

# WATER MAINS CAPITAL IMPROVEMENTS PROJECT FY18-19 WT8050

# CITY COUNCIL

Bob Sampayan - Mayor

Robert H. McConnell- Vice Mayor

Pippin Dew-Costa

Jesus Malgapo

Katy Miessner

Hermie Sunga

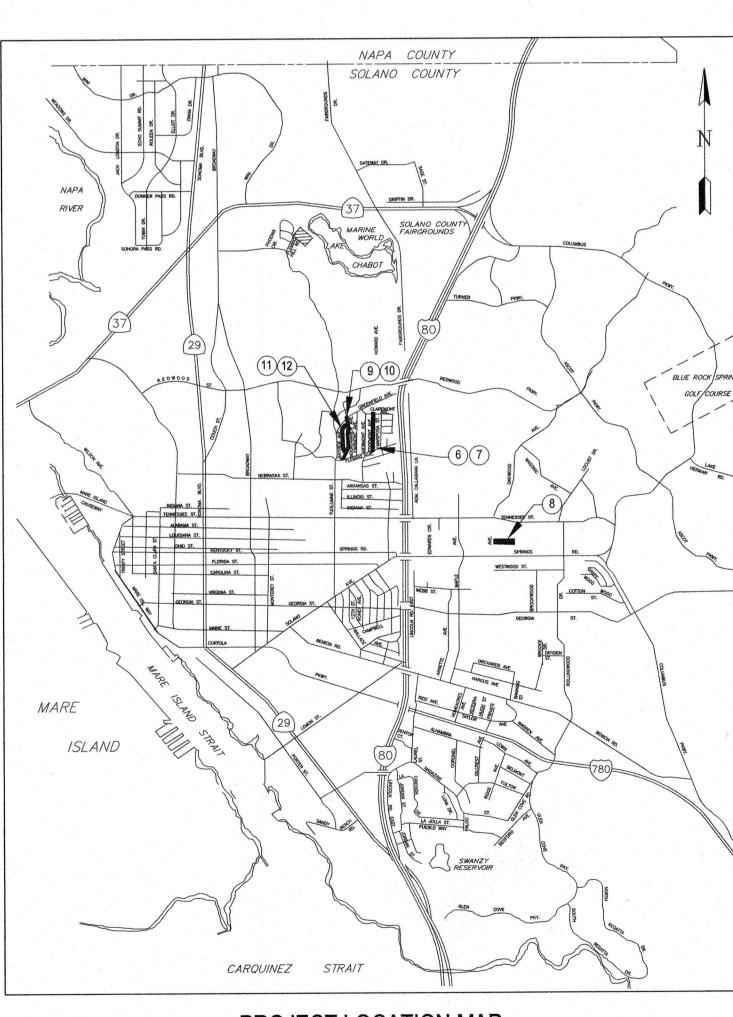
Rozzana Verder-Aliga, EdD

Approved for Construction:

Muha Mulan Michael A. Malone

Water Director, City of Vallejo

9 (17 / 18 Date



PROJECT LOCATION MAP

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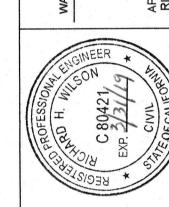
Elevations shown on these plans are based on the North American Vertical Datum of 1988 (NAVD88). City of Vallejo Datum (COVD) = NAVD88 - 8.99 COVD = National Geodetic Vertical Datum 1929 (NGVD29) - 6.34 COVD = MID - 106.34 Mare Island Datum (MID) = NGVD29 + 100

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S/28/18 of ALLES

WATER DEPARTMENT

APPROVED:



TITLE SHEET

CITY PROJECT #
WTR050

DESIGN BY
R. ZAMBRANA

DRAWN BY
R. ZAMBRANA

D. RASMUSSON/ V. GONZALEZ

DATE

09/17/2018

AS SHOWN
SHEET 1

OF 12 SHEETS

DRAWING FILE #

12-935

#### **GENERAL NOTES**

- 1. ALL ELEVATIONS SHOWN ARE EXPRESSED IN NAVD88 DATUM WHICH IS EQUIVALENT TO 8.99 FEET ABOVE VALLEJO DATUM. (VALLEJO DATUM = NAVD88 -8.99)
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS OR MARKERS DURING CONSTRUCTION AND SHALL RESTORE ALL THAT ARE DAMAGED OR DESTROYED. RE-ESTABLISHED MONUMENTS SHALL BE SET BY A LICENSED SURVEYOR AND FILE A RECORD OF SURVEY WITH THE SOLANO COUNTY RECORDER FOR EACH MONUMENT.
- 3. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN AND AROUND THE AREAS OF NEW CONSTRUCTION. THE CONTRACTOR SHALL POTHOLE FOR EXISTING UTILITIES INCLUDING EXISTING WATER MAINS PRIOR TO SUBMITTAL OF SHOP DRAWINGS FOR POINTS OF CONNECTION.
- 4. THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES TO REMAIN. LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS WERE OBTAINED FROM AVAILABLE RECORDS. NEITHER THE CITY NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR EXISTING UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS AND ELEVATIONS, AND SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES WHETHER SHOWN OR NOT SHOWN.
- 5. THE CONTRACTOR SHALL CONTACT THE UTILITY AGENCIES FOR FIELD LOCATIONS OF UTILITIES AT LEAST 72 HOURS PRIOR TO START OF CONSTRUCTION.
- 6. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE FROM DAMAGE. ALL IMPROVEMENTS THAT WERE DAMAGED BY THE CONTRACTOR SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED TO A CONDITION EQUAL TO OR BETTER THAN THE PRIOR TO CONSTRUCTION AT THE CONTRACTOR'S EXPENSE WITHOUT ADDITIONAL COMPENSATION
- 7. THE CONTRACTOR SHALL COMPLY WITH THE STATE DEPARTMENT OF HEALTH SERVICES CRITERIA FOR THE SEPARATION OF WATER MAINS AND SANITARY SEWERS AS SET FORTH IN SECTION 64630, TITLE 22 OF THE CALIFORNIA ADMINISTRATIVE CODE.
- 8. ANY RELOCATION OF PUBLIC UTILITIES SHALL BE CONDUCTED IN ACCORDANCE WITH ANY AND ALL REQUIREMENTS OF THE UTILITY COMPANIES, INCLUDING FEES, BONDS, PERMITS AND WORKING CONDITIONS, ETC. THIS WORK SHALL BE DONE AT NO EXPENSE TO THE LOCAL AGENCIES.
- 9. A DIG ALERT IDENTIFICATION NUMBER MUST BE ISSUED BEFORE A PERMIT TO EXCAVATE WILL BE VALID. FOR THE DIG ALERT ID NUMBER, CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA) AT 1-800-227-2600 AT LEAST FORTY EIGHT (48) HOURS BEFORE ANY EXCAVATION IN THE VICINITY OF ANY EXISTING UNDERGROUND FACILITIES PER THE PROJECT SPECIFICATIONS.
- 10. CONSTRUCTION AT ALL WORK SITES SHALL BE PERFORMED WITHIN THE STREET RIGHT OF WAY LINES OR EASEMENTS AS SHOWN ON THE PLANS.
- 11. THE CONTRACTOR SHALL PREPARE AND SUBMIT AN EROSION CONTROL PLAN. NO WORK SHALL COMMENCE PRIOR TO SUBMITTAL AND APPROVAL OF THIS PLAN BY THE ENGINEER.
- 12. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN PERMITS NECESSARY TO PERFORM THE WORK SHOWN IN THESE PLANS FROM THE APPROPRIATE AGENCIES. INCLUDING BUT NOT LIMITED TO NPDES STORM WATER PERMIT.
- 13. ALL TRENCH EXCAVATIONS THAT ARE FIVE FEET OR MORE IN DEPTH SHALL BE SHORED OR OTHERWISE PROTECTED IN ACCORDANCE WITH CAL OSHA APPROVED STANDARDS.
- 14. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STATE, COUNTY AND CITY LAWS AND ORDINANCES RELATING TO THE SAFETY AND CHARACTER OF WORK, EQUIPMENT AND LABOR PERSONNEL. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO. THE SHORING OF TRENCHES, VENTILATION OF CONFINED SPACES AND CONFORMANCE TO TRAFFIC CONTROL REQUIREMENTS.
- 15. ALL CONSTRUCTION MATERIALS AND METHODS SHALL COMPLY WITH THE APPLICABLE ORDINANCES, SPECIFICATIONS AND STANDARDS OF THE CITY OF VALLEJO. ALL NOTES APPEARING ON THESE PLANS SHALL BE CONSIDERED AS INCIDENTAL WORK AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR ADHERING TO THESE NOTES.
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE IN PRESERVING AND MAINTAINING THE CONSTRUCTION STAKES SET BY THE CITY FOR THE PROJECT. THE NUMBER AND LOCATION OF WHICH SHALL BE DETERMINED BEFORE CONSTRUCTION BEGINS.
- 17. CONTRACTOR SHALL BE RESPONSIBLE TO SCHEDULE OR REQUEST INSPECTION AND SHALL NOTIFY THE APPROPRIATE INDIVIDUAL OR AGENCY TWO WORKING DAYS PRIOR TO THE TIME THAT THE CONTRACTOR WISHES THE INSPECTION TO BE MADE. THE PRESENCE OR ABSENCE OF A CITY INSPECTOR OR THE AGENCIES REPRESENTATIVE WILL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE PROPER PERFORMANCE OF THE WORK.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE TO CLEAN, PROTECT, AND MAINTAIN STORM DRAIN FACILITIES THROUGHOUT THE CONSTRUCTION PERIOD.
- 19. THE CONTRACTOR SHALL ADHERE TO THE TREE PROTECTION REQUIREMENTS.
- 20. THESE PROJECT PLANS AND SPECIFICATIONS ARE SUBJECT TO MODIFICATION DURING CONSTRUCTION SHOULD CONDITIONS APPEAR THAT WERE NOT APPARENT DURING DESIGN. ANY SUCH MODIFICATION SHALL REQUIRE APPROVAL BY THE ENGINEER
- 21. ALL WORK AND EQUIPMENT NOT COVERED BY THE PROVISIONS OF THE CITY OF VALLEJO STANDARDS SHALL BE INSTALLED IN ACCORDANCE WITH THESE SPECIAL PROVISIONS.
- 22. SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SUCH FURTHER EXPLANATION AS MAY BE NECESSARY.
- 23. THE CONTRACTOR SHALL PROVIDE FOR INGRESS AND EGRESS OF PRIVATE PROPERTY OWNERS ADJACENT TO THE PROJECT AT ALL TIMES DURING WORKING HOURS.
- 24. LENGTHS OF WATER LINES ARE HORIZONTAL MEASUREMENTS. ALL QUANTITIES AND PAY ITEMS ARE AND SHALL BE BASED ON HORIZONTAL MEASUREMENTS.
- 25. SEWER LATERALS ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL PRESUME AND UNDERSTAND THAT EVERY HOUSE AND / OR COMMERCIAL BUILDING HAS A SEWER LATERAL IN THE STREET SERVING THE FACILITY. CONTRACTOR SHALL HIRE A PROFESSIONAL LOCATOR TO DETERMINE THE VERTICAL AND HORIZONTAL LOCATION OF THOSE LATERALS PRIOR TO START OF WORK IN EACH LOCATION.
- 26. FULL COMPENSATION FOR COMPLYING WITH THESE NOTES AND OTHER NOTES ON THE PLANS SHALL BE CONSIDERED AS INCLUDED IN THE PRICE PAID FOR VARIOUS CONTRACT ITEMS OR WORK AND NO ADDITIONAL ALLOWANCE WILL BE MADE THEREFOR.

### WATER SYSTEM NOTES

- 1. FOR CONSTRUCTION DETAILS, REFER TO CITY OF VALLEJO STANDARD SPECIFICATIONS AND DRAWINGS.
- 2. ALL MATERIALS TO BE IN CONTACT WITH POTABLE WATER SHALL BE NSF-61 APPROVED.
- 3. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 42 INCHES COVER ON ALL PIPELINES UNLESS OTHERWISE SHOWN OR DIRECTED.
- 4. AT WATER LINE CROSSINGS WITH SEWER MAINS AND LATERALS, MINIMUM VERTICAL CLEARANCE SHALL BE 12 INCHES: AT CROSSINGS WITH OTHER UTILITIES. THE MINIMUM VERTICAL CLEARANCE SHALL BE 12 INCHES.
- 5. THE CONTRACTOR SHALL ADJUST ALL VALVE BOXES TO FINISHED GRADE.
- 6. BEDDING AND BACKFILL METHODS AND MATERIALS SHALL COMPLY WITH CITY SPECIFICATIONS. CLASS II AB IS SPECIFICALLY REQUIRED AROUND THE PIPE ZONE AS SHOWN IN THE TYPICAL TRENCH BACKFILL DETAIL EXCEPT SAND BACKFILL IS REQUIRED FOR DUCTILE IRON PIPE. NO RECYCLED MATERIALS FOR AB AND CONCRETE ARE ALLOWED.
- 7. EXCAVATIONS MUST BE KEPT DEWATERED AT ALL TIMES SO AS NOT TO ALLOW CONTAMINATED WATER TO ENTER WATER MAINS.
- 8. ALL BURIED VALVE INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE DETAILS SHOWN ON THESE PLANS.
- 9. ALL EXISTING VALVES ON ABANDONED WATER MAINS SHALL BE TURNED IN THE CLOSED POSITION AND HAVE THEIR VALVE BOXES AND CONCRETE COLLARS AND RISERS REMOVED TO A DEPTH OF 18", AND BACKFILLED WITH CLASS II AB: IN PAVED AREAS, TOP WITH 4" MIN ASPHALT CONCRETE TO MATCH EXISTING GRADE.
- 10. ALL WATER MAINS THAT ARE SCHEDULED FOR ABANDONMENT SHALL BE PLUGGED WITH AT LEAST TWENTY-FOUR (24) INCHES OF CONCRETE AT EACH END.
- 11. WATER MAINS THAT ARE SCHEDULED TO BE KEPT IN SERVICE SHALL BE CAPPED WITH A WATER-TIGHT MEGALUG CAP AND A CONCRETE THRUST BLOCK.
- 12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION, DIAMETER, AND TYPE OF EXISTING PIPE SO THAT THE NEW PIPE CAN BE PROPERLY ALIGNED WITH AND FITTED TO THE EXISTING
- 13. DEFLECTION OF PIPE AT JOINTS SHALL COMPLY WITH MANUFACTURER'S SPECIFICATIONS.
- 14. BENDS MAY NOT BE USED EXCEPT WHEN SHOWN ON THE PLANS OR PERMITTED BY THE ENGINEER.
- 15. THRUST RESTRAINT SHALL BE PROVIDED AT TEES AND BENDS BY MECHANICAL METHODS AND CONCRETE THRUST BLOCKS PER CITY STANDARDS. ON ALL TIE INS AND CONNECTIONS, THERE SHALL BE NO UNRESTRAINED JOINTS WITHIN TEN (10) FEET OF THE CONNECTION OR TIE IN.
- 16. ALL BOLTED FITTINGS AND VALVES WHICH ARE BURIED SHALL BE WRAPPED WITH A MINIMUM 16 MILS POLYETHYLENE.
- 17. ALL SERVICE LINES 2" DIAMETER AND SMALLER SHALL BE HDPE WITH CORPORATION STOPS AT POINT OF CONNECTION TO MAIN. INCLUDE TRACER WIRE COILED IN METER BOX AND MECHANICALLY CONNECTED TO WATERMAIN TRACER WIRE.
- 18. AT WATER METERS. THE CENTER LINE OF THE CURB STOP SHALL BE 12 INCHES BELOW THE TOP OF THE METER BOX LID.
- 19. THE INSIDE OF ALL PIPES AND FITTINGS MUST BE THOROUGHLY RINSED WITH A PROPER DISINFECTING AGENT PER AWWA C651.
- 20. TIE INS WILL BE MADE AFTER DISINFECTION BY THE CONTRACTOR. TIE INS WILL BE MADE ONLY UNDER THE DIRECTION OF CITY REPRESENTATIVES. ALL TIE INS SHALL BE MECHANICALLY RESTRAINED WITH MEGALUGS.
- 21. ALL FITTINGS. VALVES AND MATERIALS TO ACCOMPLISH TIE INS SHALL BE ON THE JOB SITE AND EXISTING EXPOSED AND CHECKED FOR PROPER FIT PRIOR TO ANY SHUT DOWN OF EXISTING WATER MAINS.
- 22. MISALIGNMENT SHALL BE CORRECTED BY THE REALIGNMENT OF EITHER OR BOTH PIPES TO BE CONNECTED. CONTRACTOR SHALL PROVIDE ALL FITTINGS AND PIPE MATERIALS NEEDED TO CONNECT THE NEW PIPE TO THE EXISTING PIPE.
- 23. IF THE TOTAL DEFLECTION OF ALL JOINTS IN THE TIE IN AREA IS 11.25 DEGREES OR GREATER, ADEQUATE RESTRAINT MUST BE PROVIDED.
- 24. TIE INS BY THE CONTRACTOR MUST BE COORDINATED WITH THE WATER MAINTENANCE SUPERVISOR AT LEAST 72 HOURS IN ADVANCE OF WORK. EXCAVATIONS BY THE CONTRACTOR FOR TIE INS MUST BE APPROVED THE DAY BEFORE WORK IS TO COMMENCE AT EACH TIE IN.
- 25. EXISTING WATER MAINS TO BE TAPPED SHALL BE PERFORMED BY CITY WATER MAINTENANCE UNLESS OTHERWISE APPROVED BY THE ENGINEER. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TAPPING SLEEVE, TAPPING SADDLE, TAPPING VALVE AND ANY OTHER MATERIAL NEEDED TO PERFORM THE TAP INCLUDING EXCAVATION, BACKFILLING, PAVING, AND COMPLETION OF THE WORK TO FINISH GRADE.
- 26. EXISTING PIPES TO BE DEMOLISHED THAT REQUIRE NO FUTURE CONNECTION OR TO BE ABANDONED IN PLACE, SHALL BE REMOVED TO THE EXTENT NECESSARY AS SHOWN AND SEALED BY FILLING WITH TWO LINEAL FEET OF CONCRETE.
- 27. EXISTING PIPES TO BE CUT FOR CONNECTION TO NEW WATER MAINS SHALL BE TEMPORARILY CAPPED.
- 28. PIPES TO BE DEMOLISHED SHALL BE REMOVED EITHER BY SAW CUTTING, REMOVING A COMPLETE PIPE SECTION TO AN EXISTING JOINT, OR OTHER ADEQUATE MEANS WHICH RESULTS IN A CLEAN JOINT FOR CAPPING AND CONNECTING TO A NEW PIPE.
- 29. BACKFLOW PREVENTION DEVICES ON DOMESTIC, IRRIGATION AND FIRE SERVICES SHALL BE FURNISHED AND INSTALLED BY THE CITY OF VALLEJO UPON PAYMENT OF FEES.
- 30. CONTRACTOR SHALL BE REQUIRED TO SECURE TEMPORARY WATER METERS FROM THE CITY FOR ALL WORK REQUIRING THE USE OF CITY WATER. TEMPORARY METERS SHALL BE ISSUED UPON APPLICATION AND PAYMENT OF APPLICABLE DEPOSITS AND FEES.
- 31. WATERMAINS ARE TO BE DISINFECTED IN COMPLIANCE WITH ANSI/AWWA C651 AND VALLEJO STANDARD SPECIFICATIONS, AND AS APPROVED BY THE CITY OF VALLEJO INSPECTOR.
- 32. WATER FROM TESTING WATERLINES IS TO BE DECHLORINATED, REMOVED FROM THE PIPE AND DISPOSED OF IN COMPLIANCE WITH ANSI/AWWA C655 AND AS APPROVED BY THE CITY OF VALLEJO INSPECTOR. DECHLORINATION SHALL NOT BEGIN UNTIL AN APPROVED DISPOSAL MECHANISM IS IN PLACE AND FUNCTIONING.
- 33. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL LOCATE, BY EXCAVATION, EXISTING WATER FACILITIES TO ASCERTAIN VERTICAL AND HORIZONTAL POSITION. IF CONFLICTS ARISE, CONTRACTOR SHALL NOTIFY WATER INSPECTOR.

#### **PAVING GENERAL NOTES**

- 1. EXISTING ASPHALT PAVEMENT AND CONCRETE PAVEMENT SHALL BE SAW CUT PRIOR TO REMOVAL. THE EXPOSED EDGE OF ASPHALT PAVEMENT SHALL BE TACKED WITH ASPHALT EMULSION PRIOR TO REPAVING.
- 2. FOR TRENCHING IN PAVED AREAS, THE ROAD SECTION SHALL BE RESTORED TO THE AS-BUILT SECTION OF THE ROAD. IN NO CASE SHALL THE SECTION TO BE LESS THAN THAT IS REQUIRED IN THE TRENCH SECTION DETAIL.
- 3. FOR TRENCHING IN AREAS WITH CONCRETE PAVING, CONCRETE SHALL BE RESTORED TO THE MATCH THE EXISTING THICKNESS.

#### **CLEARING AND GRUBBING NOTES**

- 1. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL DEBRIS, UNSUITABLE MATERIALS FOR BACKFILL AND NON-ORGANIC WASTE SUCH AS PIPING, ROCK RUBBLES, ETC., AT AN APPROVED LANDFILL OR OTHER SUITABLE DISPOSAL SITES AT HIS OWN EXPENSE.
- 2. EXISTING PIPES TO BE DEMOLISHED THAT REQUIRE NO FUTURE CONNECTION OR TO BE ABANDONED IN PLACE SHALL BE REMOVED TO THE EXTENT NECESSARY AS SHOWN AND SEALED BY FILLING WITH TWO LINEAL FEET OF CONCRETE.
- 3. EXISTING PIPES TO BE CUT FOR CONNECTION TO NEW WATER MAINS SHALL BE TEMPORARILY CAPPED.
- 4. PIPES TO BE DEMOLISHED SHALL BE REMOVED EITHER BY SAW CUTTING, REMOVING A COMPLETE PIPE SECTION TO AN EXISTING JOINT, OR OTHER ADEQUATE MEANS WHICH RESULTS IN A CLEAN JOINT FOR CAPPING AND CONNECTING TO A NEW PIPE.

#### **ABBREVIATIONS**

	(abd) AC	Abandoned Asphalt Concrete Asbestos Concrete Pipe	N NTS	North Not to Scale	
ACP ARV		Air Relief Valve	O.D. OSHA	Outside Diameter Occupational Safety	
	BC BV, bv	Begin Horizontal Curve Butterfly Valve	PCC	and Health Administration	
	C&G CAV CB, cb CIP, cip	Curb and Gutter Combination Air Valve Catch Basin Cast Iron Pipe	PRC PRS PVC, pvc	Portland Cement Concrete Point of Reverse Hor. Curve Pressure Reducing	
	DIP, dip DR, dr	Ductile Iron Pipe Desity Ratio	R/W RCP, rcp	Station Polyvinyl Chloride	
	E EC EL, Elev. EP (E)	East End Horizontal Curb Elevation Edge of Pavement Existing	S SD, sd SDMH, sdmh si	Radius Right of Way Reinforced Concrete Pipe	
	FE FH, fh FL fo FS	Flange End Fire Hydrant Flange Joint Fiber Optic Lines Fire Line Service	SS, ss SSMH, ssmh ST., St. STA., Sta. SW	South Storm Drain Storm Drain Manhole Signal Interconnect Lines Sanitary Sewer Sanitary Sewer	
	G, g GR., Gr. GV, gv	Gas Grade Gate Valve	T TYP., typ.	Manhole Street	
	HDPE	High Density Polyethylene	eUSGS	Telephone Typical	
	INV	Invert	W		
	JT, jt	Joint Trench	W/, w/ WL, wl	United States Geological Survey	
	L LF, If	Length Linear Feet	WM, wm WS, ws	West With	
mm M, m MJ MON		Milimeter Meter Mechanical Joint Monument  LEGENDS	WV, wv	Water Line Water Meter Water Service Water Valve	

City Monument

//// Utility to be Abandoned

	LEGEN	DS				F
EXISTING		NG	PROPOSED			
t	Underground Telephone	×	Utility to be Removed		Fire Hydrant	SCIP
е ——	Underground Electric	₩	Traffic Signal Pole	IS PVC	Water Line & Materia	MAINS
2"6	Gas Line	-0-	Power Pole	4	Water Reducer	
	Gas Fitting	<b>⊶</b> ¤	Light Pole	H	Water Valve	WATER
<b>⊗</b>	Gas Valve	←	Pole Anchor	•	Gate Valve	NA
$\bowtie$	Water Valve		Padmount Transformer		Air Relief Valve	-
6"W	Water Line		Subsurface Transformer		Blow Off	
12"SS	Sanitary Sewer Line	C	Padmount Utility Cabinet	**	Elbow Fitting (MJxMJ)	
12"SD	Storm Drain Line		Subsurface Utility Vault		Connection Fitting	
	Catch Basin	⊚ t	Telephone Manhole	_	Cap Fitting	
	Curb Inlet	осо	Sanitary Sewer Cleanout	and having the control of the contro	cap ritting	
	Storm/Sanitary Manhole	χs	'S' Stamped In Pavement	GATEWAY DR. TU (12)	Plan & Profile Sheet	
۵	Fire Hydrant	Ori	Rodding Inlet	No.	Number with hatched	Service Commission
△ fdc	ire Department	o wm	Water Meter	leter	location	
	Connection	<b>l</b> bfd	Backflow Device			
Фріч	Post Indicator Valve	Δ	Blow Off			
	Right of Way Line	□tv	Cable TV Box or Pedestal			-
	Property Line	۰t	PacBell Telephone Box			
	Face of Curb/Edge of		PG&E Splice Box			
	Pavement	osl	Street Light Box			
+	Valley Gutter	□ts	Traffic Signal Box			D. RAS
	Fence Line	□si	Traffic Signal Interconnect			
STO	Pavement Marking		Box			
252	Street Address	oped	Crosswalk Signal Button			
Manager of the state of the sta	Solid Sleeve tie	oan	Anode			
50	Contour Elevation	oets	Electrolysis Test Station			
x 4.26	Spot Elevation	□e	Electrical Pullbox			
						1

Detector Pullbox

Monitoring Well

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VALLEJO

CITY

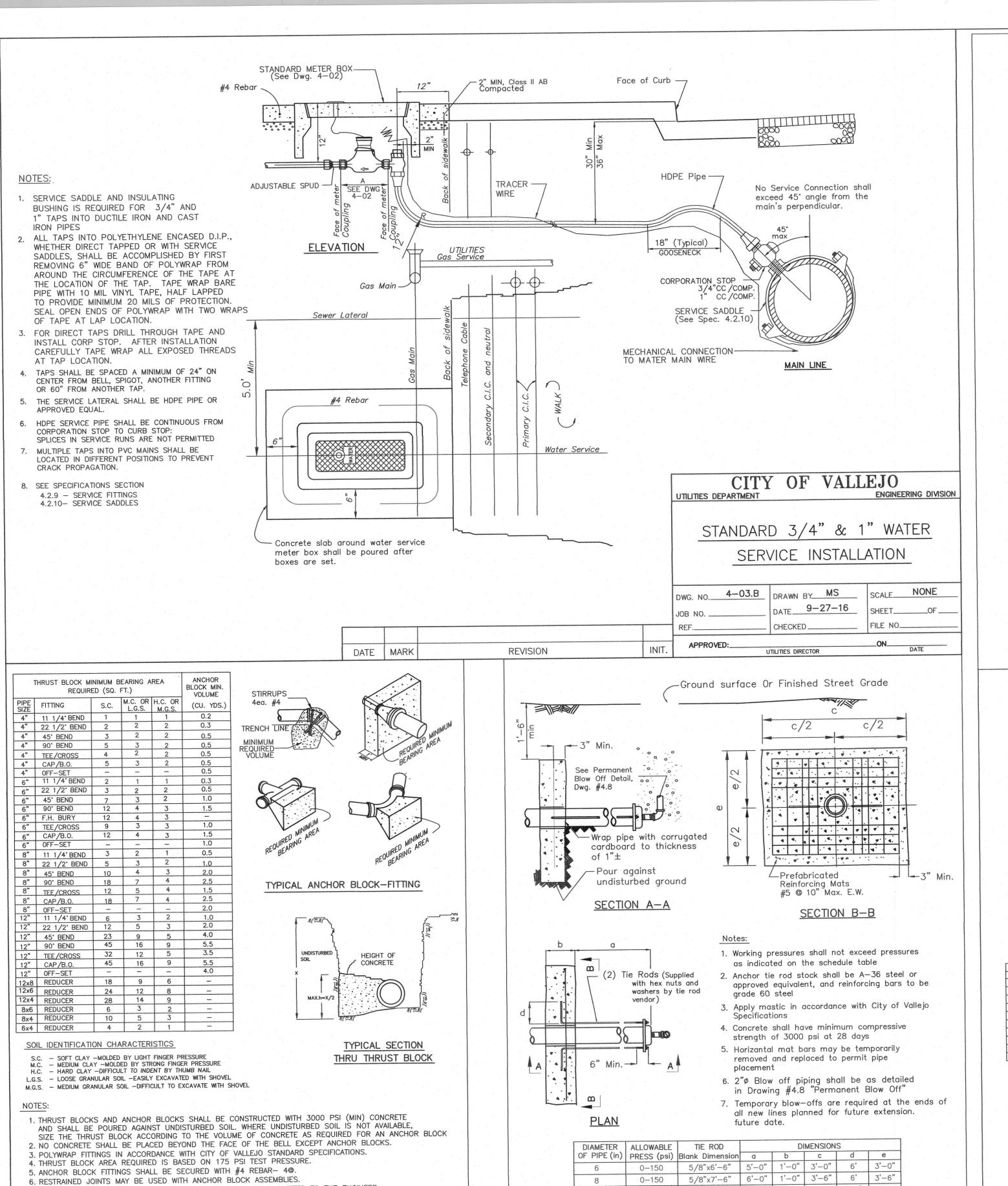
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> CITY PROJECT # WTR050 **DESIGN BY** R. ZAMBRANA DRAWN BY R. ZAMBRANA CHECKED BY ASMUSSON/ V. GONZALEZ

09/17/2018 AS SHOWN SHEET 2

G-1 OF 12 SHEETS DRAWING FILE #

12-935



7. THRUST RESTRAINT DESIGN FOR 14"0 & LARGER SHALL BE SUBMITTED TO THE ENGINEER

APPROVED:\_\_\_\_

CITY OF VALLEJO

SHEET\_\_\_\_OF\_\_\_

DEPARTMENT OF PUBLIC WORKS

ENGINEERING DIVISION

STANDARD THRUST BLOCK & ANCHOR BLOCK

DETAILS FOR 4", 6", 8" & 12" FITTINGS

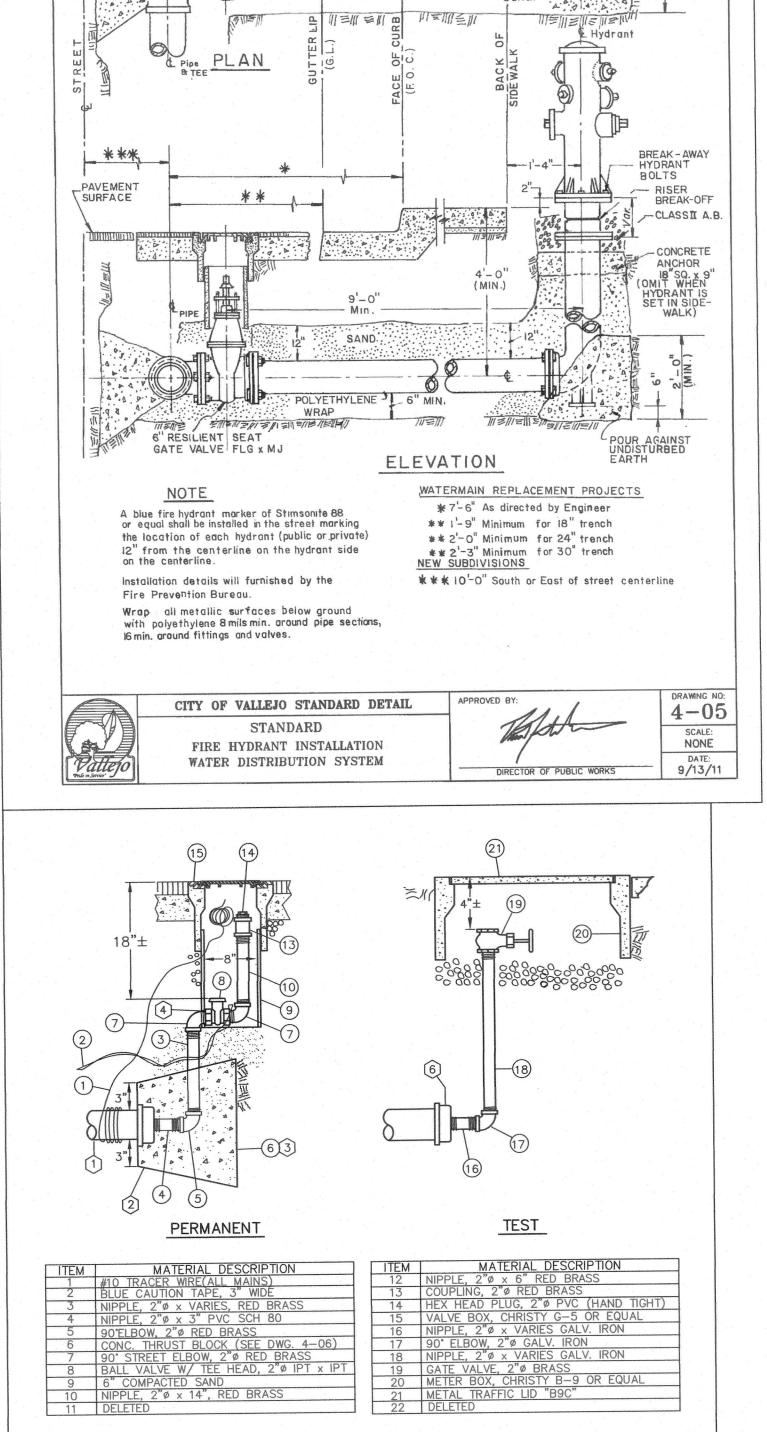
FOR APPROVAL

DWG. NO. 4-6

DRAWN BY EFR

DATE 9-19-91

CHECKED DAS/FJN SCALE NONE



Main size: 6"ø to 14"ø

0-150 7/8"x10'-0" 7'-9" 1'-0" 6'-1" 1'-3" 4'-9"

CITY OF VALLEJO

SHEET\_\_\_\_OF\_\_\_

DWG. NO. 4-7

CHECKED FJN/DAS SCALE NONE

DRAWN BY EFR

DATE 9-19-91

DEPARTMENT OF PUBLIC WORKS ENGINEERING DIVISION

DIRECTOR OF PUBLIC WORKS DATE

STANDARD REVERSE ANCHOR

AND TEMPORARY BLOW OFF

(2) Cap or plug shall have 2"ø tap.

CITY OF VALLEJO

SHEET\_\_\_\_OF\_\_

SCALE\_\_\_NONE

DWG. NO. 4-8

DRAWN BY EFR

DATE 9-19-91

CHECKED FJN/DAS

(4) Cut slots in riser to accomodate piping.

pressure testing and bacteria sampling.

3 Thrust block shall be poured against undisturbed earth.

When undisturbed earth is not existing, use anchor block dimensions.

(5) Test blowoffs shall be installed at the ends of all new lines for use in

DEPARTMENT OF PUBLIC WORKS

ENGINEERING DIVISION

STANDARD 2"Ø BLOW OFF ASSEMBLY

6 Thrust restraint for test blow-offs shall be at contractor's option.

Permanent blow-offs are required at the ends of all new lines.

NENEW | NEW = 1 SHALL BE SAME MATTERIAL AS MAIN

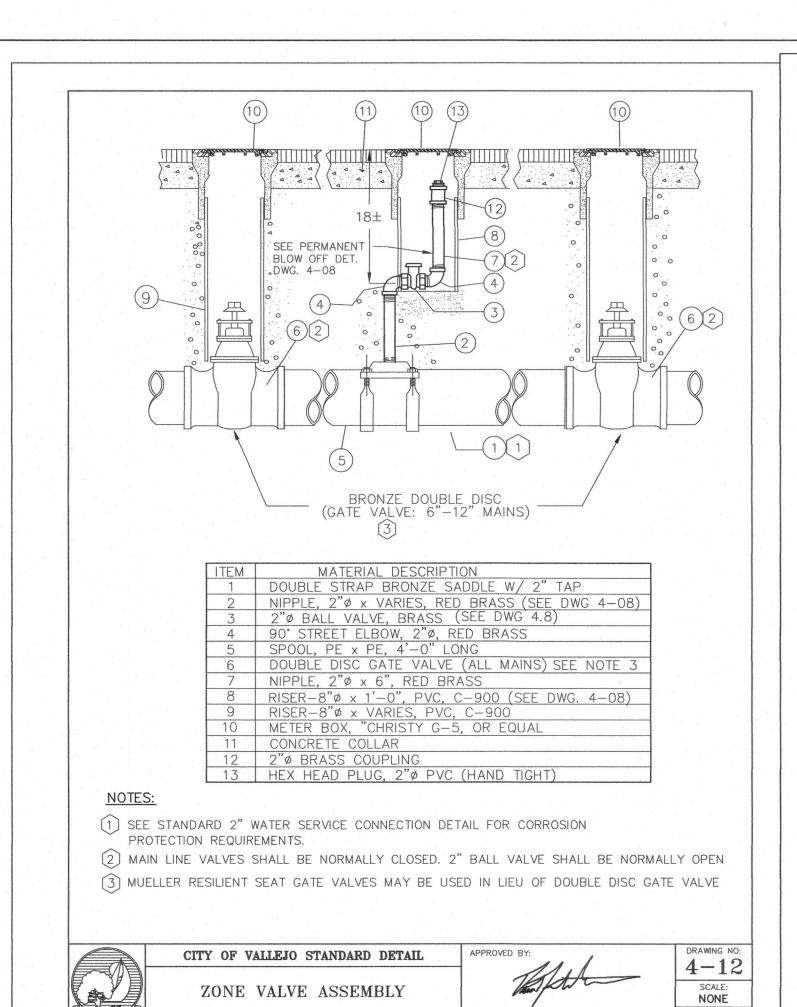
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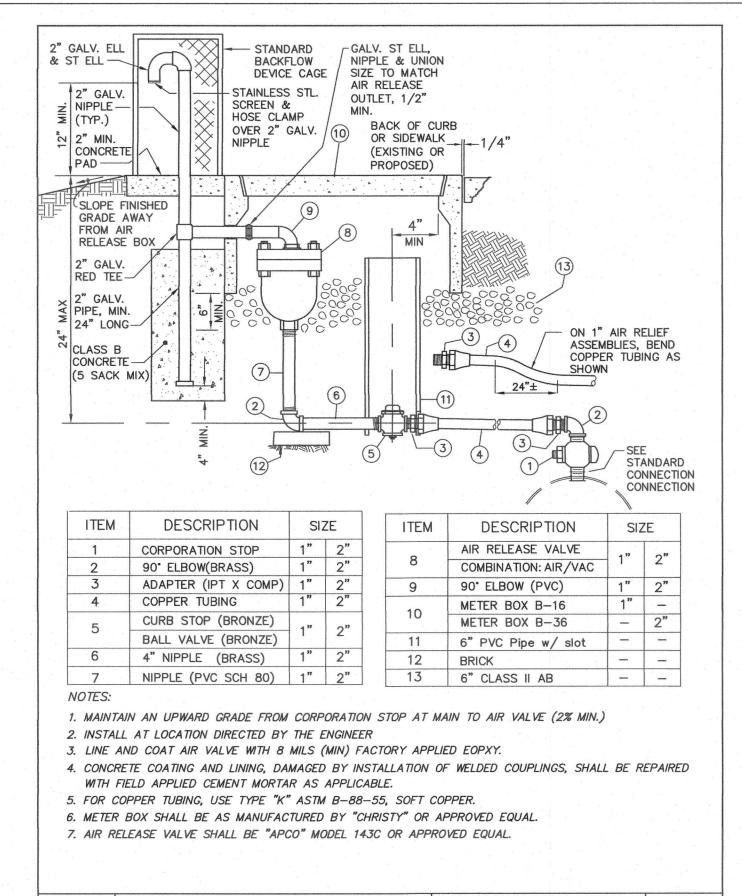
. RASMUSSON/ V. GONZALEZ 09/17/2018

SCALE AS SHOWN SHEET 3

> OF 12 SHEETS DRAWING FILE #

12-935





CITY OF VALLEJO STANDARD DETAIL

1"& 2" AIR RELIEF VALVE

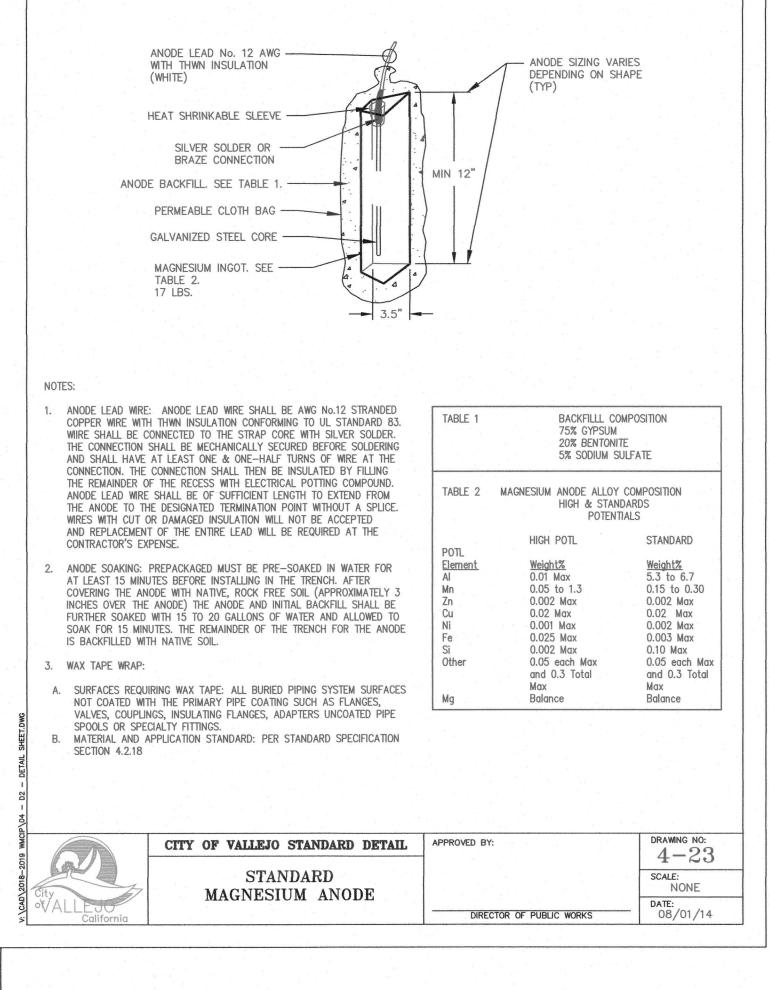
COMBINATION AIR/VACUUM

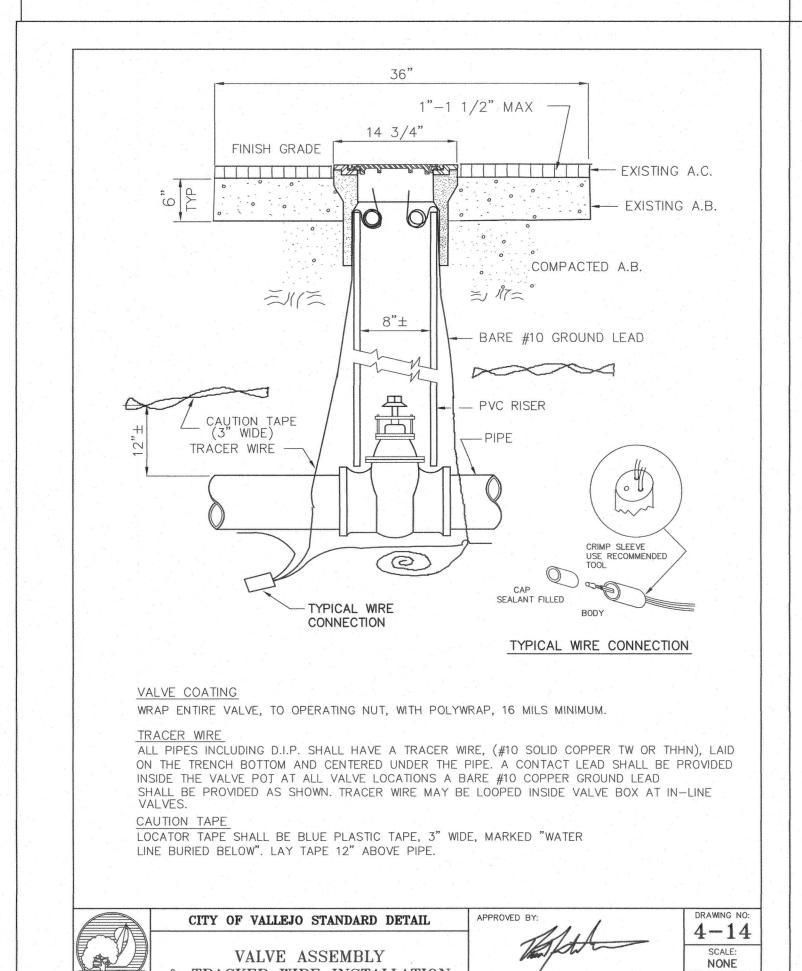
AND AIR RELEASE VALVE

DATE: 9/13/11

DATE: 9/13/11

DIRECTOR OF PUBLIC WORKS

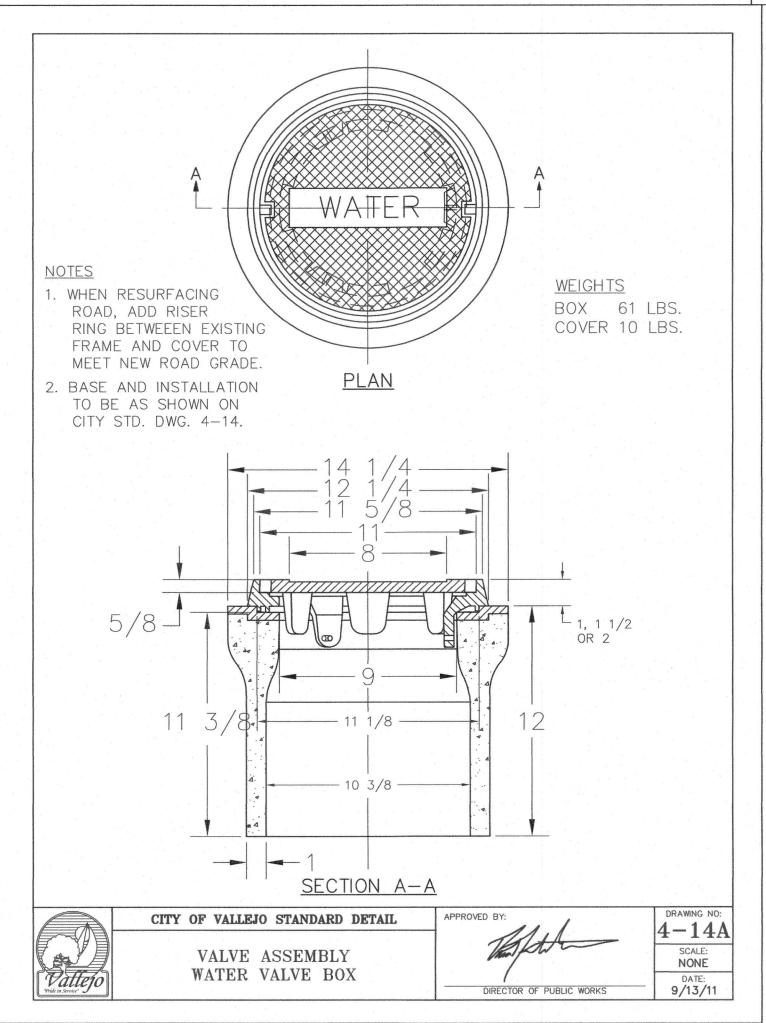




VALVE ASSEMBLY

& TRACKER WIRE INSTALLATION

ZONE VALVE ASSEMBLY



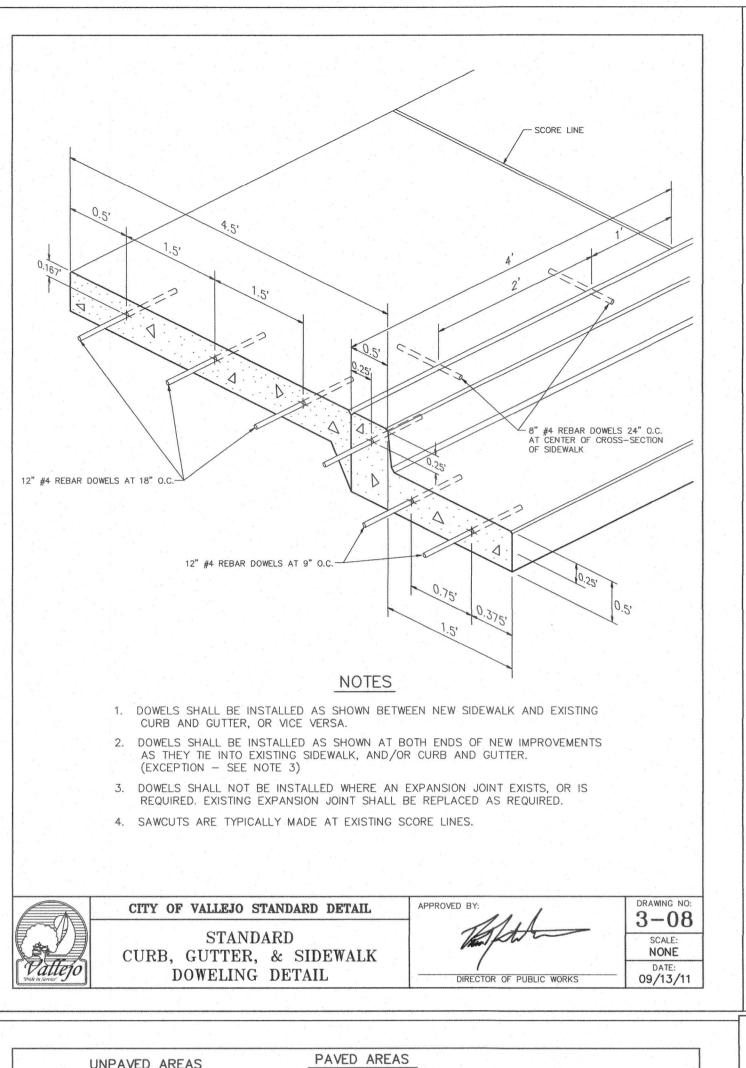
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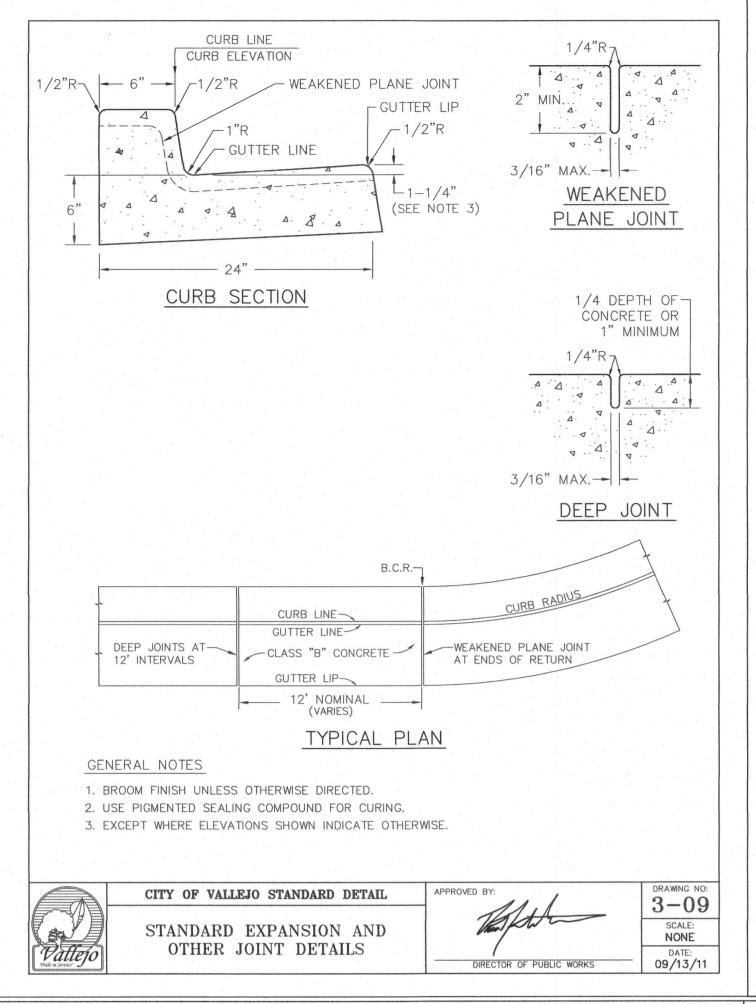
DATE: 9/13/11

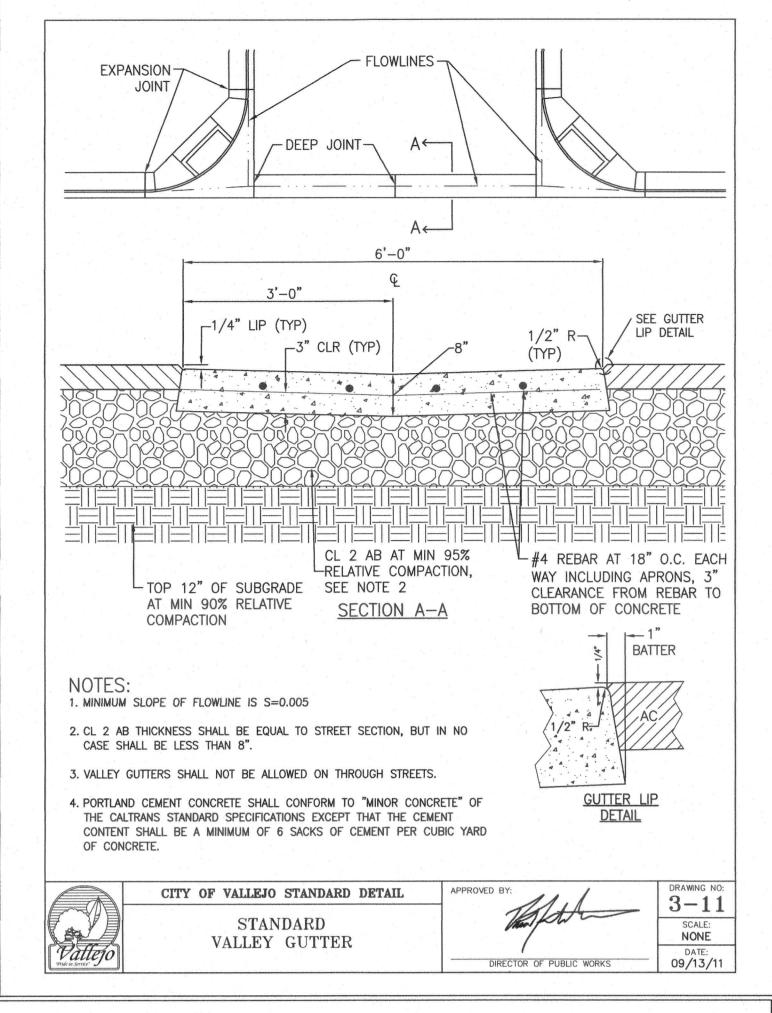
SHEE DETAIL WTR050 DESIGN BY DRAWN BY DATE SCALE

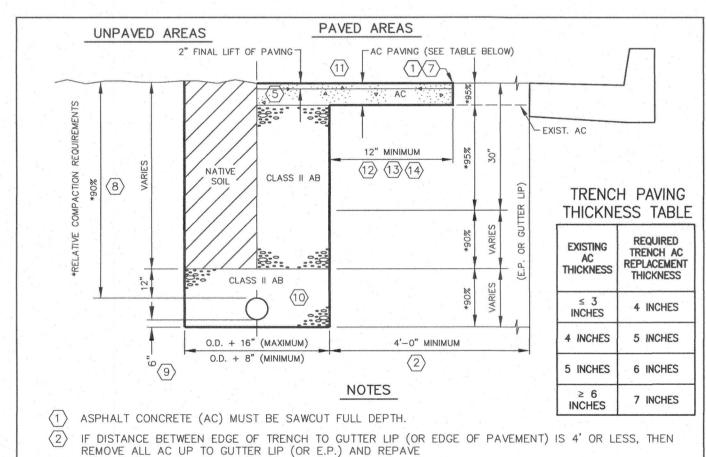
CITY PROJECT # R. ZAMBRANA R. ZAMBRANA . RASMUSSON/ V. GONZALEZ 09/17/2018 AS SHOWN SHEET 4

12-935









3 SHORING SHALL BE REQUIRED FOR TRENCH DEPTH OF 5'-0" OR GREATER AND WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED.

(4) IN BACKFILLING UTILITY WIRES, A MAXIMUM OF 12" OF SAND ABOVE THEM WILL BE PERMITTED.

(5) AC SHALL BE TYPE B; 1/2" MAX.; AND MEDIUM GRADING. TO INSURE ADEQUATE BONDING; A TACK COAT (SS-1) SHALL BE APPLIED OVER EXISTING AC PAVEMENT AND A PRIME COAT (MC-250) SHALL BE APPLIED OVER COMPACTED AB (SS-1 MAYBE SUBSTITUTED FOR EXISTING STREETS). USE OF MC-250 SHALL COMPLY WITH E.P.A. (ENVIRONMENTAL PROTECTION AGENCY) REGULATIONS.

(6) TRAFFIC CONTROL AND WARNING SIGNS SHALL BE PER THE MANUAL OF TRAFFIC CONTROLS; PUBLISHED BY THE DEPARTMENT OF TRANSPORTATION, STATE OF CALIFORNIA.

(7) SPRAY AC JOINT WITH SS-1.

(8) IN PREVIOUSLY UNDEVELOPED AREAS TO BE PAVED; THE RELATIVE COMPACTION REQUIREMENTS IS AS SHOWN UNDER PAVED AREAS.

(9) IF SURROUNDING MATERIALS ARE OF A HIGHLY IMPERMEABLE COMPOSITION, THEN TYPE I BEDDING IS

10 USE SAND BACKFILL FOR DUCTILE IRON PIPE.

(11) MATCH EXISTING AC THICKNESS IF GREATER THAN 4".

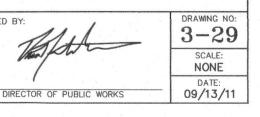
12 STREET PAVEMENT CONSTRUCTED WITHIN THE MORATORIUM PERIOD (5 YEARS) SHALL BE GROUND AND PAVED A MINIMUM DEPTH OF 2 IN. THICKNESS AND A MINIMUM WIDTH OF 20 FEET FROM EACH SIDE OF TRENCH CENTER LINE FROM GUTTER LIP TO GUTTER LIP OF THE EXISTING ROADWAY UNLESS APPROVED BY THE CITY ENGINEER.

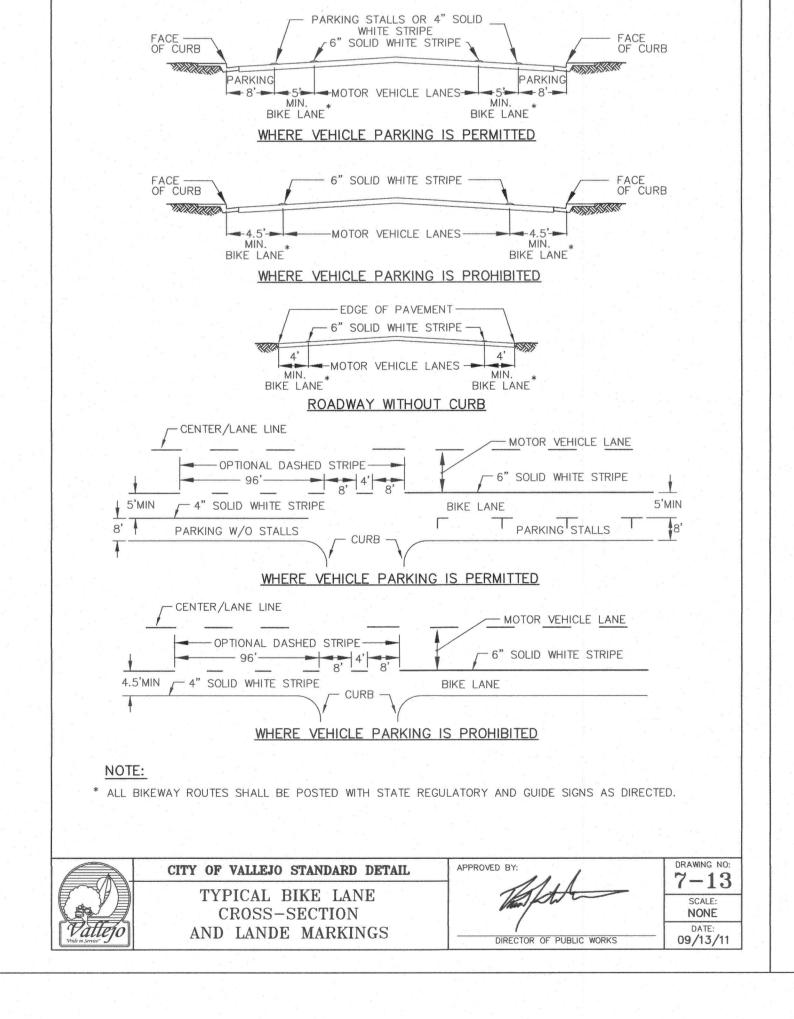
(13) GRINDING AND PAVING SHALL BE PERFORMED AFTER THE TYPICAL BACKFILL & PAVING OF TRENCH HAS BEEN COMPLETED AND INSPECTED.

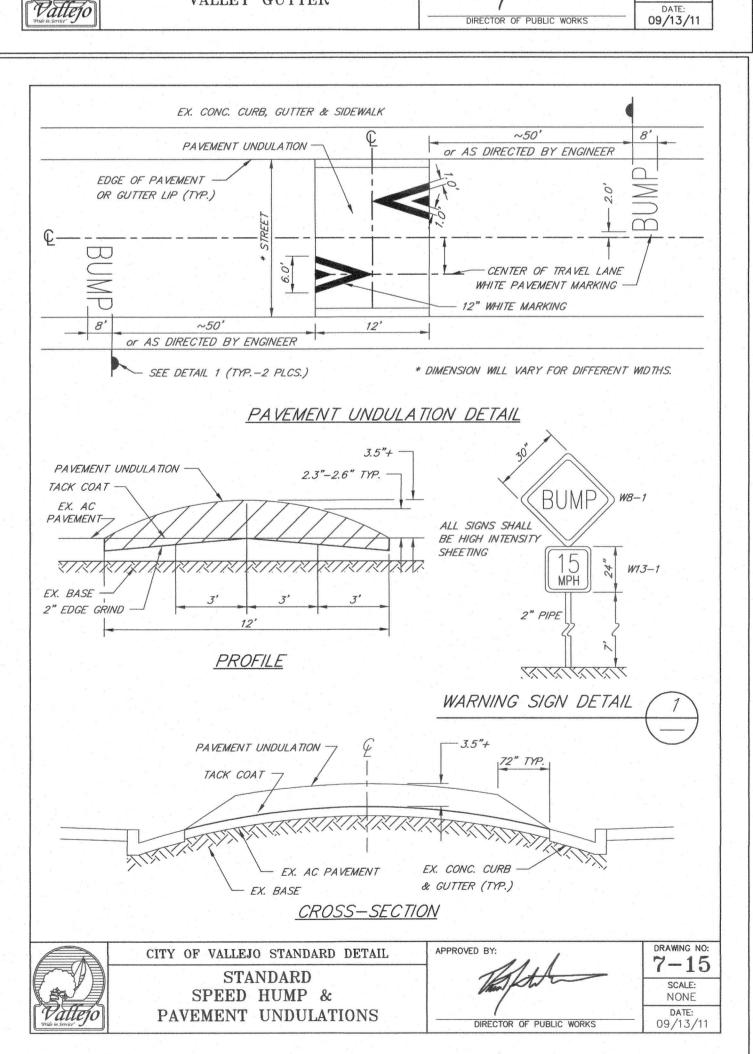
(14) THE EDGE OF THE GRIND AND PAVE AREA SHALL BE PERPENDICULAR TO ALL CONTIGUOUS LANES OF A A TRAVELED WAY. THE DISTANCE BETWEEN EACH PERPENDICULAR EDGE SHALL NOT BE GREATER THAN 10 FEET NOR LESS THAN 5 FEET.

CITY OF VALLEJO STANDARD DETAIL TYPICAL TRENCH BACKFILL

3-29 SCALE: NONE DIRECTOR OF PUBLIC WORKS 09/13/11







CONTRACTOR OF STREET S CITY PROJECT # WTR050 DESIGN BY R. ZAMBRANA DRAWN BY R. ZAMBRANA . RASMUSSON/ V. GONZALEZ DATE 09/17/2018 AS SHOWN SHEET 5 OF 12 SHEETS DRAWING FILE # 12-935

