1.5"			1.50 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	31	2"	6	0.79	0.05 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	31	2.5"	1065	0.31	3.30 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	31	1.5"			1.50 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					20.20 PSI
+10% FOR FITTINGS					2.02 PSI
TOTAL LOSSES					22.22 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-85.00 FT.
PRESSURE DIFFERENTIAL					36.81 PSI
REQUIRED					25.42 PSI
SURPLUS PRESSURE	136%				34.58 PSI

VILLAGE 3 HERITAGE RD. STREETSCAPE
HIGHEST FLOW STATION, HIGHEST ELEVATION
CONTROLLER "B" STATION "5" @ 31 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	260.00 FT.
PRESSURE AVAILABLE AT P.O.C.	181.86 PSI
REGULATED PRESSURE	100.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	31	2"	40	0.79	0.32 PSI
METER	31	1.5"			1.80 PSI
WYE STRAINER	31	1.5"			3.00 PSI
CHECK VALVE	31	1.5"			2.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	31	1.5"			1.50 PSI
FLOW SENSOR	31	1.5"			1.30 PSI
MCV	31	1.5"			1.50 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	31	2"	6	0.79	0.05 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	31	2"	915	0.79	7.23 PSI
ISOLATION VALVES (4 VALVES)	VAR	VAR			0.40 PSI
RCV SINGLE STATION	31	1.5"			1.50 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					24.09 PSI
+10% FOR FITTINGS					2.41 PSI
TOTAL LOSSES					26.50 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					55.00 FT.
PRESSURE DIFFERENTIAL					-23.82 PSI
REQUIRED					90.32 PSI
SURPLUS PRESSURE	11%				9.68 PSI

VILLAGE 3 HERITAGE RD. STREETSCAPE
HIGHEST FLOW, LOWEST ELEVATION
CONTROLLER "C" STATION "6" @ 31 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	360.00 FT.
PRESSURE AVAILABLE AT P.O.C.	138.56 PSI
REGULATED PRESSURE (AT SECONDARY REGULATOR)	60.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	31	2"	82	0.84	0.69 PSI
METER	31	1.5"			2.00 PSI
WYE STRAINER	31	1.5"			3.00 PSI
CHECK VALVE	31	1.5"			2.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	31	1.5"			1.23 PSI
FLOW SENSOR	31	1.5"			1.25 PSI
MCV	31	1.5"			1.50 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	31	2"	6	0.84	0.05 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	31	2"	925	0.84	7.77 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	31	1.5"			1.50 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					24.89 PSI
+10% FOR FITTINGS					2.49 PSI
TOTAL LOSSES					27.38 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-50.00 FT.
PRESSURE DIFFERENTIAL					21.65 PSI
REQUIRED					45.73 PSI
SURPLUS PRESSURE	31%				14.27 PSI

VILLAGE 3 HERITAGE RD. STREETSCAPE
FARTHEST STATION, HIGHEST ELEVATION
CONTROLLER "C" STATION "3" @ 31 GPM

HYDRAULIC GRADIENT	680.00 FT.
ELEVATION AT P.O.C.	360.00 FT.
PRESSURE AVAILABLE AT P.O.C.	138.56 PSI
REGULATED PRESSURE	100.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	31	2"	82	0.56	0.46 PSI
METER	31	1.5"			1.30 PSI
WYE STRAINER	31	1.5"			3.00 PSI
CHECK VALVE	31	1.5"			2.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	31	1.5"			1.09 PSI
FLOW SENSOR	31	1.5"			1.25 PSI
MCV	31	1.5"			1.50 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	31	2"	6	0.56	0.03 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	31	2"	952	0.56	5.33 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	31	1.5"			1.50 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					21.36 PSI
+10% FOR FITTINGS					2.14 PSI
TOTAL LOSSES					23.50 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					30.00 FT.
PRESSURE DIFFERENTIAL					-12.99 PSI
REQUIRED					81.49 PSI
SURPLUS PRESSURE	23%				18.51 PSI

VILLAGE 3 HERITAGE RD. STREETSCAPE
FARTHEST STATION, LOWEST ELEVATION
CONTROLLER "D" STATION "5" @ 29 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 (AT SECONDARY REGULATOR)	60.00 PSI

	Q	SIZE	LEN.	J	LOSS
SERVICE LINE	29	2"	40	0.74	0.30 PSI
METER	29	1.5"			1.70 PSI
WYE STRAINER	29	1.5"			3.00 PSI
CHECK VALVE	29	1.5"			2.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	29	1.5"			1.12 PSI
FLOW SENSOR	29	1.5"			1.25 PSI
MCV	29	1.5"			1.50 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	29	2"	6	0.74	0.04 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	29	2"	885	0.74	6.55 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	29	1.5"			1.50 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					22.86 PSI
+10% FOR FITTINGS					2.29 PSI
TOTAL LOSSES					25.15 PSI
OPERATION					40.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					-25.00 FT.
PRESSURE DIFFERENTIAL					10.83 PSI
REQUIRED					54.33 PSI
SURPLUS PRESSURE	10%				5.67 PSI

VILLAGE 3 HERITAGE RD. STREETSCAPE
FARTHEST STATION, HIGHEST ELEVATION
CONTROLLER "D" STATION "3" @ 29 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	29	2"	40	0.41	0.16 PSI
METER	29	1.5"			0.90 PSI
WYE STRAINER	29	1.5"			3.00 PSI
CHECK VALVE	29	1.5"			2.50 PSI
P.O.C. PLUMBING (15% OF DEVICE LOSS)	29	1.5"			0.98 PSI
FLOW SENSOR	29	1.5"			1.25 PSI
MCV	29	1.5"			1.50 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	29	2"	6	0.41	0.02 PSI
MAINLINE TRUNK (TRUNK COMBINED FLO\	29	2"	508	0.41	2.08 PSI
ISOLATION VALVES (4 VALVES)	VAR	2"			0.40 PSI
RCV SINGLE STATION	29	1.5"			1.50 PSI
LATERALS	VAR	VAR.			3.00 PSI
SUBTOTAL					17.31 PSI
+10% FOR FITTINGS					1.73 PSI
TOTAL LOSSES					19.04 PSI
OPERATION					45.00 PSI
CHANGE IN ELEVATION POC TO SYSTEM					10.00 FT.
PRESSURE DIFFERENTIAL					-4.33 PSI
REQUIRED					68.37 PSI
SURPLUS PRESSURE	17%				11.63 PSI

PRESSURE REQUIREMENT AND FRICTION LOSS CALCULATIONS

CALCULATED SURPLUS PRESSURE BASED UPON REGULATED PRESSURE AT POC SHOWS A LOWER VALUE THEN THAT CALCULATED FROM THE TRUE AVAILABLE PRESSURE.

OMISSION STATEMENT:
THERE ARE NO DRINKING FOUNTAINS, DECORATIVE FOUNTAINS, COMFORT STATIONS, OUTDOOR EATING AREAS, SWIMMING POOLS, PLAYGROUND EQUIPMENT, OR WELLS WITHIN THE LIMITS OF WORK.

INSPECTION NOTE:
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.

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. ALL SHRUB HEADS SHALL HAVE PURPLE CAPS.
DECALS AND/OR ADHESIVE LABELS ON RISERS WILL NOT ACCEPTED.

LANDSCAPE ARCHITECT TO CONVERT FIELD REDLINES OF CONSTRUCTION CHANGES TO BLACK LINES ON THIS DRAWING SET, AND SUBMIT TO OWD FOR REVIEW AND APPROVAL.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 9/20/21 — 4/13/21 — CALIFORNIA

LRWS 2019-1116

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
REVIEWED BY: 9-17-19 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

"AS-BUILT"
SIGNED: DATE: 3/4/22
PRINT NAME: THOMAS A 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 — 3/4/22 — 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: 4 MAR '22
SCALE: NO SCALE
JOB NO. 15021
DRAWN BY: T.P. / T.G.M.
W.O. NO. OR-837C

CONSTRUCTION RECORD	REFERENCES	BY
Contractor	OR-837C	HUNSAKER & ASSOC.
Inspector	OR-837G	HUNSAKER & ASSOC.
Date Completed		

REVISIONS	Date	App'd
1 REVISE POC's "B & D" WATER CALCS. AND SCHEDULING GUIDELINES	4-28-15	
2 FINAL OWD AS-BUILT	5/11/15	
3 ADJ. WATER BUDGET & SCH. GUIDELINES FOR CHANGED SCOPE.	6/3/22	

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
T.P.	T.G.M.	T.P.

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 3/4/22
R.L.A. No. 4001

Plans Originally Approved: 8-30-17
Approved: ____ Date: ____
Tiffany Allen, Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION CALCULATIONS FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-29
LI-15
Sheet 29 of 44

REPLACEMENT SHEET

OWD WO # D0944-060186 OWD PERMIT #PLR-16-011 OWD Sheet 17 of 20

LRWS 2019-1116
Print Date: 4 MAR '22
OWD PROJ # D0944-060186
Otay Ranch Village 3 Heritage Road
OWD PRE-APPROVED

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 Waterworks 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.

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 liters/minute (gpm)
4. Estimate of the yearly demand (acre-feet)
5. Design operating pressure at the meter in Kpa (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 meters (feet)
3. Operating pressure in Kpa (psi)
4. Flow in liters/minute (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-1120 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 submitted 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 Kpa (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.
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.
I. Hydrotesting shall be performed on all constant pressure lines in the presence of the District Engineer. The test pressure shall be a minimum of 345 Kpa (50 psi) above the rating of the pipe, and shall be maintained for a minimum duration of 2 hours. No leakage (drop in pressure) shall be allowed. If leakage exceeds this rate, the leak points shall be located and repaired, and the hydrotest repeated until there is zero leakage.
J. 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.
K. A wye strainer and check valve shall be installed in accordance with Standard Drawing WR-03 selected from the Approved Materials List.
1. For meter sizes 19mm (¾") through 50mm (2"), the strainer and check valve shall be installed in a separate 25mm (1") meter box abutted to the service meter box.
2. For meter sizes larger than 50mm (2"), the strainer and check valve shall be installed in a separate vault adjacent to meter vault. The vault shall be of sufficient size to provide adequate room for maintenance and removal of the strainer and check valve.
3. The strainer and check valve shall be installed and inspected prior to service being established.
L. 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.
M. A controller recycled irrigation map shall be prepared and submitted to the District prior to commencing service. The map shall be prepared as follows:
1. Provide one map for each automatic controller showing the area covered. The map shall be 275mm x 425mm (11" x 17") in size.
2. The map is to be a reduced drawing of the actual system. The line weights and lettering on the original controller map drawing shall be so drawn that, when reduced, it is clearly legible.
3. The map shall be a blackline print with a different color used to show area of coverage for each station and subsystem.
4. When completed and approved, the maps shall be hermetically sealed between two pieces of clear, colorless plastic, each piece being a minimum of 0.254mm (0.010" or 10 mils) thick.
N. The owner or owner's representative shall contact the District's Inspection Division and arrange for a coverage test inspection. The owner or owner's representative must be in attendance along with persons capable of making system adjustments. If modifications to the system are required, other than minor adjustments, the owner will be notified in writing of the changes required. To avoid suspension of service, the modifications must be made in a timely manner. All modifications to the system are the responsibility of the owner, applicant, or customer and said owner, applicant or customer shall pay all costs associated with such modifications.
O. Either prior to or at the time of the coverage test, a Final Inspection shall also be performed. The following items must be completed to the satisfaction of the District Engineer before permanent service will be established:
1. Application for recycled service has been made to the District.
2. Warning signs and labels are installed.
3. Quick coupling valves, valve boxes, controllers and other system components are clearly identified with the proper markings indicating distribution of either recycled or potable water.
4. Windblown spray, runoff and ponding have been limited or prevented.
5. Controller clocks are set to operate during the approved hours.
6. Controller maps have been submitted to the District.
7. Site supervisor and twenty four (24) hour contact phone number identified.
P. In those areas where recycled water is not immediately available, but the District has determined that recycled water will be supplied in the future, the onsite facilities shall be installed 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 installed in accordance with the District's 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, and shall connect the onsite system to the recycled water service lateral.

3.02 OPERATION AND MAINTENANCE

A. General:
1. The operation, surveillance, maintenance, and repair of all onsite recycled water facilities are the responsibility of the customer. The customer's designated "On-Site Recycled Water Supervisor" shall bear the responsibility for the distribution of recycled water in accordance with the District Rules and Regulations. The District shall receive the following information regarding the individual designated as "On-Site Supervisor": their name, address and telephone number of their location during normal working hours, and a telephone number at which they can be reached during off hours.
2. The District must be notified in writing of any change in the information in Section 15152.3.02.A.1 within ten (10) working days.
B. The customer shall have the following responsibilities pertaining to operation of onsite facilities:
1. To ensure that all operations and maintenance personnel are trained and familiarized with the use of recycled water.
2. To ensure precautionary measures be taken to minimize direct contact with recycled water. For work involving more than a casual contact with recycled water, employees must be provided with proper protective equipment. Adequate first aid supplies should be available on the premises. All cuts and abrasions should be promptly treated to prevent infection.
3. To furnish their operations and maintenance personnel with maintenance instructions, irrigation schedules, controller charts, and as-built plans to ensure proper operation in accordance with these Rules and Regulations.
4. To ensure all recycled water facilities are operated and maintained in accordance with these Rules and Regulations and other documents governing recycled water systems within the District.
C. The customer shall be responsible for any and all subsequent uses of the recycled water. Operation, maintenance and control measures to be utilized in this regard, where appropriate, shall include but are not limited to the following:
1. Operation of onsite recycled water facilities shall be operated to prevent or minimize discharge onto areas not under control of the customer so as to minimize public contact.
2. Operation of the onsite recycled water facilities shall be during periods of minimal human use of the service area. Consideration shall be given to allow a maximum dry-out time before the irrigated area will be used by the public.
3. Utilization of automatic controller systems to minimize ponding and runoff of recycled water. Total sprinkler run times shall not be greater than the time needed to supply the landscape's water requirement. If runoff occurs before the landscape's water requirements are met, the automatic controllers shall be reprogrammed with a greater number of water cycles of shorter duration to meet the requirements. This method of operation is intended to minimize ponding and runoff.
4. The customer reporting to the District any and all failures in the recycled water system that cause an unauthorized discharge of recycled water.
5. Protection of all drinking fountains located within the approved use area from contact with windblown recycled water spray, direct application through irrigation or other approved uses by location and/or a protecting structure. Protection shall be by design, construction practice and system operation.
6. Protection of facilities that may be used by the public. They include but are not limited to, eating surfaces and playground equipment located within the approved use areas. These shall be protected by siting and/or shelter from contact with recycled water to the maximum extent possible. Windblown spray, direct contact through wash down or by irrigation application, or other approved uses are considered sources of recycled water. Protection shall be by design, construction practice and system operation.
7. Notification of the District of all updates and proposed changes. Approval by the District and DOHS shall be obtained prior to construction in accordance with District procedures. All updates and proposed changes shall comply with these Rules and Regulations and the governing documents of all other regulatory agencies.
D. The customer shall enforce the following prohibitions:
1. Cross-connections: Cross-connections, as defined by the California Code of Regulations, Title 17, resulting from the use of recycled water or from the physical presence of a recycled water service, whether by design, construction practice or system operation, are strictly prohibited.
2. Hose Bibs: Use or installation of permanent hose bibs on any customer water system that presently operates or is designed to operate with recycled water, regardless of the hose bib construction or identification, is prohibited.
3. Runoff: Conditions that directly or indirectly cause runoff of recycled water either within or outside of the approved use area, whether by design, construction practice or system operation, are prohibited.
4. Ponding: Conditions that directly or indirectly cause recycled water to pond either within or outside of the approved use area, whether by design, construction practice, or system operation, are prohibited.
5. Windblown Spray: Conditions that directly or indirectly permit windblown spray to pass outside of the approved use area, whether by design, construction practice, or system operation, are prohibited.
6. Disposal in Unapproved Areas: Disposal of recycled water for any purposes, including approved uses, in areas other than those specifically approved by the District and without the prior knowledge and approval of the governing regulatory agencies, is prohibited.
7. Unapproved Uses: Use of recycled water for any purposes other than those specifically approved by the District, is prohibited.

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 onsite facilities for compliance with these Rules and Regulations, and provide reports as requested by other regulating agencies. For these purposes, the District shall have the right to enter upon the customer's premises during reasonable hours to inspect onsite recycled water facilities and approved use areas. Reasonable hours shall include hours when irrigation is occurring. The District, Regional Water Quality Control Board, DOHS and DEH shall have the right to enter upon the customer's premises during reasonable hours, from time to time, to verify that the customer's irrigation practices conform with these Rules and Regulations. Where necessary, keys and/or lock combinations shall be issued upon request to the District to provide such access.

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 any one 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.

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. Developer: The Otay Ranch Company

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.

INSPECTION NOTE

* 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.

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.

OMISSION STATEMENT

*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAY GROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.

SPECIAL NOTES:

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

LRWS 2019-1116

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
REVIEWED BY: [signature] DATE: 8/15/17
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

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: [signature] DATE: 4/19/21
PRINT NAME: THOMAS A PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT
REGIST. EXP. 9/30/21

REGISTERED LANDSCAPE ARCHITECT
THOMAS A. PICARD 4001
Signature 9/30/17 7/18/17 Date
CALIFORNIA

REGISTERED LANDSCAPE ARCHITECT
THOMAS A. PICARD 4001
Signature 9/30/21 Renewal Date 4/19/21 Date
CALIFORNIA

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

DATE:	17 JUL '17
SCALE:	NO SCALE
JOB NO.	15021
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	C FINAL OWD AS-BUILT	5/11/21	[initials]
Inspector	OR-837G	HUNSAKER & ASSOC.			
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
T.P.	T.G. / A.P.	T.P.

Plans Prepared Under Supervision Of [signature] THOMAS A. PICARD Date 7/18/17 R.L.A. No. 4001

Approved: P. Fermán, PLA Date: 8/30/17
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 30
Sheet 30 of 44

OWD D0944-060186 PLR-16-011 LI-16

Print Date: 17 JUL '17
OWD PROJ # D0944-060186
Otay Ranch Village 3 Heritage Road

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 Waterworks 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.

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 mil. Thick 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.

1.10.2. 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.

1.11. Guarantees:
1.11.1. 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.
1.11.2. Manufacturer's warranties shall not relieve the contractor of his liability under the guarantee. Such warranty shall only supplement the guarantee.

1.12. Water Service:
1.12.1. 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.
1.12.2. Individually owned, accessed or maintained areas shall be separately metered and controlled.
1.12.3. 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.

1.13. Electrical Service:
1.13.1. Point of connection shown on plans is approximate. Contractor shall coordinate with owner's authorized representative to have power available when required.
1.13.2. Individually owned, accessed or maintained areas shall be separately metered and controlled.
1.13.3. Controllers shall operate on single phase, 110 to 120 volt, 60 cycle, alternating current and "U.L." listed.
1.13.4. Controllers shall be enclosed in a U.L. listed weatherproof corrosion-resistant enclosure with locking cover.
1.13.5. Conduit for 120 volt and 24 volt wiring shall be approved by governing building codes and inspections for electrical service.

1.14. Communication Service:
1.14.1. Central control system and method of communication to individual controllers, shall be as specified on plans.
1.14.2. Point of connection shown on plans is approximate. Contractor shall coordinate with owner's authorized representative to have communication line available when required.
1.14.3. 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 Devices: 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 irrigation 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 maximum 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	COMMON	SPARE
"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, DS-100 with DS-400 filler or DS-500 as manufactured by Spears Manufacturing company or equal.

2.5.2.4. Low voltage control wire will be installed within PVC Sch 40 electrical conduit. See detail drawings.

2.5.2.5. Low voltage control wire will be identified by use of ring tags at the controller enclosure.

2.6. Flow, Rain, Moisture Sensing 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 locking 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: 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 with lockable purple top manufactured by Dura Plastics, part #153-DB-2-DS.
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 with lockable purple top manufactured by Dura Plastics, part #151-DB-2-DS.
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 conduit 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 0ne 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 specified for piping tapered socket or molded thread type, suitable for either solvent weld or screwed connections. Machine threaded fittings and plastic saddle 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. All electrical conduit pipe to be gray in color.
2.13.1.11. 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.
2.13.1.12. 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.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — Signature 8/30/21 — 4/19/21 — CALIFORNIA

INSPECTION NOTE
* 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.

OMISSION STATEMENT
*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAY GROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.

SPECIAL NOTES:
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.

LRWS 2019-1116

OTAY WATER DISTRICT
PROJECT # D0944-060186
PZ 624 RPZ 680
REVIEWED BY: 8/15/17 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

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: 4/19/21
PRINT NAME: THOMAS A PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/21

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 9/30/21 — 4/19/21 — CALIFORNIA

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

DATE: 17 JUL '17
SCALE: NO SCALE
JOB NO. 15021
DRAWN BY: T.P. / T.G.
W.O. NO. OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	1 FINAL OWD AS-BUILT	5/11/21	
Inspector	OR-837G	HUNSAKER & ASSOC.			
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 T.P. | Drawn By T.G. / A.P. | Checked By T.P.
Plans Prepared Under Supervision Of
THOMAS A. PICARD Date 7/18/17 R.L.A. No. 4001

Approved: P. Herman, PLA Date: 8/30/17
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 31
Sheet 31 of 44

OWD D0944-060186 PLR-16-011 LI-17

Print Date: 17 JUL '17
OWD PROJ # D0944-060186
Otay Ranch Village 3 Heritage Road

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 or point of connection differ 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, United 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:
Site One Green Tech (800) 427-0779.
Controller manufacturer - Rain Master (800) 634-8873.
3.4.8.2. For certification and project turn-over contact:
Site One Green Tech Landscapes (800) 427-0779.
Controller manufacturer - Rain Master (800) 634-8873.

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. Pull boxes shall be located along the conduit route 200' O.C. maximum. 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.
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 manufacture'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. 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 test from SITEONE GREENTECH 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 occure 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 observation 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 is required.
3.21.2. Site observation will be required for the following parts of the work:
3.21.2.1. 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
3.21.2.2. 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 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.)
3.22.3. 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 observation 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 pracice, 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 in these 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.

3.25.2. IRRIGATION REPAIRS & REPLACEMENTS
3.25.2.1. Irrigation components will require routine repair, adjustments and replacement. Repairs to any irrigation system shall be done in accordance with the original installation details.
3.25.2.2. All materials used in repairs are to of the same make and kind as originally installed.
3.25.2.3. 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.

3.25.3. WATER USE
3.25.3.1. 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.
3.25.3.2. The contractor is limited by the "maximum applied water allowance", as dictated by The Otay Water District.
3.25.3.3. 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.
3.25.3.4. 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.
3.21.3.5. 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).
3.25.3.6. 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

3.26. MAINTENANCE PERIODS
3.26.1. All areas proposed to be City of Chula Vista CFD shall be maintained for a period of no less than two years.
3.26.2. 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 than ninety days.
3.26.3. 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.
3.26.4. 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.

3.27. STATEMENT OF SUBSTANTIAL CONFORMANCE AND IRRIGATION AUDIT/SURVEY TESTING
In accordance with The City Of Chula Vista Municipal Code, Chapter 20 the following is required:
A. Per section 20.12.240 of the City of Chula Vista Landscape Water Conservation Ordinance (LWCO), 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).

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.

INSPECTION NOTE
* 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.

OMISSION STATEMENT
*NO DECORATIVE FOUNTAINS, DRINKING FOUNTAINS, PLAY GROUNDS, SWIMMING POOLS OR OUTDOOR EATING FACILITIES OR WELLS KNOWN TO EXIST WITHIN LIMITS OF WORK.

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

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — CALIFORNIA — 8/30/21 — 7/13/21

LRWS 2019-1116

OTAY WATER DISTRICT

PROJECT # D0944-060186
PZ 624 RPZ 680

REVIEWED BY: 8/15/17 DATE:
NOTE: SIGNATURE EXPIRES ONE (1) YEAR AFTER DATE

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: 4/19/21
PRINT NAME: THOMAS A PICARD R.L.A. # 4001
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP. 9/30/21

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — CALIFORNIA — 9/30/17 — 7/13/17

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

DATE: 17 JUL '17
SCALE: NO SCALE
JOB NO. 15021
DRAWN BY: T.P. / T.G.
W.O. NO. OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	1 FINAL OWD AS-BUILT	5/11/21	
Inspector	OR-837G	HUNSAKER & ASSOC.			
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 N/A; Vertical N/A
Office; Field; Traffic
Designed By T.P. Drawn By T.G. / A.P. Checked By T.P.
Plans Prepared Under Supervision Of THOMAS A. PICARD Date 7/19/17 R.L.A. No. 4001

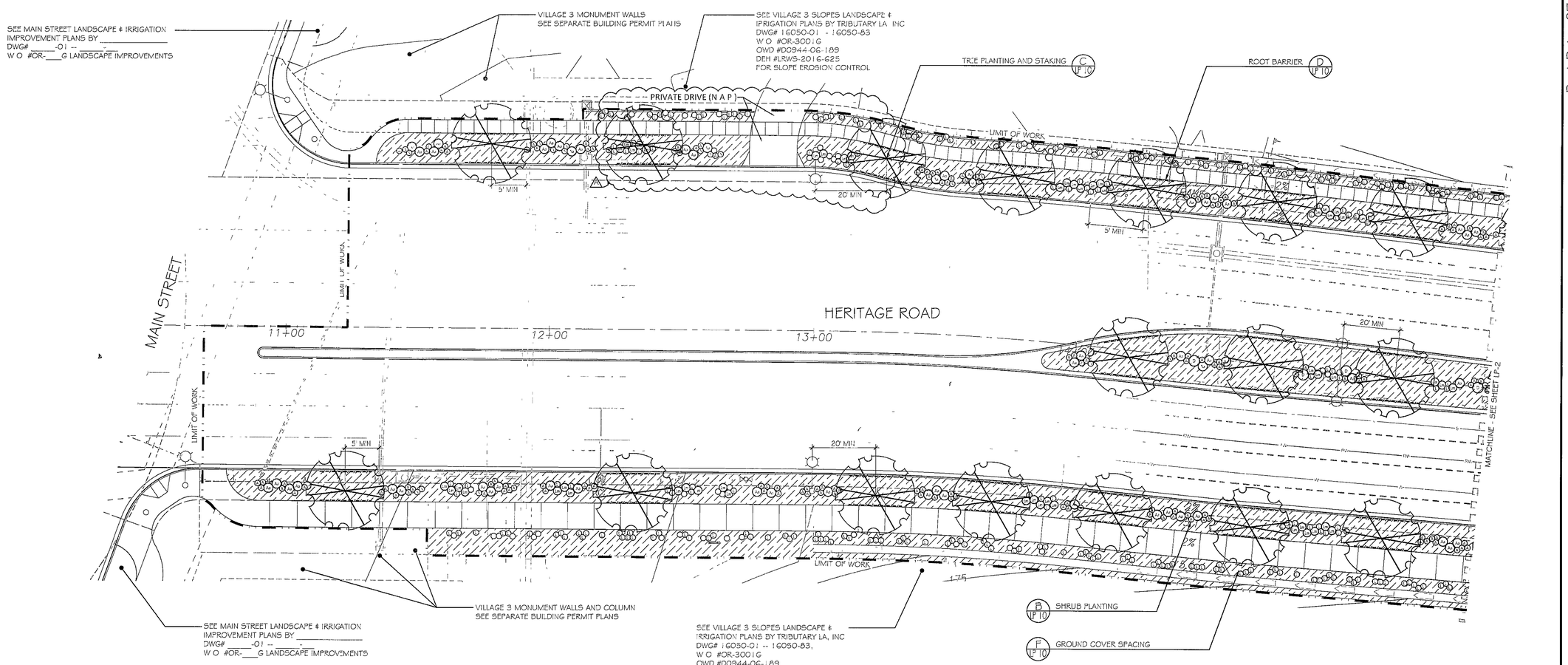
Approved: P. Fermán, PLA Date: 8/30/17
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE IRRIGATION SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 32
Sheet 32 of 44

OWD D0944-060186 PLR-16-011 LI-18

Print Date: 17 JUL '17
OWD PROJ # D0944-060186
Otay Ranch Village 3 Heritage Road



PLANTING LEGEND (SEE SHEET LP-10 FOR FULL LEGEND)

Trees

Symbol	Botanical Name	Common Name
	Schinus molle	California Pepper Tree

Shrubs

Symbol	Botanical Name	Common Name
Aa	Agave attenuata	Century Plant
A	Aloe vera	Medicinal Aloe
C	Chondropetalum tectorum	Dwarf Cape Rush
D	Dasylinon longissima	Mexican Grass Tree
I	Dianella c 'Cassa Blue'	Cassa Blue Dianella
La	Lantana s 'White'	White Trailing Lantana
Lm	Lantana montevidensis	Trailing Lantana
Lo	Lantana x 'Spreading Orange'	Orange trailing Lantana
Ly	Lantana x 'Spreading Yellow'	Yellow Trailing Lantana
L	Limonium perezii	Sea Lavender
M	Muhlenbergia c 'Regal Mist'	Pink Muhly
P	Phormium t 'Wildwood'	Purple New Zealand Flax

Groundcovers

Symbol	Botanical Name	Common Name
	Carex pansa	California Meadow Sedge

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

PLANTING NOTES

1 DETERMINE THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE INITITATION OF ANY WORK ALL WORK SHALL BE PERFORMED III A MANNER WHICH WILL AVOID POSSIBLE DAMAGE TO UTILITIES HAND EXCAVATE, AS REQUIRED

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3 FOR STREET IMPROVEMENT DOCUMENTATION, REFER TO PLANS PREPARED BY HUNSAKER & ASSOCIATES - CITY OF CHULA VISTA WO # OR-837C, SHEETS 14032-01 TO 14032-31

4 FOR UTILITY LOCATIONS, REFER TO PLANS PREPARED BY JMP UTILITY SERVICES FOR ELECTRICITY SDG&E CONSTRUCTION ORDER NO PROJECT NO _____ FOR GAS SDG&E CONSTRUCTION ORDER NO _____, PROJECT NO _____

5 FOR PLANTING DETAILS AND LEGEND, SEE SHEET LP-10

6 FOR PLANTING SPECIFICATIONS SEE SHEETS LP-11 AND LP-12

LANDSCAPE TREE NOTES

TREES SHALL BE LOCATED A MINIMUM OF
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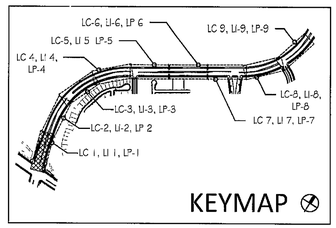
ALL SCREENED FACILITIES ARE PER CIVIL PLANS TRIBUTARY L A , INC CANNOT VERIFY ACTUAL LOCATIONS CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS

0' 10' 20' 40'



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 — Signed 5/30/19 — CALIFORNIA

Tributary LA, Inc
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760 434 9300 office
760 434 9303 fax

DATE	27 FEB '19
SCALE	1" = 20'
JOB NO	15021
DRAWN BY	T P / T G
W O NO	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC	⚠ ADJ FILTRATION FACILITY ENTRY	5.7.19	
Inspector	OR-837G	HUNSAKER & ASSOC			
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. IN ROCK MOUNTAIN 100' EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700 SOUTHERLY OF WATER STORAGE FACILITY (PTS 1359 PER R O S 1484) ELEV=829.319' (NAVD'88)

SCALE: Horizontal 1" = 20' — Vertical N / A

Office _____ Field _____ Traffic _____

Designed By T P — Drawn By T G / A P — Checked By T P

Plans Prepared Under Supervision Of THOMAS A PICARD — Date 5/30/19 — R L A No 4001

Plans Originally Approved 8-30-17

Approved _____ Date 5.7.19
Director of Development Services or Designee

CITY OF CHULA VISTA

LANDSCAPE PLANTING PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA 10+67 88 TO 56+70 54)
CHULA VISTA TRACT NO 13-02

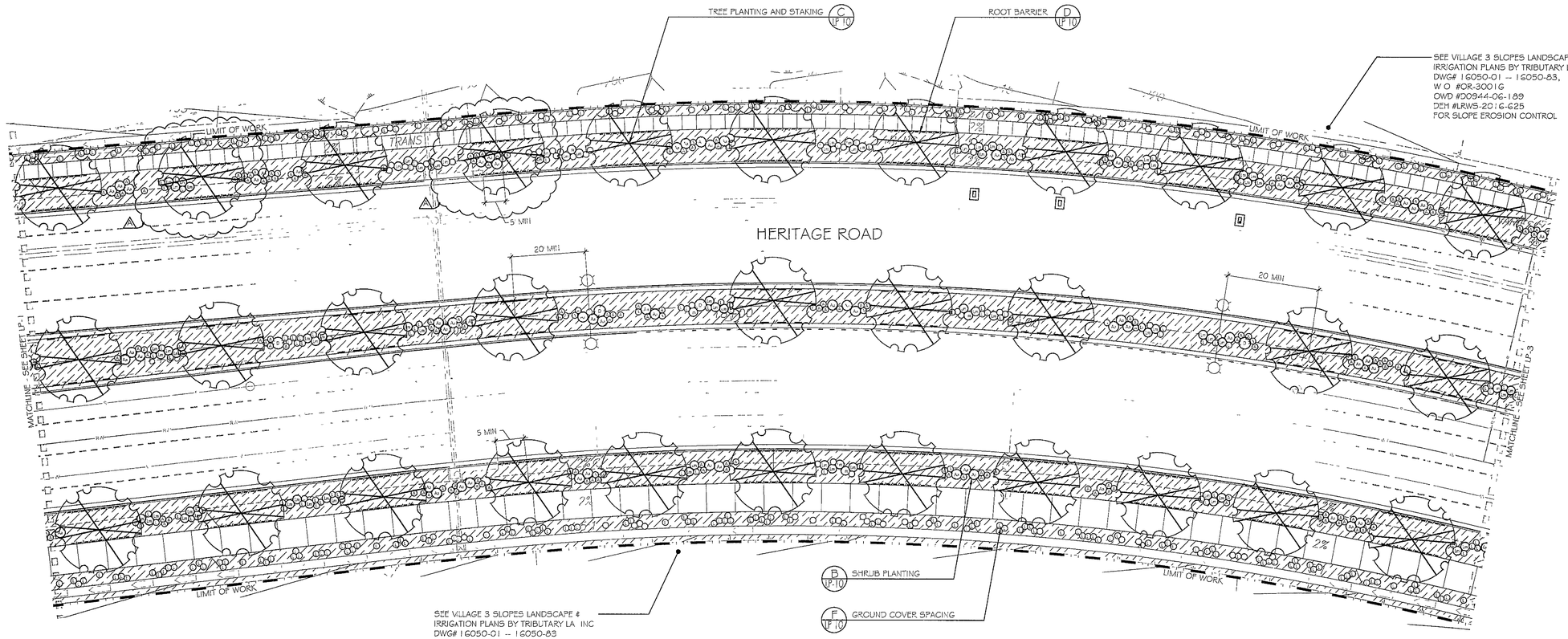
Drawing No 16044 - 33
Sheet 33 of 44

⚠ REPLACEMENT SHEET

OWD D0944-060186 PLR-16-011 LP-1

Otay Ranch Village 3 Heritage Road

Print Date 27 FEB '19



PLANTING LEGEND (SEE SHEET LP-10 FOR FULL LEGEND)

Trees

Symbol	Botanical Name	Common Name
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Symbol	Botanical Name	Common Name
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- RECYCLED WATERLINE (PER CIVIL PLANS) — RW
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- BLOWOFF VALVE
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6 FOR PLANTING SPECIFICATIONS, SEE SHEETS LP-11 AND LP-12

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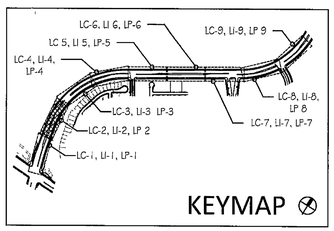


0' 10' 20' 40'

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 — 5/30/19 — CALIFORNIA

Tributary LA, Inc
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760 434 9300 office
760 434 9303 fax

DATE	27 FEB '19
SCALE	1" = 20'
JOB NO	15021
DRAWN BY	T P / T G
W O NO	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC	⚠ ADD TREES	5-7-19	
Inspector	OR-837G	HUNSAKER & ASSOC			
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 ROS 14841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal 1" = 20' / Vertical N/A

Office _____ Field _____ Traffic _____

Designed By TP — Drawn By TG / AP — Checked By TP

Plans Prepared Under Supervision Of — Date 3/20/19 — THOMAS A PICARD — R.L.A. No 4001

Plans Originally Approved 8-30-17

Approved _____ Date 5-7-19
Director of Development Services or Designee

CITY OF CHULA VISTA

LANDSCAPE PLANTING PLAN FOR
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO 13-02

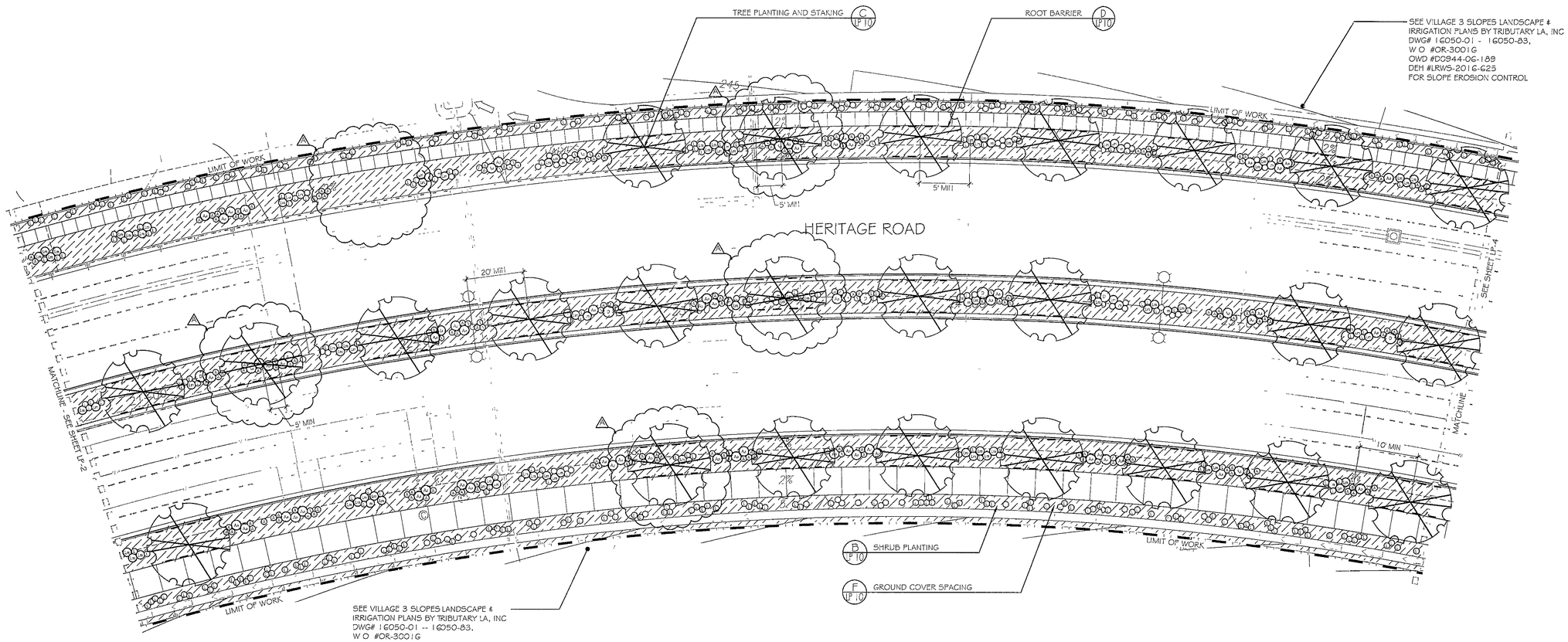
Drawing No 16044 - 34
Sheet 34 of 44

⚠ REPLACEMENT SHEET

OWD D0944-060186 PLR-16-011 LP-2

Otay Ranch Village 3 Heritage Road

Print Date 27 FEB '19



UTILITY LEGEND (PER CIVIL PLANS)

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6 FOR PLANTING SPECIFICATIONS, SEE SHEETS LP-11 AND LP-12

PLANTING LEGEND (SEE SHEET LP-10 FOR FULL LEGEND)

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Symbol	Botanical Name	Common Name
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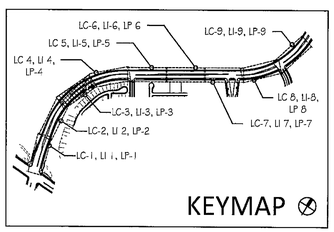

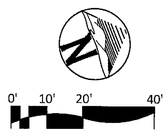

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REGISTERED LANDSCAPE ARCHITECT — THOMAS A PICARD — 4001 — 9/30/19 — CALIFORNIA

Tributary LA, Inc
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760 434 9300 office
760 434 9303 fax

DATE	27 FEB '19
SCALE	1" = 20'
JOB NO	15021
DRAWN BY	TP / TG
W O NO	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC	⚠ ADD TREES & ADJ LOCATIONS	5.1.19	M
Inspector	OR-837G	HUNSAKER & ASSOC			
Date Completed					

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SCALE: Horizontal 1"=20' | Vertical N/A — Office | Field | Traffic

Designed By	Drawn By	Checked By
TP	TG / AP	TP

Plans Prepared Under Supervision Of — THOMAS A PICARD — Date 3/20/19 — R.L.A. No 4001

Plans Originally Approved 8-30-17

Approved — Director of Development Services or Designee — Date 5.7.19

CITY OF CHULA VISTA

LANDSCAPE PLANTING PLAN FOR
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO 13-02

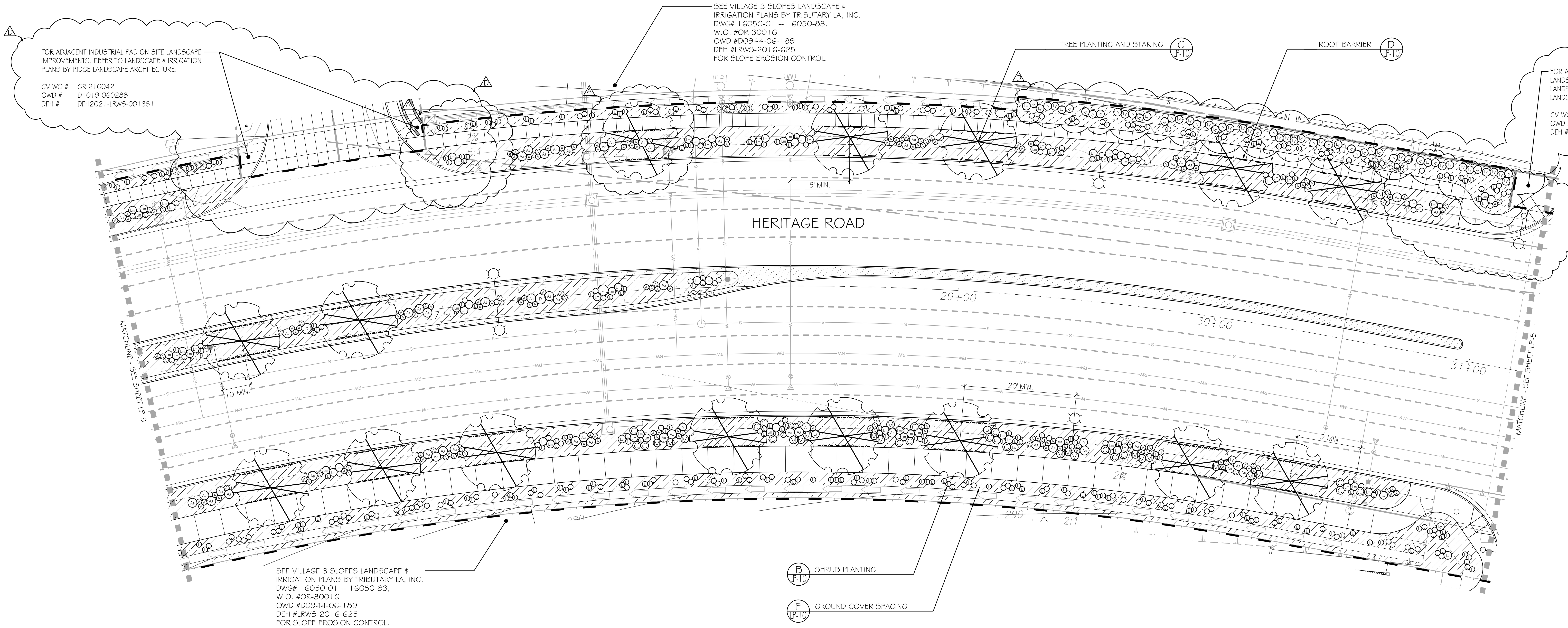
Drawing No 16044 - 35
Sheet 35 of 44

⚠ REPLACEMENT SHEET

OWD D0944-060186 PLR-16-011 LP-3

Otay Ranch Village 3 Heritage Road

Print Date 27 FEB '19



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PLANTING LEGEND (SEE SHEET LP-10 FOR FULL LEGEND)

Trees

Symbol	Botanical Name	Common Name
	Schinus molle	California Pepper Tree

Shrubs

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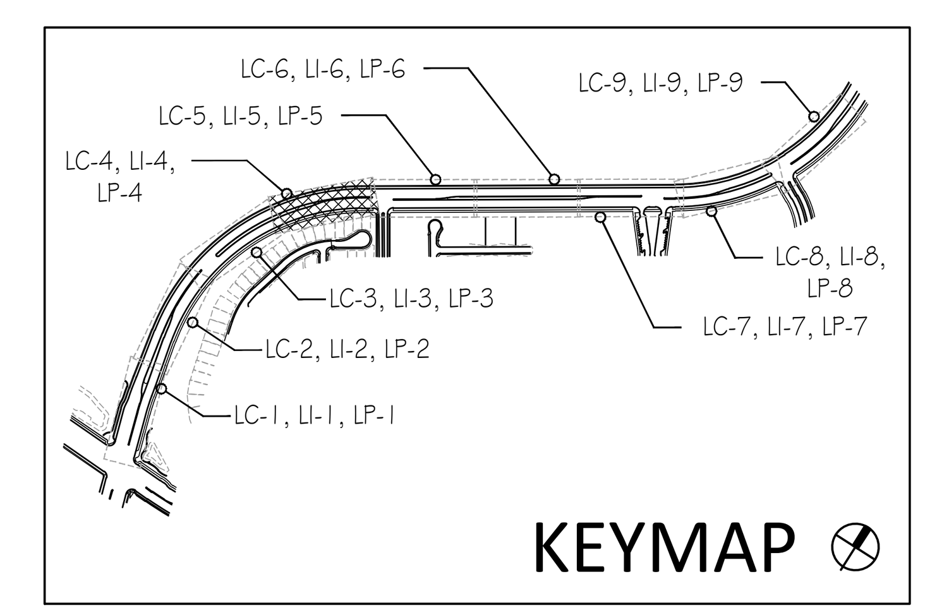

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REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — Signature — 9/30/23 Renewal Date — 3/4/22 Date — STATE OF CALIFORNIA

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

DATE:	4 MAR '22
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor ____	OR-837C	HUNSAKER & ASSOC.	A ADD TREES & ADJ. @ INDUSTRIAL PARK ENTRY	5.7.19	JC
Inspector ____	OR-837G	HUNSAKER & ASSOC.	D ADJ. PLANTING AT INDUSTRIAL PARK DWYS		
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" = 20'; Vertical N/A

Office ____ Field ____ Traffic ____

Designed By	Drawn By	Checked By
T.P.	T.G.M.	T.P.

Plans Prepared Under Supervision Of THOMAS A. PICARD Date 3/4/22 R.L.A. No. 4001

Plans Originally Approved: 8-30-17
Approved:________________ Date:________
Tiffany Allen, Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE PLANTING PLAN FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-36
LP-4
Sheet 36 of 44

REPLACEMENT SHEET

Print Date: 4 MAR '22

Otay Ranch Village 3 Heritage Road

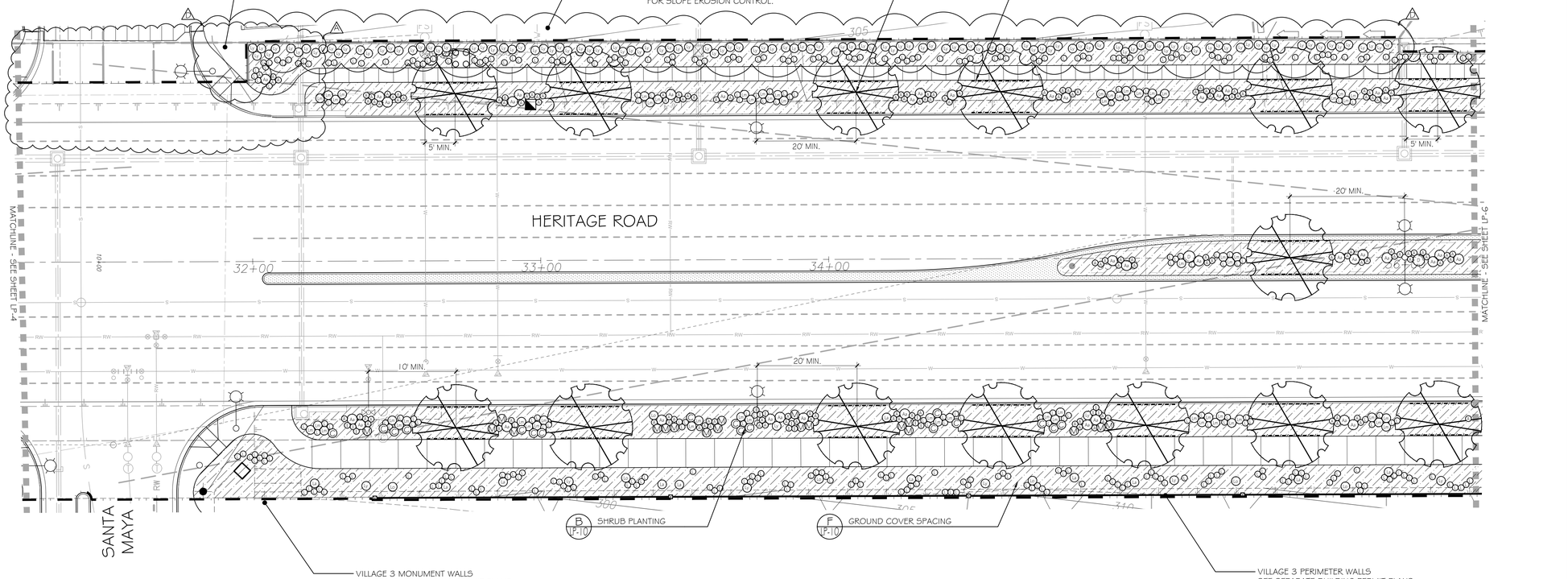
FOR ADJACENT INDUSTRIAL PAD ON-SITE LANDSCAPE IMPROVEMENTS, REFER TO LANDSCAPE & IRRIGATION PLANS BY RIDGE LANDSCAPE ARCHITECTURE:

CV WO # GR 210042
OWD # D1019-060288
DEH # DEH2021-LRWS-001351

SEE VILLAGE 3 SLOPES LANDSCAPE & IRRIGATION PLANS BY TRIBUTARY LA, INC. DWG# 16050-01 -- 16050-83, W.O. #OR-3001G OWD #D0944-06-189 DEH #LRWS-2016-625 FOR SLOPE EROSION CONTROL.

TREE PLANTING AND STAKING C LP-10

ROOT BARRIER D LP-10



B LP-10 SHRUB PLANTING

F LP-10 GROUND COVER SPACING

VILLAGE 3 MONUMENT WALLS SEE SEPARATE BUILDING PERMIT PLANS

VILLAGE 3 PERIMETER WALLS SEE SEPARATE BUILDING PERMIT PLANS

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- DOMESTIC WATERLINE (PER CIVIL PLANS) — W
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- RECYCLED WATERLINE (PER CIVIL PLANS) — RW
- STORM DRAINS (PER CIVIL PLANS)
- BLOWOFF VALVE
- AIR RELEASE VALVE
- FIRE HYDRANT
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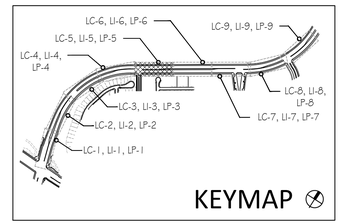

KEYMAP

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 — Renewal Date 3/4/22 — 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:	4 MAR '22
SCALE:	1" = 20'
JOB NO.	15021
DRAWN BY:	T.P. / T.G.M.
W.O. NO.	OR-837C

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Vertical N/A

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Field _____
Traffic _____

Designed By T.P. | Drawn By T.G.M. | Checked By T.P.

Plans Prepared Under Supervision Of
THOMAS A. PICARD
Date 3/4/22
R.L.A. No. 4001

Plans Originally Approved: 8-30-17

Approved:_____ Date:_____
Tiffany Allen, Director of Development Services or Designee

CITY OF CHULA VISTA

LANDSCAPE PLANTING PLAN FOR:
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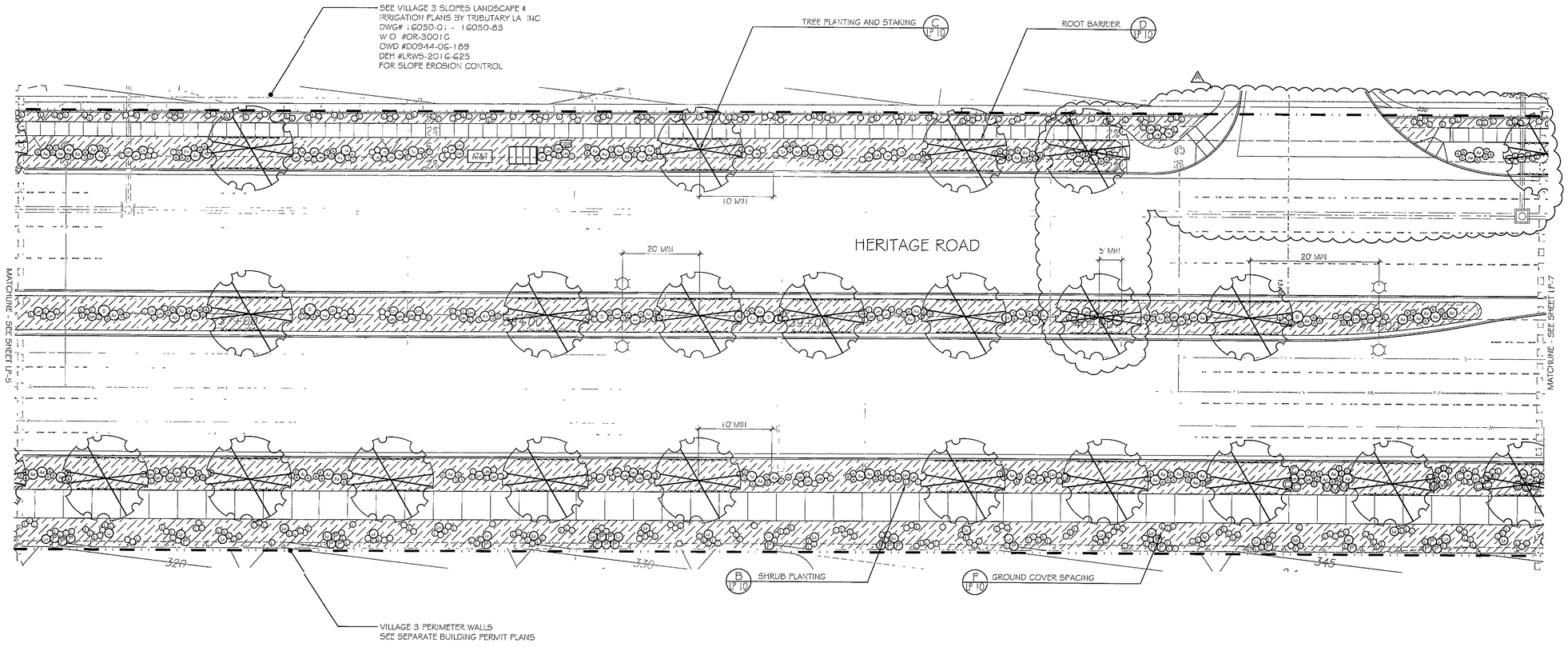
CHULA VISTA TRACT NO. 13-02

DWG NO. 16044-37
LP-5
Sheet 37 of 44

⚠ REPLACEMENT SHEET



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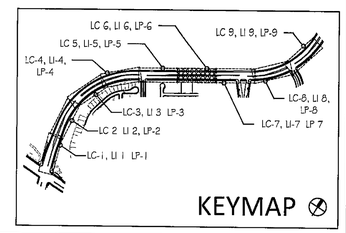

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REGISTERED LANDSCAPE ARCHITECT THOMAS A PICARD 4001 9/30/19 CALIFORNIA

Tributary LA, Inc
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760 434 9300 office
760 434 9303 fax

DATE	27 FEB '19
SCALE	1" = 20'
JOB NO	15021
DRAWN BY	T P / T G
W O NO	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
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Office
Field
Traffic

Designed By TP
Drawn By TG / AP
Checked By TP

Plans Prepared Under Supervision Of
THOMAS A PICARD
Date 9/30/19
R L A No 4001

Plans Originally Approved 8-30-17

Approved _____ Date 5.7.19
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE PLANTING PLAN FOR
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA 10+67 88 TO 56+70 54)
CHULA VISTA TRACT NO 13-02

Drawing No 16044 - 38
Sheet 38 of 44

⚠ REPLACEMENT SHEET

OWD D0944-060186 PLR-16-011 LP-6

Print Date 27 FEB '19

Otay Ranch Village 3 Heritage Road

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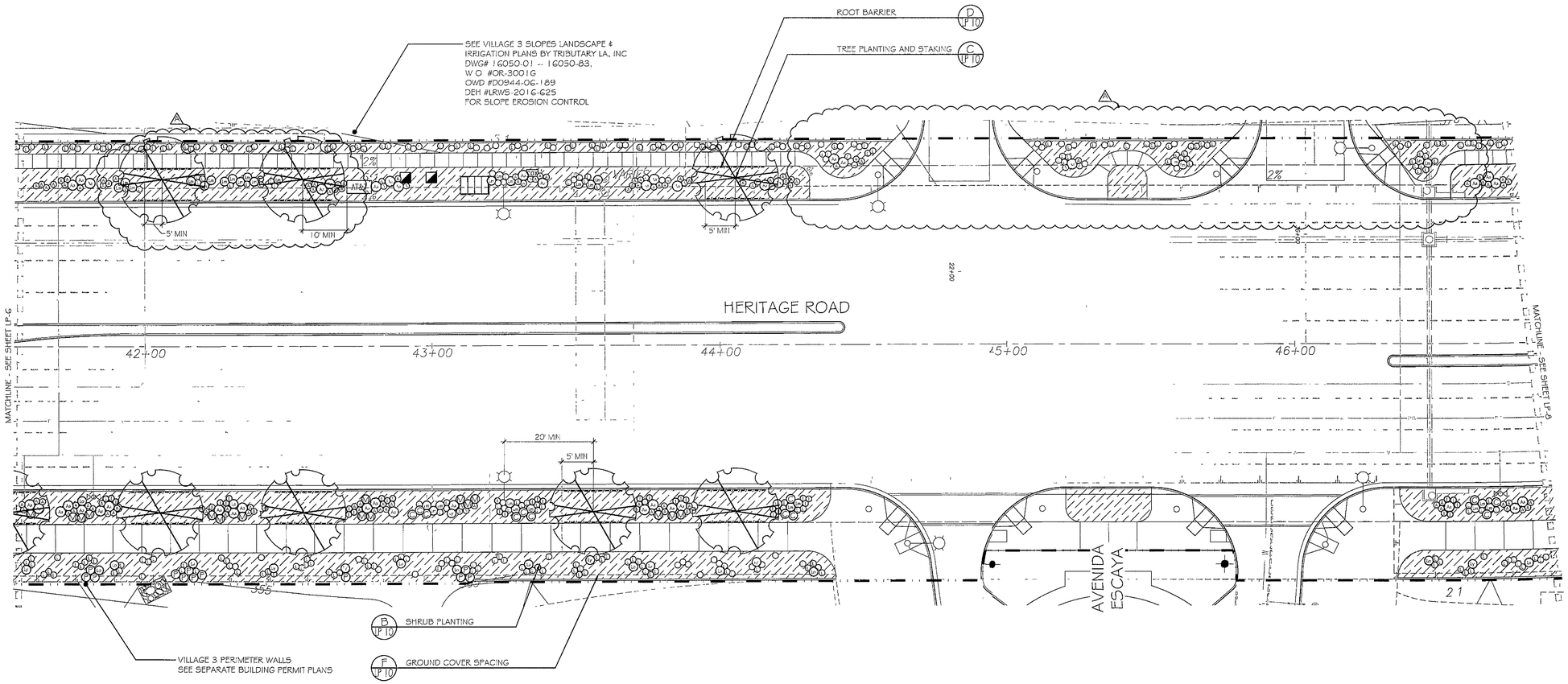

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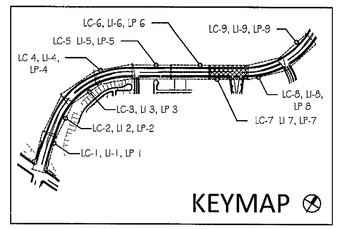

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Designed By	Drawn By	Checked By
T P	T G / A P	T P

Plans Prepared Under Supervision Of _____ Date 9/30/19
THOMAS A PICARD — R L A No 4001

Plans Originally Approved 8-30-17

Approved _____ Date 5.7.19
Director of Development Services or Designee

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Drawing No 16044 - 39
Sheet 39 of 44

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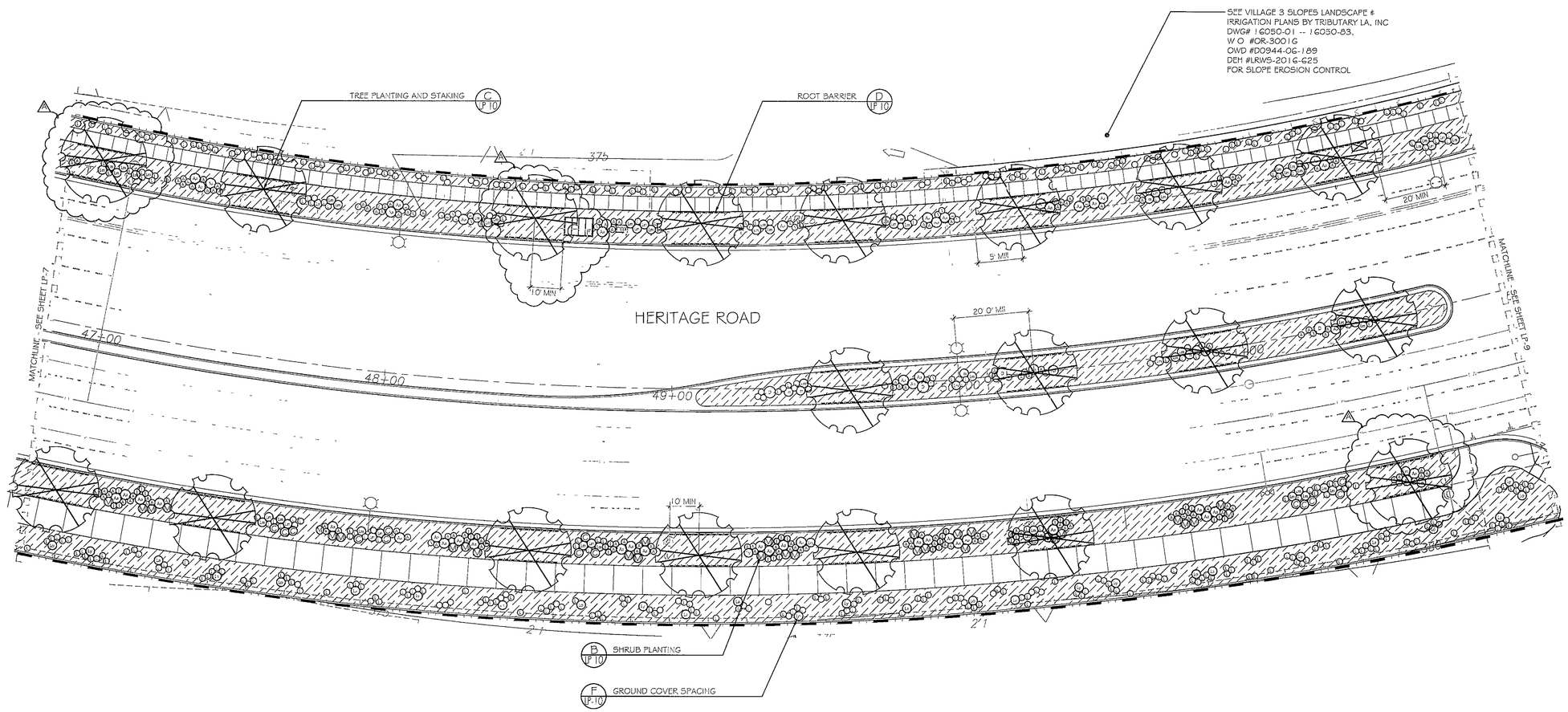
OWD D0944-060186 PLR-16-011 LP-7

Otay Ranch Village 3 Heritage Road



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2 FOR GRADING DOCUMENTATION, REFER TO PLANS PREPARED BY HUNSAKER & ASSOCIATES - CITY OF CHULA VISTA WO # OR-837G SHEETS 14023-01 TO 14023-18

3 FOR STREET IMPROVEMENT DOCUMENTATION, REFER TO PLANS PREPARED BY HUNSAKER & ASSOCIATES CITY OF CHULA VISTA WO # OR-837C, SHEETS 14032-01 TO 14032-31

4 FOR UTILITY LOCATIONS REFER TO PLANS PREPARED BY JMP UTILITY SERVICES FOR ELECTRICITY SDG&E CONSTRUCTION ORDER NO PROJECT NO _____ FOR GAS SDG&E CONSTRUCTION ORDER NO _____, PROJECT NO _____

5 FOR PLANTING DETAILS AND LEGEND SEE SHEET LP-10

6 FOR PLANTING SPECIFICATIONS, SEE SHEETS LP-11 AND LP-12

PLANTING LEGEND (SEE SHEET LP-10 FOR FULL LEGEND)

Trees

Symbol	Botanical Name	Common Name
	Schinus molle	California Pepper Tree

Shrubs

Symbol	Botanical Name	Common Name
Aa	Agave attenuata	Century Plant
A	Aloe vera	Medicinal Aloe
C	Chondropetalum tectorum	Dwarf Cape Rush
D	Dasylirion longissima	Mexican Grass Tree
I	Dianella c 'Cassa Blue'	Cassa Blue Dianella
La	Lantana s 'White'	White Trailing Lantana
Lm	Lantana montevidensis	Trailing Lantana
Lo	Lantana x 'Spreading Orange'	Orange trailing Lantana
Ly	Lantana x 'Spreading Yellow'	Yellow Trailing Lantana
L	Limonium perezii	Sea Lavender
M	Muhlenbergia c 'Regal Mist'	Pink Muhly
P	Phormium t 'Wildwood'	Purple New Zealand Flax

Groundcovers

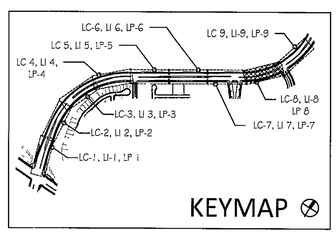
Symbol	Botanical Name	Common Name
	Carex pansa	California Meadow Sedge

LANDSCAPE TREE NOTES

TREES SHALL BE LOCATED A MINIMUM OF
- 10' FROM DRIVEWAYS
- 20' FROM TRAFFIC SIGNALS / STOP SIGNS
- 25' (TRIANGLE FOR RESIDENTIAL) FROM INTERSECTIONS
- 5' FROM UNDERGROUND UTILITIES
- 10' FROM ABOVE GROUND UTILITIES
- 10' FROM FIRE HYDRANTS
- 20' FROM LIGHT STANDARDS
- 3' FROM SIDEWALK UNDERDRAINS

ALL SCREENED FACILITIES ARE PER CIVIL PLANS TRIBUTARY L A , INC CANNOT VERIFY ACTUAL LOCATIONS CONTRACTOR MUST FIELD VERIFY ACTUAL LOCATIONS

0' 10' 20' 40'



KEYMAP

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 Expires 8/30/19 CALIFORNIA

Tributary LA, Inc
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760 434 9300 office
760 434 9303 fax

DATE	27 FEB '19
SCALE	1" = 20'
JOB NO	15021
DRAWN BY	T P / T G
W O NO	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC	⚠ADJ PLANTING @ UTILITIES	5.7.19	
Inspector	OR-837G	HUNSAKER & ASSOC			
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 IN ROCK MOUNTAIN 100 EASTERLY OF PROMINENT 10' HIGH BOULDER & 1700' SOUTHERLY OF WATER STORAGE FACILITY (ITM 1359 PER ROS 14841) ELEV=829 319' (NAVD'88)

SCALE: Horizontal 1" = 20' Vertical N / A
Office ____ Field ____ Traffic ____

Designed By T P | Drawn By T G / A P | Checked By T P
Plans Prepared Under Supervision Of Date 3/20/19
THOMAS A PICARD R L A No 4001

Plans Originally Approved 8-30-17
Approved _____ Date 5.7.19
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE PLANTING PLAN FOR
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA 10+67 88 TO 56+70 54)
CHULA VISTA TRACT NO 13-02

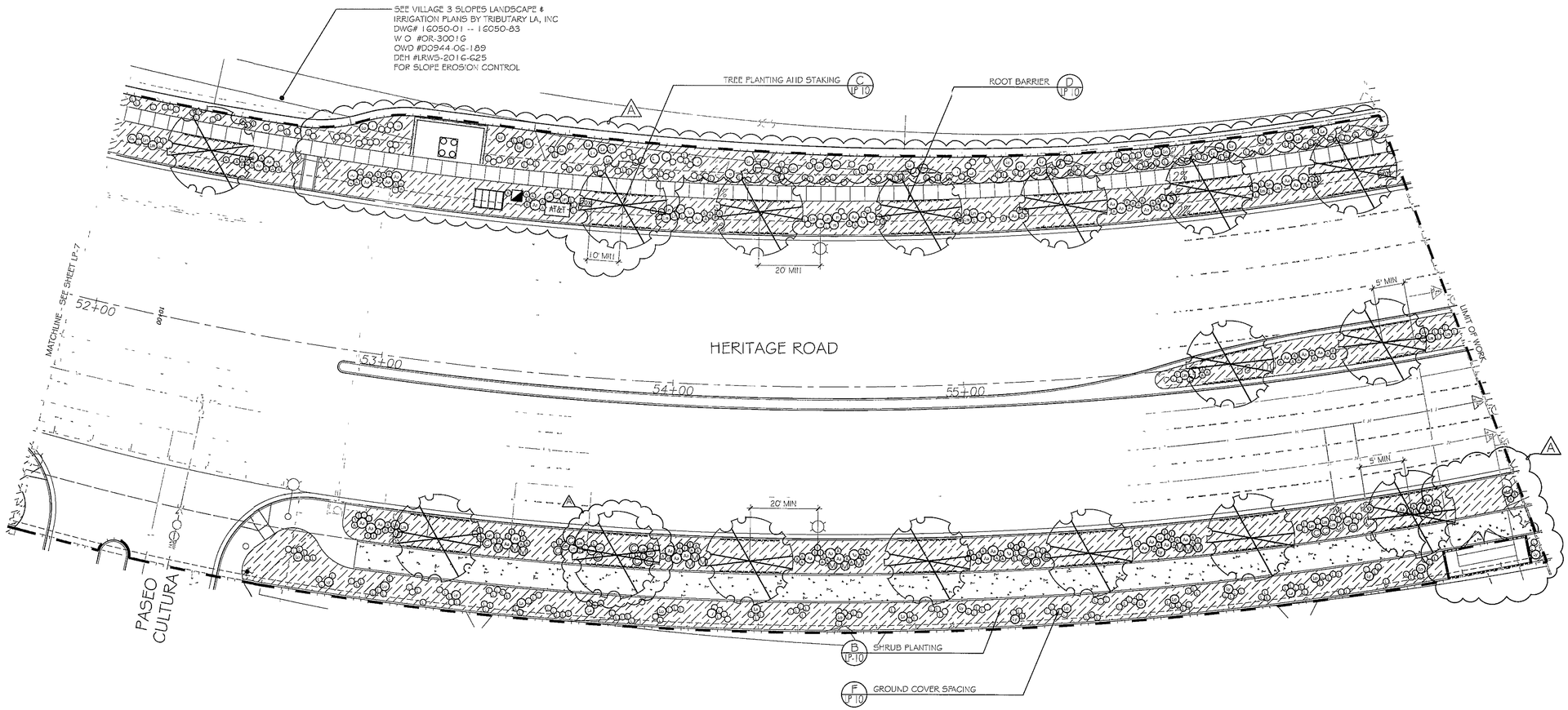
Drawing No 16044 - 40
Sheet 40 of 44

⚠REPLACEMENT SHEET

OWD D0944-060186 PLR-16-011 LP-8

Otay Ranch Village 3 Heritage Road

Print Date 27 FEB '19



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

PLANTING NOTES

1 DETERMINE THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO THE INITITATION OF ANY WORK. ALL WORK SHALL BE PERFORMED IN A MANNER WHICH WILL AVOID POSSIBLE DAMAGE TO UTILITIES. HAND EXCAVATE AS REQUIRED

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5 FOR PLANTING DETAILS AND LEGEND, SEE SHEET LP-10

6 FOR PLANTING SPECIFICATIONS SEE SHEETS LP-11 AND LP-12

PLANTING LEGEND (SEE SHEET LP-10 FOR FULL LEGEND)

Trees

Symbol	Botanical Name	Common Name
	Schinus molle	California Pepper Tree

Shrubs

Symbol	Botanical Name	Common Name
Aa	Agave attenuata	Century Plant
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D	Dasylirion longissima	Mexican Grass Tree
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Ly	Lantana x 'Spreading Yellow'	Yellow Trailing Lantana
L	Limonium perezii	Sea Lavender
M	Muhlenbergia c 'Regal Mist'	Pink Muhly
P	Phormium t 'Wildwood'	Purple New Zealand Flax

Groundcovers

Symbol	Botanical Name	Common Name
	Carex panisa	California Meadow Sedge

LANDSCAPE TREE NOTES

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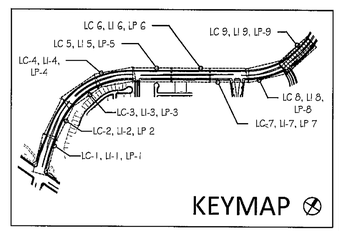
0' 10' 20' 40'



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REGISTERED LANDSCAPE ARCHITECT THOMAS A PICARD 2981 9/30/19 CALIFORNIA

Tributary LA, Inc
2725 Jefferson Street, Suite 14
Carlsbad, CA 92008
760 434 9300 office
760 434 9303 fax

DATE	27 FEB '19
SCALE	1" = 20'
JOB NO	15021
DRAWN BY	T P / T G
W O NO	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC	⚠ADJ PLANTING @ PUMP STATION 4 BROW DITCH	5.7.19	
Inspector	OR-837G	HUNSAKER & ASSOC			
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 (PTF 1359 PER ROS 14941) ELEV=829.319 (NAVD'88)

SCALE: Horizontal 1" = 20' / Vertical N / A
Office _____ Field _____ Traffic _____

Designed By TP | Drawn By TG / AP | Checked By TP
Plans Prepared Under Supervision Of THOMAS A PICARD Date 5/30/19 R L A No 4001

Plans Originally Approved 8-30-17
Approved _____ Date 5.7.19
Director of Development Services or Designee

CITY OF CHULA VISTA
LANDSCAPE PLANTING PLAN FOR
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO 13-02

Drawing No 16044 - 41
Sheet 41 of 44

⚠REPLACEMENT SHEET
OWD D0944-060186 PLR-16-011 LP-9

Print Date 27 FEB '19

Otay Ranch Village 3 Heritage Road

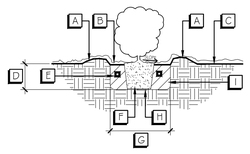
Printed Date: 4 MAR '22

A NOT ASSIGNED

B SHRUB PLANTING

shrub-plant

N.T.S.



- A 2" BERM FOR SHRUBS
- B LAYER OF MULCH (SEE PLANTING SPECIFICATIONS FOR DEPTH) MAINTAIN 3" FROM TRUNK
- C FINISH GRADE
- D ROOTBALL DEPTH
- E FERTILIZER TABLET PER SOILS REPORT
- F ROOTBALL, SET CROWN 1" ABOVE GRADE
- G PLANTING HOLE - 2 TIMES CONTAINER WIDTH
- H PLACE ROOTBALL OVER NATIVE SUBGRADE
- I AMENDED BACKFILL (SEE SPECIFICATIONS)

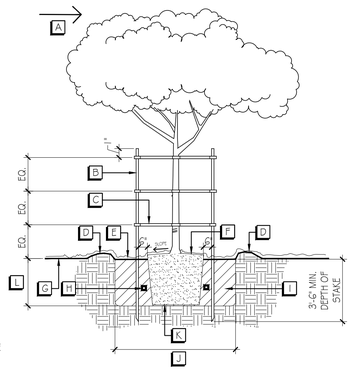
C TREE PLANTING AND STAKING

tree-planting

N.T.S.

- A PREVAILING WIND AXIS PARALLEL TO STAKES
- B 2" DIA. 10' PINE LODGE POLE STAKE
- C TREE TIES
- D 4" BERM FOR TREES
- E LAYER OF MULCH (SEE PLANTING SPECIFICATIONS FOR DEPTH) 3" FROM TRUNK
- F ROOTBALL, SET CROWN 1" ABOVE GRADE
- G FINISH GRADE
- H FERTILIZER TABLET PER SOILS REPORT
- I AMENDED BACKFILL (SEE SPECIFICATIONS)
- J PLANTING HOLE - 2 TIMES CONTAINER WIDTH
- K PLACE ROOTBALL OVER NATIVE SUBGRADE
- L ROOTBALL DEPTH

NOTE: REMOVE NURSERY STAKE

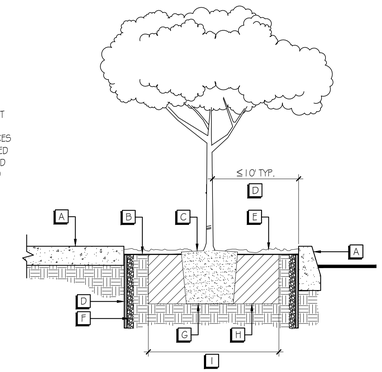


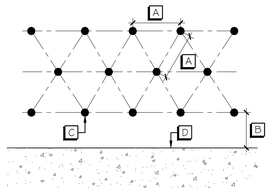
D ROOT BARRIER

rootbarr

N.T.S.

- A CURB OR PAVING
- B FINISH GRADE
- C ROOTBALL - SET CROWN 1" ABOVE GRADE
- D 19.5" WIDE ROOT BARRIER - SEE PLANTING SPECIFICATIONS. ROOT BARRIER SHALL BE LOCATED PARALLEL TO ALL PAVING SURFACES AND WALLS WHEN TREE IS PLANTED WITHIN 10' OF SAID SURFACE AND SHALL EXTEND 10' AS MEASURED FROM THE TRUNK OF THE TREE .
- E MULCH IF REQUIRED (SEE SPECIFICATIONS)
- F GRAVEL BARRIER (4" - 6" WIDE)
- G PLACE ROOT BALL OVER NATIVE SUBGRADE
- H AMENDED BACKFILL (SEE SPECIFICATIONS)
- I PLANTING HOLE - 2 TIMES BOX WIDTH





- A VARIES, SEE PLANS FOR SPECIFIED ON-CENTER SPACING
- B VARIES, SHALL BE ONE-HALF THE SPECIFIED ON-CENTER SPACING
- C CENTER OF SHRUB
- D HEADER, CURB, PAVED SURFACE, ETC.

E NOT ASSIGNED

F GROUND COVER SPACING

GC-spacing

N.T.S.

G NOT ASSIGNED

H NOT ASSIGNED

PLANTING LEGEND

Trees

Symbol	Qty	Size	Botanical Name	Common Name	Comments
A A	166	24" Box	Schinus molle	California Pepper Tree	50' O.C. Spacing, Standard

Shrubs

Symbol	Qty	Size	Botanical Name	Common Name	Comments
Aa	519	5 gal	Agave attenuata	Century Plant	
A	1501	1 gal	Aloe vera	Medicinal Aloe	
C	84	1 gal	Chondropetalum tectorum	Dwarf Cape Rush	NOT species elephantinum
D	29	5 gal	Dasylirion longissima	Mexican Grass Tree	Single-trunk & symetrical
X	136	1 gal	Dianella c. 'Cassa Blue'	Cassa Blue Dianella	
La	69	1 gal	Lantana s. 'White'	White Trailing Lantana	
Lm	610	1 gal	Lantana montevidensis	Trailing Lantana	
Lo	56	1 gal	Lantana x 'Spreading Orange'	Orange Trailing Lantana	
Ly	232	1 gal	Lantana x 'Spreading Yellow'	Yellow Trailing Lantana	
L	3261	1 gal	Limonium perezii	Sea Lavender	
M	103	1 gal	Muhlenbergia c. 'Regal Mist'	Pink Muhly	
P	58	5 gal	Phormium t. 'Wildwood'	Purple New Zealand Flax	

Groundcovers

Symbol	Qty	Size	Botanical Name	Common Name	Comments
	12" O.C.	Liners	Carex pansa	California Meadow Sedge	Plant at 12" O.C.
		Sod	Lippia nodiflora L. 'Kurapia'	Kurapia	Planted within Grasscrete

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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: THOMAS A PICARD R.L.A. # 4001

DISCIPLINE: LANDSCAPE ARCHITECT

REGIST. EXP. 9/30/21

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — No. 4001 — 9/30/17 — CALIFORNIA

Tributary LA, Inc.

2725 Jefferson Street, Suite 14
Carlsbad, CA 92008

760.434.9300 office
760.434.9303 fax

4 MAR '22
27 FEB '19

DATE:	17 JUL '17
SCALE:	N / A
JOB NO.	15021
DRAWN BY:	T.P. / T.G.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.	2 ADJ. PLANT QUANTITIES	5-7-19	JC
Inspector	OR-837G	HUNSAKER & ASSOC.	1 ADJ. PLANT QUANTITIES	6/3/22	JC
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 T.P. | Drawn By T.G. / A.P. | Checked By T.P.

Plans Prepared Under Supervision Of: THOMAS A. PICARD Date 7/18/17 R.L.A. No. 4001

Approved: P. Fermán, PLA Director of Development Services or Designee Date: 8/30/17

CITY OF CHULA VISTA

LANDSCAPE PLANTING LEGEND AND DETAILS FOR:

OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)

CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 42

Sheet 42 of 44

Otay Ranch Village 3 Heritage Road

OWD D0944-060186 PLR-16-011 LP-10

LANDSCAPE PLANTING SPECIFICATION

I. GENERAL CONDITIONS

A. DEFINITIONS:

1. GOVERNING MUNICIPALITY: CHULA VISTA
2. GOVERNING WATER DISTRICT: OTAY WATER DISTRICT
3. PROJECT OWNER: HOMEFED CORPORATION
4. CIVIL ENGINEER: HUNSAKER & ASSOCIATES
5. LANDSCAPE ARCHITECT: TRIBUTARY LA, INC.

B. SCOPE OF SERVICES:

1. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY MATERIALS, LABOR, EQUIPMENT, PERMITS, SUPERVISION AND ALL OTHER SERVICES NECESSARY TO COMPLETE ALL CONSTRUCTION WORK, AS SPECIFIED WITHIN THESE LANDSCAPE CONSTRUCTION DOCUMENTS. ALL WORK SHALL BE PERFORMED AND COMPLETED TO THE SATISFACTION OF THE OWNER OR AUTHORIZED REPRESENTATIVE.
2. FIELD REVISIONS SHALL NOT BE EXECUTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER OR AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME THE RISK OF NOT BEING COMPENSATED, WHEN WORK IS PERFORMED WITHOUT AN APPROVED CHANGE ORDER.
3. THE LANDSCAPE ARCHITECT SHALL HAVE THE AUTHORITY TO MAKE MINOR REVISIONS IN THE FIELD. REVISIONS SHALL BE DOCUMENTED ON A "PUNCH-LIST" AND CIRCULATED TO THE OWNER, LANDSCAPE ARCHITECT AND LANDSCAPE CONTRACTOR. THE OWNER, PRIOR TO PROCEEDING SHALL APPROVE ALL SUCH REVISIONS INVOLVINGADDITIONAL COST OR SIGNIFICANT MODIFICATIONS TO THE PROJECTS APPEARANCE.
4. PROVISIONS OF THE 'GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION', A.I.A. DOCUMENT A201, LATEST EDITION, SHALL APPLY TO THE WORK AS IF PART OF THIS CONTRACT. COPIES ARE AVAILABLE AT THE A.I.A. OFFICE, 233 'A' STREET, SAN DIEGO, CALIFORNIA 92101.

C. CODE COMPLIANCE

1. LOCAL, MUNICIPAL AND STATE CODES, LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PART OF THIS PROJECT ARE HEREBY MADE PART OF THESE LANDSCAPE CONSTRUCTION DOCUMENTS.
2. ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH THE UNIFORM BUILDING CODE, UNIFORM PLUMBING CODE, UNIFORM FIRE CODE, AMERICAN DISABILITIES ACT AND ALL OTHER APPLICABLE BUILDING DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER OF ANY DESIGN ELEMENT THAT MAY BE IN CONFLICT WITH ANY APPLICABLE CODES, LAWS, RULES AND REGULATIONS, PRIOR TO CONSTRUCTION.
3. ALL WORK MUST BE IN COMPLIANCE WITH THE CITY OF CHULA VISTA'S LANDSCAPE MANUAL DATED NOVEMBER 1994 AND THE DEPARTMENT OF PUBLIC WORK'S DESIGN STANDARDS, 1997 CONSTRUCTION STANDARDS.
4. THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "GREEN BOOK", 2000 EDITION AND ASSOCIATED SUPPLEMENTS.

D. LANDSCAPE CONTRACTOR'S RESPONSIBILITIES

1. THESE PLANS ARE PREPARED FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS AND DIMENSIONS SHOWN ON THE PLANS AFFECTING THE INTENDED DESIGN OF THE CONSTRUCTION WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE OWNER IMMEDIATELY.
2. THE CONTRACTOR SHALL CARRY ALL NECESSARY COMPENSATION, LIABILITY AND PROPERTY DAMAGE INSURANCE TO COVER THEIR EMPLOYEES AND INSTALLATION SO AS TO OFFER FULL PROTECTION TO THE OWNER FROM ANY POSSIBLE DAMAGE SUIT OR LIEN ON THE OWNER'S PROPERTY.
3. THE CONTRACTOR SHALL BE COORDINATE THE INSTALLATIONS OF THE LANDSCAPE MATERIAL WITH ALL OTHER TRADES, TO AVOID POTENTIAL CONFLICTS WITH THE STREET IMPROVEMENTS, UTILITIES, GRADING, DRAINAGE, IRRIGATION AND PLANT MATERIAL.
4. THE CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ALL EXISTING AND/OR RECENTLY INSTALLED UTILITIES, CONSTRUCTION FEATURES, IRRIGATION AND PLANT MATERIAL AND SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED IMPROVEMENTS, IN A MANNER ACCEPTABLE TO THE OWNER'S REPRESENTATIVE.
5. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS AND FEES, REQUIRED BY THE LOCAL GOVERNING AGENCIES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ENCROACHMENT ONTO ADJACENT PROPERTIES, RIGHT-OF-WAYS, EASEMENTS, SETBACKS OR ANY OTHER LEGAL PROPERTY RESTRICTION.
7. THE PRIME LANDSCAPE CONTRACTOR SHALL ACCEPT THE RESPONSIBILITY FOR ALL OF THEIR SUBCONTRACTORS AND PERFORM ALL WORK, COORDINATION AND SUPERVISION, AS REQUIRED TO COMPLETE THE CONTRACT.
8. THE CONTRACTOR SHALL INFORM THE OWNER, PRIOR TO THE INITIATION OF ANY WORK, THE NAMES OF ALL SUBCONTRACTORS PROPOSED (IF ANY). THE OWNERWILL RETAIN THE RIGHT TO REJECT ANY SUBCONTRACTOR PROPOSED BY THE PRIME LANDSCAPE CONTRACTOR.
9. THERE SHALL BE NO DOCUMENTATION IN THE GENERAL CONTRACT THAT CREATES ANY CONTRACTUAL RELATIONSHIP BETWEEN HE OWNER AND SUBCONTRACTOR.
10. THE CONTRACTOR SHALL SUBMIT THE NAME AND BACKGROUND EXPERIENCE OF THE PROPOSED FOREMAN/SUPERVISOR FOR THIS JOB.
11. THE CONTRACTOR SHALL PROVIDE APPROPRIATE SUPERVISION FOR ALL WORK PERFORMED. WHEN ABSENT FROM THE JOB SITE, THE JOB SUPERVISOR SHALL APPOINT AN ASSISTANT CAPABLE OF DISCUSSING MINOR MATTERS WITH THE LANDSCAPE ARCHITECT AND/OR OWNER.
12. THE CONTRACTOR SHALL COMMENCE SELECTION AND VERIFY THE AVAILABILITY OF ALL NECESSARY PLANT MATERIAL UPON AWARD OF CONTRACT.
13. THE CONTRACTOR SHALL ARRANGE THE ACQUISITION OF ANY NECESSARY DEPOSITS TO SET ASIDE MATERIALS (EITHER BY OWNER OR BY CONTRACTOR), AS SOON AS POSSIBLE.
14. THE CONTRACTOR AGREES BY SUBMITTING A BID, THAT THIS PROJECT WILL RECEIVE A HIGH PRIORITY ON HIS WORK SCHEDULE. THE ONLY DELAYS CONSIDERED ACCEPTABLE ARE ONLY THOSE, WHICH CAN BE PROVEN TO BE BEYOND THE CONTROL OF THE CONTRACTOR.
15. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND FEES TO COMPLETE THE WORK.
16. ALL PLANT MATERIALS SHALL BE OF THE BEST QUALITY AVAILABLE AND SHALL BE MAINTAINED IN A PRIME CONDITION UNTIL FINAL ACCEPTANCE.
17. WORK SHALL BE PERFORMED WHEN WEATHER CONDITIONS PERMIT PROPER AND SATISFACTORY RESULTS.

E. CONTRACTOR'S INSURANCE

1. THE CONTRACTOR SHALL CARRY THE WORKMAN'S COMPENSATION, GENERAL LIABILITY AND PROPERTY DAMAGE INSURANCE. IF AN EMERGENCY THREATENS THE SAFETY OF LIFE, WORK OR ADJOINING PROPERTY, THE CONTRACTOR HEREBY INSTRUCTED TO ACT AT THEIR DISCRETION TO PREVENT SUCH LOSS OR INJURY AND SHALL MANTAIN THE MINIMUM LIABILITY INSURANCE COVERAGE DURING THE CONTRACT PERIOD:
   a. BODILY INJURY: $250,000.00 PER INDIVIDUAL OCCURRENCE
   b. PROPERTY DAMAGE: $250,000.00 PER INDIVIDUAL OCCURRENCE
2. THE CONTRACTOR SHALL NOT CAUSE THEIR INSURANCE POLICIES TO BE CANCELED OR PERMIT THEM TO LAPSE. EACH INSURANCE POLICY SHALL INCLUDE A CLAUSE TO THE EFFECT THAT THE POLICY SHALL NOT (AT ANY TIME DURING THE CONSTRUCTION PERIOD), BE CANCELED OR REDUCED OR LIMITED UNTIL FIFTEEN DAYS AFTER AL ADDITIONAL INSURERS HAVE RECEIVED WRITTEN NOTICE AS EVIDENCED BY RETURNED RECEIPTS OF REGISTERED OR CANCELED LETTERS.
3. BY ACCEPTING THIS CONTRACT THE CONTRACTOR AGREES TO HOLD HARMLESS THE OWNER AND LANDSCAPE ARCHITECT FROM ANY CLAIMS ARISING OUT OF HIS OPERATIONS OR THE OPERATIONS OF ANY OF THEIR SUBCONTRACTORS, MATERIAL SUPPLIERS AND AGENTS.

F. LANDSCAPE CONSTRUCTION DOCUMENTS

1. THE OWNER SHALL FURNISH THE CONTRACTOR WITH ALL APPLICABLE DRAWINGS, DETAILS, SPECIFICATIONS, REVISIONS (AS REQUESTED BY THE LANDSCAPE ARCHITECT) AND CHANGE ORDERS. RECOMMENDATIONS RECEIVED DIRECTLY FROM THE LANDSCAPE ARCHITECT MUST BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO ITS EXECUTION.
2. THE CONTRACTOR SHALL FURNISH THEIR CONTRACT, ALL SHOP DRAWINGS SPECIFIED AS PART OF THE CONTRACT AND A WORK SHEET, WHICH NOTES ALL OF THE DEVIATIONS FROM THE ORIGINAL CONTRACT, NOT OTHERWISE COVERED.
3. THE CONTRACTOR SHALL KEEP AT THE JOB SITE AT ALL TIMES A "FIELD SET" OF DRAWINGS, SHOP DRAWINGS AND THE WORK SHEET INDICATING UPDATES AND DEVIATIONS AS THEY OCCUR.
4. ALL CONSTRUCTION ITEMS SHALL BE LOCATED AS DIMENSIONED ON THE PLANS, UNLESS OTHERWISE INDICATED IN NOTES, DETAILS, LEGENDS AND SPECIFICATIONS.
5. DIMENSIONS SHALL BE TAKEN FROM THE VERTICAL IMPROVEMENTS UNLESS OTHERWISE NOTED ON PLANS.
6. THE PLANTING DESIGN, AS INDICATED ON HE PLANS IS DIAGRAMMATIC. SCALE DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL SITE DIMENSIONS PRIOR TO PROCEEDING WITH THE WORK.
7. UNDER NO CIRCUMSTANCES SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, ELEVATIONS, SECTIONS OR DETAILS FROM THESE PLANS.
8. WHERE NO CONSTRUCTION DETAIL ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, THE CONSTRUCTION SHALL BE CONSISTENT WITH SIMILAR WORK, AS SHOWN WITHIN THESE PLANS.
9. THE OWNER SHALL ESTABLISH ALL LOT LINES AND SITE RESTRICTIONS. ALL OTHER IMPROVEMENTS, GRADES AND CONTROL SHALL BE ESTABLISHED BY THE CONTRACTOR AND SHALL VERIFY CONSISTENCY WITH DIMENSIONS, LINES, GRADES, IMPROVEMENTS WITH THOSE INDICATED ON THE DRAWINGS.

G. SITE CONDITIONS

1. PRIOR TO THE INITIATION OF ANY WORK, THE CONTRACTOR SHALL LOCATE ALL CABLES, CONDUITS, SEWERS SEPTIC TANKS AND ALL OTHER UNDERGROUND UTILITIES THAT ARE COMMONLY ENCOUNTERED AND SHALL TAKE THE PROPER PRECAUTION NOT TO DAMAGE OR DISTURB SUCH IMPROVEMENTS. IF A CONFLICT EXISTS BETWEEN SUCH OBSTACLES AND THE PROPOSED WORK, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER AND LANDSCAPE ARCHITECT, WHO WILL COORDINATE THE RELOCATION OF THE SPECIFIED FEATURE. THE CONTRACTOR SHALL PROCEED IN THE SAME MANNER IF NATURAL BARRIERS, SUCH AS A SOLID ROCK SUB-BASE OR ANY OTHERCONDITION PREVENT THE SPECIFIED FEATURES FROM BEING INSTALLED AS SPECIFIED.
2. DISCREPANCIES BETWEEN THE SITE CONDITIONS AND THE LANDSCAPE IMPROVEMENT PLANS AND/OR DESIGN INTENT, AFFECTING THE SUCCESSFUL COMPLETION AND COST OF THE PROJECT SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT IMMEDIATELY. ANY CONTINUATION OF WORK PRIOR TO THE RESOLUTION OF ANY DISCREPANCIES IS AT THE CONTRACTOR'S RISK AND EXPENSE.

H. QUALITY ASSURANCE

1. ALL LANDSCAPE MATERIALS SHALL BE SHIPPED WITH CERTIFICATE OF INSPECTIONS, AS REQUIRED BY THE GOVERNING AGENCIES.
2. NO SUBSTITUTIONS ARE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE. IF THE SPECIFIED MATERIALS ARE NOT OBTAINABLE, THE CONTRACTOR SHALL SUBMIT PROOF OF NON-AVAILABILITY, INCLUDING A LIST OF ALL NURSERIES CONTACTED TO THE OWNER'S REPRESENTATIVE. ONLY THE OWNER'S REPRESENTATIVE MAY DIRECT THE LANDSCAPE ARCHITECT TO PROVIDE SUBSTITUTIONS.
3. PROVIDE PLANT MATERIAL OF THE QUANTITY, SIZE, SPECIES AND VARIETY AS SPECIFIED WITHIN THE APPROVED PLANS. PROVIDE ONLY HEALTHY VIGOROUS STOCK, GROWN IN RECOGNIZED NURSERIES IN ACCORDANCE WITH SOUND HORTICULTURAL PRACTICES AND FREE OF DISEASE, INSECTS, EGGS, LARVAE AND DEFECTS SUCH AS KNOTS SUN-SCALD, ABRASIONS OR DISFIGUREMENT.
4. WHERE FORMAL ARRANGEMENTS OR WHERE CONSECUTIVE ORDER OF TREES OR SHRUBS ARE SPECIFIED, SELECT PLANT MATERIAL WITH A UNIFORM HEIGHT, SPREAD AND APPEARANCE.
5. THE LANDSCAPE ARCHITECT MAY INSPECT PLANT MATERIAL AT EITHER THE NURSERIES OR AT THE JOB SITE, PRIOR TO PLANTING, FOR COMPLIANCE WITH THE REQUIREMENTS OF GENIUS, SPECIES, VARIETY, SIZE AND QUALITY.
6. THE OWNER'S REPRESENTATIVE AND THE CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR RETAIN THE RIGHT TO FURTHER REVIEW PLANT MATERIAL FOR SIZE AND CONDITION AND HAVE THE RIGHT TO REJECT ANY UNACCEPTABLE PLANT MATERIAL, AT ANY TIME DURING CONSTRUCTION AND SUBSEQUENT MAINTENANCE PERIOD.
7. THE CONTRACTOR SHALL IMMEDIATELY REMOVE ALL REJECTED PLANT MATERIAL FROM THE JOB SITE.

I. SUBMITTALS

1. SOIL'S ANALYSIS
   a. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE OWNER'S REPRESENTATIVE WITH AN AGRICULTURAL SUITABILITY TEST FOR ON-SITE TOP SOIL PRIOR TO ORDERING SOIL AMENDMENTS AND FERTILIZER, AS DESCRIBED:
   b. AFTER COMPLETION OF THE GRADING OPERATIONS, TAKE EIGHT (8) SAMPLES OF ON-SITE SOIL, AT A DEPTH OF SIX TO TWELVE INCHES, WITHIN THE PROPOSED PLANTING AREAS. SAMPLES SHOULD BE TAKEN FROM COMPLETELY DIFFERENT LOCATIONS ON THE JOB SITE. ONE SAMPLE MUST BE TAKEN FROM A MANUFACTURED FILL PORTION OF THE SITE AND THE OTHER FROM A CUT PORTION OF THE SITE.
   c. SUBMIT SAMPLES TO: WAYPOINT ANALYTICAL
      4741 E. HUNTER AVE., SUITE A - ANAHEIM, CALIFORNIA 92807
      PHONE: (714) 282-8777
   d. REQUEST TESTING FOR AGRICULTURAL FERTILITY AND SUITABILITY (TEST A05-1) WITH WRITTEN RECOMMENDATIONS FOR SOIL'S AMENDMENTS, HYDROSEEDING, SOD LAWN, SEED LAWN, ACID LOVING PLANTS, POST MAINTENANCE FERTILIZATION, SAR, EC, pH AND TOXICS.
   e. SAMPLES OF IMPORTED PALM TREE BACKFILL SAND SHALL BE SUBMITTED TO SOIL AND PLANT LABORATORY, FOR ANALYSIS PRIOR TO BACKFILLING.
   f. A COPY OF ALL SOIL TESTING RESULTS MUST BE PROVIDED BY THE CONTRACTOR TO THE OWNER'S REPRESENTATIVE, LANDSCAPE ARCHITECT, CITY LANDSCAPE ARCHITECT AND CITY LANDSCAPE INSPECTOR PRIOR TO PLANTING.
   g. SOIL'S REPORT RECOMMENDATIONS SHALL TAKE PRECEDENCE OVER THE AMENDMENT AND FERTILIZATIONS RATES, SPECIFIED WITHIN THESE PLANS. TEST SOILS AGAIN AFTER INCORPORATING SOIL AMENDMENTS AND LEACHING. SOILS MUST COMPLY WITH SAR < 3, EC < 2, pH = 7.0-7.5, AND TOXICS WITHIN ACCEPTABLE RANGE.
2. PLANT MATERIAL CERTIFICATIONS AS FOLLOWS:
   a. CERTIFICATES OF INSPECTIONS, AS REQUIRED BY THE GOVERNMENTAL AGENCY.
   b. MANUFACTURER'S OR VENDORS CERTIFIED ANALYSIS FOR SOIL AMENDMENTS AND FERTILIZER MATERIAL.
   c. LABELED DATA THAT SUBSTANTIATES THAT THE PLANT MATERIALS COMPLY WITH THE SPECIFIED REQUIREMENTS.
   d. NURSERY RECEIPTS VERIFYING THAT ALL OF THE PLANT MATERIAL INSTALLED IS CONSISTENT WITH THE SPECIFICATIONS WITHIN THE APPROVED PLANS.
   e. SEED VENDOR'S CERTIFIED STATEMENT FOR EACH SEED MIXTURE REQUIRED, STATING THE BOTANICAL NAME, COMMON NAME, PERCENTAGE BY WEIGHT AND THE PERCENTAGES OF PURITY AND GERMINATION FOR EACH SPECIES SPECIFIED.
3. PLANT MATERIAL PHOTOGRAPHS:
   a. SUBMIT 3" X 5" PRINTS OR EMAIL DIGITAL PHOTOS A MINIMUM OF NINETY DAYS PRIOR TO THE INSTALLATION, OF REPRESENTATIVE PLANT MATERIAL, TO THE OWNER'S REPRESENTATIVE OF EACH TREE, SHRUB, VINE AND ESPALIER SPECIFIED.
   b. PICTURES SHOULD INCLUDE HEIGHT, WIDTH AND CALIPER SPECIFICATIONS FOR TREES AND HEIGHT AND WIDTH SPECIFICATIONS FOR SHRUBS, VINES AND ESPALIERS. TREE PHOTOS INDIVIDUALS FOR SCALE MUST INCLUDE THE HEIGHT OF THE PERSON IN THE PHOTOGRAPH.
   c. PHOTOS SHALL BE FROM THE NURSERY AND OF THE EXACT PLANT MATERIAL PROPOSED TO BE DELIVERED TO THE SITE.
   d. ALL PLANT MATERIAL SHALL BE EQUAL TO OR OF BETTER QUALITY THAN THE PHOTOS SUBMITTED FOR APPROVAL.
4. STATEMENTS OF CONFIRMATION:
   a. SUBMIT AT THE TIME OF DELIVERY, INVOICE STATEMENTS FOR ORGANIC AMENDMENTS AND FERTILIZERS CERTIFYING DELIVERY TO THE SITE AND QUANTITIES BY BULK AND/OR WEIGHT.
   b. SUBMIT SUPPLIER'S STATEMENTS OF CONFIRMATION RECORDING COMPLIANCE OF ORGANIC AMENDMENTS AND FERTILIZERS WITH THESE SPECIFICATIONS.
   c. SUBMIT CERTIFICATES FOR THE FOLLOWING ITEMS UPON DELIVERY TO THE JOB SITE:
      - QUANTITY OF COMMERCIAL FERTILIZER AND ORGANIC FERTILIZER.
      - QUANTITY OF SOIL AMENDMENTS.
      - QUANTITY OF SEED.
      - QUANTITY OF OTHER SOIL ADDITIVES PER AGRONOMIC SOILS TEST REPORT.
   d. SUBMIT WRITTEN CERTIFICATION OF HYDROSEEDING.
   e. SUBMIT WRITTEN CERTIFICATE OF DELIVERY OF CONTAINER OR BULK MATERIALS.
   f. SUBMIT WRITTEN CERTIFICATE OF QUANTITY AND QUALITY OF ALL PLANT MATERIALS.
5. SUPPLEMENTAL LANDSCAPE MATERIALS:
   a. THE CONTRACTOR SHALL SUBMIT A CHECKLIST WHICH INCLUDES A LINE ITEM LIST OF ALL LANDSCAPE PRODUCTS AND MATERIALS, SPECIFIED ON THE APPROVED DRAWINGS. THE CHECKLIST WILL IDENTIFY WHICH ITEMS THE CONTRACTOR WILL FOLLOW THE SPECIFICATIONS AND WHICH ITEMS THE CONTRACTOR PROPOSES TO DEVIATE FROM THE APPROVED DRAWINGS
   b. SHOULD THE CONTRACTOR PROPOSE TO DEVIATE FROM THE SPECIFIED MATERIALS AND PRODUCTS, THEY SHALL SUBMIT MANUFACTURER'S CUT-SHEETS OF ALL LANDSCAPE MATERIALS AND PRODUCTS TO THE OWNER'S REPRESENTATIVE AND THE CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR FOR APPROVAL.
6. MULCH:
   a. SUBMIT A QUART-SIZE BAG SAMPLE TO THE OWNER'S REPRESENTATIVE AND CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR FOR APPROVAL.
   b. SAMPLE MUST BE CERTIFIED AS FREE OF WEED SEEDS, PLANT PARTS, PATHOGENS DISEASES, INSECTS, ETC.

J. FINAL CONDITIONS & GUARANTEE

1. UPON COMPLETION OF ALL WORK, THE CONTRACTOR SHALL REQUEST A FINAL REVIEW WITH THE OWNER AND LANDSCAPE ARCHITECT, AT WHICH TIME THE CONTRACTOR MUST BE PRESENT. ALL MODIFICATIONS AND EXISTING CONDITIONS SHALL BE NOTED AT TIME AND THE CONTRACTOR SHALL SPECIFY WHEN AND HOW AN UNACCEPTABLE CONDITION WILL BE REPAIRED OR REPLACED. UPON COMPLETION OF ALL DOCUMENTED EXCEPTIONS AND THE CONTRACT AREA CLEANED AND CLEARED OF ALL DEBRIS, THE JOB SHALL BE CONSIDERED COMPLETE AND THE CONTRACT EXECUTED.
2. THE CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE THAT ALL WORK PERFORMED, MATERIALS AND EQUIPMENT FURNISHED UNDER THE CONTRACT, AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER OF THE COMPLETED WORK, EXCEPT WHERE NOTED IN THESE SPECIFICATIONS.
3. NEITHER THE COMPLETION OF THE JOB NOR THE FINAL PAYMENT SHALL RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY FOR THE GUARANTEES AS STATED IN THE CONTRACT OR OF THE RESPONSIBILITY FOR FAULTY MATERIALS OR POOR CRAFTSMANSHIP. THE CONTRACTOR SHALL QUICKLY REMEDY ANY DEFECT, WHICH OCCURS DURING THE GUARANTEE PERIOD, AS SPECIFIED IN THE CONTRACT. THE OWNER WILL FORWARD A NOTICE INDICATING ALL OBSERVED DEFECTS TO THE CONTRACTOR, FOR THE CONTRACTOR'S REVIEW AND RESPONSE. THE CONTRACTOR WILL RETURN WRITTEN DOCUMENTATION TO THE OWNER, INDICATING WHAT ACTION WAS TAKEN TO CORRECT THE DEFECT.
4. THE WARRANTY FOR LAWN AND GROUNDCOVERS SHALL CONTINUE THROUGH THE COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD.
5. THE WARRANTY FOR SHRUBS SHALL CONTINUE ONE YEAR PAST THE DATE OF FINAL ACCEPTANCE.
6. THE WARRANTY FOR TREES SHALL CONTINUE ONE YEAR PAST THE DATE OF FINAL ACCEPTANCE AND SHALL INCLUDE DEFECTS INCLUDING DEATH, POOR GROWTH AND/OR FORM.
7. ALL UNSATISFACTORY PLANT MATERIAL FOUND TO BE DEAD, DISFIGURED OR IN AN UNHEALTHY CONDITION, SHALL BE REPLACED WITHIN FOURTEEN CALENDAR DAYS OF NOTIFICATION. PLANT MATERIAL REPLACED AT THE END OR AFTER THE MAINTENANCE PERIOD, SHALL BE SUBJECT TO AN ADDITIONAL WARRANTY PERIOD, INITIATED WHEN THE REPLACEMENT PLANT MATERIAL HAS BEEN APPROVED BY THE OWNER'S REPRESENTATIVE.

II. MATERIALS

A. GENERAL:

1. PROVIDE MATERIALS OF THE BEST QUALITY OBTAINABLE WHICH COMPLY WITH THE LANDSCAPE IMPROVEMENT PLANS AND SPECIFICATIONS.
2. NO SUBSTITUTIONS OF THE SPECIFIED PLANT MATERIAL SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE.

B. SOIL AMENDMENTS:

1. ORGANIC SOIL AMENDMENTS SHALL BE BLENDED COMMERCIALLY PROCESSED SOIL CONDITIONER CONSISTING OF AN ORGANIC-BASED CONDITIONER, PREPARED BY MIXING A LIGHT, FRIABLE, SILICEOUS MATERIAL WITH NITROGEN-FORTIFIED, FINELY GROUND BARK, WOOD CHIPS AND/OR SAW DUST. THE MATERIAL SHALL CONTAIN A LONG-LASTING FORM OF IRON AND SHALL BE WILBUR-ELLIS "ORGANO-LIFE" SOIL AMENDMENT OR APPROVED EQUAL.
2. ORGANIC SOIL AMENDMENTS SHALL HAVE THE FOLLOWING PROPERTIES:
   a. PARTICLE SIZE: MINIMUM OF 95% PASSING THROUGH A 4 MESH SCREEN.
      MINIMUM OF 80% PASSING THROUGH A 8 MESH SCREEN.
   b. NITROGEN CONTENT: (ALL VALUES BASED ON DRY WEIGHT):
      - 0.5% FOR REDWOOD SAWDUST.
      - 0.7% FOR FIR SAWDUST.
      - 1.0% FOR CEDAR SAWDUST.
      - 1.0% FOR FIR OR PINE BARK.

      * PINE SAWDUST IS NOT ACCEPTABLE.
   c. SALINITY: THE SATURATION EXTRACT CONDUCTIVITY SHALL NOT EXCEED 2.5 MILLIOHMS/CM AT 25ºC.ALL PLANT MATERIAL SHALL BE EQUAL TO OR OF BETTER QUALITY THAN THE PHOTOS SUBMITTED FOR APPROVAL.
   d. ORGANIC CONTENT: MINIMUM OF 90% BY WEIGHT.
   e. COMPOST: AT A RATE OF A MINIMUM OF 4 CU YARDS PER 1,000 SQUARE FEET OF PERMEABLE AREA TO A DEPTH OF 6 INCHES INTO THE SOIL, UNLESS THE SOILS REPORT INDICATES A GREATER THAN 6% ORGANIC MATTER IN THE TOP 6 INCHES OF SOIL.

C. FERTILIZERS & MINERALS:

1. THE FERTILIZER TYPES AND QUANTITY SHALL BE BASED ON RECOMMENDATIONS GIVEN IN THE SOILS ANALYSIS.
2. THE CONTRACTOR SHALL PROVIDE COMMERCIAL FERTILIZERS UNIFORM IN COMPOSITION, FREE-FLOWING, SUITABLE FOR APPLICATION WITH APPROVED EQUIPMENT, DELIVERED TO THE SITE IN UN-OPENED CONTAINERS, EACH FULLY LABELED ACCORDING TO APPLICABLE FERTILIZER LAWS AND BEARING THE NAME OR MARK OF THE MANUFACTURER.
3. THE CONTRACTOR SHALL USE THE COMPLETE FERTILIZERS OF NEUTRAL CHARACTER, PER THE SOIL REPORT'S RECOMMENDATIONS.
4. CALCIUM CARBONATE LIME SHALL BE THE FIRST QUALITY COMMERCIAL LIME.
5. AGRICULTURAL GYPSUM SHALL BE A (CASO4-H2O) CALCIUM SULFATE 94.3%. 90% SHALL PASS THROUGH A FIFTY MESH SCREEN.
6. IRON SULFATE SHALL BE EXPRESSES AS METALLIC-DERIVED FROM SULFATE-DEEP GREEN (FESO4-H2O) A MINIMUM ANALYSIS OF 200% AND 98.3% RETAINED ON A 10 MESH SCREEN.
7. SOIL SULFUR SHALL BE SHALL FIRST QUALITY COMMERCIAL GRADE. 95% MINIMUM ELEMENTAL SULFUR.
8. PLANTING TABLETS FOR A STANDARD APPLICATION SHALL BE GRO-POWER 7-GRAM (12-8-8) PLANTING TABLETS.

D. PLANTING BACKFILL: PLANTING BACKFILL FOR TREES, SHRUBS, VINES AND GROUNDCOVERS SHALL BE A THOROUGHLY BLENDED MIXTURE OF EXCAVATED SOIL FROM THE PLANTING PITS WITH SOIL AMENDMENTS AND FERTILIZER AT THE RATES RECOMMENDED IN THE SOILS REPORT.

E. PLANT MATERIAL:

1. PROVIDE ALL PLANT MATERIAL OF THE SIZE, GENIUS, SPECIES, VARIETY AND BRANCHING CONFIGURATION, AS SPECIFIED IN THE PLANTING LEGEND. PROVIDE SINGLE TRUNK TREES ACCEPT WHERE SPECIAL FORMED TREES ARE SPECIFIED. NO TREES WITH CO-DOMINATE LEADERS SHALL BE ACCEPTED.
2. PROVIDE HEALTHY AND VIGOROUS, FREE OF WEEDS, INSECT INFESTATION, PLANT DISEASE, SUN SCALD, BROKEN FOLIAGE, BARK ABRASIONS AND OTHER DISFIGUREMENTS. QUALITY AND APPROVAL OF THE PLANT MATERIAL SHALL BE DETERMINED BY THE OWNER'S REPRESENTATIVE.
3. THE SIZE SHALL BE OF NORMALLY EXPECTED FOR COMMERCIALLY AVAILABLE NURSERY STOCK FOR THE SPECIES/VARIETIES SPECIFIED IN THESE PLANS. SIZE IN ACCORDANCE WITH THE PLANT MATERIAL SPECIFICATIONS, SHALL BE DETERMINED BY THE OWNER'S REPRESENTATIVE.
4. ALL STANDARD FORM (SINGLE TRUNK) TREES TO INCLUDE A SINGLE STRONG CENTRAL LEADER WITH NO BRANCHES EXTENDING AT AN ANGLE NARROWER THAN 30 DEGREES FROM THE MAIN TRUNK. IF THE TREE DOES NOT DISPLAY A SINGLE STRONG CENTRAL LEADER, A TREE MAY BE APPROVED IF THE DEVELOPER'S ARBORIST OR LANDSCAPE ARCHITECT OF RECORD CAN DEMONSTRATE THAT A SINGLE STRONG CENTRAL LEADER CAN BE ACHIEVED THROUGH STRUCTURAL PRUNING. ALL TREES REQUIRING STRUCTURAL PRUNING FOR THE PURPOSES OF ACHIEVING A STRONG CENTRAL LEADER SHALL BE PRUNED BY THE NURSERY'S ARBORIST PRIOR TO LANDSCAPE ARCHITECT OF RECORD APPROVAL OF TREE SUBMITTAL (SEE NOTE #9 BELOW) OR BY THE DEVELOPER'S ARBORIST AT PLANTING.
5. NO GRAFTED SPECIES WILL BE ALLOWED AS A STREET TREE.
6. TREE SIZING SHALL BE BASED ON CALIPER AND TREE HEIGHT PER AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2014):
   a. 15-GALLON: 1"- 1-1/2" CALIPER; 5'-7' HEIGHT
   b. 24" BOX: 1-1/2" - 1-3/4" CALIPER; 7'-12' HEIGHT
   c. 36" BOX: 1-3/4"-3" CALIPER; 8'-12' HEIGHT
   d. 48" BOX: 3"-4" CALIPER, 14'-18' HEIGHT

   *NOTE: CALIPER TO BE MEASURED AT 6" ABOVE THE ROOT CROWN
7. THE TREE'S LIVE CROWN RATIO SHALL BE A MINIMUM OF 50%, MEANING THERE SHALL BE LIVE BRANCHES IN THE UPPER 50% OF THE TRUNK TO DISTRIBUTE WIND STRESS
8. AND DEVELOP TRUNK TAPER FOR STABILITY.
9. THE LANDSCAPE ARCHITECT OF RECORD SHALL SUBMIT TO THE CITY'S LANDSCAPE ARCHITECT A COPY OF THE APPLICANT'S APPROVED TREE SUBMITTAL WITH PHOTOS REPRESENTATIVE OF THOSE TREES TO BE DELIVERED TO THE SITE, INCLUDING REPRESENTATIVE MEASUREMENTS. THE CITY'S LANDSCAPE ARCHITECT WILL REVIEW THE SUBMITTAL TO VERIFY THE INCLUDED TREES COMPLY WITH THE NOTED REQUIREMENTS PRIOR TO ANY TREES BEING DELIVERED TO THE SITE.
10. ALL 36" BOX TREES AND LARGER, MULTI-TRUNK AND OTHER SPECIMEN TREES SHALL BE TAGGED AT THE NURSERY BY THE LANDSCAPE ARCHITECT OF RECORD AND PHOTOS SUBMITTED TO THE CITY'S LANDSCAPE ARCHITECT AS DESCRIBED ABOVE.
11. THE ROOT SYSTEM SHALL FILL THE CONTAINER BUT NOT BE ROOT BOUND OR GIRDLED.
12. CONTAINER SIZED STOCK SHALL HAVE BEEN GROWN IN THE CONTAINER FOR AT LEAST SIX MONTHS, BUT NO MORE THAN TWO YEARS.
13. NO CONTAINER PLANTS THAT HAVE CRACKED OR HAVE BROKEN ROOT-BALLS, WHEN TAKEN FROM THE CONTAINER, SHALL BE PLANTED.
14. REMOVE REJECTED PLANT MATERIAL FROM THE SITE IMMEDIATELY AND REPLACE AT NO ADDITIONAL COST TO THE OWNER.
15. PLANT MATERIAL SHALL BE HANDLED AND STORED TO BE PROTECTED FROM THE SUN, WIND AND OTHER CONDITIONS THAT MAY CAUSE INJURY OR DAMAGE. DAMAGED PLANT MATERIAL MAY BE REJECTED AT ANY TIME PRIOR TO THE COMPLETION OF THE CONTRACTOR'S WARRANTY PERIOD.
16. CIRCLES, DOTS AND OTHER SYMBOLS REPRESENTED ON THESE PLANS ARE TO BE USED TO DETERMINE THE ACTUAL PLANT QUANTITIES. PLANT QUANTITIES SHOWN IN THE PLANTING LEGEND ARE APPROXIMATE AND THERE IS NO ASSURANCE THAT THE QUANTITIES PROVIDED WITHIN THE PLANTING LEGENDS ARE CONSISTENT WITH THE SYMBOLS SHOWN ON THE PLANS. THE CONTRACTOR HAS THE RESPONSIBLY TO VERIFY ALL PLANT QUANTITIES PRIOR TO SUBMITTING THEIR BID.
17. PROVIDE GROUND COVER PLANTS ESTABLISHED AND WELL ROOTED IN FLAT REMOVABLE CONTAINERS, WITH NOT LESS THAN THE MINIMUM NUMBER AND LENGTH OF RUNNERS, AS REQUIRED BY ANZI Z60.1 FOR THE POT SIZE SPECIFIED.

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:
PRNT NAME: R.L.A. #
DISCIPLINE: LANDSCAPE ARCHITECT REGIST. EXP.

REGISTERED LANDSCAPE ARCHITECT — THOMAS A. PICARD — 4001 — Signature — 9/30/17 Renewal Date — 7/11/17 Date — CALIFORNIA

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

DATE: 17 JUL '17
SCALE: N / A
JOB NO. 15021
DRAWN BY: T.P. / T.G. / A.P.
W.O. NO. OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.			
Inspector	OR-837G	HUNSAKER & ASSOC.			
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
T.P.	T.G. / A.P.	T.P.

Plans Prepared Under Supervision Of THOMAS A. PICARD Date 7/17/17 R.L.A. No. 4001

Approved: P. Fermin, PLA Date: 8/30/17
Director of Deveopment Services or Designee

CITY OF CHULA VISTA
LANDSCAPE PLANTING SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 43
Sheet 43 of 44

OWD D0944-060186 PLR-16-011 LP-11

Print Date: 17 JUL '17

Otay Ranch Village 3 Heritage Road

LANDSCAPE PLANTING SPECIFICATION - CONTINUED

F. MULCH:

1. BARK MULCH AND/OR WOOD CHIP MULCH SHALL BE FREE OF DEBRIS AND OTHER DELETERIOUS MATERIALS.
2. FOR PARKWAY AND LEVEL AREAS (4:1 OR LESS), MULCH SHALL BE:
   a. 2" MINUS TRAIL MULCH, AS MANUFACTURED BY AGRI-SERVICE (760) 295-6255
3. FOR SLOPE AREAS STEEPER THAN 4:1, MULCH SHALL BE:
   b. 3" MINUS FOREST MULCH, AS MANUFACTURED BY AGRI-SERVICE (760) 295-6255

G. HYDROSEED COMPONENTS:

1. ALL MATERIALS SHALL BE STANDARD, APPROVED, FIRST GRADE QUALITY AND IN PRIME CONDITION WHEN INSTALLED. ALL COMMERCIAL PROCESS OR PACKAGING MATERIALS SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL UNOPENED CONTAINERS BEARING THE MANUFACTURER'S GUARANTEED ANALYSIS.
2. WOOD CELLULOSE MULCH SHALL BE CLEAN, NATURAL, WOOD CELLULOSE FIBER, DYED GREEN WITH UNIFORM SUSPENSION IN WATER; ALLOWS ABSORPTION OF MOISTURE AND RAINFALL TO PERCOLATE TO SOIL BELOW.
3. ORGANIC SOIL AMENDMENTS SHALL BE COMPOSTED ORGANIC FERTILIZER PRODUCT WITH 6-3-0 NPK RATING CONTAINING TRACE ELEMENTS.
4. SEED SHALL BE CLEAN, FRESH, NEW CROP, LABELED WITH SUPPLIER'S STATEMENT OF COMPOSITION AND PERCENTAGE OF PURITY.
5. BINDER SHALL BE ECOLOGY M-BINDER
6. MIX SHALL INCLUDE IRON CHELATE.

H. MISCELLANEOUS LANDSCAPE ACCESSORIES:

1. ROOT BARRIERS: ROOT BARRIERS SHALL BE 19-1/2" DEEP BIO-BARRIER, AS MANUFACTURED BY BIO-BARRIER. SEE PLANS FOR LOCATIONS.
2. TREE STAKING & GUYING:
   a. TREE STAKES SHALL BE TEN FOOT LONG STRAIGHT GRAINED LODGE POLE PINE, FREE OF KNOTS, CHECKS, SPLITS AND DISFIGUREMENTS. LODGE POLES SHALLBE TREATED WITH COPPER NAPTHENATE.
   b. TREE TIES SHALL BE V.I.T. CT-32 CINCH-TIE OR APPROVED EQUAL.
   c. GUY WIRES SHALL BE 12 GUAGE GALVANIZED WIRE WITH NO SPLICES.
   d. GUY WIRE HOSE SHALL BE 3/8" OR 5/16" X .062" WT POLYETHYLENE TUBING AS MANUFACTURED BY WARD MANUFACTURING (714) 631-5055.

III. INSTALLATION:

A. GENERAL CONDITIONS:

a. ALL ROCK, DEBRIS AND NON-SPECIFIED GROWTH ACCUMULATED DURING THE DURATION OF THE PROJECT, SHALL BE REMOVED FROM THE SITE.
b. GRADING AND SOIL PREPARATION SHALL ONLY BE PERFORMED DURING THE PERIOD WHEN BENEFICIAL AND OPTIMUM RESULTS MAY BE OBTAINED. IF THE MOISTURE CONTENT OF THE SOIL SHOULD REACH SUCH A LEVEL THAT WORKING IT WOULD DESTROY THE SOIL'S STRUCTURE, SPREADING AND GRADING OPERATIONS SHALL BE SUSPENDED UNTIL THE MOISTURE CONTENT IS INCREASED OR DECREASED TO ACCEPTABLE LEVELS AND THE DESIRED RESULTS ARE MORE LIKELY TO BE OBTAINED.
c. ALL SCALED DIMENSIONS ARE APPROXIMATE. PRIOR TO PROCEEDING WITH ANY WORK, CAREFULLY CHECK AND VERIFY ALL DIMENSIONS AND IMMEDIATELY INFORM THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS AND ACTUAL FIELD CONDITIONS.

B. PERCOLATION TESTING:

1. UPON COMPLETION OF THE ROUGH GRADING OF THE SITE, THE OWNER'S REPRESENTATIVE SHALL IDENTIFY TWO TYPICAL LOCATIONS FOR THE LARGEST TREES SPECIFIED. THE CONTRACTOR SHALL EXCAVATE THE TREE PITS, AS SPECIFIED IN THE TREE PLANTING DETAILS.
2. WITH THE OWNER'S AND GOVERNING AGENCIES REPRESENTATIVE PRESENT, THE CONTRACTOR SHALL FILL THE PIT WITH WATER TO A DEPTH OF TWELVE INCHES (IF POSSIBLE). THE LENGTH OF TIME REQUIRED FOR THE WATER TO PERCOLATE INTO THE SOIL, LEAVING THE PIT EMPTY WILL BE MEASURED BY THE OWNER'S AND/OR GOVERNING AGENCIES REPRESENTATIVE.
3. WITHIN SIX HOURS OF THE TIME THE WATER HAS BEEN DRAINED FROM THE PIT, THE CONTRACTOR (WITH THE OWNER'S AND GOVERNING AGENCIES REPRESENTATIVE PRESENT, SHALL RE-FILL THE PIT WITH WATER TO A DEPTH OF TWELVE INCHES.
4. IF THE WATER HAS NOT COMPLETELY PERCOLATED INTO THE SOIL WITHIN A NINE HOUR PERIOD, A DETERMINATION WILL BE MADE BY THE OWNER'S AND THE GOVERNING AGENCIES' REPRESENTATIVES AS TO WHETHER OR NOT EITHER A DEEPER TREE PIT IS REQUIRED OR A SUPPLEMENTAL TREE DRAINAGE SYSTEM IS REQUIRED.

C. SOIL PREPARATION:

1. THE CONTRACTOR SHALL HAVE OBTAINED THE RESULTS FORM THE SOILS TESTING TO DETERMINE IF SOIL IS TO BE IMPORTED OR IF ON-SITE SOIL WILL BE AMENDED.
2. FINISH GRADING, MOUNDING, SOILS TESTING AND WEED CONTROL SHALL BE COMPLETED PRIOR TO THE PREPARATION OF PLANTING AREAS.
3. AMENDING ON-SITE TOPSOIL:
   a. CROSS-RIP ON GRADE PLANTING AREAS TO A DEPTH OF TWELVE INCHES IN TWO DIRECTIONS.
   b. APPLY ORGANIC AMENDMENTS, COMMERCIAL FERTILIZER, SOIL SULFUR, AGRICULTURAL GYPSUM AND/OR ADDITIONAL AMENDMENTS AS RECOMMENDED IN THE SOIL'S REPORT.
   c. BROADCAST THE ORGANIC SOIL AMENDMENTS UNIFORMLY OVER THE SURFACE OF THE PLANTING AREAS. INCORPORATE AMENDMENTS INTO THE SOIL BY CULTVATING, SPADING OR TILLING TO A DEPTH OF SIX INCHES AND FINE GRADE TO THE SPECIFIED DEPTH, BELOW ADJACENT CURBS AND/OR PAVING SURFACES.
   d. REMOVE ALL ROCKS AND DEBRIS LARGER THAN ONE INCH FROM THE SITE AND CLEAN MINERAL AND AMENDMENT STAINS FROM PAVING.
   e. THE SOIL SHALL NOT BE WORKED WHEN THE MOISTURE CONTENT IS SO GREAT THAT EXCESSIVE COMPACTION WILL OCCUR AND NOT WHEN IT IS SO DRY THAT DUST WILL FORM IN THE AIR. WATER SHALL BE APPLIED, AS NECESSARY TO PROVIDE OPTIMUM MOISTURE CONDITIONS.
4. BACKFILL MIX: FOR STANDARD BACKFILL MIXES, USE IMPORTED TOPSOIL, STOCKPILED TOPSOIL OR ON SITE SOIL BASED ON THE RECOMMENDATIONS WITHIN THE SOILS REPORT. THE FOLLOWING MIX SHOULD BE USED FOR BIDDING PURPOSES ONLY AND IS SUBJECT TO CHANGE, BASED ON THE SOIL REPORT'S RECOMMENDATIONS. BLEND PER CUBIC YARD:
   - TOPSOIL OR IMPORTED SOIL: 6 PARTS BY VOLUME
   - ORGANIC AMENDMENTS: 4 PARTS BY VOLUME
5. RETEST SOILS AND VERIFY AMENDMENTS ACHIEVE SAR < 3, EC < 2, pH = 7.0-7.5 AND TOXICS ARE WITHIN ACCEPTABLE RANGES.

D. WEED CONTROL:

1. MANUALLY REMOVE ALL EXISTING WEEDS AND GRASSES FROM SITE.
2. PERFORM A "GROW & KILL" WEED ERADICATION PROGRAM, AS FOLLOWS:
   a. APPLY AT 200LBS/ACRE GRO-POWER PLUS FERTILIZER TO ALL PLANTING AREAS. IRRIGATE FOUR TIMES PER DAY DURING THE SUMMER SEASON AND TWO TIMESPER DAY DURING THE OTHER SEASONS FOR THREE WEEKS TO GERMINATE EXISTING SEED.
   b. DISCONTINUE IRRIGATION FOR TWO DAYS AND APPLY A NON-SELECTIVE CONTACT HERBICIDE, PER MANUFACTURER'S RECOMMENDATIONS. ALLOW ENOUGH TIME FOR THE HERBICIDE TO KILL ALL WEEDS AND GRASSES.
   c. MANUALLY REMOVE ALL EXISTING WEEDS AND GRASSES FROM SITE AGAIN.
3. IF WEEDS PERSIST, CONTINUE "GROW & KILL PROGRAM UNTIL WEEDS HAVE BEEN COMPLETELY ERADICATED.
4. NO PRE-EMERGENT HERBICIDES SHALL BE USED IN THE AREAS SPECIFIED TO BE HYDROSEEDED.
5. THE CONTRACTOR SHALL OBTAIN APPROVAL BY THE OWNER'S REPRESENTATIVE TO APPLY ANY HERBICIDE, INSECTICIDE, FUNGICIDE OR OTHER CHEMICALS PROPOSED TO BE USED ON SITE.
6. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE GOVERNMENTAL STANDARDS REGULATING THE APPLICATION OF ANY CHEMICALS AND SHALL FOLLOW ALL MANUFACTURERS' RECOMMENDATIONS
7. ALL WORKERS APPLYING SUCH CHEMICALS SHALL BE PROPERLY LICENSED, AS REQUIRED BY LOCAL LAWS.

E. SEQUENCING & SCHEDULING:

1. PROCEED WITH AND COMPLETE LANDSCAPE WORK AS RAPIDLY AS POSSIBLE, AS PORTIONS OF THE SITE BECOME AVAILABLE. WORK SHALL BE PERFORMED DURING THOSE PERIODS WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE IN ACCORDANCE WITH THE LOCALLY ACCEPTED HORTICULTURAL PRACTICES.
2. ALL TREES AND SPECIMEN SHRUBS SHALL BE PLANTED PRIOR TO THE INSTALLATION OF THE IRRIGATION SYSTEM AND WATER BY HAND UNTIL THE IRRIGATION SYSTEM BECOMES OPERATIONAL.
3. PLANT TREES AND SHRUBS AFTER FINAL GRADES HAVE BEEN ESTABLISHED AND PRIOR TO THE PLANTING OF GROUNDCOVER, UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE.

F. DELIVERY & STORAGE:

1. DELIVER PACKAGED MATERIALS IN CONTAINERS SHOWING THE WEIGHT, ANALYSIS AND NAME OF THE MANUFACTURER.
2. PROTECT ALL MATERIALS FROM DETERIORATION DURING DELIVERY AND WHILE STORED AT THE SITE.
3. DO NOT PRUNE TREES OR SHRUBS PRIOR TO DELIVER, UNLESS OTHERWISE APPROVED BY THE OWNER'S REPRESENTATIVE. DO NOT BEND OR BIND-TIE TREES OR SHRUBS IN SUCH A MANNER TO DAMAGE BARK, BREAK BRANCHES OR DESTROY THE NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING DELIVERY.
4. DO NOT REMOVE CONTAINER GROWN STOCK FROM THE CONTAINERS, UNTIL PLANT MATERIAL IS READY TO BE PLANTED.

G. FINISH GRADING:

1. FINISH GRADES SHALL BE AS INDICATED ON THE CIVIL ENGINEER'S DRAWINGS AND/OR LANDSCAPE IMPROVEMENT PLANS.
2. FINISH GRADES SHALL BE MEASURED AS THE FINAL WATER COMPACTED AND SETTLED SURFACE GRADES AND SHALL BE WITHIN 0.1 FOOT OF THE SPOT ELEVATIONS CONVEYED ON THE GRADING PLANS.
3. MOUNDING AND ROUNDING GRADES SHALL BE PROVIDED AT ALL CHANGES IN SLOPE, WHERE SPECIFIED ON THE GRADING PLANS.
4. ALL UNDULATIONS AND IRREGULARITIES IN THE PLANTING SURFACES RESULTING FROM TILLING AND OTHER OPERATIONS SHALL BE LEVELED AND FLOATED OUT, PRIOR TO INITIATING THE INSTALLATION OF THE PLANT MATERIAL.
5. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PROTECT AND AVOID DAMAGE TO SPRINKLER HEADS AND EQUIPMENT, AS WELL AS OTHER UNDERGROUND DRY AND WET UTILITIES.
6. FINAL FINISH GRADES SHALL INSURE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AND WALLS AND TOWARDS ROADWAYS AND ENGINEERED DRAINAGE FACILITIES.

H. PLANTING TREES & SHRUBS:

1. THE OWNER'S REPRESENTATIVE AND CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR SHALL APPROVE THE PLACEMENT OF ALL PLANT MATERIAL, PRIOR TO PLANTING PITS BEING EXCAVATED. THE CONTRACTOR SHALL LAYOUT THE PLANT MATERIAL FOR APPROVAL, AS FOLLOWS:
   a. LOCATIONS FOR TREES 30" BOXED SIZE AND LARGER, SHALL BE MARKED WITH A STAKE, AND FLAG THE NORTH SIDE OF THE TREES BOX, IDENTIFYING THE SIDE TO BE FACING NORTH.
   b. LOCATIONS FOR TREES 24" BOXED SIZE AND SMALLER, SHALL BE MARKED WITH A STAKE.
   c. LOCATIONS FOR SHRUBS AND VINES SHALL BE IDENTIFIED BY PLACING THE SPECIFIED QUANTITIES OF PLANTS (WHILE STILL IN THE CONTAINER), AT THE LOCATIONS WHERE THE PLANTS ARE SPECIFIED ON THE PLANS.
2. THE CONTRACTOR SHALL HAVE ALL PLANT MATERIAL LOCATED PRIOR TO THE OWNER'S REPRESENTATIVE'S VISIT TO THE SITE.
3. TREES SHALL BE PLANTED AT LEAST FIVE FEET FROM ANY BUILDING, WALL, UNDERGROUND UTILITIES, WATERLINES, SEWER, GAS OR DRY UTILITIES.
4. PLANT MATERIAL SHALL NOT BE INSTALLED WHERE IT WOULD CAUSE A LINE OF SITE PROBLEM WITH VEHICULAR, BICYCLE OR PEDESTRIAN TRAFFIC. ANY PROPOSED OMISSION OF PLANT MATERIAL MUST BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE IMMEDIATELY.
5. BEGIN PLANT MATERIAL INSTALLATION AS SOON AS THE SITE IS AVAILABLE AND WEATHER CONDITIONS ARE SUITABLE FOR PERFORMANCE AND SEQUENCE OF THE SPECIFICATIONS.
6. PLANT MATERIAL SHOULD NOT BE INSTALLED IN OVERLY SATURATED SOIL CONDITIONS.
7. CONTAINER GROWN STOCK IN CANS SHALL BE REMOVED WITHOUT DISTURBING THE ROOT BALL. STOCK GROWN IN BOXES SHALL HAVE THE BOTTOMS REMOVED. ALL USED CONTAINERS SHALL BE REMOVED FROM THE SITE OR TO A DISCRETE STORAGE AREA.
8. EACH TREE AND SHRUB SHALL BE PLACED IN THE CENTER OF THE HOLE AND SET PLUMB. REMOVE THE SIDES OF THE BOXES AND HOLD PLUMB AND RIGIDLY UNTIL BACKFILL MIX HAS BEEN TAMPED AROUND THE HOLE.
9. NO PLANT WILL BE ACCEPTED IF THE ROOTBALL IS BROKEN OR CRACKED, EITHER BEFORE OR AFTER THE PROCESS OF INSTALLATION.
10. FOR CONTAINER GROWN STOCK, EXCAVATE AS SPECIFIED FOR SIZE OF CONTAINER WIDTH AND DEPTH.
11. FOR PLANTING AREAS NOT SUSCEPTIBLE TO ANIMAL BROWSING, STANDARD PLANTING TABLETS SHALL BE PLACED IN EACH TREE AND SHRUB PLANTING HOLE AT THE FOLLOWING RATES:
    - 1 - SEVEN GRAM TABLET PER FLATTED MATERIAL OR LINER PLANT.
    - 3 - SEVEN GRAM TABLET PER 1 GALLON CONTAINER PLANT.
    - 9 - SEVEN GRAM TABLET PER 5 GALLON CONTAINER PLANT.
    - 12 - SEVEN GRAM TABLET PER 15 GALLON CONTAINER PLANT.
    - 3 - SEVEN GRAM TABLET PER EACH FOUR INCH OF BOX SIZE.
12. SET PLANTS IN THE CENTER OF, IN A VERTICAL POSITION, SO THAT THE CROWN OF THE PLANT IS ONE INCH ABOVE THE ADJACENT FINISH GRADE. BACKFILL PIT HALF-WAY WITH BACKFILL MIX, ADD WATER AND CONTINUE BACKFILLING UNTIL COMPLETE. FORM A SHALLOW BASIN AROUND THE OUTER PERIMETER OF THE ROOTBALL AND WATER TO SATURATE ROOTS.
13. AFTER PLANTING OF AN AREA IS COMPLETE, FINE GRADE AROUND ALL PLANTS AND DISPOSE OF EXCESS SOIL.
14. WHEN DIRECTED BY THE OWNER'S REPRESENTATIVE, THE CONTRACTOR SHALL PRUNE, THIN-OUT AND SHAPE TREES AND SHRUBS IN ACCORDANCE WITH THE STANDARD HORTICULTURAL PRACTICES. PRUNE TREES TO RETAIN REQUIRED HEIGHT AND SPREAD. UNLESS OTHERWISE DIRECTED BY THE OWNER'S REPRESENTATIVE, DO NOT CUT TREE LEADERS AND REMOVE ONLY INJURED OR DEAD BRANCHES AND/OR FOLIAGE. PRUNE TREES AND SHRUBS TO RETAIN THE NATURAL CHARACTER.
15. REMOVE AND REPLACE EXCESSIVELY PRUNED OR MIS-FORMED PLANT MATERIAL, RESULTING FROM IMPROPER PRUNING.
16. REMOVE NURSERY STAKE AND STAKE TREES IMMEDIATELY AFTER PLANTING, AS SPECIFIED IN THE PLANTING DETAILS. ALL TREES SHALL BE DOUBLED STAKED AND DRIVEN PLUMB. THE CONTRACTOR SHALL AVOID DRIVING STAKES INTO THE TREE'S ROOTS OR ROOTBALL. TREE TIES SHALL BE USED PER THE TREE STAKING DETAIL.
17. INSTALL ROOT BARRIERS ADJACENT TO ALL PAVING SURFACES AND UTILITY SERVICES AND LINES, WHERE LOCATED WITHIN TEN OF A TREE'S TRUNK. ROOT BARRIERS SHALL EXTEND A DISTANCE OF TEN FEET FROM EACH SIDE OF THE TREE'S TRUNK, A TOTAL DISTANCE OF TWENTY FEET.
18. ROOT BARRIERS ARE NOT PERMITTED TO BE INSTALLED AROUND THE TREE'S ROOTBALL, UNLESS SPECIFICALLY DIRECTED BY THE OWNER'S REPRESENTATIVE.
19. PROVIDE A THREE LAYER OF MULCH IN ALL NON-TURF AREAS WHERE THE GRADIENT IS 3:1 OR LESS.

I. PLANTING GROUNDCOVER:

1. GROUNDCOVER SHALL EXTEND UNDERNEATH ALL TREES AND SHRUBS.
2. PLANT GROUNDCOVER IN STRAIGHT ROWS, EVENLY SPACED USED TRIANGULAR SPACING AT THE ON CENTER SPACING SPECIFIED ON THE PLANS AND/OR LEGEND.
3. DIG HOLES LARGE ENOUGH TO ALLOW FOR SPREADING OF ROOTS AND BACKFILL WITH THE SPECIFIED BACKFILL MIX.
4. MOISTEN SOIL PRIOR TO GROUNDCOVER INSTALLATION.
5. FOR PLANTING AREAS NOT SUSCEPTIBLE TO ANIMAL BROWSING, PLACE ONE STANDARD SEVEN GRAM TABLET PLANTING TABLETS SHALL BE PLACED WITH EACH FLATTED MATERIAL OR LINER.
6. WORK SOIL AROUND ROOTS TO ELIMINATE AIR POCKETS.
7. RETAIN A SLIGHT DEPRESSION AROUND EACH PLANT AND FINISH WITH A NEAT AND UNIFORM FINISH GRADE.
8. WATER THOROUGHLY AFTER PLANTING, TAKING CAUTION NOT TO COVER CROWNS OF PLANTS WITH WET SOILS OR MULCH.
9. PLANTS SHALL NOT BE ALLOWED TO DRY OUT PRIOR TO OR AFTER THE INSTALLATION. CONTINUE TO WATER REGULARLY, AS REQUIRED FOR A MINIMUM OF THIRTY DAYS.

J. HYDROSEEDING:

1. PRIOR TO INITIATING WORK, THE HYDROSEEDING LANDSCAPE CONTRACTOR SHALL CAREFULLY CHECK THE PLANTING AREA CONDITIONS AND IMMEDIATELY CONTACT THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN THE LANDSCAPE IMPROVEMENT DRAWINGS AND ACTUAL FIELD CONDITIONS. NO WORK SHALL BE PERFORMED WHERE THERE ARE SUCH DISCREPANCIES OR WHERE CONDITIONS ARE UNSUITABLE FOR SUCCESSFUL PLANT MATERIAL ESTABLISHMENT, UNTIL APPROVAL HAS BEEN GIVEN BY THE OWNER'S REPRESENTATIVE.
2. THE HYDROSEEDING SHALL BE PERFORMED BY A COMPETENTLY TRAINED INDIVIDUAL OR HYDROSEEDING COMPANY IN ACCORDANCE WITH THE BEST STANDARDS AND PRACTICES RELATED TO THIS TRADE.
3. ALL AREAS TO BE HYDROSEEDED SHALL BE WATERED THOROUGHLY AND CONTINUOUSLY FOR THREE CONSECUTIVE DAYS TO SATURATE THE UPPER LAYERS OF SOIL PRIOR TO THE HYDROSEEDING APPLICATION. ALLOW THE AREAS TO BE HYDROSEEDED TO DRY OUT FOR ONE DAY ONLY, PRIOR TO THE HYDROSEEDING APPLICATION.
4. THE SLURRY SHALL BE PREPARED AT THE SITE AND ITS COMPONENTS SHALL BE MIXED TO SUPPLY THE RATES OF APPLICATION AS SPECIFIED. THE SPECIFIED COMPONENTS SHALL BE MIXED TOGETHER IN A HYDROSEEDING MACHINE DESCRIBED AS FOLLOWS:
   - WOOD CELLULOSE FIBER: 2,000 LBS/ACRE
   - SOIL M-BINDER: 140 LBS/ACRE
   - SEED MIX: AS SPECIFIED IN PLANTING LEGEND
   - FERTILIZER: AS SPECIFIED IN THE SOIL'S REPORT.
5. THE HYDROSEEDING SHALL BE APPLIES IN THE FORM OF A SLURRY, CONSISTING OT ORGANIC SOIL AMENDMENTS, COMMERCIAL FERTILIZER AND OTHER CHEMICALS SPECIFIED. WHEN THE HYDRAULICALLY SPRAYED SLURRY IS BROADCAST ONTO THE SOIL, THE MULCH SHALL NOT FORM A BLOTTER LIKE MATERIAL. THE SPRAY OPERATIONS MUST BE SO DIRECTED THAT THE SLURRY SPRAY WILL ALSO PENETRATE THE SOIL SURFACE AS TO DRILL AND MIX THE SLURRY COMPONENTS INTO THE SOIL, THUS ENSURING THE MAXIMUM IMPREGNATION AND COVERAGE.
6. THE HYDROSEEDING SLURRY COMPONENTS ARE NOT TO BE LEFT IN THE HYDROSEED MACHINE FOR MORE THAN TWO HOURS. IF THE SLURRY COMPONENTS ARE LEFT FOR MORE THAN TWO HOURS IN THE MACHINE, THE CONTRACTOR SHALL ADD 50% MORE OF THE ORIGINALLY SPECIFIED SEED MIX TO ANY SLURRY MIX WHICH HAS NOT BEEN APPLIED WITHIN THE TWO HOURS AFTER MIXING. THE CONTRACTOR SHALL ADD 75% MORE OF THE ORIGINAL SEED MIX TO ANY SLURRY MIXTURE WHICH HAS NOT BEEN APPLIED EIGHT HOURS AFTER MIXING. ANY MIXTURE NOT APPLIED AFTER EIGHT HOURS SHALL BE REJECTED AND DISPOSED OF OFF-SITE AT THE CONTRACTOR'S EXPENSE.
7. MAINTAIN PROPER SOIL MOISTURE LEVEL IN THE SOIL, TO INSURE PROPER GERMINATION AND PLANT GROWTH, UNTIL THE COMPLETION OF THE MAINTENANCE PERIOD.
8. RESEED BARE AREAS, AS REQUIRED, UNTIL FULL COVERAGE HAS BEEN OBTAINED.
9. SPECIAL CARE IS TO BE EXERCISED BY THE CONTRACTOR TO PREVENT ANY OF THE SLURRY FROM BEING SPRAYED ONTO ANY ADJACENT PROPERTY. ANY SLURRY SPRAYED ONTO AN UNSPECIFIED SURFACE, I.E. ADJACENT PROPERTY, PAVING SURFACES AND UTILITIES, SHALL BE CLEANED OFF AT THE CONTRACTOR'S EXPENSE.
10. NON-IRRIGATED HYDROSEED APPLICATION:
    a. THE CONTRACTOR SHALL CLEAR THE PROPOSED HYDROSEED AREAS OF ALL WEEDS AND DEBRIS PRIOR TO HYDROSEEDING.
    b. HYDROSEEDING SHALL OCCUR PRIOR TO THE FIRST RAIN OF THE SEASON, SPECIFICALLY NO EARLIER THAN OCTOBER AND NO LATER THAN MARCH.
    c. THE CONTRACTOR SHALL RAKE ALL FLAT PAD AREAS, TO BE HYDROSEEDED WITH AN EIGHT FOOT SQUARE SECTION OF CHAIN LINK FENCING AFTER HYDROSEEDING.
11. IF HYDROSEEDING OVER PLANTED AREAS, HYDROSEED MUST SUBSEQUENTLY BE CLEANED OFF OF ALL PREVIOUSLY PLANTED MATERIAL.

K. POST INSTALLATION FERTILIZATION: POST INSTALLATION FERTILIZATION FOR ALL AREAS SHALL OCCUR IMMEDIATELY AFTER EACH PHASE OF LANDSCAPE HAS BEEN INSTALLED AT THE RATES RECOMMENDED IN THE SOIL'S REPORT.

L. MAINTENANCE:

1. THE MAINTENANCE PERIOD SHALL BEGIN ON THE FIRST DAY AFTER ALL OF THE WORK, AS DEFINED IN THE CONTRACTOR'S CONTRACT, IS COMPLETE AND ACCEPTED WITH WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE AND CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR.
2. THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ALL INVOLVED AREAS OF THE CONTRACT DURING THE PROGRESS OF THE WORK AND DURING THE MAINTENANCE PERIOD, UNTIL FINAL ACCEPTANCE OF THE WORK.
3. THE CONTRACTOR SHALL MAINTAIN TREES, SHRUBS AND OTHER PLANTS BY PRUNING, MOWING, CULTIVATING, WEEDING AND FERTILIZING, AS REQUIRED TO SUSTAIN HEALTHY GROWTH.
4. THE CONTRACTOR SHALL RESTORE PLANT WATER BASINS, TIGHTEN AND REPAIR TREE STAKES AND GUY SUPPORT AND ADJUST TREES AND SHRUBS, AS REQUIRED, TO MAINTAIN VERTICAL AND PLUMB GROWTH.
5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ADEQUATE PROTECTION OF THE LANDSCAPE AREAS. DAMAGED AREAS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
6. THE MAINTENANCE PERIOD FOR ALL LANDSCAPED AREAS PROPOSED TO BE WITHIN A CITY'S COMMUNITIES FACILITIES DISTRICT, SHALL BE NO LESS THAN ONE YEAR.
7. THE MAINTENANCE PERIOD FOR ALL LANDSCAPED AREAS PROPOSED TO BE WITHIN A HOME OWNER'S ASSOCIATION, SHALL BE NO LESS THAN NINETY DAYS.
8. THE MAINTENANCE PERIOD FOR ALL LANDSCAPED AREAS PROPOSED TO BE WITHIN A PRIVATE HOMEOWNER'S LOT, SHALL BE NO LESS THAN NINETY DAYS UNLESS THE PURCHASE OF THE HOUSE RELEASES THE OWNER FROM THEIR MAINTENANCE RESPONSIBILITIES.
9. THE CONTRACTED MAINTENANCE PERIOD WILL BE EXTENDED WHEN IT OF THE OPINION OF THE OWNER'S REPRESENTATIVE AND CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR, THAT CONTRACTOR HAS NOT COMPLIED WITH THEIR MAINTENANCE RESPONSIBILITIES, AS DEFINED IN THEIR CONTRACT. THE CONTRACTOR WILL BE RESPONSIBLE, AT THEIR OWN EXPENSE, FOR THE ADDITIONAL MAINTENANCE REQUIRED UNTIL THE LANDSCAPED AREAS ARE ACCEPTED BY THE OWNER'S REPRESENTATIVE AND CITY OF CHULA VISTA'S LANDSCAPE INSPECTOR.

M. CLEAN-UP & PROTECTION:

1. DURING LANDSCAPE CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN ALL PAVING SURFACES IN A CLEAN AND ORDERLY CONDITION.
2. THE CONTRACTOR SHALL PROTECT ALL WORK AND MATERIALS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, WORK BY OTHER TRADES AND TRESPASSERS. THE CONTRACTOR SHALL MAINTAIN PROTECTION DURING INSTALLATION AND THROUGHOUT THE MAINTENANCE PERIOD. REPAIR OR REPLACE DAMAGED LANDSCAPE WORK AS REQUIRED.

N. SITE OBSERVATION VISITS:

1. SITE OBSERVATION VISITS HEREIN SPECIFIED SHALL BE MADE BY THE CITY INSPECTOR AND THE OWNER'S REPRESENTATIVE. A LIST OF MANDATORY INSPECTIONS SHALL BE SPECIFIED BY THE CITY INSPECTOR AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL INSPECTIONS WITH AT LEAST 48 HOURS ADVANCE NOTICE, OF THE TIME THE SITE OBSERVATION IS TO TAKE PLACE.
2. SITE OBSERVATION VISITS SHALL BE REQUIRED AT THE FOLLOWING STAGES OF WORK:
   a. PRE-CONSTRUCTION
   b. INCORPORATION OF SOIL CONDITIONERS AND FERTILIZERS INTO SOIL.
   c. UPON COMPLETION OF FINISH GRADING AND PRIOR TO PLANTING.
   d. APPROVAL OF PLANT MATERIAL.
   e. PRE-MAINTENANCE (WHEN THE LANDSCAPE INSTALLATION IS COMPLETE).
   f. FINAL MAINTENANCE (UPON COMPLETION OF DESIGNATED MAINTENANCE PERIOD).
   g. UPON COMPLETION OF WARRANTY PERIOD.
3. UPON COMPLETION OF THE FINAL MAINTENANCE SITE OBSERVATION VISIT AND ALL WORK RELATED TO THE CONTRACTOR'S SCOPE OF SERVICES, THE CONTRACTOR SHALL BE NOTIFIED IN WRITING WHETHER OR NOT THE WORK WAS ACCEPTABLE OR IF THERE ARE ANY CONDITIONS THAT MUST BE COMPLETED PRIOR TO FINAL ACCEPTANCE.
4. THE CONTRACTOR (OR HIS AUTHORIZED REPRESENTATIVE), SHALL BE ON SITE AT THE TIME OF EACH AND EVERY SITE OBSERVATION VISIT BY THE CITY INSPECTOR OR OWNER'S REPRESENTATIVE.

Print Date: 17 JUL '17

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 — 9/30/17 — CALIFORNIA

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

DATE:	17 JUL '17
SCALE:	N / A
JOB NO.	15021
DRAWN BY:	T.P. / T.G. / A.P.
W.O. NO.	OR-837C

CONSTRUCTION RECORD	REFERENCES	BY	REVISIONS	Date	App'd
Contractor	OR-837C	HUNSAKER & ASSOC.			
Inspector	OR-837G	HUNSAKER & ASSOC.			
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. 4841) ELEV=629.319' (NAVD'88)

SCALE: Horizontal N/A; Vertical N/A

Office ____ Field ____ Traffic ____

Designed By	Drawn By	Checked By
T.P.	T.G. / A.P.	T.P.

Plans Prepared Under Supervision Of:
THOMAS A. PICARD — Date 7/17/17 — R.L.A. No. 4001

Approved: P. Freeman, PLA — Director of Development Services or Designee — Date: 8/30/17

CITY OF CHULA VISTA
LANDSCAPE PLANTING SPECIFICATIONS FOR:
OTAY RANCH VILLAGE 3 HERITAGE ROAD (FROM STA. 10+67.88 TO 56+70.54)
CHULA VISTA TRACT NO. 13-02

Drawing No. 16044 - 44
Sheet 44 of 44

Otay Ranch Village 3 Heritage Road

OWD D0944-060186 PLR-16-011 LP-12