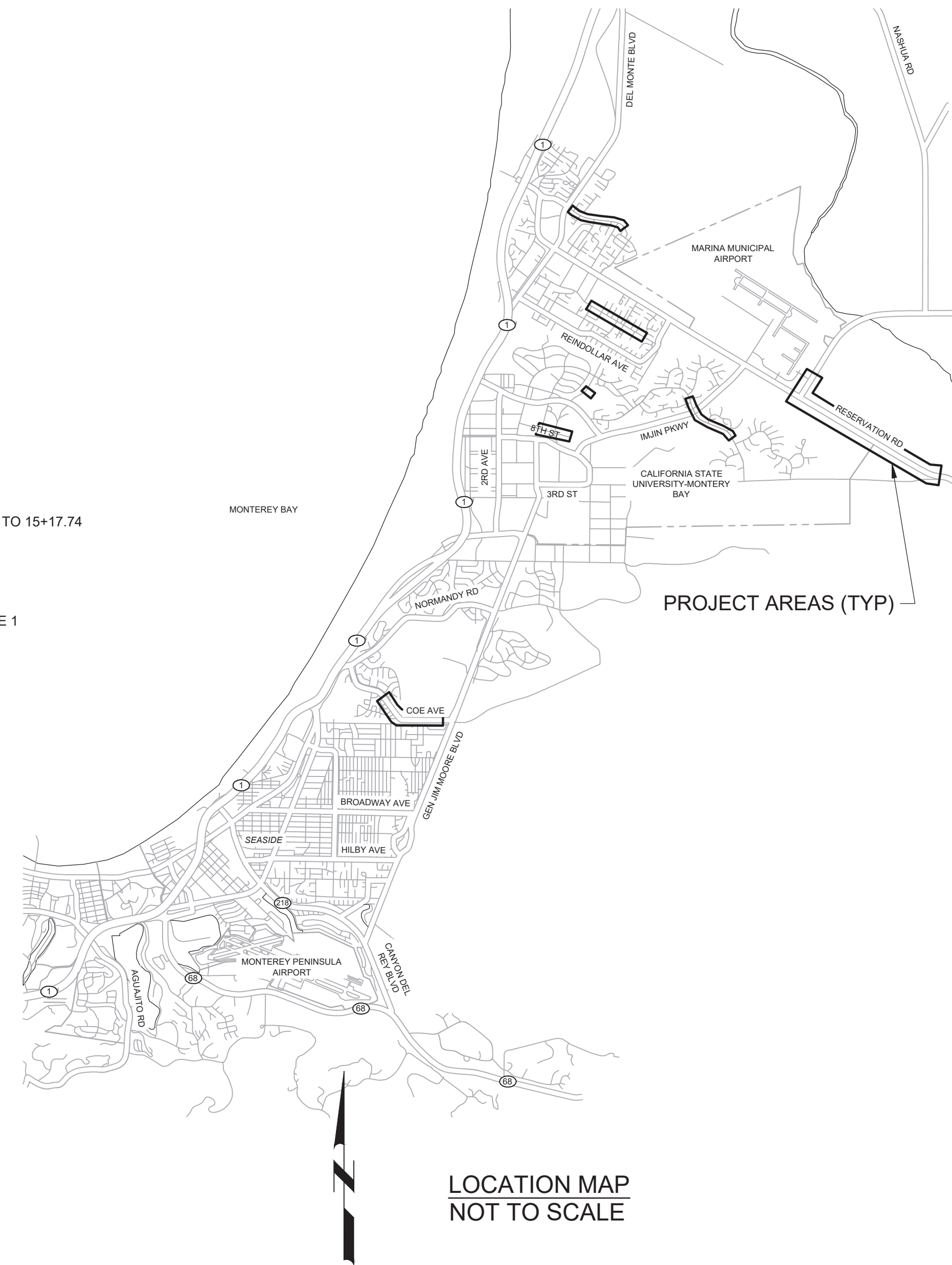
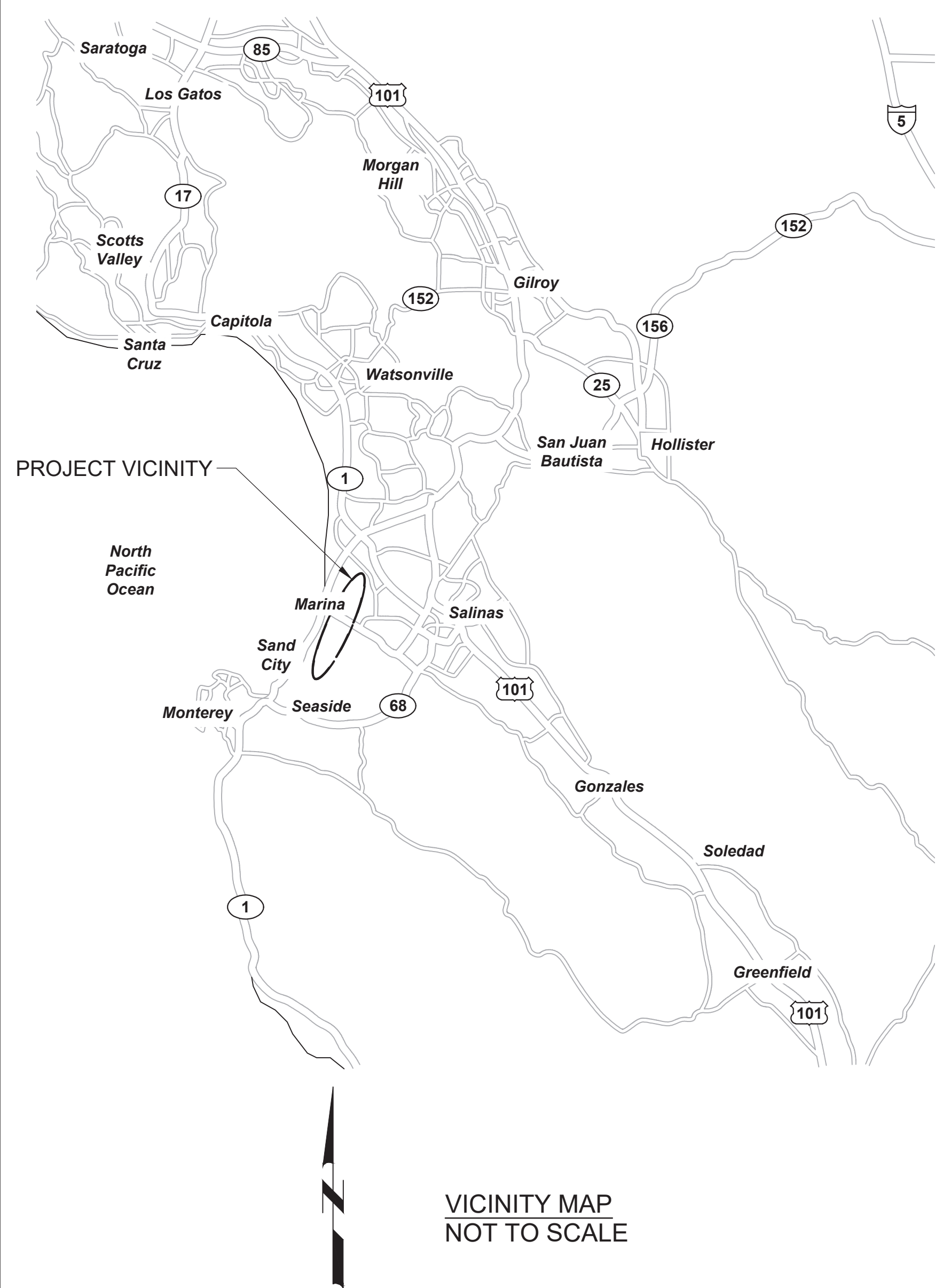


# MARINA COAST WATER DISTRICT REGIONAL URBAN WATER AUGMENTATION PROJECT RECYCLED WATER DISTRIBUTION MAINS

CIP # RW-0174  
VOLUME 2 OF 2

OCTOBER 2019

### DISTRIBUTION MAINS



SHT DWG	DESCRIPTION	SHT DWG	DESCRIPTION
<b>GENERAL</b>			
1 G01	COVER SHEET	52 P30	BEACH RD WL DISTRIBUTION MAIN - STA 10+00 TO 19+00
2 G02	GENERAL NOTES, LEGENDS, AND SYMBOLS	53 P31	BEACH RD WL DISTRIBUTION MAIN - STA 19+00 TO 29+00
3 G03	GENERAL CIVIL ABBREVIATIONS, LEGENDS AND SYMBOLS	54 P32	BEACH RD WL DISTRIBUTION MAIN - STA 29+00 TO 37+47.90
4 G04	INDEX MAP	55 P33	RESERVOIR 2 TO CRESCENT AVE CONNECTOR - STA 10+00 TO 15+17.74
5 G05	SURVEY CONTROL POINTS TYPICAL	<b>PAVING</b>	
6 T01	AGENCY TYPICAL DETAILS - 1	56 C01	PAVING PLAN - BEACH ROAD 1
7 T02	AGENCY TYPICAL DETAILS - 2	57 C02	PAVING PLAN - BEACH ROAD 2
8 T03	AGENCY TYPICAL DETAILS - 3	58 C03	PAVING PLAN - CARMEL AVENUE
9 TA01	ARCHITECTURAL TYPICAL DETAILS - 1	59 C04	PAVING PLAN - MARINA HEIGHTS DRIVE AND ABRAMS DRIVE 1
10 TC01	CIVIL TYPICAL DETAILS - 1	60 C05	PAVING PLAN - ABRAMS DRIVE 2
11 TP01	PIPING TYPICAL DETAILS - 1	61 C06	PAVING PLAN - RESERVATION ROAD 1
12 TP02	PIPING TYPICAL DETAILS - 2	62 C07	PAVING PLAN - RESERVATION ROAD 2
13 TS01	STRUCTURAL TYPICAL DETAILS - 1	63 C08	PAVING PLAN - RESERVATION ROAD 3
14 TN01	INSTRUMENTATION TYPICAL DETAILS - 1	64 C09	PAVING PLAN - 9TH STREET
<b>CIVIL</b>			
15 CD01	YARD PIPING PLANS - 1	65 C10	PAVING PLAN - COE AVENUE 1
16 CD02	YARD PIPING PLANS - 2	66 C11	PAVING PLAN - COE AVENUE 2
17 CD03	YARD PIPING PLANS - 3	<b>POTABLE WATER PIPELINES</b>	
<b>STRUCTURAL AND MECHANICAL</b>			
18 M01	BEACH RD PRESSURE REDUCING STATION	52 P30	BEACH RD WL DISTRIBUTION MAIN - STA 10+00 TO 19+00
19 M02	CARMEL AVE PRESSURE REDUCING STATION	53 P31	BEACH RD WL DISTRIBUTION MAIN - STA 19+00 TO 29+00
20 M03	MARINA HEIGHTS DR PRESSURE REDUCING STATION	54 P32	BEACH RD WL DISTRIBUTION MAIN - STA 29+00 TO 37+47.90
21 M04	9TH ST PRESSURE REDUCING STATION	55 P33	RESERVOIR 2 TO CRESCENT AVE CONNECTOR - STA 10+00 TO 15+17.74
22 M05	COE AVE PRESSURE REDUCING STATION	<b>RECYCLED WATER PIPELINES</b>	
23 P01	BEACH ROAD DISTRIBUTION MAIN - STA 10+00 TO 19+60	23 P01	BEACH ROAD DISTRIBUTION MAIN - STA 10+00 TO 19+60
24 P02	BEACH ROAD DISTRIBUTION MAIN - STA 19+60 TO 29+60	24 P02	BEACH ROAD DISTRIBUTION MAIN - STA 19+60 TO 29+60
25 P03	BEACH ROAD DISTRIBUTION MAIN - STA 29+60 TO 39+60	25 P03	BEACH ROAD DISTRIBUTION MAIN - STA 29+60 TO 39+60
26 P04	BEACH ROAD DISTRIBUTION MAIN - STA 39+60 TO 49+83.40	26 P04	BEACH ROAD DISTRIBUTION MAIN - STA 39+60 TO 49+83.40
27 P05	CARMEL AVENUE DISTRIBUTION MAIN - STA 10+00 TO 19+00	27 P05	CARMEL AVENUE DISTRIBUTION MAIN - STA 10+00 TO 19+00
28 P06	CARMEL AVENUE DISTRIBUTION MAIN - STA 19+00 TO 29+00	28 P06	CARMEL AVENUE DISTRIBUTION MAIN - STA 19+00 TO 29+00
29 P07	CARMEL AVENUE DISTRIBUTION MAIN - STA 29+00 TO 37+79.65	29 P07	CARMEL AVENUE DISTRIBUTION MAIN - STA 29+00 TO 37+79.65
30 P08	MARINA HEIGHTS DR DISTRIBUTION MAIN STA 10+00 TO 12+87.13	30 P08	MARINA HEIGHTS DR DISTRIBUTION MAIN STA 10+00 TO 12+87.13
31 P09	ABRAMS DRIVE DISTRIBUTION MAIN - STA 11+50 TO 19+00	31 P09	ABRAMS DRIVE DISTRIBUTION MAIN - STA 11+50 TO 19+00
32 P10	ABRAMS DRIVE DISTRIBUTION MAIN - STA 19+00 TO 21+03.06 AND STA 22+00 TO 24+00	32 P10	ABRAMS DRIVE DISTRIBUTION MAIN - STA 19+00 TO 21+03.06 AND STA 22+00 TO 24+00
33 P11	ABRAMS DRIVE DISTRIBUTION MAIN - STA 24+00 TO 34+00	33 P11	ABRAMS DRIVE DISTRIBUTION MAIN - STA 24+00 TO 34+00
34 P12	ABRAMS DRIVE DISTRIBUTION MAIN - STA 34+00 TO 44+00	34 P12	ABRAMS DRIVE DISTRIBUTION MAIN - STA 34+00 TO 44+00
35 P13	ABRAMS DRIVE DISTRIBUTION MAIN - STA 44+00 TO 48+83.16	35 P13	ABRAMS DRIVE DISTRIBUTION MAIN - STA 44+00 TO 48+83.16
36 P14	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 10+00 TO 19+00	36 P14	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 10+00 TO 19+00
37 P15	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 19+00 TO 29+00	37 P15	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 19+00 TO 29+00
38 P16	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 29+00 TO 39+00	38 P16	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 29+00 TO 39+00
39 P17	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 39+00 TO 49+00	39 P17	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 39+00 TO 49+00
40 P18	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 49+00 TO 59+00	40 P18	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 49+00 TO 59+00
41 P19	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 59+00 TO 69+00	41 P19	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 59+00 TO 69+00
42 P20	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 69+00 TO 79+00	42 P20	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 69+00 TO 79+00
43 P21	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 79+00 TO 89+00	43 P21	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 79+00 TO 89+00
44 P22	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 89+00 TO 99+00	44 P22	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 89+00 TO 99+00
45 P23	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 99+00 TO 101+47.83	45 P23	BLANCO RD & RESERVATION ROAD DISTRIBUTION MAIN - STA 99+00 TO 101+47.83
46 P24	9TH STREET DISTRIBUTION MAIN - STA 10+00 TO 19+00	46 P24	9TH STREET DISTRIBUTION MAIN - STA 10+00 TO 19+00
47 P25	9TH STREET DISTRIBUTION MAIN - STA 19+00 TO 20+89.77	47 P25	9TH STREET DISTRIBUTION MAIN - STA 19+00 TO 20+89.77
48 P26	COE AVENUE DISTRIBUTION MAIN - STA 10+00 TO 19+00	48 P26	COE AVENUE DISTRIBUTION MAIN - STA 10+00 TO 19+00
49 P27	COE AVENUE DISTRIBUTION MAIN - STA 19+00 TO 29+00	49 P27	COE AVENUE DISTRIBUTION MAIN - STA 19+00 TO 29+00
50 P28	COE AVENUE DISTRIBUTION MAIN - STA 29+00 TO 39+00	50 P28	COE AVENUE DISTRIBUTION MAIN - STA 29+00 TO 39+00
51 P29	COE AVENUE DISTRIBUTION MAIN - STA 39+00 TO 42+64.40	51 P29	COE AVENUE DISTRIBUTION MAIN - STA 39+00 TO 42+64.40

BID DOCUMENTS			
REV	DATE	BY	DESCRIPTION



**APPROVED:**  
MICHAEL WEGLEY, PE  
DISTRICT ENGINEER  
DATE

**SUBMITTED:**  
Digitally signed by Jonathon P. Marshall  
Contact Info: Carollo Engineers, Inc.  
Date: 2019.10.16 17:07:15 -0700  
*Jonathon P. Marshall*  
JONATHON P. MARSHALL, P.E.  
CAROLLO ENGINEERS  
R.C.E. 73265  
DATE



Plot Date: 9/19/2019 8:59:30 PM

FILE NAME: 7568C1000G02.dwg

PROJECT NO. 7568C10

LAST SAVED BY: dbwavs

### GENERAL NOTES

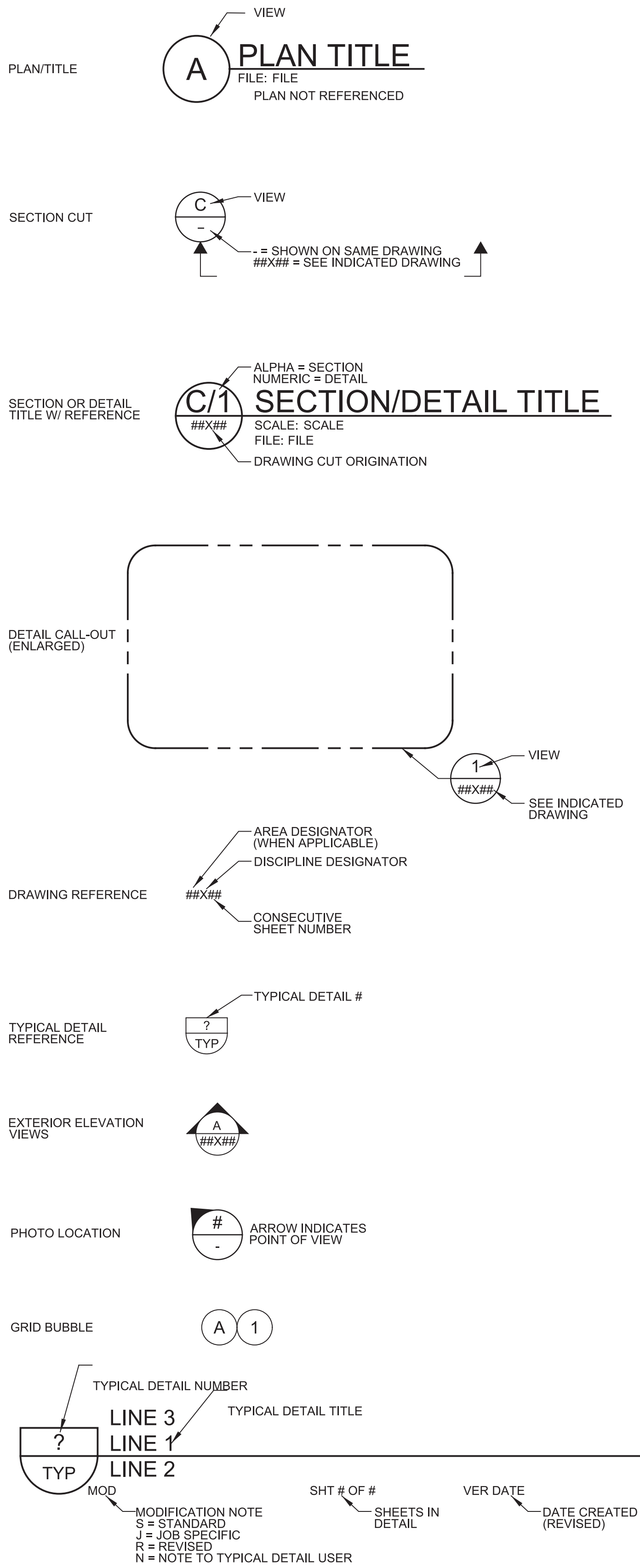
### GENERAL NOTES

### DETAIL REFERENCES

### HATCH PATTERNS

- FOLLOWING NOTES ARE GENERAL AND APPLY TO ALL SHEETS OF THESE CONTRACT DOCUMENTS AS IF THEY WERE WRITTEN IN THEIR ENTIRETY ON EACH SHEET.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS INCLUDING LOCATION AND DIMENSIONS OF ALL EXISTING FACILITIES AND UTILITIES. CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITY CROSSINGS PRIOR TO COMMENCING FACILITIES AND FABRICATING PIPELINE TO VISUALLY CONFIRM DEPTH OF COVER. CONTRACTOR SHALL NOTIFY ENGINEER IF THERE IS A CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND EXISTING CONSTRUCTION BEFORE PROCEEDING WITH WORK.
- UNLESS DETAILED, SPECIFIED, OR OTHERWISE INDICATED ON THE DRAWINGS, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND GENERAL NOTES. TYPICAL DETAILS SHALL APPLY EVEN THOUGH NOT REFERENCED AT SPECIFIC LOCATIONS ON DRAWINGS.
- WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF WORK. DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- CONTRACTOR SHALL COMPLY WITH LOCAL CONSTRUCTION STORM WATER DISCHARGE REGULATIONS AND REQUIREMENTS.
- PRIOR TO EXCAVATION FOR NEW STRUCTURES, ELECTRICAL CONDUIT, FABRICATION OF NEW PIPING AND/OR OTHER PROPOSED UTILITIES, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING PIPING AND UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL TEMPORARILY RELOCATE CONFLICTING EXISTING UTILITIES AT TIE-IN/CONNECTION LOCATIONS AND REINSTALL THEM AS REQUIRED TO ELIMINATE THE CONFLICT.
- ALL PIPELINES 12" AND LARGER SHALL HAVE A MINIMUM COVER OF 48" UNLESS THE COVER DEPTH IS SPECIFICALLY INDICATED ON THE DRAWINGS. PIPE SMALLER THAN 12" SHALL HAVE A MINIMUM COVER OF 30" UNLESS NOTED OTHERWISE. PIPES SHALL BE ROUTED AS SHOWN UNLESS MINOR REVISIONS ARE NECESSARY TO MISS EXISTING PIPES, STRUCTURES, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL FITTINGS AND ADAPTERS REQUIRED TO MAKE THE ROUTING CHANGES AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL INCLUDE COST FOR THIS IN THE BID.
- EXISTING FACILITY AND UTILITY INFORMATION SHOWN ON THE DRAWINGS WAS OBTAINED FROM AVAILABLE RECORDS OR ELECTRONIC FILES. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR FACILITIES AND UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL FIELD VERIFY AND VISUALLY CONFIRM ALL LOCATIONS, SIZES, MATERIAL TYPES, AND ELEVATIONS SHOWN AROUND OR NEAR AREAS OF NEW CONSTRUCTION PRIOR TO START OF CONSTRUCTION.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT FROM DAMAGE EXISTING FACILITIES AND UTILITIES SHOWN OR NOT SHOWN THAT ARE TO REMAIN IN PLACE. ALL FACILITIES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED TO THE ORIGINAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE WITHOUT ADDITIONAL COMPENSATION.
- CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING PIPE, EQUIPMENT, ETC. AS REQUIRED AND SHALL PROVIDE ALL FITTINGS, ADAPTERS, AND APPURTENANCES REQUIRED TO MAKE THE CONNECTIONS. PROVIDE ALL SUPPORTS REQUIRED FOR A RIGIDLY SUPPORTED COMPLETE AND WORKING SYSTEM.
- ADJUST ALL VALVE BOXES, VAULTS, PULL BOXES, AND MANHOLES TO FINISHED GRADE UNLESS OTHERWISE SHOWN OR DIRECTED. MANHOLES IN OPEN FIELDS SHALL BE SET TWELVE INCHES ABOVE FINISHED GRADE AND VAULTS SHALL BE SIX INCHES ABOVE FINISHED GRADE UNLESS OTHERWISE SHOWN OR DIRECTED.
- CONTRACTOR SHALL VERIFY THAT PIPING SHOWN TO BE ABANDONED OR AS ABANDONED PREVIOUSLY IS NO LONGER IN SERVICE. LINES IN SERVICE SHALL BE MAINTAINED UNTIL NO LONGER REQUIRED.
- CONTRACTOR SHALL REROUTE THE EXISTING PIPING IF REQUIRED TO MISS THE PROPOSED STRUCTURES. THE EXISTING PIPE SHALL REMAIN IN SERVICE UNTIL NEW PIPING IS READY TO BE PLACED INTO SERVICE. DOWNTIME SHALL BE A MAXIMUM OF 2 HOURS, UNLESS SPECIFIED OR SHOWN OTHERWISE.
- THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS IN THE VICINITY OF ANY OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL ABIDE BY THE NATIONAL ELECTRIC CODE AND CAL-OSHA AND ANY REQUIREMENT BY THE OWNER OF THE ELECTRIC LINES.
- PROVIDE ALL SHEETING/SHORING REQUIRED TO PROTECT EXISTING STRUCTURES, PIPES AND FACILITIES.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL ARCHITECTURAL, MECHANICAL, AND ELECTRICAL ITEMS BEFORE PLACING ANY STRUCTURAL STEEL OR CONCRETE. ALSO, STRUCTURAL DIMENSIONS AND OPENINGS CONTROLLED BY ARCHITECTURAL, MECHANICAL, OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES, AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS, THAT ARE REQUIRED BY OTHER CONTRACT DRAWINGS, SHALL BE PROVIDED PRIOR TO CASTING CONCRETE.
- ALL NEW AT GRADE UTILITY BOXES, VAULTS, HATCHES, AND MANHOLES SHALL BE HS-20 RATED.
- ENCROACHMENT PERMITS FROM THE APPLICABLE JURISDICTIONAL AGENCIES ARE REQUIRED PRIOR TO ANY WORK WITHIN PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL ADHERE TO ALL REQUIREMENTS OF ALL ENCROACHMENT PERMITS ISSUED. DRAFT ENCROACHMENT PERMITS HAVE BEEN PROVIDED IN APPENDICES A - D.
- ALL WORK WITHIN PRIVATE EASEMENTS SHALL BE PERFORMED IN ACCORDANCE WITH ALL CONDITIONS PROVIDED IN THE EASEMENT, RIGHT-OF-ENTRY, OR TEMPORARY PERMIT DOCUMENTS AS DESCRIBED IN SECTION 01140.
- TRENCH PAVING AC AND ABC THICKNESSES CAN BE FOUND IN SECTION 01140.
- WHERE TRENCH PAVING AND/OR OVERLAY PAVING IS REQUIRED, RAISE ALL EXISTING AND NEW VALVE CANS, MANHOLES, AND MONUMENTS TO GRADE.
- WATER, SEWER, GAS AND OTHER UTILITY SERVICE LATERALS ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL SERVICE LATERALS. CONTRACTOR SHALL BE AWARE THAT USA LOCATE MAY NOT BE ABLE TO LOCATE ALL UTILITY LATERALS AND CONTRACTOR SHALL BE PREPARED TO LOCATE THEM WHERE NEEDED.
- ALL SERVICE LATERALS DAMAGED OR BROKEN DURING CONSTRUCTION SHALL BE REPLACED IN KIND. SEWER AND WATER LATERAL REPAIRS SHALL CONFORM TO MCWD STD. DETAILS S-6, W-1 and W-2 RESPECTIVELY UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

- UNDER THE DIRECTION OF A SURVEYOR LICENSED IN THE STATE OF CALIFORNIA, THE CONTRACTOR SHALL RESET ALL MONUMENTS DISTURBED OR REMOVED DURING CONSTRUCTION ACTIVITIES PER C040/TYP.
- WHERE THE RECYCLED WATERLINES CROSS EXISTING UTILITIES, THE RECYCLED WATERLINES SHALL BE INSTALLED A MINIMUM OF 12" CLEAR VERTICALLY FROM THE EXISTING UTILITY. THE RECYCLED WATERLINES MUST CROSS BELOW EXISTING WATERLINES AND ABOVE EXISTING SANITARY SEWER LINES - SEE MCWD TYP DET W-16 FOR ADDITIONAL REQUIREMENTS.
- CARVs ARE REQUIRED AT ALL HIGH POINTS IN PIPELINES. BLOW-OFFS ARE REQUIRED AT ALL LOW POINTS IN PIPELINES.
- THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS IN THE VICINITY OF ANY OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL ABIDE BY THE NATIONAL ELECTRIC CODE AND ANY REQUIREMENT BY THE OWNER OF THE ELECTRIC LINES. WHERE EXCAVATING NEAR POWER POLES, CONTRACTOR SHALL COORDINATE WITH UTILITY AND PAY ALL COSTS TO TEMPORARILY SUPPORT POWER POLES.
- TRIM TREE BRANCHES AS REQUIRED FOR CONSTRUCTION BY QUALIFIED ARBORIST. PROTECT TREE PER SECTION 01562.



ABC		GRATING	
ALUMINUM		LANDSCAPING	
BRICK OR BLOCK		RUBBER	
BRONZE, BRASS, OR COPPER		SLURRY SEAL	
CAST IRON OR FIBERGLASS		SOIL	
CLASS "A", "B" AND "D" CONCRETE		STEEL	
CLASS "C" CONCRETE		TREAD PLATE	
DECOMPOSED GRANITE		WETLANDS NO SURFACE IMPACT	

### BID DOCUMENTS

DESIGNED	JPM
DRAWN	TLR
CHECKED	
DATE	OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact Info: Carollo Engineering, Inc.  
Date: 2019.10.19 12:30:19 -0700



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
GENERAL  
GENERAL NOTES, LEGENDS AND SYMBOLS

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. G02  
SHEET NO. 2 OF 66

REV	DATE	BY	DESCRIPTION
1			
2			
3			



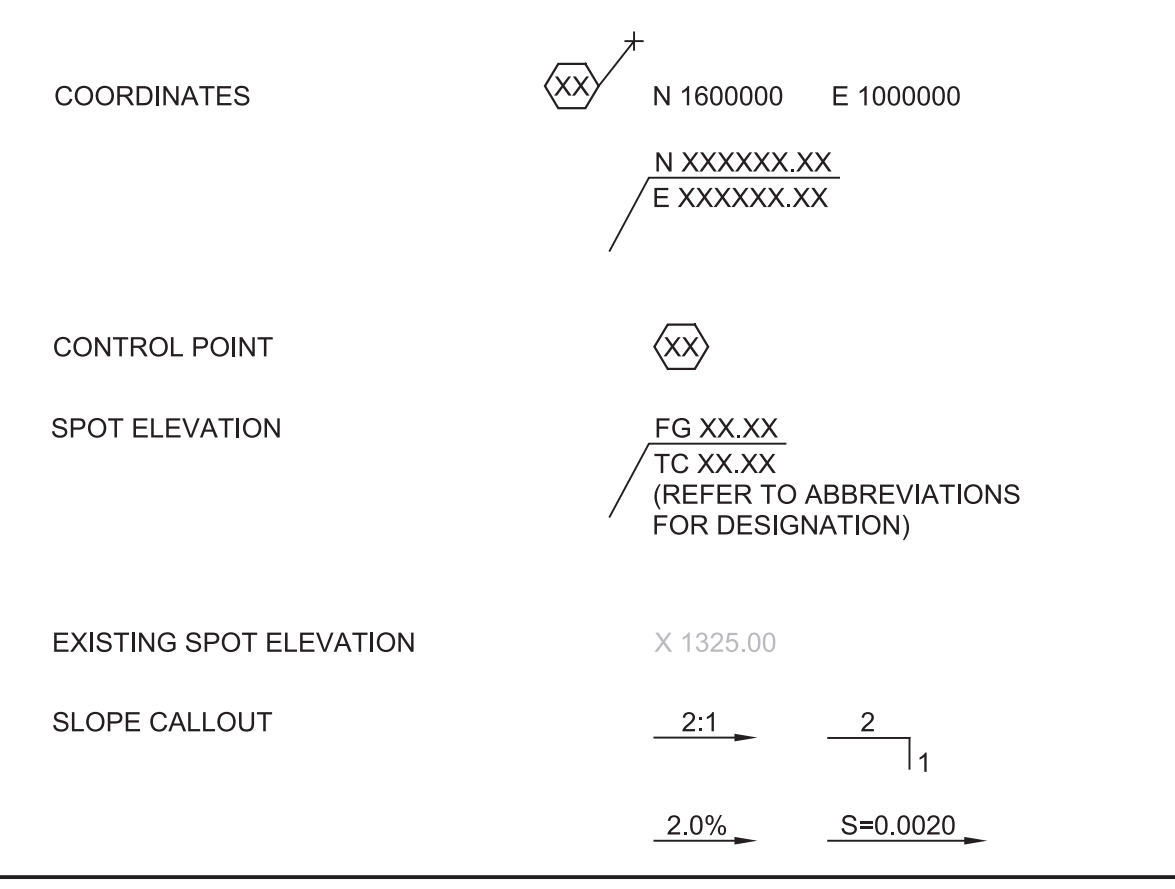
### ABBREVIATIONS

<b>A</b>	△ DELTA, DEFLECTION ANGLE, OR CENTRAL ANGLE # NUMBER (REBAR Ø) @ (MEASUREMENT) +/- PLUS/MINUS	<b>F</b>	FC FLEXIBLE COUPLING FCA FLANGE COUPLING ADAPTER FF FINISHED FLOOR FG FINISHED GRADE FH FIRE HYDRANT FIN FINISH FIP FEMALE IRON PIPE FIR FLOOR, FLOW LINE, FLANGE FLX FLEXIBLE FLG FLANGE(D) FLGA FLANGE ADAPTER FM FORCE MAIN FMSS FORCE MAIN SANITARY SEWER FND FOUNDATION FO FIBER OPTIC OR CATV FOB FLAT ON BOTTOM FOC FACE OF CURB FOT FLAT ON TOP FPM FEET PER MINUTE FRA FIRE SERVICES FSP FABRICATED STEEL PIPE FT or ' FOOT, FEET FTG FOOTING	<b>Q</b>	QTY QUANTITY		
<b>B</b>	BC BEGIN CURVE BF BLIND FLANGE BFG BELOW FINISHED GRADE BFP BACK FLOW PREVENTER BFV BUTTERFLY VALVE BH BORE HOLE BLDG BUILDING BM BEAM, BENCH MARK BO BLOW OFF BOC BACK OF CURB BOP BOTTOM OF PIPE BOT BOTTOM BTWN BETWEEN BV BALL VALVE BVC BEGINNING OF VERTICAL CURVE BYP BYPASS	<b>G</b>	GA GAS, GUTTER GAL GALLONS GALV GALVANIZE(D) GB GRADE BREAK GC GROOVED COUPLING GEN GENERATOR GM GAS METER GND GROUND GPD GALLONS PER DAY GPM GALLONS PER MINUTE GR GRADE GRT GRATING GSP GALVANIZED STEEL PIPE GV GATE VALVE	<b>R</b>	R/W RIGHT-OF-WAY RAD RADIUS, RADIAL RCB REINFORCED CONCRETE BOX CULVERT RCP REINFORCED CONCRETE PIPE RECT RECTANGLE RED REDUCER REF REFERENCE REINF REINFORCE(D)(ING)(MENT) REQ'D REQUIRED REV REVISION RFLCA RESTRAINED FLEX COUPLING ADAPTER RH RIGHT HAND ROW RIGHT OF WAY RP RADIUS POINT RR RAILROAD RT RIGHT	<b>S</b>	SCH SCHEDULE SD STORM DRAIN SDDI STORM DRAIN DROP INLET SDMH STORM DRAIN MANHOLE SDVLT STORM DRAIN VAULT SE SOUTHEAST SECT SECTION SHLD SHOULDER SHT SHEET SIM SIMILAR SL SLOPE SPEC(S) SPECIFICATION(S) SQ SQUARE SS SANITARY SEWER SSCO SANITARY SEWER CLEANOUT SSMH SANITARY SEWER MANHOLE SST STAINLESS STEEL ST STREET STA STATION STD(S) STANDARD(S) STL STEEL STRUCT STRUCTURAL SW SOUTHWEST SWK SIDEWALK SYM SYMMETRICAL
<b>C</b>	CA CONCRETE ANCHOR CARV COMBINATION AIR RELEASE VALVE CATV CABLE TV CAV COMBINATION AIR VALVE CB CATCH BASIN CALIF CALIFORNIA BUILDING CODE CBC CENTER OF CURVATURE, CENTER TO CENTER, CONCRETE CURB CC CONDUIT CDT CUBIC FEET CFM CUBIC FEET PER MINUTE CFS CUBIC FEET PER SECOND CI CAST IRON CIP CAST IRON PIPE CIPP CURED IN PLACE PIPE CJ CONSTRUCTION JOINT CL CENTER LINE CLK CHAIN LINK CLR CLEAR / CLEARANCE CLSM CONTROL LOW STRENGTH MATERIAL CMLC CEMENT MORTAR LINED AND COATED CMP CORRUGATED METAL PIPE CMU CONCRETE MASONRY UNIT CO CLEANOUT CONC CONCRETE CONN CONNECT, CONNECTION CONST CONSTRUCTION CONT CONTINUOUS OR CONTINUATION OR (D) COORD COORDINATE CP CONTROL POINT CPLG COUPLING CSP CORRUGATED STEEL PIPE CTJ CONTROL JOINT CTL CONTROL CTR CENTER, CENTERED CTS COPPER TUBE SIZE CU CUBIC CULV CULVERT CUP COPPER PIPE CY CUBIC YARD	<b>H</b>	HDPE HIGH DENSITY POLYETHYLENE HORIZ HORIZONTAL HP HIGH POINT HPGM HIGH PRESSURE GAS MAIN HW HEADWALL, HOT WATER HWL HIGH WATER LEVEL HWY HIGHWAY HYD HYDRANT	<b>T</b>	T&B TOP AND BOTTOM T.O. TOP OF TB THRUST BLOCK TC TOP OF CURB TEL TELEPHONE TF TOP OF FOOTING TG TOP OF GRATE THW THERMOPLASTIC HEAT AND WATER TMH TELEPHONE MANHOLE TOC TOP OF CONCRETE TOG TOP OF GRATING TOP TOP OF PIPE TOS TOP OF STEEL TOW or TV TOP OF WALL TRD TREAD TSD TOP OF SIDEWALK TYP TYPICAL	<b>U</b>	UC UNDERCUT UG UNDERGROUND UGE UNDERGROUND ELECTRIC UGG UNDERGROUND GAS UGPB UNDERGROUND POWER BOX UGTEL UNDERGROUND TELEPHONE UNKN UNKNOWN UNO UNLESS NOTED OTHERWISE USA UNDERGROUND SERVICE ALERT
<b>D</b>	D DRAIN, DEPTH DW DRIVEWAY APRON DEG or ° DEGREE DEMO DEMOLISH, DEMOLITION DESC DESCRIPTION DET DETAIL DI DROP INLET DIA or Ø DIAMETER DIFF DIFFERENCE DIM DIMENSION DIP DUCTILE IRON PIPE DIST DISTANCE DOM DOMESTIC DR DIMENSION RATIO DRIVE DRIVE DRN DRAIN DWG(S) DRAWING(S)	<b>J</b>	JNCT JUNCTION JT JOINT	<b>L</b>	L LENGTH LAT LATERAL LAT LATTITUDE LBS(S) POUNDS LF LINEAL FEET LH LEFT HAND LONG LONGITUDINAL LP LOW POINT LT LEFT LWL LOW WATER LEVEL	<b>V</b>	V VERTICAL, VALVE VAR VARIES VB VALVE BOX VC VERTICAL CURVE, NOMINAL NPT NATIONAL PIPE THREAD NTS NOT TO SCALE NW NORTHWEST
<b>E</b>	E ELECTRICAL, EAST EA EACH EC END OF CURVE ECC ECCENTRIC EL ELEVATION ELEV ELEVATION ELL ELBOW ELC ELECTRICAL EMH ELECTRICAL MANHOLE EOA END OF ALIGNMENT EOP END OF PIPE EP EDGE OF PAVING EQ EQUAL EQUIP EQUIPMENT ES EACH SIDE ESMT EASEMENT EUG ELECTRICAL UNDERGROUND EVC END OF VERTICAL CURVE EW EACH WAY EXEXIST EXISTING	<b>M</b>	MATL MATERIAL MAX MAXIMUM MCWD MARINA COAST WATER DISTRICT MECH MECHANICAL MFR MANUFACTURER MGD MILLION GALLONS PER DAY MH MANHOLE MIN MINIMUM MISC MISCELLANEOUS MJ MECHANICAL JOINT MON MONUMENT MPH MILES PER HOUR	<b>N</b>	N NORTH NA NOT APPLICABLE NE NORTHEAST NG NATURAL GAS NIC NOT IN CONTRACT NO OR # NUMBER NOM NOMINAL NPT NATIONAL PIPE THREAD NTS NOT TO SCALE NW NORTHWEST	<b>W</b>	W WATER, WIDTH OR WEST W/O WITHOUT WL WATER LEVEL WM WATER METER WS WATER SURFACE WSP WELDED STEEL PIPE WSTP WATERSTOP WTF WATER TREATMENT FACILITY WV WATER CONTROL VALVE WW WASTEWATER
<b>F</b>		<b>O</b>	O.F. OUTSIDE FACE ON CENTER OD OUTSIDE DIAMETER, OUTSIDE DIAMENSION OHE OVERHEAD ELECTRIC OHU OVERHEAD UTILITIES OPNG OPENING	<b>P</b>	PC POINT OF CURVATURE PCC POINT OF COMPOUND CURVE PCL PARCEL PROPERTY LINE PERP PERPENDICULAR POT POTHOLE PI POINT OF INTERSECTION PL PLATE, PROPERTY LINE PNT POINT POB POINT OF BEGINNING PP POWER POLE PRC POINT OF REVERSE CURVATURE	<b>X</b>	XFMR TRANSFORMER
		<b>P</b>	PC POINT OF CURVATURE PCC POINT OF COMPOUND CURVE PCL PARCEL PROPERTY LINE PERP PERPENDICULAR POT POTHOLE PI POINT OF INTERSECTION PL PLATE, PROPERTY LINE PNT POINT POB POINT OF BEGINNING PP POWER POLE PRC POINT OF REVERSE CURVATURE	<b>Y</b>	YD YARD		

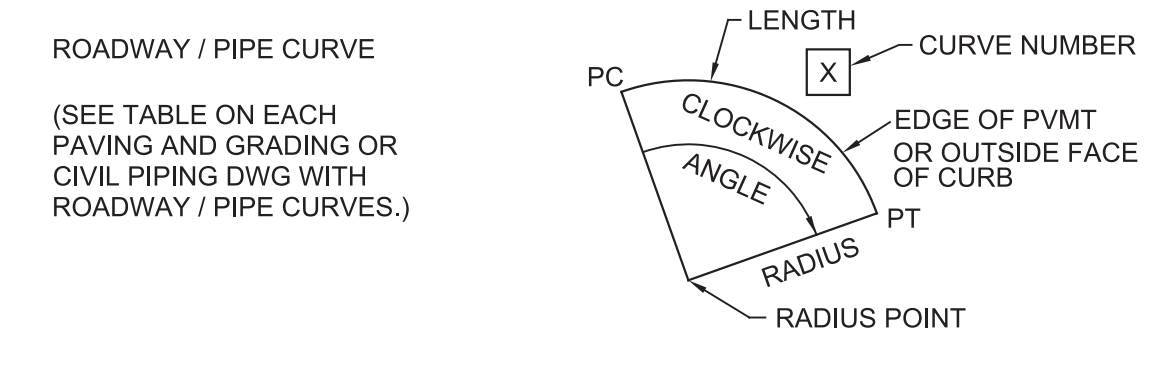
### LINE WORK

NEW STRUCTURES OR EDGE OF PAVEMENT	_____
EXISTING STRUCTURES (SCREENED)	-----
NEW PIPING (TRIPLE LINES)	=====
NEW PIPING (SINGLE LINE)	_____
EXISTING PIPING (TRIPLE LINES) (SCREENED)	-----
EXISTING PIPING (SINGLE LINE) (SCREENED)	-----
HIDDEN LINE OR TRAIL EDGE	- - - - -
CENTER, MONUMENT, OR SURVEY LINE	_____
GUARDRAIL	=====
EXISTING CONTOURS (SCREENED)	_____ 310
NEW CONTOURS	_____ 310
NEW FENCE	— X — X —
EXISTING FENCE (SCREENED)	— X — X —
REMOVE OR ABANDONED (CROSS HATCHING: FENCE SHOWN AS EXAMPLE)	////
POWER POLE & LINE	— OHE — ● — OHE —
CABLE TV (UNDERGROUND)	— CTV — CTV —
FIBER OPTIC	— FO — FO —
FUEL	— F — F —
NATURAL GAS	— NG — NG —
UNDERGROUND ELECTRIC	— EC — EC —
OVERHEAD AND UNDERGROUND ELECTRIC	— OHE/EUG — OHE/EUG — OHE/EUG —
SANITARY SEWER	— SS — SS —
STORM DRAIN	— SD — SD —
TELEPHONE	— TEL — TEL —
WATER	— W — W —
RECYCLED WATER	— RW — RW —
PROPERTY LINE OR RIGHT OF WAY	_____
SLOPE	_____
NEW ROAD	=====
EXISTING ROAD (SCREENED)	-----
FUTURE ROAD, WATER EDGE OR RIDGE	-----
CURB & GUTTER	=====
CURB	=====
SWALE	=====
FLOWLINE	=====
SHORING	=====
RAILROAD TRACKS	=====
SILT FENCE	— SF — SF —
EASEMENT	_____
EXISTING EASEMENT	-----
CITY LIMITS	-----
EXISTING GRADE (PROFILE)	-----
PROPOSED GRADE (PROFILE)	-----

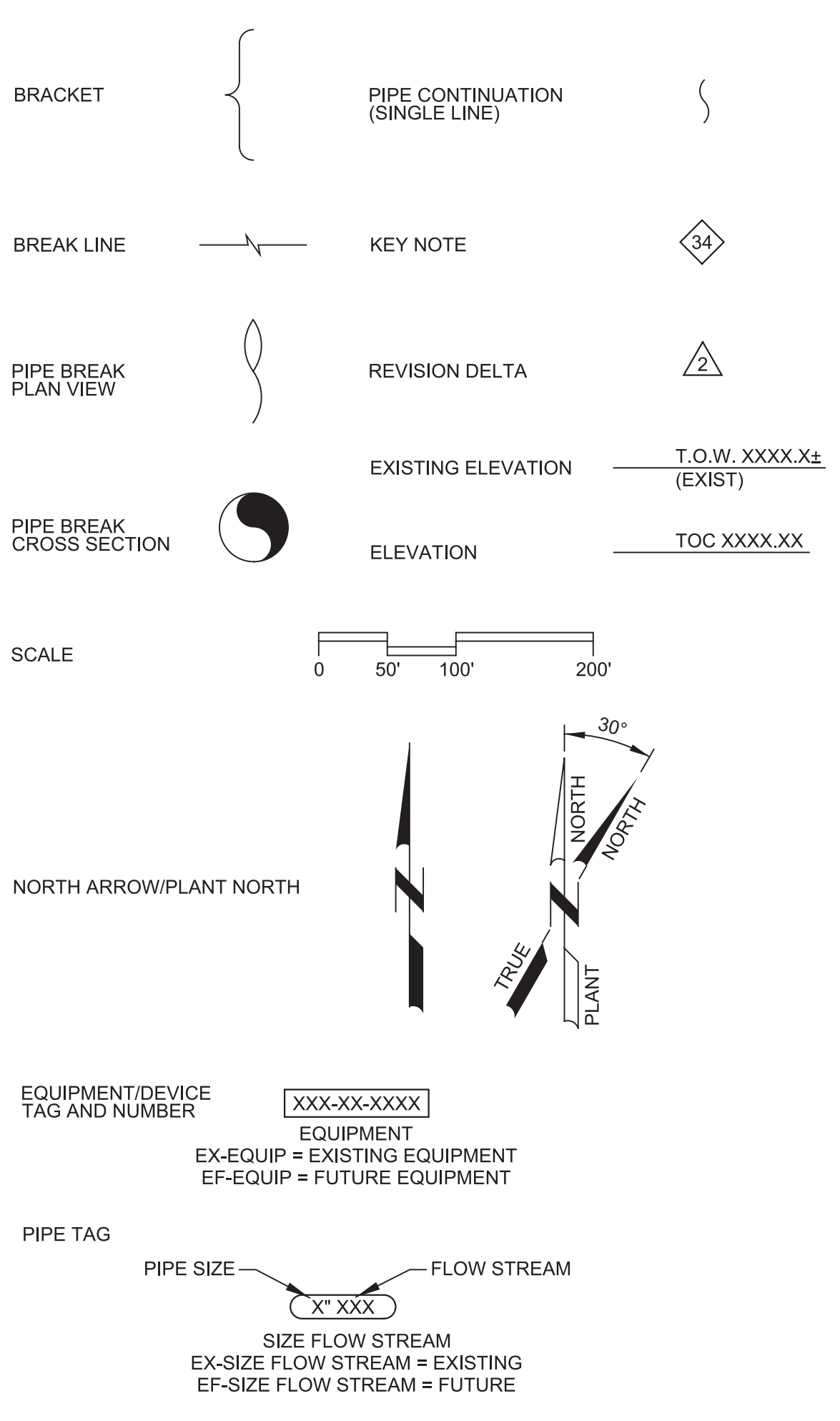
### COORDINATES / ELEVATION



### ROADWAY / PIPE CURVES



### SYMBOLS



### SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
⊕	BENCH MARK	⊙	LIGHT
△	VERTICAL CONTROL POINT	○	UTILITY POLE
⊙	MONUMENT	⊙	UTILITY POLE GUY WIRE
⊙	SOIL BORING LOCATIONS	●	POWER POLE
⊙	POTHOLE	⊙	FIRE HYDRANT
PHXX	POTHOLE NUMBER	⊙	CLEANOUT
→	FLOW/SLOPE DIRECTION	↑	AIR RELEASE VALVE
⊙	MANHOLE (PLAN)	⊙	BLOW OFF VALVE
⊙	MANHOLE (PROFILE)	⊙	HOSE BIBB / YARD HYDRANT
⊙	CATCH BASIN	⊙	SERVICE CONNECTION
⊙	ELECTRICAL MANHOLE AND PULL BOX	⊙	BURIED VALVE
⊙	METER BOX	⊙	FLANGE
⊙	PULL BOX	⊙	BALL VALVE
⊙	TELEPHONE PEDESTAL	⊙	BUTTERFLY VALVE
⊙	CABLE TV	⊙	CHECK VALVE
⊙	POWER TOWER	⊙	GATE VALVE
⊙	GATE	⊙	PLUG VALVE
⊙	GUARD POST	⊙	PIPE CAP OR CONNECTION
⊙	HEADWALL	⊙	REDUCER
⊙	ROCK WALL	⊙	THRUST BLOCK
⊙	RIP RAP	⊙	SETTLEMENT MONITORING POINT
⊙	SHRUB/HEDGE		
⊙	TREE		
⊙	SIGN/SIGN POST		
⊙	MATCH LINE		
⊙	SOIL BORING LOCATION		



Know what's below. Call before you dig.

NOTE: ALL SYMBOLS SHOWN AS NEW. EXISTING SYMBOLS ARE SCREENED.

### BID DOCUMENTS

DESIGNED	JPM
DRAWN	TLR
CHECKED	
DATE	OCTOBER 2019



Marina Coast Water District

### REGIONAL URBAN WATER AUGMENTATION PROJECT

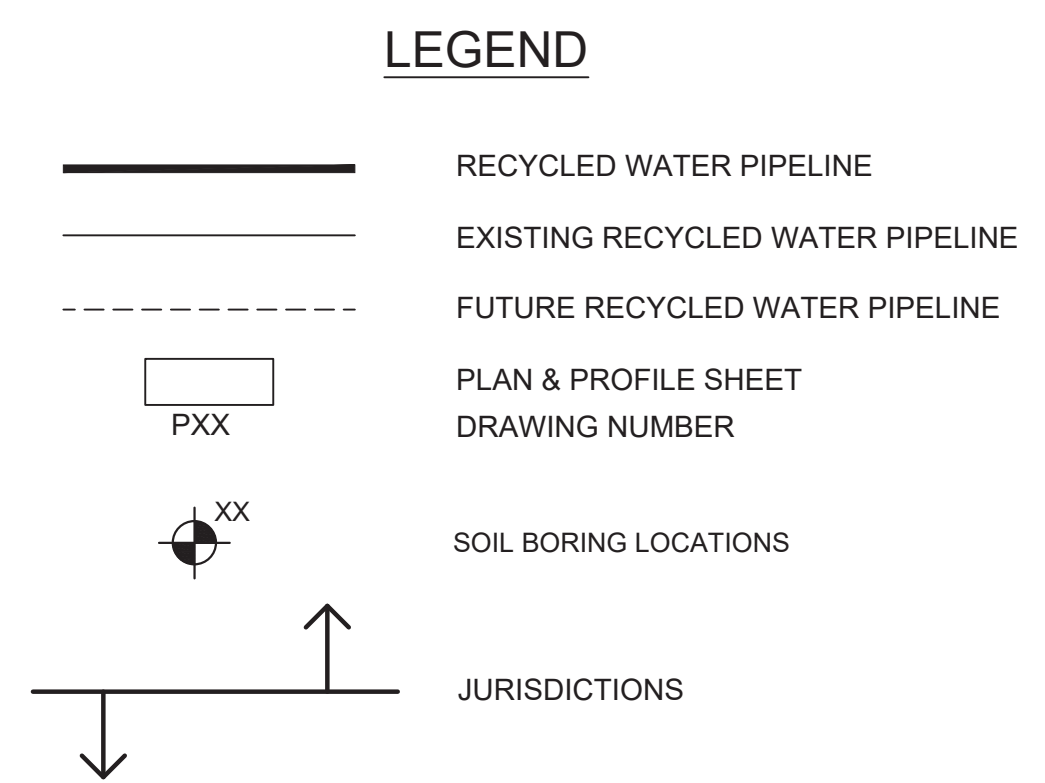
### RECYCLED WATER DISTRIBUTION MAINS

### GENERAL CIVIL ABBREVIATIONS, LEGENDS AND SYMSBOLS

VERIFY SCALES	JOB NO. 7568C.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. G03
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 3 OF 66

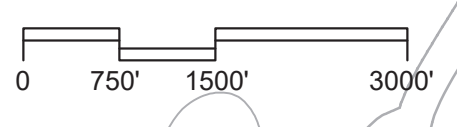
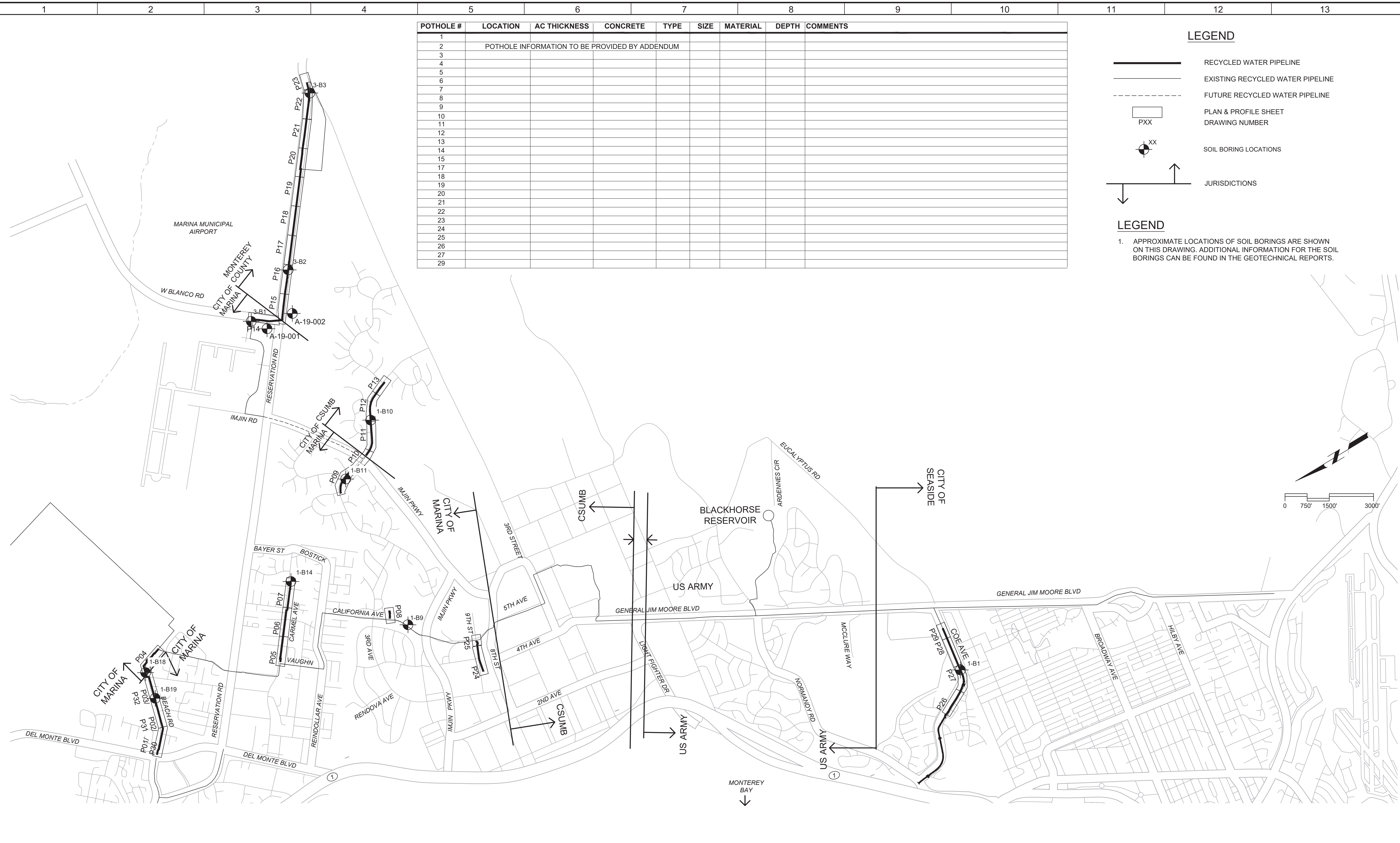


POTHOLE #	LOCATION	AC THICKNESS	CONCRETE	TYPE	SIZE	MATERIAL	DEPTH	COMMENTS
1								
2	POTHOLE INFORMATION TO BE PROVIDED BY ADDENDUM							
3								
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**LEGEND**

1. APPROXIMATE LOCATIONS OF SOIL BORINGS ARE SHOWN ON THIS DRAWING. ADDITIONAL INFORMATION FOR THE SOIL BORINGS CAN BE FOUND IN THE GEOTECHNICAL REPORTS.



PROJECT NO. 7568C10  
 FILE NAME: 7568C1000G04.dwg  
 LAST SAVED BY: bhawes

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED  
JPM  
 DRAWN  
BH  
 CHECKED  
  
 DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 DN: cn=Jonathan P. Marshall, o=Carollo Engineering, ou=Carollo Engineering, email=jmarshall@carollo.com



**Marina Coast Water District**




REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 CIVIL  
**INDEX MAP**

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1"

JOB NO. 7568C.10  
 DRAWING NO. **G04**  
 SHEET NO. 4 OF 66



**LEGEND**

-  RECYCLED WATER PIPELINE
-  EXISTING RECYCLED WATER PIPELINE
-  FUTURE RECYCLED WATER PIPELINE

**BASIS OF BEARINGS**

BEARINGS SHOWN HEREON ARE GRID BEARINGS PER THE CALIFORNIA COORDINATE SYSTEM, NAD 83, ZONE 4 (EPOCH 2002.00), AS DETERMINED BY GPS OBSERVATIONS AND THE NATIONAL GEODETIC SURVEY'S (NGS) ONLINE POSITIONING USER SERVICE (OPUS). ALL DISTANCES ARE GRID DISTANCES. AERIAL TOPOGRAPHY FLOWN AUGUST-SEPTEMBER 2006.

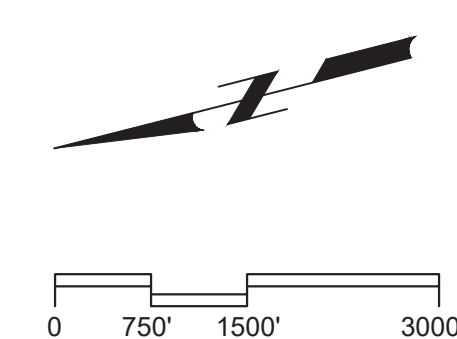
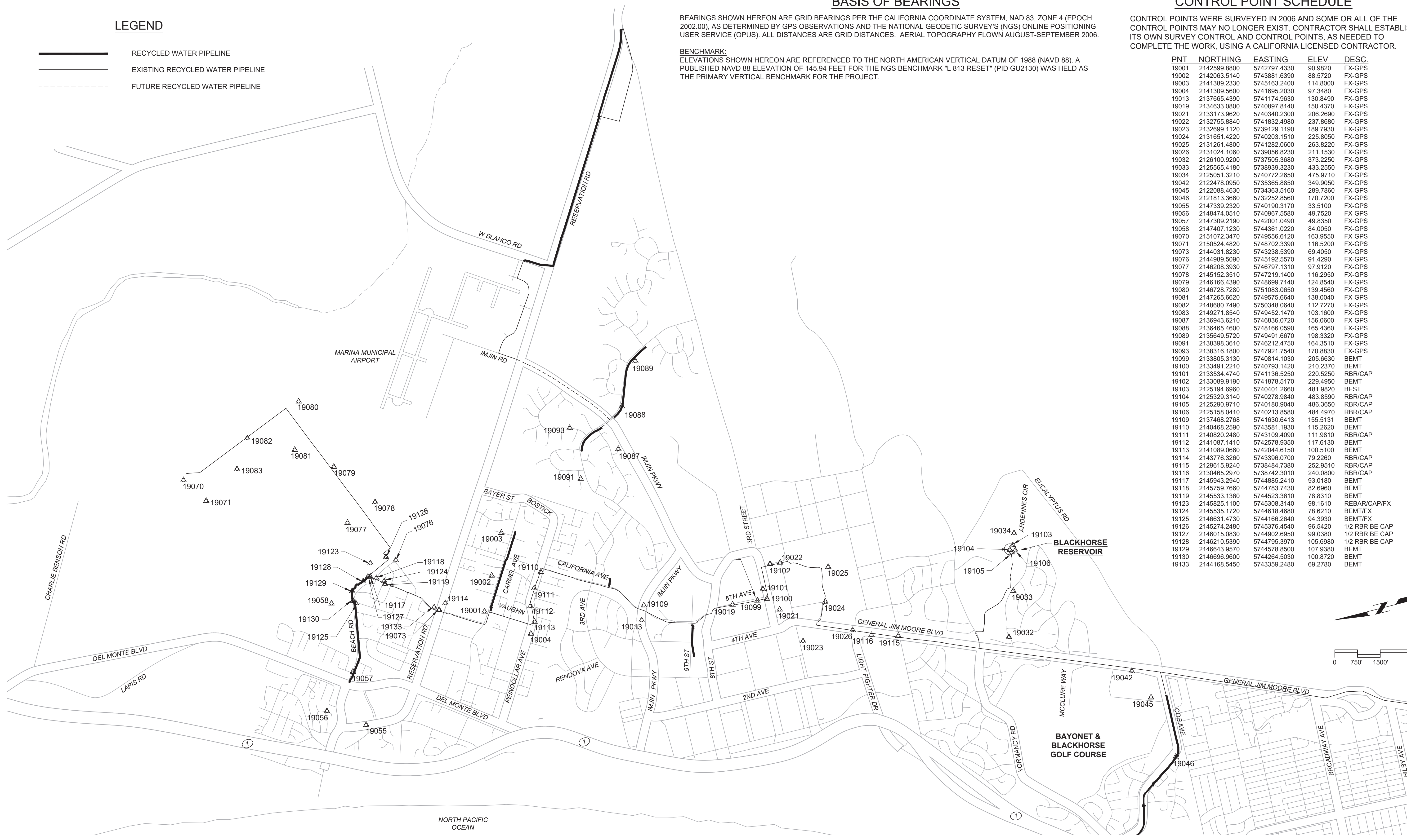
**BENCHMARK:**

ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). A PUBLISHED NAVD 88 ELEVATION OF 145.94 FEET FOR THE NGS BENCHMARK "L 813 RESET" (PID GU2130) WAS HELD AS THE PRIMARY VERTICAL BENCHMARK FOR THE PROJECT.

**CONTROL POINT SCHEDULE**

CONTROL POINTS WERE SURVEYED IN 2006 AND SOME OR ALL OF THE CONTROL POINTS MAY NO LONGER EXIST. CONTRACTOR SHALL ESTABLISH ITS OWN SURVEY CONTROL AND CONTROL POINTS, AS NEEDED TO COMPLETE THE WORK, USING A CALIFORNIA LICENSED CONTRACTOR.

PNT	NORTHING	EASTING	ELEV	DESC.
19001	2142599.8800	5742797.4330	90.9820	FX-GPS
19002	2142063.5140	5743881.6390	88.5720	FX-GPS
19003	2141389.2330	5745163.2400	114.8000	FX-GPS
19004	2141309.5600	5741695.2030	97.3480	FX-GPS
19013	2137665.4390	5741174.9930	130.8490	FX-GPS
19019	2134633.0900	5740897.8140	150.4370	FX-GPS
19021	2133173.9620	5740340.2300	206.2890	FX-GPS
19022	2132755.8840	5741832.4980	237.8680	FX-GPS
19023	2132699.1120	5739129.1190	189.7930	FX-GPS
19024	2131651.4220	5740203.1510	225.8050	FX-GPS
19025	2131261.4800	5741282.0600	263.8220	FX-GPS
19026	2131024.1060	5739056.8230	211.1530	FX-GPS
19032	2126100.9200	5737505.3680	373.2250	FX-GPS
19033	2125565.4180	5738939.3230	433.2550	FX-GPS
19034	2125051.3210	5740772.2650	475.9710	FX-GPS
19042	2122478.0950	5735365.8850	349.9050	FX-GPS
19045	2122088.4630	5734363.5160	289.7860	FX-GPS
19046	2121813.3660	5732252.8560	170.7200	FX-GPS
19055	2147339.2320	5740190.3170	33.5100	FX-GPS
19056	2148474.0510	5740967.5580	49.7520	FX-GPS
19057	2147309.2190	5742001.0490	49.8350	FX-GPS
19058	2147407.1230	5744361.0220	84.0050	FX-GPS
19070	2151072.3470	5749556.6120	163.9550	FX-GPS
19071	2150524.4820	5748702.3390	116.5200	FX-GPS
19073	2144031.8230	5743238.5390	69.4050	FX-GPS
19076	2144989.5090	5745192.5570	91.4290	FX-GPS
19077	2146208.3930	5746797.1310	97.9120	FX-GPS
19078	2145152.3510	5747219.1400	116.2950	FX-GPS
19079	2146166.4390	5748699.7140	124.8540	FX-GPS
19080	2146728.7280	5751083.0650	139.4560	FX-GPS
19081	2147265.6620	5749575.6640	138.0040	FX-GPS
19082	2148680.7490	5750348.0640	112.7270	FX-GPS
19083	2149271.8540	5749452.1470	170.1800	FX-GPS
19087	2136943.6210	5746836.0720	156.0600	FX-GPS
19088	2136465.4600	5748166.0590	165.4360	FX-GPS
19089	2135649.5720	5749491.6670	198.3320	FX-GPS
19091	2138398.3610	5746212.4750	164.3510	FX-GPS
19093	2138316.1800	5747921.7540	170.8830	FX-GPS
19099	2133805.3130	5740814.1030	205.6630	BEMT
19100	2133491.2210	5740793.1420	210.2370	BEMT
19101	2133534.4740	5741136.5250	220.5250	RBR/CAP
19102	2133089.9190	5741878.5170	229.4950	BEMT
19103	2125194.6960	5740401.2660	481.9820	BEST
19104	2125329.3140	5740278.9840	483.8590	RBR/CAP
19105	2125290.9710	5740180.9040	486.3650	RBR/CAP
19106	2125158.0410	5740213.8580	484.4970	RBR/CAP
19109	2137468.2768	5741630.6413	155.5131	BEMT
19110	2140468.2590	5743581.1930	115.2620	BEMT
19111	2140820.2480	5743109.4090	111.9810	RBR/CAP
19112	2141087.1410	5742578.9350	117.6130	BEMT
19113	2141089.0660	5742044.6150	100.5100	BEMT
19114	2143776.3260	5743396.0700	79.2260	RBR/CAP
19115	2129615.9240	5738484.7380	252.9510	RBR/CAP
19116	2130465.2970	5738742.3010	240.0800	RBR/CAP
19117	2145943.2940	5744885.2410	93.0180	BEMT
19118	2145759.7660	5744783.7430	82.6960	BEMT
19119	2145533.1360	5744523.3610	78.8310	BEMT
19123	2145825.1100	5745308.3140	98.1610	REBAR/CAP/FX
19124	2145535.1720	5744618.4680	78.6210	BEMT/FX
19125	2146631.4730	5744166.2840	94.3630	BEMT/FX
19126	2145274.2480	5745376.4540	96.5420	1/2 RBR BE CAP
19127	2146015.0830	5744902.6950	99.0380	1/2 RBR BE CAP
19128	2146210.5390	5744795.3970	105.6980	1/2 RBR BE CAP
19129	2146643.9570	5744578.8500	107.9380	BEMT
19130	2146696.9600	5744264.5030	100.8720	BEMT
19133	2144168.5450	5743359.2480	69.2780	BEMT



FILE NAME: 7568C1000CG05.dwg  
PROJECT NO. 7568C10  
LAST SAVED BY: bhawes

**BID DOCUMENTS**

DESIGNED  
JPM  
DRAWN  
BH  
CHECKED  
AP  
DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineering, Inc.  
Date: 2019.10.16 12:25:39 -0700



**Marina  
Coast  
Water  
District**

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL  
SURVEY CONTROL POINTS

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10  
DRAWING NO.  
**G05**  
SHEET NO.  
5 OF 66

REV	DATE	BY	DESCRIPTION
1			
2			
3			



Plot Date: 10/10/2019 7:49:58 AM

FILE NAME: 7569C1000T01.dwg

PROJECT NO. 7569C10

LAST SAVED BY: mmorris

**ST-1 CURB AND GUTTER**

APPROVED: [Signature] DATE [ ] [ ] [ ]  
 CITY ENGINEER [ ] PUBLIC WORKS DEPARTMENT CITY OF MARINA  
 REVISION: [ ] DATE [ ] [ ] [ ]  
 TITLE: CURB AND GUTTER  
 STANDARD PLAN SD-1 SH. 1 OF 4

**ST-2 SIDEWALKS AND CURB RETURNS**

APPROVED: [Signature] DATE [ ] [ ] [ ]  
 CITY ENGINEER [ ] PUBLIC WORKS DEPARTMENT CITY OF MARINA  
 REVISION: [ ] DATE [ ] [ ] [ ]  
 TITLE: SIDEWALKS AND CURB RETURNS  
 STANDARD PLAN SD-2 SH. 1 OF 4

**SD-1 T-TRENCH AND RESTORATION DETAIL ASPHALT CONCRETE STREETS**

APPROVED: [Signature] DATE [ ] [ ] [ ]  
 CITY ENGINEER [ ] PUBLIC WORKS DEPARTMENT CITY OF MARINA  
 REVISION: [ ] DATE [ ] [ ] [ ]  
 TITLE: T-TRENCH AND RESTORATION DETAIL ASPHALT CONCRETE STREETS  
 STANDARD DRAWING FOR REPAIR OF CURB, GUTTER & SIDEWALK  
 SD-1 SH. 1 OF 4

**SD-2 T-TRENCH AND RESTORATION DETAIL ASPHALT CONCRETE STREETS**

APPROVED: [Signature] DATE [ ] [ ] [ ]  
 CITY ENGINEER [ ] PUBLIC WORKS DEPARTMENT CITY OF MARINA  
 REVISION: [ ] DATE [ ] [ ] [ ]  
 TITLE: T-TRENCH AND RESTORATION DETAIL ASPHALT CONCRETE STREETS  
 STANDARD DRAWING FOR REPAIR OF CURB, GUTTER & SIDEWALK  
 SD-1 SH. 2 OF 4

**NOTES:**

ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF CALTRANS SPECIFICATIONS.

**LIMITS OF REMOVALS, TRENCH WIDTH:**

- ALL PAVEMENT REMOVED SHALL HAVE STRAIGHT EDGES. CUTS SHALL BE MADE TO A MINIMUM DEPTH OF ONE AND A HALF (1-1/2) INCHES. ALL CUTS SHALL BE NEAT, STRAIGHT, VERTICAL CUTS WITH NO BROKEN EDGES.
- ALL LONGITUDINAL PAVEMENT CUTS SHALL BE UNINTERRUPTED APPROXIMATELY PARALLEL TO THE TRENCH (MAX. 1:6 LONGITUDINAL VARIANCE).
- WHEN SAW CUTTING PAVEMENT, THE MAXIMUM OVERRUN ALLOWED FOR ANY SAW CUT BEYOND THE BOUNDARY REMOVAL LIMITS OF EXISTING PAVEMENT SHALL BE TO THE NEAREST COMPLETE PAVEMENT SURFACE.
- TRENCH WIDTH SHALL BE MINIMUM 24 INCHES, UNLESS SLURRY BACKFILL AND BEDDING IS USED, IN WHICH CASE MINIMUM SHALL BE 4 INCHES.

**BEDDING:**

- BEDDING MATERIAL SHALL BE PLACED ON FIRM AND UNYIELDING SUBGRADE. SOFT, ORGANIC, UNSTABLE, UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED.
- BEDDING SHALL CONFORM TO CALTRANS REQUIREMENTS.

**BACKFILL:**

- EXCAVATIONS SHALL BE BACKFILLED WITH AN APPROVED SLURRY MIX, CRUSHED MISCELLANEOUS BASE (CMB), OR CRUSHED AGGREGATE BASE (CAB). NATIVE SOIL MAY ONLY BE USED WITH CITY ENGINEER'S APPROVAL. CMB, CAB, NATIVE SOIL SHALL BE COMPACTED TO 90% RELATIVE DENSITY. CMB, CAB SHALL BE WELL GRADED AND HANDLED IN A MANNER TO PREVENT SEGREGATION BY PARTICLE SIZE. SOIL TESTING MAY BE REQUIRED TO BE PROVIDED TO THE FIELD INSPECTOR ON A CASE-BY-CASE BASIS.
- BACKFILL SLURRY MATERIAL SHALL BE PROPERLY CONSOLIDATED. SLURRY MATERIAL FOR TRENCHES DEEPER THAN 5 FEET AND/OR NARROWER THAN 12 INCHES MUST BE CONSOLIDATED WITH VIBRATION.
- BACKFILL MATERIAL SHALL BE MADE SMOOTH AND LEVEL BEFORE PLACING BASE AND PAVEMENT.
- JETTING IS NOT AN APPROVED DENSIFICATION METHOD.

**TRENCH "T" SECTION ("T-CUT"):**

- AFTER THE EXCAVATION HAS BEEN BACKFILLED, THE EXISTING PAVEMENT SHALL BE REMOVED TO A CLEAN SAWCUT LINE AT LEAST 12-INCHES BACK OF THE FIRM BANKS OF THE TRENCH AND THE AREA ADJACENT TO THE TRENCH SHALL BE COMPACTED TO 95% RELATIVE DENSITY ("T-CUT"). EXISTING CMB OR CAB BASE MATERIAL IN THIS AREA DOES NOT NEED TO BE REMOVED. IF SLURRY TRENCH WIDTH IS LESS THAN 12 INCHES, EXISTING PAVEMENT SHALL BE REMOVED TO PROVIDE AT LEAST A 12 INCH WIDE OPENING FOR PROPER COMPACTION OF THE BASE MATERIAL.
- NEW BASE MATERIAL OF CMB, OR CAB, SHALL MATCH THE EXISTING BASE THICKNESS, OR 6-INCHES, WHICHEVER IS GREATER. COMPACT TO 95% RELATIVE DENSITY. THIS REQUIREMENT SHALL ALSO APPLY OVER SLURRY BACKFILLS UNLESS OTHERWISE SPECIFIED IN THE PERMIT.

APPROVED: [Signature] DATE [ ] [ ] [ ]  
 CITY ENGINEER [ ] PUBLIC WORKS DEPARTMENT CITY OF MARINA  
 REVISION: [ ] DATE [ ] [ ] [ ]  
 TITLE: T-TRENCH AND RESTORATION DETAIL ASPHALT CONCRETE STREETS  
 STANDARD PLAN SD-1 SH. 3 OF 4

**NOTES: (CONTINUED)**

- NEW ASPHALT CONCRETE SECTION SHALL MATCH EXISTING PAVEMENT THICKNESS, OR 4-INCHES, WHICHEVER IS GREATER. HMA SHALL BE TYPE A 1/2" GRADIENT UNLESS OTHERWISE STATED IN PERMIT.
- ASPHALT CONCRETE PAVING WILL OCCUR NO SOONER THAN 42 HOURS AFTER SLURRY BACKFILL OF TRENCH.
- IF A SAW CUT IN PAVEMENT FALLS WITHIN 2 FEET OF AN EXISTING CURB, GUTTER, OR EDGE OF PAVEMENT, THE ADDITIONAL PAVEMENT SHALL BE REMOVED AND RECONSTRUCTED.

**GRIND AND RESURFACE ("T-CAP"):**

- WITHIN 30 CALENDAR DAYS AFTER BACKFILLING, ASPHALT CONCRETE SHALL BE COLD MILLED AND RESURFACED AS FOLLOWS:
- EXISTING ASPHALT CONCRETE SHALL BE GROUND DOWN ONE AND ONE HALF (1-1/2) INCHES, OR ONE HALF THE EXISTING PAVEMENT THICKNESS, WHICHEVER IS GREATER, TO THE "T-CAP" LIMITS.
- "T-CAP" LIMITS SHALL BE FROM FIGURE 1, "EXAMPLES OF GRIND AND RESURFACE "T-CAP" LIMITS".
- "T-CAP" LIMITS SHALL EXTEND AT LEAST 2 FEET BEYOND THE TRENCH "T-CUT" LIMITS. MINIMUM "T-CAP" DIMENSIONS SHALL BE 6 FEET X 6 FEET.
- "T-CUT" AND CORRESPONDING "T-CAP" (AS APPLICABLE) IS REQUIRED FOR ALL EXCAVATIONS WITH A SURFACE AREA OF 2 SQ. FT OR GREATER.
- WHERE LIMITS OF "T-CUTS", "T-CAPS", POT HOLES OR CORED HOLES ARE WITHIN 4FT OF EACH OTHER, THE PAVEMENT SURFACE RESTORATION SHALL BE COMBINED, BLENDED AND SQUARED USING "T-CAPS" TO ENCOMPASS ALL AREAS IN BETWEEN AS SHOWN IN FIGURE 1. "T-CAP" LIMITS FOR POT HOLES AND CORE HOLES SHALL EXTEND A MINIMUM OF 1-FOOT ALL AROUND BEYOND THE HOLES.
- IMPACTED BIKE LANES - "T-CAP" LIMITS SHALL FULLY ENCOMPASS ANY BIKE LANE IMPACTED BY THE TRENCH, AND SHALL HAVE A LENGTH THAT EXTENDS AT LEAST 2 FEET BEYOND THE ASPHALT REMOVAL LIMITS IN THE DIRECTION OF BIKE TRAFFIC.
- WHEN THE "T-CAP" LIMIT IS WITHIN 2 FEET OR LESS FROM A CURB OR GUTTER, THE "T-CAP" LIMIT SHALL EXTEND TO THE CURB OR GUTTER.
- PAVEMENT SHALL BE LEVEL WITH ADJACENT ROADWAY ELEVATIONS AND SHALL PROVIDE A SMOOTH SURFACE PER CALTRANS SECTION 39 AND SUBJECT TO ACCEPTANCE BY THE CITY PUBLIC WORKS INSPECTOR.
- "T-CAP" AND PERMANENT BASE PAVING MAY BE PERFORMED ON THE SAME DAY WHEN FEASIBLE.

**TEMPORARY RESURFACING:**

- TEMPORARY SURFACING SHALL BE EITHER COLD PATCH (MIN. 3"), TEMPORARY HMA (MIN. 3"), OR IMBEDDED ANTI-SKID STEEL PLANTING FLUSH TO ADJACENT PAVEMENT SURFACE. IF STEEL PLATING IS USED, ADVANCED WARNING SIGNAGE SHALL BE INSTALLED.

APPROVED: [Signature] DATE [ ] [ ] [ ]  
 CITY ENGINEER [ ] PUBLIC WORKS DEPARTMENT CITY OF MARINA  
 REVISION: [ ] DATE [ ] [ ] [ ]  
 TITLE: T-TRENCH AND RESTORATION DETAIL ASPHALT CONCRETE STREETS  
 STANDARD PLAN SD-1 SH. 4 OF 4

**SD-102 REPAIR OF CURB, GUTTER & SIDEWALK**

APPROVED: [Signature] DATE [ ] [ ] [ ]  
 CITY ENGINEER [ ] PUBLIC WORKS DEPARTMENT CITY OF MARINA  
 REVISION: [ ] DATE [ ] [ ] [ ]  
 TITLE: REPAIR OF CURB, GUTTER & SIDEWALK  
 STANDARD DRAWING FOR REPAIR OF CURB, GUTTER & SIDEWALK  
 SD-102 SH. 1 OF 4

**SDR LESS THAN 24 TRENCH BACKFILL**

APPROVED: [Signature] DATE [ ] [ ] [ ]  
 CITY ENGINEER [ ] PUBLIC WORKS DEPARTMENT CITY OF MARINA  
 REVISION: [ ] DATE [ ] [ ] [ ]  
 TITLE: TRENCH BACKFILL  
 STANDARD DRAWING FOR TRENCH BACKFILL  
 SDR LESS THAN 24  
 SD-102 SH. 2 OF 4

REV	DATE	BY	DESCRIPTION

**BID DOCUMENTS**

DESIGNED: [ ]  
 DRAWN: SDW  
 CHECKED: [ ]  
 DATE: OCTOBER 2019

**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

**AGENCY TYPICAL DETAILS - 1**

VERIFY SCALES: BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

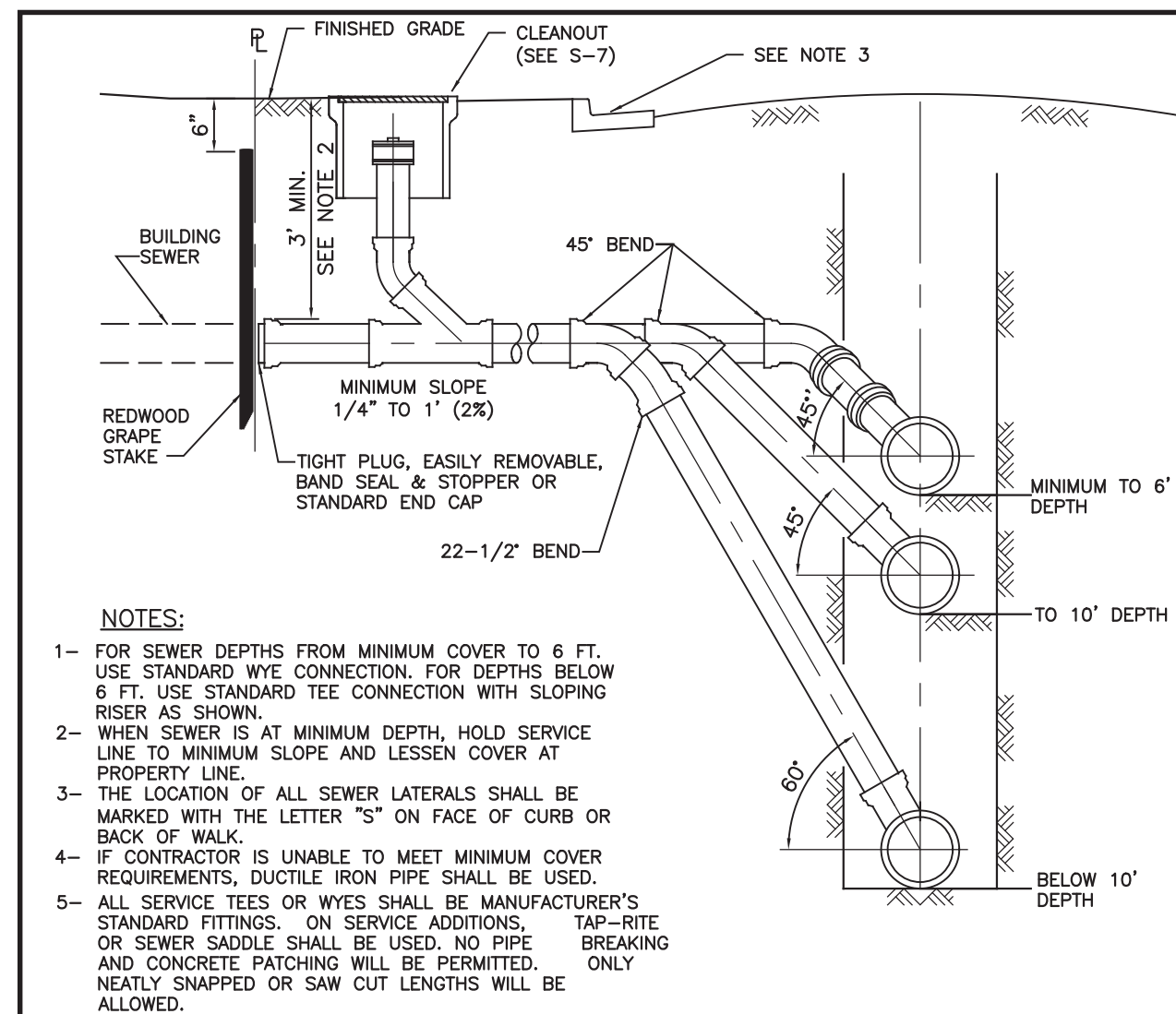
JOB NO. 7569C10  
 DRAWING NO. T01  
 SHEET NO. 6 OF 66



Plot Date: 9/20/2019 2:05:09 PM

B

C

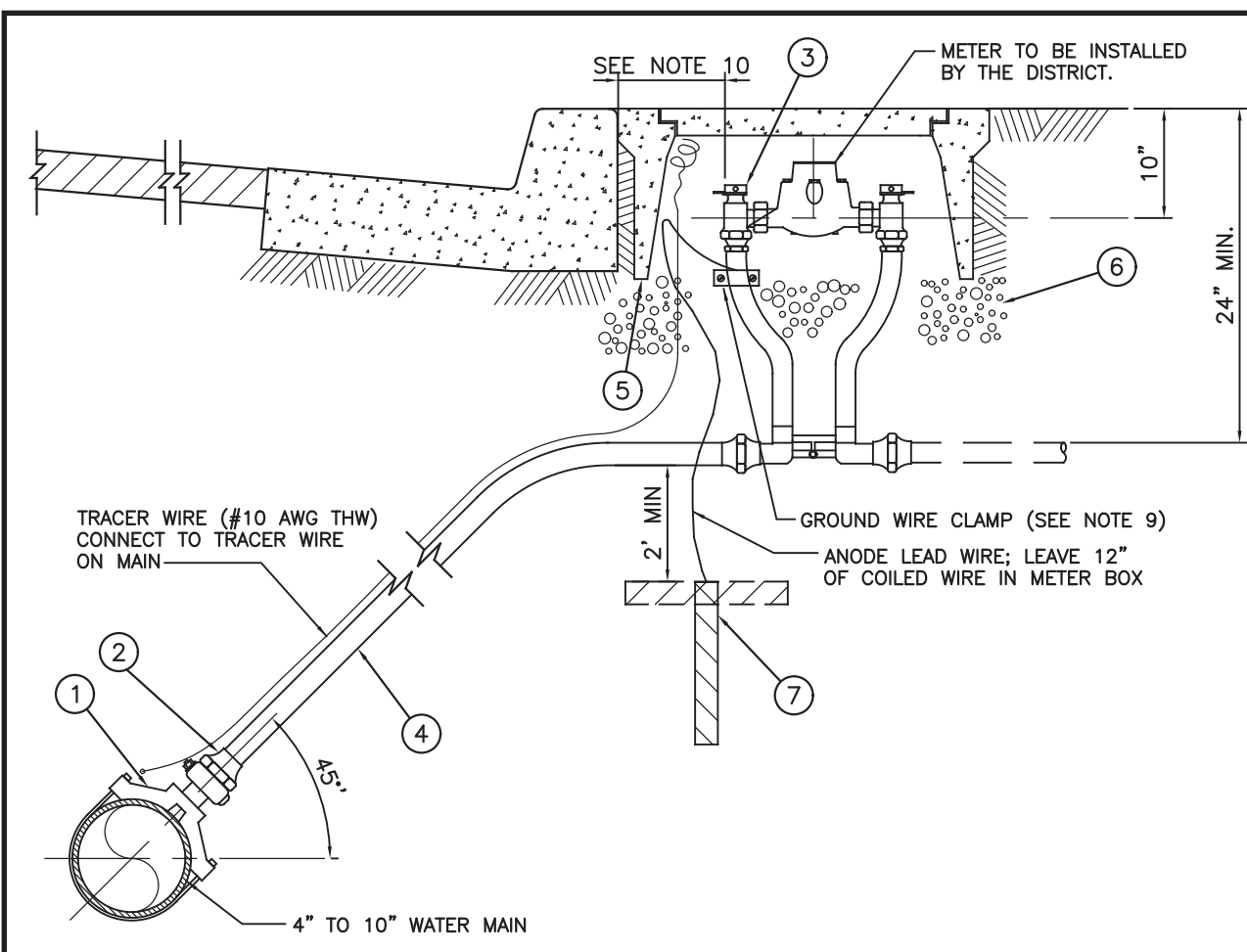


MATERIALS	
SANITARY SEWER PIPE MATERIAL	CUT-IN FITTING MATERIAL
PVC	PVC/DIP
DIP	DIP
VCP	PVC
CMLC	PVC

**STANDARD WYE CUT-IN DETAIL**

**STANDARD TEE CUT-IN DETAIL**

APPROVED BY DISTRICT ENGINEER	<b>MARINA COAST WATER DISTRICT STANDARD PLAN</b>	STANDARD
DATE 11/2007	<b>LATERAL CONNECTION</b>	<b>S-6</b>
		SHEET 1 OF 1



**NOTES:**

- SERVICE SADDLE SHALL NOT BE INSTALLED WITHIN 18" OF VALVE, COUPLING, JOINT OR FITTING. TAPPED COUPLINGS ARE NOT PERMITTED.
- INSTALL CORPORATION STOP WITH KEY IN OPEN POSITION.
- SET TOP OF METER BOX FLUSH WITH SIDEWALK OR CURB AS SHOWN.
- THE CORPORATION STOP TAP SHALL BE MADE AS SPECIFIED PER MANUFACTURER'S RECOMMENDATION. ALL TAPS SHALL BE MADE WITH MACHINE GUIDE OR PILOT TAP.
- THE WATER SERVICE SHALL EXTEND PERPENDICULAR TO THE CENTERLINE OF THE STREET FROM THE WATER MAIN TO THE METER STOP.
- METER BOX SHALL BE SET BEHIND SIDEWALK WHERE SIDEWALK IS ADJACENT TO CURB, OR IN PARKWAY BETWEEN CURB AND SIDEWALK.
- ALL SPLICES OF COPPER TUBING SHALL BE COMPRESSION CONNECTIONS.
- METER BOX LID FOR ALL RECYCLE WATER SERVICES SHALL BE PURPLE IN COLOR PER SPECIFICATIONS.
- ANODE LEAD WIRE SHALL BE CLAMPED TO COPPER TUBING. CLAMP SHALL BE DIRECT BURIAL TYPE OF RED BRASS WITH BRASS SCREWS AS MANUFACTURED BY DOTTIE, OR APPROVED EQUAL.
- COPPERSETTER SHALL BE CENTERED IN THE METER BOX. DISTANCE FROM THE CURB SHALL BE SPECIFIED IN THE CONTRACT DRAWINGS.
- ANODE(S) SHALL BE INSTALLED WHEN REQUIRED BY CORROSION STUDY REPORT (SEE MASTER PLAN REQUIREMENT IN DEVELOPMENT PROCEDURE SECTION 100).

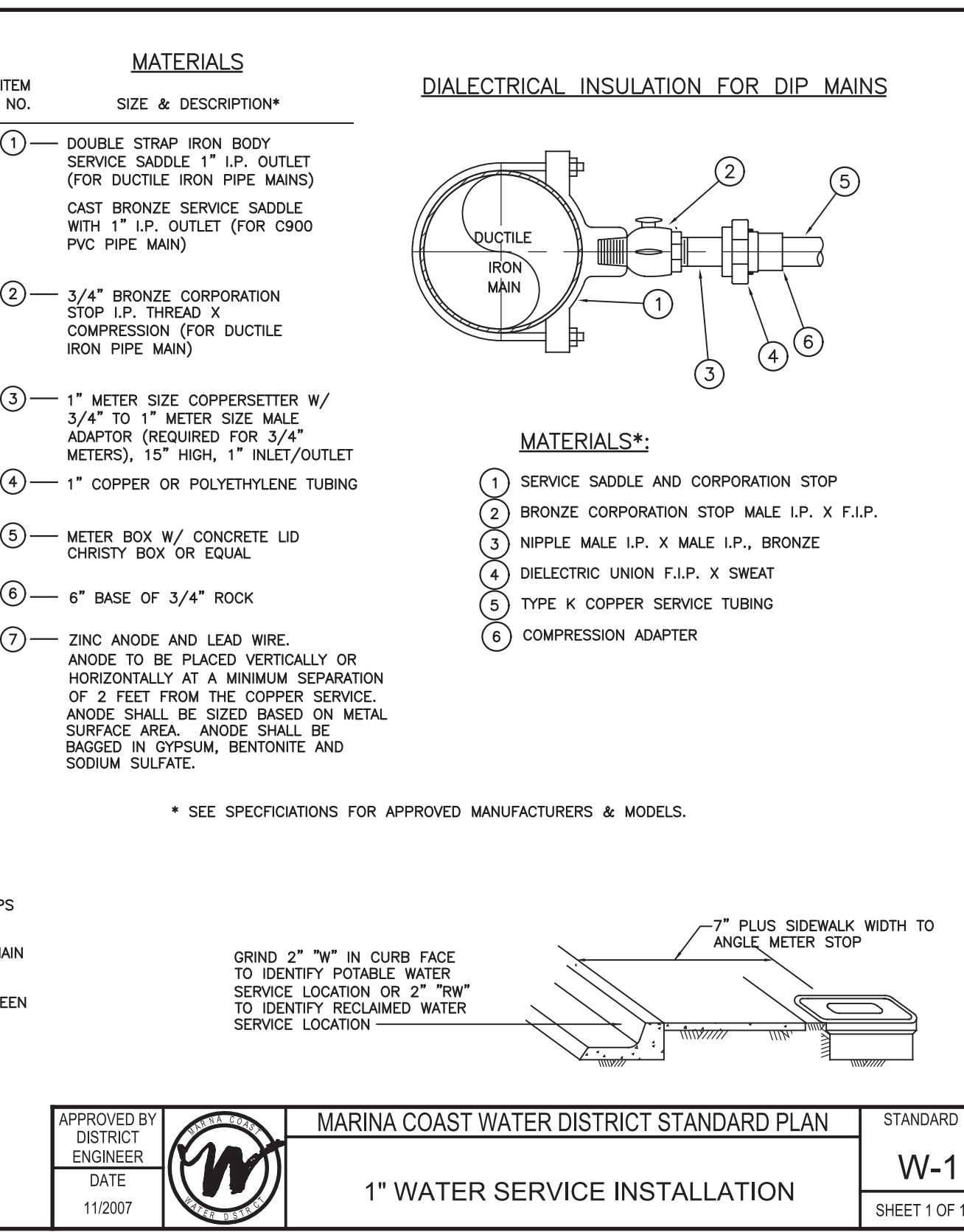
**MATERIALS**

**DIELECTRICAL INSULATION FOR DIP MAINS**

ITEM NO.	SIZE & DESCRIPTION*
1	DOUBLE STRAP IRON BODY SERVICE SADDLE 1" I.P. OUTLET (FOR DUCTILE IRON PIPE MAINS)
2	3/4" BRONZE CORPORATION STOP I.P. THREAD X COMPRESSION (FOR DUCTILE IRON PIPE MAIN)
3	1" METER SIZE COPPERSETTER W/ 3/4" TO 1" METER SIZE MALE ADAPTOR (REQUIRED FOR 3/4" METERS), 15" HIGH, 1" INLET/OUTLET METERS)
4	1" COPPER OR POLYETHYLENE TUBING
5	METER BOX W/ CONCRETE LID CHRISTY BOX OR EQUAL
6	6" BASE OF 3/4" ROCK
7	ZINC ANODE AND LEAD WIRE. ANODE TO BE PLACED VERTICALLY OR HORIZONTALLY AT A MINIMUM SEPARATION OF 2 FEET FROM THE COPPER SERVICE. ANODE SHALL BE SIZED BASED ON METAL SURFACE AREA. ANODE SHALL BE BAGGED IN GYPSUM, BENTONITE AND SODIUM SULFATE.

\* SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS & MODELS.

APPROVED BY DISTRICT ENGINEER	<b>MARINA COAST WATER DISTRICT STANDARD PLAN</b>	STANDARD
DATE 11/2007	<b>1" WATER SERVICE INSTALLATION</b>	<b>W-1</b>
		SHEET 1 OF 1



**NOTES:**

- SERVICE SADDLE SHALL NOT BE INSTALLED WITHIN 18" OF VALVE, COUPLING, JOINT OR FITTING. TAPPED COUPLINGS ARE NOT PERMITTED.
- INSTALL CORPORATION STOP WITH KEY SIDEWAYS IN OPEN POSITION.
- SET TOP OF METER BOX FLUSH WITH SIDEWALK OR CURB AS SHOWN.
- THE CORPORATION STOP TAP SHALL BE MADE AS SPECIFIED PER MANUFACTURER'S RECOMMENDATION.
- THE WATER SERVICE SHOULD EXTEND PERPENDICULAR TO THE CENTERLINE OF THE STREET FROM THE WATER MAIN TO THE METER STOP.
- METER BOX SHALL BE SET BEHIND SIDEWALK WHERE SIDEWALK IS ADJACENT TO CURB, OR IN PARKWAY BETWEEN CURB AND SIDEWALK.
- ALL SPLICES OF COPPER TUBING SHALL BE COMPRESSION CONNECTIONS.
- METER BOX LID FOR ALL RECYCLE WATER SERVICE SHALL BE PURPLE IN COLOR PER SPECIFICATIONS.
- COMPRESSION TYPE CORPORATION STOP AND ANGLE METER STOP MAY BE SUBSTITUTED FOR THE FEMALE IRON PIPE STYLE WITH MALE IRON BY SWEAT ADAPTERS AS SHOWN.
- ALL SWEAT JOINTS SHALL BE SILVER SOLDER ( EXCEPT AS NOTED )
- A 1" BYPASS LINE WITH LOCKING CURB STOP MAY BE REQUIRED FOR INSTALLATIONS NEEDING CONTINUOUS SERVICE.
- ANODE LEAD WIRE SHALL BE CLAMPED TO COPPER TUBING. CLAMP SHALL BE DIRECT BURIAL TYPE OF RED BRASS WITH BRASS SCREWS AS MANUFACTURED BY DOTTIE, OR APPROVED EQUAL.
- COPPERSETTER SHALL BE CENTERED IN THE METER BOX. DISTANCE FROM THE CURB SHALL BE SPECIFIED IN CONTRACT DRAWINGS.
- WATER SERVICES SHALL NOT BE PERMITTED ON WATER MAINS LARGER THAN 10"
- ANODE(S) SHALL BE INSTALLED WHEN REQUIRED BY CORROSION STUDY REPORT (SEE MASTER PLAN REQUIREMENT IN DEVELOPMENT PROCEDURE SECTION 100).

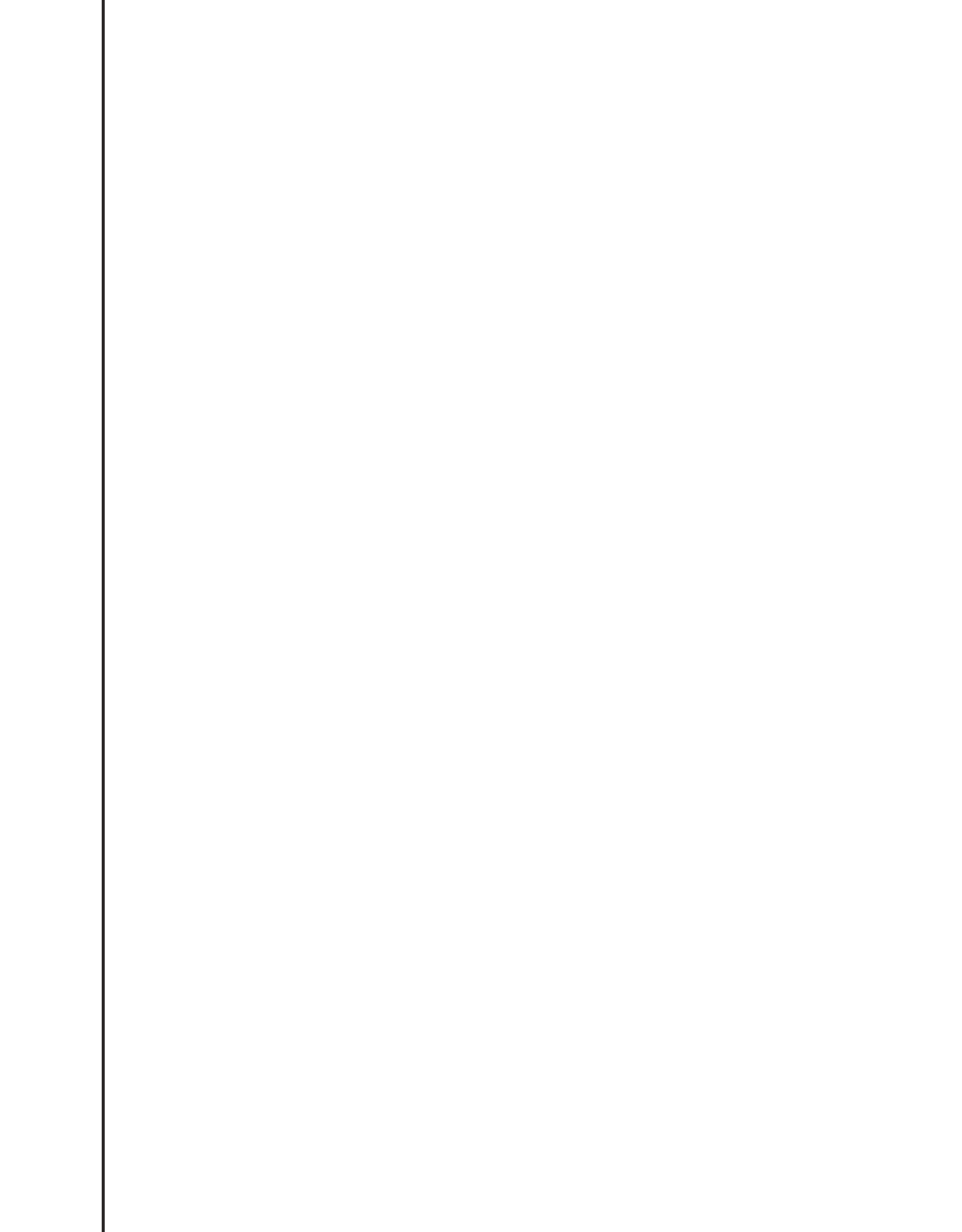
**MATERIALS**

**DIELECTRICAL INSULATION FOR DIP MAINS**

ITEM NO.	SIZE & DESCRIPTION*
1	DOUBLE STRAP IRON BODY SERVICE SADDLE 2" I.P. OUTLET ( FOR DUCTILE IRON PIPE MAINS )
2	CAST BRONZE SERVICE SADDLE 2" I.P. OUTLET ( FOR C900 PVC PIPE MAINS )
3	2" BRONZE CORPORATION STOP MALE I.P. THREAD X F.I.P. ( FOR DUCTILE IRON MAINS )
4	2" BRONZE CORPORATION STOP MALE I.P. THREAD X COMPRESSION ( FOR C900 PVC PIPE MAINS )
5	2" METER SIZE COPPERSETTERS, 15" HIGH
6	2" COPPER OR POLYETHYLENE TUBING
7	METER BOX W/ CONCRETE LID CHRISTY BOX OR EQUAL
8	6" BASE OF 3/4" ROCK
9	ZINC ANODE AND LEAD WIRE. ANODE IS TO BE PLACED VERTICALLY OR HORIZONTALLY AT A MINIMUM SEPARATION OF 2 FEET FROM THE COPPER SERVICE. ANODE SHALL BE SIZED BASED ON METAL SURFACE AREA. ANODE SHALL BE BAGGED IN GYPSUM, BENTONITE AND SODIUM SULFATE.

\*SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS & MODELS.

APPROVED BY DISTRICT ENGINEER	<b>MARINA COAST WATER DISTRICT STANDARD PLAN</b>	STANDARD
DATE 11/2007	<b>2" WATER SERVICE INSTALLATION</b>	<b>W-2</b>
		SHEET 1 OF 1



**NOTES:**

- AIR TEST TAPPING SLEEVE PRIOR TO TAP
- COAT ALL TAPPING SLEEVE BOLTS WITH KOPPERS BITUMASTIC
- USE SHELL CUTTER ON ALL PVC TAPS

**MATERIALS**

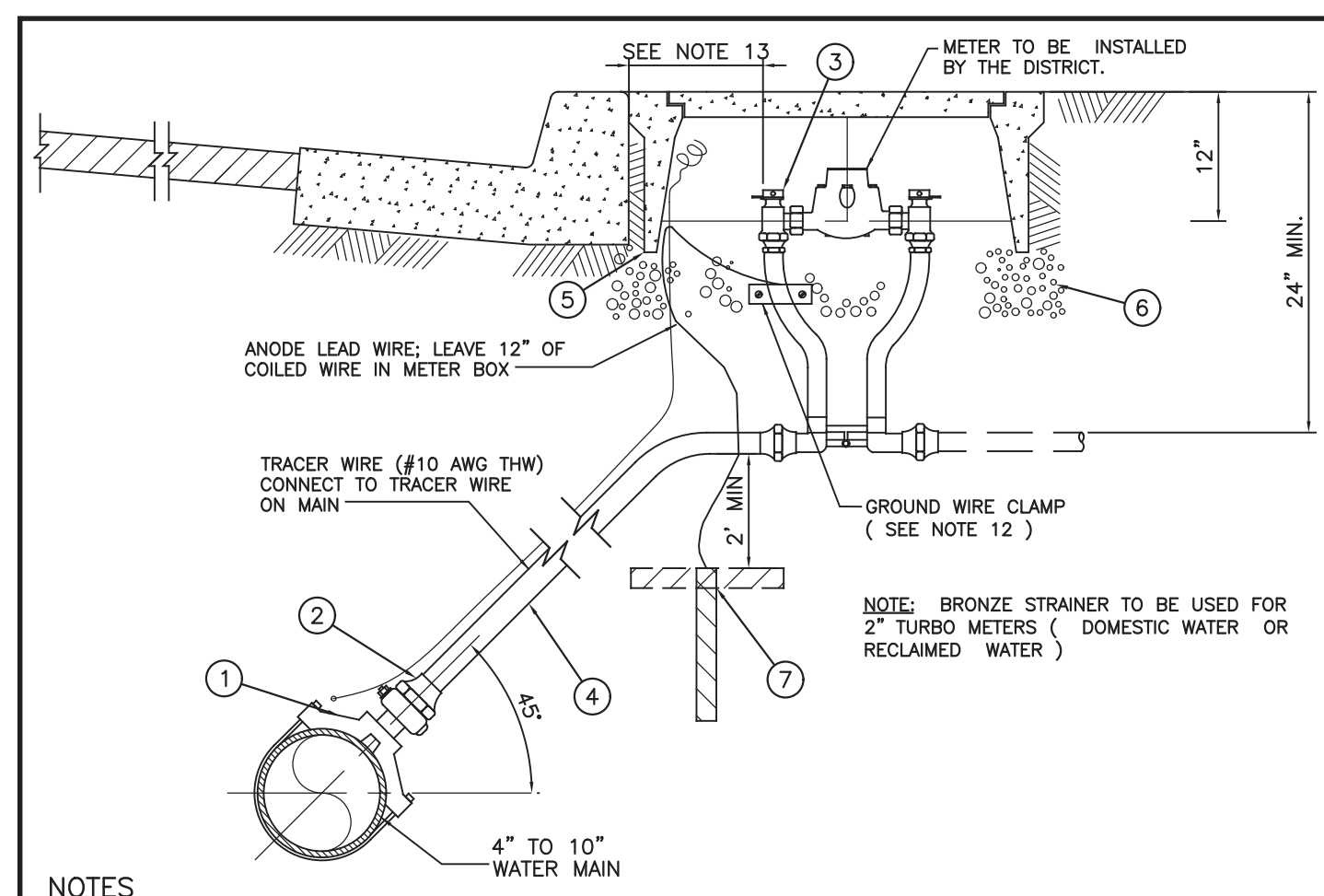
ITEM NO.	SIZE & DESCRIPTION*
1	TAPPING SLEEVE - CAST IRON, MJ
2	GATE VALVE - RESILIENT WEDGE, FLANGED
3	CONSTRUCT CONCRETE THRUST BLOCK PER STD. PLAN W-13
4	VALVE RISER, BOX & LID PER STD. PLAN W-7
5	TRACER WIRE

APPROVED BY DISTRICT ENGINEER	<b>MARINA COAST WATER DISTRICT STANDARD PLAN</b>	STANDARD
DATE 11/2007	<b>CONNECTION TO EXISTING PIPE</b>	<b>W-6</b>
		SHEET 1 OF 1

FILE NAME: 7568C1000T02.dwg

PROJECT NO. 7568C10

LAST SAVED BY: mmorris



**NOTES:**

- SERVICE SADDLE SHALL NOT BE INSTALLED WITHIN 18" OF VALVE, COUPLING, JOINT OR FITTING. TAPPED COUPLINGS ARE NOT PERMITTED.
- INSTALL CORPORATION STOP WITH KEY SIDEWAYS IN OPEN POSITION.
- SET TOP OF METER BOX FLUSH WITH SIDEWALK OR CURB AS SHOWN.
- THE CORPORATION STOP TAP SHALL BE MADE AS SPECIFIED PER MANUFACTURER'S RECOMMENDATION.
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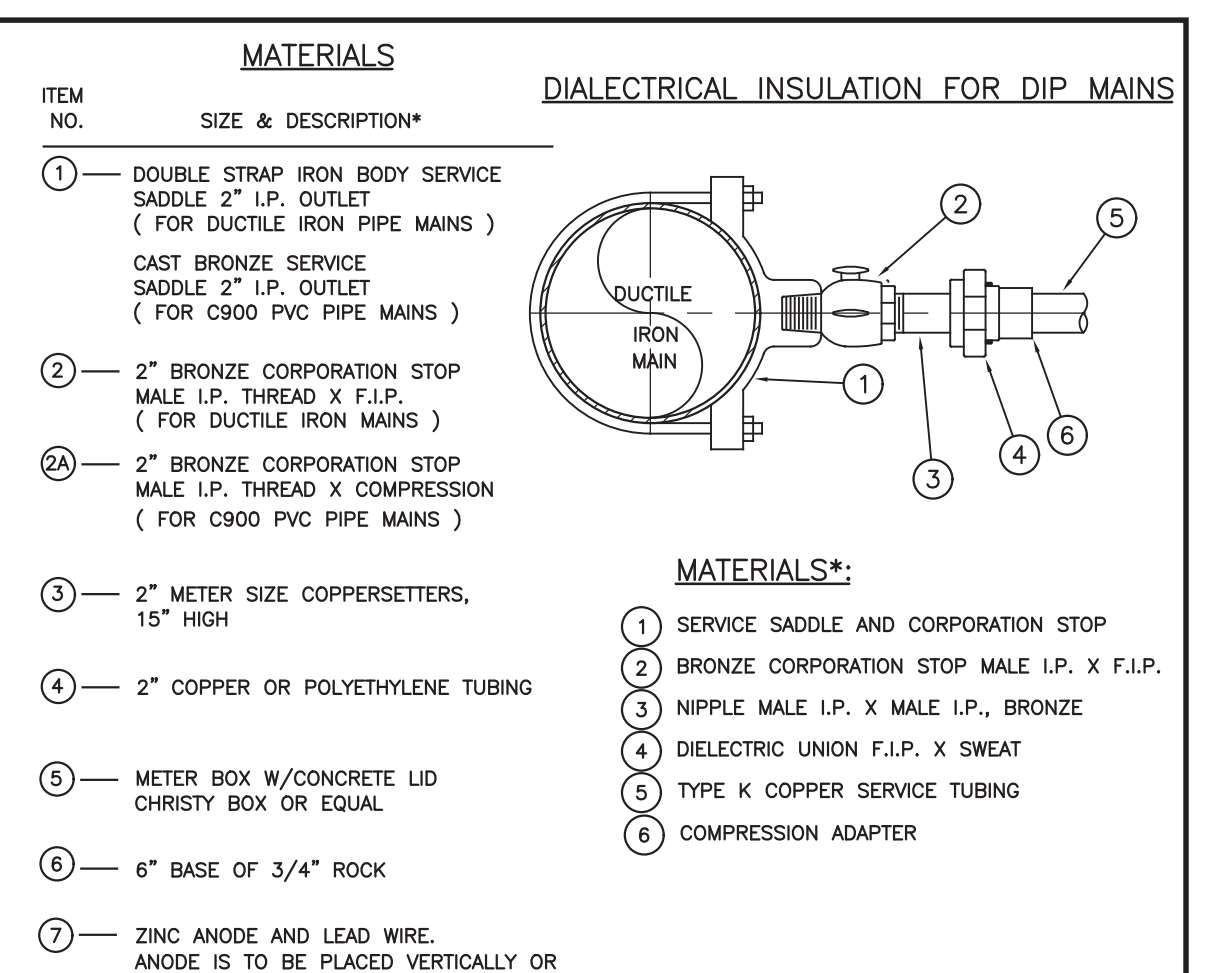
**MATERIALS**

**DIELECTRICAL INSULATION FOR DIP MAINS**

ITEM NO.	SIZE & DESCRIPTION*
1	DOUBLE STRAP IRON BODY SERVICE SADDLE 2" I.P. OUTLET ( FOR DUCTILE IRON PIPE MAINS )
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3	2" BRONZE CORPORATION STOP MALE I.P. THREAD X F.I.P. ( FOR DUCTILE IRON MAINS )
4	2" BRONZE CORPORATION STOP MALE I.P. THREAD X COMPRESSION ( FOR C900 PVC PIPE MAINS )
5	2" METER SIZE COPPERSETTERS, 15" HIGH
6	2" COPPER OR POLYETHYLENE TUBING
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\*SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS & MODELS.

APPROVED BY DISTRICT ENGINEER	<b>MARINA COAST WATER DISTRICT STANDARD PLAN</b>	STANDARD
DATE 11/2007	<b>2" WATER SERVICE INSTALLATION</b>	<b>W-2</b>
		SHEET 1 OF 1



**NOTES:**

- AIR TEST TAPPING SLEEVE PRIOR TO TAP
- COAT ALL TAPPING SLEEVE BOLTS WITH KOPPERS BITUMASTIC
- USE SHELL CUTTER ON ALL PVC TAPS

**MATERIALS**

ITEM NO.	SIZE & DESCRIPTION*
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2	GATE VALVE - RESILIENT WEDGE, FLANGED
3	CONSTRUCT CONCRETE THRUST BLOCK PER STD. PLAN W-13
4	VALVE RISER, BOX & LID PER STD. PLAN W-7
5	TRACER WIRE

APPROVED BY DISTRICT ENGINEER	<b>MARINA COAST WATER DISTRICT STANDARD PLAN</b>	STANDARD
DATE 11/2007	<b>CONNECTION TO EXISTING PIPE</b>	<b>W-6</b>
		SHEET 1 OF 1

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED	JPM
DRAWN	TLR
CHECKED	
DATE	OCTOBER 2019



Digitally signed by Jonathan P. Morand  
 Contact info: Carollo Engineers, Inc.  
 Date: 2019.10.10 13:29:00 -0700

*Jonathan P. Morand*



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

TYPICALS

**AGENCY TYPICAL DETAILS - 2**

VERIFY SCALES	JOB NO. 7568C.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. T02
0 1"	SHEET NO. 7 OF 66
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	

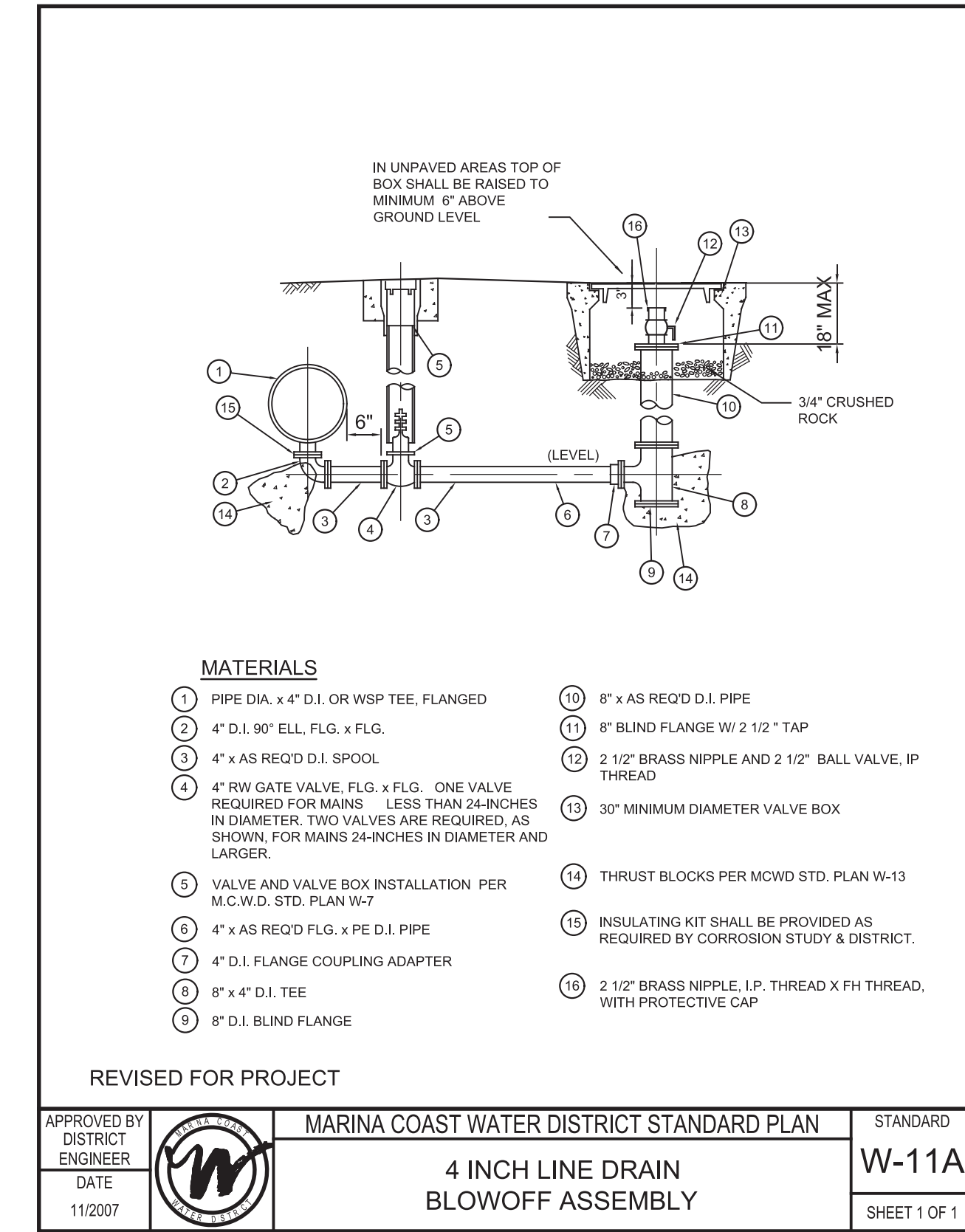
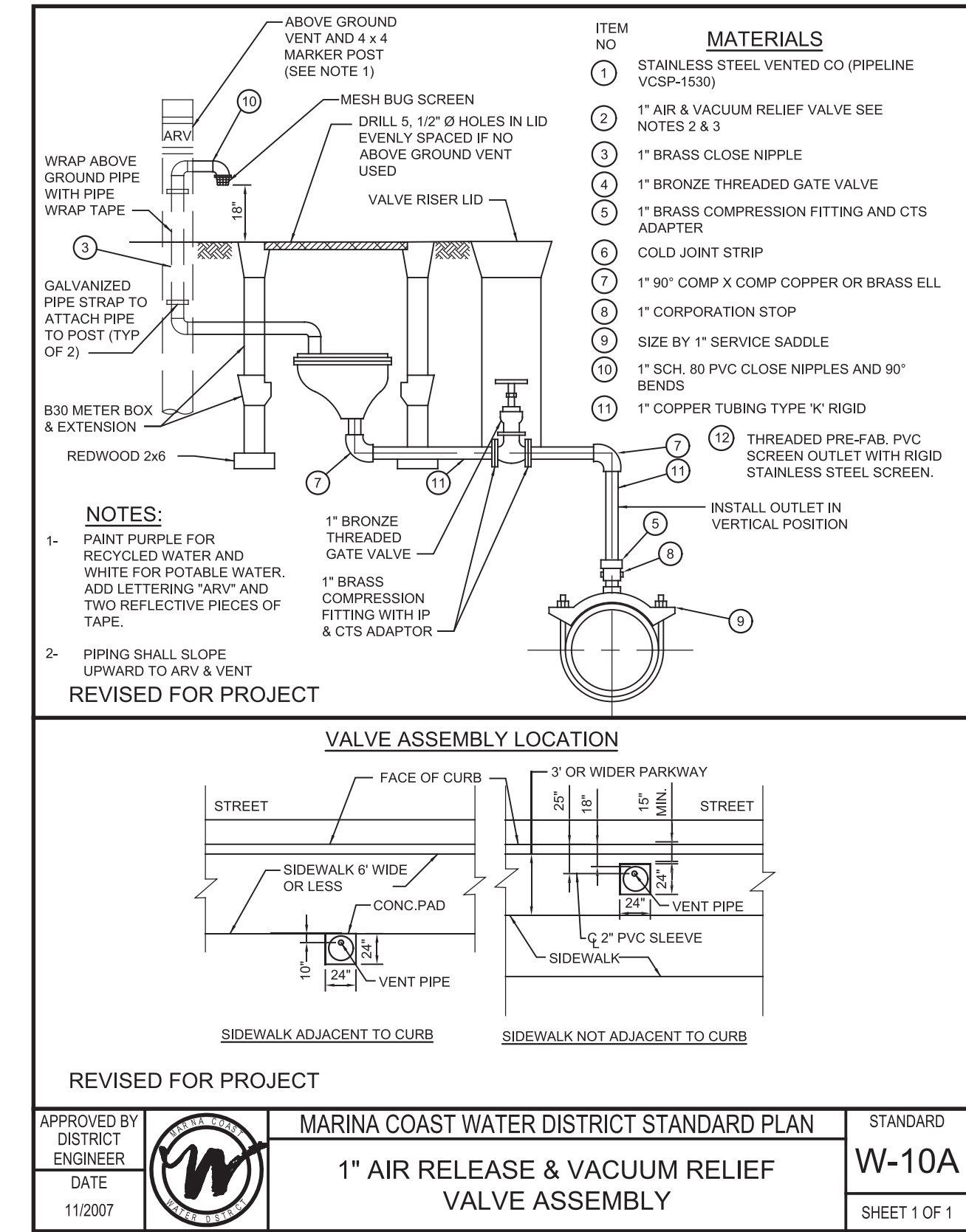
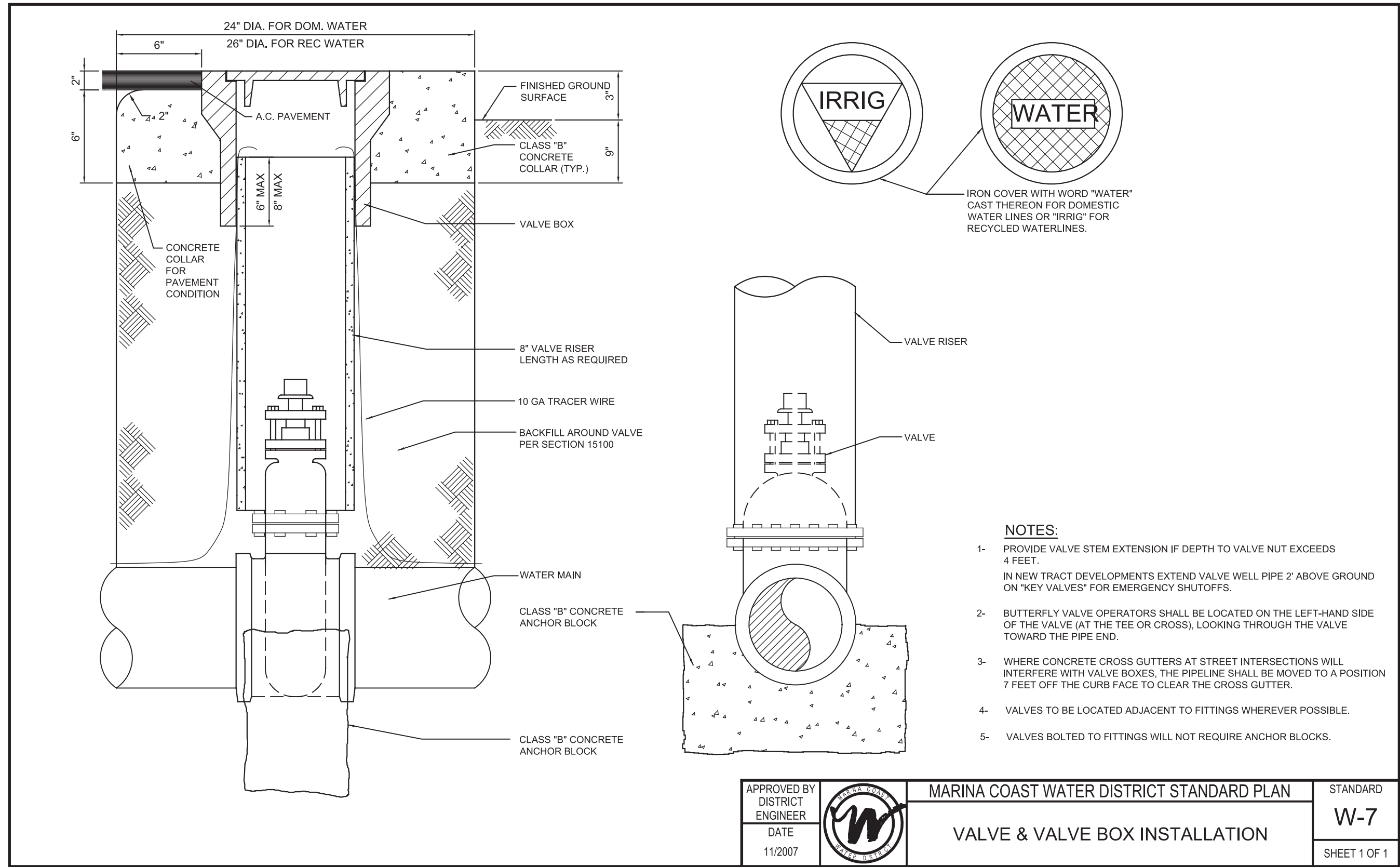


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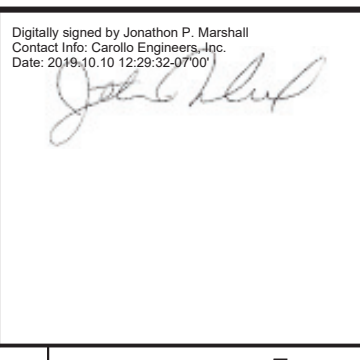
PROJECT NO. 7568C10

LAST SAVED BY: Dabbott



REV	DATE	BY	DESCRIPTION

DESIGNED	JPM
DRAWN	TLR
CHECKED	
DATE	OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact Info: Carollo Engineers, Inc.  
Date: 2019.10.10 13:29:09 -0700

*Jonathan P. Marshall*



REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
TYPICALS  
AGENCY TYPICAL DETAILS - 3

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. T03  
SHEET NO. 8 OF 66

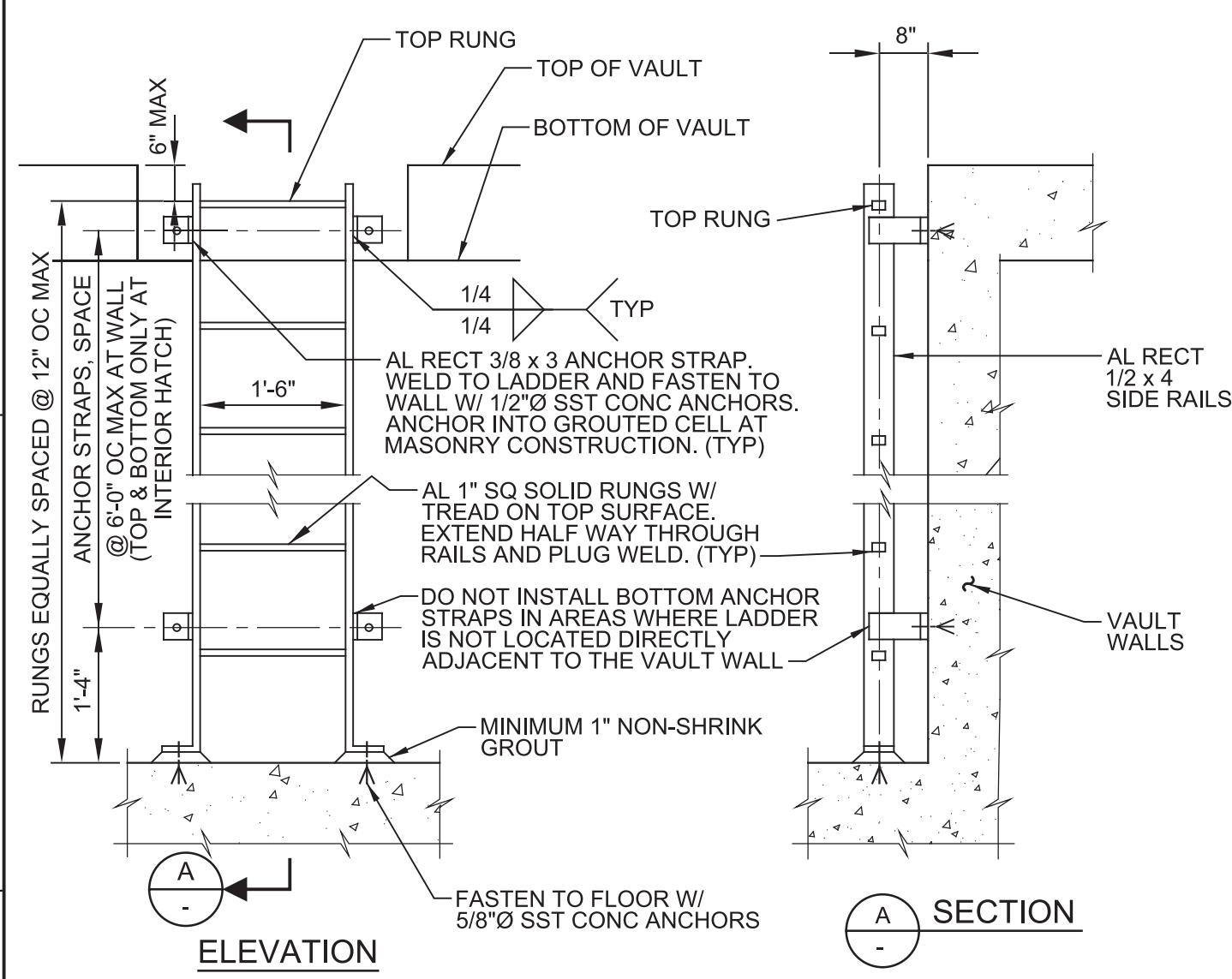


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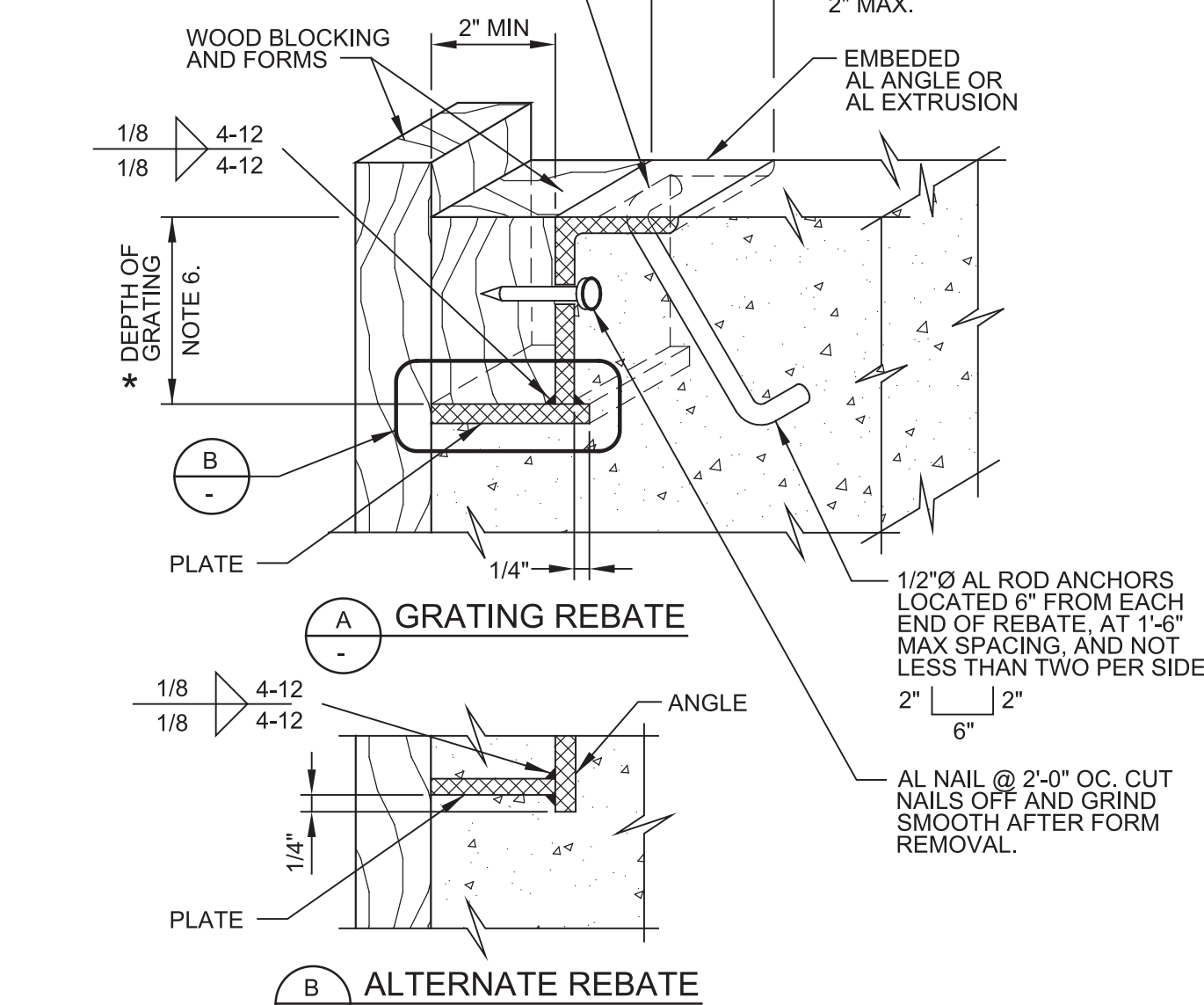
PROJECT NO. 7568C10

LAST SAVED BY: mmorris



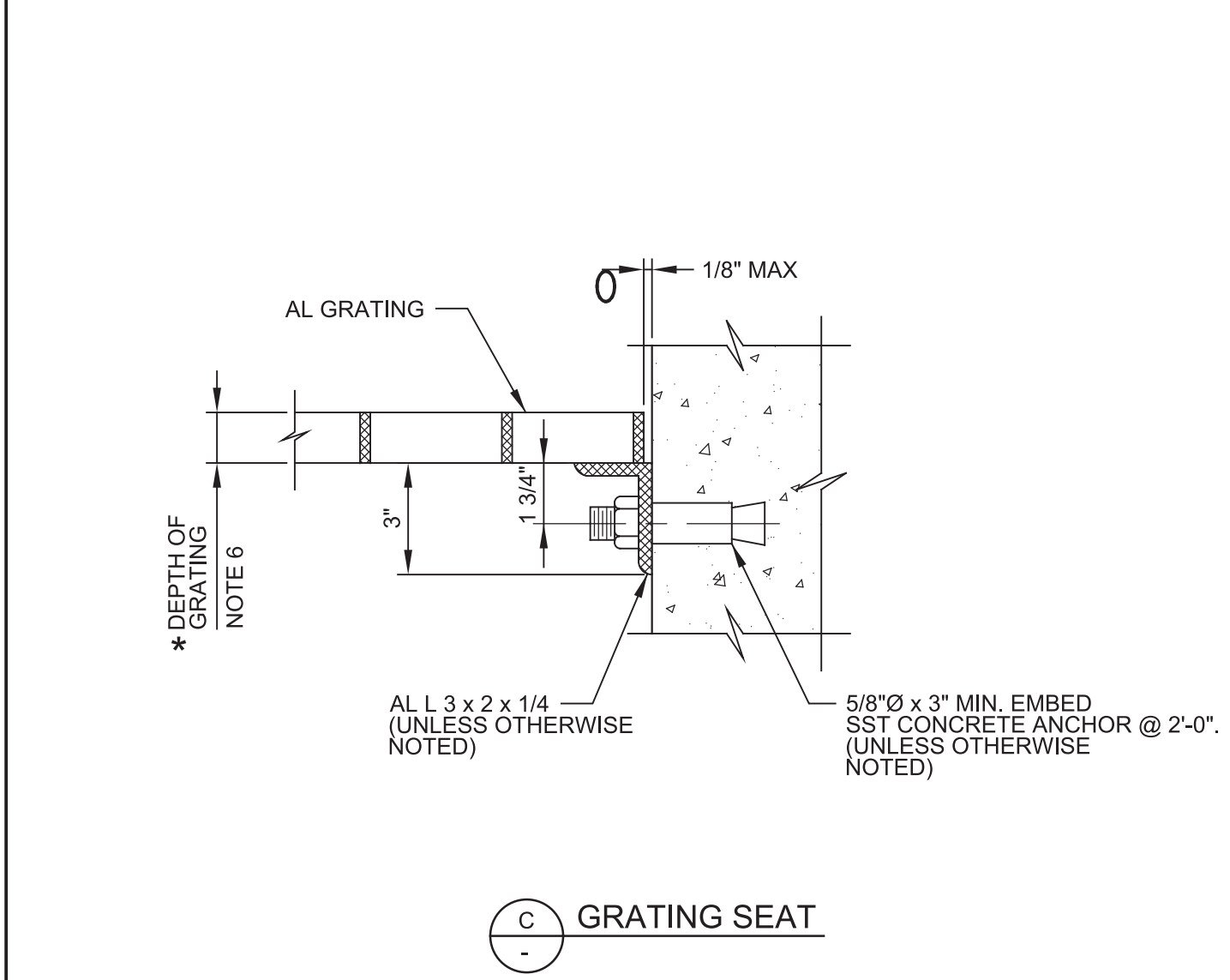
- NOTES:
1. INSTALL FALL PREVENTION SYSTEM WHERE HEIGHT OF LADDER EXCEEDS 20'-0".
  2. MINIMUM CLEARANCE TO ANY OBSTRUCTION ADJACENT TO LADDER: 2'-6" ON CLIMBING SIDE (2'-3" AT SMOOTH WALL). 1'-3" EACH SIDE OF CENTER LINE, ON EACH SIDE OF LADDER.
  3. COAT ALL AL SURFACES IN CONTACT W/ CONC AND MASONRY, AND INSTALL ISOLATION SLEEVES AND WASHERS AT DISSIMILAR METALS, AS SPECIFIED.

**A250 ALUMINUM LADDER FASTENED TO WALL**  
TYP R 08/08/18

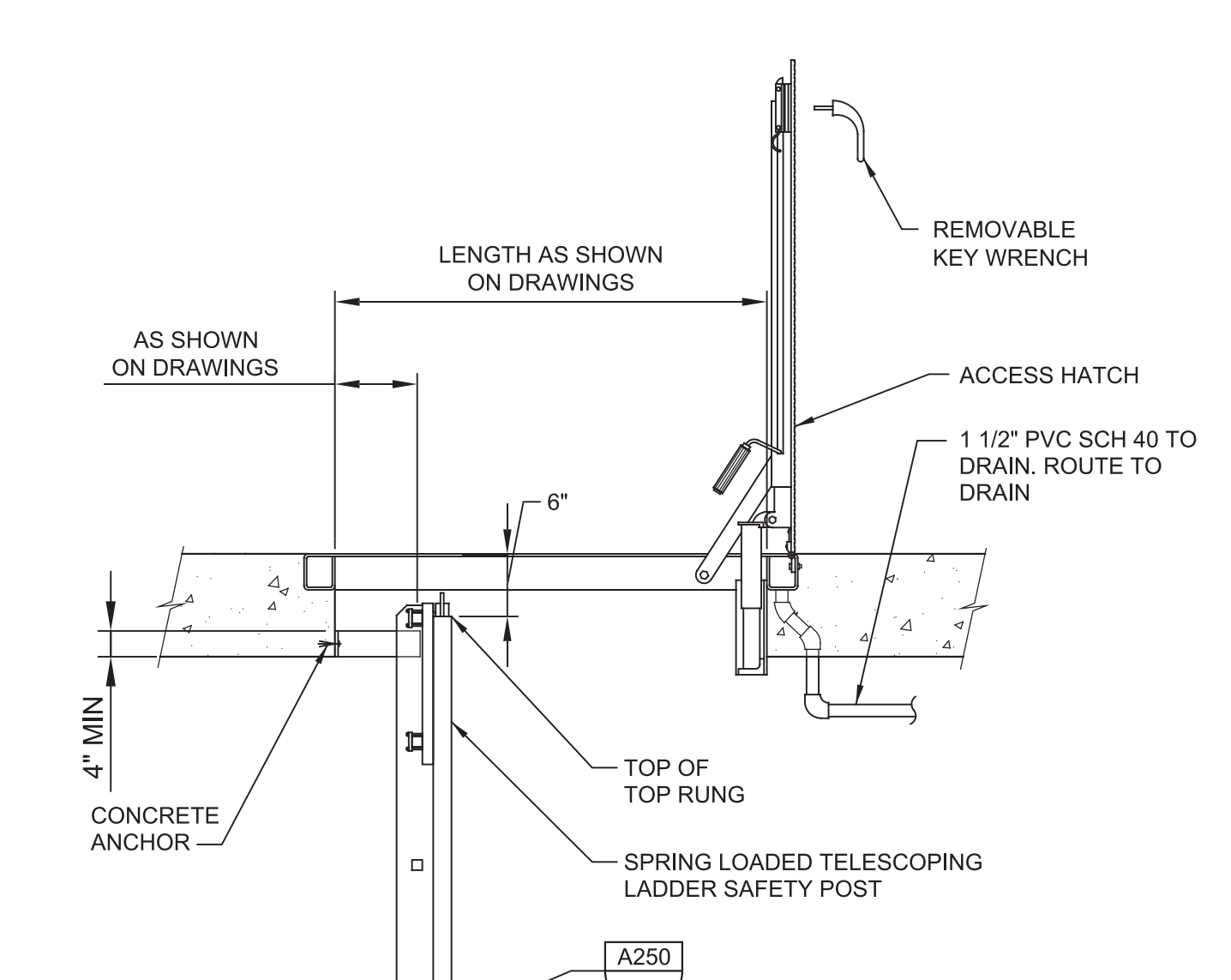


- NOTES:
1. SEE SPECIFICATIONS FOR ALUMINUM GRATING.
  2. MAKE REBATE AND/OR SEAT CONTINUOUS AROUND OPENING.
  3. EMBEDDED REBATE ANGLE AND PLATE SHALL BE 1/4" MINIMUM THICKNESS.
  4. REBATE MAY BE EXTRUDED, SUBJECT TO ENGINEER'S ACCEPTANCE.
  5. COAT ALUMINUM SURFACES IN CONTACT WITH CONCRETE AS SPECIFIED.
  6. \* = DIMENSION AS REQUIRED BY GRATING MANUFACTURER. SEE SPECIFICATIONS.

**A400 ALUMINUM GRATING REBATE AND SEAT**  
TYP NS SHEET 1 OF 2 04/03/17



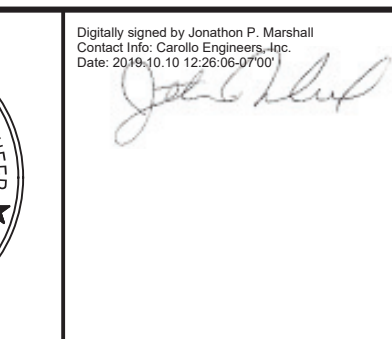
**A400 ALUMINUM GRATING REBATE AND SEAT**  
TYP NS SHEET 2 OF 2 04/03/17



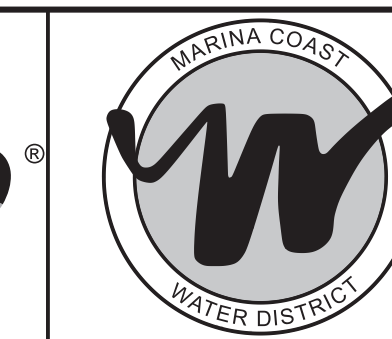
**A504 HATCH WITH LADDER**  
TYP R 08/01/05

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED  
JPM  
DRAWN  
TLR  
CHECKED  
DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact Info: Carollo Engineering, Inc.  
Date: 2019.10.10 12:00:09-0700



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT		VERIFY SCALES	JOB NO. 7568C.10
RECYCLED WATER DISTRIBUTION MAINS		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. TA01
TYPICALS		0 1"	SHEET NO. 9 OF 66
ARCHITECTURAL TYPICAL DETAILS		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	

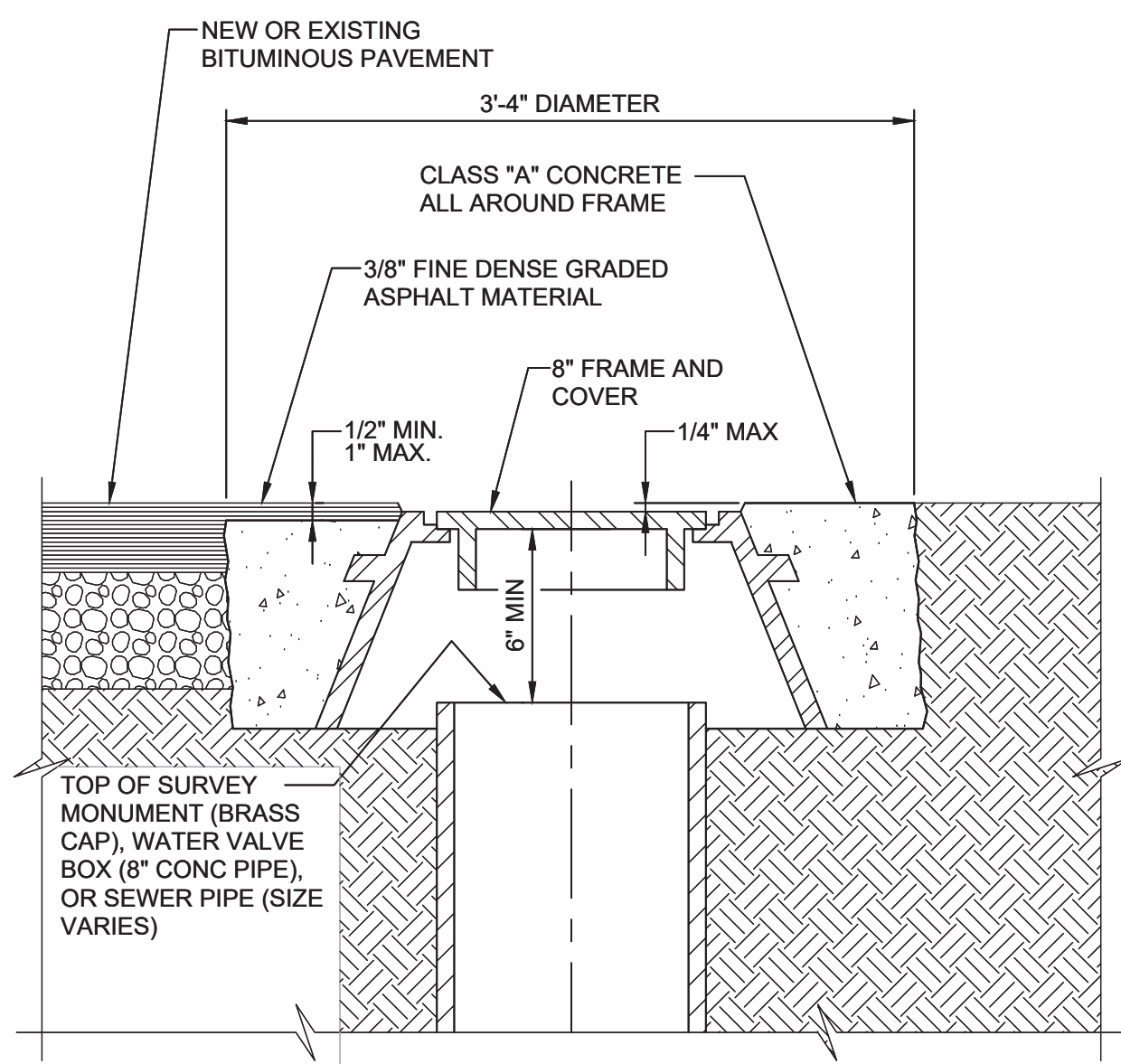


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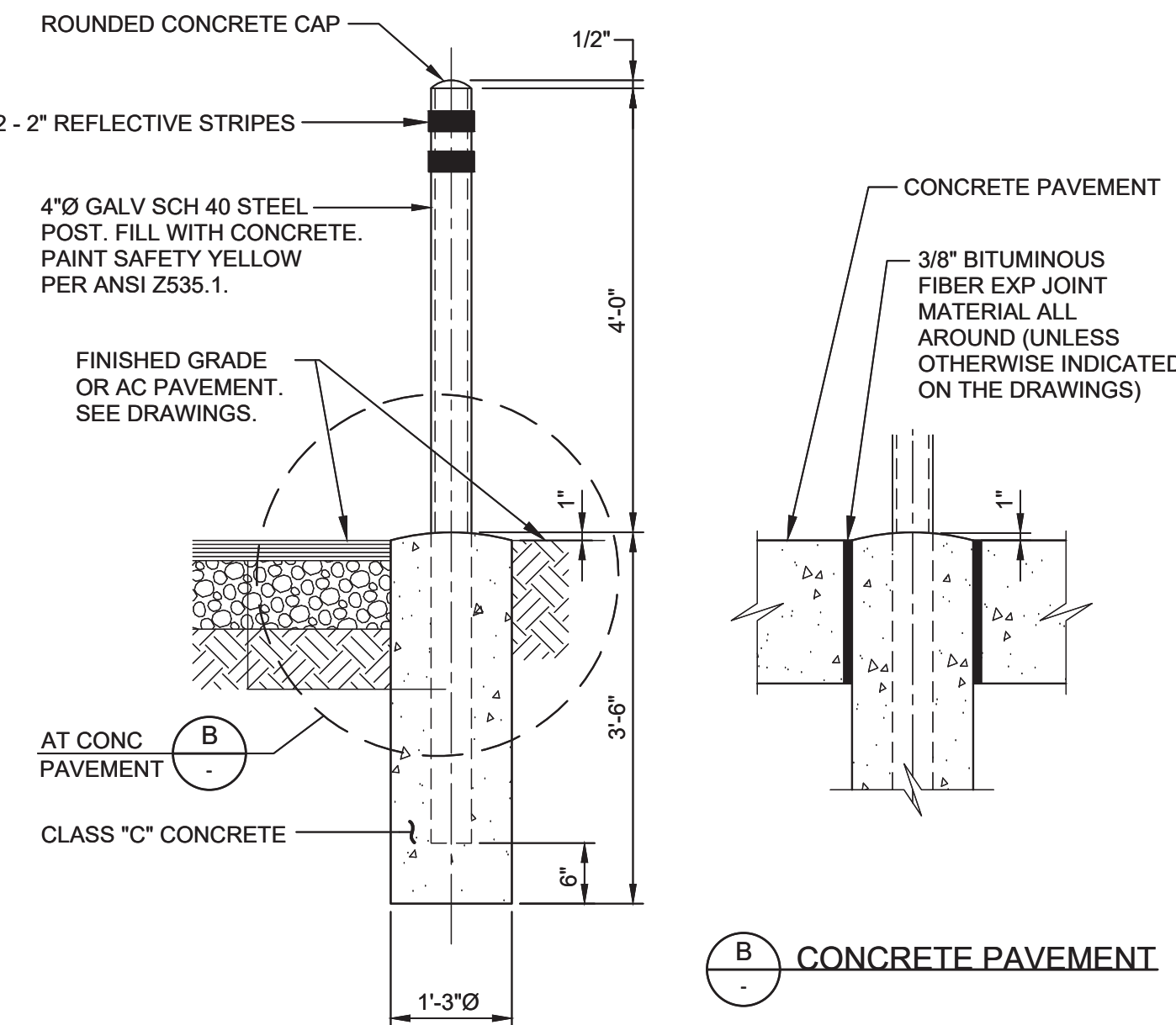
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PROJECT NO. 7568C10

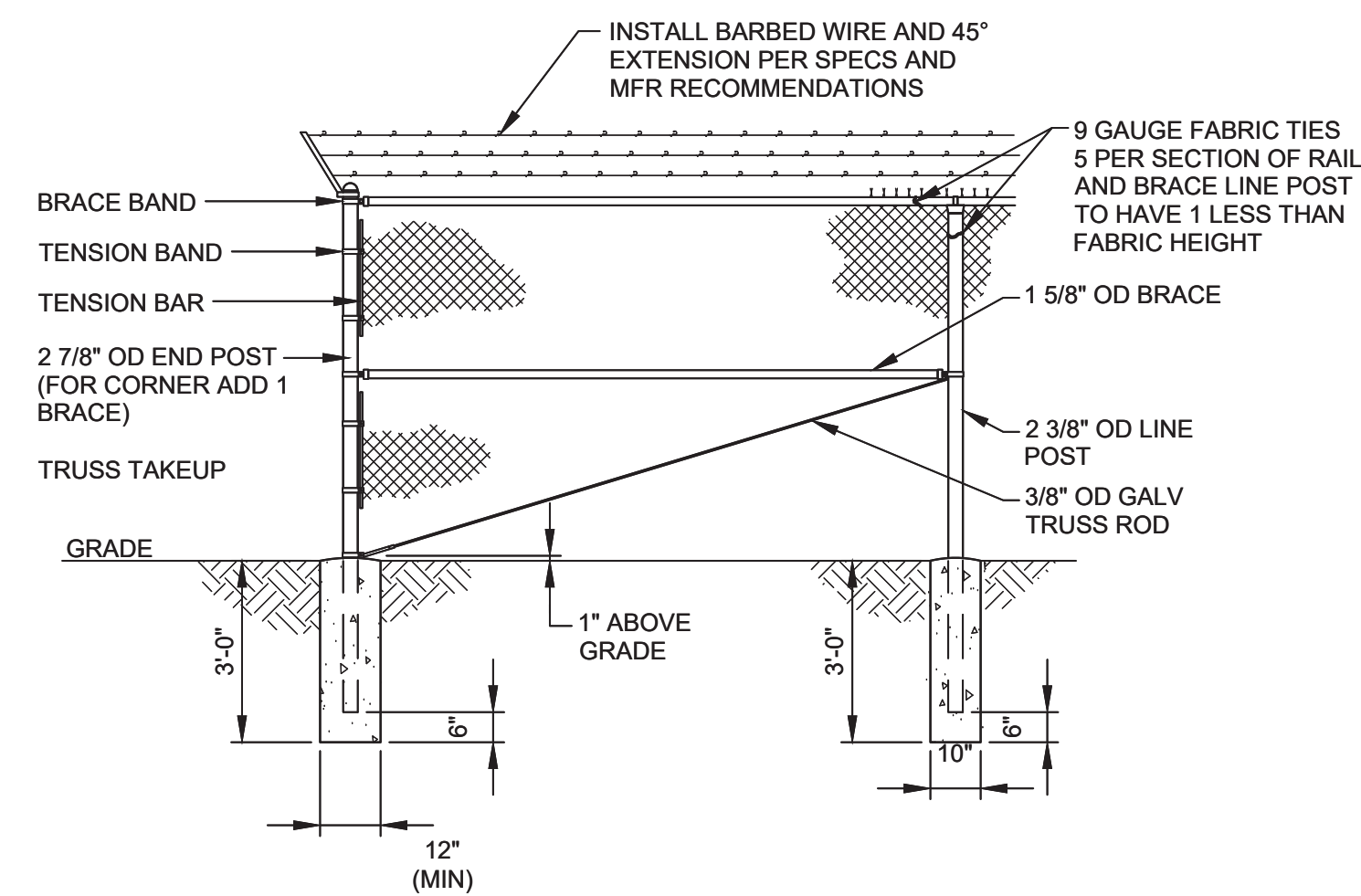
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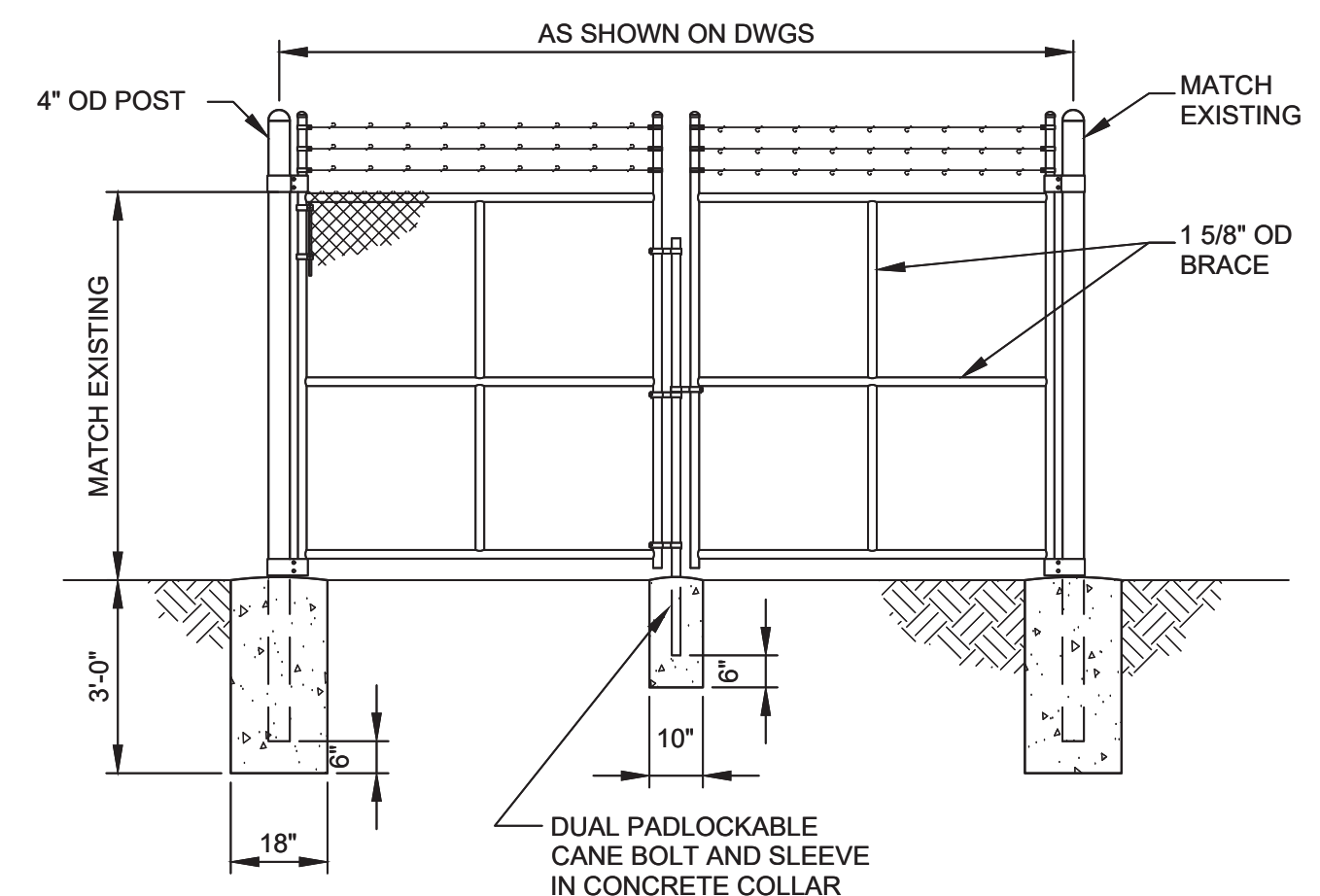
**C040** GRADE ADJUSTMENT FOR WATER VALVE, SURVEY MONUMENT, OR SEWER CLEANOUT FRAME  
TYP  
08/01/05



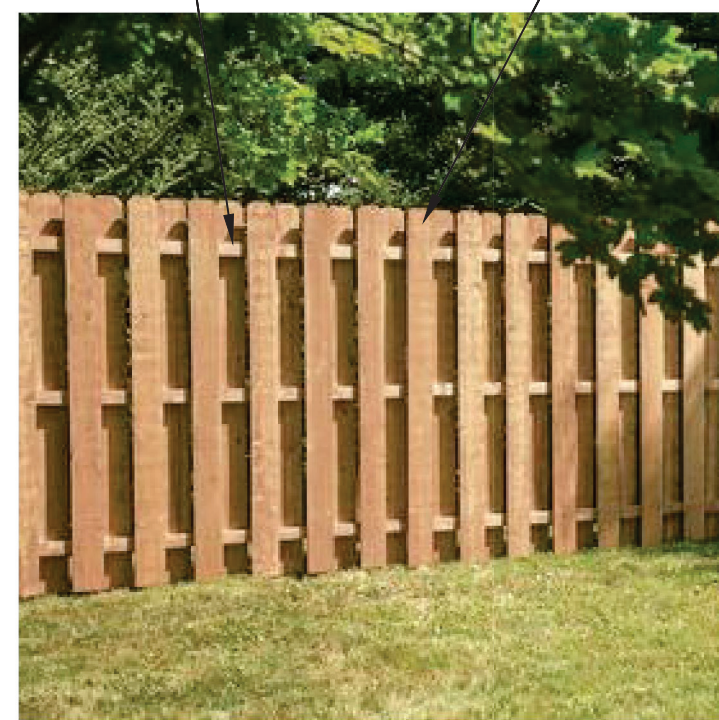
**C161** GUARD POST  
TYP  
01/13/14



**C190** CHAINLINK FENCE AND GATE DETAIL  
TYP  
08/28/17



2" x 2" REDWOOD FENCE PICKET SUPPORTS  
2" x 8" REDWOOD DOG EAR FENCE PICKETS



- NOTES:**
- WOOD PRIVACY FENCE SHALL BE 6' HIGH WITH PRESSURE TREATED POSTS. ALL OTHER WOOD SHALL BE REDWOOD.
  - CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR FENCE FOR APPROVAL PRIOR TO INSTALLATION. SHOP DRAWINGS SHALL MATCH FENCE CONSTRUCTION SHOWN IN ABOVE PICTURE.

**C191** WOOD PRIVACY FENCE  
TYP  
08/28/17

**BID DOCUMENTS**

DESIGNED  
DRAWN SDW  
CHECKED  
DATE OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact Info: Carollo Engineering, Inc.  
Date: 2019.10.10 12:28:49 -0700  
*Jonathan P. Marshall*



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

TYPICAL  
CIVIL TYPICAL DETAILS

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. TC01  
SHEET NO. 10 OF 66

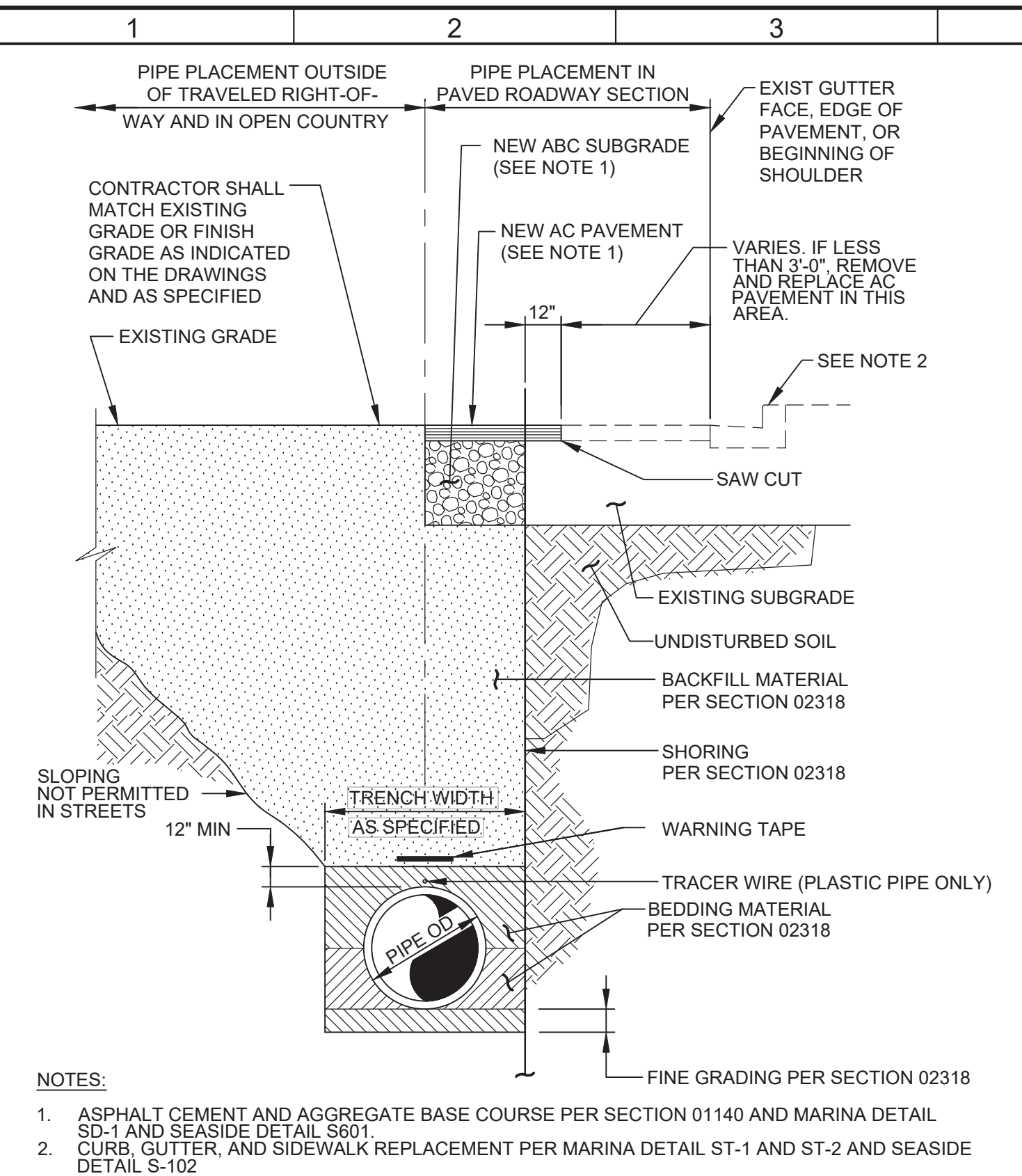


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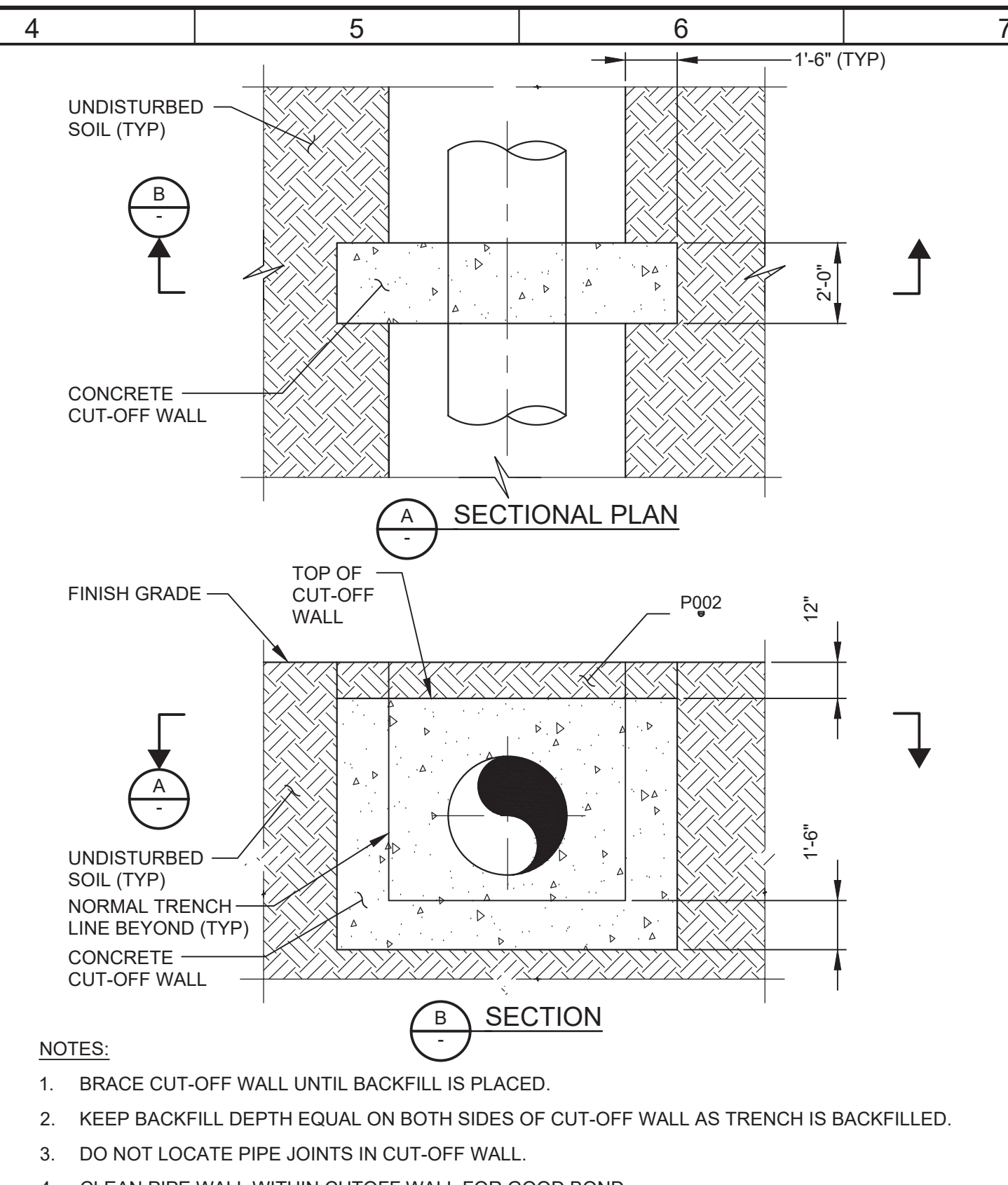
PROJECT NO. 7568C10

LAST SAVED BY: Dabbott



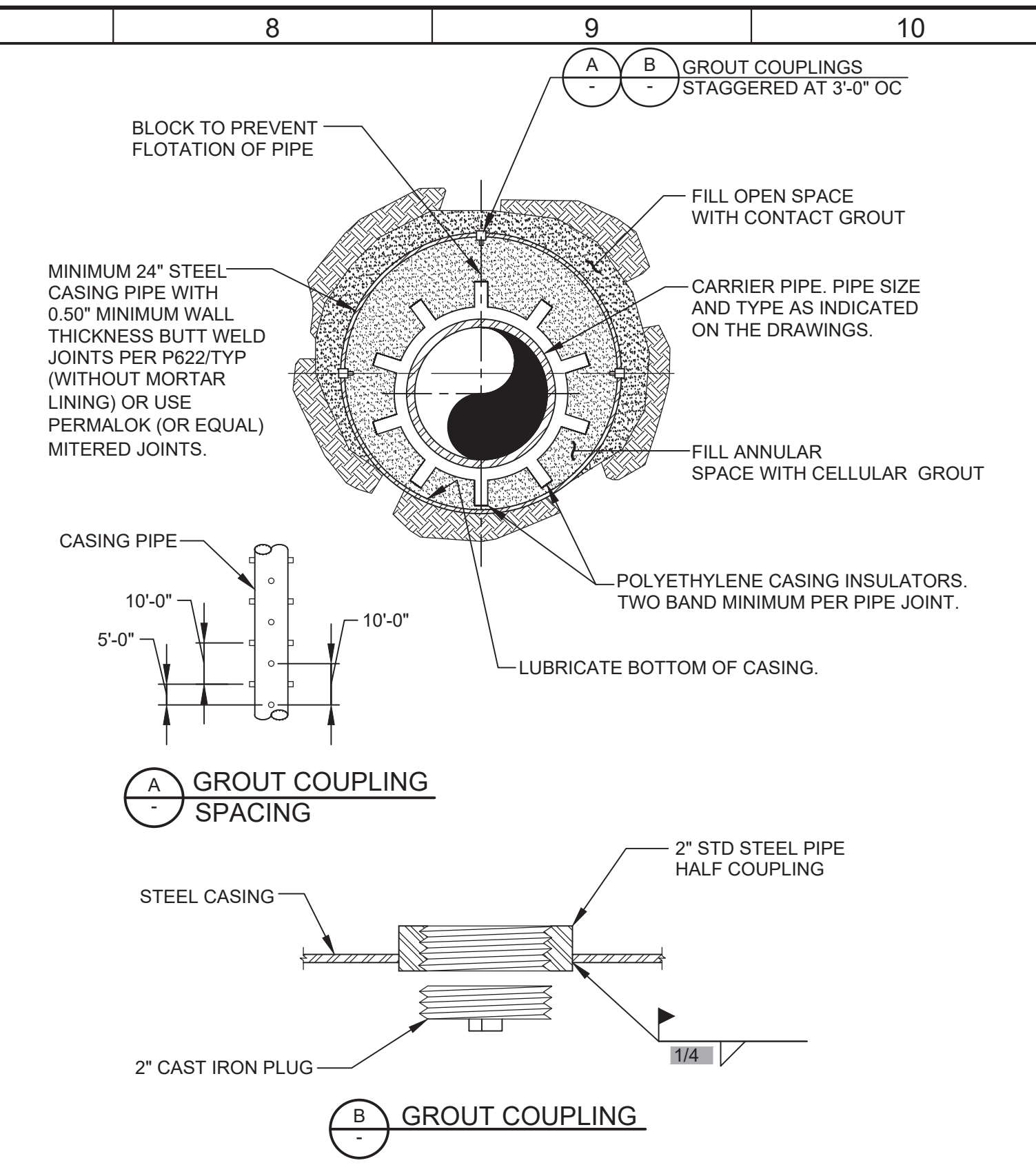
- NOTES:
- ASPHALT CEMENT AND AGGREGATE BASE COURSE PER SECTION 01140 AND MARINA DETAIL SD-1 AND SEASIDE DETAIL S601.
  - CURB, GUTTER, AND SIDEWALK REPLACEMENT PER MARINA DETAIL ST-1 AND ST-2 AND SEASIDE DETAIL S-102.

**P002** PIPE INSTALLATION AND PAVEMENT REPLACEMENT  
TYP



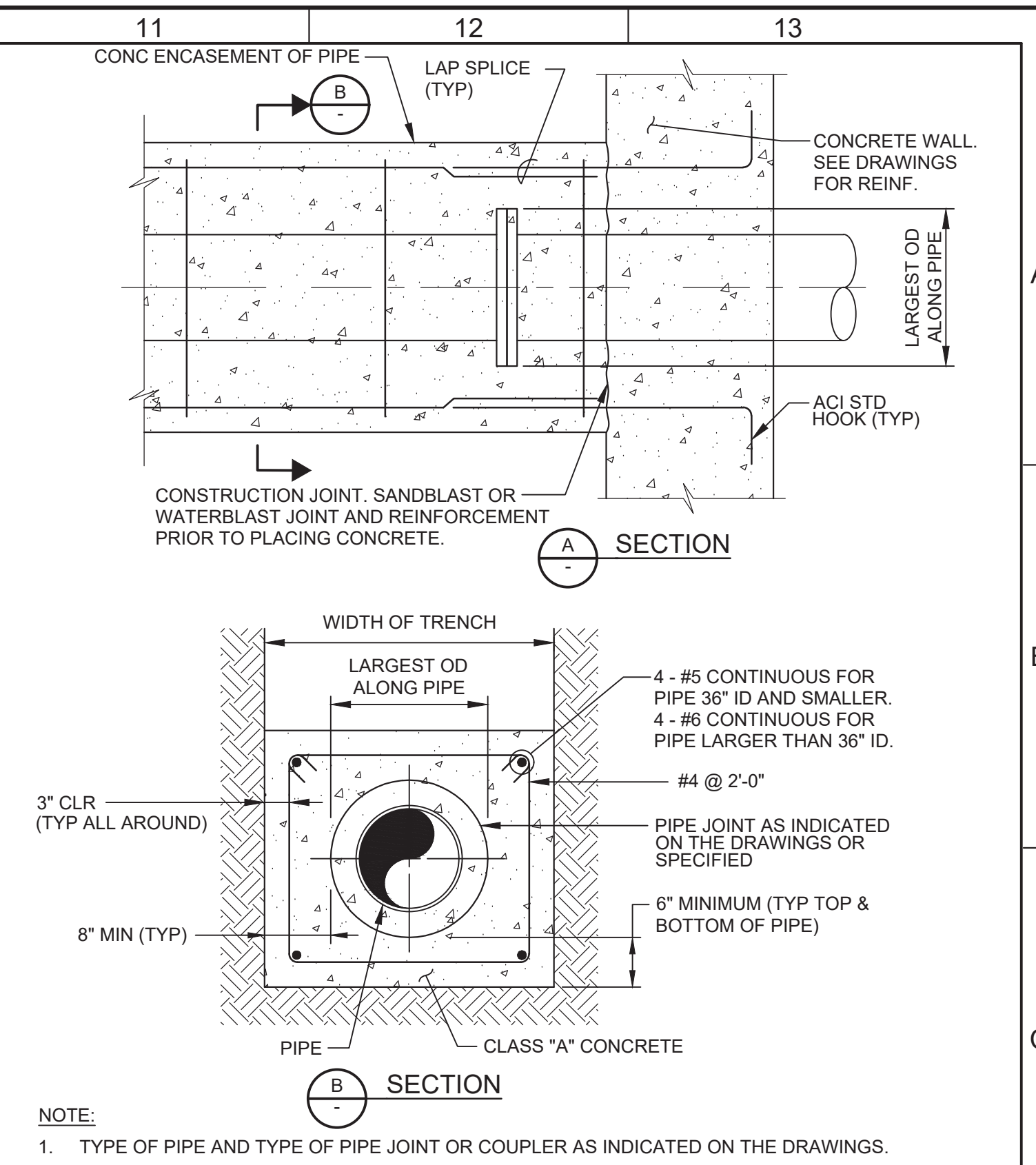
- NOTES:
- BRACE CUT-OFF WALL UNTIL BACKFILL IS PLACED.
  - KEEP BACKFILL DEPTH EQUAL ON BOTH SIDES OF CUT-OFF WALL AS TRENCH IS BACKFILLED.
  - DO NOT LOCATE PIPE JOINTS IN CUT-OFF WALL.
  - CLEAN PIPE WALL WITHIN CUTOFF WALL FOR GOOD BOND.

**P014** PIPE TRENCH CONCRETE CUT-OFF WALL  
TYP



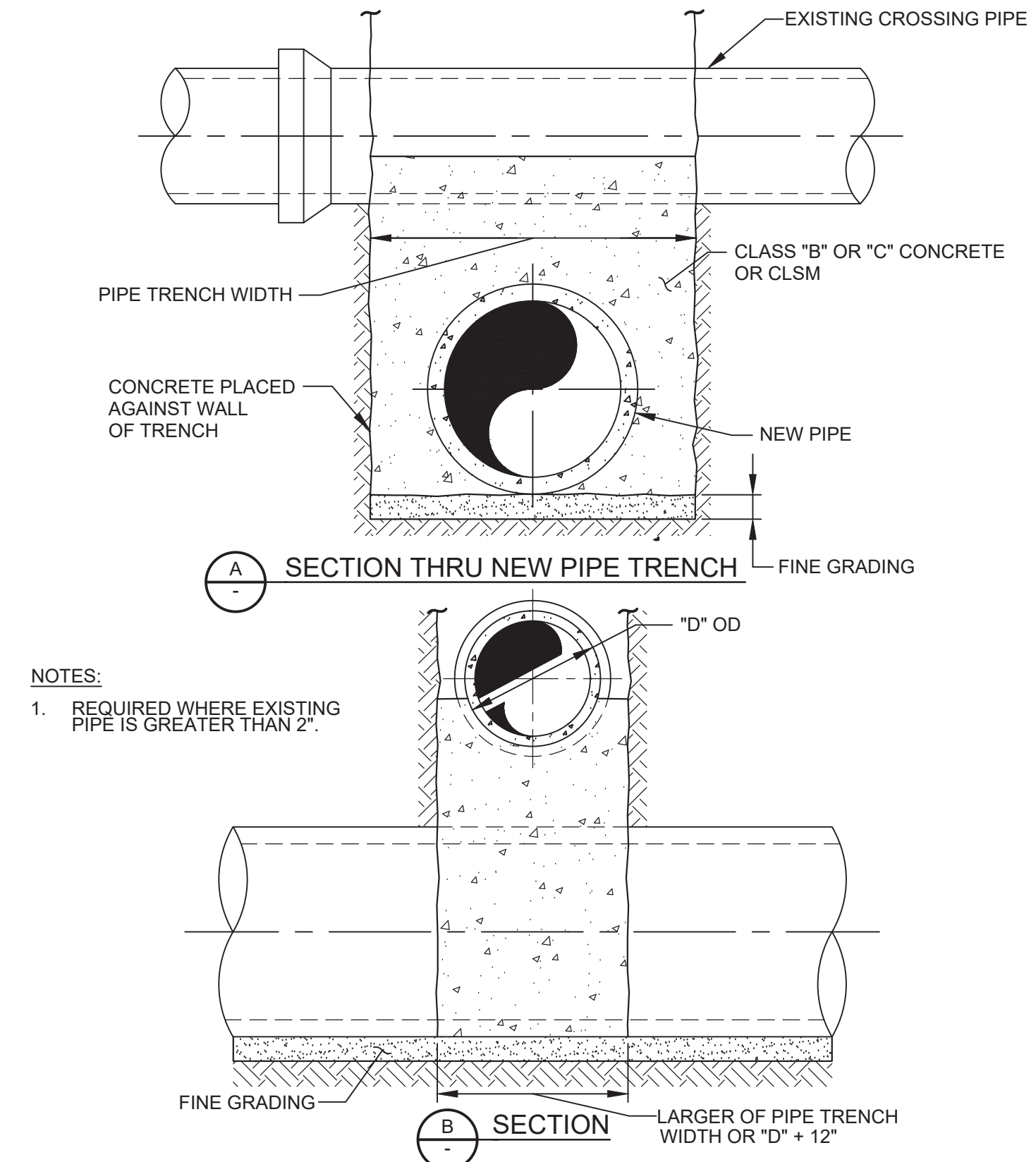
- NOTES:
- FLEXIBLE CONNECTION IS DESIGNED TO ACCOMMODATE SETTLEMENT AND EARTHQUAKE MOVEMENT.
  - PIPES SHALL BE INSTALLED STRAIGHT WITHOUT HORIZONTAL OR VERTICAL OFFSET. DO NOT USE JOINT ANGULAR DEFLECTION TO MAKE UP FOR MISALIGNED PIPE.
  - WALL PIPE WITH WEEP RING (THRUST COLLAR) SHALL BE CAPABLE OF RESISTING THRUST.

**P030** PIPE IN STEEL CASING - GROUT FILL  
TYP



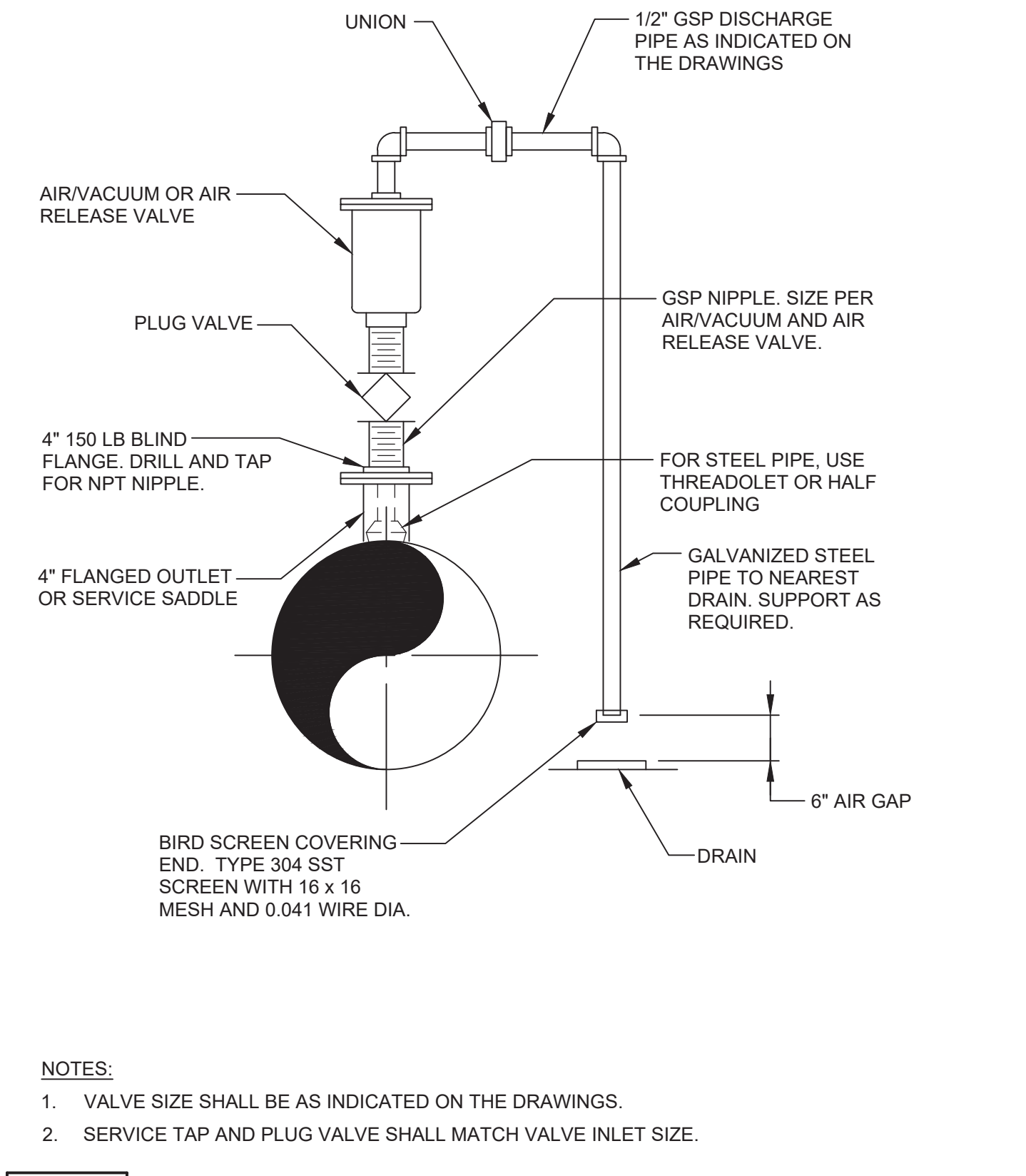
- NOTE:
- TYPE OF PIPE AND TYPE OF PIPE JOINT OR COUPLER AS INDICATED ON THE DRAWINGS.

**P040** CONCRETE ENCASEMENT OF PIPE  
TYP



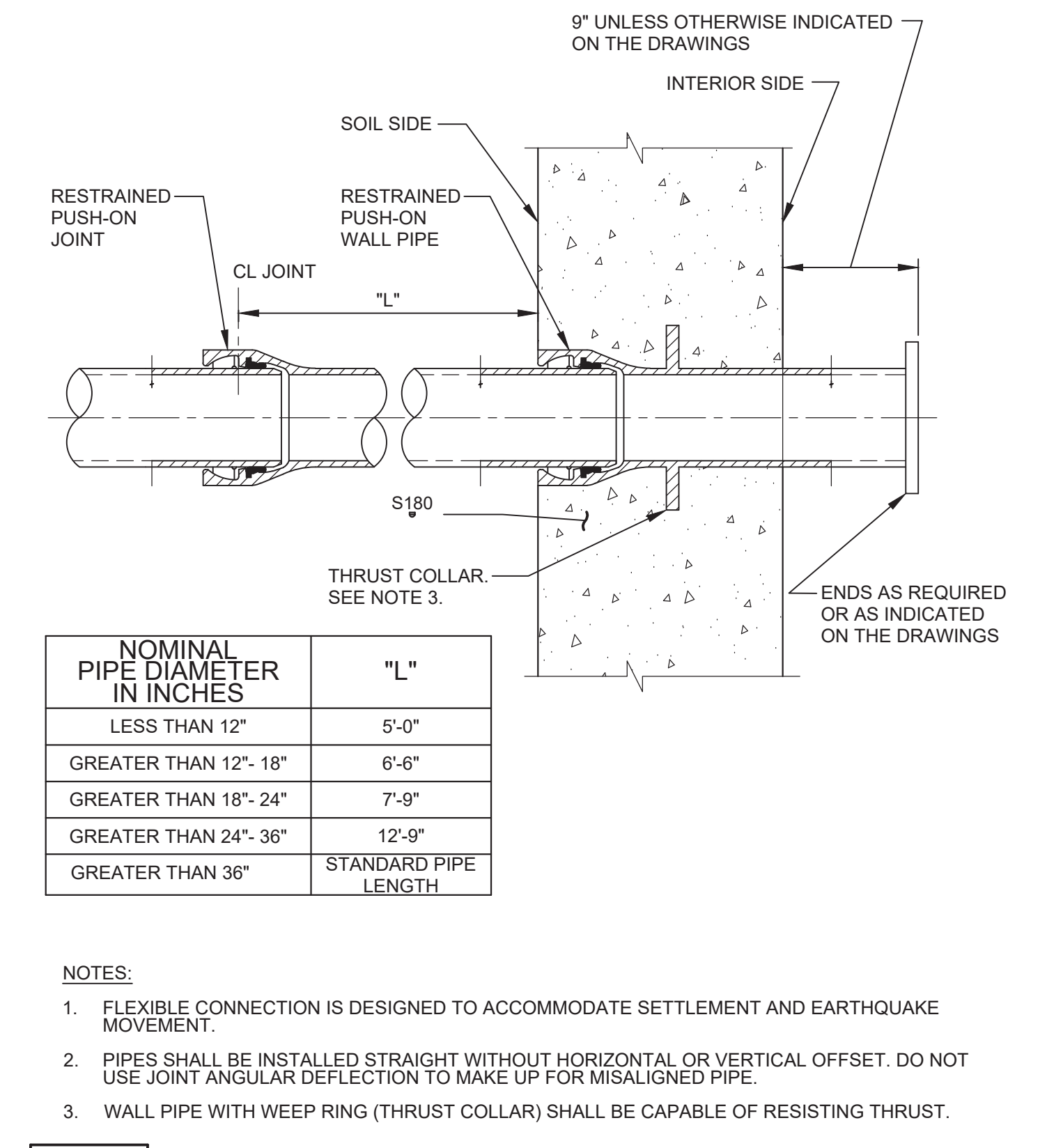
- NOTES:
- REQUIRED WHERE EXISTING PIPE IS GREATER THAN 2\".

**P048** PIPE SUPPORT ACROSS TRENCH  
TYP



- NOTES:
- VALVE SIZE SHALL BE AS INDICATED ON THE DRAWINGS.
  - SERVICE TAP AND PLUG VALVE SHALL MATCH VALVE INLET SIZE.

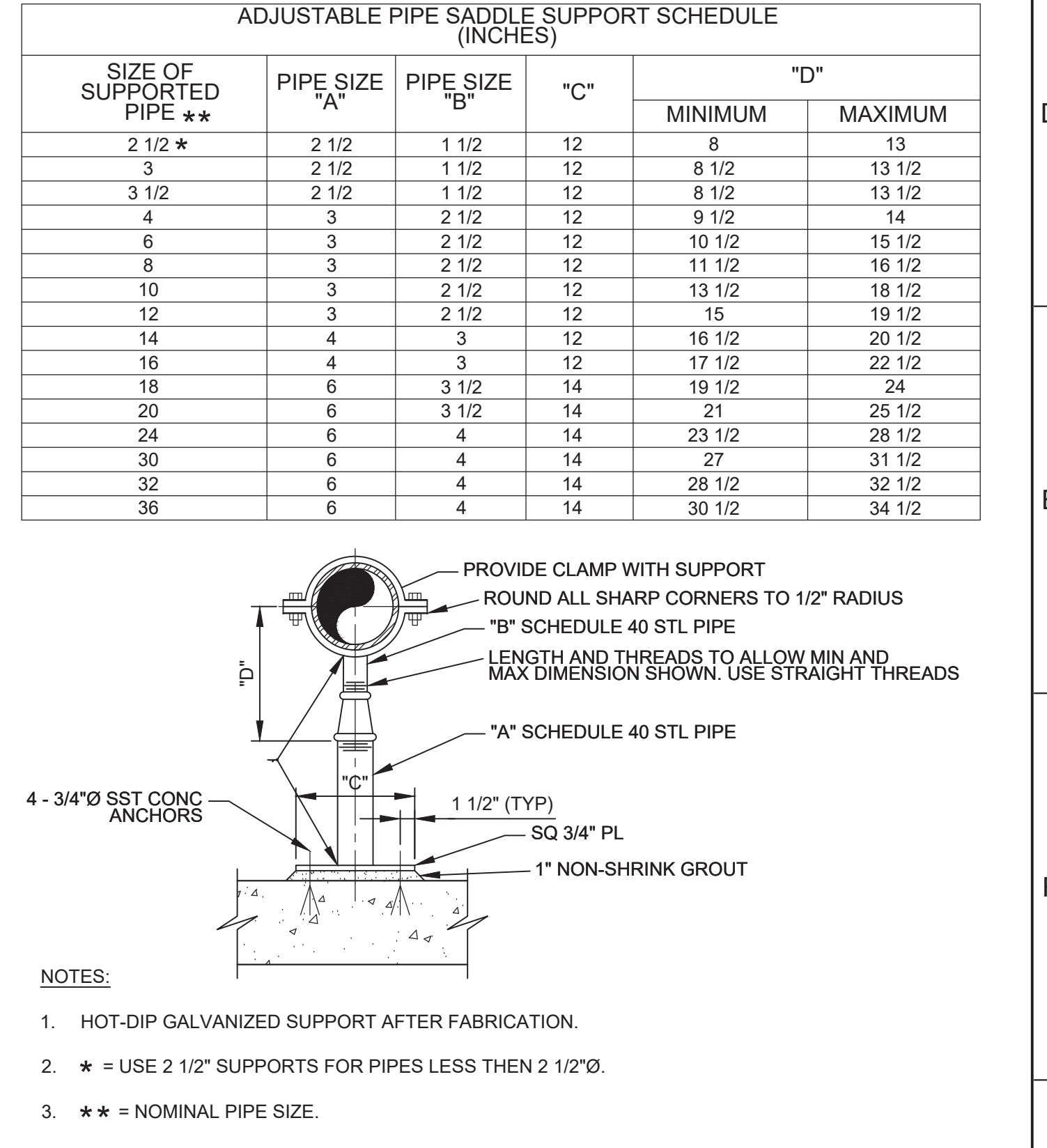
**P240** AIR VACUUM AND AIR RELEASE FOR 3\"/>



NOMINAL PIPE DIAMETER IN INCHES	\"L\"
LESS THAN 12\"	5'-0\"
GREATER THAN 12\"- 18\"	6'-6\"
GREATER THAN 18\"- 24\"	7'-9\"
GREATER THAN 24\"- 36\"	12'-9\"
GREATER THAN 36\"	STANDARD PIPE LENGTH

- NOTES:
- FLEXIBLE CONNECTION IS DESIGNED TO ACCOMMODATE SETTLEMENT AND EARTHQUAKE MOVEMENT.
  - PIPES SHALL BE INSTALLED STRAIGHT WITHOUT HORIZONTAL OR VERTICAL OFFSET. DO NOT USE JOINT ANGULAR DEFLECTION TO MAKE UP FOR MISALIGNED PIPE.
  - WALL PIPE WITH WEEP RING (THRUST COLLAR) SHALL BE CAPABLE OF RESISTING THRUST.

**P342** RESTRAINED DIP FLEXIBLE CONNECTION AT WALL PENETRATION  
TYP



- NOTES:
- HOT-DIP GALVANIZED SUPPORT AFTER FABRICATION.
  - \* = USE 2 1/2\"/>
  - \*\* = NOMINAL PIPE SIZE.

**P624** ADJUSTABLE PIPE SUPPORT  
TYP

SIZE OF SUPPORTED PIPE **	PIPE SIZE \"A\"	PIPE SIZE \"B\"	\"C\"	\"D\"	
				MINIMUM	MAXIMUM
2 1/2 *	2 1/2	1 1/2	12	8	13
3	2 1/2	1 1/2	12	8 1/2	13 1/2
3 1/2	2 1/2	1 1/2	12	8 1/2	13 1/2
4	3	2 1/2	12	9 1/2	14
6	3	2 1/2	12	10 1/2	15 1/2
8	3	2 1/2	12	11 1/2	16 1/2
10	3	2 1/2	12	13 1/2	18 1/2
12	3	2 1/2	12	15	19 1/2
14	4	3	12	16 1/2	20 1/2
16	4	3	12	17 1/2	22 1/2
18	6	3 1/2	14	19 1/2	24
20	6	3 1/2	14	21	25 1/2
24	6	4	14	23 1/2	28 1/2
30	6	4	14	27	31 1/2
32	6	4	14	28 1/2	32 1/2
36	6	4	14	30 1/2	34 1/2

**BID DOCUMENTS**

DESIGNED  
JPM  
DRAWN  
TLR  
CHECKED  
  
DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact Info: Carollo Engineers, Inc.  
Date: 2019.10.10 12:28:09 -0700  
*Jonathan P. Marshall*



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

**PIPING TYPICAL DETAILS - 1**

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10  
DRAWING NO.  
**TP01**  
SHEET NO.  
11 OF 66

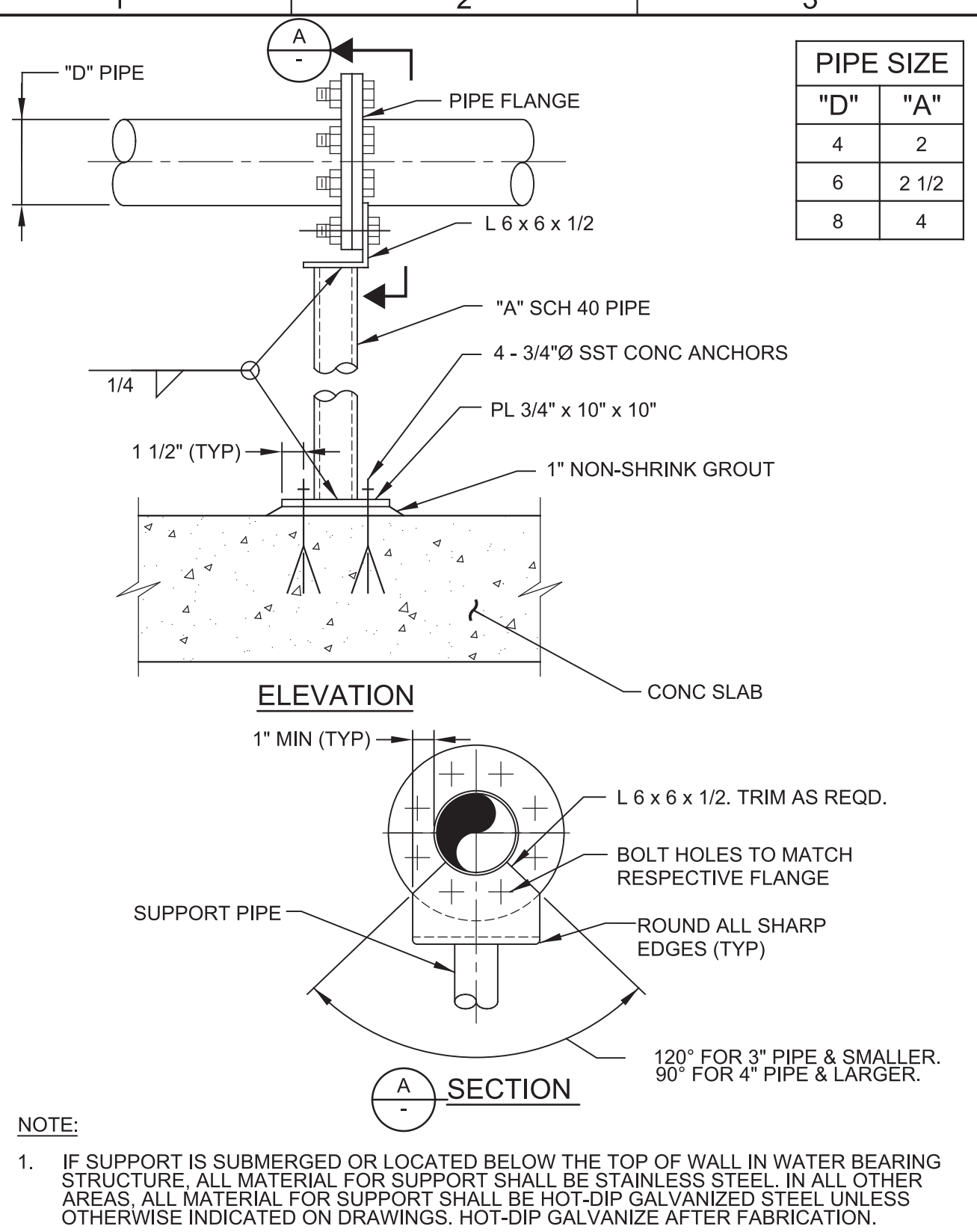


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FILE NAME: 7568C1000TP02.dwg

PROJECT NO. 7568C10

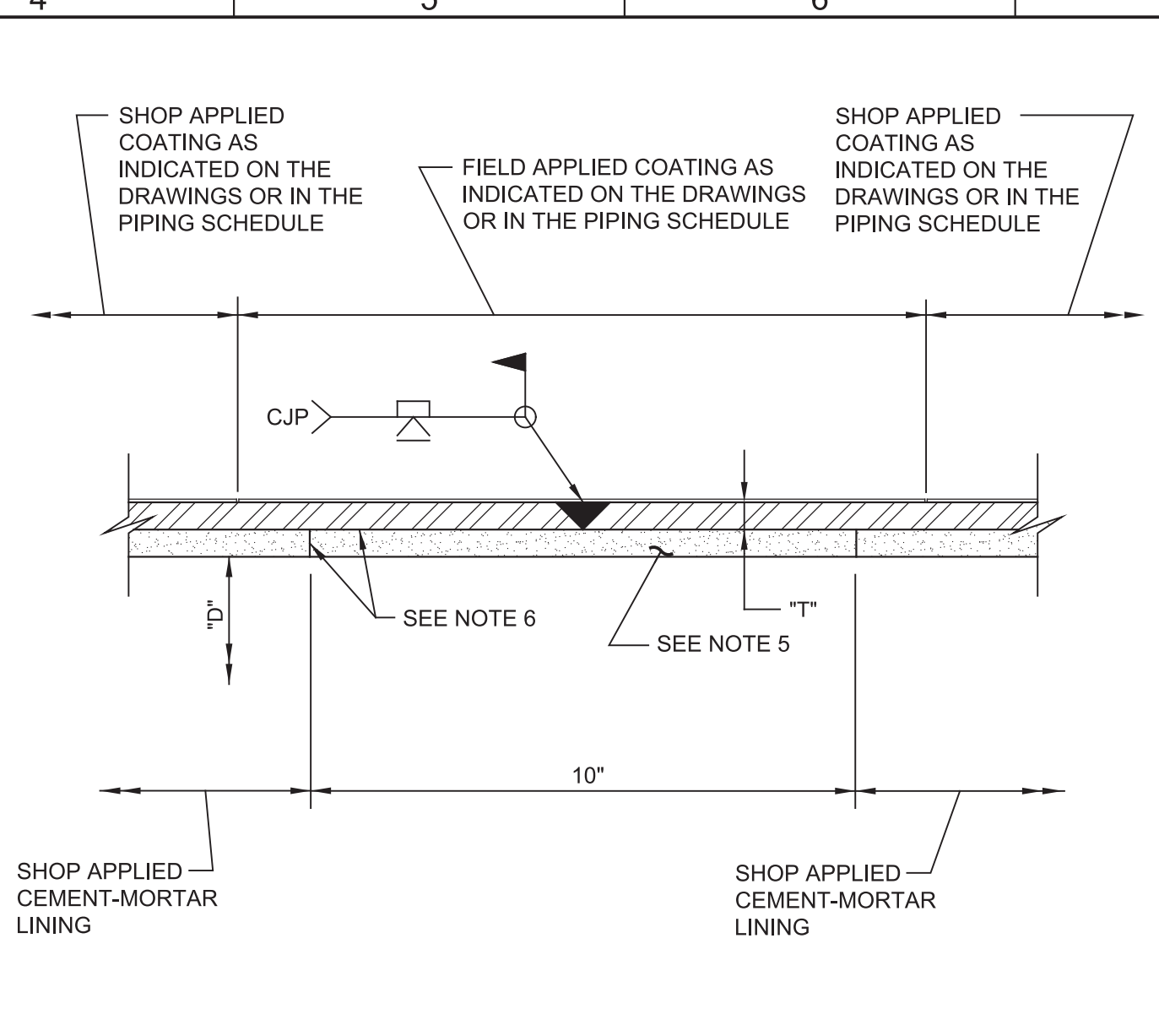
LAST SAVED BY: mmorris



PIPE SIZE	
"D"	"A"
4	2
6	2 1/2
8	4

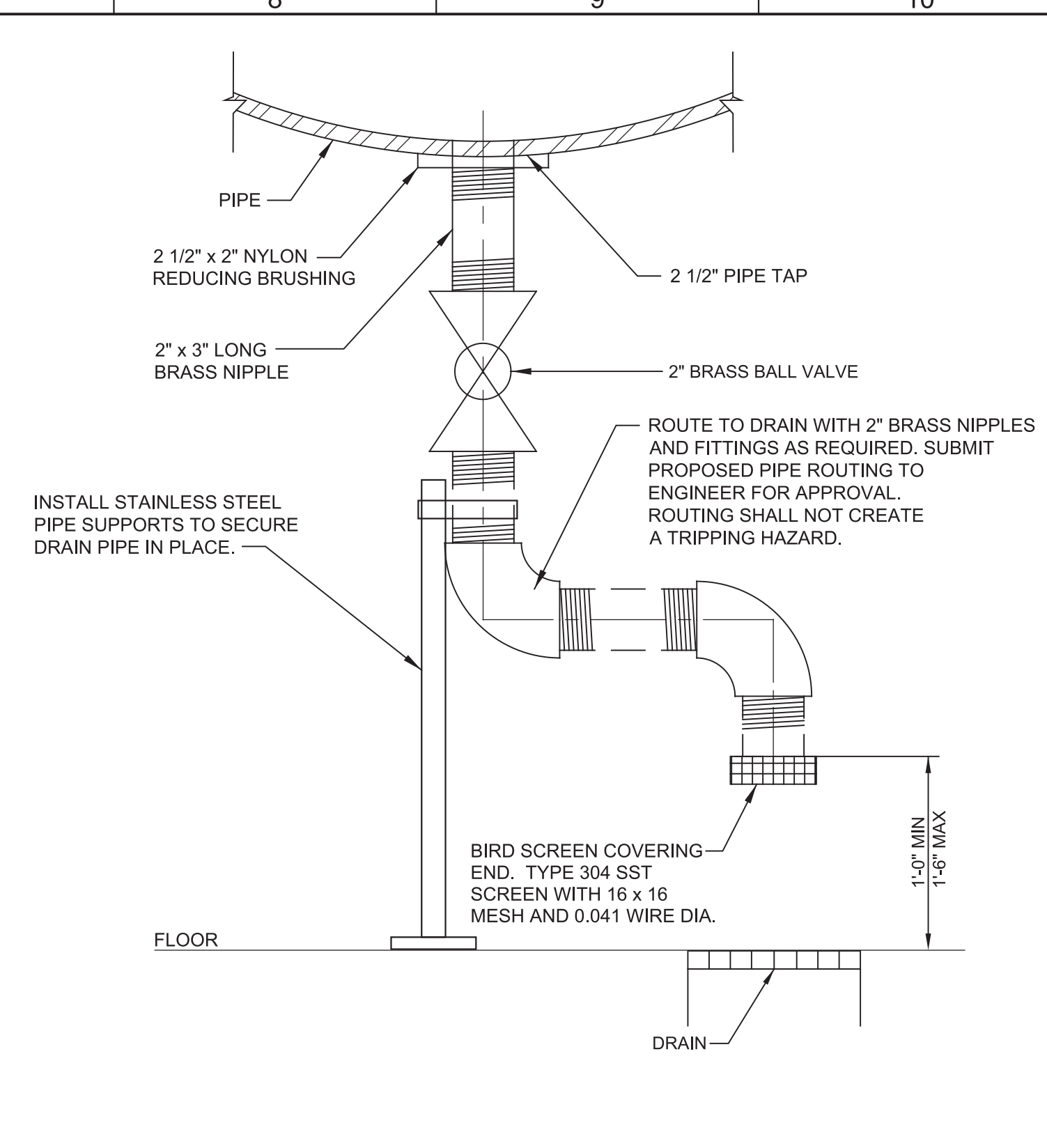
**NOTE:**  
 1. IF SUPPORT IS SUBMERGED OR LOCATED BELOW THE TOP OF WALL IN WATER BEARING STRUCTURE, ALL MATERIAL FOR SUPPORT SHALL BE STAINLESS STEEL. IN ALL OTHER AREAS, ALL MATERIAL FOR SUPPORT SHALL BE HOT-DIP GALVANIZED STEEL UNLESS OTHERWISE INDICATED ON DRAWINGS. HOT-DIP GALVANIZE AFTER FABRICATION.

**P626** PIPE SUPPORT WITH PIPE FLANGE CONNECTION  
 TYP NS 07/01/13

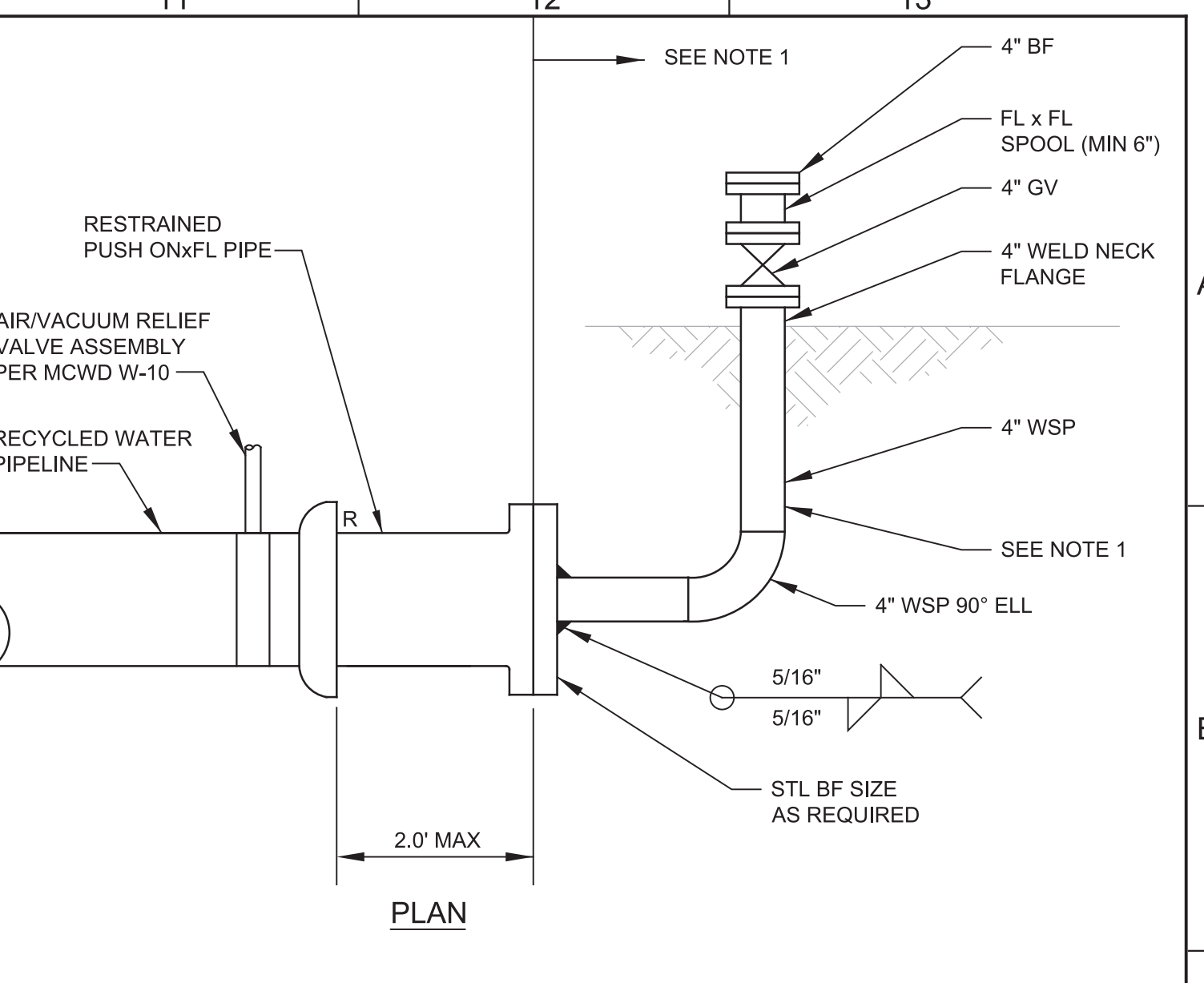


**NOTES:**  
 1. "D" = PIPE DIAMETER AS INDICATED ON THE DRAWINGS OR IN THE PIPING SCHEDULE.  
 2. "T" = PIPE WALL THICKNESS AS INDICATED ON THE DRAWINGS OR IN THE PIPING SCHEDULE.  
 3. PROVIDE FLUSH CONTOUR WELDED JOINT.  
 4. REMOVE BACKER RING AFTER WELDING JOINT, BACKGOUGE, AND WELD.  
 5. FIELD APPLIED CEMENT-MORTAR LINING. FINISH FIELD APPLIED CEMENT-MORTAR LINING SMOOTH AND FLUSH WITH SHOP APPLIED CEMENT-MORTAR LINING.  
 6. COAT STEEL CYLINDER AND ENDS OF SHOP APPLIED CEMENT-MORTAR LINING WITH EPOXY BONDING AGENT BEFORE APPLYING FIELD APPLIED CEMENT-MORTAR LINING.  
 7. CJP = COMPLETE JOINT PENETRATION.

**P822** STEEL PIPE - MORTAR LINED AND COATED FULL PENETRATION WELDED BUTT JOINT  
 TYP N 02/03/14



**P871** PIPE - DRAIN CONNECTION  
 TYP R 07/30/18



**NOTES:**  
 1. WHEN NO LONGER NEEDED FOR FILLING OR TESTING REMOVE ALL STEEL PIPING INCLUDING STEEL BF AND REPLACE WITH DI BLIND FLANGE. INSTALL ABOVE GROUND PIPE MARKER TO MARK END OF PIPELINE. CONNECTION TO FUTURE PIPE WILL BE MADE BY OTHERS.  
 2. THE CONSTRUCTION MANAGER SHALL APPROVE THE LOCATION OF ALL ABOVE GROUND PIPING AND APPURTENANCES FOR BLOW OFFS PRIOR TO INSTALLATION

**P918** TEMPORARY BLOW OFF DETAIL  
 TYP J

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED JPM  
 DRAWN TLR  
 CHECKED  
 DATE OCTOBER 2019



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 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.10 12:28:09-0700



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT		VERIFY SCALES	JOB NO. 7568C.10
RECYCLED WATER DISTRIBUTION MAINS		BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. TP02
TYPICAL		0 1"	SHEET NO. 12 OF 66
PIPING TYPICAL DETAILS - 2		IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	



Plot Date: 9/20/2019 4:13:14 PM

FILE NAME: 7568C1000TS01.dwg

PROJECT NO. 7568C10

LAST SAVED BY: mmorris

- SEE DIVISION 03 SPECIFICATIONS FOR REQUIREMENTS FOR CONCRETE CONSTRUCTION.
- UNLESS OTHERWISE INDICATED ON THE DRAWINGS, MINIMUM REINFORCEMENT OF CONCRETE WALLS OR SLABS SHALL BE:
  - 10" THICK OR LESS: #5 @ 12" EACH WAY.
  - MORE THAN 10" THICK: #5 @ 12" EACH WAY, EACH FACE.
- WALL REINFORCEMENT AT CORNERS OR JUNCTIONS OF WALLS SHALL BE CONTINUOUS, LAP SPICED, OR TERMINATED IN AN ACI STANDARD 90 DEGREE HOOK. SEE DETAIL S144/TYP.
- UNLESS OTHERWISE INDICATED ON THE DRAWINGS, BARS SHALL BE DOWELED. DOWELS SHALL BE THE SAME SIZE AND SPACING AS THE REINFORCEMENT WHICH IS SPICED TO THE DOWELS.
- SLAB, BEAM AND COLUMN REINFORCING BARS SHALL HAVE A MINIMUM EXTENSION OR ANCHORAGE INTO SUPPORTS IN ACCORDANCE WITH ACI 318 AND ACI 350.
- STIRRUP SUPPORT BARS SHALL BE PROVIDED TO SECURE TOP BARS AGAINST DISPLACEMENT AS REQUIRED.
- UNLESS OTHERWISE INDICATED ON THE DRAWINGS, CONCRETE COVER OVER #11 AND SMALLER REINFORCING BARS SHALL BE AS FOLLOWS:
  - A. SLABS AND JOISTS:
    - FORMED CONCRETE SURFACES AND UNFORMED TOP SURFACES FOR DRY CONDITIONS
      - #7 BARS AND SMALLER: 1"
      - #8 BARS AND LARGER: 1 1/2"
    - FORMED CONCRETE SURFACES AND UNFORMED TOP SURFACES EXPOSED TO WEATHER, IN CONTACT WITH SOIL OR FLUIDS, OR LOCATED OVER FLUIDS: 2"
  - B. BEAMS AND COLUMNS:
    - FORMED CONCRETE SURFACES FOR DRY CONDITIONS:
      - STIRRUPS, SPIRALS, AND TIES: 1 1/2"
      - PRINCIPAL REINFORCEMENT: 2"
    - FORMED CONCRETE SURFACES EXPOSED TO WEATHER, IN CONTACT WITH SOIL OR FLUIDS, OR IN BEAMS LOCATED OVER FLUIDS:
      - STIRRUPS AND TIES: 2"
      - PRINCIPAL REINFORCEMENT: 2 1/2"
  - C. WALLS:
    - FORMED CONCRETE SURFACES FOR DRY CONDITIONS:
      - #7 BARS AND SMALLER: 1"
      - #8 BARS AND LARGER: 1 1/2"
    - FORMED CONCRETE SURFACES EXPOSED TO WEATHER, OR IN CONTACT WITH SOIL OR FLUIDS: 2"

**S101 REINFORCED CONCRETE NOTES**

TYP

- FOOTINGS AND SLABS ON GRADE:
  - FORMED VERTICAL CONCRETE SURFACES: 2"
  - AT UNFORMED CONCRETE SURFACES CAST AGAINST SOIL, ROCK, OR CONCRETE WORK MATS: 3"
  - TOP SURFACE OF FOOTINGS AND SLABS: SAME AS SLABS
- WATERSTOPS:
  - A. PROVIDE WATERSTOPS AT JOINTS IN SLABS AND WALLS OF LIQUID-CONTAINING STRUCTURES, AND PORTIONS OF STRUCTURES BELOW THE DESIGN GROUNDWATER LEVEL. MAKE WATERSTOPS CONTINUOUS THROUGH STRUCTURE, SPlicing WATERSTOPS IN SLABS WITH WATERSTOPS IN WALLS.
  - B. END WATERSTOPS 3' BELOW TOP OF WALLS. WHERE TOP OF WALL IS COVERED BY A SLAB WITHOUT WATERSTOPS, CONTINUE WATERSTOP TO WALL/SLAB JOINT. WHERE TOP OF WALL IS COVERED BY A SLAB WITH WATERSTOPS, MAKE WATERSTOPS CONTINUOUS, SPlicing WATERSTOPS IN WALLS WITH WATERSTOPS IN SLAB.
- CURE CONCRETE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. WHERE WATER CURING IS SPECIFIED, MEMBRANE CURING IS NOT ALLOWED.
  - A. THE CONTRACTOR IS WARNED THAT WATER CURING IS DIFFICULT AT TIMES DUE TO WIND AND DRY CONDITIONS. STUDY SPECIFICATION REQUIREMENTS AND FURNISH ADEQUATE SYSTEMS TO PROVIDE WATER CURING WHERE REQUIRED.
  - B. KEEP WATER CURED SURFACES VISIBLY MOIST AT ALL TIMES. FLOOD TOPS OF WALLS NOT LESS THEN 3 TIMES DAILY.
- DO NOT PLACE BACKFILL AGAINST WALLS UNTIL:
  - A. WALLS HAVE BEEN CAST TO FULL HEIGHT OF STRUCTURE AND CONCRETE HAS REACHED THE MINIMUM SPECIFIED COMPRESSIVE STRENGTH (f<sub>c</sub>).
  - B. CONNECTING SLABS AND BEAMS HAVE BEEN CAST AND CONCRETE IN THOSE ELEMENTS HAS REACHED THE MINIMUM SPECIFIED COMPRESSIVE STRENGTH (f<sub>c</sub>).
- LAP SPLICES:
  - A. SEE TABLE 1 OF THIS DETAIL FOR LAP SPlice LENGTHS.
  - B. WHEN MULTIPLE BARS ARE SPICED AT THE SAME SECTION, THE "CLEAR BAR SPACING" IS DEFINED AS THE MINIMUM CLEAR DISTANCE BETWEEN THE BARS OUTSIDE THE SPlice LENGTH MINUS ONE BAR DIAMETER.
  - C. UNLESS OTHERWISE INDICATED ON THE DRAWINGS, BARS AT A LAP SPlice SHALL BE IN CONTACT WITH EACH OTHER.
  - D. "TOP BARS" ARE HORIZONTAL REINFORCEMENT AT LOCATIONS WHERE MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
- FORM EXPOSED CONCRETE CORNERS AND EDGES WITH 3/4" CHAMFER UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

**S101 REINFORCED CONCRETE NOTES**

TYP

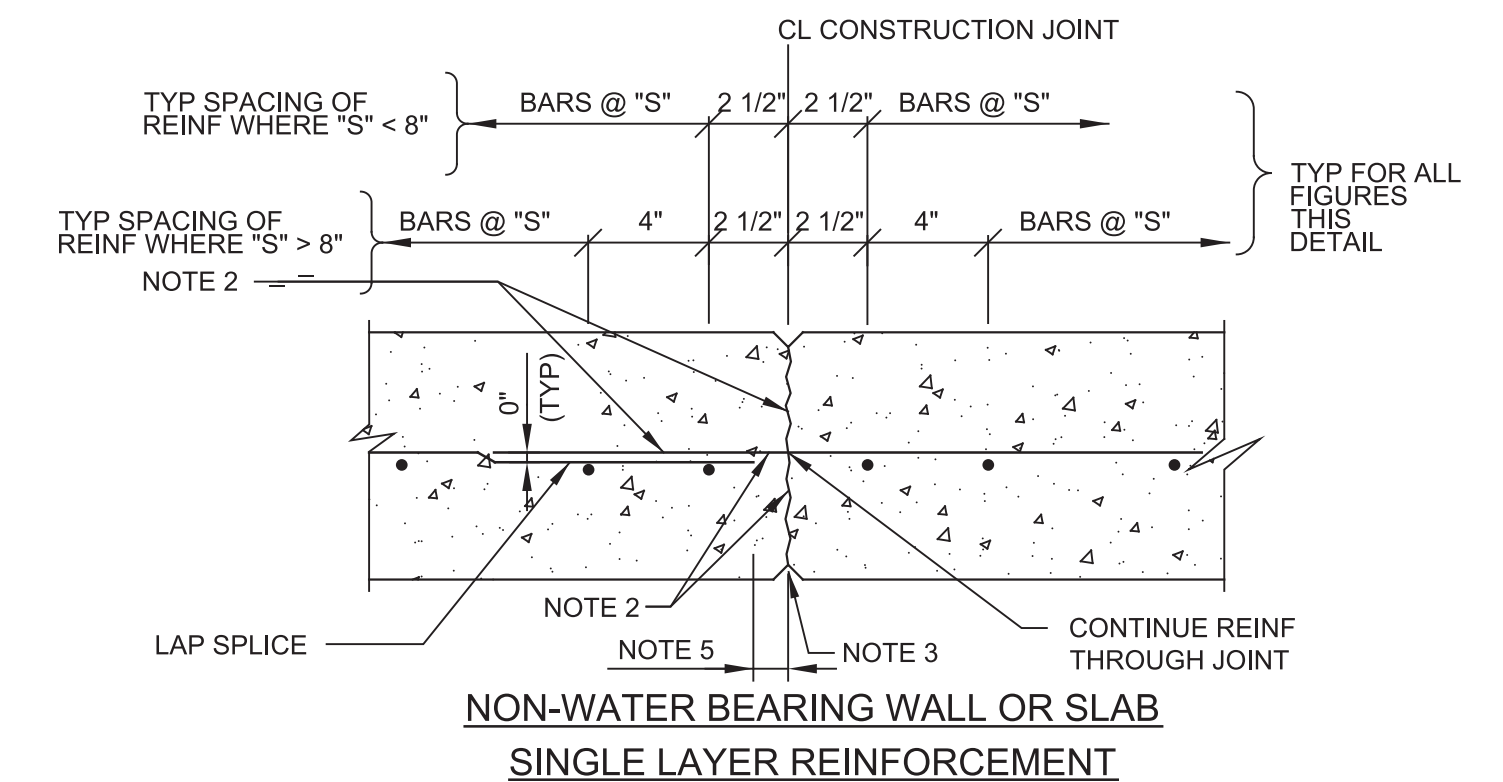
BAR SIZE	MINIMUM COVER (BAR DIA)	MINIMUM CLEAR BAR SPACING (BAR DIA)	LAP SPlice LENGTH (INCHES)	
			TOP BARS	OTHER BARS
#4	MORE THAN 1	MORE THAN 2	32 *	25 *
	MORE THAN 2	MORE THAN 4	20	16
#5	MORE THAN 1	MORE THAN 2	40 *	31 *
	MORE THAN 2	MORE THAN 4	26	20
#6	MORE THAN 1	MORE THAN 2	48 *	37 *
	MORE THAN 2	MORE THAN 4	30	24
#7	MORE THAN 1	MORE THAN 2	70 *	54 *
	MORE THAN 2	MORE THAN 4	43	33
#8	MORE THAN 1	MORE THAN 2	81 *	62 *
	MORE THAN 2	MORE THAN 4	50	38
#9	MORE THAN 1	MORE THAN 2	90 *	70 *
	MORE THAN 2	MORE THAN 4	56	42
#10	MORE THAN 1	MORE THAN 2	104 *	81 *
	MORE THAN 2	MORE THAN 4	62	48
#11	MORE THAN 1	MORE THAN 2	114 *	88 *
	MORE THAN 2	MORE THAN 4	69	54

**REINFORCING BAR LAP SPlice TABLE NOTES:**

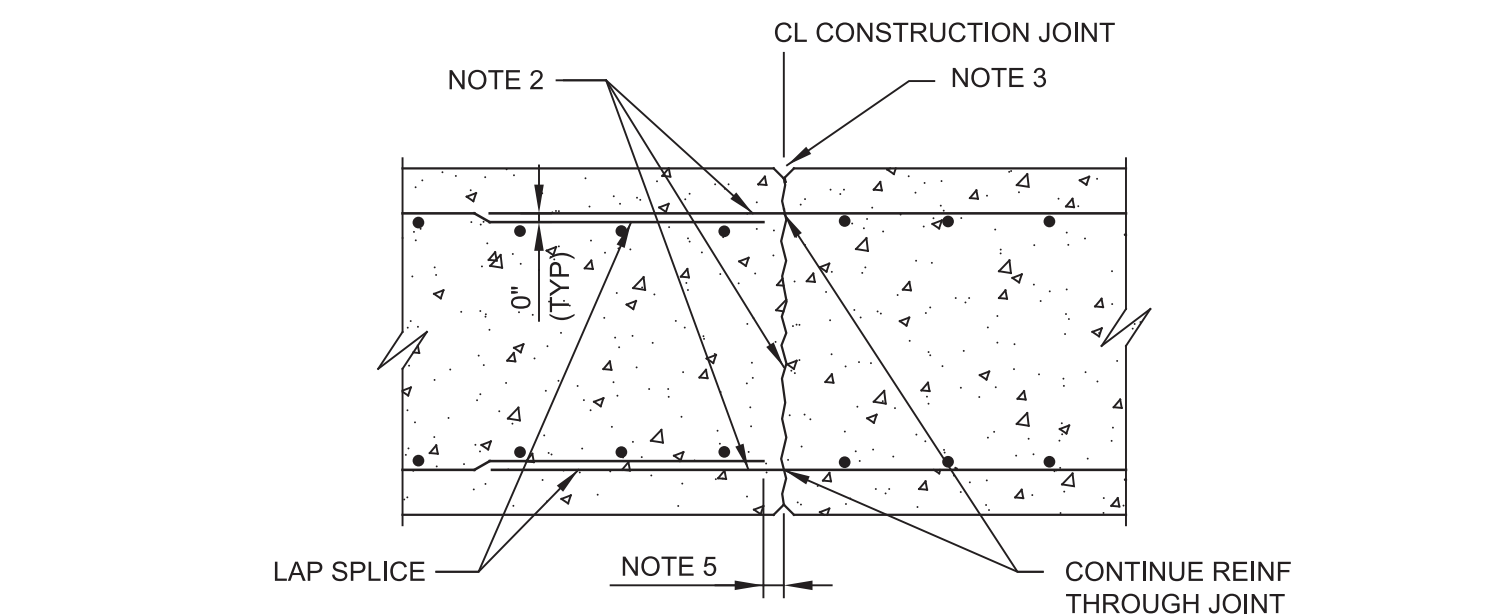
- TABULATED SPlice LENGTHS ARE APPLICABLE ONLY WHEN BOTH REQUIREMENTS FOR MINIMUM COVER AND FOR MINIMUM CLEAR BAR SPACING ARE SATISFIED.
- \* = IF THE CLEAR BAR SPACING IS LESS THAN OR EQUAL TO TWO BAR DIAMETERS, OR THE COVER IS LESS THAN OR EQUAL TO ONE BAR DIAMETER, THE LAP SPlice LENGTH SHALL BE INCREASED BY 50 PERCENT.

**S101 REINFORCED CONCRETE NOTES**

TYP



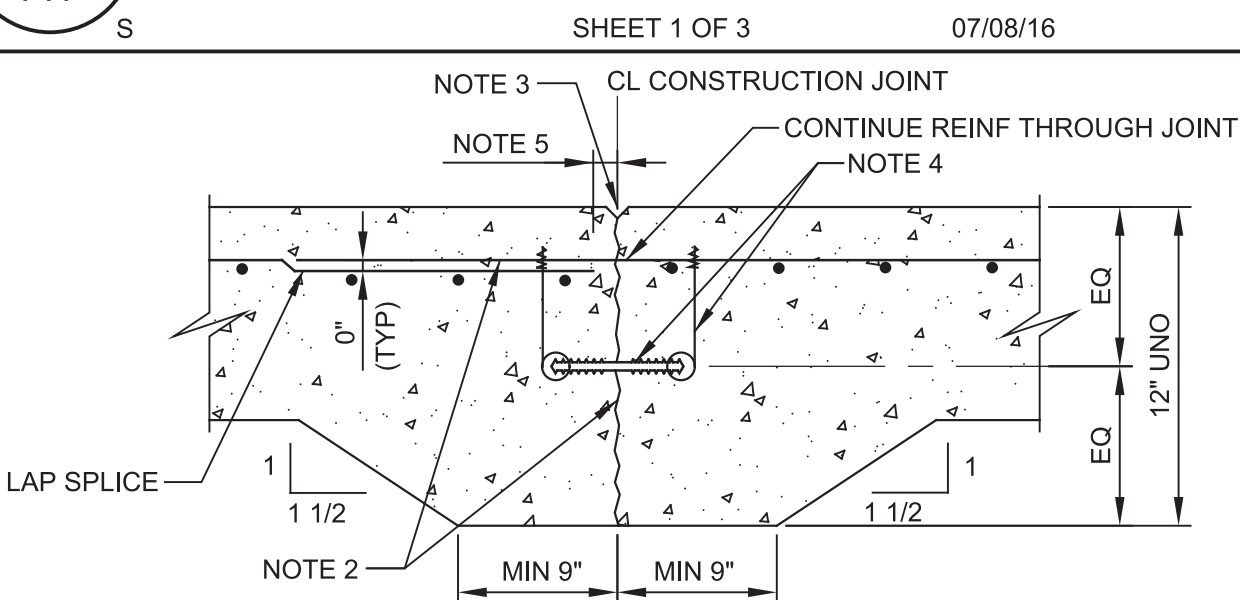
**NON-WATER BEARING WALL OR SLAB SINGLE LAYER REINFORCEMENT**



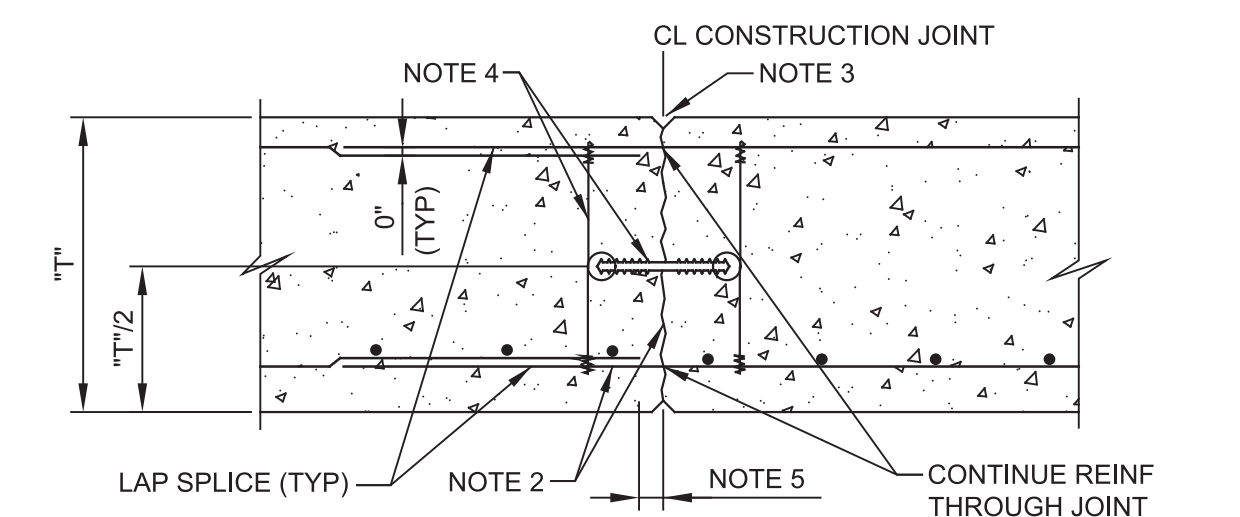
**NON-WATER BEARING WALL OR SLAB DOUBLE LAYER REINFORCEMENT**

**S110 CONSTRUCTION JOINT**

TYP



**WATER BEARING SLAB LESS THAN 12" THICK**

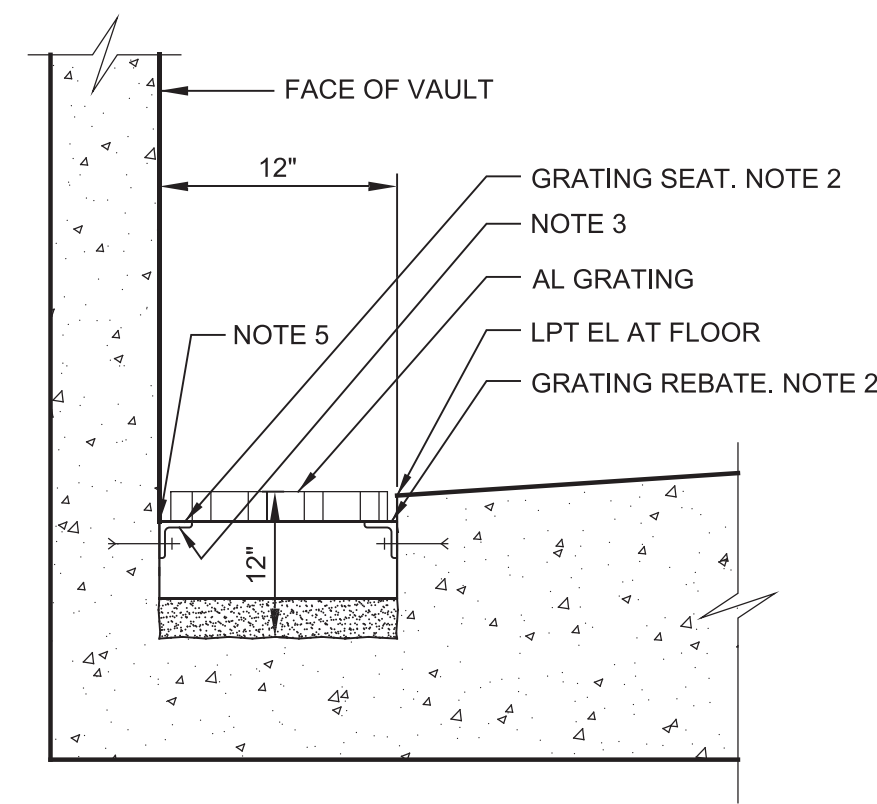


**WATER BEARING SLAB OR WALL**

- NOTES:**
- "S" EQUALS TYPICAL BAR SPACING INDICATED ON THE DRAWINGS. "T" EQUALS SLAB OR WALL THICKNESS.
  - WATER-BLAST EXPOSED JOINT FACE AND PROJECTING REINFORCEMENT BEFORE PLACING CONCRETE.
  - JOINT EDGES:
    - A. FOR WALLS AND BOTTOM OF EXPOSED SLABS: FORM EDGES WITH 1/2" CHAMFER.
    - B. FOR SLABS: EDGE TOP AND ENDS WITH 1/4" RADIUS.
  - 6" WATERSTOP CENTERED ON JOINT - SEE DETAIL S106/TYP. PROVIDE WIRE TIES MAX 2'-0" OC. HOG RINGS MAY BE USED IN LIEU OF WIRE LOOPS. THOROUGHLY CLEAN WATERSTOP BEFORE PLACING CONCRETE IN SECOND POUR.
  - STOP REINFORCING 2" CLEAR OF JOINT.

**S110 CONSTRUCTION JOINT**

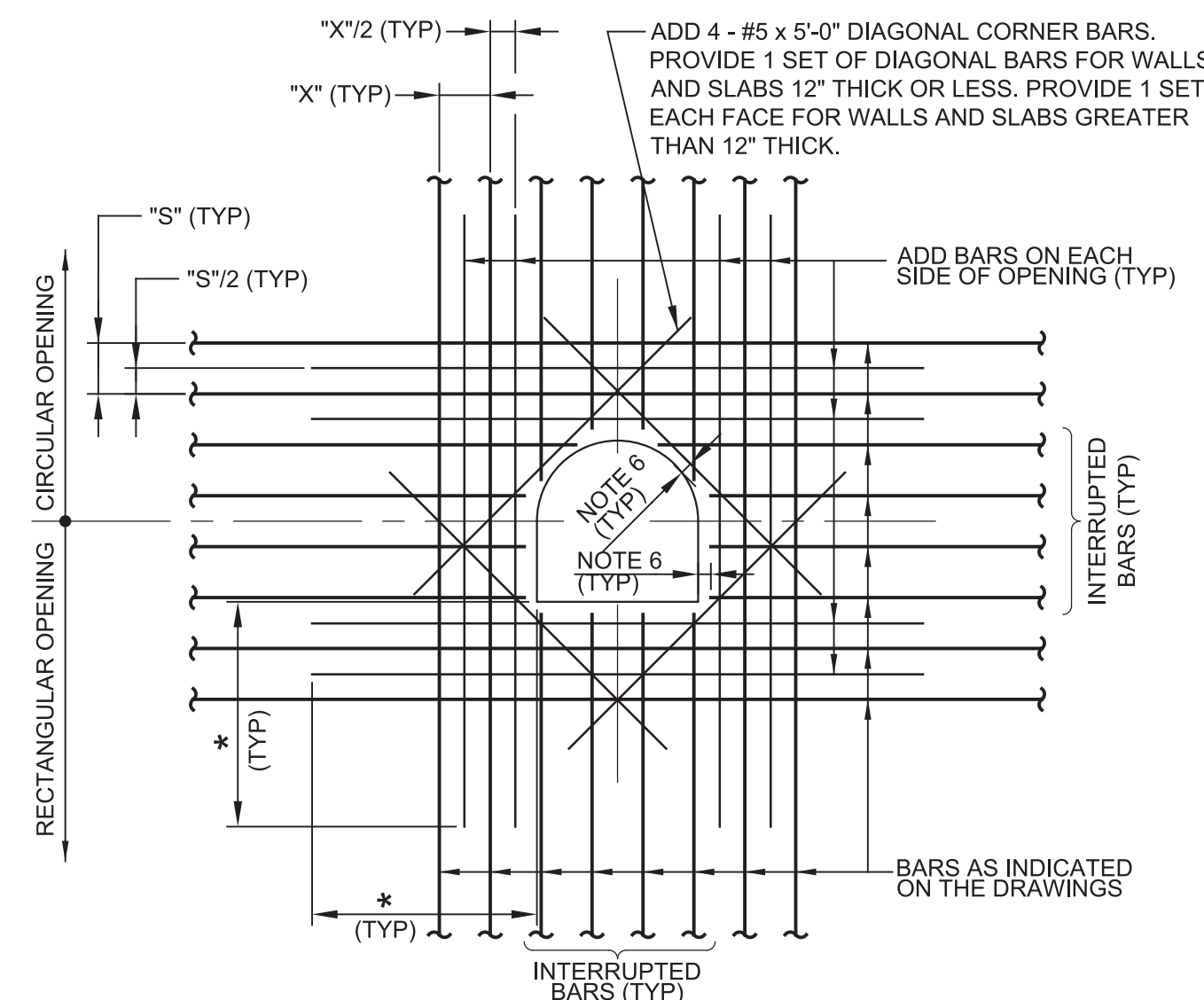
TYP



- NOTES:**
- SEE DRAWINGS FOR TRENCH WIDTH ("W") AND DEPTH ("D").
  - ALUMINUM GRATING SUPPORTS: SEE DETAIL A400/TYP.
  - PROVIDE 1/4" DIAMETER DRAIN HOLES 12" OC AT TRENCH FACE OF VERTICAL LEG OF SEAT.

**S153 DRAINAGE TRENCH AT WALL**

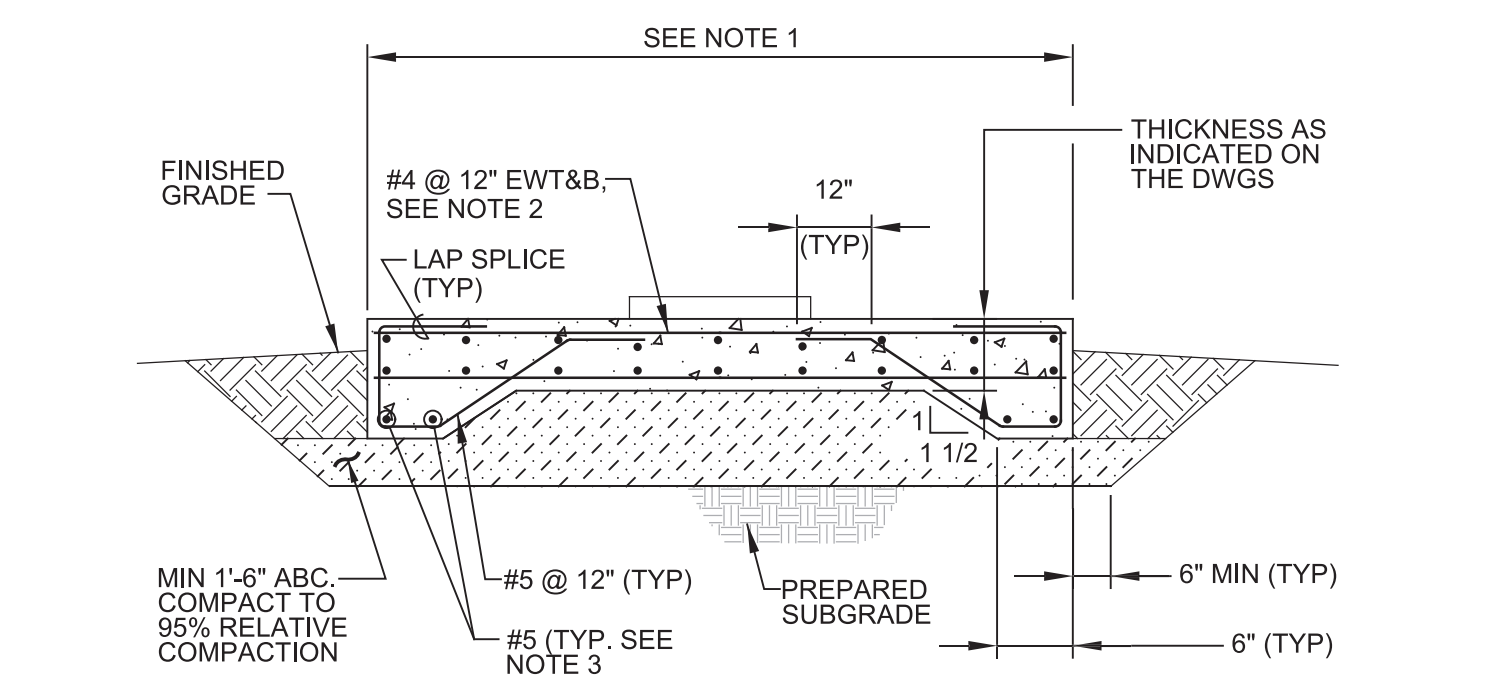
TYP



- NOTES:**
- AREA OF ADD BARS AT EACH EDGE OF OPENING IN EACH DIRECTION SHALL BE EQUAL TO OR GREATER THAN 1/2 THE CROSS SECTIONAL AREA OF THE INTERRUPTED BARS.
  - PROVIDE STANDARD ACI HOOKS ON BARS IF STRAIGHT EXTENSION PAST THE OPENING, CANNOT BE ACHIEVED.
  - PLACE ADD BARS IN SAME PLANES AS INTERRUPTED REINFORCING.
  - PLACE #5 DIAGONAL BARS ON INSIDE OF INTERRUPTED REINFORCING.
  - \* DIMENSION EQUALS OPENING DIMENSION MEASURED PERPENDICULAR TO ADD BARS PLUS LAP SPlice LENGTH.
  - 2" CLEAR TO CONCRETE OPENINGS OR OUTSIDE FACE OF PIPES AND PIPE SLEEVES. DO NOT OVERCUT REINFORCEMENT FOR EASIER PLACEMENT OF WEEP RINGS AND FLANGES.
  - ADD BARS ARE NOT REQUIRED AT SIDES OF OPENINGS PARALLEL TO AND WITHIN 6" OF A WALL OR BEAM.

**S180 ADDITIONAL REINFORCING AT OPENINGS IN CONCRETE SLABS OR WALLS**

TYP



- NOTE:**
- DIMENSIONS AS INDICATED ON THE DRAWINGS.
  - IF SLAB THICKNESS IS 6" T&B BARS NOT REQUIRED. CENTER SINGLE SET OF EW BARS IN SLAB.
  - IF FOOTING IS 6" WIDE, SINGLE SET OF #5 BARS REQUIRED.

**S300 EQUIPMENT SLAB**

TYP

**BID DOCUMENTS**

DESIGNED JCT  
DRAWN JBB  
CHECKED  
DATE OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineering, Inc.  
Date: 2019.10.10 13:26:09 -0700



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
TYPICALS  
STRUCTURAL TYPICAL DETAILS

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. TS01  
SHEET NO. 13 OF 66

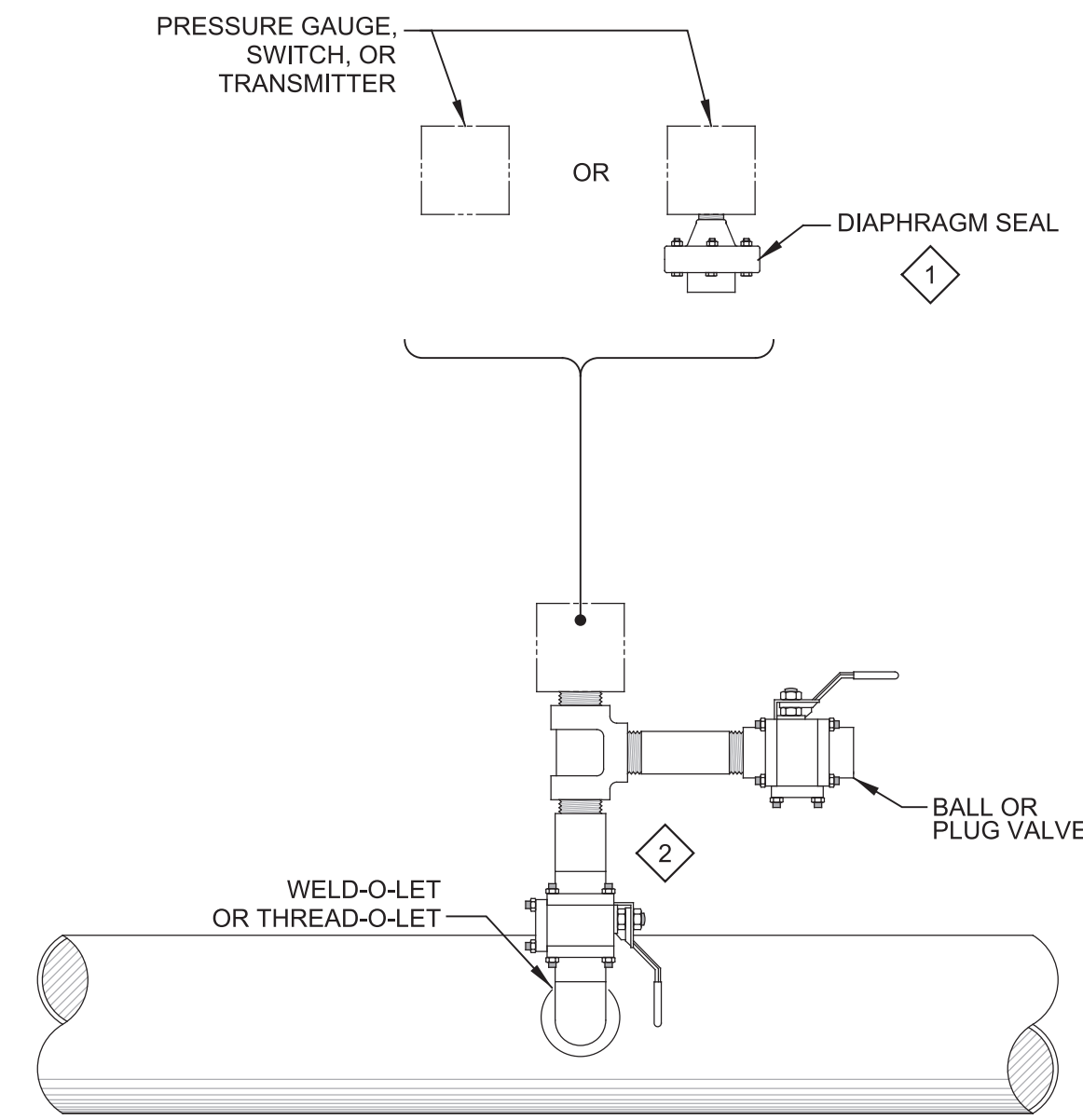


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FILE NAME: 7568C1000TN01.dwg

PROJECT NO. 7568C10

LAST SAVED BY: mmorris



NOTES:

- 1 USE THE INSTRUMENT DATA SHEETS IN DIVISION 17 OR DIVISIONS 40 SPECS TO IDENTIFY INDIVIDUAL REQUIREMENTS FOR DIAPHRAGM SEALS.
- 2 ALL VALVE AND PIPE MATERIAL SHALL BE COMPATIBLE WITH PROCESS FLUID.

**NP502** PRESSURE INSTRUMENT MOUNTING DETAIL  
TYP

07/15/08

BID DOCUMENTS

DESIGNED	JCT
DRAWN	SDW
CHECKED	
DATE	OCTOBER 2019



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 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.10 12:28:29 -0700

*Jonathan P. Marsella*



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 TYPICAL  
 INSTRUMENTATION TYPICAL DETAILS

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
 DRAWING NO. TN01  
 SHEET NO. 14 OF 66

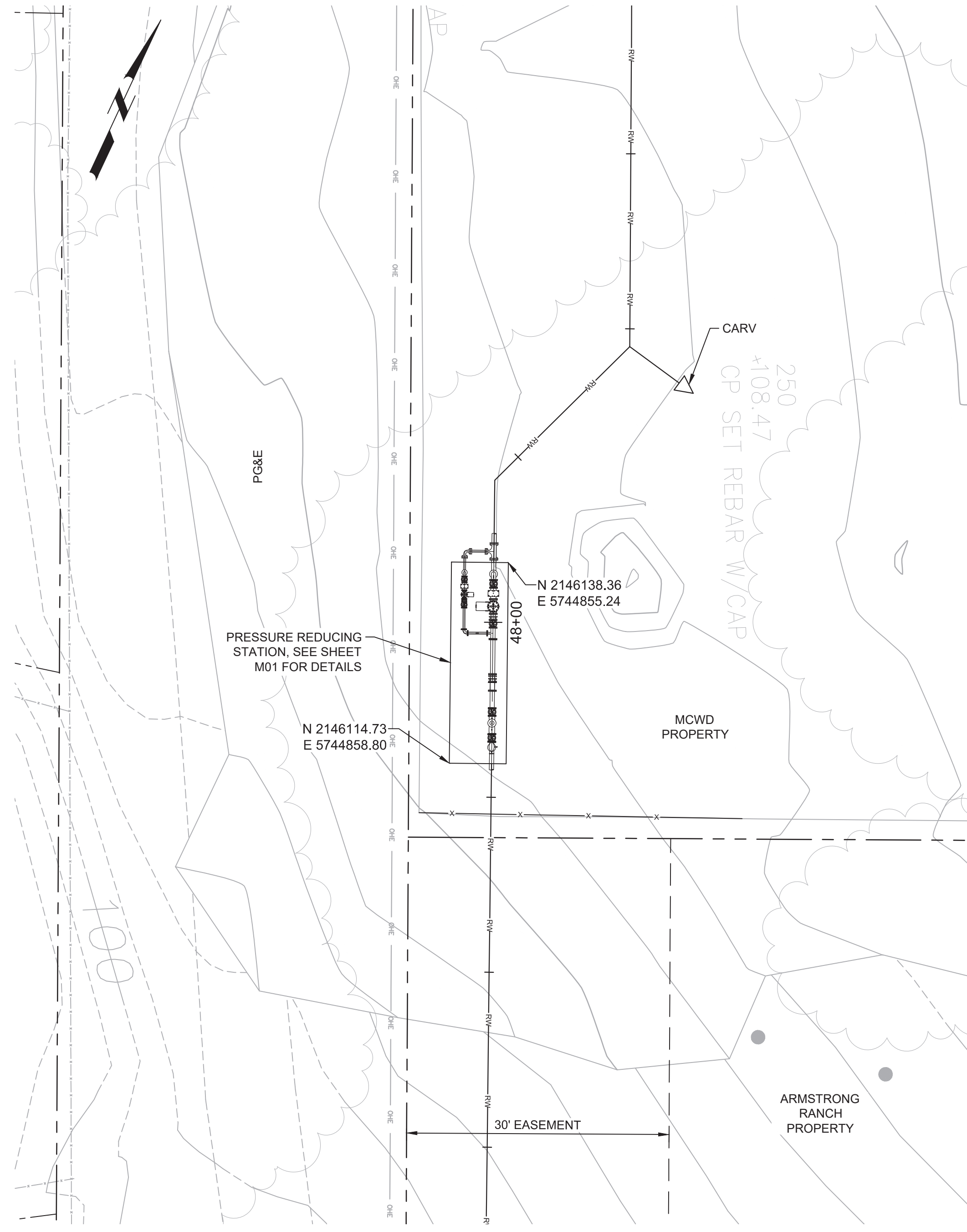


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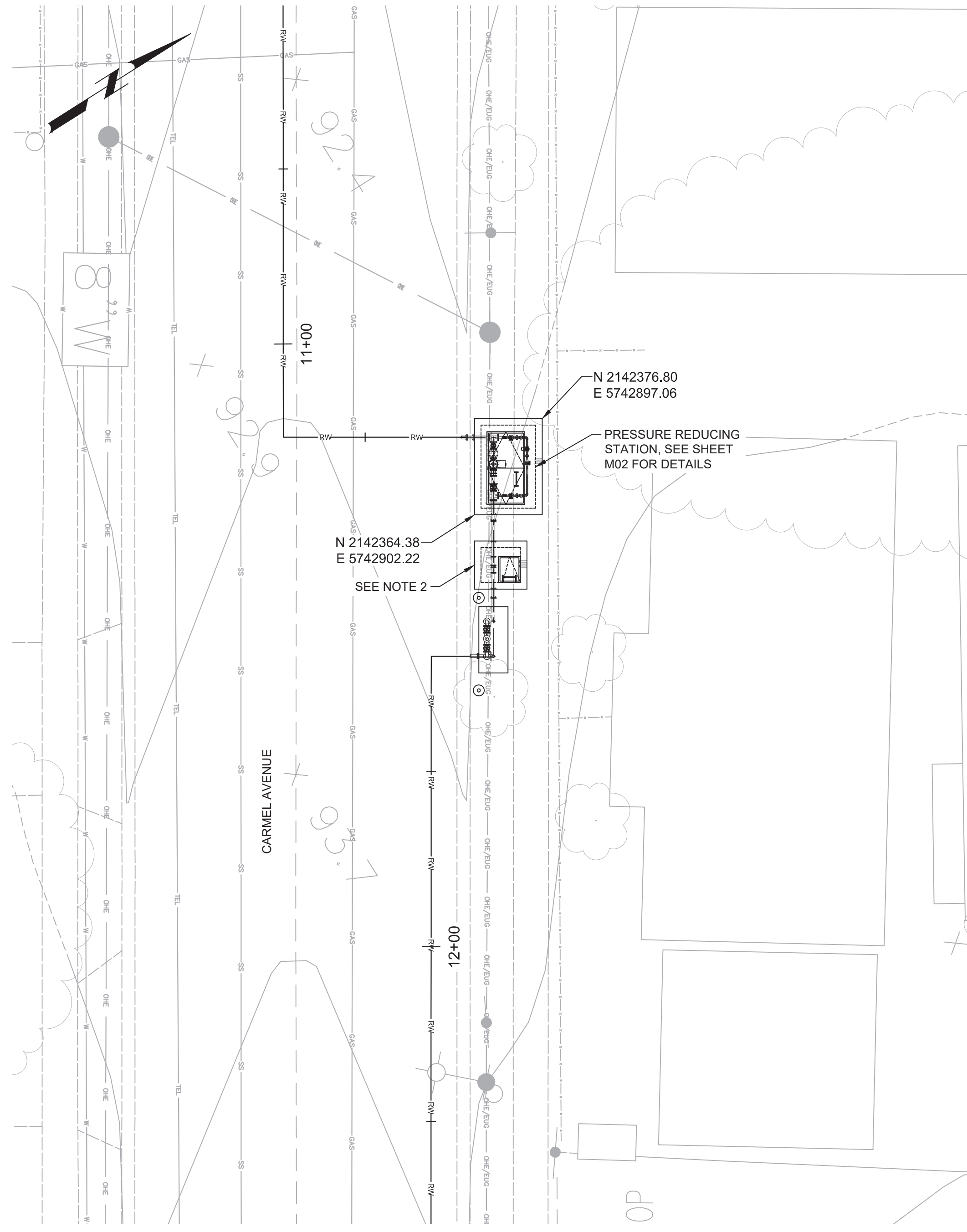
FILE NAME: 7568C10CD01.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bbraves



**A** PRESSURE REDUCING VAULT (BEACH ROAD)  
 P04 SCALE: 1"=10'  
 FILE: 7568C10C105

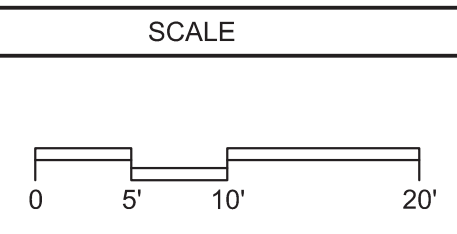
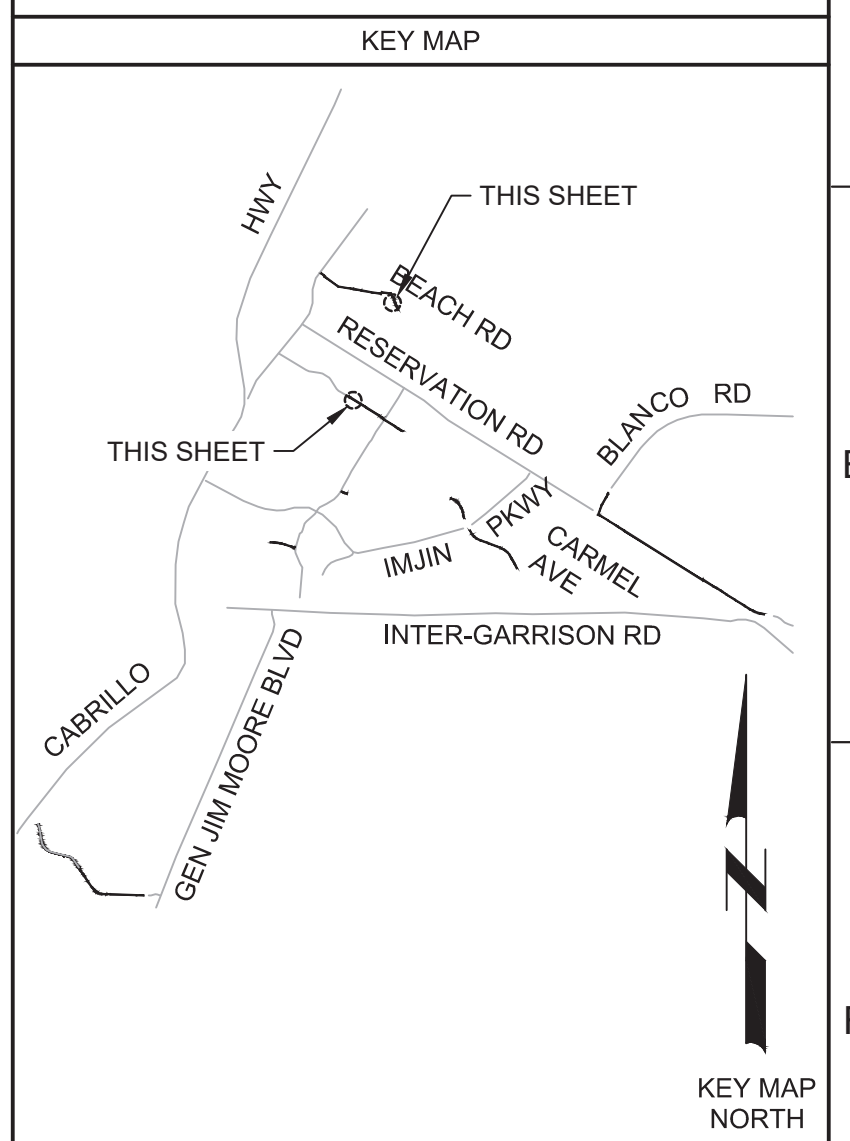


**B** PRESSURE REDUCING VAULT (CARMEL AVENUE)  
 P05 SCALE: 1"=10'  
 FILE: 7568C10C105

- GENERAL NOTES:**
1. FIELD SURVEY AND MARK CORNERS OF ALL VAULTS / CONCRETE PADS. CONFIRM WITH OWNER AND ENGINEER IN THE FIELD THE FINAL LOCATION OF THE STATIONS PRIOR TO INSTALLING STATIONS OR ADJACENT FACILITIES.
  2. FIELD ADJUST VAULT LOCATION SO OUTSIDE OF VAULT WALL IS ADJACENT TO BACK OF CURB. REPLACE CURB NO LESS THAN 5 FEET BEYOND EDGE OF PRESSURE REDUCING VAULT AND BACKFLOW PREVENTER PAD. LOCATE BOLLARDS BEHIND BACK OF CURB.



Know what's below.  
 Call before you dig.



REV	DATE	BY	DESCRIPTION
1			
2			
3			

**BID DOCUMENTS**

DESIGNED  
JPM/KMM

DRAWN  
BWH

CHECKED

DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineers, Inc.  
 Date: 2019.10.10 12:22:50-0700

*Jonathan P. Marshall*



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL

YARD PIPING PLANS - 1

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING

0 1" 10'

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10

DRAWING NO.  
**CD01**

SHEET NO.  
15 OF 66



Plot Date: 10/9/2019 5:47:35 PM

FILE NAME: 7568C10CD02.dwg

PROJECT NO. 7568C10

LAST SAVED BY: DAbbott

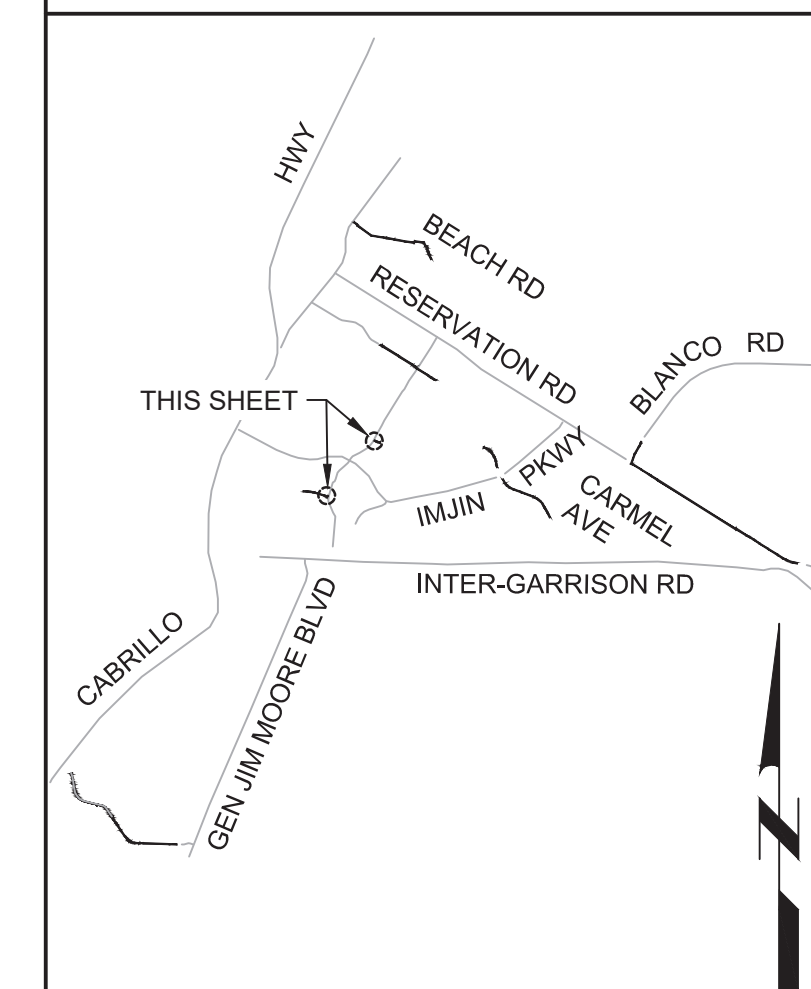
GENERAL NOTES:

1. FIELD SURVEY AND MARK CORNERS OF ALL VAULTS / CONCRETE PADS. CONFIRM WITH OWNER AND ENGINEER IN THE FIELD THE FINAL LOCATION OF THE STATIONS PRIOR TO INSTALLING STATIONS OR ADJACENT FACILITIES.



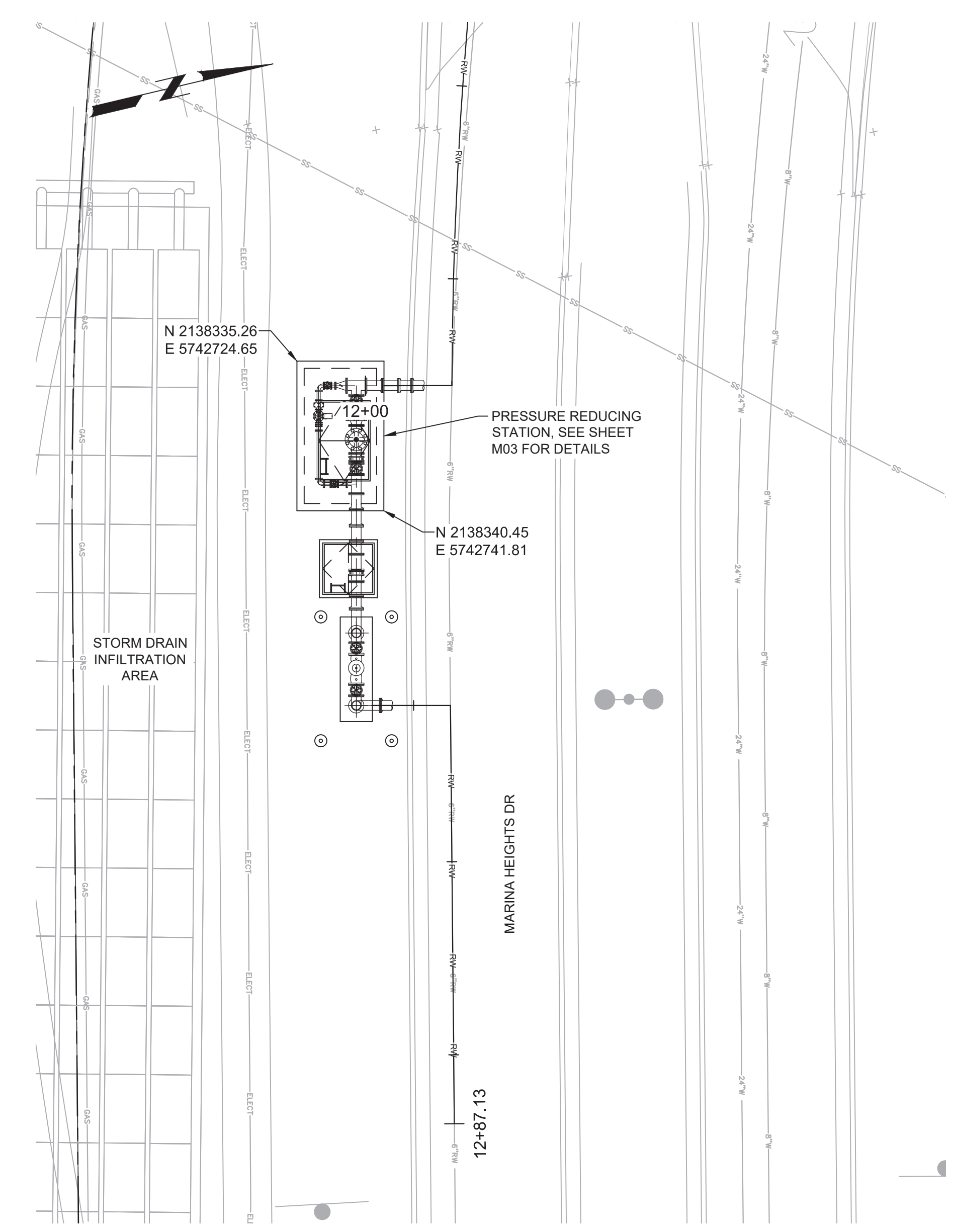
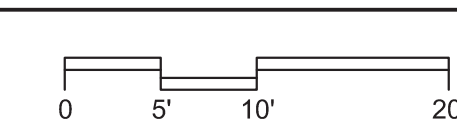
Know what's below. Call before you dig.

KEY MAP

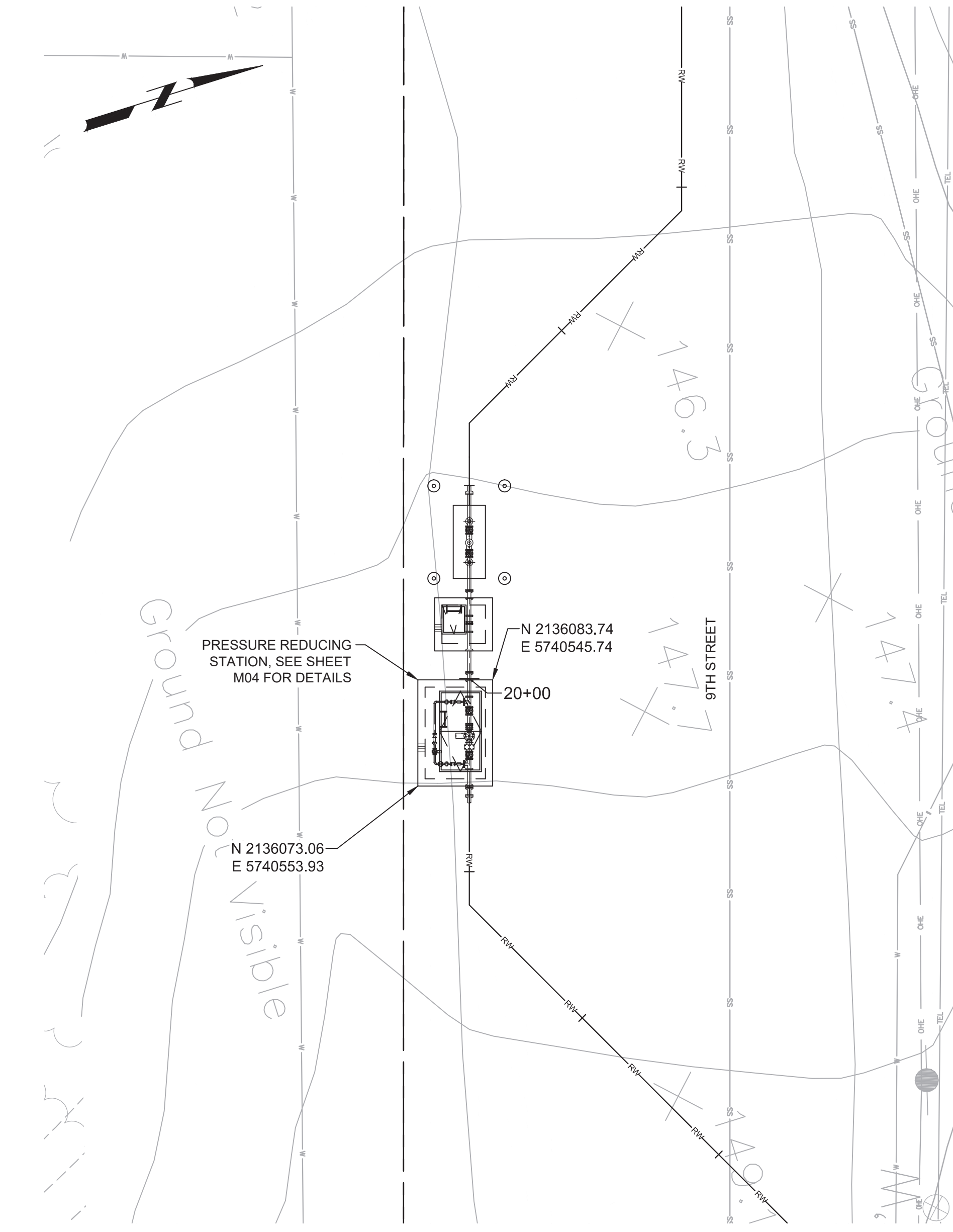


KEY MAP NORTH

SCALE



**A** PRESSURE REDUCING STATION (MARINA HEIGHTS DR)  
 P08 SCALE: 1"=10'  
 FILE: 7568C10C105



**B** PRESSURE REDUCING STATION (9TH STREET)  
 P05 SCALE: 1"=10'  
 FILE: 7568C10C105

BID DOCUMENTS

DESIGNED  
JPM/KMM  
 DRAWN  
BWH  
 CHECKED  
 DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.16 12:28:04 -0700



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL

YARD PIPING PLANS - 2

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1" 20'  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10  
 DRAWING NO.  
CD02  
 SHEET NO.  
16 OF 66

REV	DATE	BY	DESCRIPTION
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Plot Date: 10/8/2019 4:01:55 PM

FILE NAME: 7568C10CD03.dwg

PROJECT NO. 7568C10

LAST SAVED BY: DAbbott

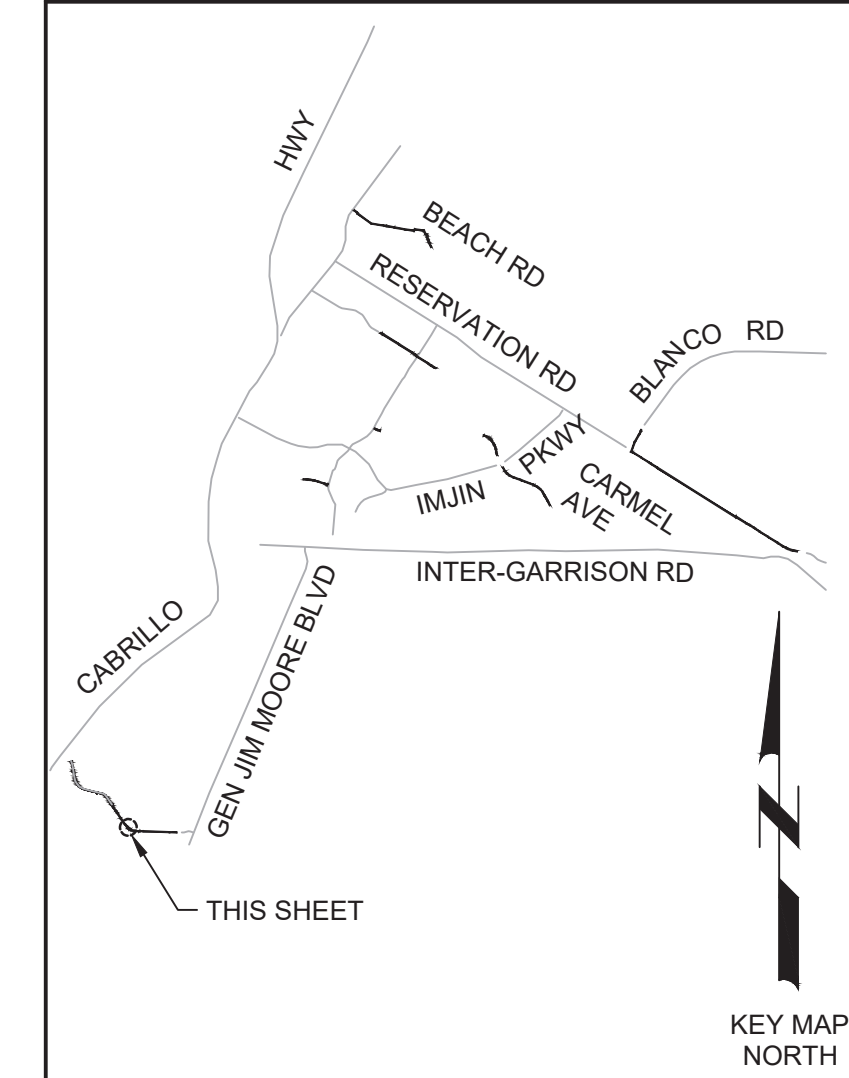
**GENERAL NOTES:**

1. FIELD SURVEY AND MARK CORNERS OF ALL VAULTS / CONCRETE PADS. CONFIRM WITH OWNER AND ENGINEER IN THE FIELD THE FINAL LOCATION OF THE STATIONS PRIOR TO INSTALLING STATIONS OR ADJACENT FACILITIES.

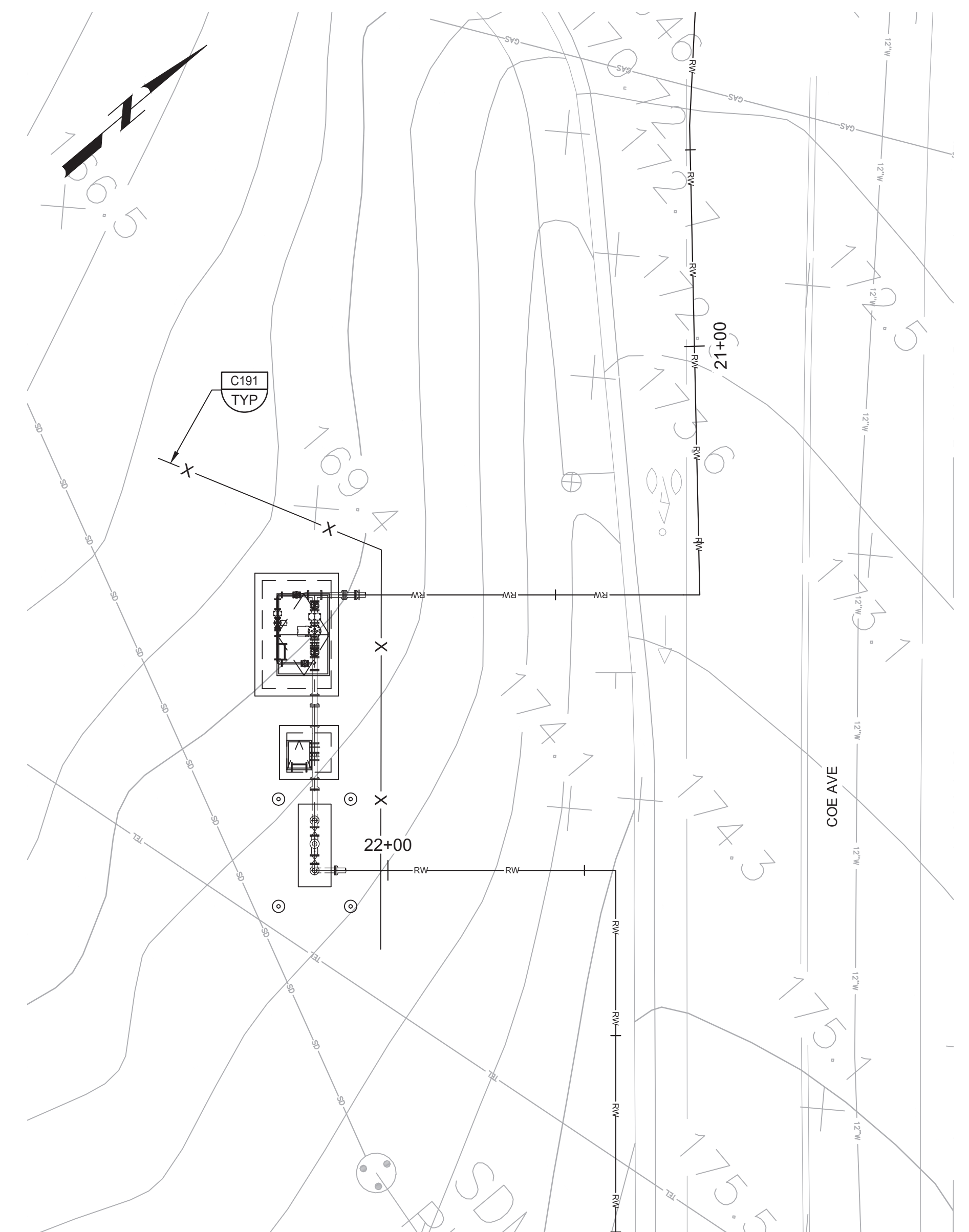
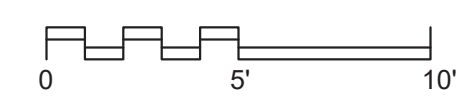


Know what's below.  
Call before you dig.

KEY MAP



SCALE



**A** PRESSURE REDUCING STATION (COE AVE)  
P08  
SCALE: 1"=10'  
FILE: 7568C10C105

REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED  
JPM/KMM  
DRAWN  
BWH  
CHECKED  
  
DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineers, Inc.  
Date: 2019.10.10 12:34:09 -0700  
*Jonathan P. Marshall*



Marina  
Coast  
Water  
District

REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
CIVIL  
YARD PIPING PLANS - 3

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1" 10'  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10  
DRAWING NO.  
**CD03**  
SHEET NO.  
17 OF 66

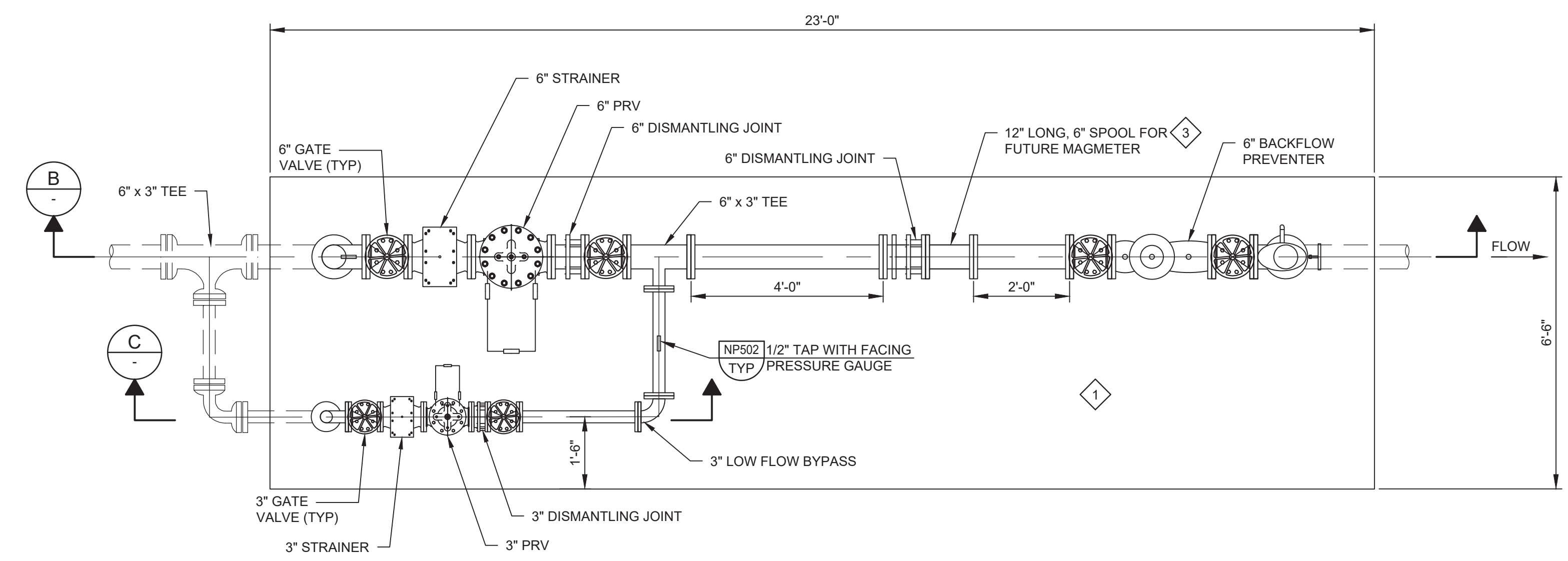
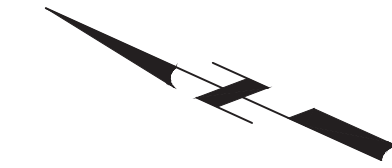


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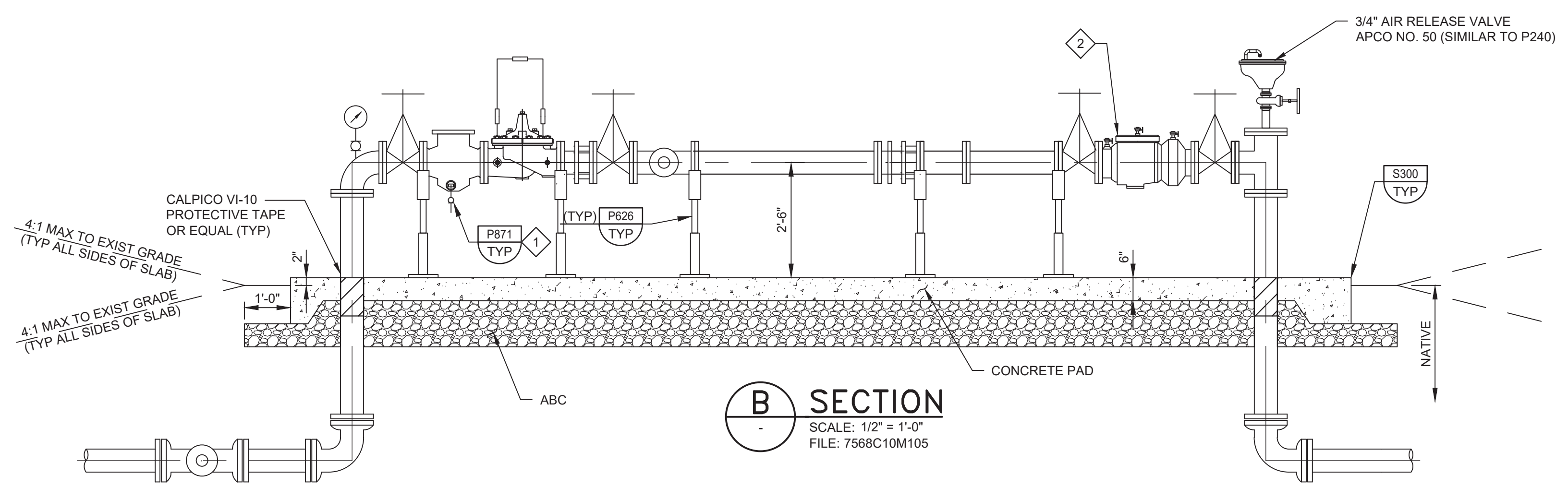
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PROJECT NO. 7568C10

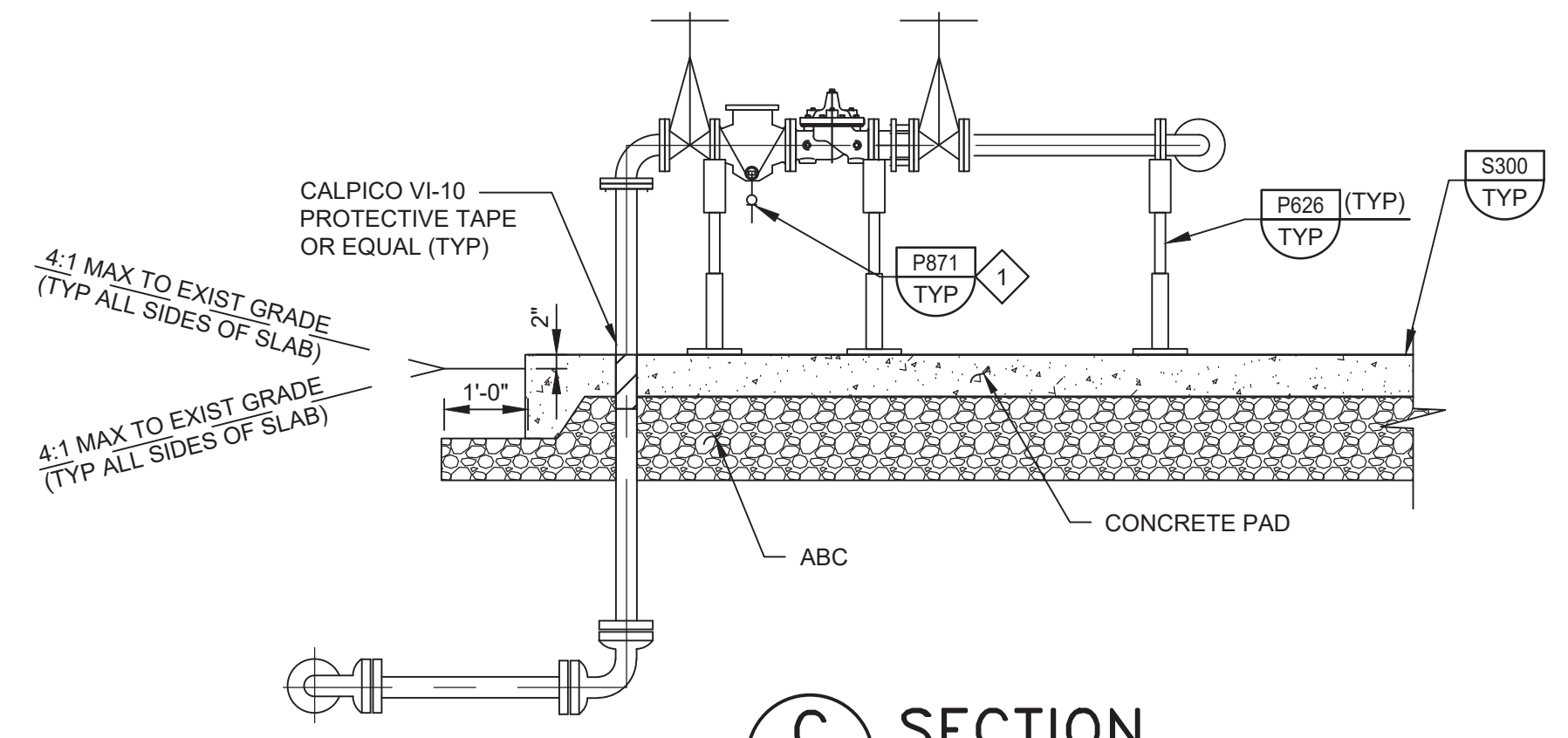
LAST SAVED BY: bhwaves



**A TOP PLAN**  
 CD01 SCALE: 1/2" = 1'-0"  
 FILE: 7568C10M105



**B SECTION**  
 SCALE: 1/2" = 1'-0"  
 FILE: 7568C10M105



**C SECTION**  
 SCALE: 1/2" = 1'-0"  
 FILE: 7568C10M105

- GENERAL NOTES:**
- CONTRACTOR SHALL CONFIRM PIPE LAYOUT AND DIMENSIONS PRIOR TO PREPARING PAD. CONTRACTOR IS RESPONSIBLE FOR ENSURING ADEQUATE SPACE IS AVAILABLE FOR PIPING AND APPURTENANCES.
  - WHERE CONSTRUCTION JOINTS ARE REQUIRED, INSTALL PER S110/TYP (NON-WATER BEARING).
- KEY NOTES:**
- SLOPE PAD 0.5% TO DRAIN.
  - 6" DOUBLE CHECK VALVE BACKFLOW PREVENTER, WILKINS 350. HANDWHEELS SHALL BE CHAINED AND LOCKED. USE GALVANIZED CHAIN, STRAIGHT LINK.
  - AFTER PRESSURE TESTING AND DISINFECTION, REMOVE SPOOL AND INSTALL TWO BLIND FLANGES. PROVIDE SPOOL TO MCWD. SPOOL TO BE RE-INSTALLED BY MCWD ONCE CUSTOMERS ARE READY FOR RECYCLED WATER SERVICE.

**BID DOCUMENTS**

DESIGNED  
KM  
 DRAWN  
DA  
 CHECKED  
 DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.10 12:28:49 -0700



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 MECHANICAL  
 BEACH RD PRESSURE REDUCING STATION

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
 DRAWING NO. M01  
 SHEET NO. 18 OF 66

REV	DATE	BY	DESCRIPTION
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3			

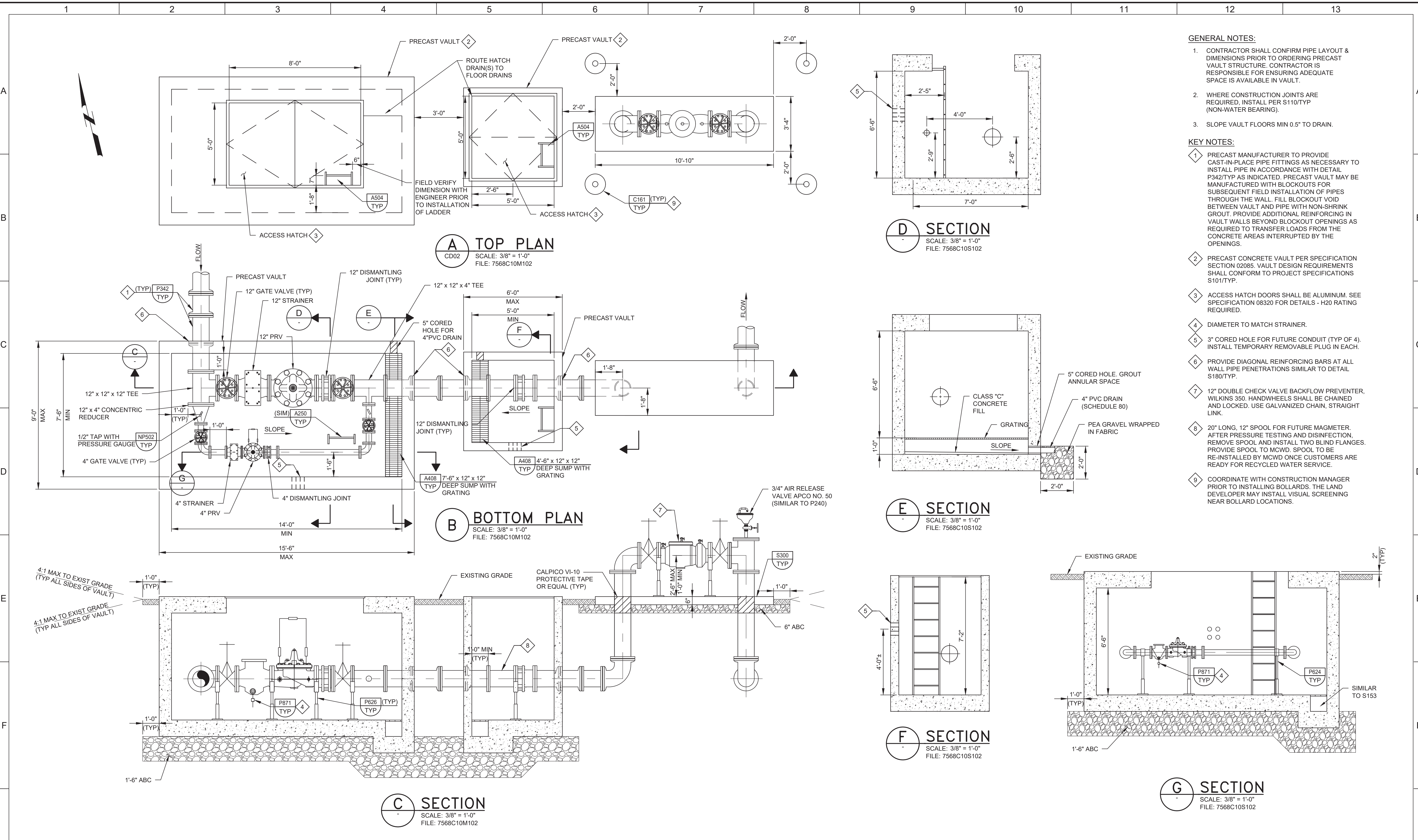


Plot Date: 10/7/2019 11:32:36 AM

FILE NAME: 7568C10M03.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



**GENERAL NOTES:**

- CONTRACTOR SHALL CONFIRM PIPE LAYOUT & DIMENSIONS PRIOR TO ORDERING PRECAST VAULT STRUCTURE. CONTRACTOR IS RESPONSIBLE FOR ENSURING ADEQUATE SPACE IS AVAILABLE IN VAULT.
- WHERE CONSTRUCTION JOINTS ARE REQUIRED, INSTALL PER S110/TYP (NON-WATER BEARING).
- SLOPE VAULT FLOORS MIN 0.5" TO DRAIN.

**KEY NOTES:**

- PRECAST MANUFACTURER TO PROVIDE CAST-IN-PLACE PIPE FITTINGS AS NECESSARY TO INSTALL PIPE IN ACCORDANCE WITH DETAIL P342/TYP AS INDICATED. PRECAST VAULT MAY BE MANUFACTURED WITH BLOCKOUTS FOR SUBSEQUENT FIELD INSTALLATION OF PIPES THROUGH THE WALL. FILL BLOCKOUT VOID BETWEEN VAULT AND PIPE WITH NON-SHRINK GROUT. PROVIDE ADDITIONAL REINFORCING IN VAULT WALLS BEYOND BLOCKOUT OPENINGS AS REQUIRED TO TRANSFER LOADS FROM THE CONCRETE AREAS INTERRUPTED BY THE OPENINGS.
- PRECAST CONCRETE VAULT PER SPECIFICATION SECTION 02085. VAULT DESIGN REQUIREMENTS SHALL CONFORM TO PROJECT SPECIFICATIONS S101/TYP.
- ACCESS HATCH DOORS SHALL BE ALUMINUM. SEE SPECIFICATION 08320 FOR DETAILS - H20 RATING REQUIRED.
- DIAMETER TO MATCH STRAINER.
- 3" CORED HOLE FOR FUTURE CONDUIT (TYP OF 4). INSTALL TEMPORARY REMOVABLE PLUG IN EACH.
- PROVIDE DIAGONAL REINFORCING BARS AT ALL WALL PIPE PENETRATIONS SIMILAR TO DETAIL S180/TYP.
- 12" DOUBLE CHECK VALVE BACKFLOW PREVENTER, WILKINS 350. HANDWHEELS SHALL BE CHAINED AND LOCKED. USE GALVANIZED CHAIN, STRAIGHT LINK.
- 20" LONG, 12" SPOOL FOR FUTURE MAGMETER. AFTER PRESSURE TESTING AND DISINFECTION, REMOVE SPOOL AND INSTALL TWO BLIND FLANGES. PROVIDE SPOOL TO MCWD. SPOOL TO BE RE-INSTALLED BY MCWD ONCE CUSTOMERS ARE READY FOR RECYCLED WATER SERVICE.
- COORDINATE WITH CONSTRUCTION MANAGER PRIOR TO INSTALLING BOLLARDS. THE LAND DEVELOPER MAY INSTALL VISUAL SCREENING NEAR BOLLARD LOCATIONS.

**BID DOCUMENTS**

DESIGNED	KM
DRAWN	DA
CHECKED	
DATE	OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact Info: Carollo Engineering, Inc.  
Date: 2019.10.10 11:32:36 -0700



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 MECHANICAL  
 MARINA HEIGHTS DR  
 PRESSURE REDUCING STATION

VERIFY SCALES	JOB NO. 7568C.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. M03
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 20 OF 66

REV	DATE	BY	DESCRIPTION	1	2	3	4	5	6	7	8	9	10	11	12	13
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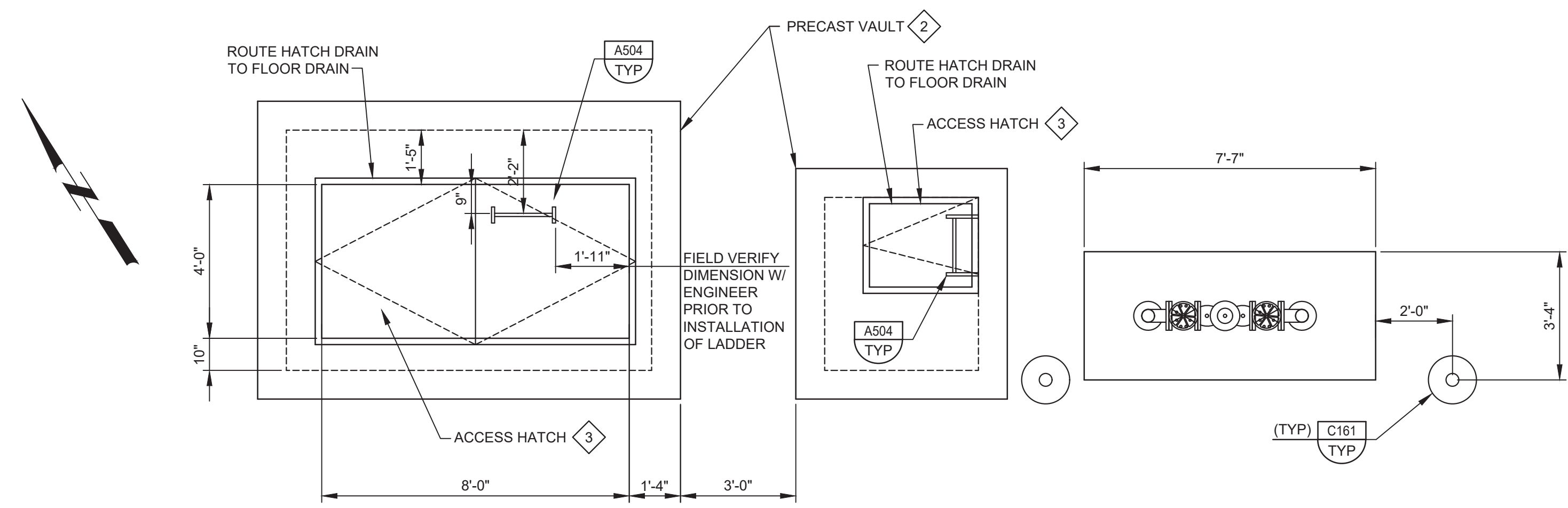


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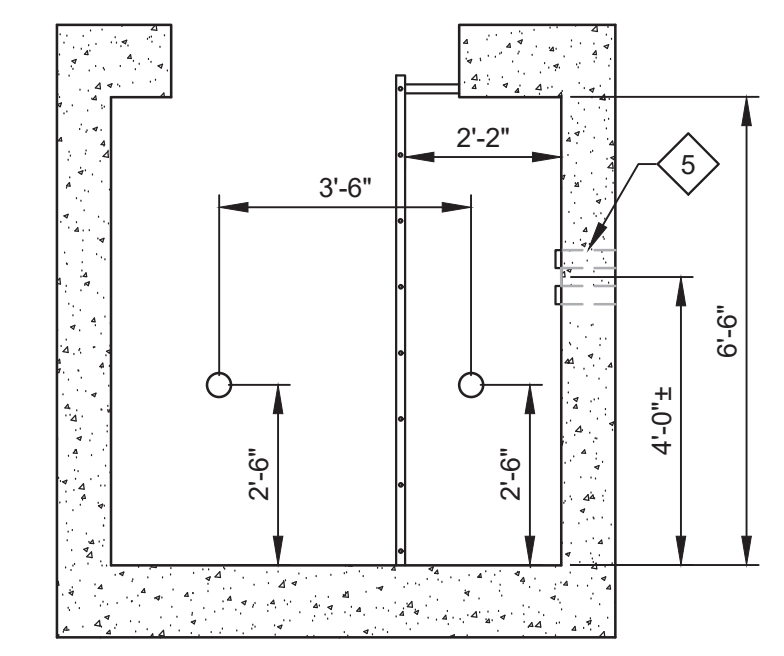
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PROJECT NO. 7568C10

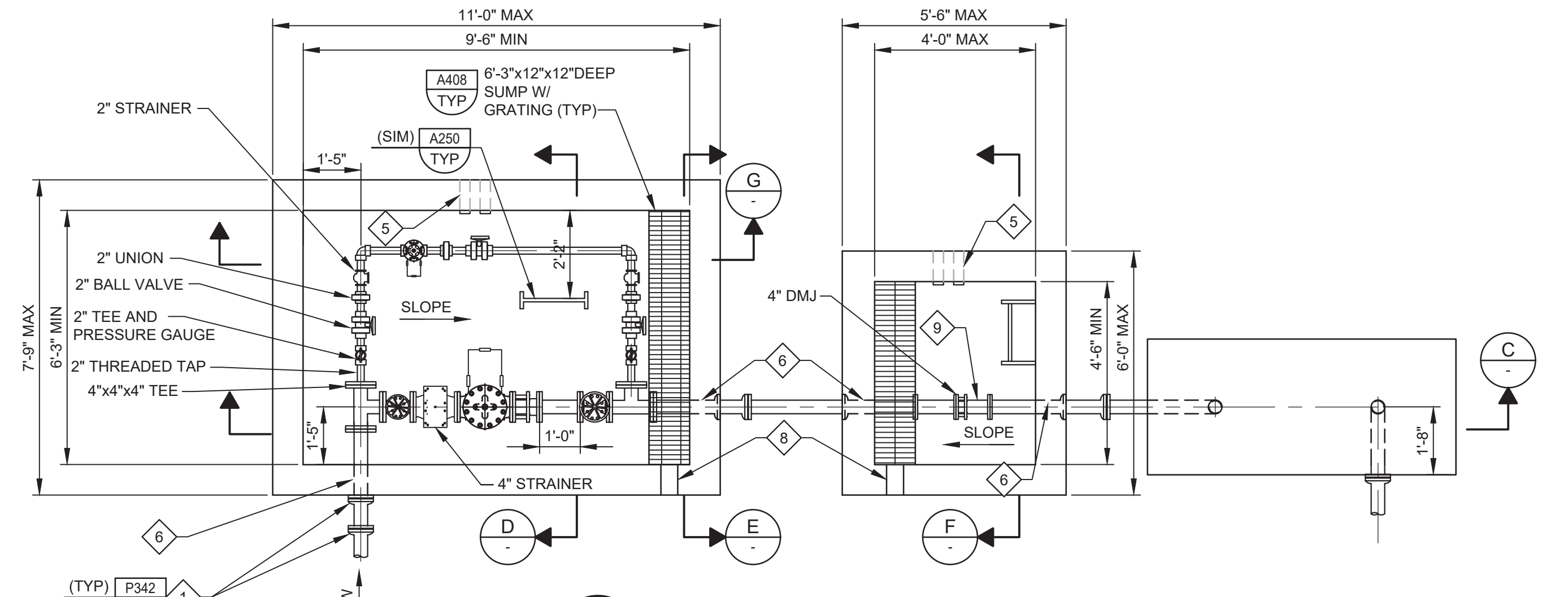
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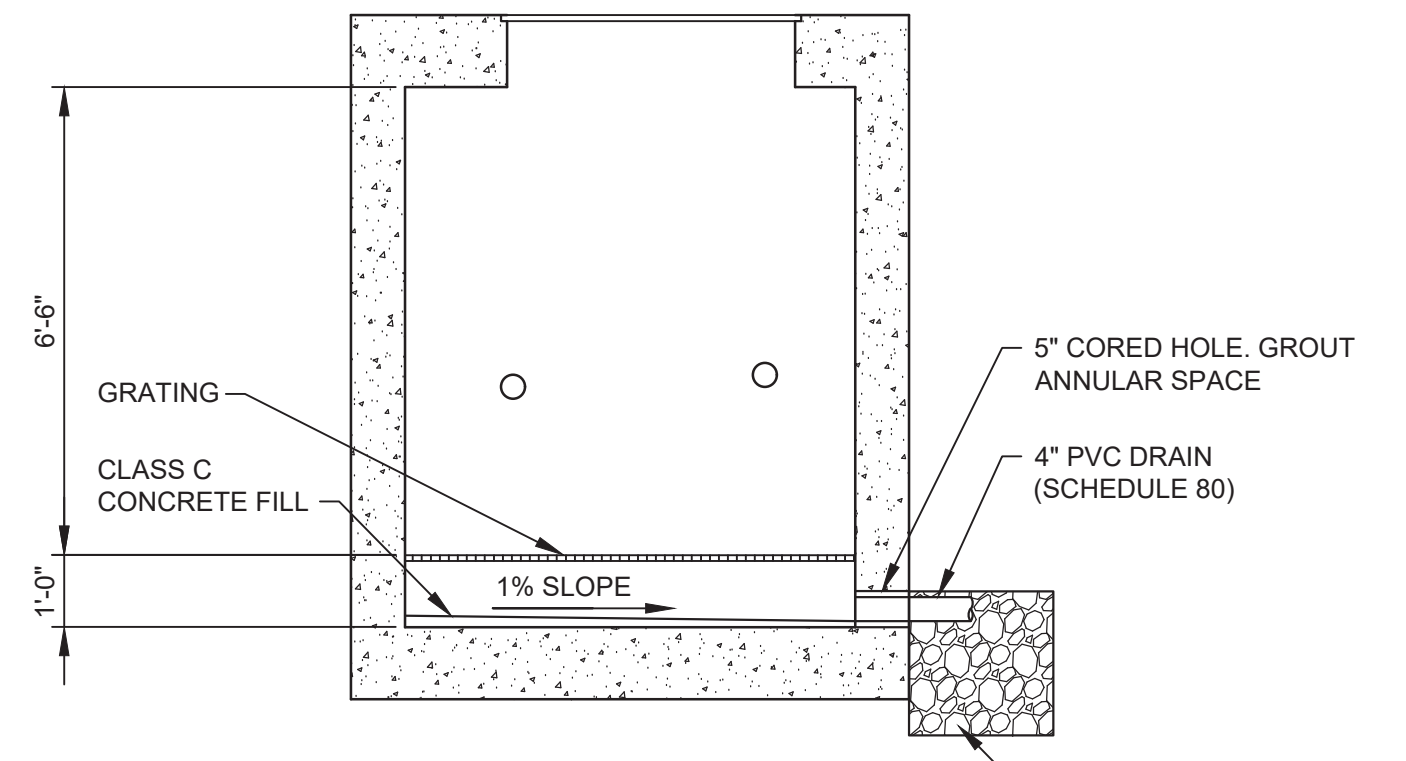
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 CD01 SCALE: 3/8" = 1'-0"  
 FILE: 7568C10M106



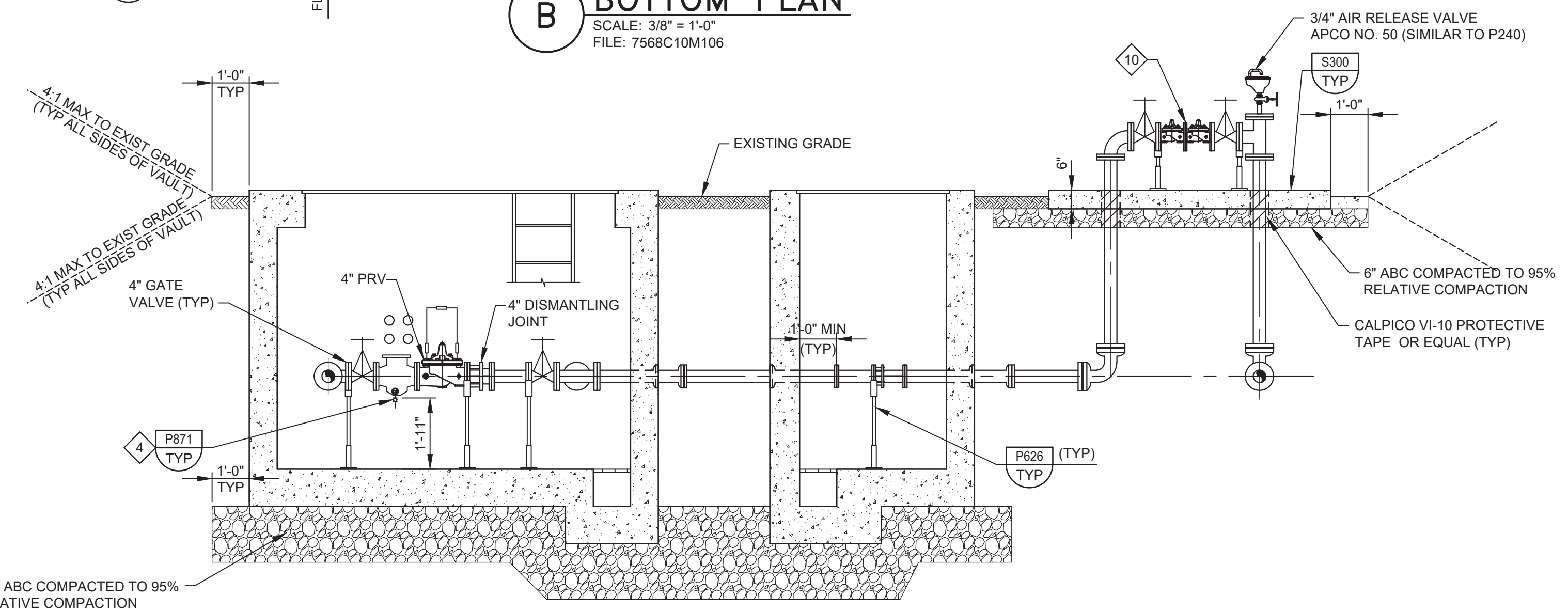
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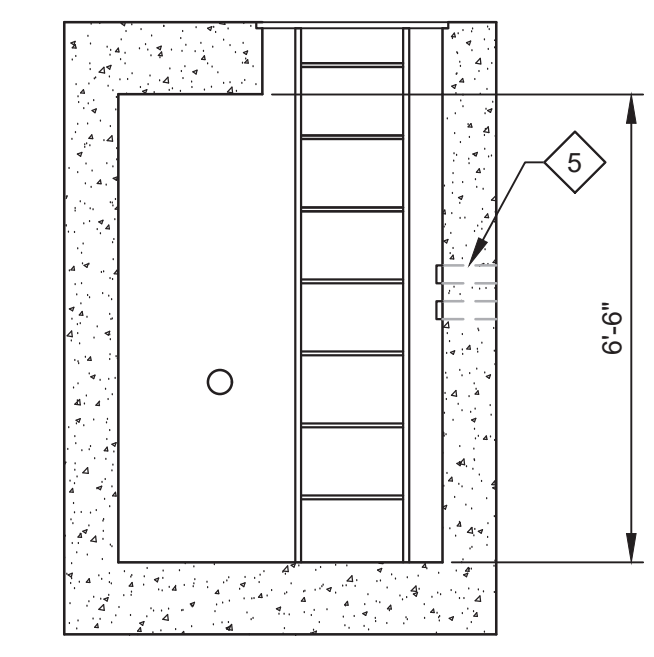
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 FILE: 7568C10M106



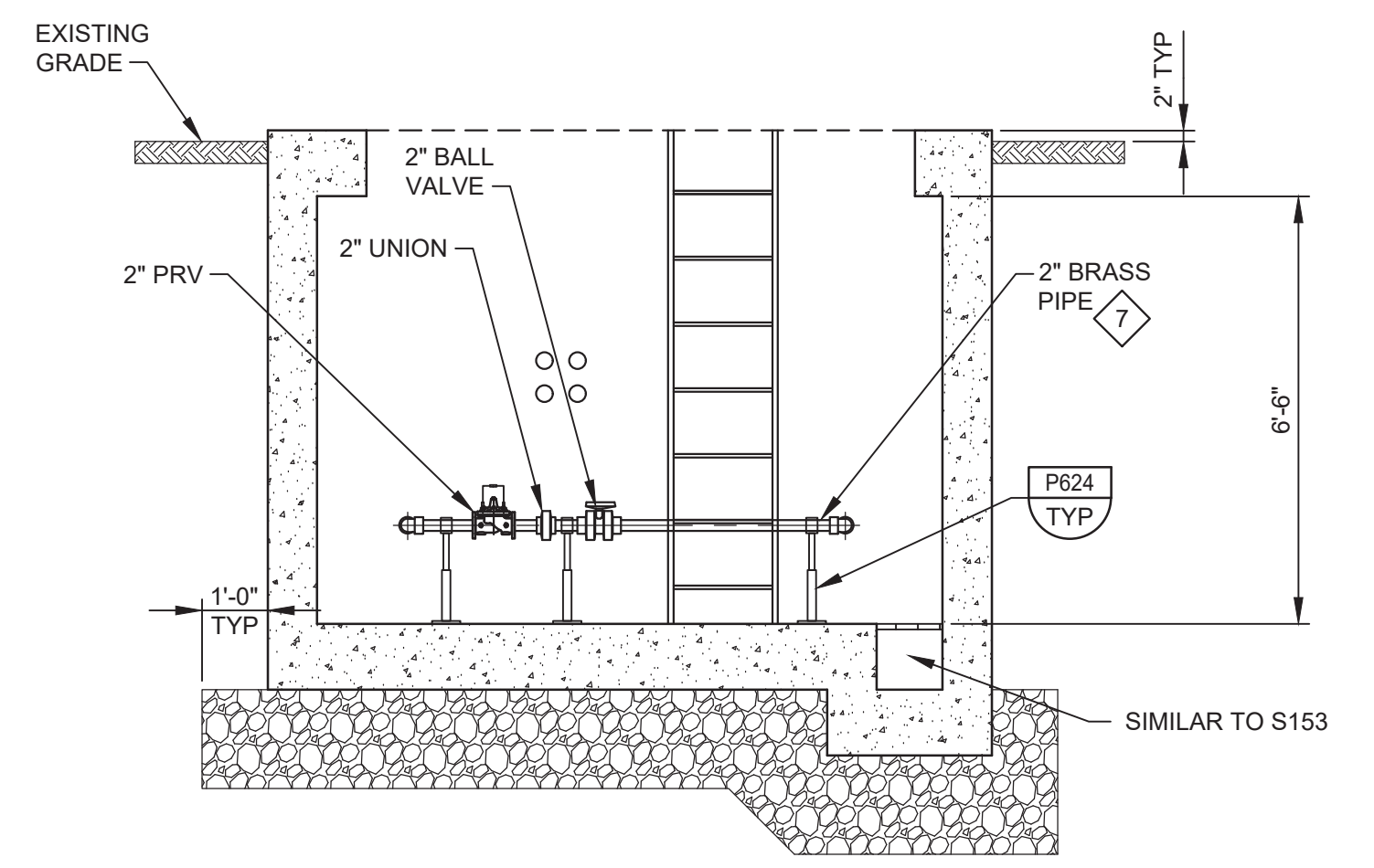
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 SCALE: 3/8" = 1'-0"  
 FILE: 7568C10M106



**C SECTION**  
 SCALE: 3/8" = 1'-0"  
 FILE: 7568C10M106



**F SECTION**  
 SCALE: 3/8" = 1'-0"  
 FILE: 7568C10M106



**G SECTION**  
 SCALE: 3/8" = 1'-0"  
 FILE: 7568C10M106

**GENERAL NOTES:**

- CONTRACTOR SHALL CONFIRM PIPE LAYOUT & DIMENSIONS PRIOR ORDERING PRECAST VAULT STRUCTURE. CONTRACTOR IS RESPONSIBLE FOR ENSURING ADEQUATE SPACE IS AVAILABLE IN VAULT.
- WHERE CONSTRUCTION JOINTS ARE REQUIRED, INSTALL PER S110/TYP (NON-WATER BEARING).
- SLOPE VAULT FLOORS MIN 0.5" TO DRAIN.

**KEY NOTES:**

- PRECAST MANUFACTURER TO PROVIDE CAST-IN-PLACE PIPE FITTINGS AS NECESSARY TO INSTALL PIPE IN ACCORDANCE WITH DETAIL P342/TYP AS INDICATED. PRECAST VAULT MAY BE MANUFACTURED WITH BLOCKOUTS FOR SUBSEQUENT FIELD INSTALLATION OF PIPES THROUGH THE WALL. FILL BLOCK OUT VOID BETWEEN VAULT AND PIPE WITH NON-SHRINK GROUT. PROVIDE ADDITIONAL REINFORCING IN VAULT WALLS BEYOND BLOCK OUT OPENINGS AS REQUIRED TO TRANSFER LOADS FROM THE CONCRETE AREAS INTERRUPTED BY THE OPENINGS.
- PRECAST CONCRETE VAULT PER SPECIFICATION SECTION 02085. VAULT DESIGN REQUIREMENTS SHALL CONFORM TO PROJECT SPECIFICATIONS AND S101/TYP.
- ACCESS HATCH DOORS SHALL BE ALUMINUM. SEE SPECIFICATION 08320 FOR DETAILS - H20 RATING REQUIRED.
- DIAMETER TO MATCH STRAINER.
- 3" CORED HOLE FOR FUTURE CONDUIT (TYP OF 4). INSTALL TEMPORARY REMOVABLE PLUG IN EACH.
- PROVIDE DIAGONAL REINFORCING BARS AT WALL PIPE PENETRATIONS SIMILAR TO DETAIL S180/TYP.
- BRASS PIPE AND APPURTENANCES SHALL BE SEAMLESS RED BRASS, EXTRA STRONG, CONFORMING TO ASTM B43.
- 5" CORED HOLE FOR 4" PVC DRAIN.
- 10' LONG, 4" SPOOL FOR FUTURE MAGMETER. AFTER PRESSURE TESTING AND DISINFECTION, REMOVE SPOOL AND INSTALL TWO BLIND FLANGES. PROVIDE SPOOL TO MCWD. SPOOL TO BE RE-INSTALLED BY MCWD ONCE CUSTOMERS ARE READY FOR RECYCLED WATER SERVICE.
- 4" DOUBLE CHECK VALVE BACKFLOW PREVENTER, WILKINS 350. HANDWHEELS SHALL BE CHAINED AND LOCKED. USE GALVANIZED, STRAIGHT CHAIN

**BID DOCUMENTS**

DESIGNED KM  
 DRAWN SDW  
 CHECKED  
 DATE OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineers, Inc.  
 Date: 2019.10.16 12:20:09 -0700



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 MECHANICAL  
 CARMEL AVE PRESSURE REDUCING STATION

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
 DRAWING NO. M02  
 SHEET NO. 19 OF 66

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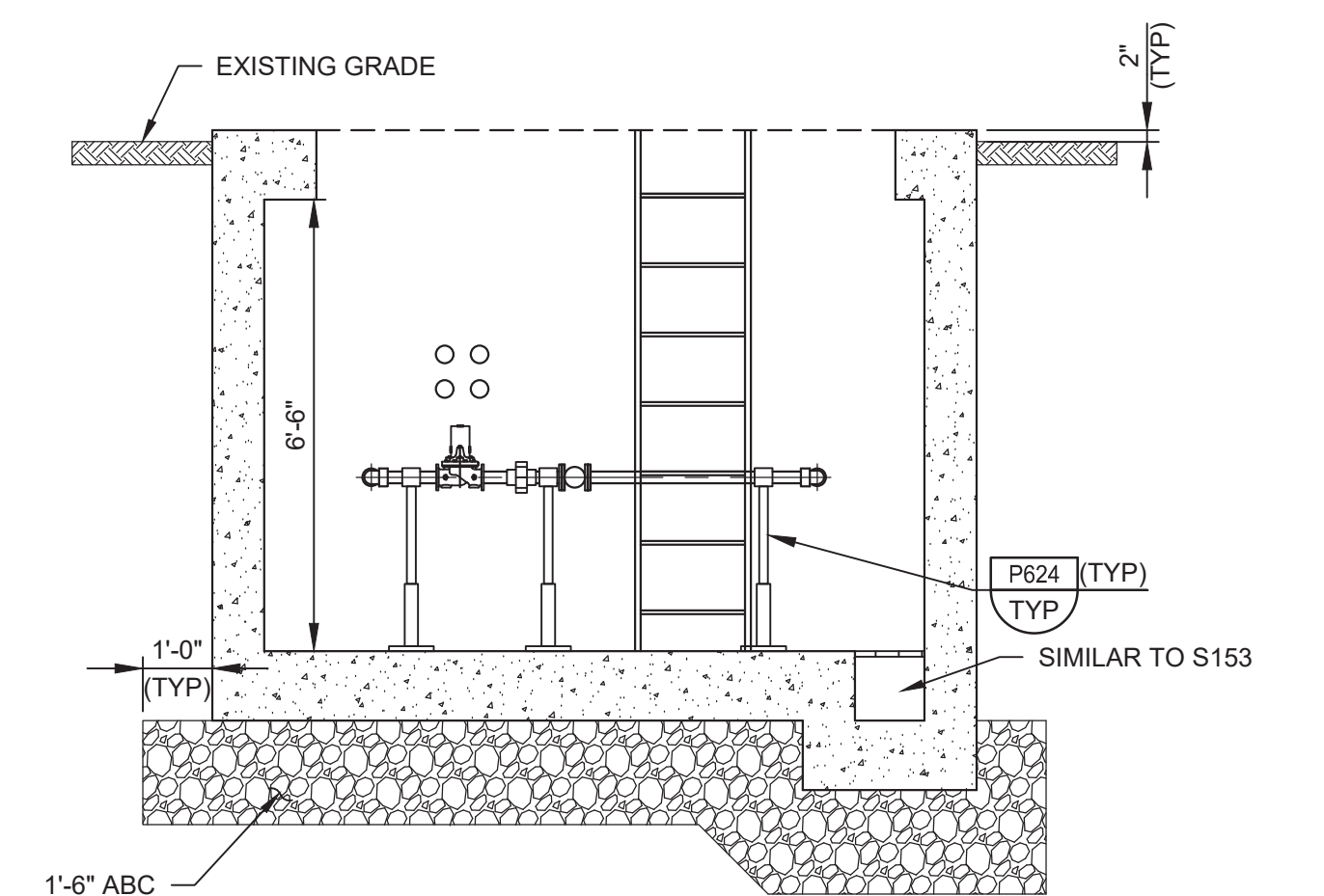
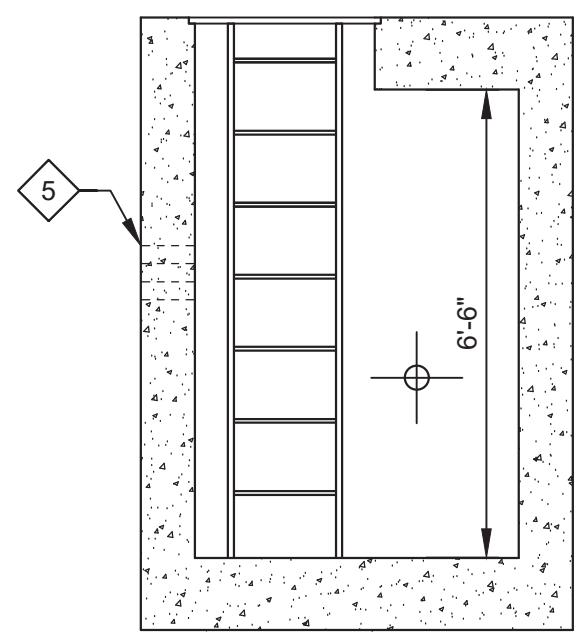
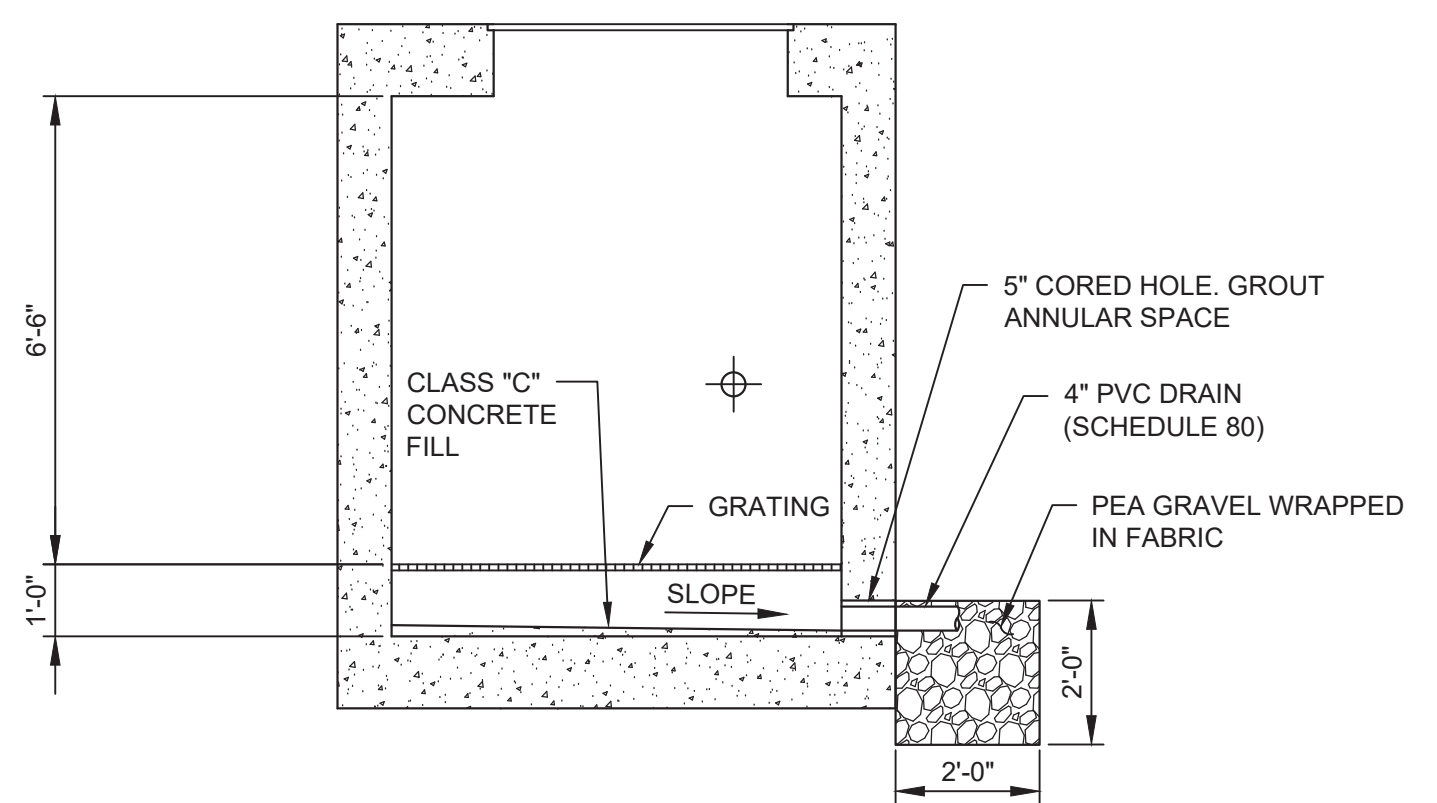
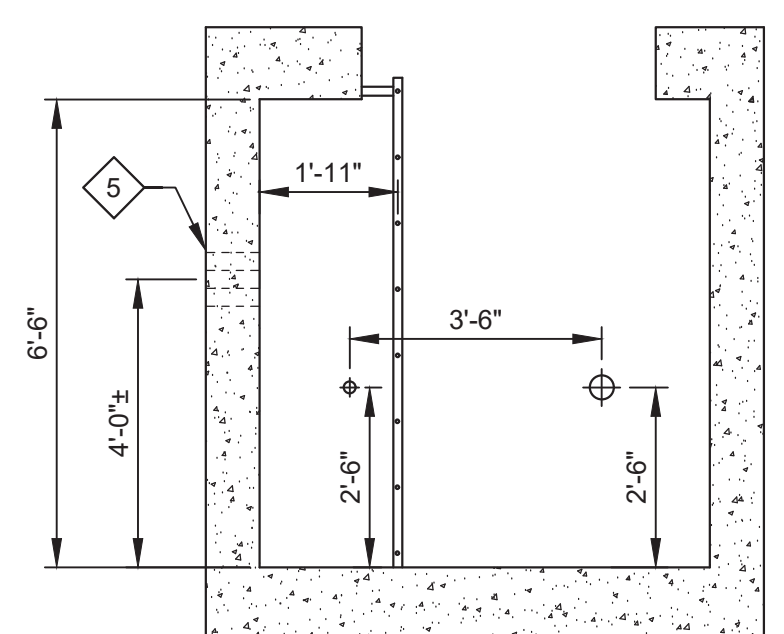
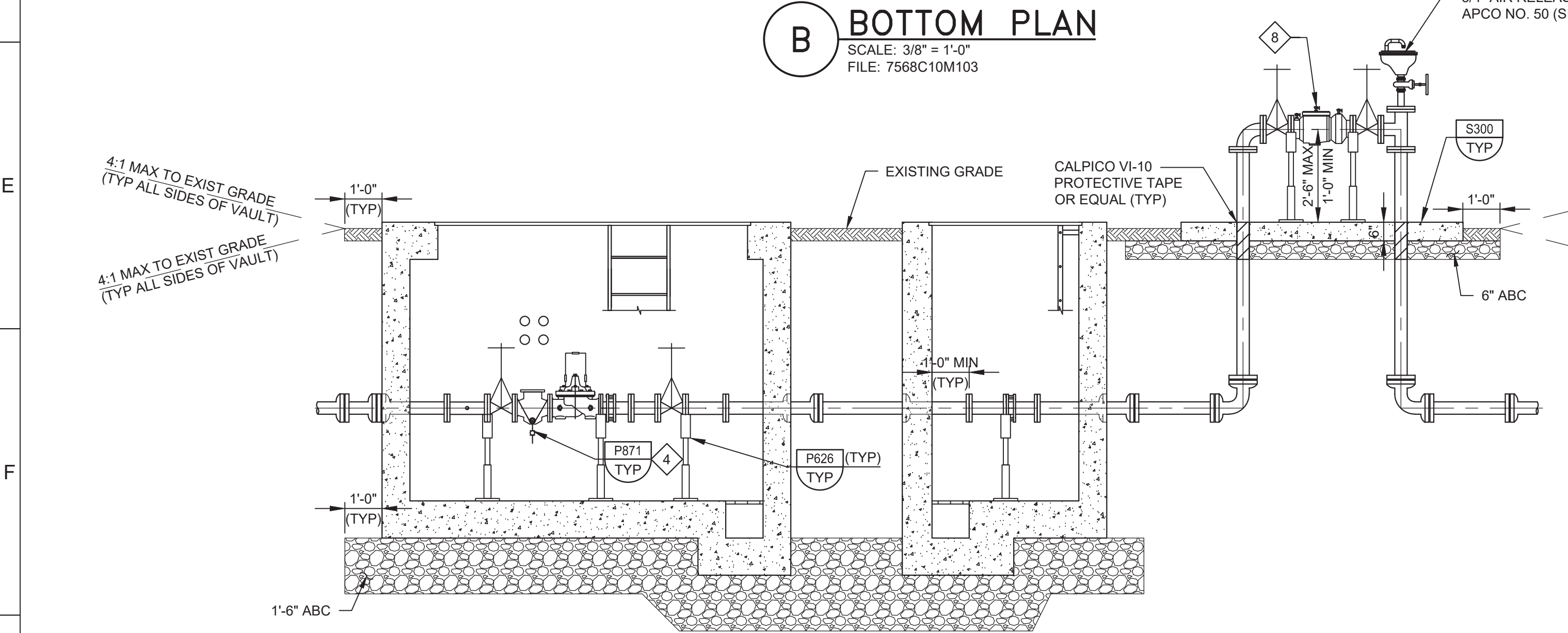
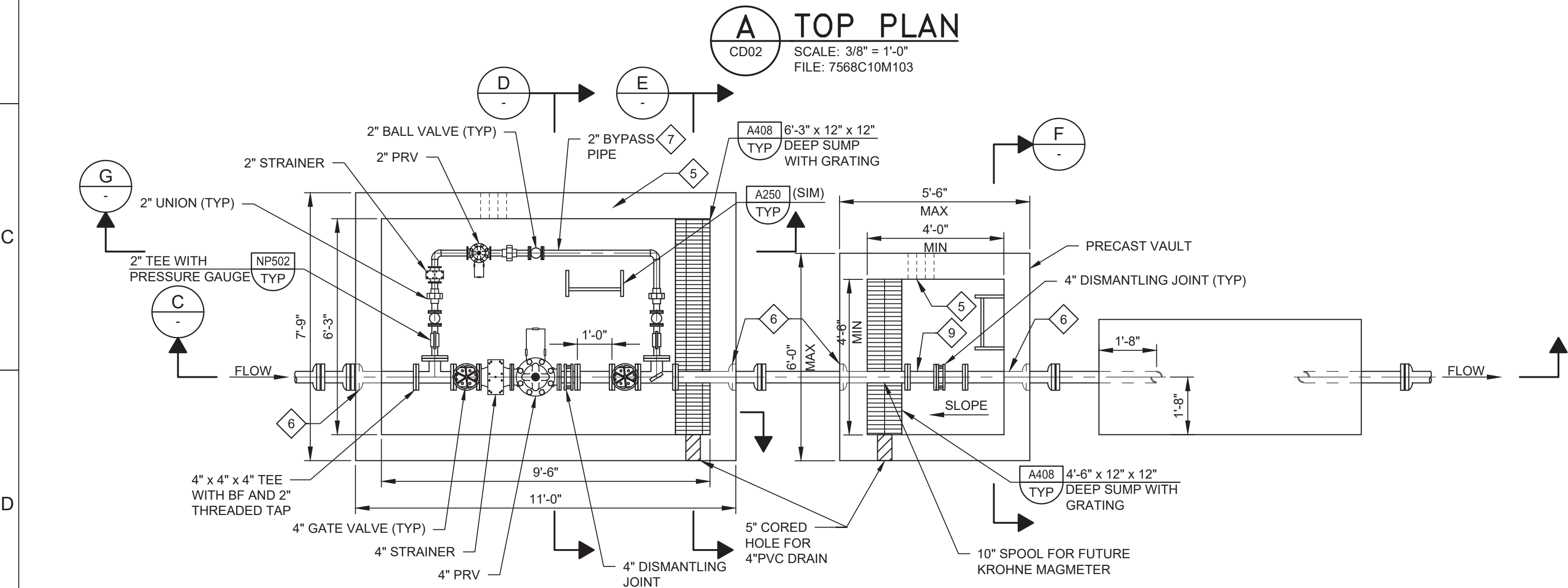
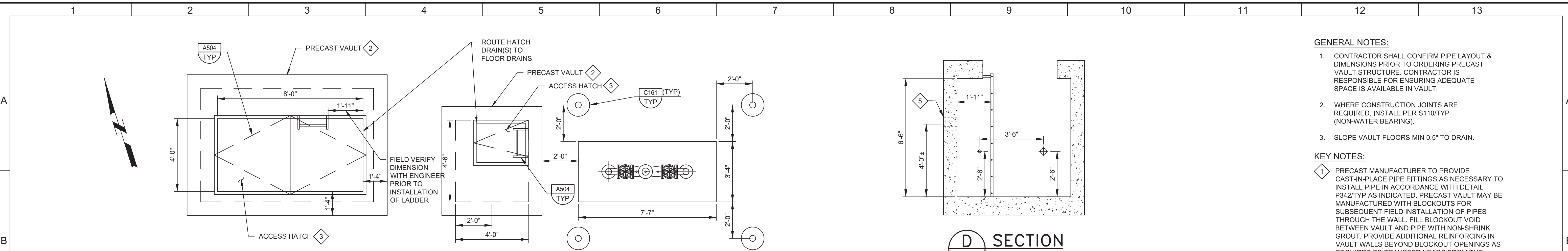


Plot Date: 9/24/2019 8:55:58 AM

FILE NAME: 7568C10M04.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



**GENERAL NOTES:**

1. CONTRACTOR SHALL CONFIRM PIPE LAYOUT & DIMENSIONS PRIOR TO ORDERING PRECAST VAULT STRUCTURE. CONTRACTOR IS RESPONSIBLE FOR ENSURING ADEQUATE SPACE IS AVAILABLE IN VAULT.
2. WHERE CONSTRUCTION JOINTS ARE REQUIRED, INSTALL PER S110/TYP (NON-WATER BEARING).
3. SLOPE VAULT FLOORS MIN 0.5" TO DRAIN.

**KEY NOTES:**

1. PRECAST MANUFACTURER TO PROVIDE CAST-IN-PLACE PIPE FITTINGS AS NECESSARY TO INSTALL PIPE IN ACCORDANCE WITH DETAIL P342/TYP AS INDICATED. PRECAST VAULT MAY BE MANUFACTURED WITH BLOCKOUTS FOR SUBSEQUENT FIELD INSTALLATION OF PIPES THROUGH THE WALL. FILL BLOCKOUT VOID BETWEEN VAULT AND PIPE WITH NON-SHRINK GROUT. PROVIDE ADDITIONAL REINFORCING IN VAULT WALLS BEYOND BLOCKOUT OPENINGS AS REQUIRED TO TRANSFER LOADS FROM THE CONCRETE AREAS INTERRUPTED BY THE OPENINGS.
2. PRECAST CONCRETE VAULT PER SPECIFICATION SECTION 02085. VAULT DESIGN REQUIREMENTS SHALL CONFORM TO PROJECT SPECIFICATIONS AND S101/TYP.
3. ACCESS HATCH DOORS SHALL BE ALUMINUM. SEE SPECIFICATION 08320 FOR DETAILS - H20 RATING REQUIRED.
4. DIAMETER TO MATCH STRAINER.
5. 3" CORED HOLE FOR FUTURE CONDUIT (TYP OF 4). INSTALL TEMPORARY REMOVABLE PLUG IN EACH.
6. PROVIDE DIAGONAL REINFORCING BARS AT ALL WALL PIPE PENETRATIONS SIMILAR TO DETAIL S180/TYP.
7. BRASS PIPE AND APPURTENANCES SHALL BE SEAMLESS RED BRASS, EXTRA STRONG, CONFORMING TO ASTM B43.
8. 4" DOUBLE CHECK VALVE BACKFLOW PREVENTER, WILKINS 3500 HANDWHEEL SHALL BE CHAINED AND LOCKED. USE GALVANIZED CHAIN, STRAIGHT LINK.
9. 10" LONG, 4" SPOOL FOR FUTURE MAGMETER. AFTER PRESSURE TESTING AND DISINFECTION, REMOVE SPOOL AND INSTALL TWO BLIND FLANGES. PROVIDE SPOOL TO MCWD. SPOOL TO BE RE-INSTALLED BY MCWD ONCE CUSTOMERS ARE READY FOR RECYCLED WATER SERVICE.

**BID DOCUMENTS**

DESIGNED KM  
 DRAWN DA  
 CHECKED  
 DATE SEPTEMBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact Info: Carollo Engineers, Inc.  
 Date: 2019.09.19 13:24:09-0700



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**  
**RECYCLED WATER DISTRIBUTION MAINS**  
 MECHANICAL  
**9TH ST PRESSURE REDUCING STATION**

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
 DRAWING NO. M04  
 SHEET NO. 21 OF 66

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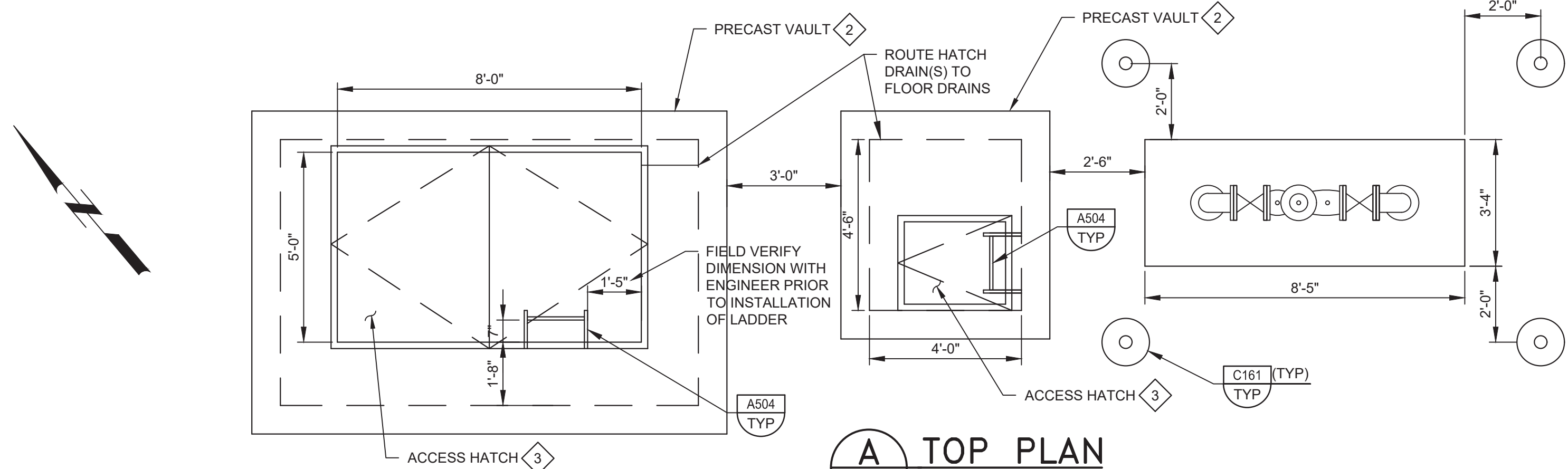


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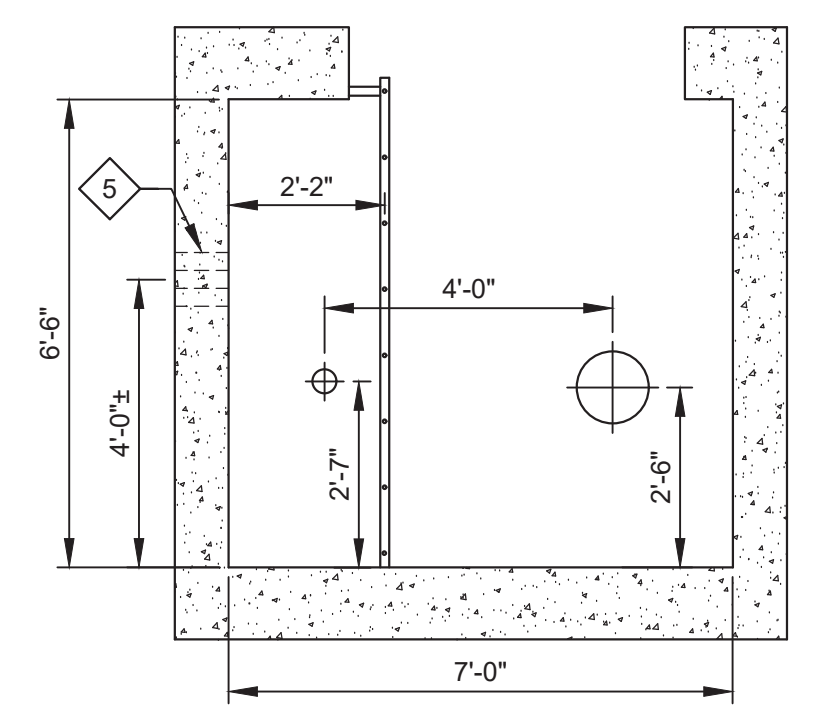
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PROJECT NO. 7568C10

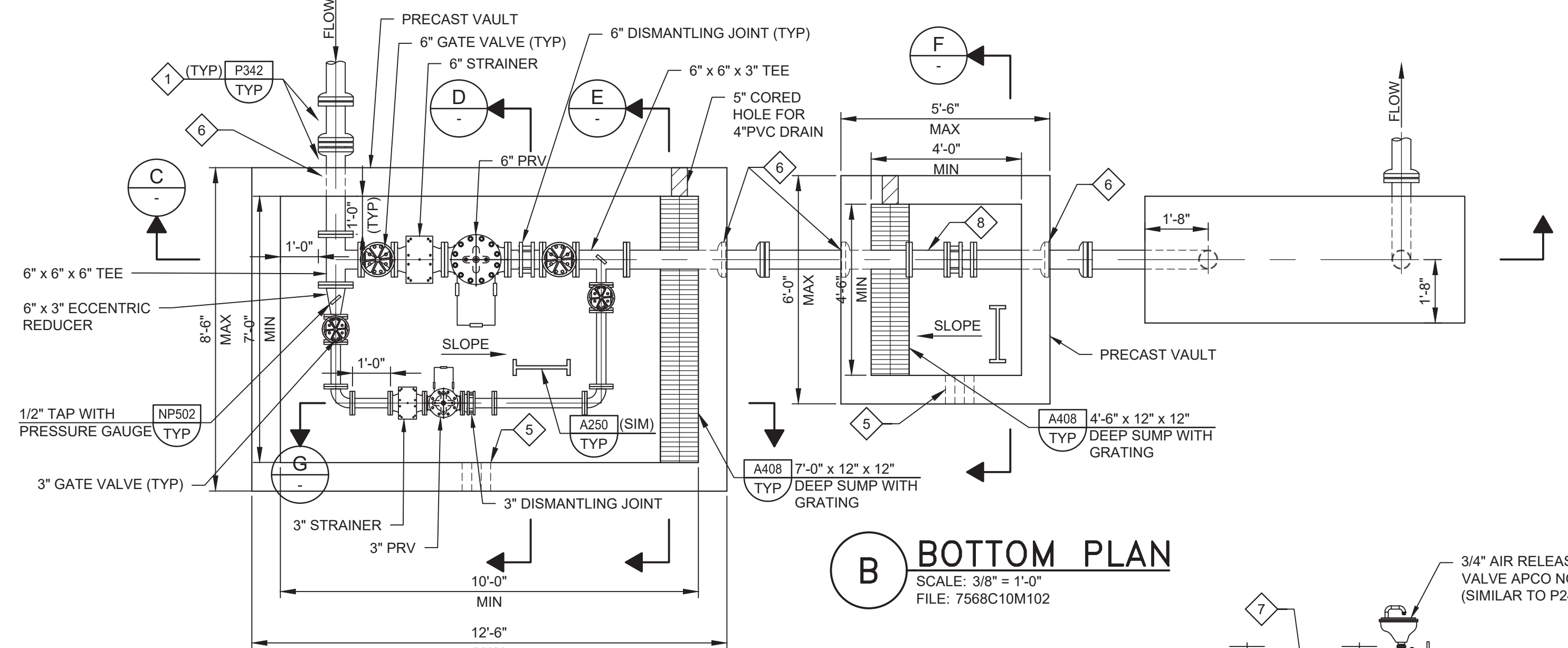
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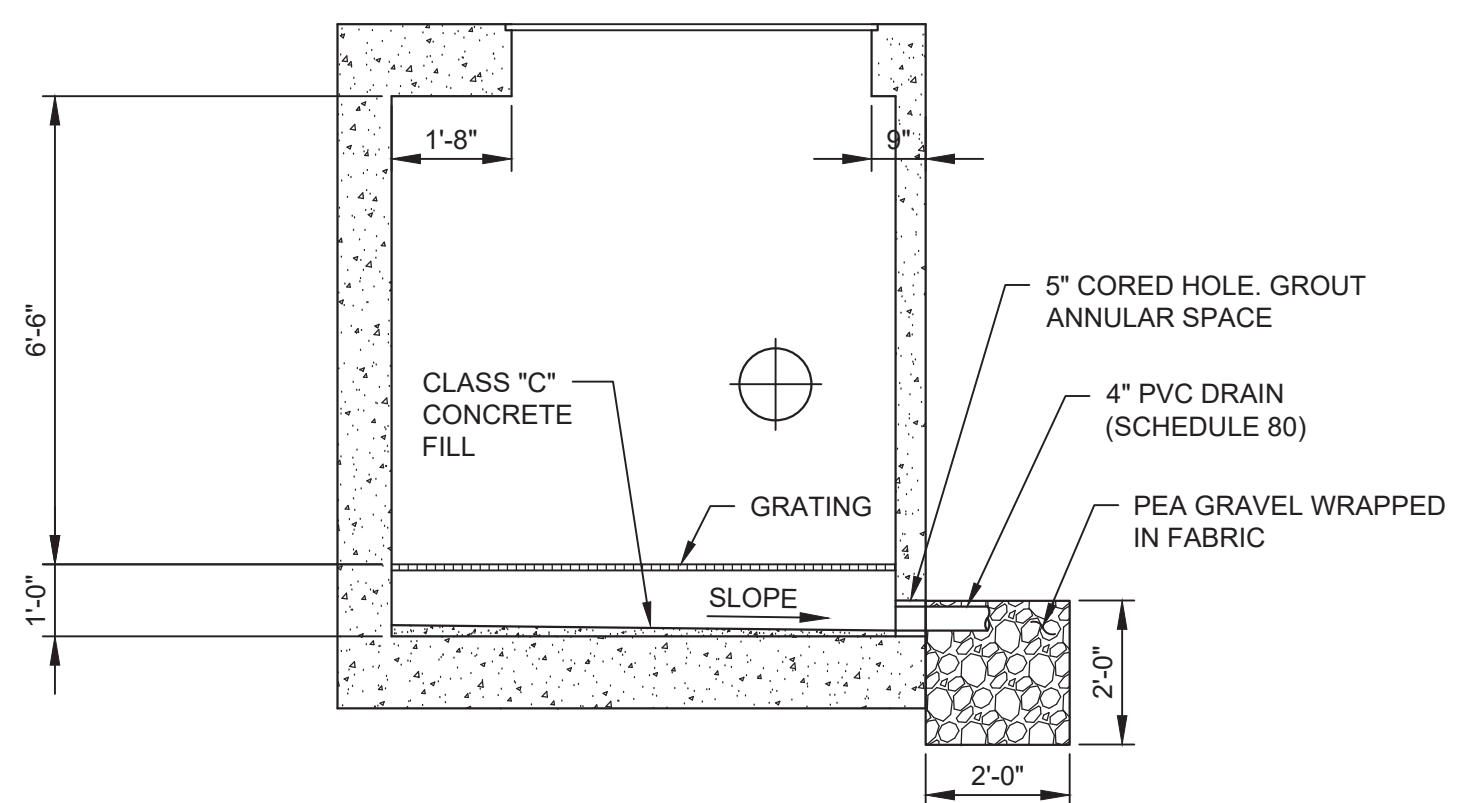
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 FILE: 7568C10M102



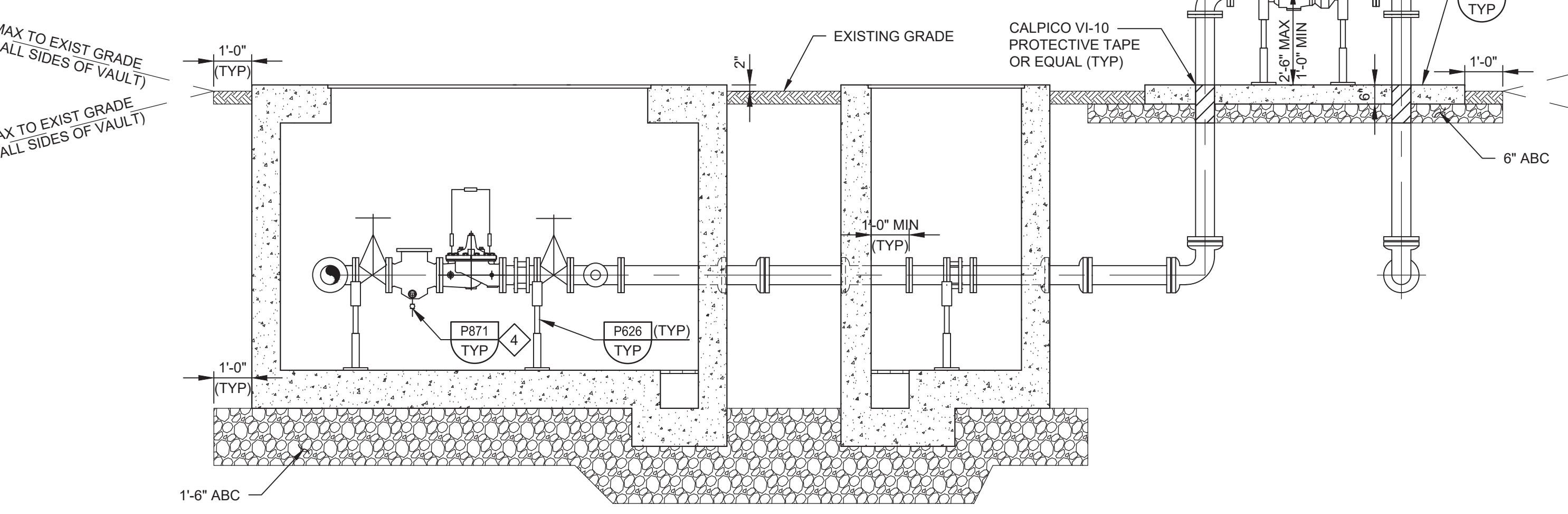
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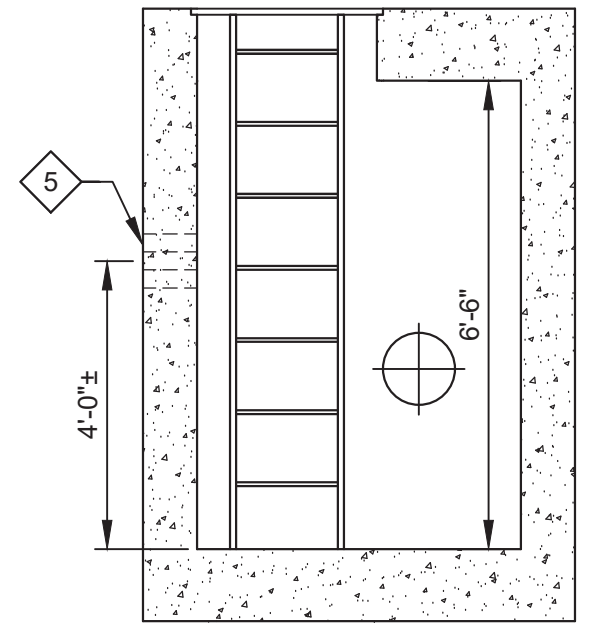
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 SCALE: 3/8" = 1'-0"  
 FILE: 7568C10M102



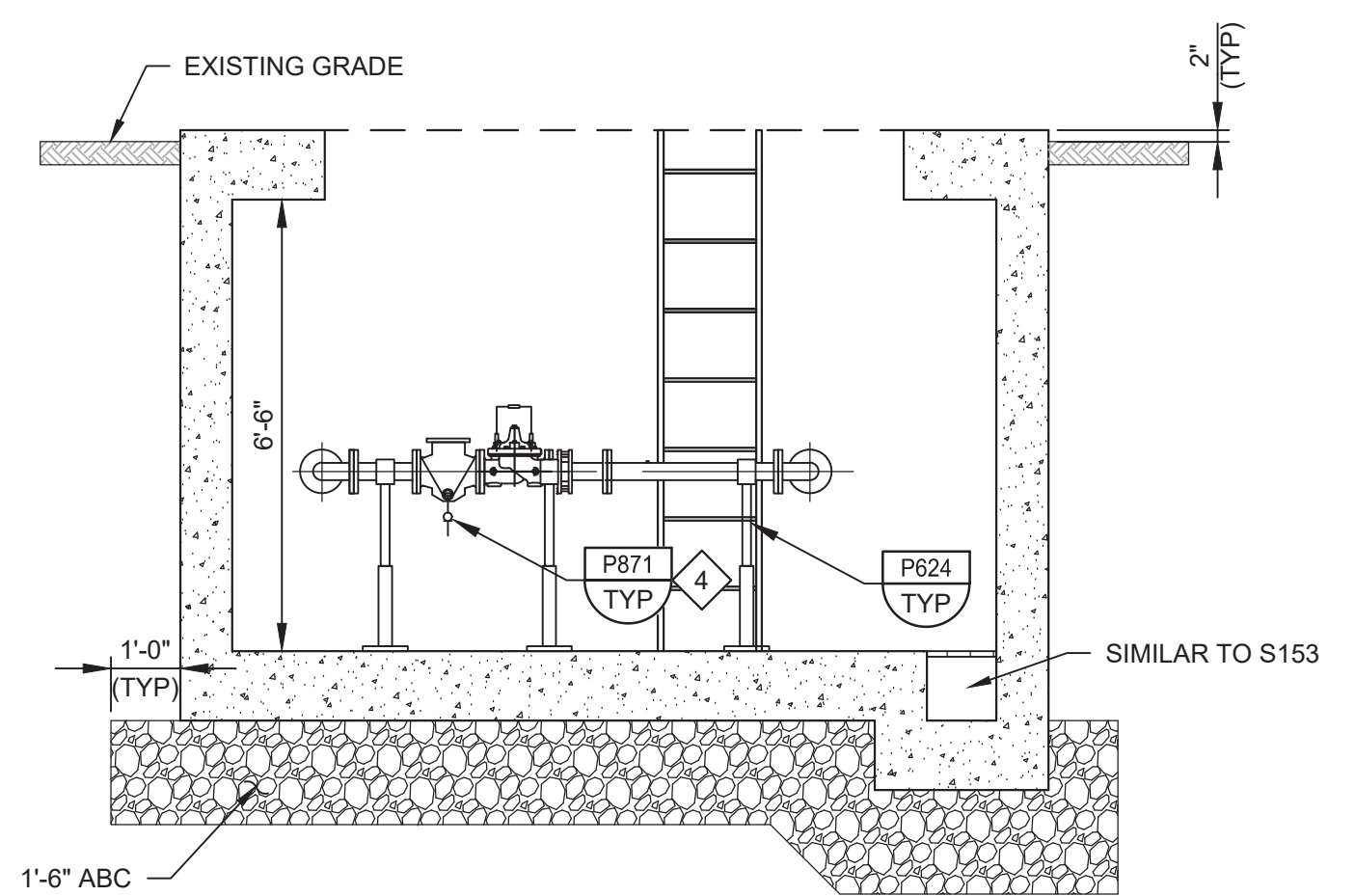
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 SCALE: 3/8" = 1'-0"  
 FILE: 7568C10S102



**C SECTION**  
 SCALE: 3/8" = 1'-0"  
 FILE: 7568C10M102



**F SECTION**  
 SCALE: 3/8" = 1'-0"  
 FILE: 7568C10S102



**G SECTION**  
 SCALE: 3/8" = 1'-0"  
 FILE: 7568C10S102

- GENERAL NOTES:**
- CONTRACTOR SHALL CONFIRM PIPE LAYOUT & DIMENSIONS PRIOR TO ORDERING PRECAST VAULT STRUCTURE. CONTRACTOR IS RESPONSIBLE FOR ENSURING ADEQUATE SPACE IS AVAILABLE IN VAULT.
  - WHERE CONSTRUCTION JOINTS ARE REQUIRED, INSTALL PER S110/TYP (NON-WATER BEARING).
  - SLOPE VAULT FLOORS MIN 0.5" TO DRAIN.
- KEY NOTES:**
- PRECAST MANUFACTURER TO PROVIDE CAST-IN-PLACE PIPE FITTINGS AS NECESSARY TO INSTALL PIPE IN ACCORDANCE WITH DETAIL P342/TYP AS INDICATED. PRECAST VAULT MAY BE MANUFACTURED WITH BLOCKOUTS FOR SUBSEQUENT FIELD INSTALLATION OF PIPES THROUGH THE WALL. FILL BLOCKOUT VOID BETWEEN VAULT AND PIPE WITH NON-SHRINK GROUT. PROVIDE ADDITIONAL REINFORCING IN VAULT WALLS BEYOND BLOCKOUT OPENINGS AS REQUIRED TO TRANSFER LOADS FROM THE CONCRETE AREAS INTERRUPTED BY THE OPENINGS.
  - PRECAST CONCRETE VAULT PER SPECIFICATION SECTION 02085. VAULT DESIGN REQUIREMENTS SHALL CONFORM TO PROJECT SPECIFICATIONS AND S101/TYP.
  - ACCESS HATCH DOORS SHALL BE ALUMINUM. SEE SPECIFICATION 08320 FOR DETAILS - H20 RATING REQUIRED.
  - DIAMETER TO MATCH STRAINER.
  - 3" CORED HOLE FOR FUTURE CONDUIT (TYP OF 4). INSTALL TEMPORARY REMOVABLE PLUG IN EACH.
  - PROVIDE DIAGONAL REINFORCING BARS AT ALL WALL PIPE PENETRATIONS SIMILAR TO DETAIL S180/TYP.
  - 6" DOUBLE CHECK VALVE BACKFLOW PREVENTER, WILKINS 350. HANDWHEELS SHALL BE CHAINED AND LOCKED. USE GALVANIZED CHAIN, STRAIGHT LINK.
  - 12" LONG, 6" SPOOL FOR FUTURE MAGMETER. AFTER PRESSURE TESTING AND DISINFECTION, REMOVE SPOOL AND INSTALL TWO BLIND FLANGES. PROVIDE SPOOL TO MCWD. SPOOL TO BE RE-INSTALLED BY MCWD ONCE CUSTOMERS ARE READY FOR RECYCLED WATER SERVICE.

**BID DOCUMENTS**

DESIGNED  
KM  
 DRAWN  
DA  
 CHECKED  
  
 DATE  
SEPTEMBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineering, Inc.  
 Date: 2019.09.19 12:23:39 -0700



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 MECHANICAL  
 COE AVE  
 PRESSURE REDUCING STATION

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
 DRAWING NO. M05  
 SHEET NO. 22 OF 66

REV	DATE	BY	DESCRIPTION
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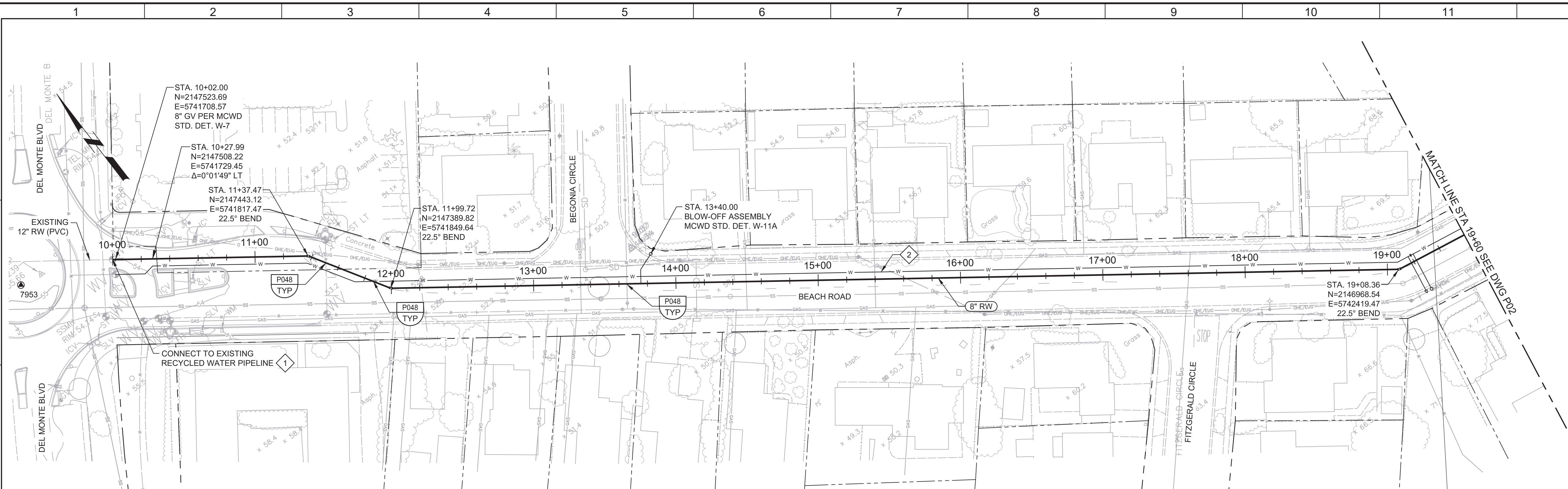


Plot Date: 10/10/2019 8:20:35 AM

FILE NAME: 7568C10P01.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



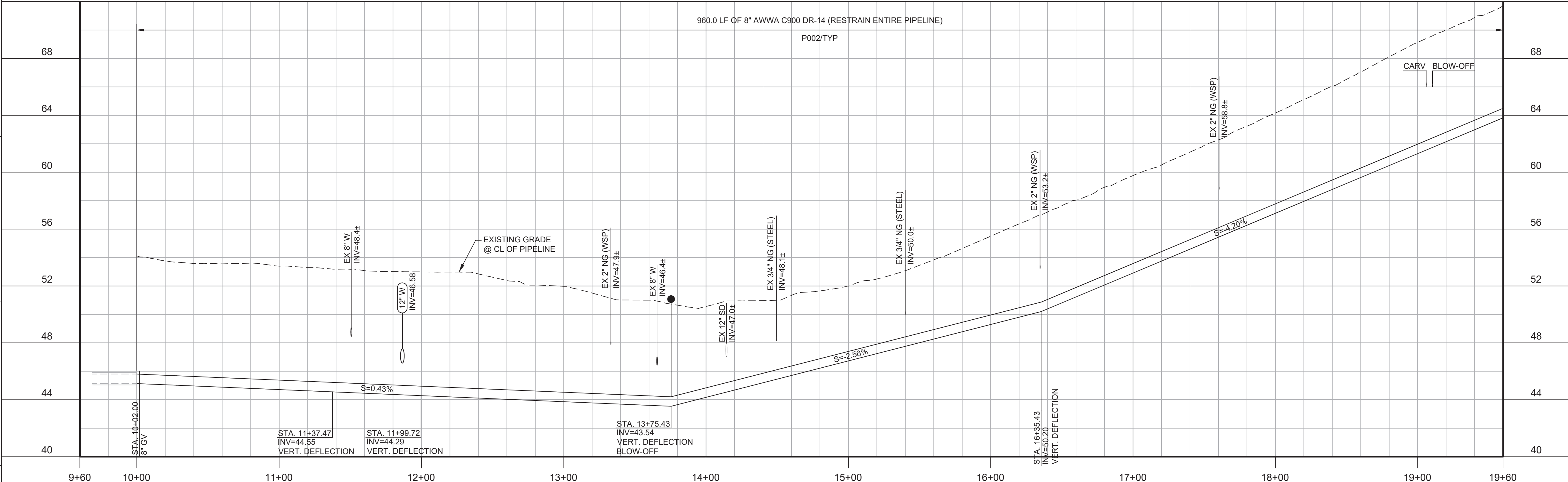
**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

- GENERAL NOTES:**
1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  2. REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
  3. MAINTAIN MINIMUM 4' HORIZONTAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER LINES. INSTALL RECYCLED WATER LINES 1' LOWER THAN POTABLE WATER LINE.
  4. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

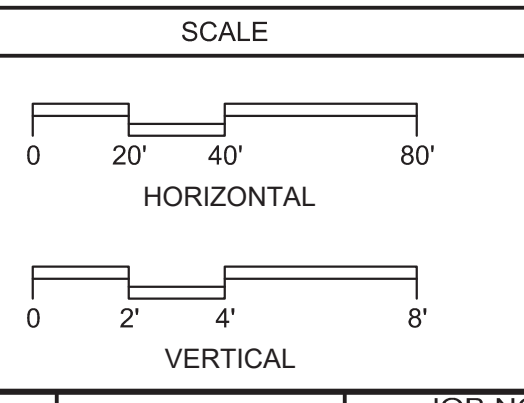
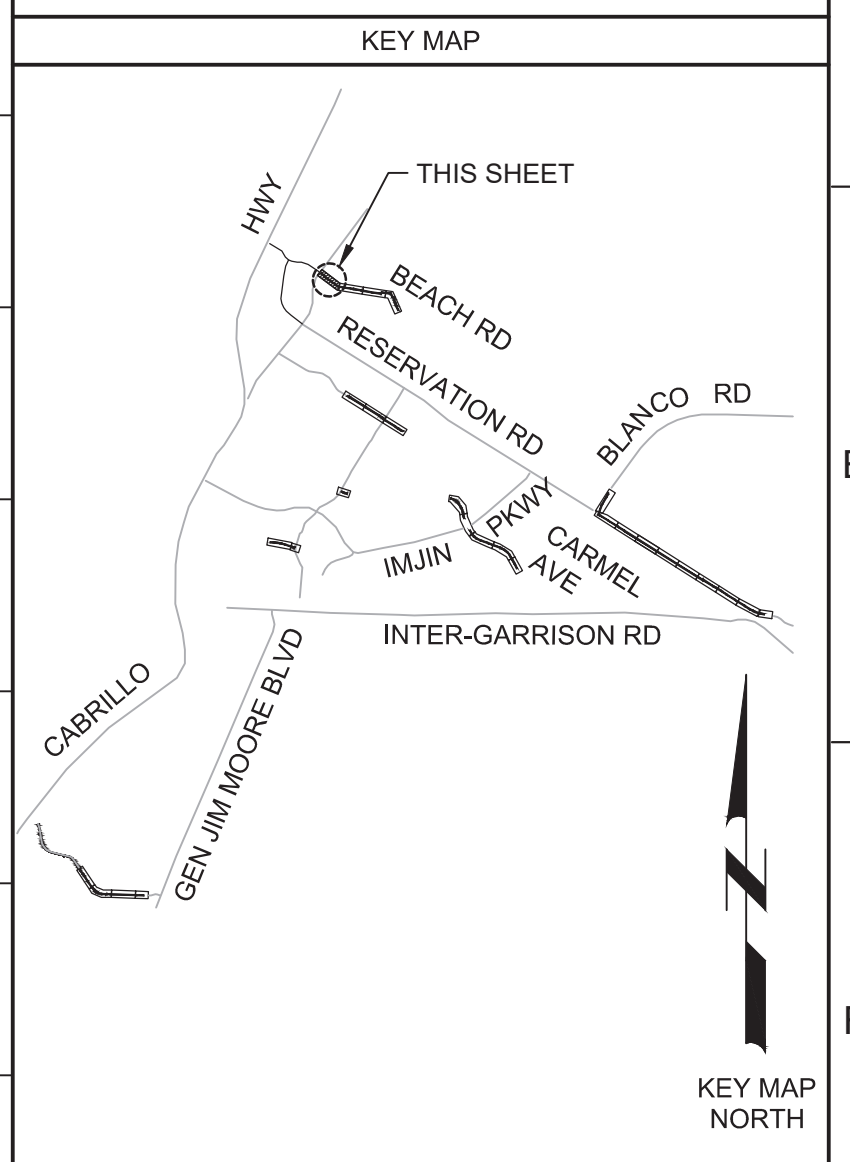
- KEY NOTES:**
1. APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 8 FT DEEP AND ENCLOSED IN A CASING. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH 12"x8" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION RESTRAINTS. REMOVE A PORTION OF CASING WHERE REQUIRED.
  2. FOR 12" POTABLE WATER PLAN AND PROFILES, SEE DRAWINGS P30-P33.



Know what's below.  
Call before you dig.



**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			
3			

<b>BID DOCUMENTS</b>	
DESIGNED JPM/KMM	
DRAWN AL/BWH	
CHECKED	
DATE OCTOBER 2019	

Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineers, Inc.  
Date: 2019.10.10 12:34:00-0700



REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
CIVIL DISTRIBUTION MAIN  
BEACH ROAD  
STA 10+00 TO 19+60

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7568C.10 DRAWING NO. <b>P01</b> SHEET NO. 23 OF 66
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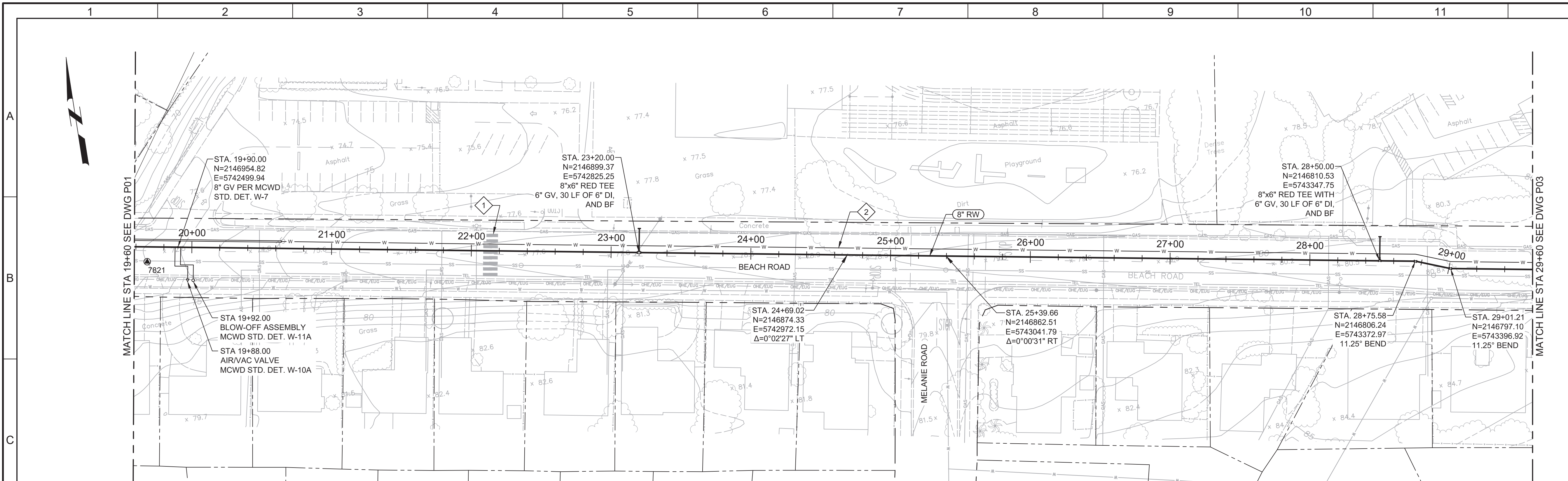


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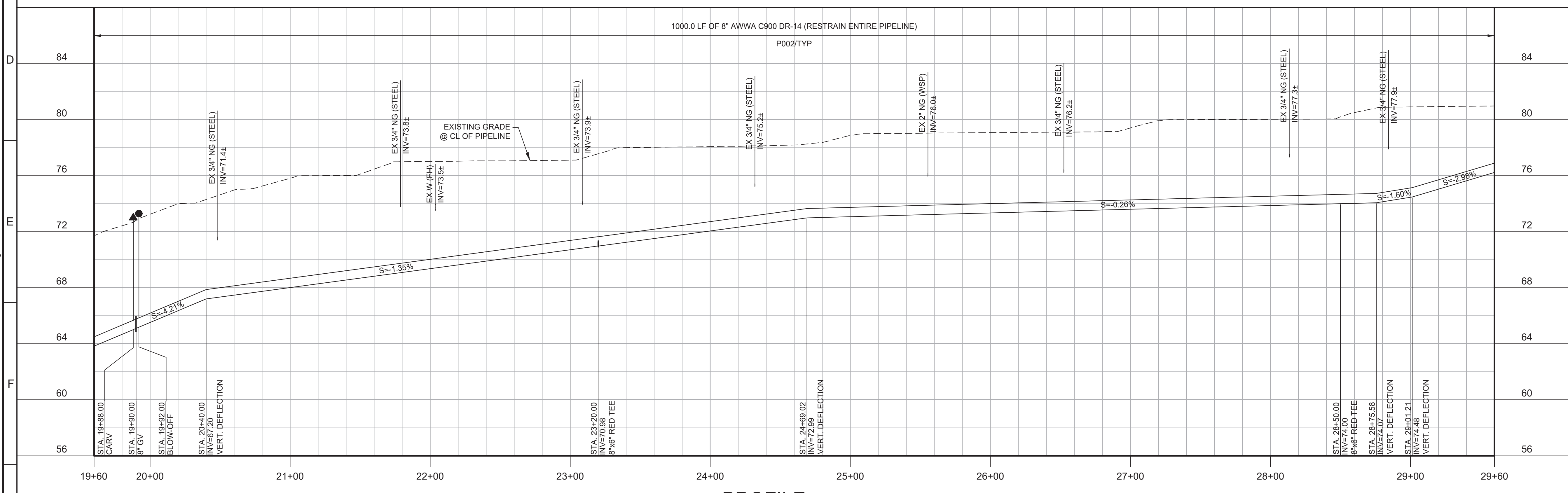
FILE NAME: 7568C10P02.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

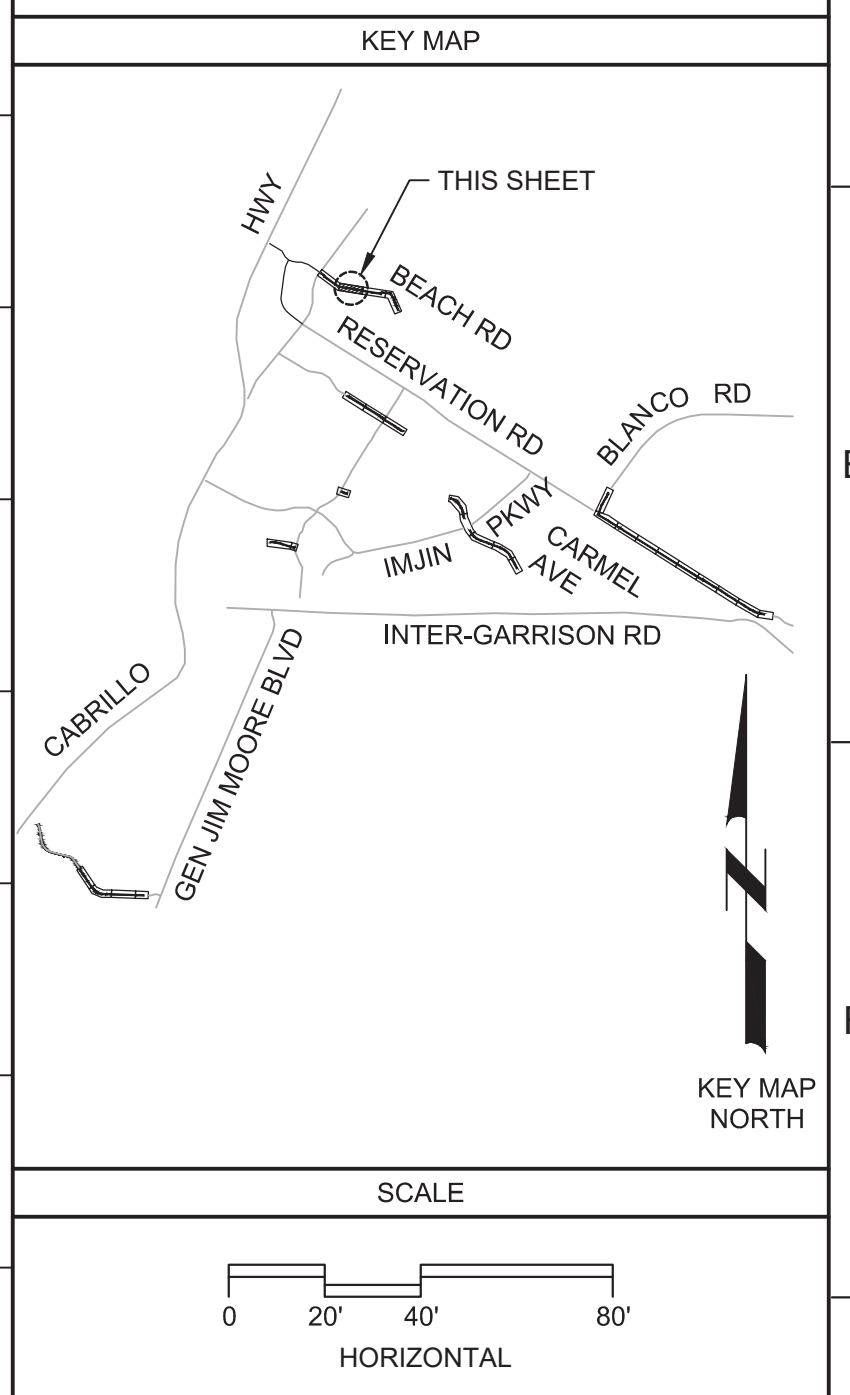


**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - ARBORIST SHALL BE PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562.
  - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
  - MAINTAIN MINIMUM 4' HORIZONTAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER LINES. INSTALL RECYCLED WATER LINE 1' LOWER THAN POTABLE WATER LINE.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- PROTECT EXISTING CROSSWALK LIGHTING IN PLACE. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGES TO THE LIGHTING SYSTEM.
  - FOR 12" POTABLE WATER PLAN AND PROFILES, SEE DRAWINGS P30-P33.



Know what's below.  
Call before you dig.



REV	DATE	BY	DESCRIPTION
1			
2			
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**BID DOCUMENTS**

DESIGNED: JPM/KMM  
DRAWN: AL/BWH  
CHECKED: [Signature]  
DATE: OCTOBER 2019

REGISTERED PROFESSIONAL ENGINEER  
JOYANTHON P. MARSHALL  
No. 73265  
CIVIL  
STATE OF CALIFORNIA

Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineering, Inc.  
Date: 2019.10.16 12:23:09 -0700

**carollo**

MARINA COAST WATER DISTRICT

**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL DISTRIBUTION MAIN  
**BEACH ROAD**  
STA 19+60 TO 29+60

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1" 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. P02  
SHEET NO. 24 OF 66

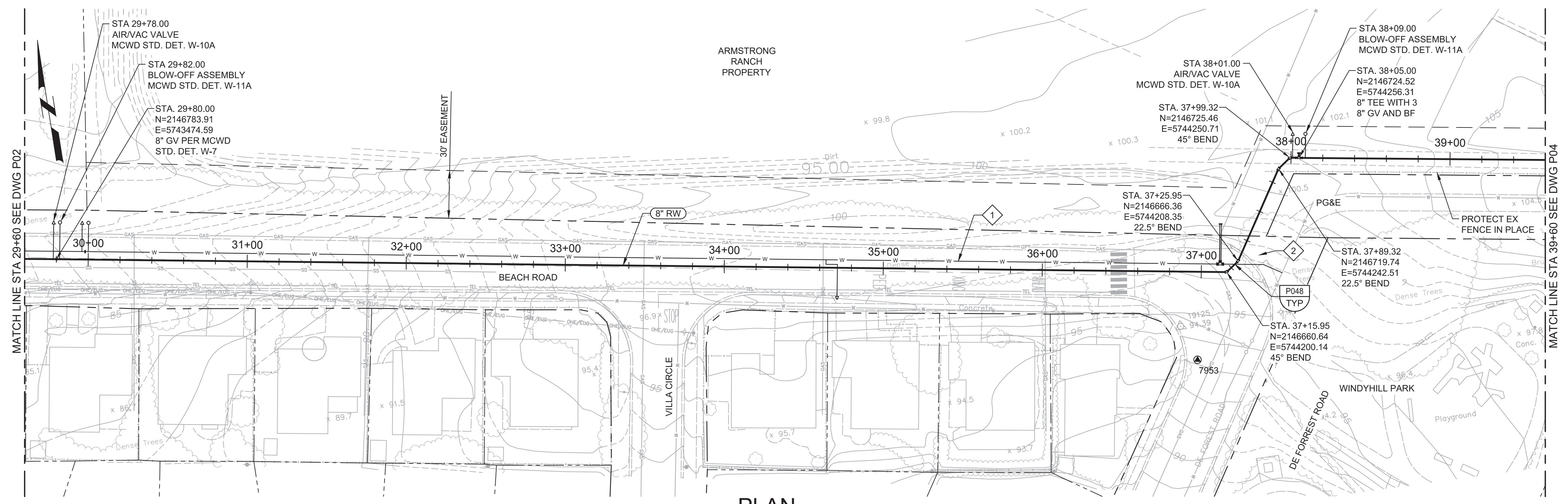


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PROJECT NO: 7568C10

LAST SAVED BY: bhawes

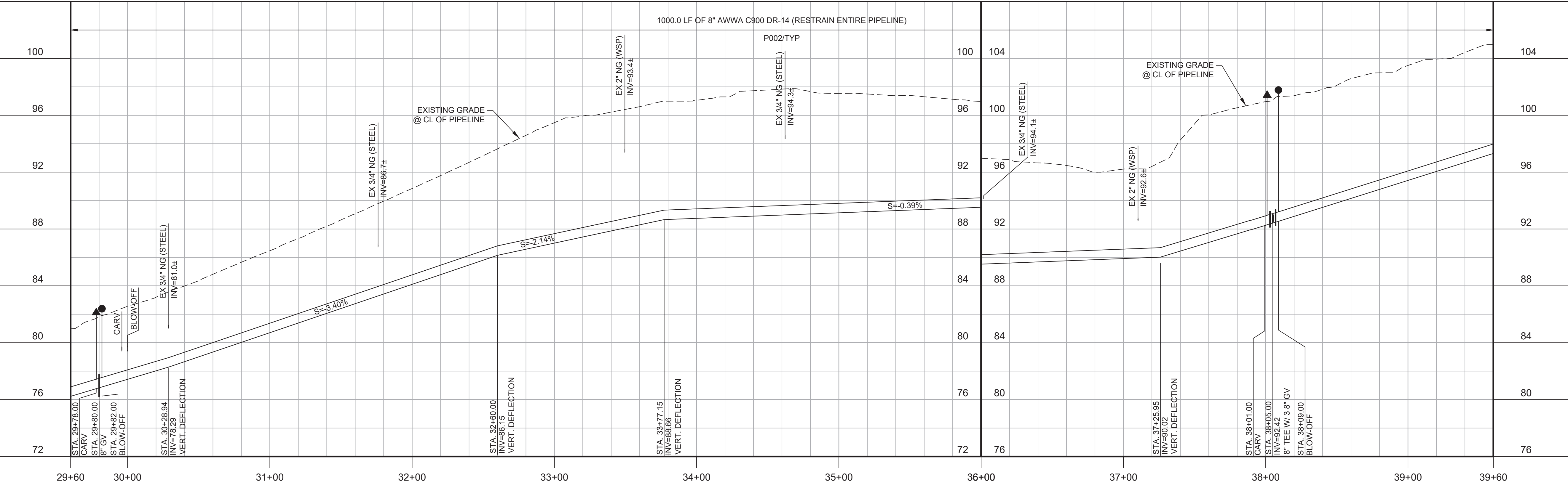
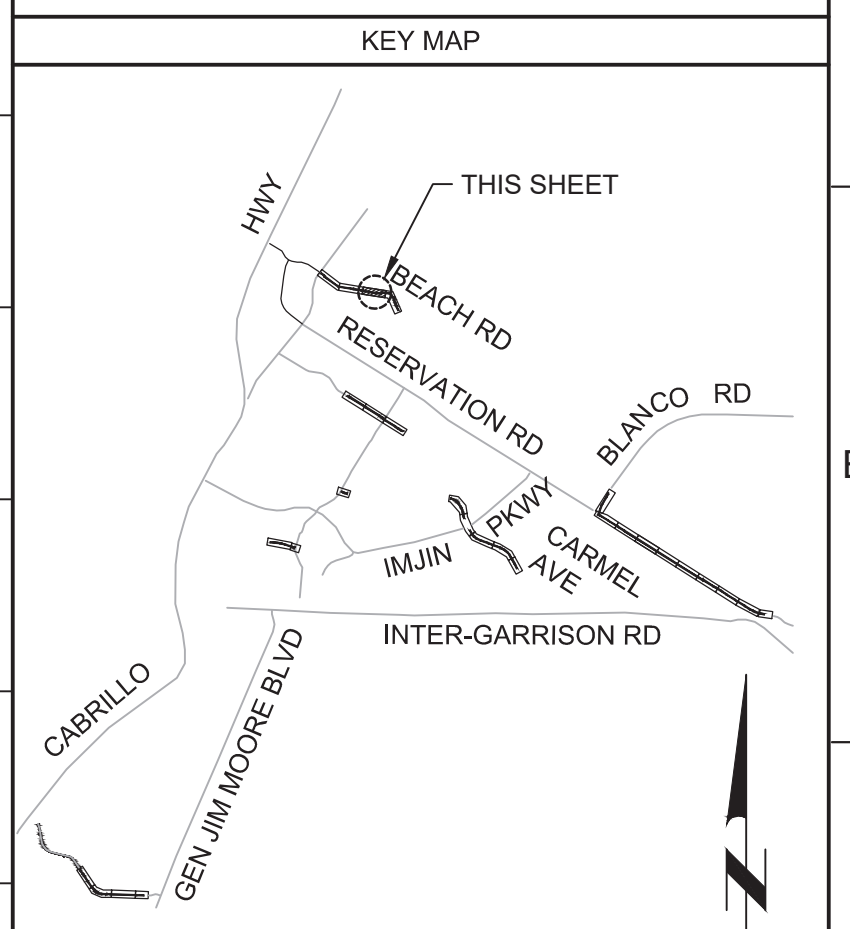


**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

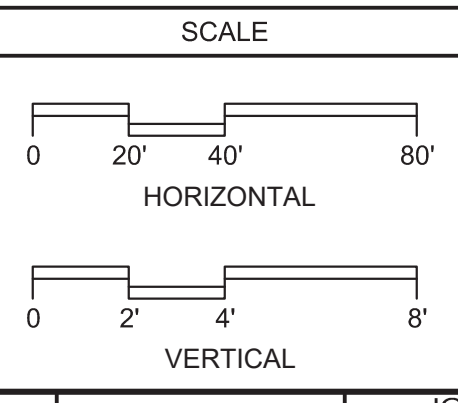
- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO WINDYHILL PARK AT ALL TIMES.
  - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
  - ARBORIST SHALL BE PRESENT FOR ALL WORK NEAR TREES FOR SPECIFICATION SECTION 01562 IN AREAS WHERE THE ARBORIST DETERMINES THAT TREE ROOT EXCAVATION WILL DAMAGE NEARBY TREES. CONSTRUCT PIPE WITH A CONCRETE ENCASMENT PER P040/TYP. AT THE MAXIMUM ALLOWABLE DEPTH. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ADDITIONAL APPURTENANCES REQUIRED BY CHANGES TO THE PIPE PROFILE.
  - MAINTAIN MINIMUM 4' HORIZONTAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER LINES. INSTALL RECYCLED WATER LINES 1' LOWER THAN POTABLE WATER LINE.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- FOR 12" POTABLE WATER PLAN AND PROFILES, SEE DRAWINGS P30-P33.
  - APPROXIMATE LOCATION OF TREE TRUNK. IF NEEDED, ADJUST ALIGNMENT TO PROVIDE 5' OF CLEARANCE FROM EDGE OF PIPE TO TREE TRUNK.



Know what's below.  
Call before you dig.



**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
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3			

**BID DOCUMENTS**

DESIGNED  
JPM/KMM

DRAWN  
AL/BWH

CHECKED

DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineers, Inc.  
Date: 2019.10.10 13:22:56 -0700



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL DISTRIBUTION MAIN  
**BEACH ROAD**  
**STA 29+60 TO 39+60**

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10

DRAWING NO.  
**P03**

SHEET NO.  
25 OF 66

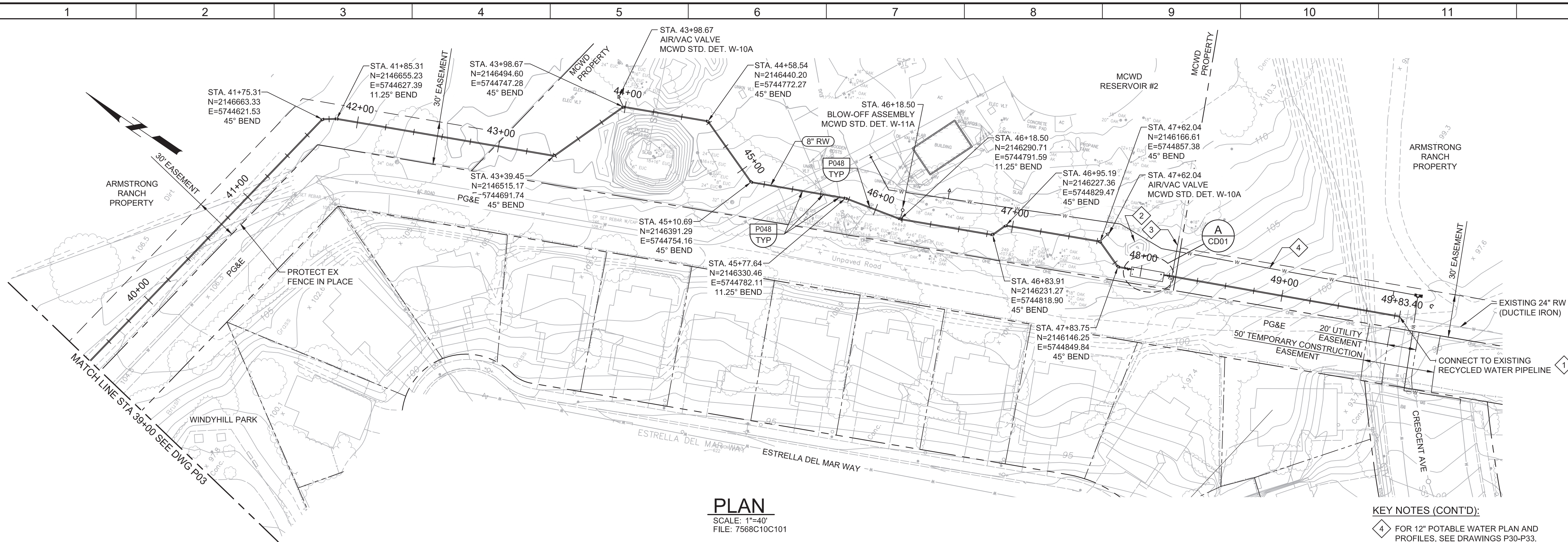


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PROJECT NO. 7568C10

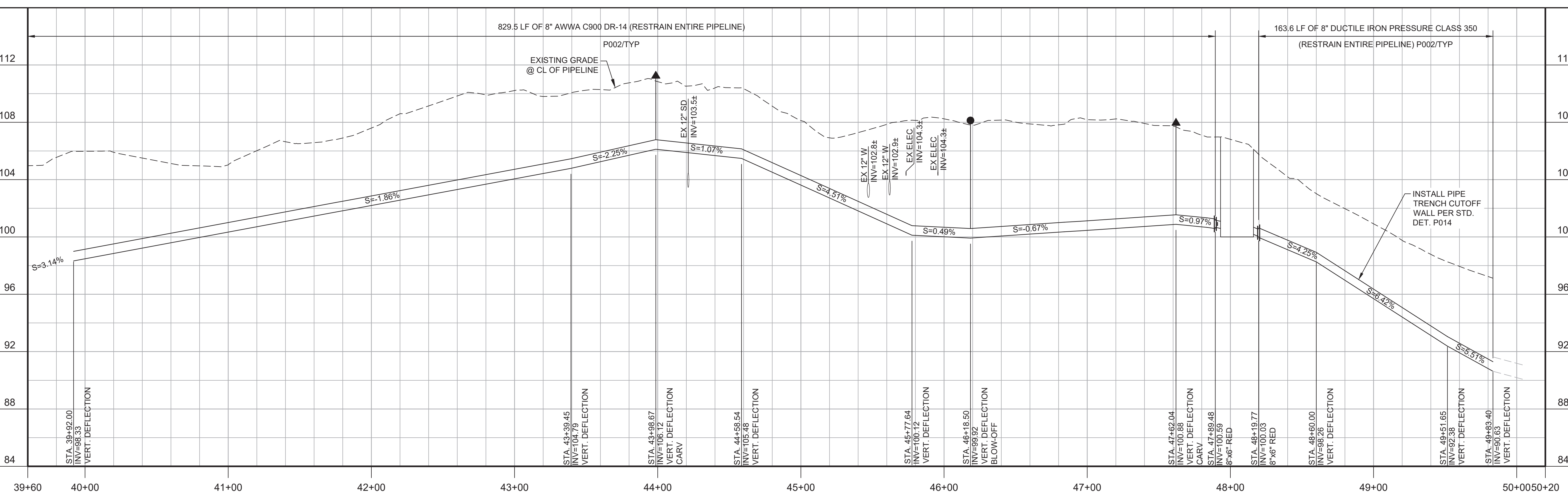
LAST SAVED BY: bhawes



**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

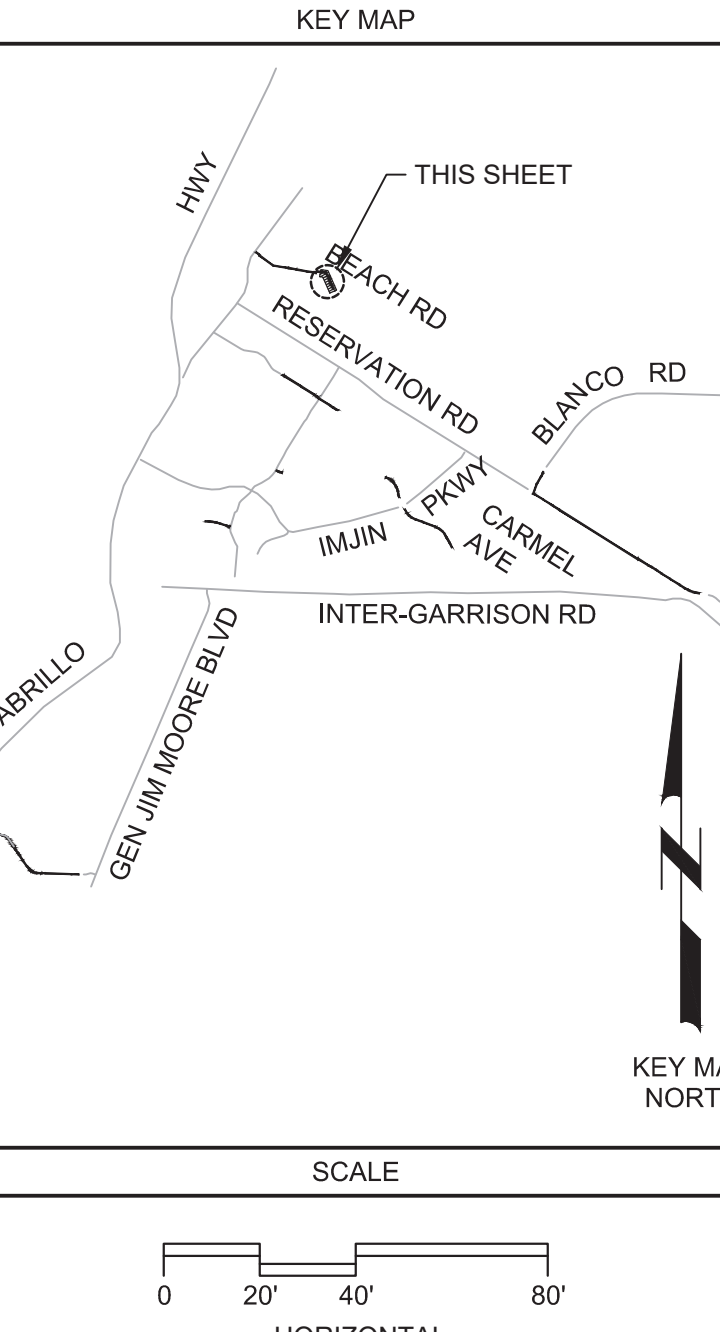
**KEY NOTES (CONT'D):**  
4 FOR 12" POTABLE WATER PLAN AND PROFILES, SEE DRAWINGS P30-P33.

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'. IN AREAS WHERE THE ARBORIST DETERMINES THAT TREE ROOT EXCAVATION WILL DAMAGE NEARBY TREES, CONSTRUCT PIPE WITH A CONCRETE ENCASEMENT PER P040/TP01, AT THE MAXIMUM ALLOWABLE DEPTH. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ADDITIONAL APPURTENANCES REQUIRED BY CHANGES TO THE PIPE PROFILE.
  - CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO WINDYHILL PARK AT ALL TIMES.
  - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
  - ARBORIST SHALL BE PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH 12" X 24" MJ REDUCER THEN A 8" X 12" MJ REDUCER WITH MECHANICAL WEDGE ACTION JOINT RESTRAINTS.
  - REMOVE EXISTING DIRT PILE AND MATCH AREA GRADE TO SURROUNDING AREA.
  - INSTALL 30" WIDE GATE PER C190/TC-01.



**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101

**811**  
Know what's below.  
Call before you dig.



REV	DATE	BY	DESCRIPTION
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**BID DOCUMENTS**

DESIGNED: JPM/KMM  
DRAWN: AL/BWH  
CHECKED: [Signature]  
DATE: OCTOBER 2019

Digitally signed by Jonathan P. Marshall  
Contact Info: Carollo Engineers, Inc.  
Date: 2019.10.19 13:22:36 -0700

**carollo**

**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL DISTRIBUTION MAIN  
**BEACH ROAD**  
**STA 39+60 TO 49+83.40**

**VERIFY SCALES**  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1" 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

**JOB NO. 7568C.10**  
**DRAWING NO. P04**  
**SHEET NO. 26 OF 66**

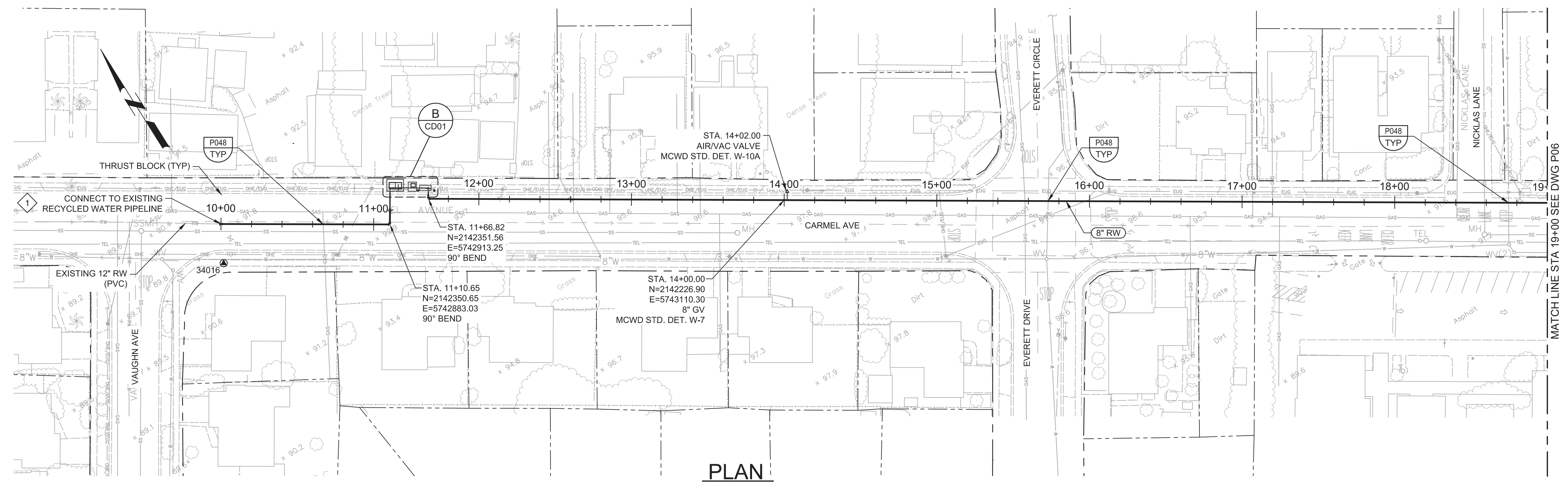


Plot Date: 10/10/2019 6:31:47 AM

FILE NAME: 7568C10P05.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes

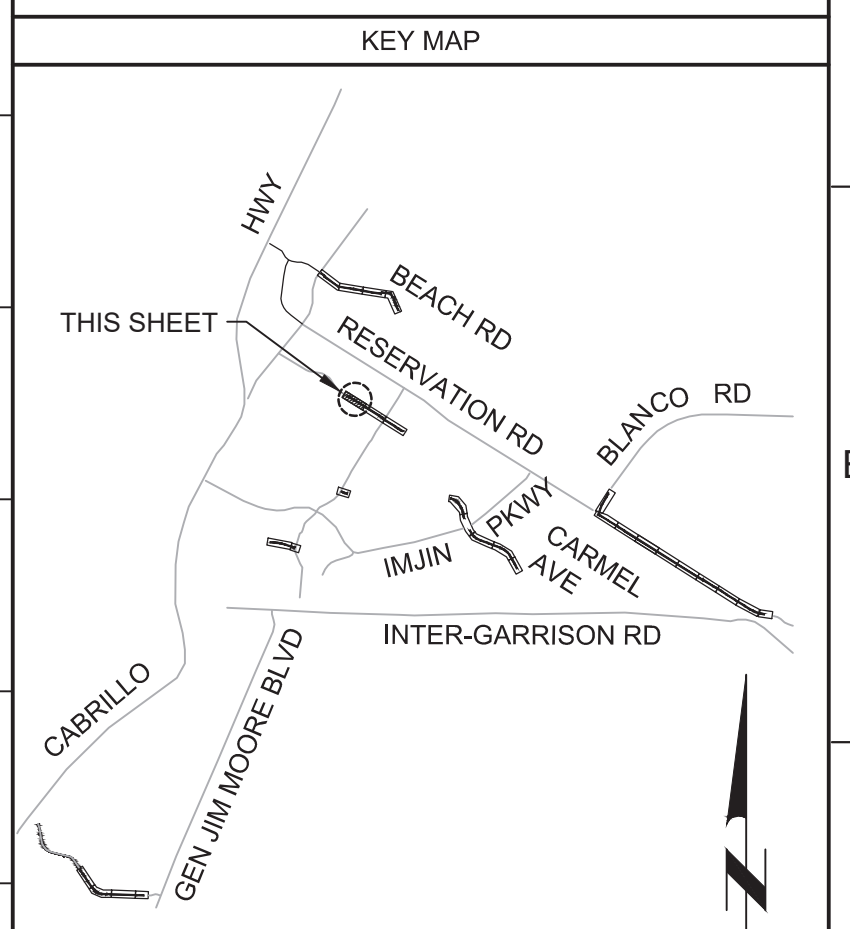


**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

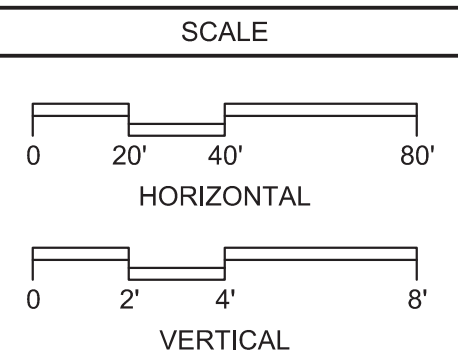
- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH 8"x12" MECHANICAL JOINT ACTION RESTRAINTS.



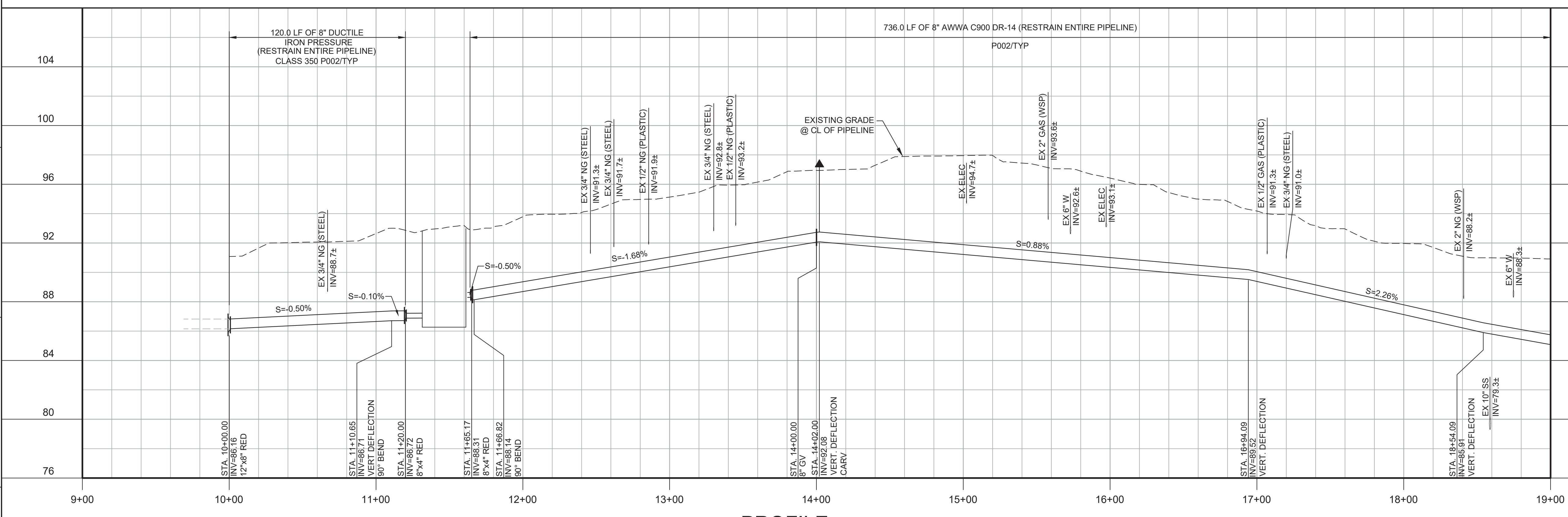
Know what's below.  
Call before you dig.



KEY MAP



SCALE



**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101

REV	DATE	BY	DESCRIPTION
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**BID DOCUMENTS**

DESIGNED  
JPM/KMM  
DRAWN  
AL/BWH  
CHECKED  
  
DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineers, Inc.  
Date: 2019.10.10 13:22:00 -0700



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**  
**RECYCLED WATER DISTRIBUTION MAINS**  
CIVIL DISTRIBUTION MAIN  
**CARMEL AVENUE**  
**STA 10+00 TO 19+00**

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10  
DRAWING NO.  
**P05**  
SHEET NO.  
27 OF 66

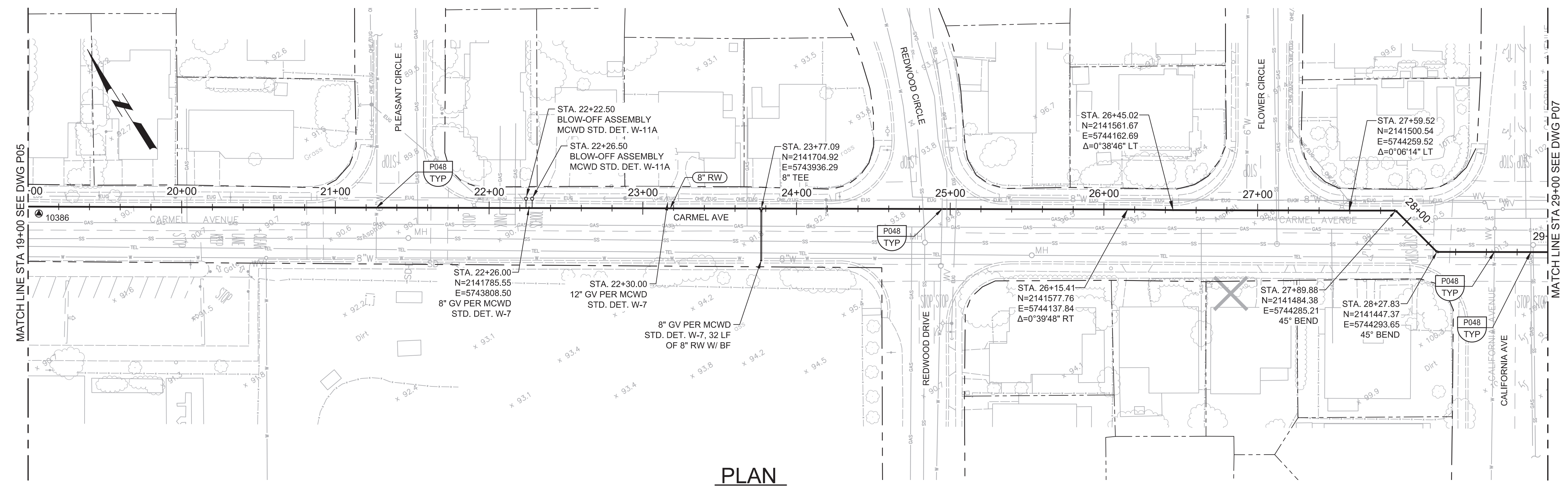


Plot Date: 10/10/2019 6:35:17 AM

FILE NAME: 7568C10P06.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes

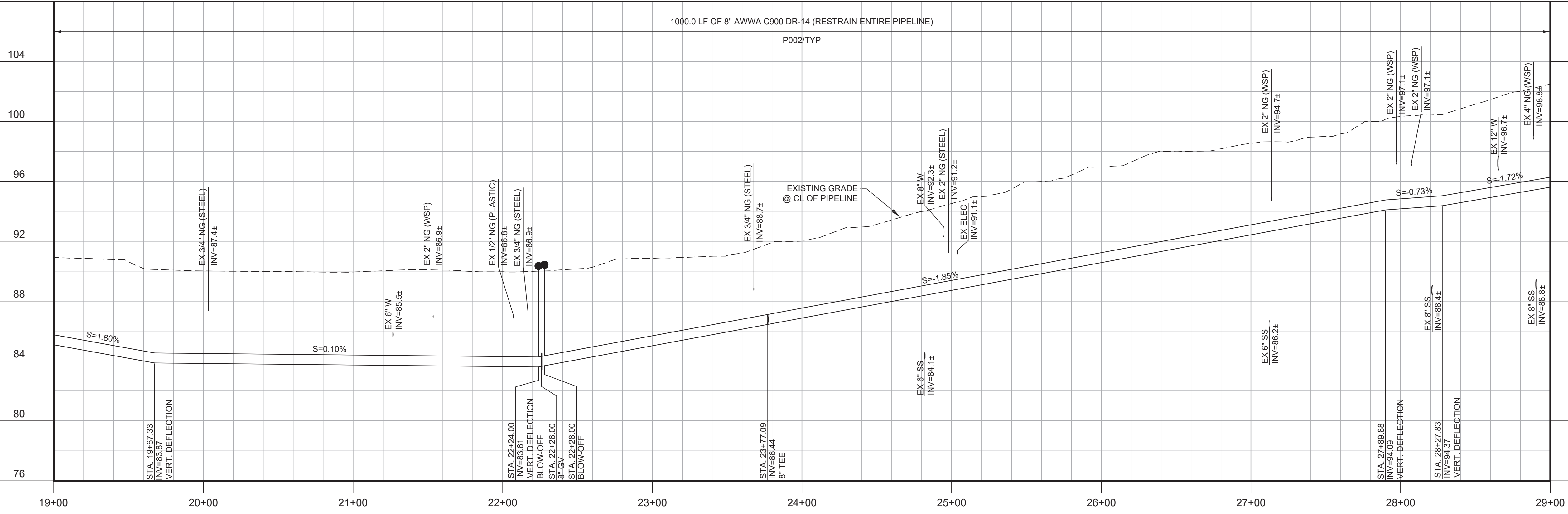


**PLAN**  
 SCALE: 1"=40'  
 FILE: 7568C10C101

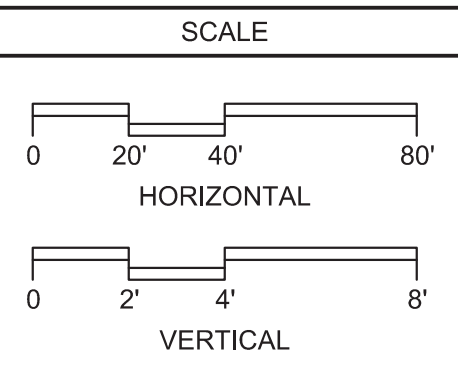
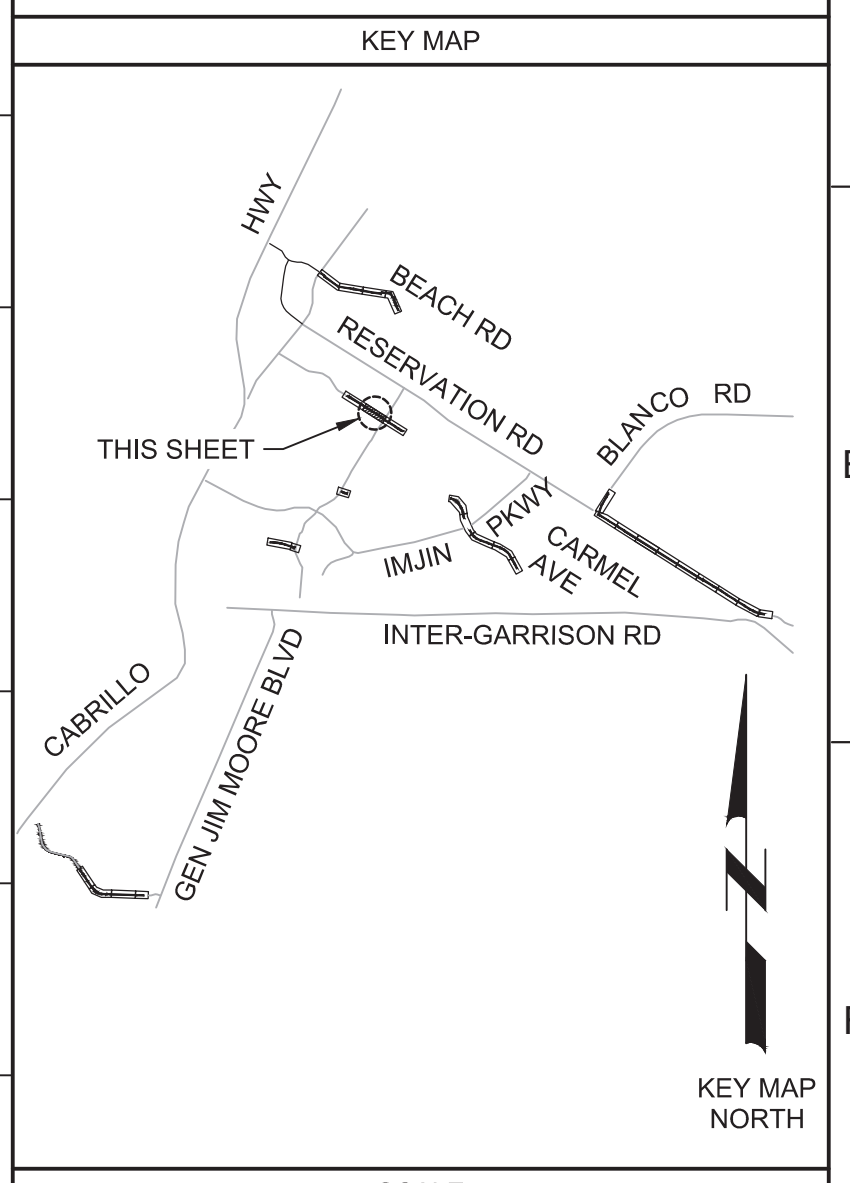
- GENERAL NOTES:**
1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  2. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.



Know what's below.  
 Call before you dig.



**PROFILE**  
 HORIZ SCALE: 1"=40'  
 VERT SCALE: 1"=4'  
 FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
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3			

<b>BID DOCUMENTS</b>	
DESIGNED	JPM/KMM
DRAWN	AL/BWH
CHECKED	
DATE	OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.10 13:22:00 -0700



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**  
**RECYCLED WATER DISTRIBUTION MAINS**  
 CIVIL DISTRIBUTION MAIN  
**CARMEL AVENUE**  
**STA 19+00 TO 29+00**

VERIFY SCALES	JOB NO. 7568C.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. P06
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 28 OF 66

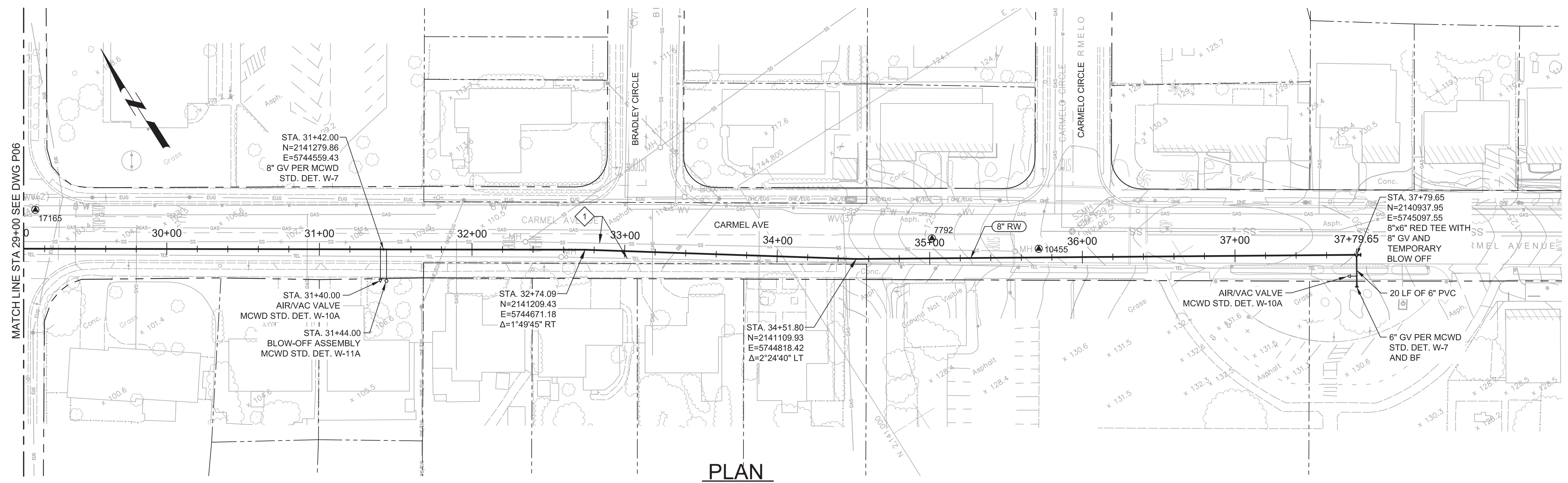


Plot Date: 10/10/2019 6:43:04 AM

FILE NAME: 7568C10P07.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



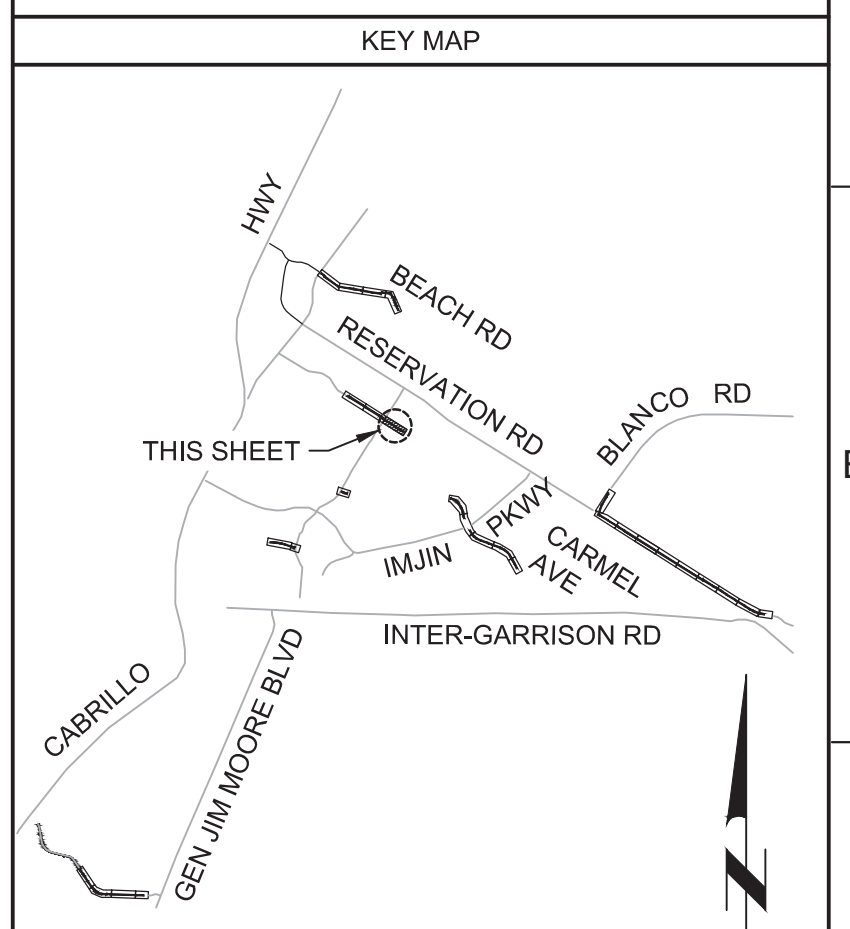
**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

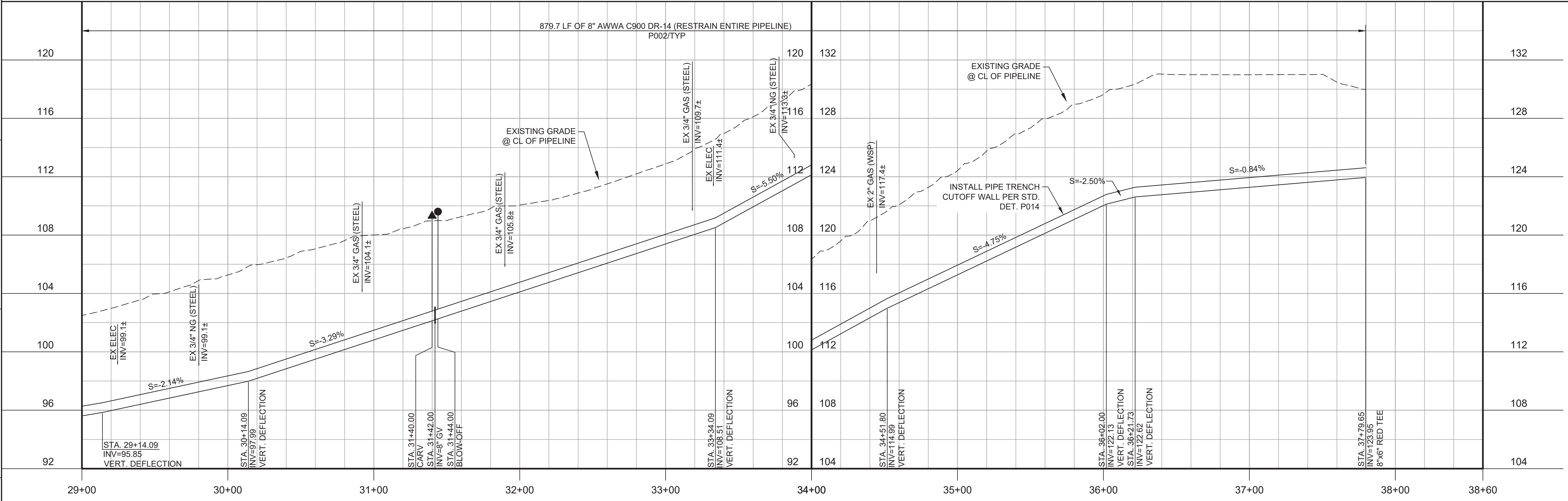
- KEY NOTES:**
- 1 CONTRACTOR TO LOCATE AND PROTECT IN PLACE EXISTING SANITARY SEWER AND TELEPHONE LINES, USING APPROPRIATE SHORING AS NECESSARY.



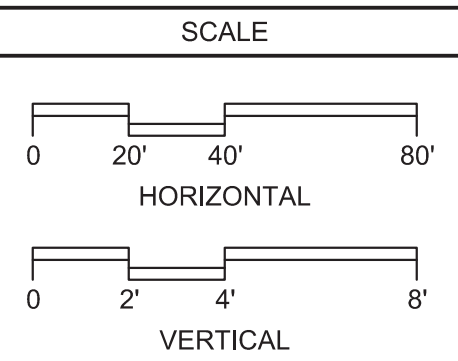
Know what's below.  
Call before you dig.



KEY MAP NORTH



**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101



REV				DATE	BY	DESCRIPTION
1						
2						
3						

**BID DOCUMENTS**

DESIGNED: JPM/KMM  
DRAWN: AL/BWH  
CHECKED: [Signature]  
DATE: OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineers, Inc.  
Date: 2019.10.10 12:21:02 -0700

*Jonathan P. Marshall*



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL DISTRIBUTION MAIN  
**CARMEL AVENUE**  
**STA 29+00 TO 37+79.65**

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. P07  
SHEET NO. 29 OF 66

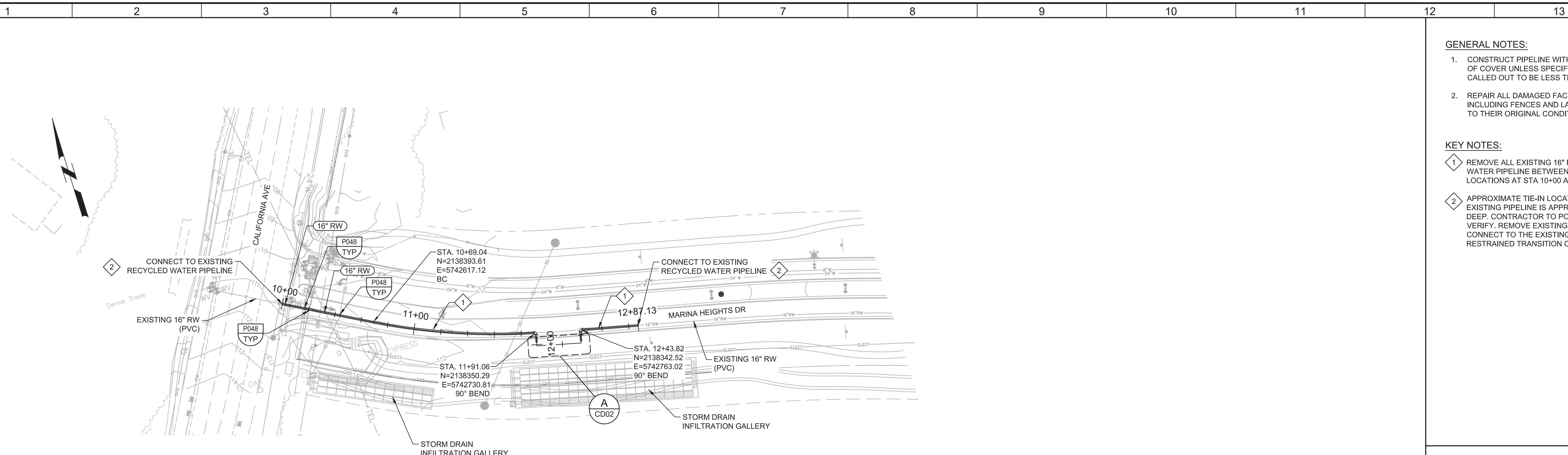


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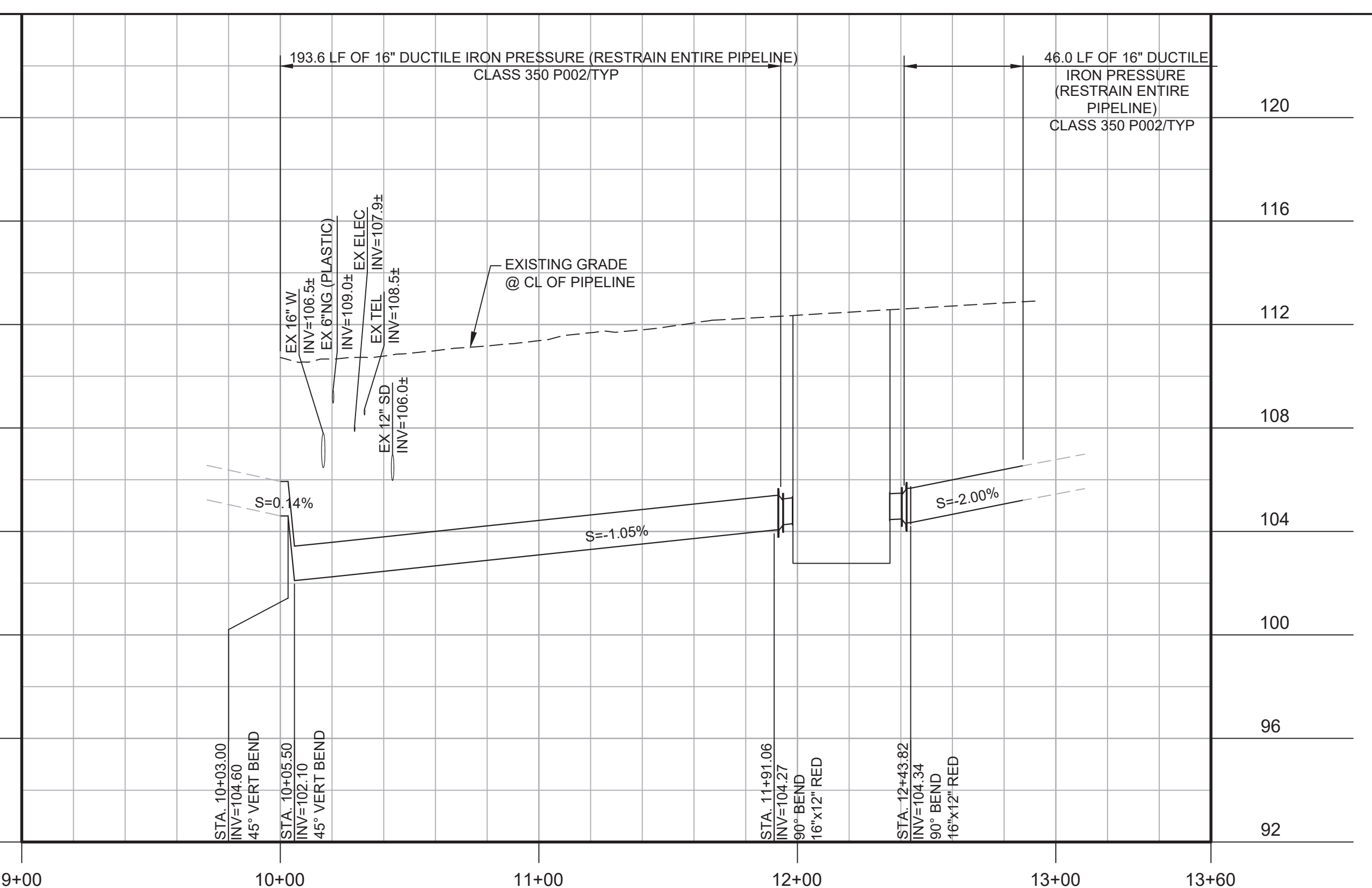
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PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

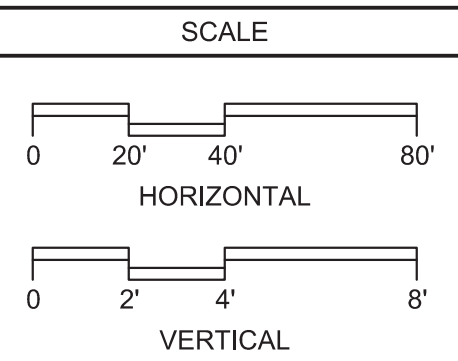
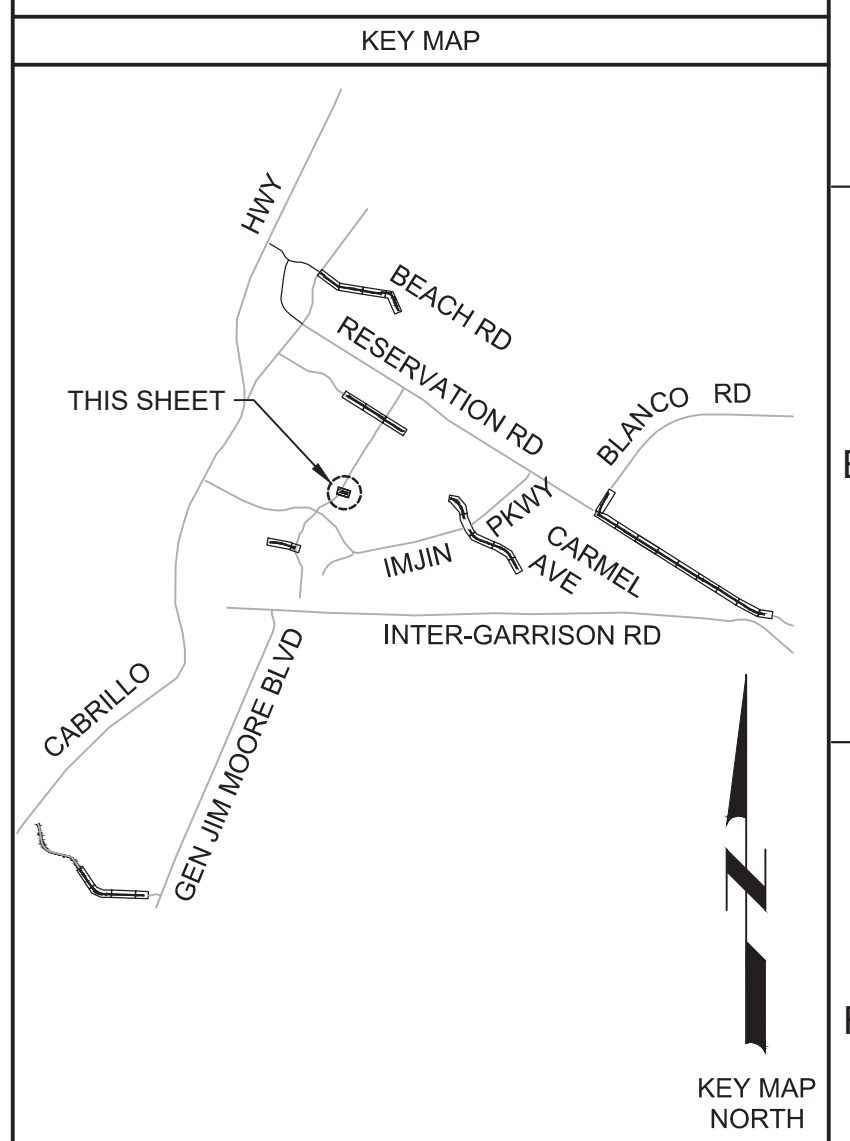


**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
- KEY NOTES:**
- REMOVE ALL EXISTING 16" RECYCLED WATER PIPELINE BETWEEN TIE IN LOCATIONS AT STA 10+00 AND STA 12+87.28.
  - APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH RESTRAINED TRANSITION COUPLING.



Know what's below.  
Call before you dig.



**BID DOCUMENTS**

DESIGNED  
JPM/KMM  
DRAWN  
AL/BWH  
CHECKED  
  
DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineers, Inc.  
Date: 2019.10.16 12:22:00 -0700



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
**RECYCLED WATER DISTRIBUTION MAINS**  
CIVIL DISTRIBUTION MAIN  
**MARINA HEIGHTS DRIVE PRV VAULT**  
STA 10+00 TO 12+87.13

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1" 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10  
DRAWING NO.  
**P08**  
SHEET NO.  
30 OF 66

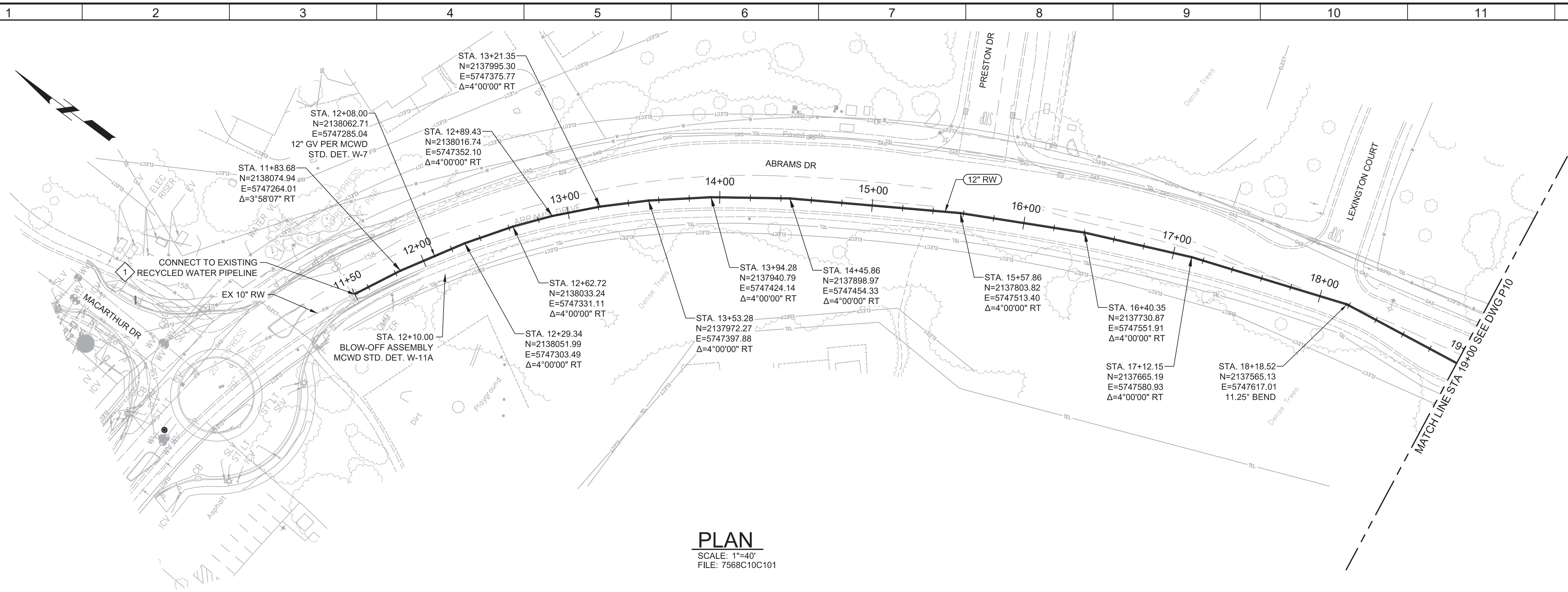


Plot Date: 10/7/2019 7:56:37 PM

FILE NAME: 7568C10P09.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



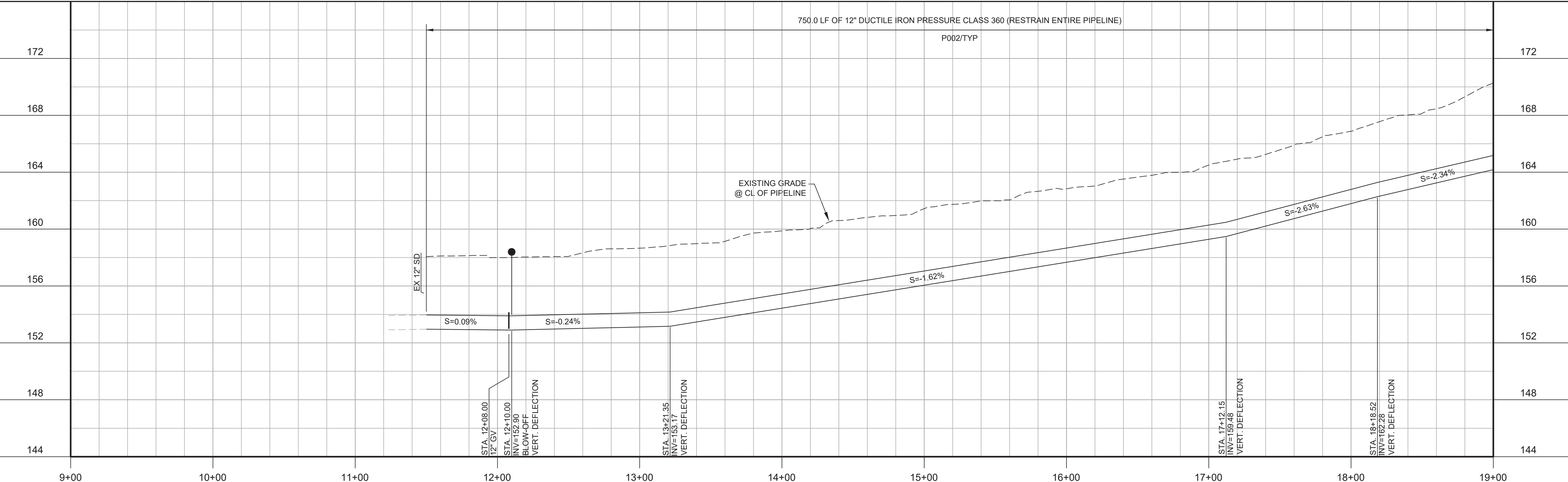
**PLAN**  
 SCALE: 1"=40'  
 FILE: 7568C10C101

**GENERAL NOTES:**  
 1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.

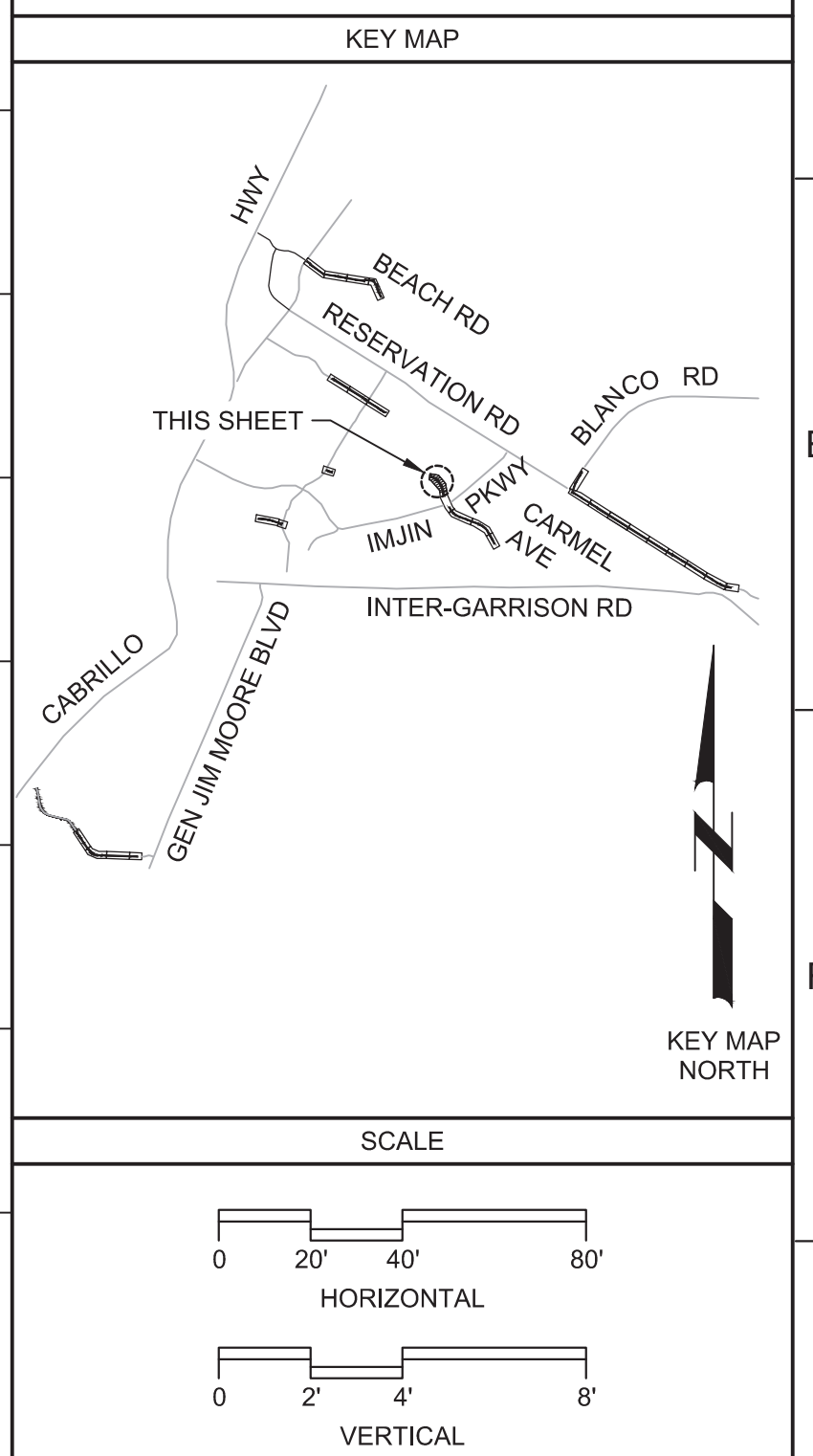
**KEY NOTES:**  
 1. APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH 10" X 12" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION JOINT RESTRAINTS.



Know what's below.  
 Call before you dig.



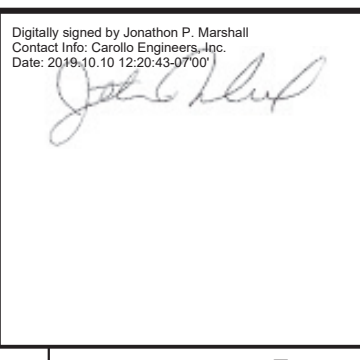
**PROFILE**  
 HORIZ SCALE: 1"=40'  
 VERT SCALE: 1"=4'  
 FILE: 7568C10C101



REV				DATE	BY	DESCRIPTION
1						
2						

**BID DOCUMENTS**

DESIGNED: JPM/KMM  
 DRAWN: AL/BWH  
 CHECKED: [Signature]  
 DATE: OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 DN: cn=Jonathan P. Marshall, o=Carollo Engineering, ou=Carollo Engineering, email=jmarshall@carollo.com



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**  
**RECYCLED WATER DISTRIBUTION MAINS**  
 CIVIL DISTRIBUTION MAIN  
**ABRAMS DRIVE**  
**STA 11+50 TO 19+00**

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
 DRAWING NO. P09  
 SHEET NO. 31 OF 66

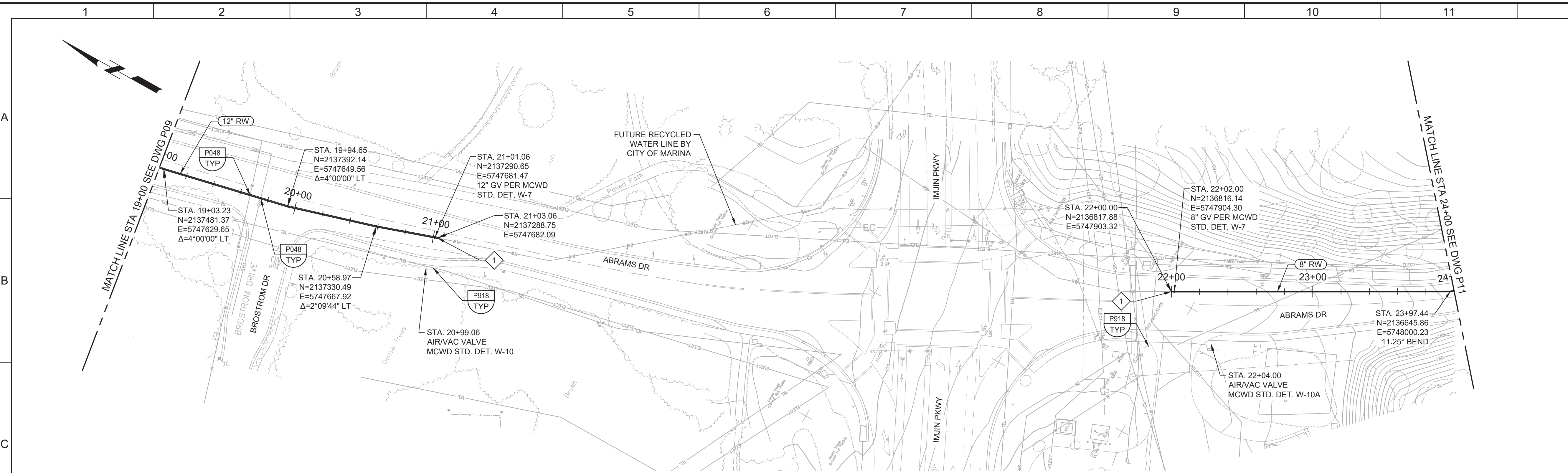


Plot Date: 10/7/2019 9:10:01 PM

FILE NAME: 7568C10P10.dwg

PROJECT NO. 7568C10

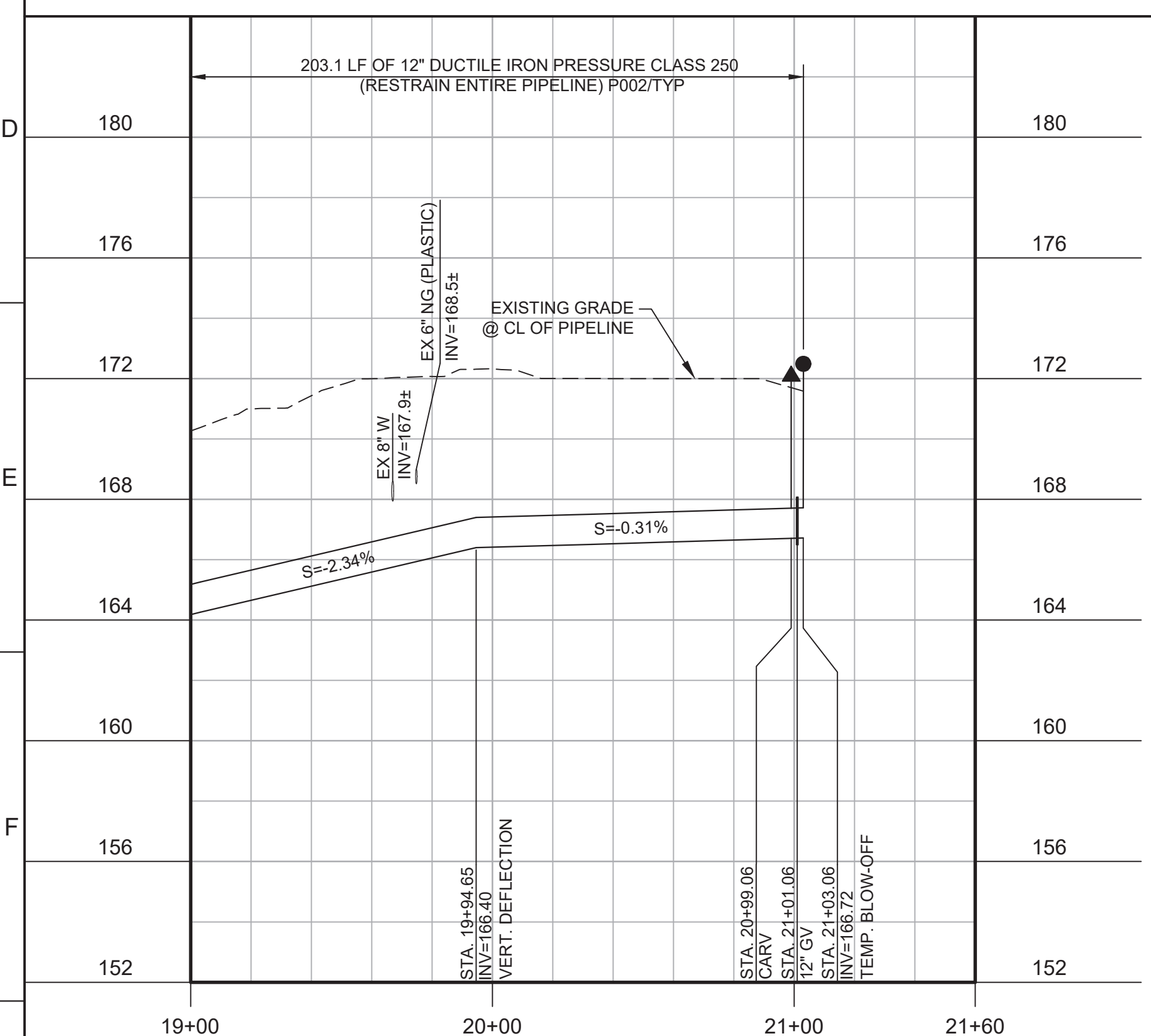
LAST SAVED BY: bhawes



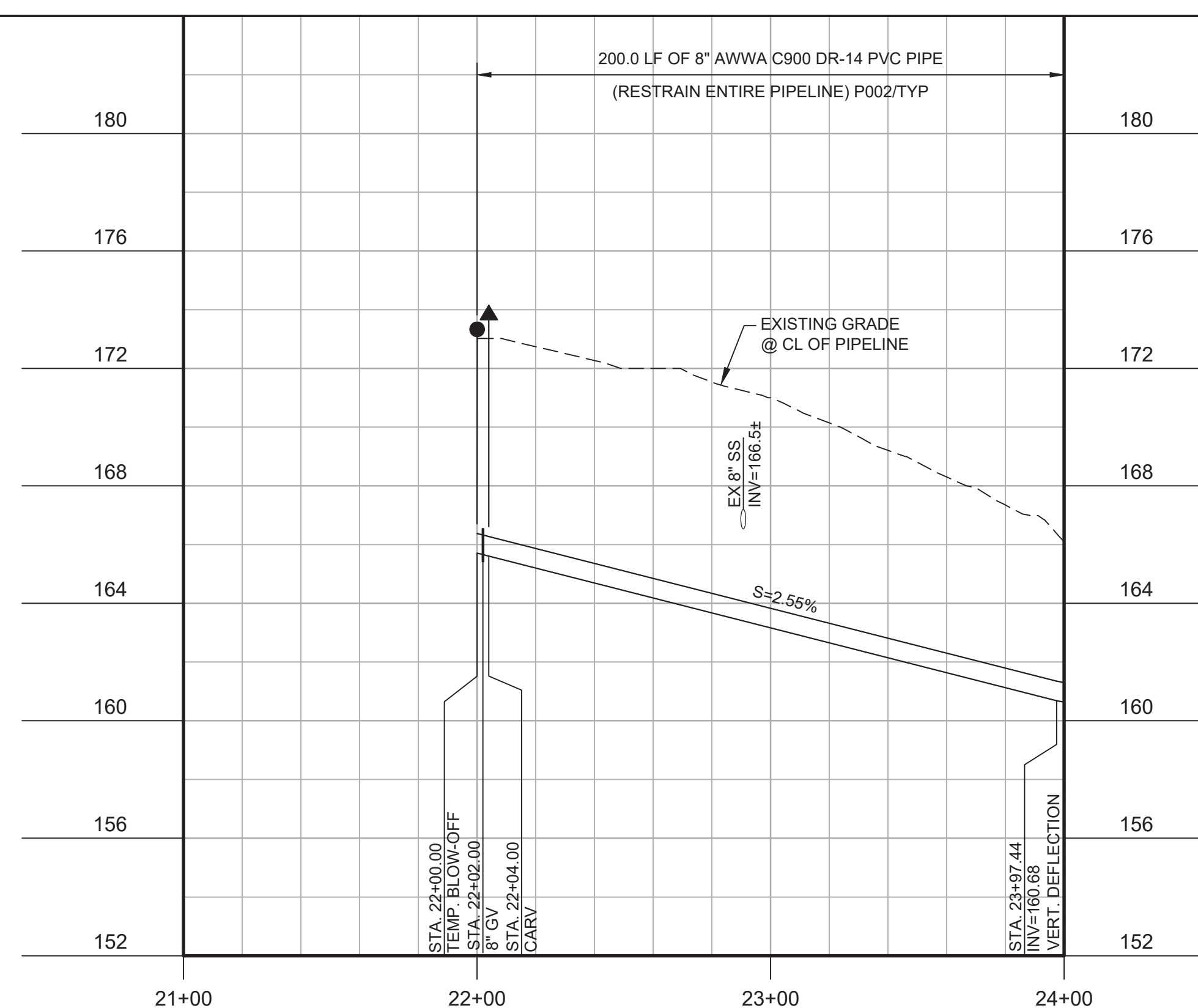
**PLAN**  
 SCALE: 1"=40'  
 FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

- KEY NOTES:**
- INSTALL TEMPORARY CAP AND BLOW-OFF.



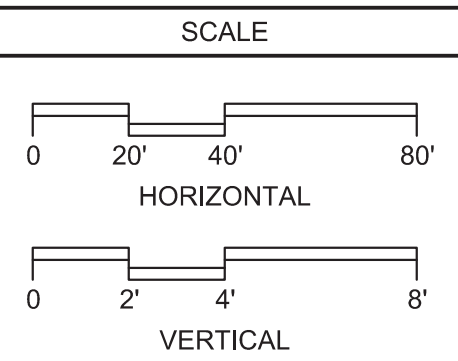
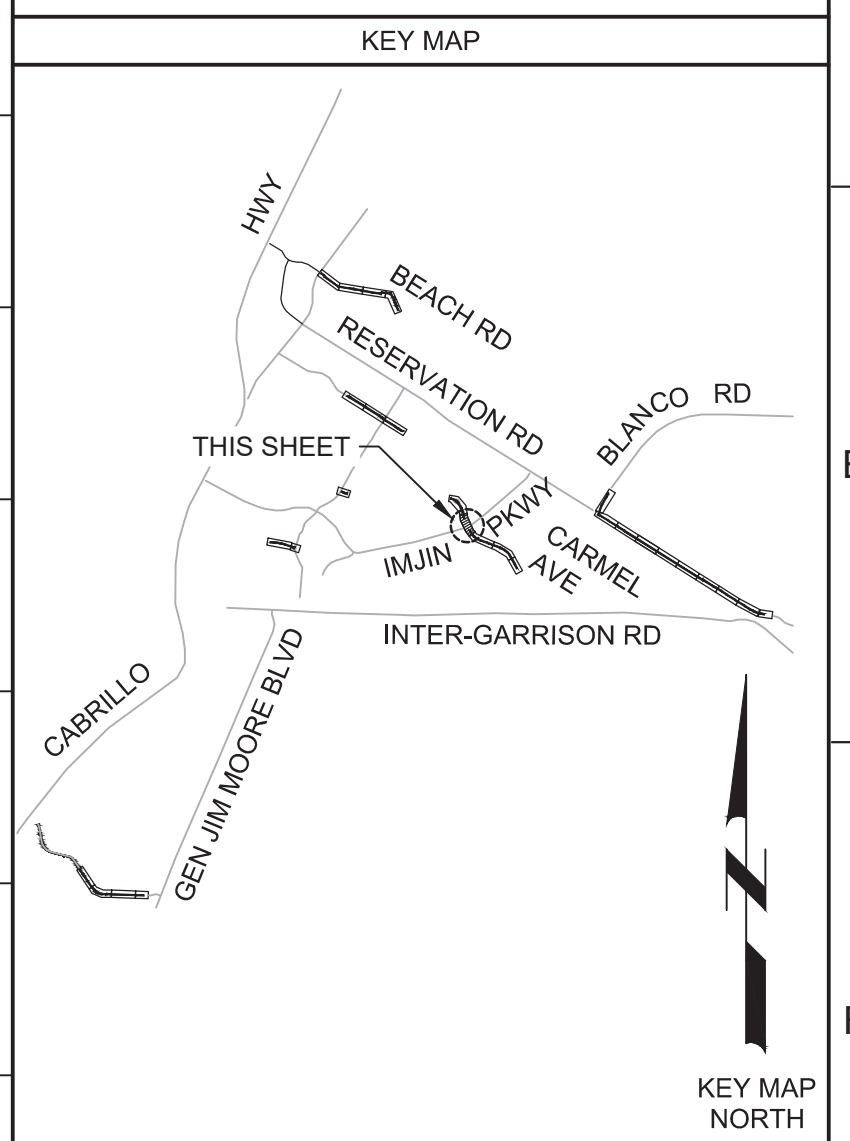
**PROFILE**  
 HORIZ SCALE: 1"=40'  
 VERT SCALE: 1"=4'  
 FILE: 7568C10C101



**PROFILE**  
 HORIZ SCALE: 1"=40'  
 VERT SCALE: 1"=4'  
 FILE: 7568C10C101



Know what's below.  
 Call before you dig.



BID DOCUMENTS			
REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED JPM/KMM	
DRAWN AL/BWH	
CHECKED	
DATE OCTOBER 2019	

Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.16 12:20:59-0700



REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 CIVIL DISTRIBUTION MAIN  
 ABRAMS DRIVE  
 STA 19+00 TO 21+03.06 AND STA 22+00 TO 24+00

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING	JOB NO. 7568C.10
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWING NO. <b>P10</b>
	SHEET NO. 32 OF 66

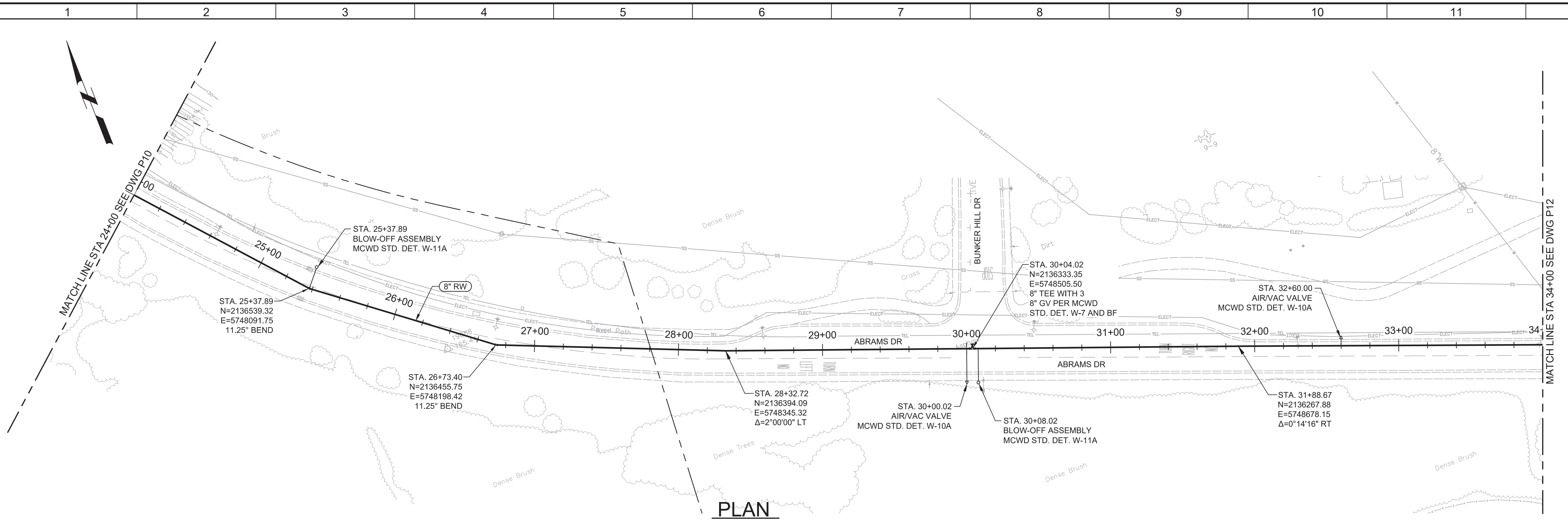


Plot Date: 10/10/2019 6:50:14 AM

FILE NAME: 7568C10P11.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



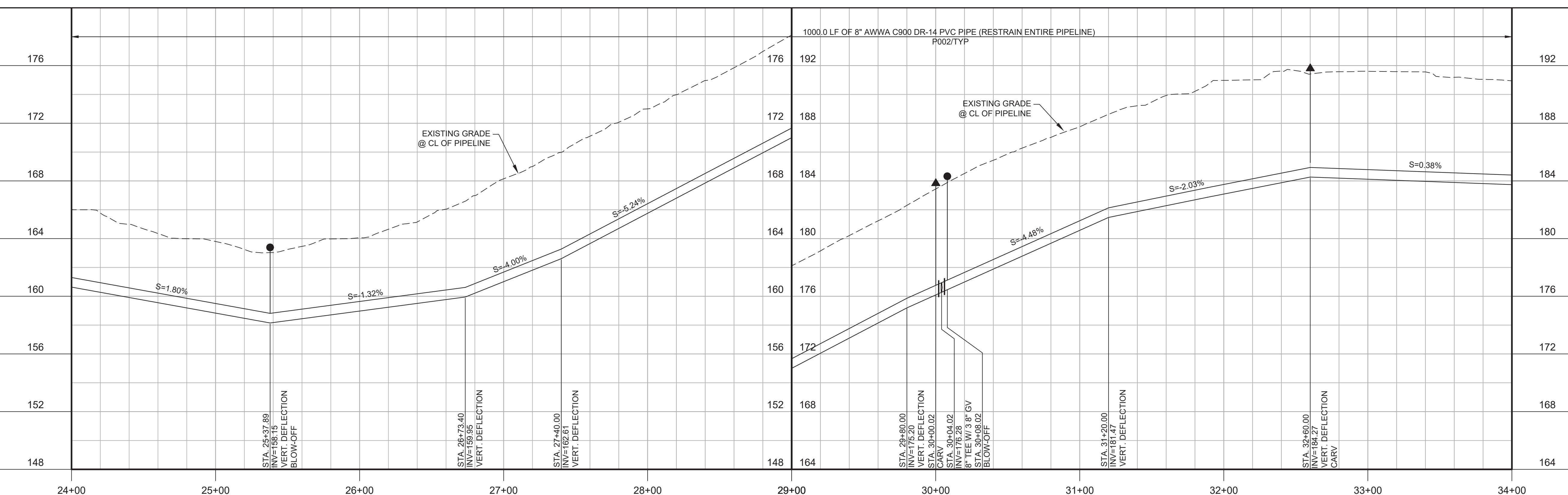
**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

BID ALTERNATE A

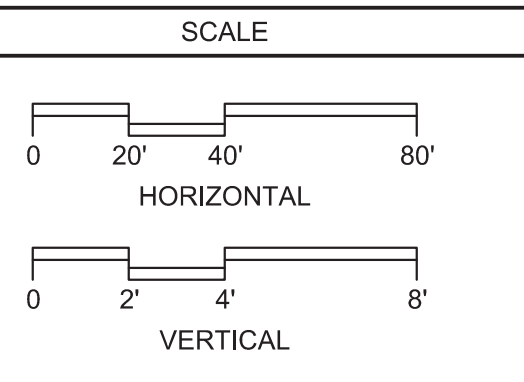
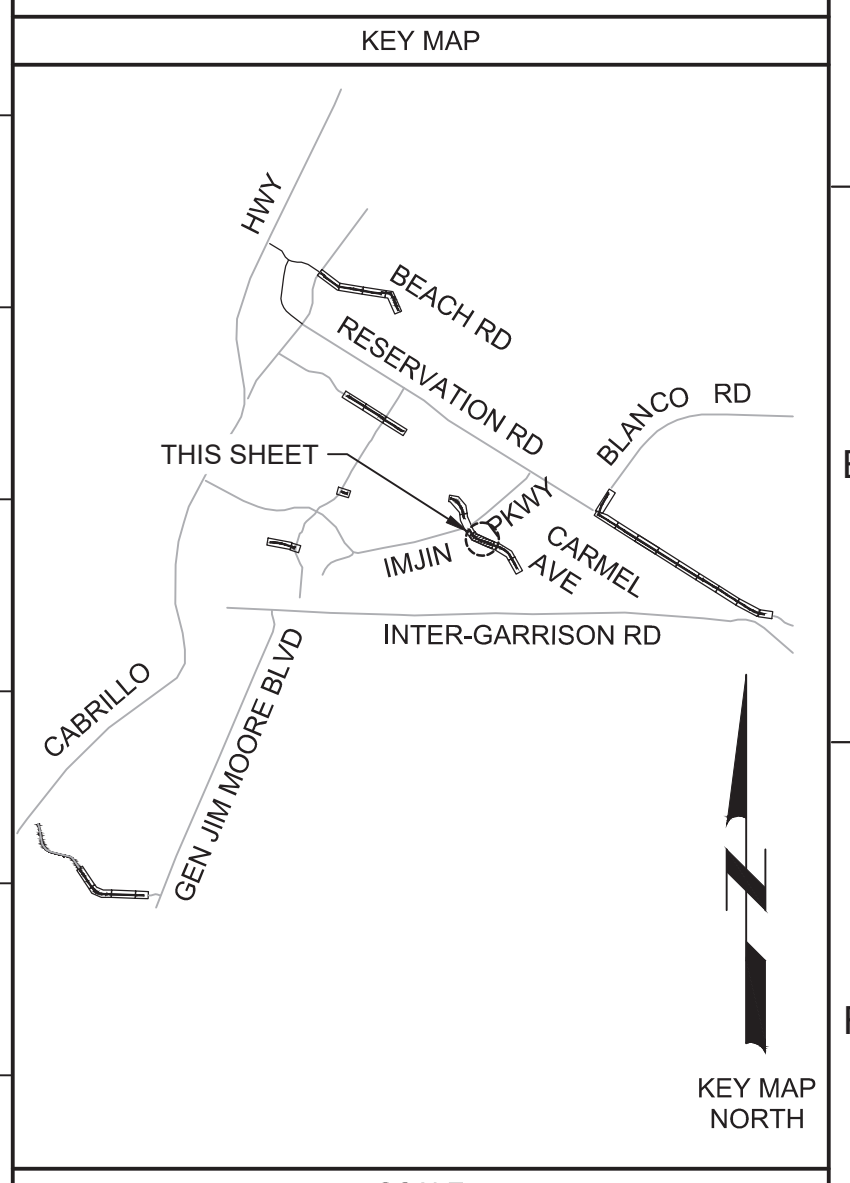
- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.



Know what's below.  
Call before you dig.



**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101



REV				DATE	BY	DESCRIPTION
1						
2						

**BID DOCUMENTS**

DESIGNED: JPM/KMM  
DRAWN: AL/BWH  
CHECKED: [Signature]  
DATE: OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineers, Inc.  
Date: 2019.10.10 12:10:49-0700



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL DISTRIBUTION MAIN  
**ABRAMS DRIVE**  
**STA 24+00 TO 34+00**

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. **P11**  
SHEET NO. 33 OF 66

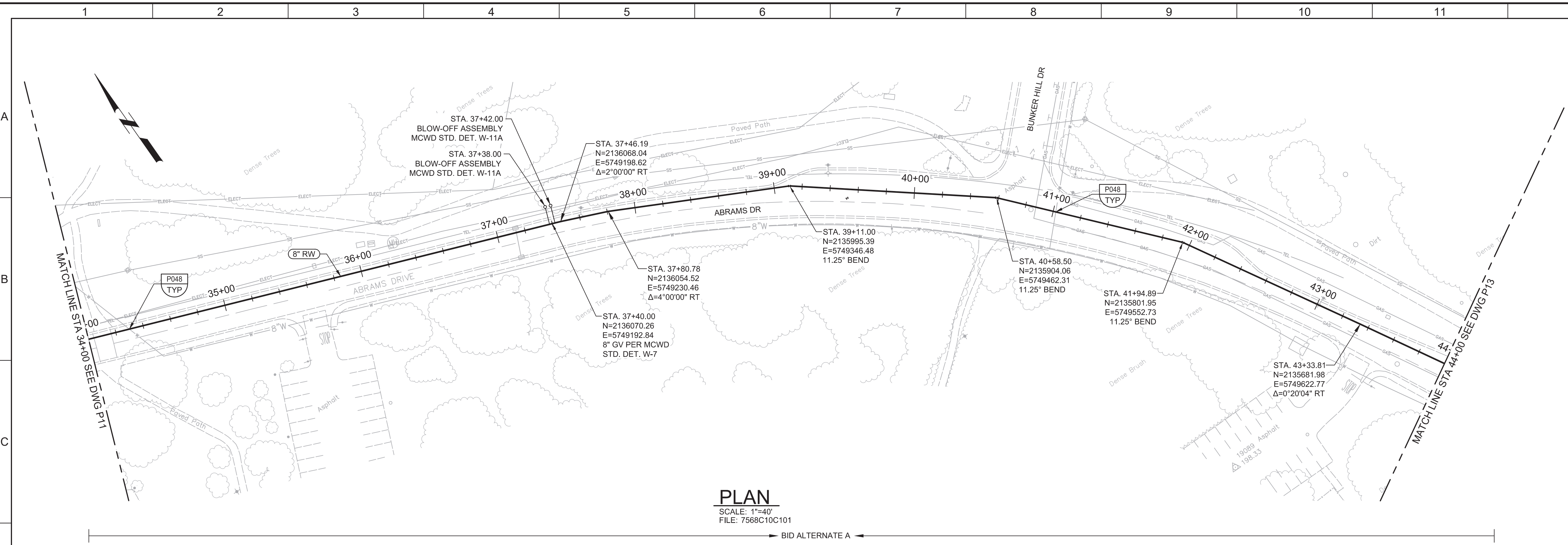


Plot Date: 10/7/2019 9:00:23 PM

FILE NAME: 7568C10F12.dwg

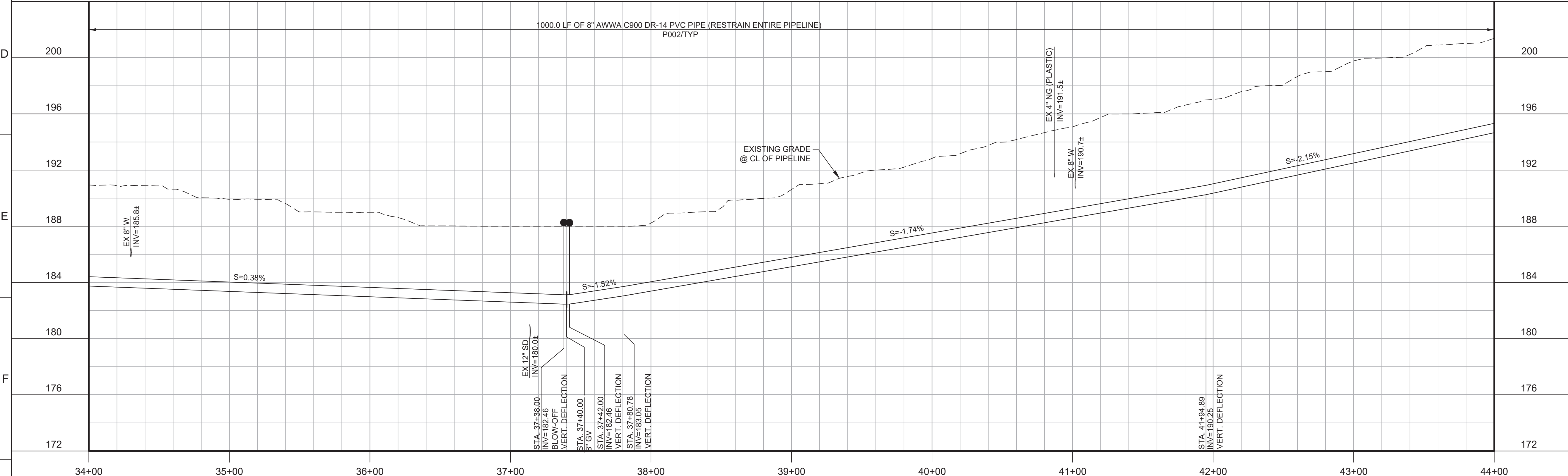
PROJECT NO. 7568C10

LAST SAVED BY: bhawes



**PLAN**  
 SCALE: 1"=40'  
 FILE: 7568C10C101

← BID ALTERNATE A →



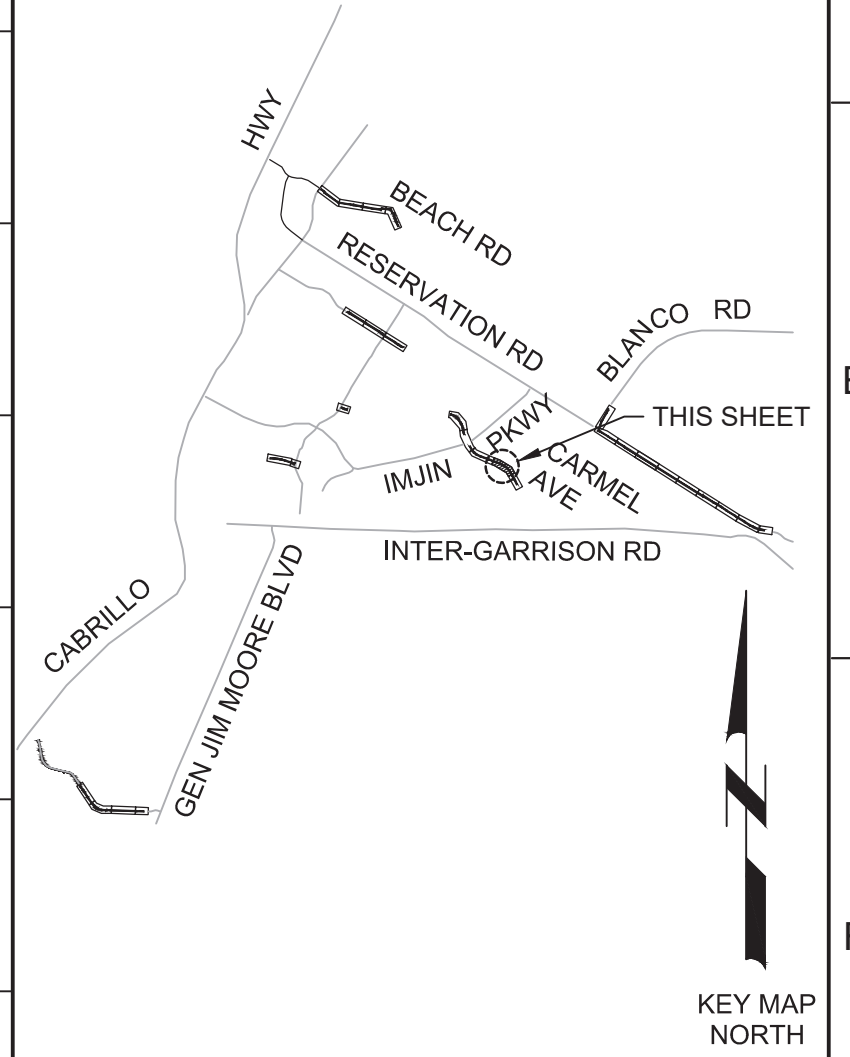
**PROFILE**  
 HORIZ SCALE: 1"=40'  
 VERT SCALE: 1"=4'  
 FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

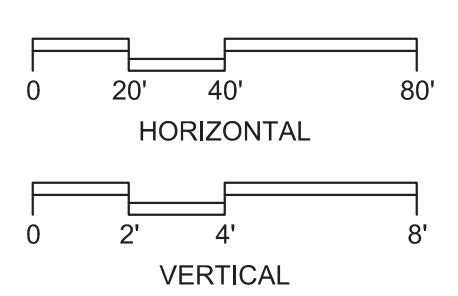


Know what's below.  
 Call before you dig.

KEY MAP



SCALE



REV				DATE	BY	DESCRIPTION
1						
2						
3						

DESIGNED	JPM/KMM
DRAWN	AL/BWH
CHECKED	
DATE	OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineers, Inc.  
 Date: 2019.10.16 12:13:09 -0700



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 CIVIL DISTRIBUTION MAIN  
**ABRAMS DRIVE**  
 STA 34+00 TO 44+00

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1" 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
 DRAWING NO. **P12**  
 SHEET NO. 34 OF 66

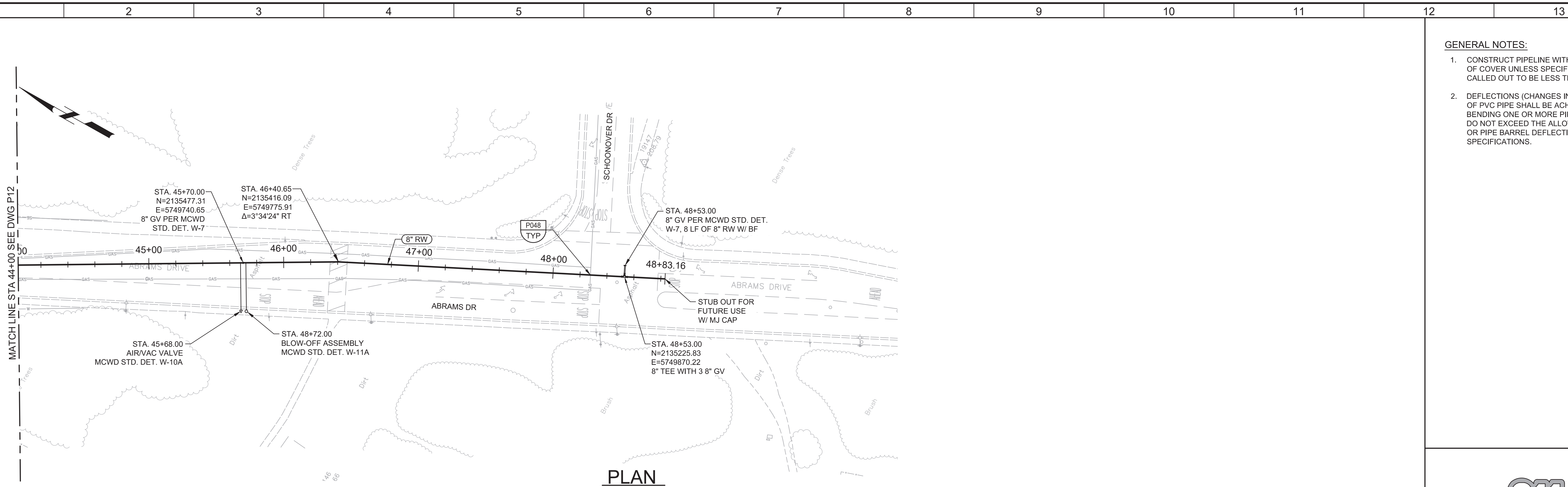


Plot Date: 10/10/2019 6:53:45 AM

FILE NAME: 7568C10P13.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes

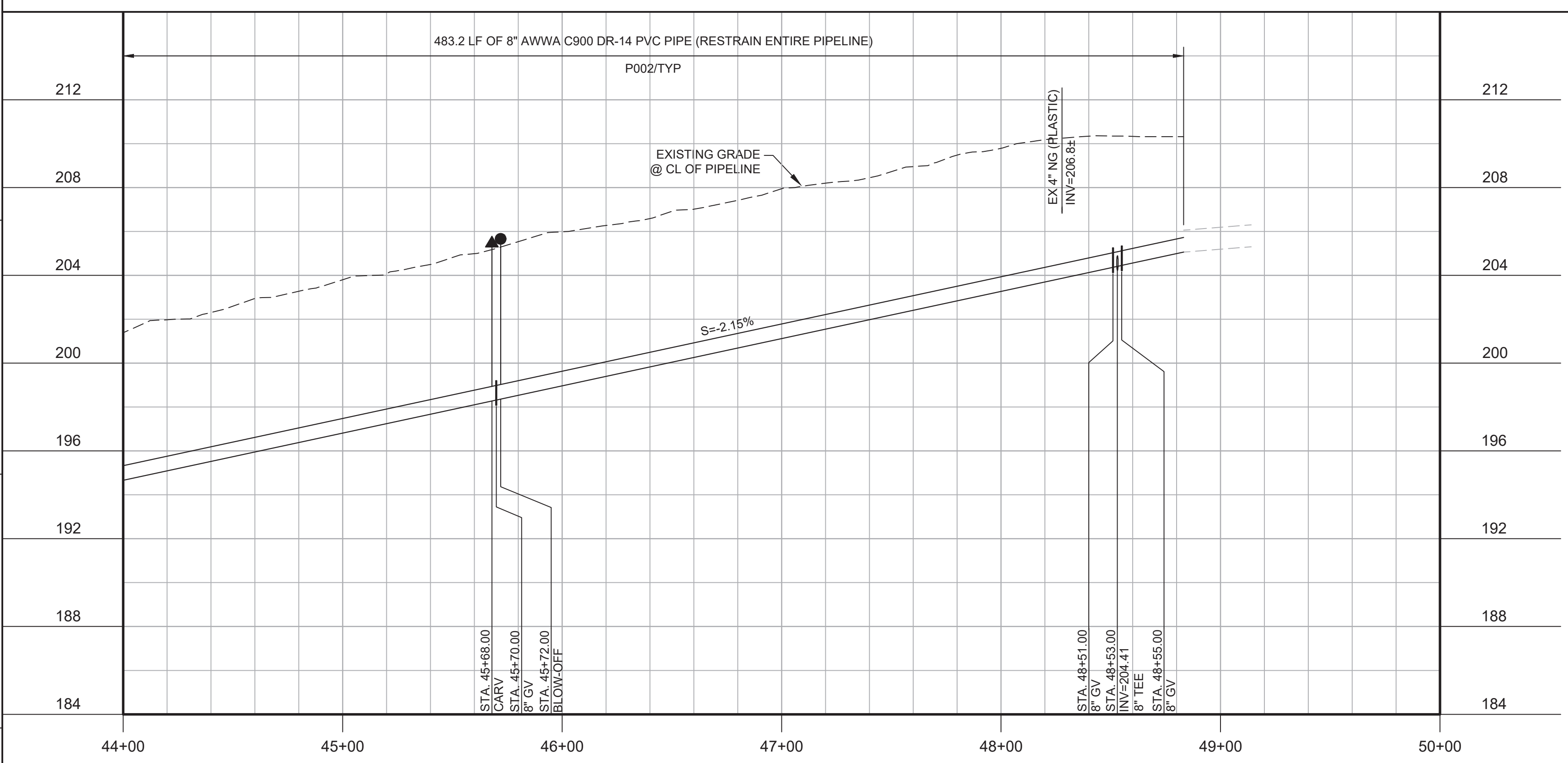


**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

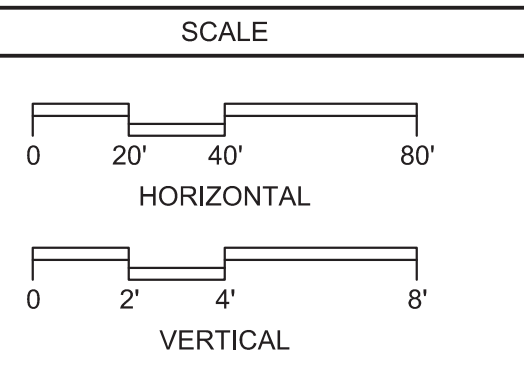
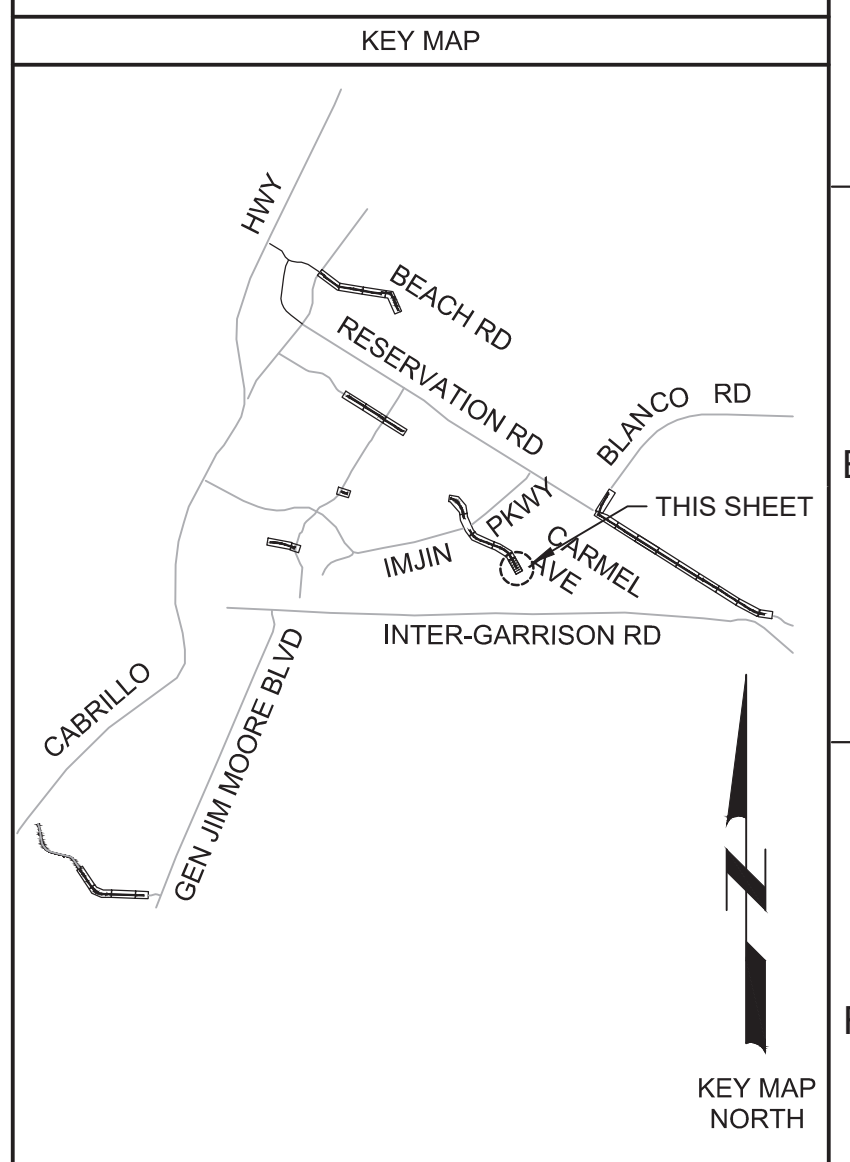
- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.



Know what's below.  
Call before you dig.



**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			
3			

**BID DOCUMENTS**

DESIGNED: JPM/KMM  
DRAWN: AL/BWH  
CHECKED: [Signature]  
DATE: OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineering, Inc.  
Date: 2019.10.10 12:10:29 -0700

*Jonathan P. Marshall*



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
CIVIL DISTRIBUTION MAIN  
**ABRAMS DRIVE**  
STA 44+00 TO 48+83.16

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1" 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. **P13**  
SHEET NO. 35 OF 66

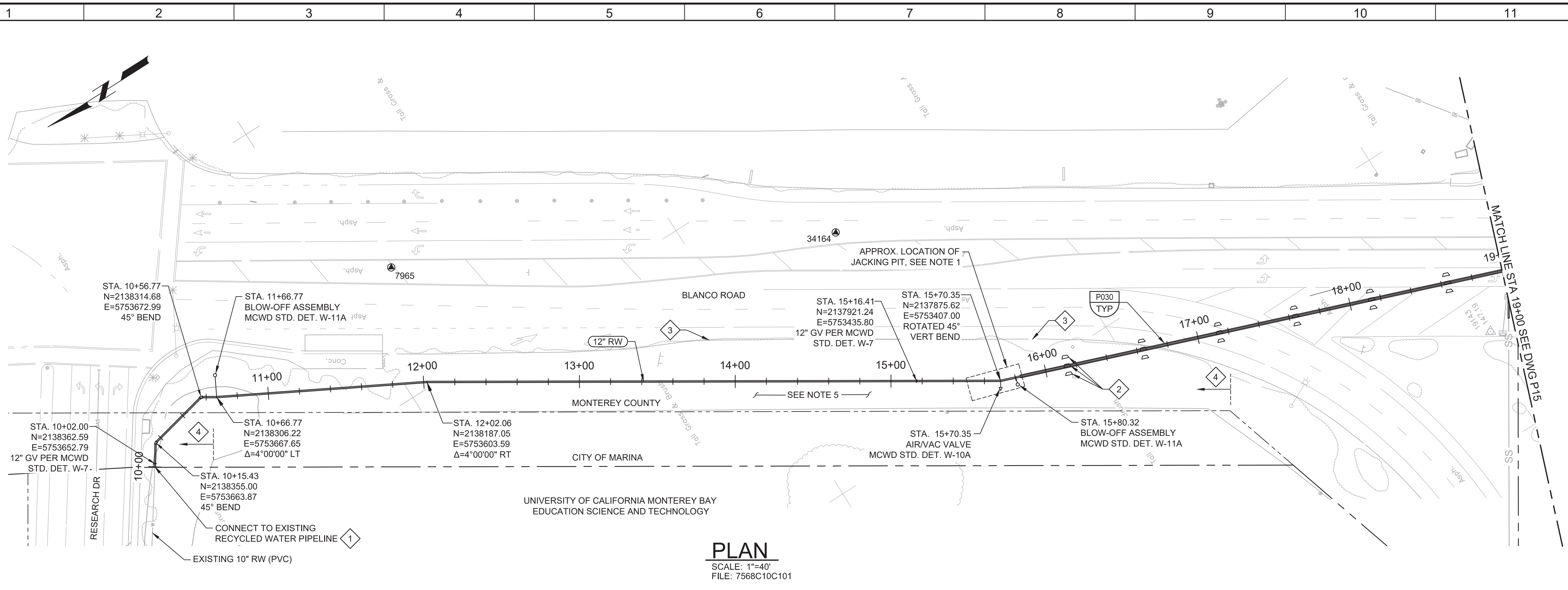


Plot Date: 10/7/2019 9:21:53 PM

FILE NAME: 7568C10P14.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



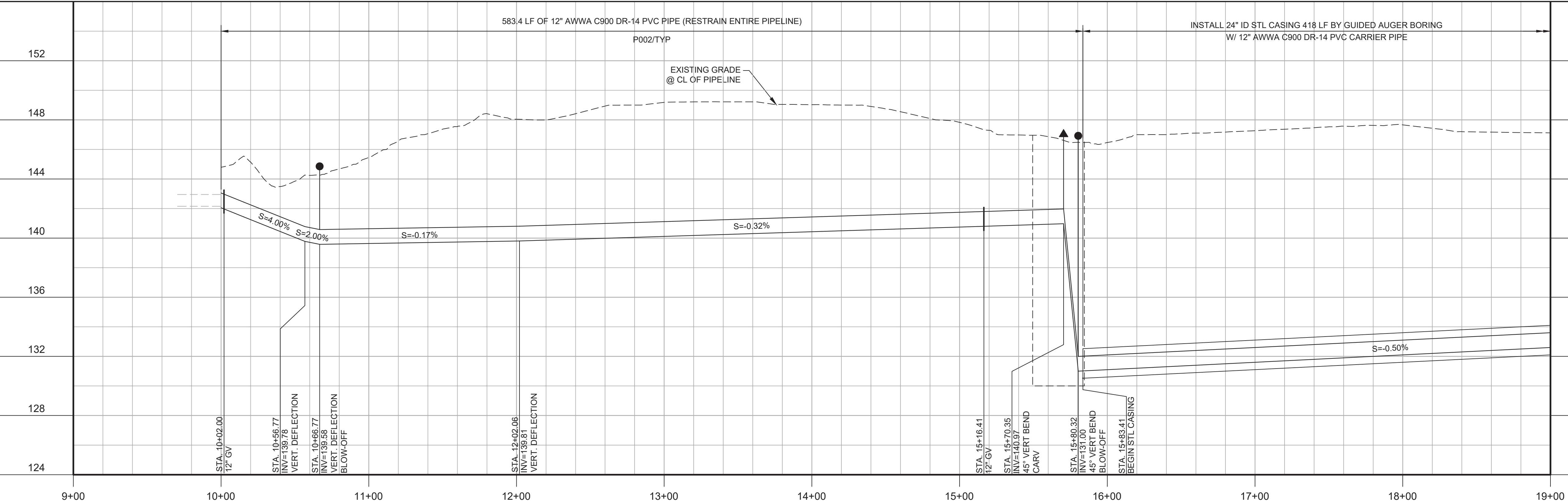
**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

- GENERAL NOTES:**
- EXACT LOCATIONS AND DIMENSIONS OF JACKING PIT TO BE DETERMINED BY CONTRACTOR AND SUBMITTED TO ENGINEER FOR REVIEW
  - CONSTRUCT PIPELINE WITH A MINIMUM OF 4' COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - CLEAR AND GRUB AS REQUIRED TO FACILITATE INSTALLATION OF PIPE AND APPURTENANCES.
  - ARBORIST SHALL BE PRESENT FOR ALL TREE PRUNING PER SPECIFICATION SECTION 01562.
  - SEE BID ITEM FOR RARE PLANT RESTORATION.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

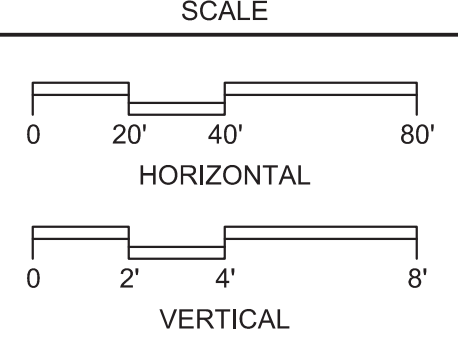
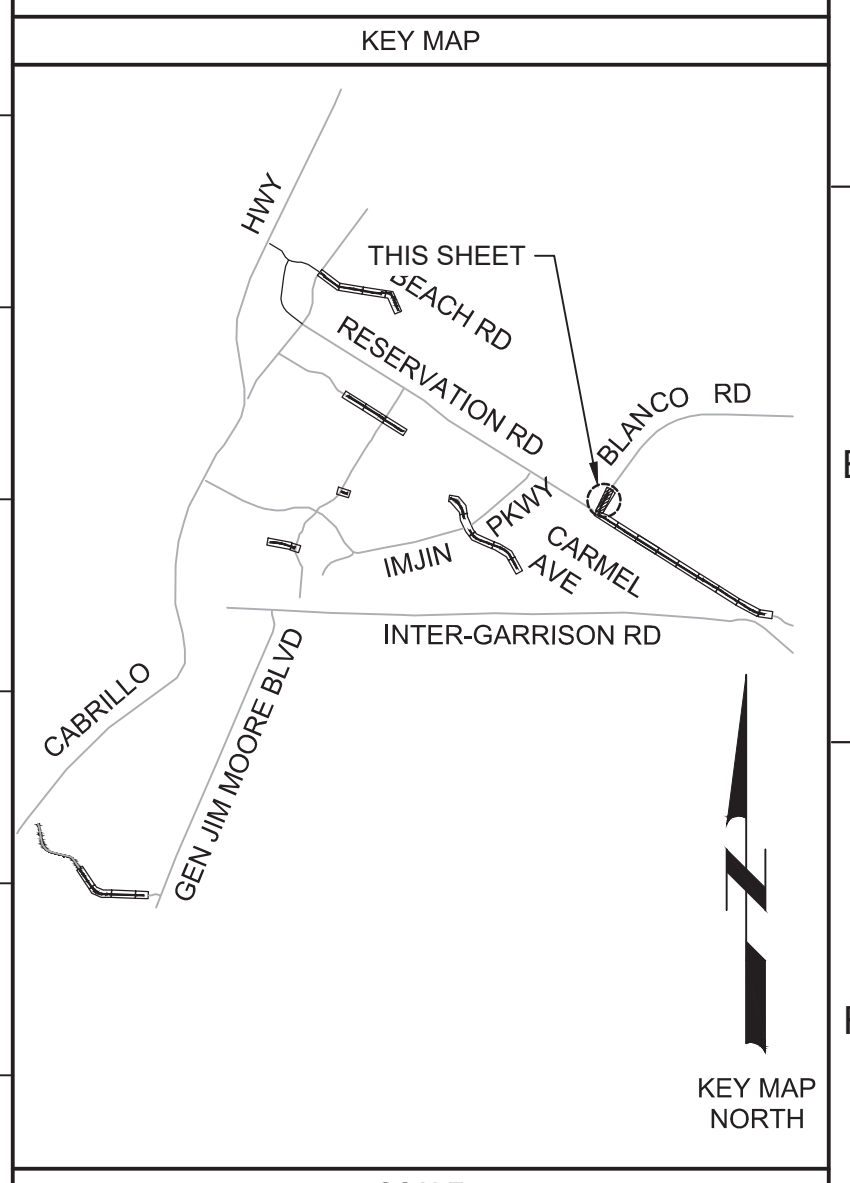
- KEY NOTES:**
- APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND BLOW-OFF AND CONNECT TO THE EXISTING PIPE WITH 10" X 12" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION JOINT RESTRAINTS.
  - SETTLEMENT MONITORING LOCATION. SEE SPECIFICATION FOR MONITORING REQUIREMENTS.
  - INSTALL TEMPORARY TYPE K TRAFFIC GUARDRAIL BEYOND EDGE OF PAVEMENT.
  - WORK AREA LIMITED TO UNPAVED AREA IN MONTEREY COUNTY AND 40' STRIP OF MARINA AREA.



Know what's below.  
Call before you dig.



**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=8'  
FILE: 7568C10C101



REV				DATE	BY	DESCRIPTION
1						
2						
3						

<b>BID DOCUMENTS</b>	
DESIGNED JPM/KMM	
DRAWN AL/BWH	
CHECKED	
DATE OCTOBER 2019	

Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineering, Inc.  
Date: 2019.10.16 13:11:42 -0700

**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL DISTRIBUTION MAIN

**BLANCO RD & RESERVATION RD**

**STA 10+00 TO 19+00**

VERIFY SCALES	JOB NO. 7568C.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. <b>P14</b>
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 36 OF 66

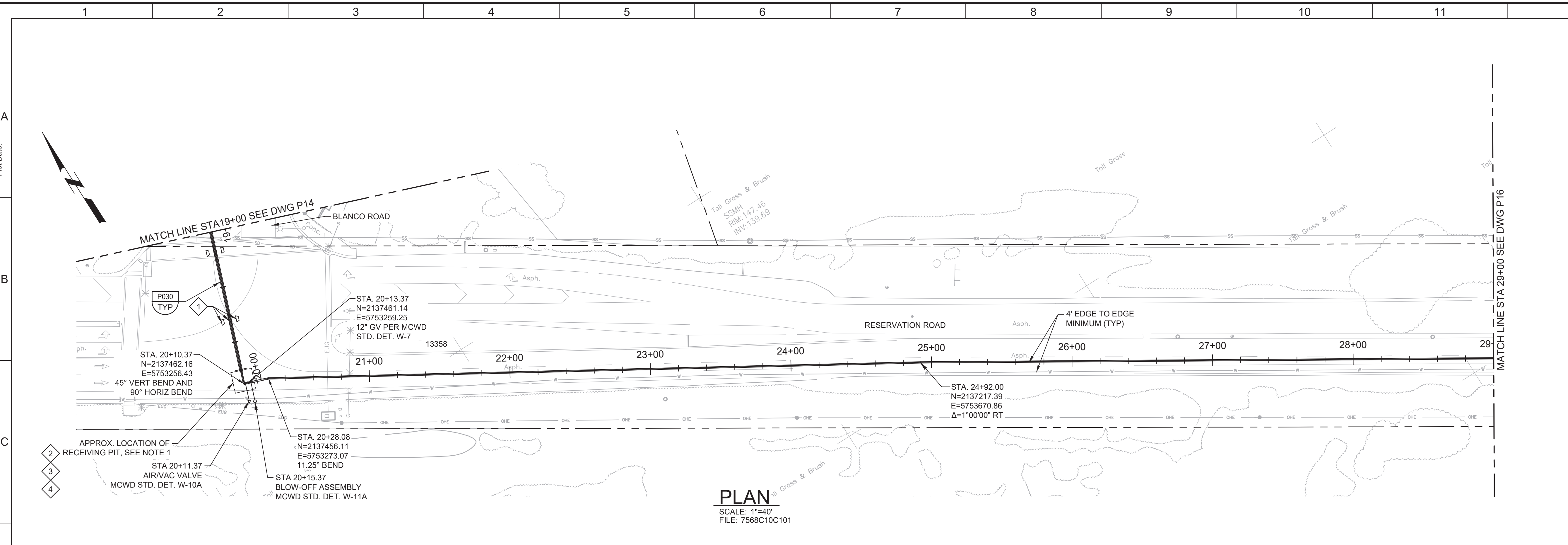


10/10/2019 6:57:24 AM

FILE NAME: 7568C10P15.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes

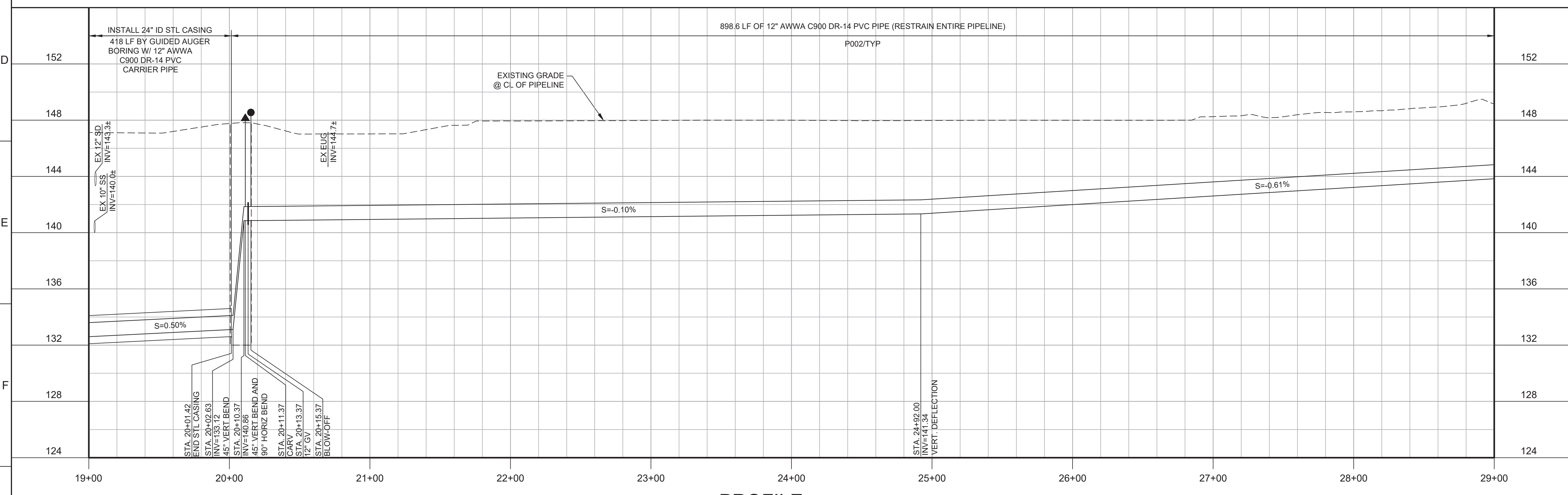


**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

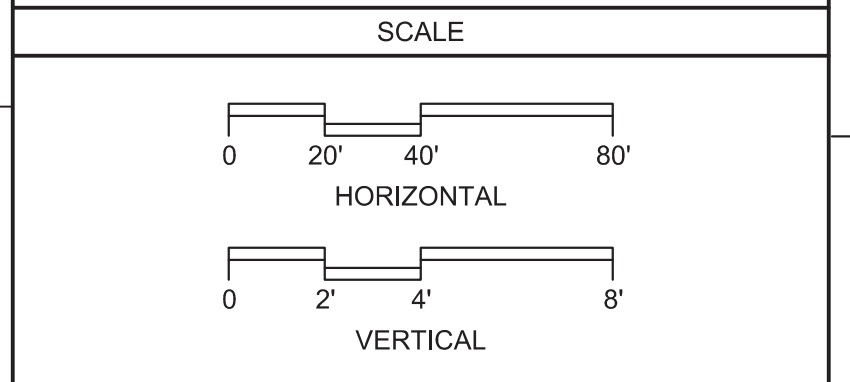
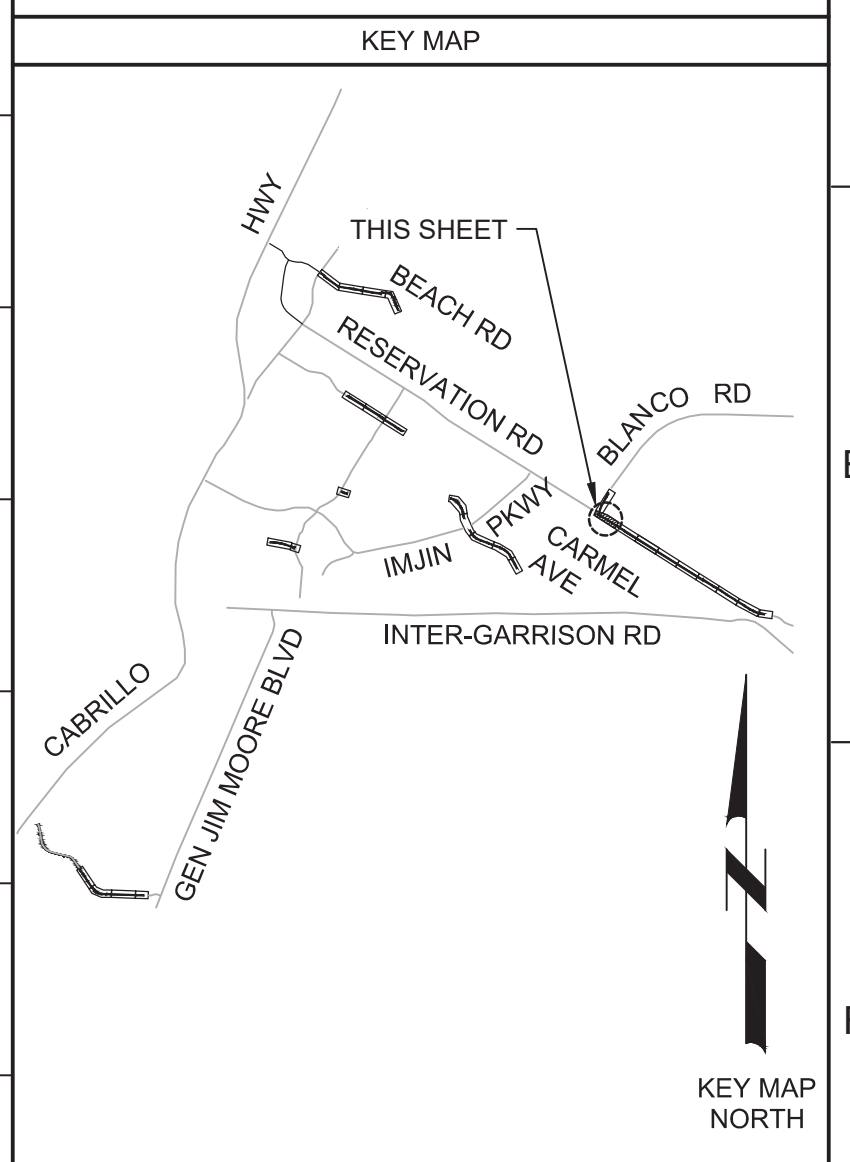
- GENERAL NOTES:**
- EXACT LOCATIONS AND DIMENSIONS OF RECEIVING PIT TO BE DETERMINED BY CONTRACTOR AND SUBMITTED TO ENGINEER FOR REVIEW. CONTRACTOR MAY PROPOSE AND ENGINEER WILL CONSIDER, AT NO COST OR TIME IMPACT, EXTENDING THE BORE AND LOCATING THE RECEIVING PIT SOUTH, BEYOND THE PAVEMENT, TO MINIMIZE THE EXTENT OF WORK IN THE STREET. THIS WOULD REQUIRE RELOCATING A COUNTY ELECTRICAL CABLE AND COUNTY APPROVAL.
  - CONSTRUCT PIPELINE WITH A MINIMUM OF 4' COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
  - CLEAR AND GRUB AS REQUIRED TO FACILITATE INSTALLATION OF PIPE AND APPURTENANCES.
  - ARBORIST SHALL PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- SETTLEMENT MONITORING LOCATION. SEE SPECIFICATION FOR MONITORING REQUIREMENTS.
  - INSTALL TEMPORARY TYPE K TRAFFIC GUARDRAIL AROUND RECEIVING PIT.
  - SEE SECTION 02261 FOR TIME RESTRICTIONS ON RECEIVING SHAFT CONSTRUCTION.
  - SEE SECTION 01550 FOR SPECIAL TRAFFIC CONTROL REQUIREMENTS AT INTERSECTION.



Know what's below.  
Call before you dig.

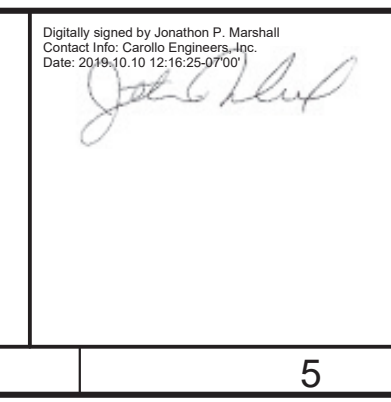


**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			
3			

<b>BID DOCUMENTS</b>	DESIGNED JPM/KMM
	DRAWN AL/BWH
	CHECKED
	DATE OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineering, Inc.  
Date: 2019.10.10 13:10:29 -0700



REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
CIVIL DISTRIBUTION MAIN  
BLANCO RD & RESERVATION RD  
STA 19+00 TO 29+00

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7568C.10 DRAWING NO. <b>P15</b> SHEET NO. 37 OF 66
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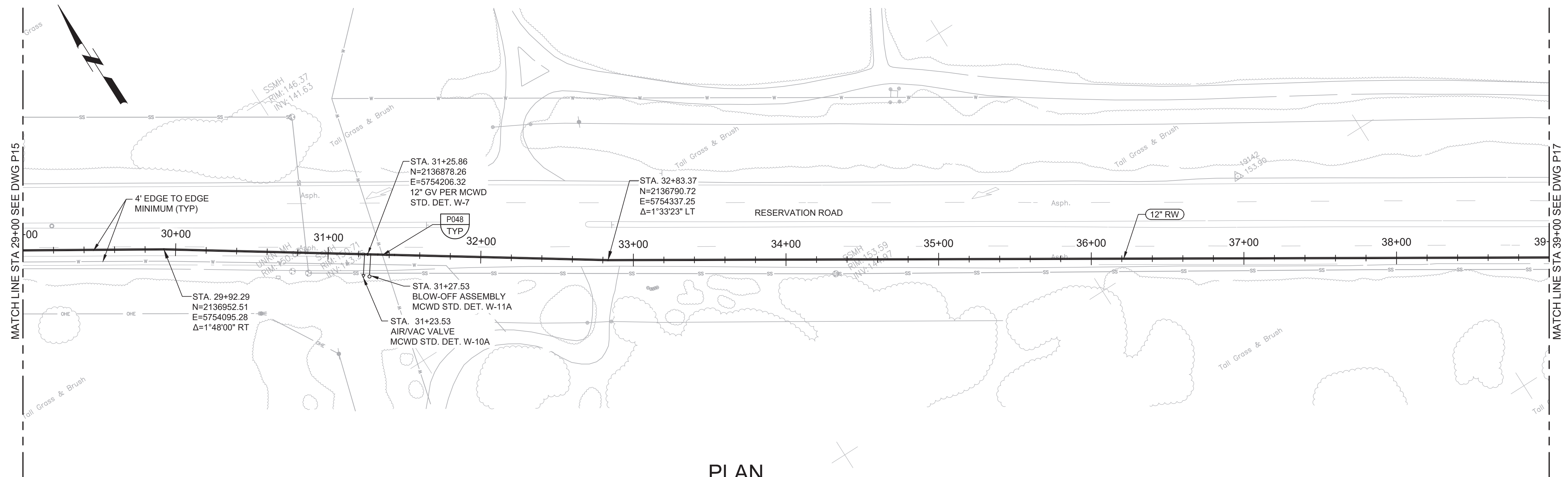


Plot Date: 10/9/2019 8:10:59 AM

FILE NAME: 7568C10F16.dwg

PROJECT NO. 7568C10

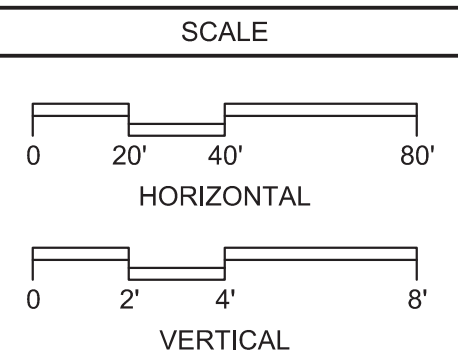
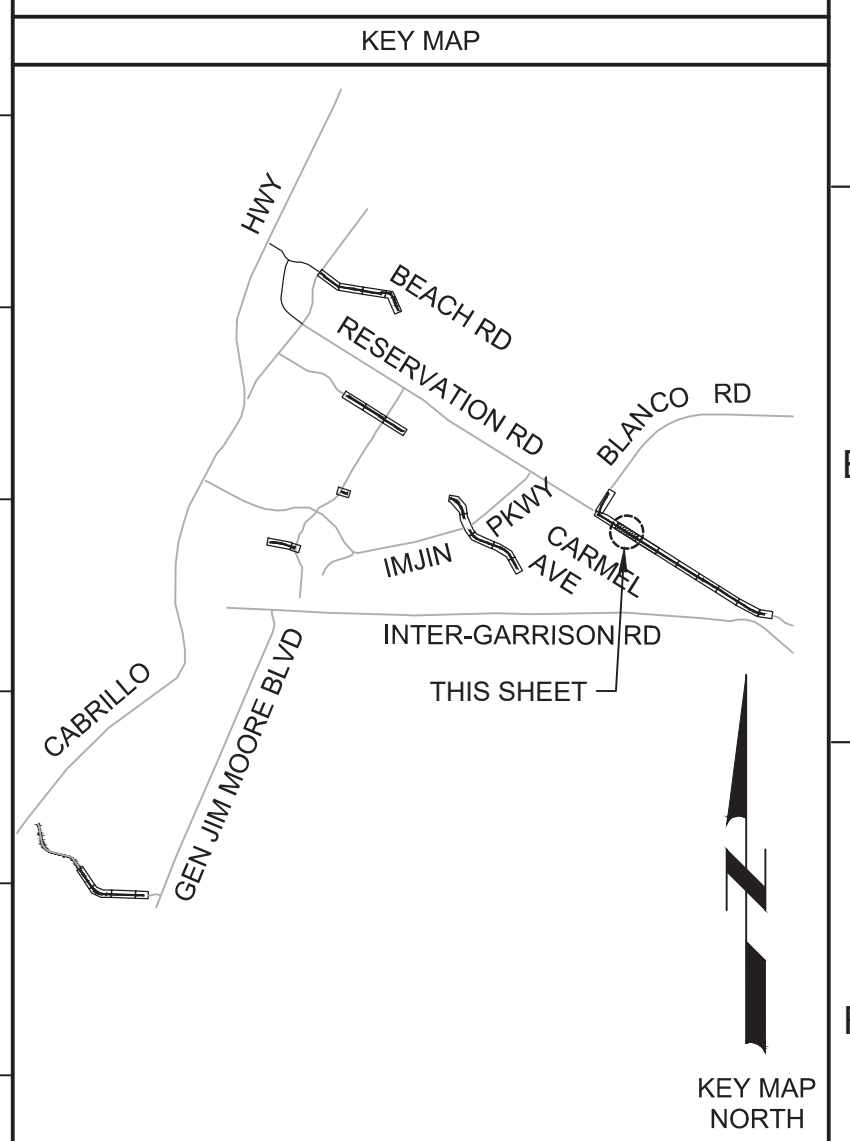
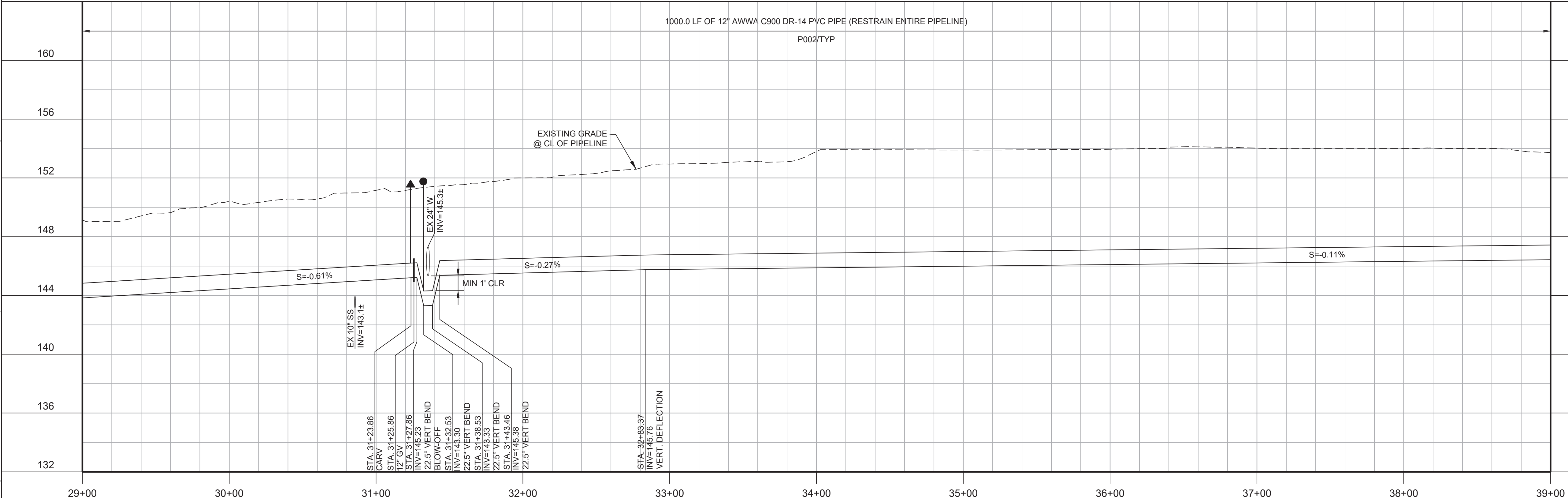
LAST SAVED BY: bhawes



- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.



Know what's below.  
Call before you dig.



REV	DATE	BY	DESCRIPTION
1			
2			
3			

**BID DOCUMENTS**

DESIGNED  
JPM/KMM

DRAWN  
AL/BWH

CHECKED

DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineering, Inc.  
Date: 2019.10.16 12:14:49 -0700



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL DISTRIBUTION MAIN

BLANCO RD & RESERVATION RD  
STA 29+00 TO 39+00

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING

0 2' 4' 8'

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10

DRAWING NO.  
**P16**

SHEET NO.  
38 OF 66

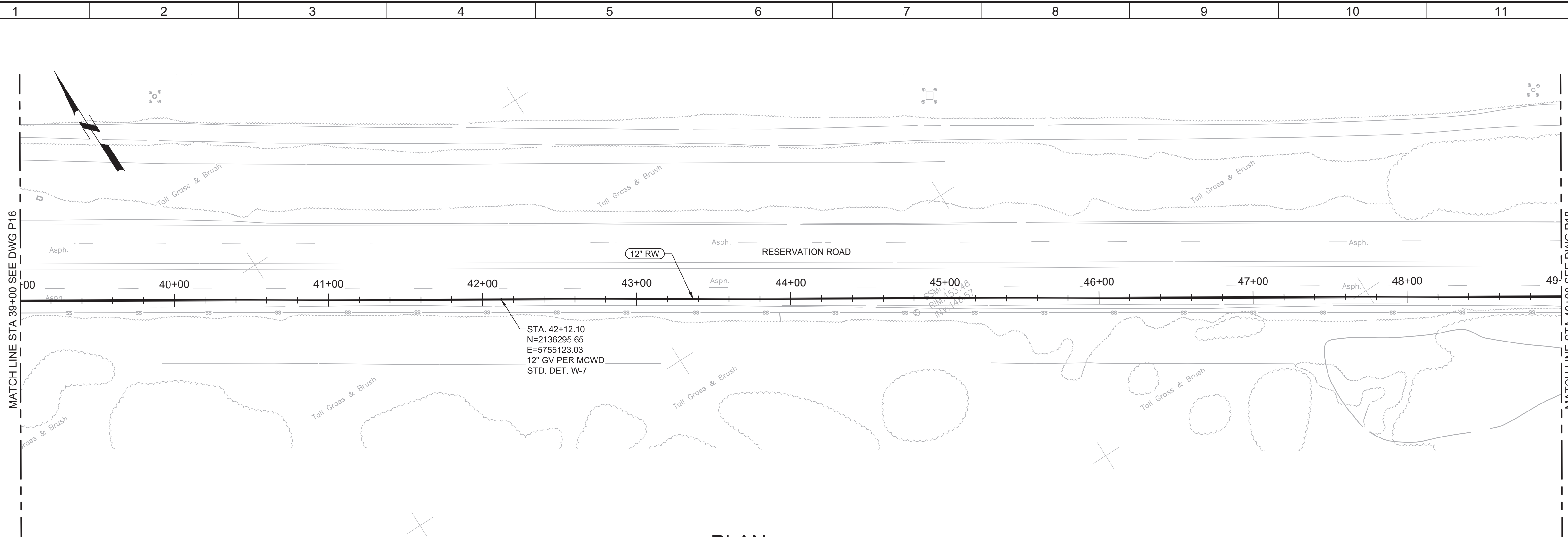


Plot Date: 10/9/2019 8:18:06 AM

FILE NAME: 7568C10P17.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves

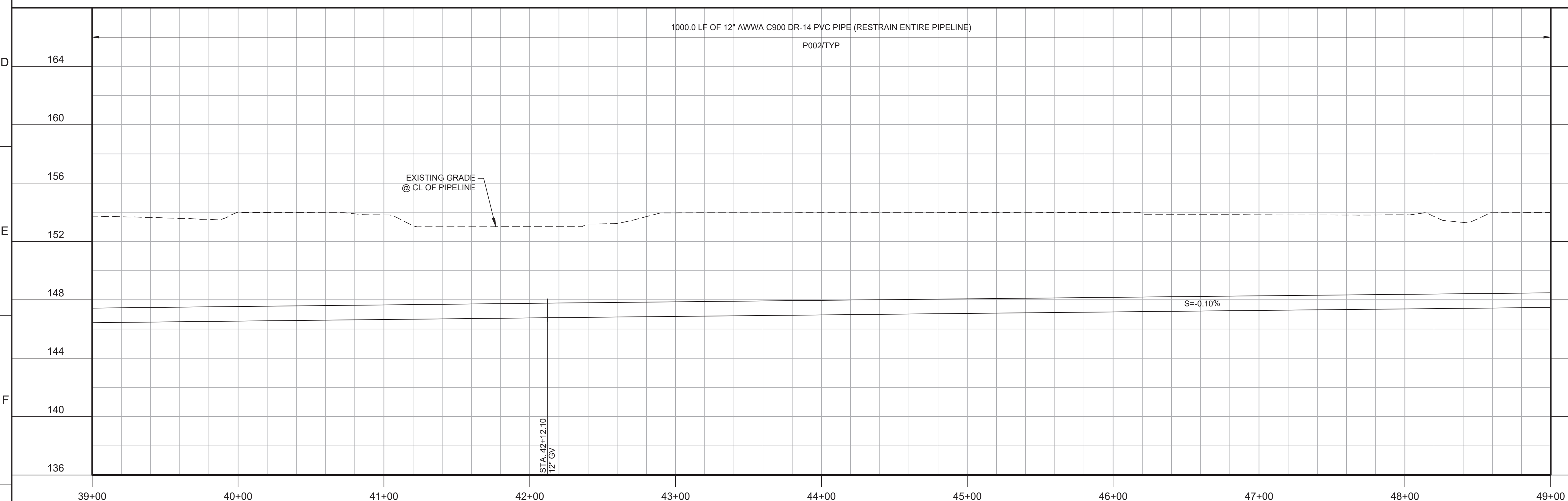


**PLAN**  
 SCALE: 1"=40'  
 FILE: 7568C10C101

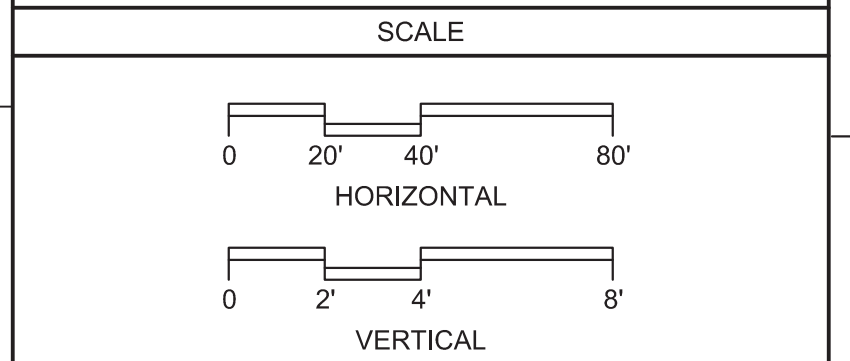
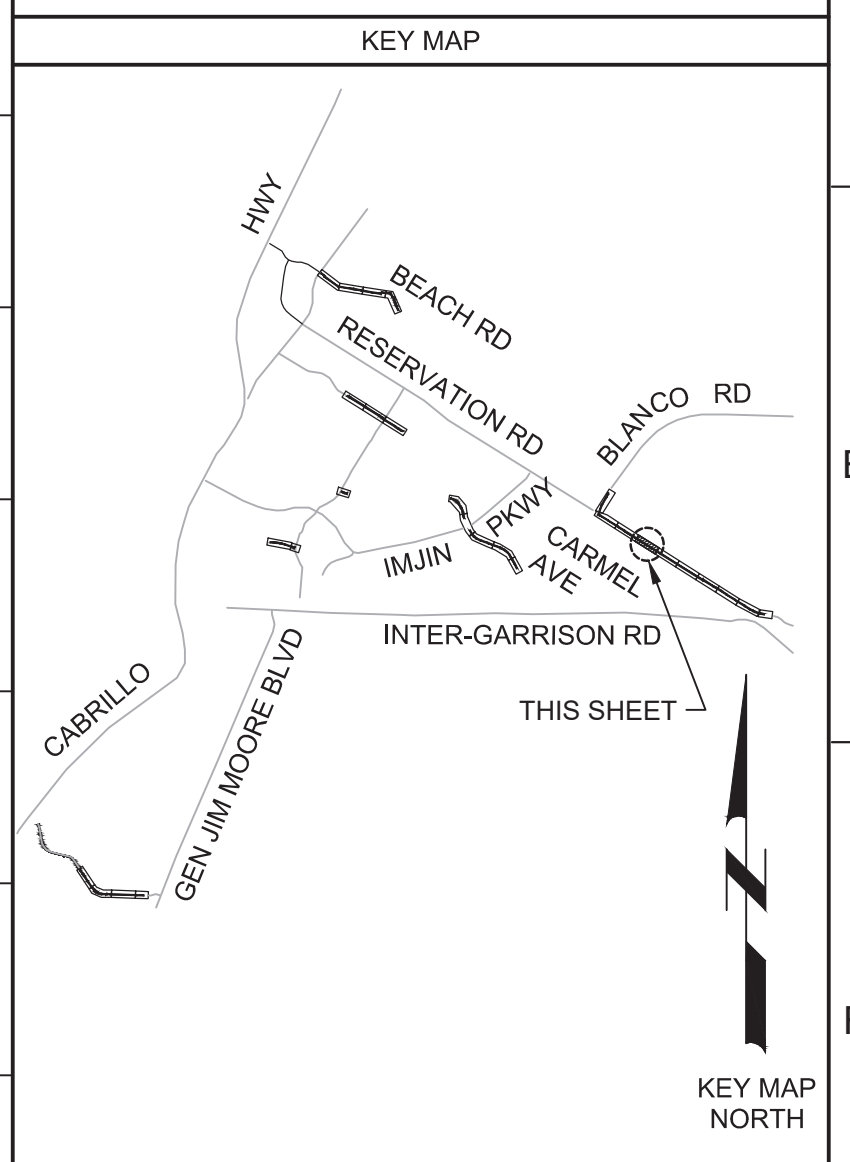
- GENERAL NOTES:**
1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  2. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.



Know what's below.  
 Call before you dig.



**PROFILE**  
 HORIZ SCALE: 1"=40'  
 VERT SCALE: 1"=4'  
 FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			
3			

<b>BID DOCUMENTS</b>	
DESIGNED JPM/KMM	
DRAWN AL/BWH	
CHECKED	
DATE OCTOBER 2019	

Digitally signed by Jonathan P. Marsilio  
 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.10 12:12:49 -0700

**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 CIVIL DISTRIBUTION MAIN  
**BLANCO RD & RESERVATION RD  
 STA 39+00 TO 49+00**

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7568C.10 DRAWING NO. <b>P17</b> SHEET NO. 39 OF 66
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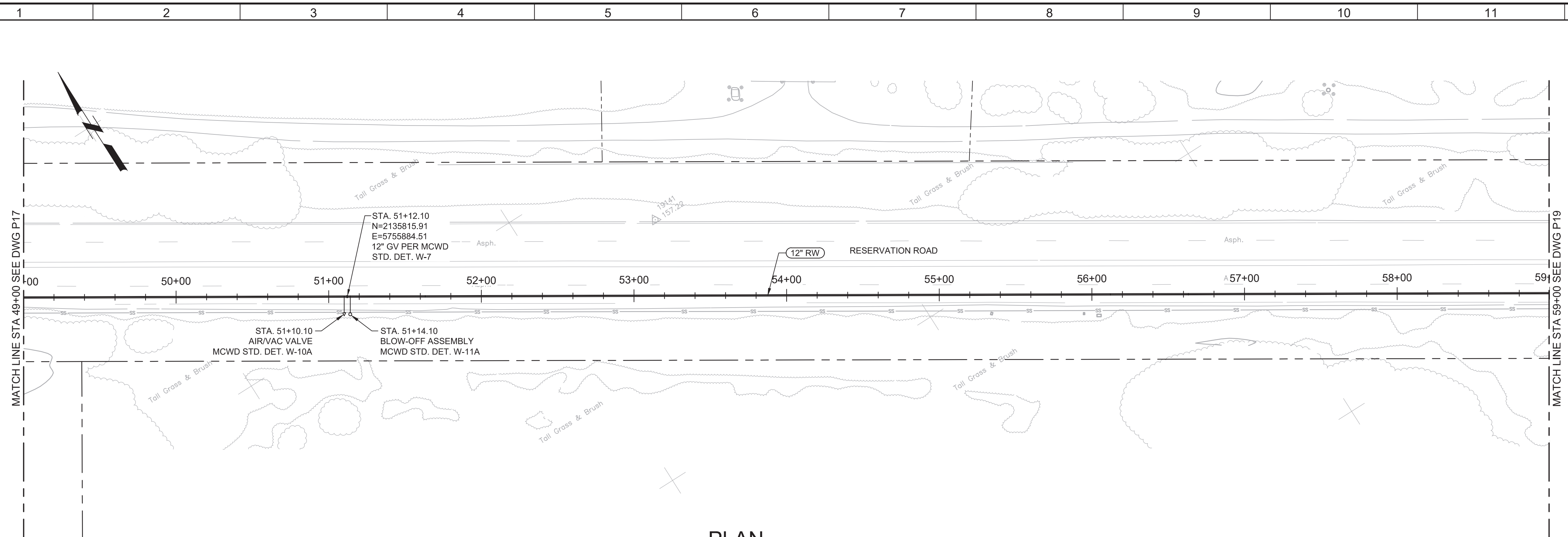


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FILE NAME: 7568C10P18.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves

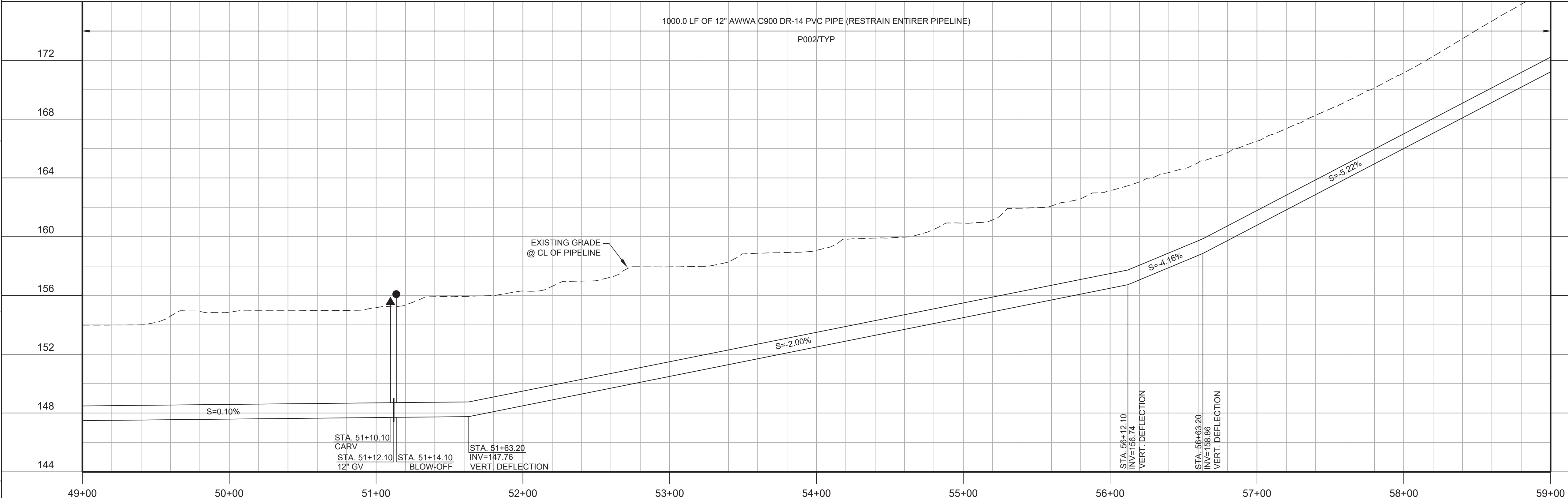


**PLAN**  
 SCALE: 1"=40'  
 FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.



Know what's below.  
 Call before you dig.



**PROFILE**  
 HORIZ SCALE: 1"=40'  
 VERT SCALE: 1"=4'  
 FILE: 7568C10C101

**KEY MAP**

**SCALE**

HORIZONTAL: 0, 20', 40', 80'

VERTICAL: 0, 2', 4', 8'

KEY MAP NORTH

REV	DATE	BY	DESCRIPTION
1			
2			
3			

**BID DOCUMENTS**

DESIGNED: JPM/KMM  
 DRAWN: ALB/BWH  
 CHECKED: [Signature]  
 DATE: OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.19 12:10:29 -0700

*Jonathan P. Marshall*



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL DISTRIBUTION MAIN

**BLANCO RD & RESERVATION RD**

STA 49+00 TO 59+00

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
 DRAWING NO. **P18**  
 SHEET NO. 40 OF 66

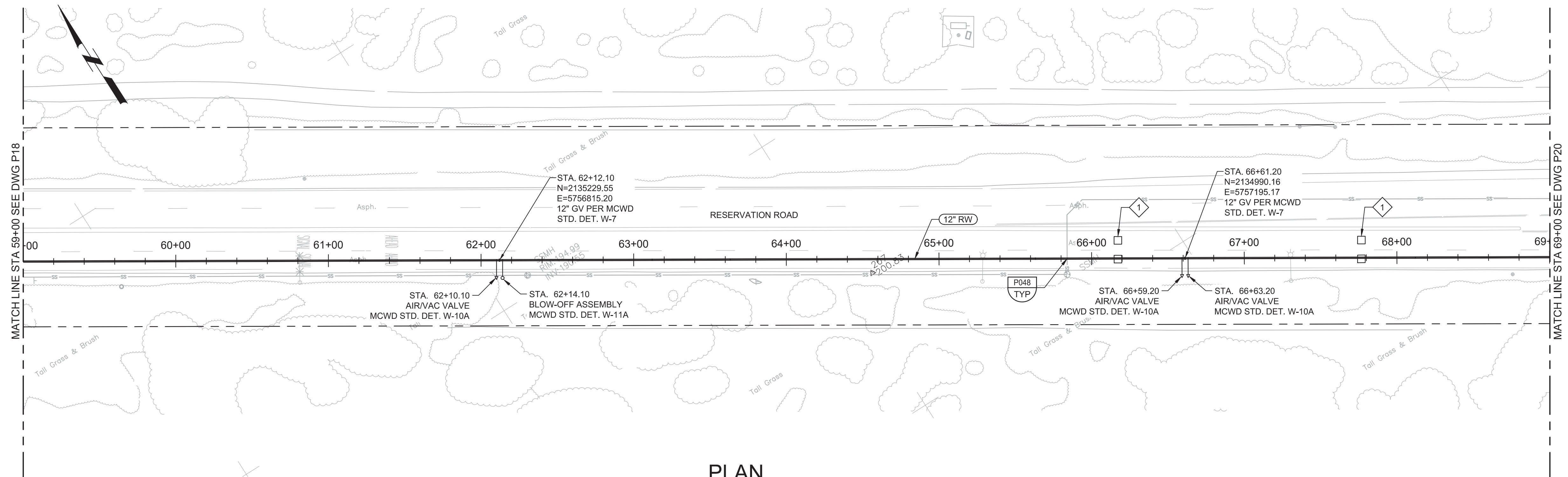


Plot Date: 10/10/2019 7:00:30 AM

FILE NAME: 7568C10P19.dwg

PROJECT NO. 7568C10

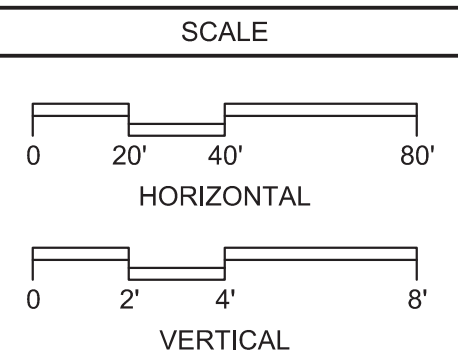
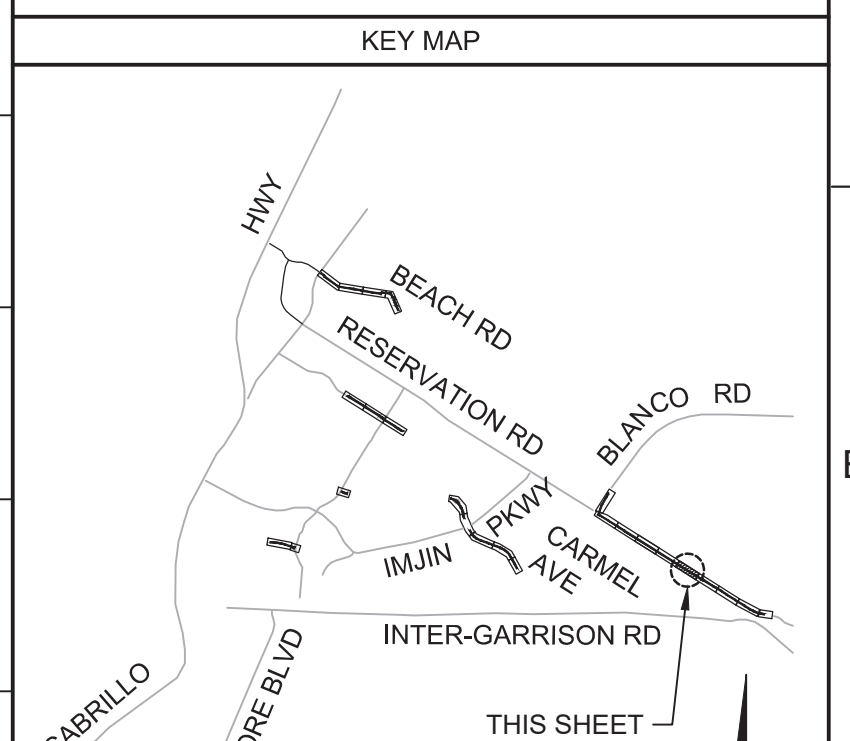
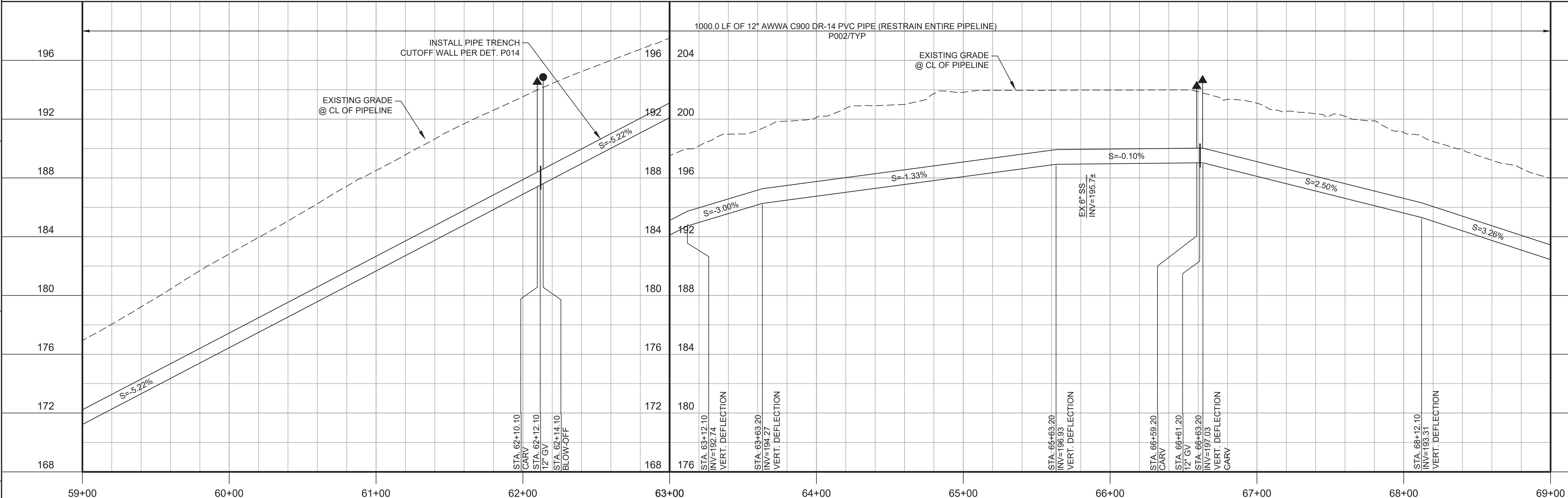
LAST SAVED BY: bhawes



- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- 1 SEE SECTION 01140 FOR TRAFFIC SIGNAL REPAIR REQUIREMENTS.



Know what's below.  
Call before you dig.



BID DOCUMENTS			
DESIGNED	JPM/KMM	DRAWN	AL/BWH
CHECKED		DATE	OCTOBER 2019
REV	DATE	BY	DESCRIPTION
1			
2			

REGISTERED PROFESSIONAL ENGINEER  
JONATHAN P. MARSHALL  
No. 73265  
CIVIL  
STATE OF CALIFORNIA

Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineering, Inc.  
Date: 2019.10.10 13:12:29 -0700



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
CIVIL DISTRIBUTION MAIN  
BLANCO RD & RESERVATION RD  
STA 59+00 TO 69+00

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7568C.10 DRAWING NO. P19 SHEET NO. 41 OF 66
---	--

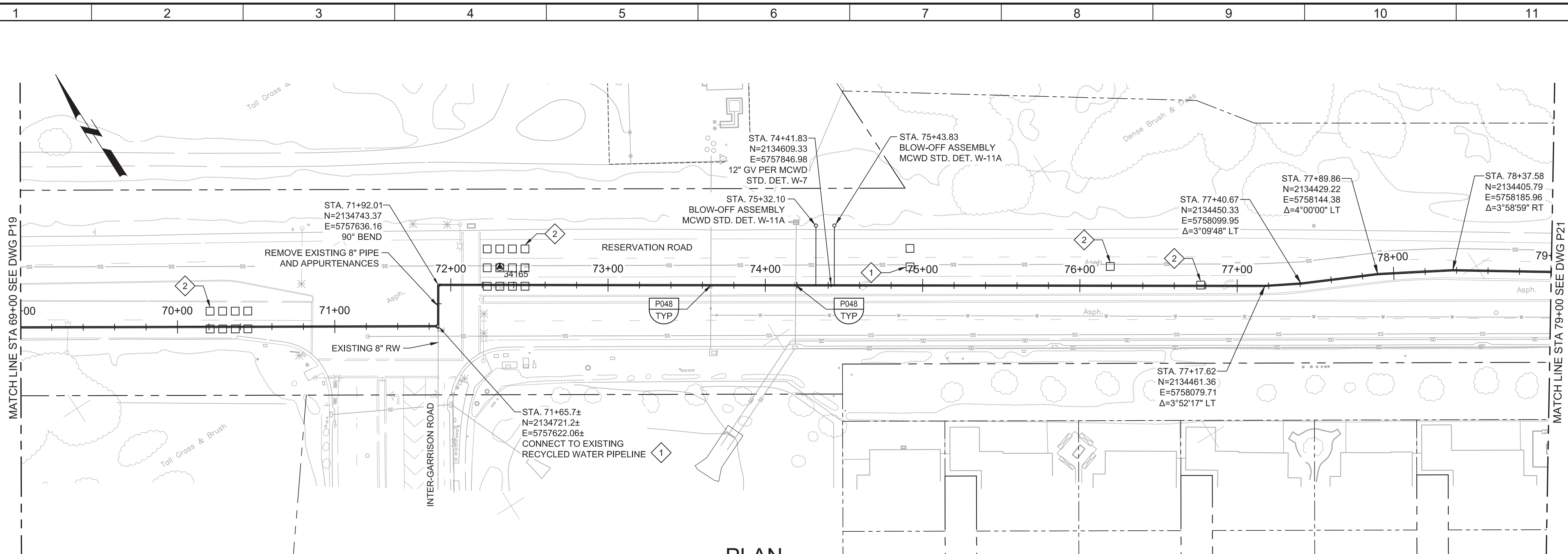


Plot Date: 10/10/2019 10:56:30 AM

FILE NAME: 7568C10F20.dwg

PROJECT NO. 7568C10

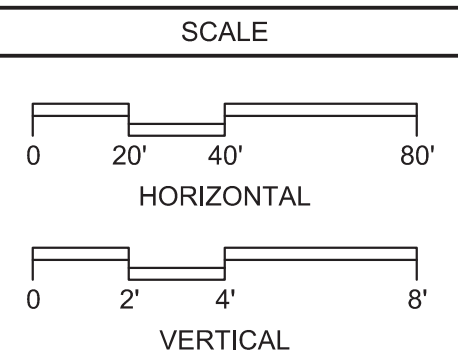
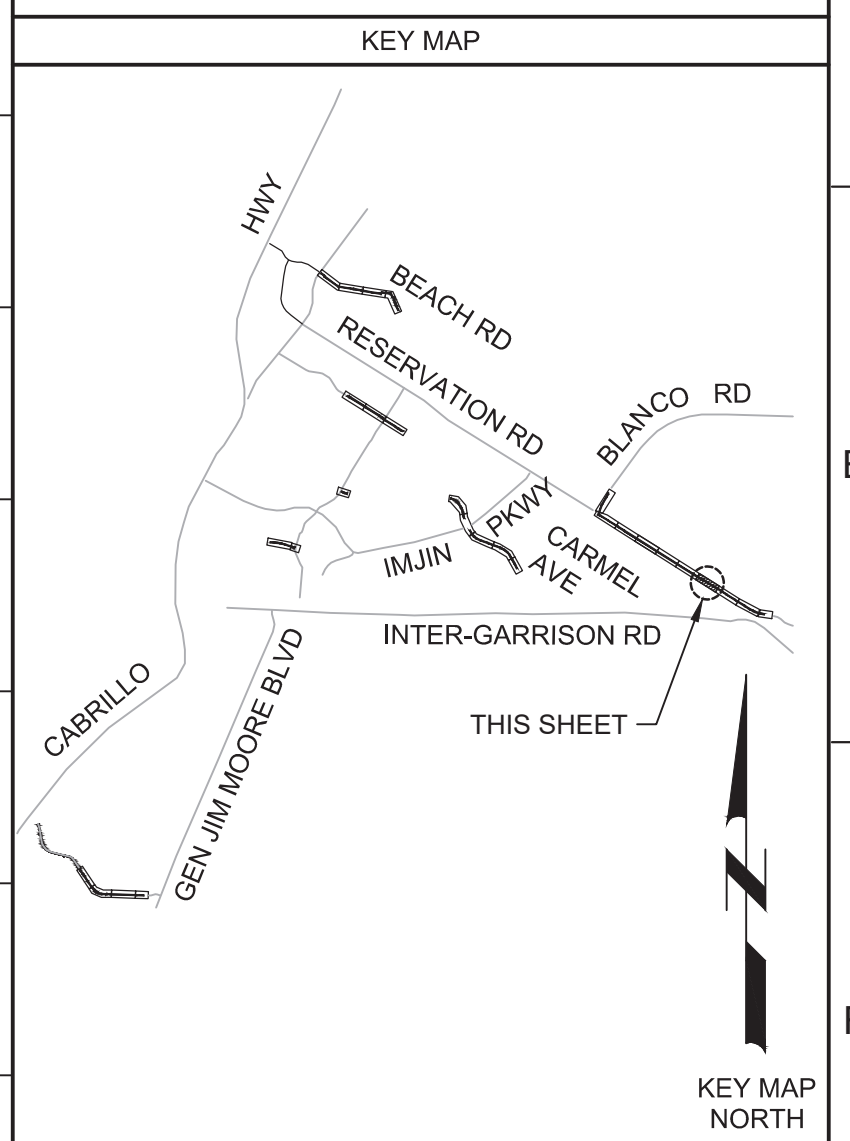
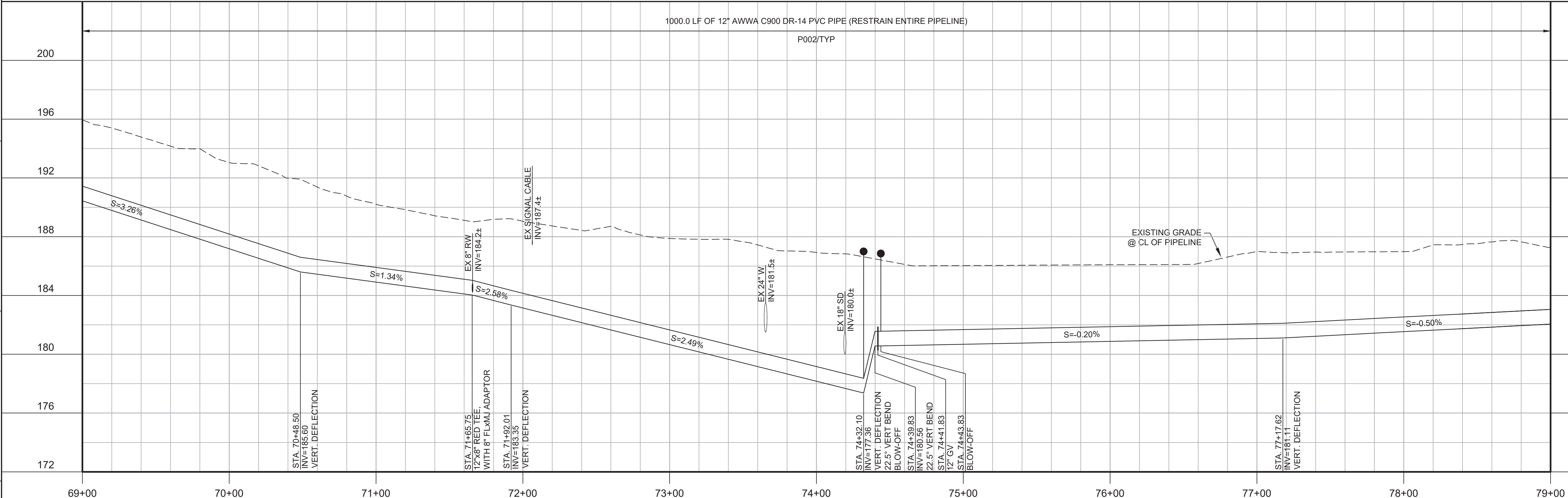
LAST SAVED BY: bhwaves



- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. 12" X 12" X 8" REDUCING TEE WITH 8" FLANGE X MJ ADAPTORS.
  - SEE SECTION 01140 FOR TRAFFIC SIGNAL REPAIRS.



Know what's below.  
Call before you dig.



<b>BID DOCUMENTS</b>			
DESIGNED	JPM/KMM		
DRAWN			
CHECKED	AL/BWH		
DATE	OCTOBER 2019		
REV	DATE	BY	DESCRIPTION
1			
2			
3			

REGISTERED PROFESSIONAL ENGINEER  
JONATHAN P. MARSHALL  
No. 73265  
CIVIL  
STATE OF CALIFORNIA

Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineering, Inc.  
Date: 2019.10.10 12:15:00 -0700

**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL DISTRIBUTION MAIN

**BLANCO RD & RESERVATION RD**

STA 69+00 TO 79+00

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10

DRAWING NO. **P20**

SHEET NO. 42 OF 66

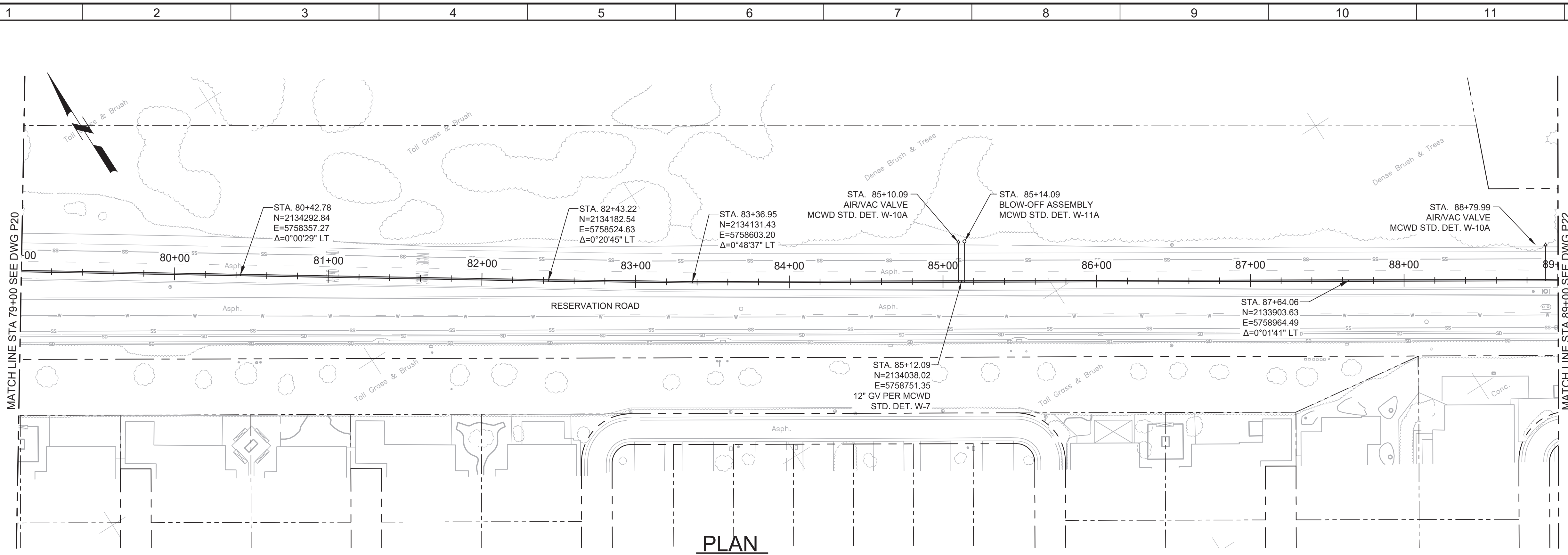


Plot Date: 10/9/2019 8:57:36 AM

FILE NAME: 7568C10P21.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes

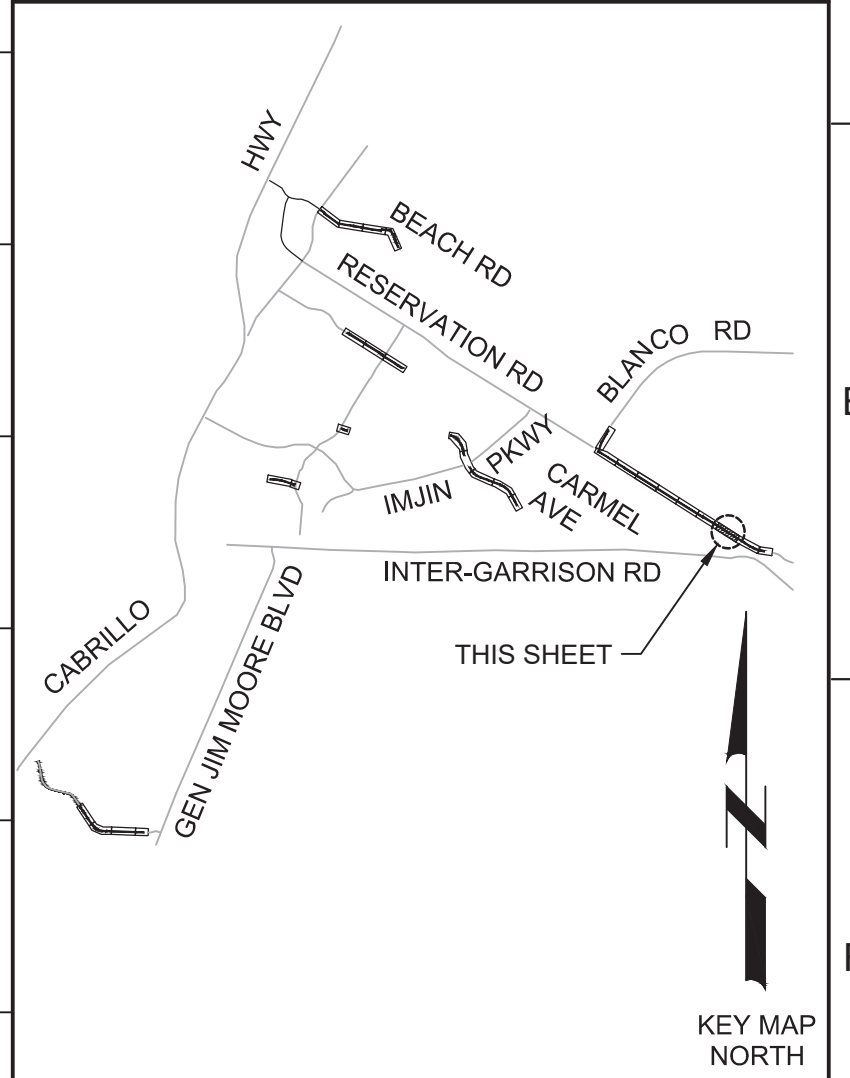


- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

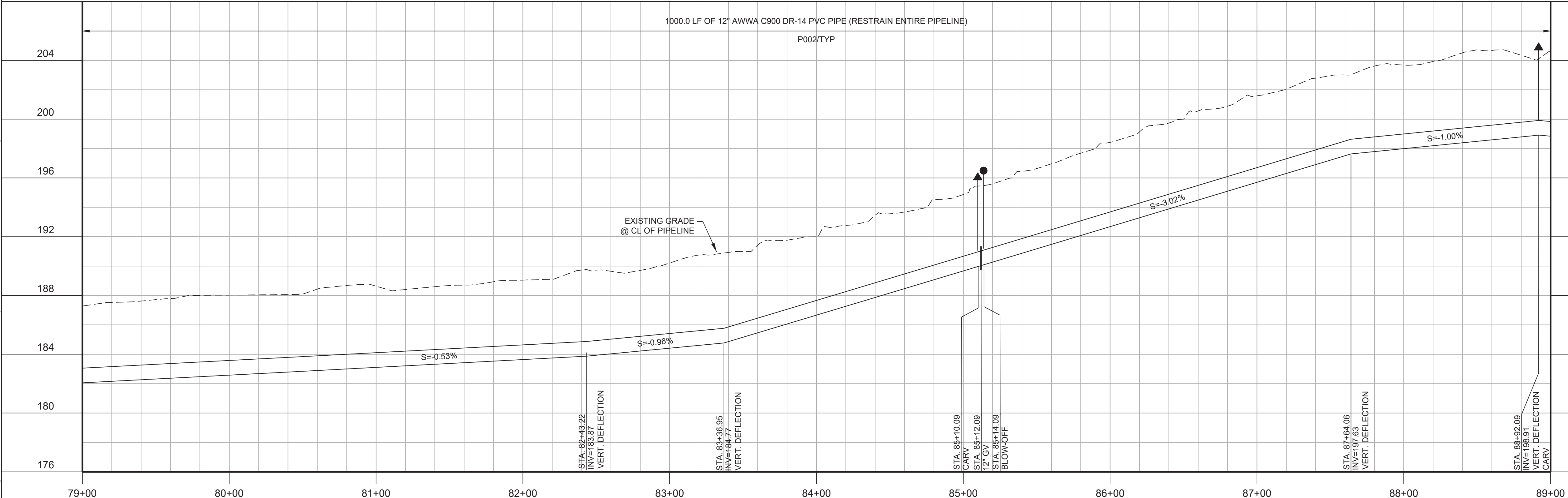
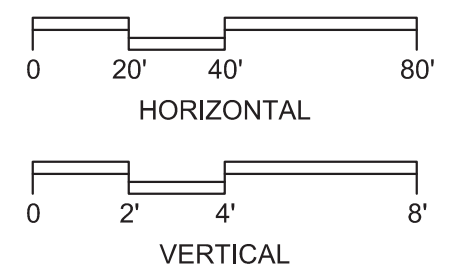


Know what's below.  
Call before you dig.

KEY MAP



SCALE



**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101

**BID DOCUMENTS**

DESIGNED: JPM/KMM  
 DRAWN: AL/BWH  
 CHECKED: [ ]  
 DATE: OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.19 12:15:49 -0700



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 CIVIL DISTRIBUTION MAIN  
 BLANCO RD & RESERVATION RD  
 STA 79+00 TO 89+00

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1" 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
 DRAWING NO. P21  
 SHEET NO. 43 OF 66

REV	DATE	BY	DESCRIPTION
1			
2			
3			

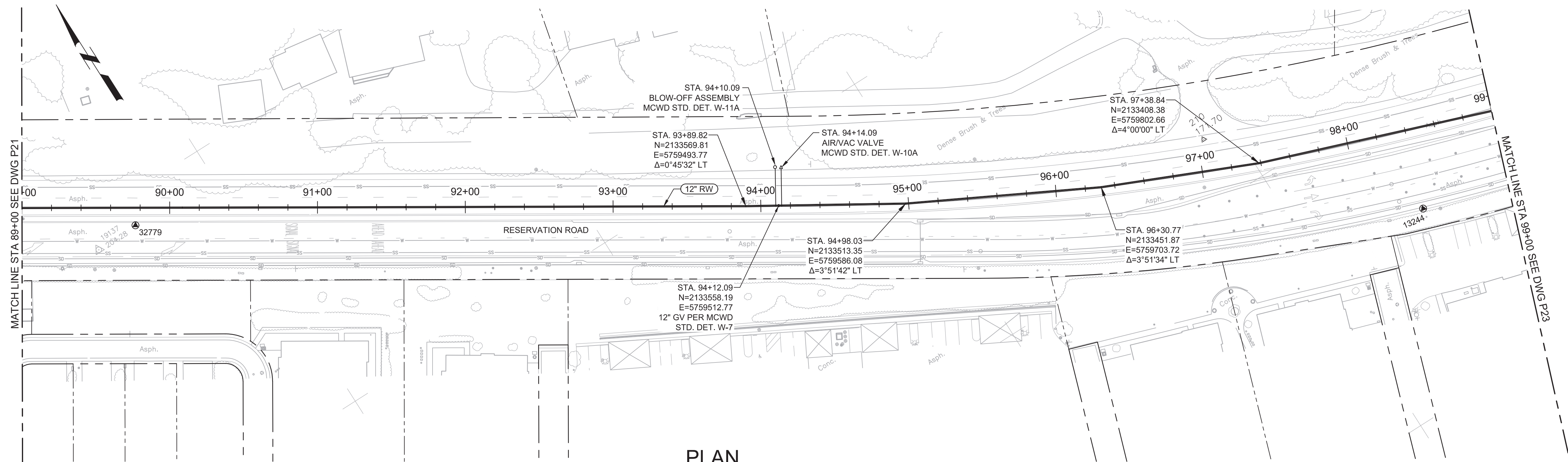


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PROJECT NO. 7568C10

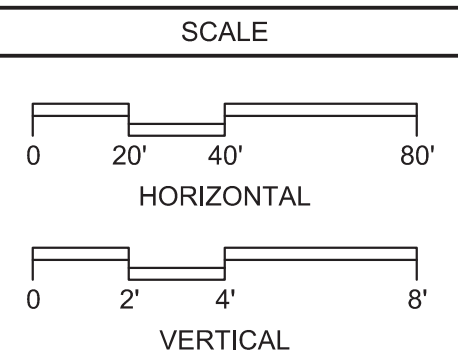
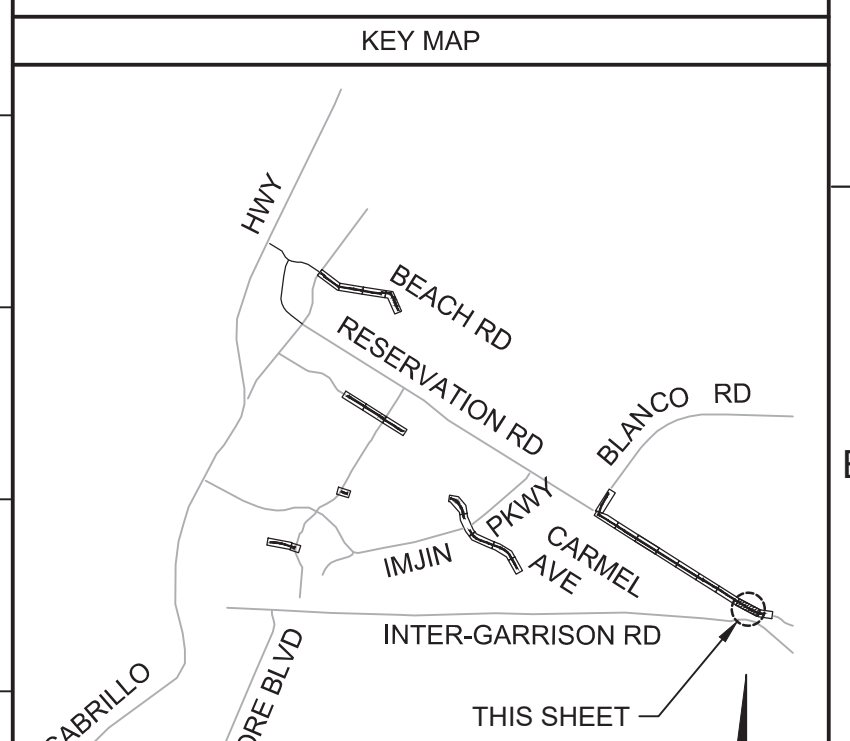
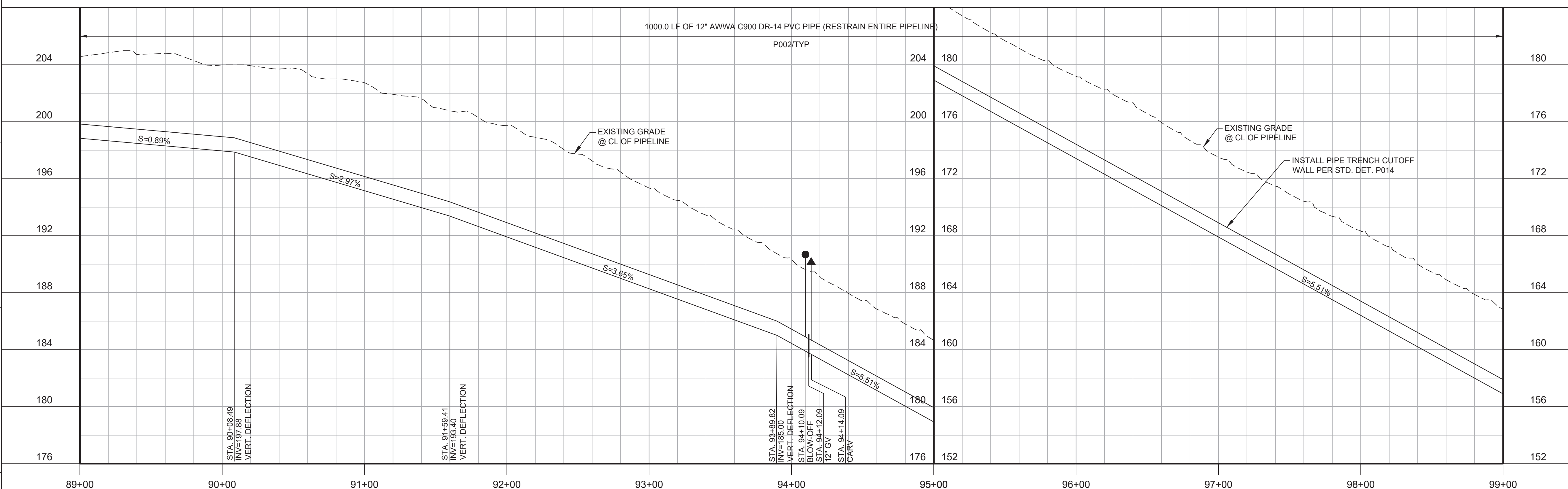
LAST SAVED BY: bhawes



- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.



Know what's below.  
Call before you dig.



REV				DATE	BY	DESCRIPTION
1						
2						

DESIGNED JPM/KMM	DRAWN AL/BWH	CHECKED	DATE OCTOBER 2019
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Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineers, Inc.  
Date: 2019.10.10 13:10:09 -0700



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
CIVIL DISTRIBUTION MAIN  
BLANCO RD & RESERVATION RD  
STA 89+00 TO 99+00

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1" 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. P22  
SHEET NO. 44 OF 66

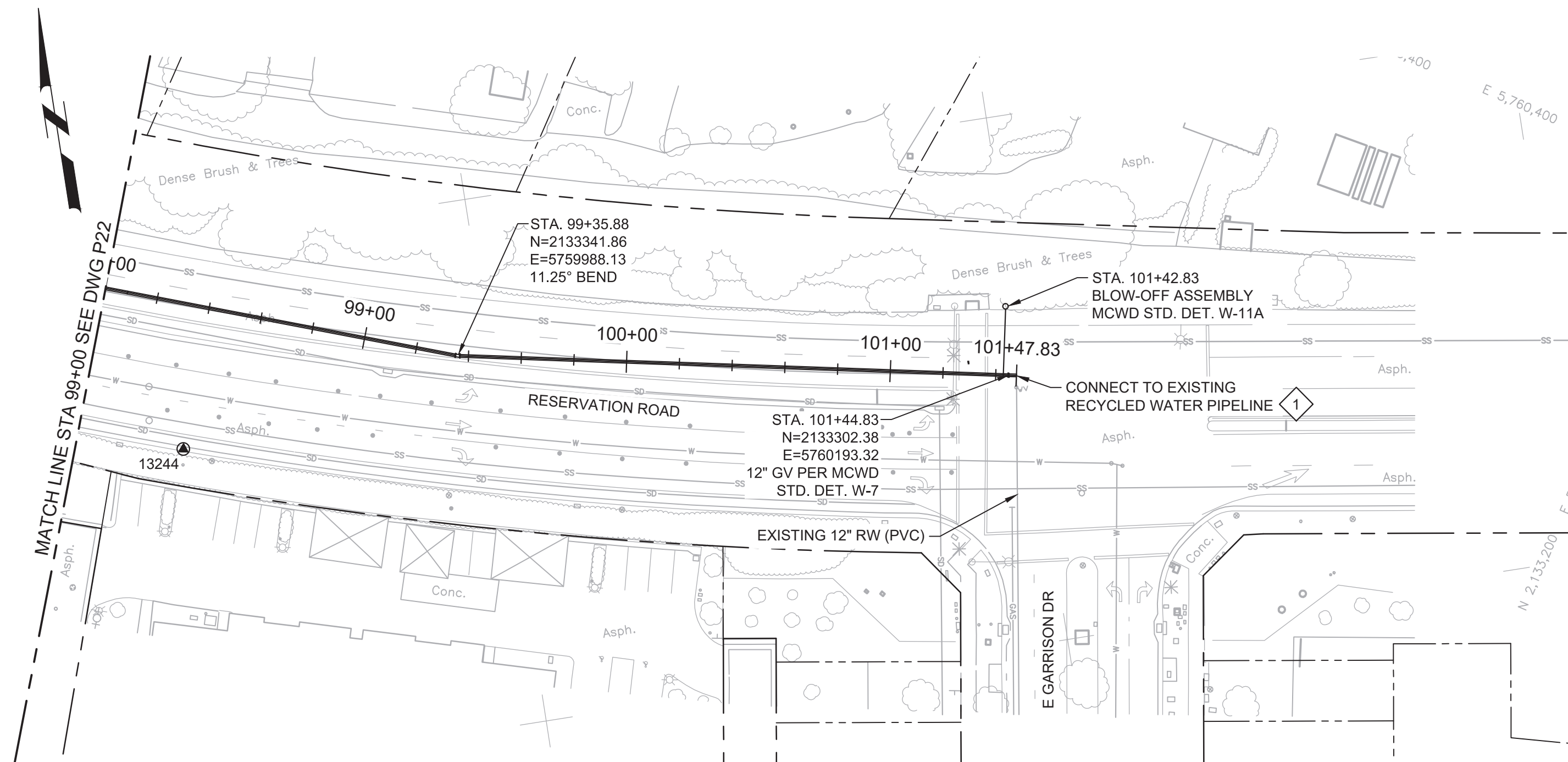


Plot Date: 10/9/2019 4:06:03 PM

FILE NAME: 7568C10P23.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves

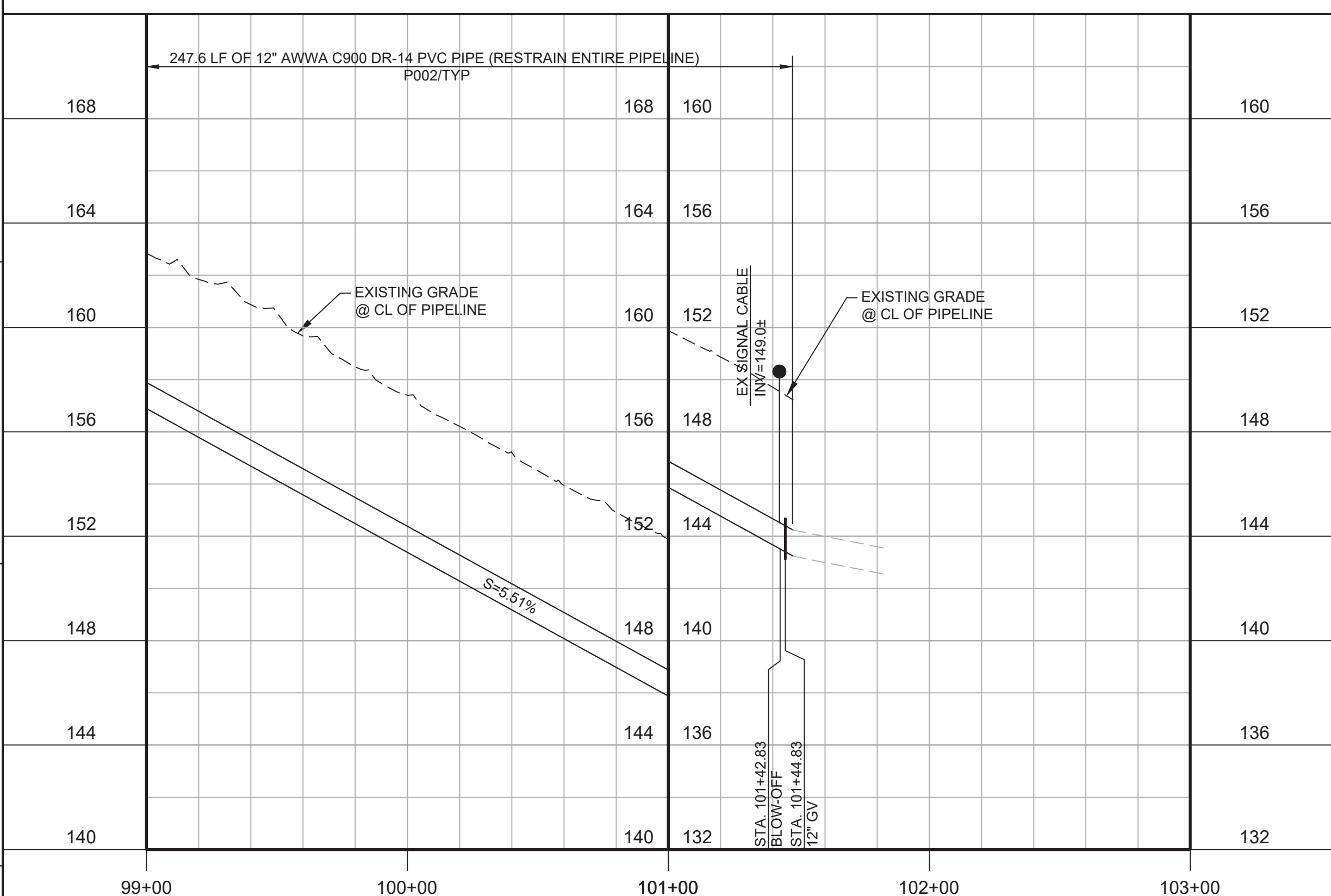


**PLAN**  
 SCALE: 1"=40'  
 FILE: 7568C10C101

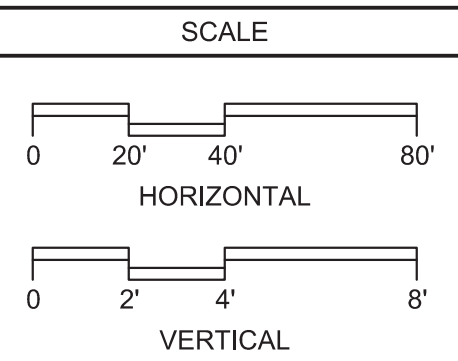
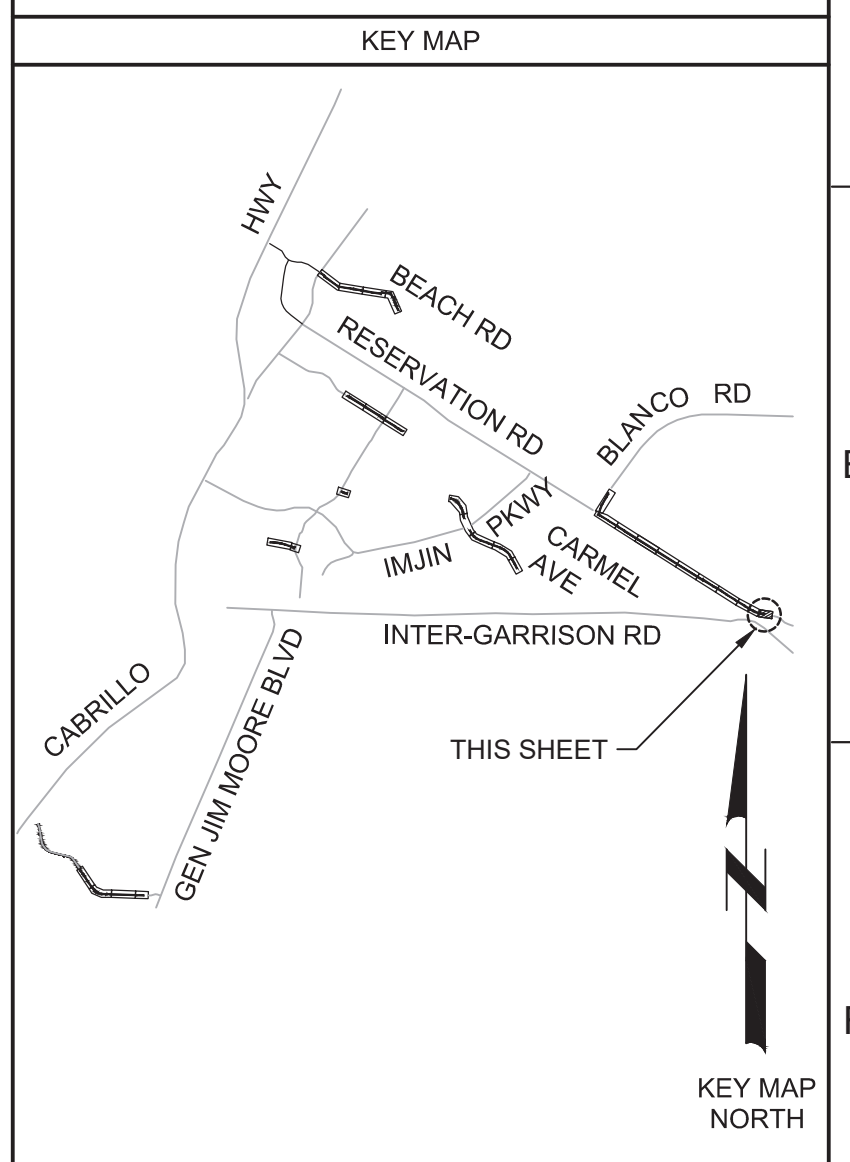
- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POT HOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE AND BLOW-OFF WITH A 90° ELBOW AND MECHANICAL WEDGE ACTION RESTRAINTS.



Know what's below.  
 Call before you dig.



**PROFILE**  
 HORIZ SCALE: 1"=40'  
 VERT SCALE: 1"=4'  
 FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED JPM/KMM	
DRAWN	
CHECKED	
DATE OCTOBER 2019	

Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.10 12:14:02 -0700

**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL DISTRIBUTION MAIN

BLANCO RD & RESERVATION RD  
 STA 99+00 TO 101+47.83

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1" 11"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
 DRAWING NO. P23  
 SHEET NO. 45 OF 66

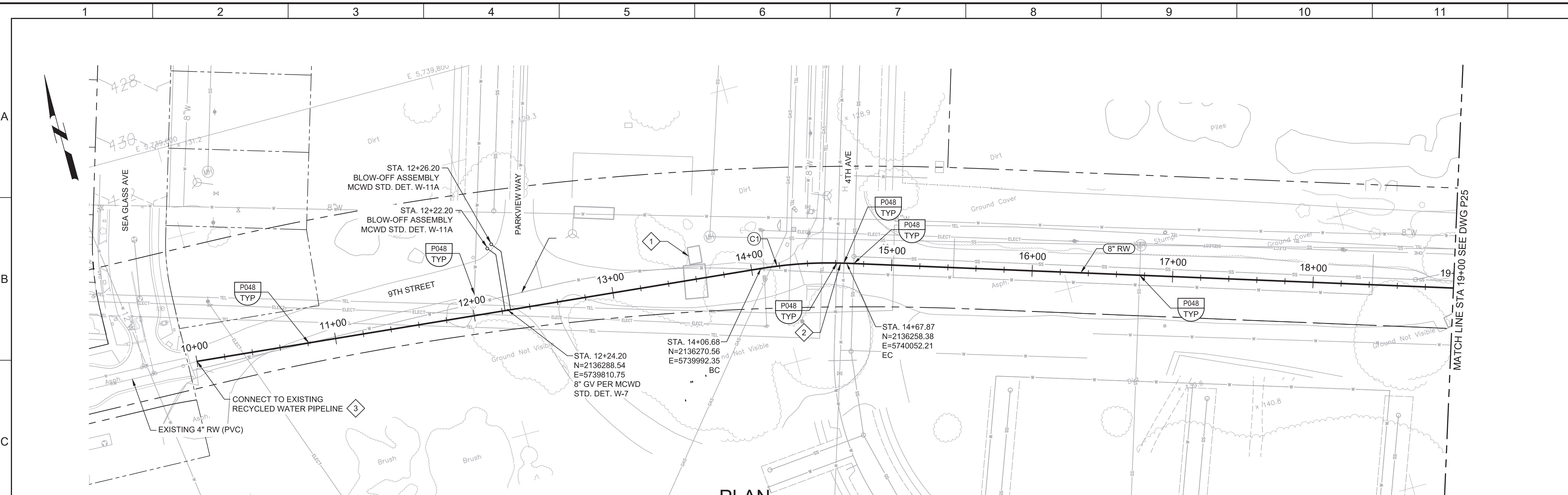


Plot Date: 10/9/2019 11:52:15 AM

FILE NAME: 7568C10P24.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes

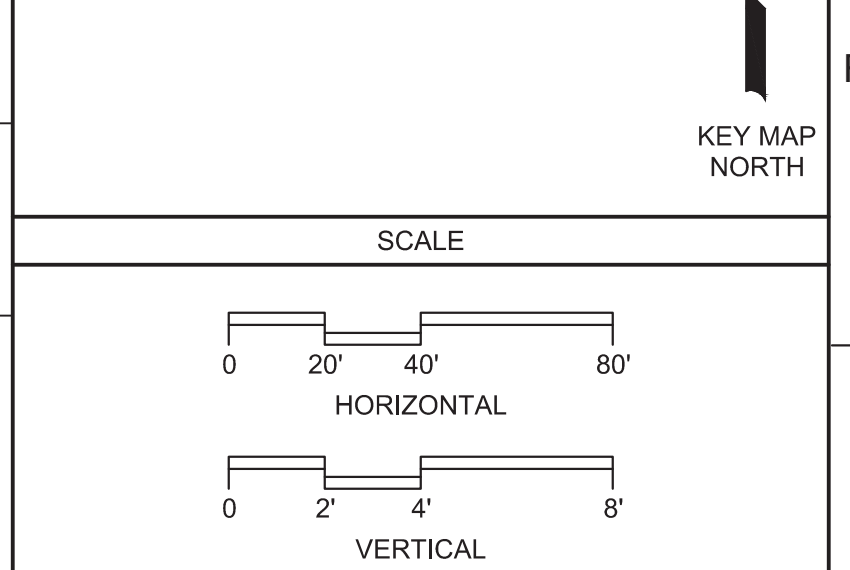
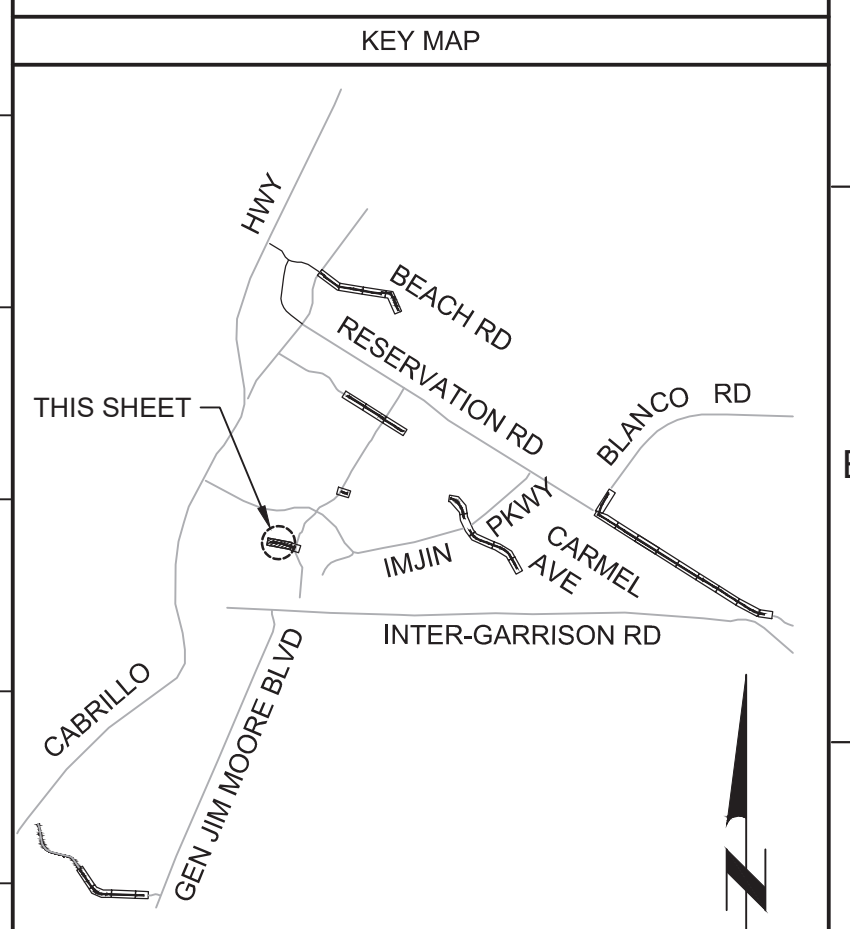
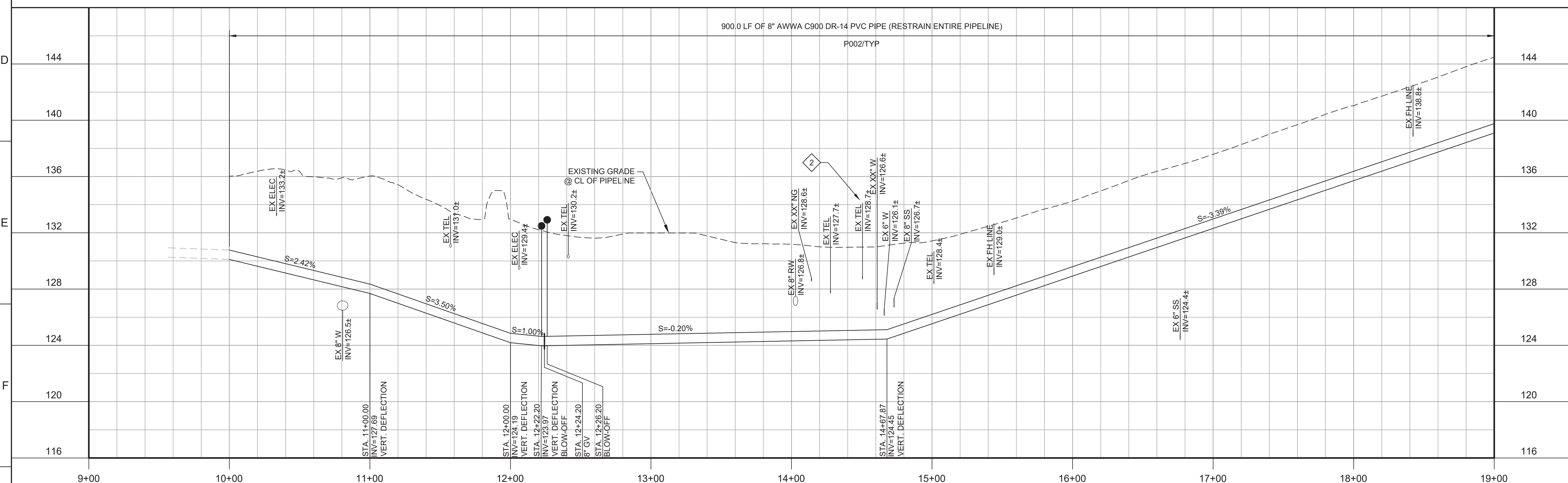


- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.
- KEY NOTES:**
- COORDINATE WITH RESIDENTIAL CONTRACTOR FOR TEMPORARY RELOCATION OF STORMWATER POLLUTION PREVENTION CONSTRUCTION ENTRANCE.
  - CONTRACTOR MAY PROPOSE TRENCHLESS INSTALLATION SIMILAR TO TRENCHLESS CONSTRUCTION AT BLANCO ROAD AND RESERVATION ROAD INTERSECTION AT NO ADDITIONAL COST OR TIME IMPACT TO THE OWNER.
  - APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH A 4" x 8" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION JOINT RESTRAINTS.

CURVE TABLE				
NO. (XX)	LENGTH	RADIUS	DELTA	TANGENT
C1	61.20'	300.00'	11°41'15"	30.70'



Know what's below.  
Call before you dig.



REV	DATE	BY	DESCRIPTION
1			
2			
3			

<b>BID DOCUMENTS</b>	DESIGNED JPM/KMM
	DRAWN AL/BWH
	CHECKED
	DATE OCTOBER 2019

Digitally signed by Jonathan P. Marshall  
Contact Info: Carollo Engineers, Inc.  
Date: 2019.10.19 13:13:00 -0700

**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL DISTRIBUTION MAIN  
**9TH STREET**  
STA 10+00 TO 19+00

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1"	JOB NO. 7568C.10
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWING NO. <b>P24</b>
	SHEET NO. 46 OF 66

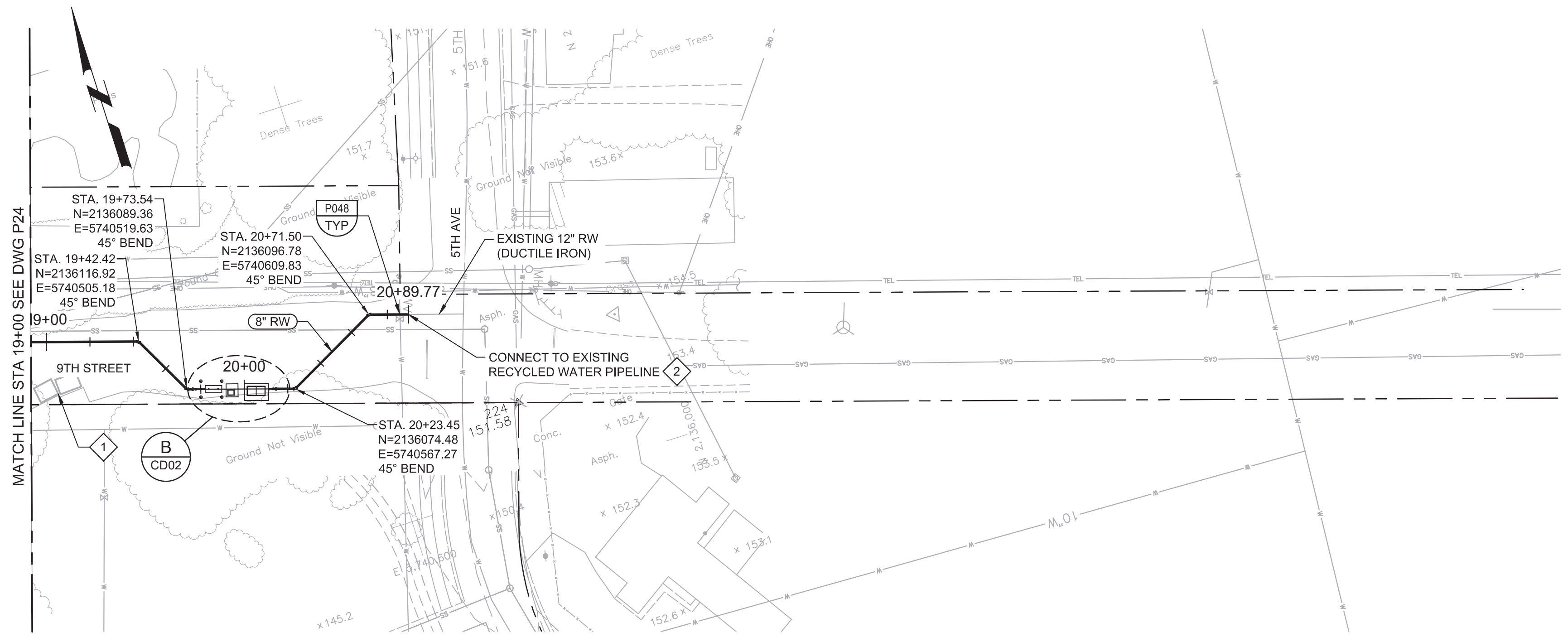


Plot Date: 10/9/2019 12:17:59 PM

FILE NAME: 7568C10P25.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



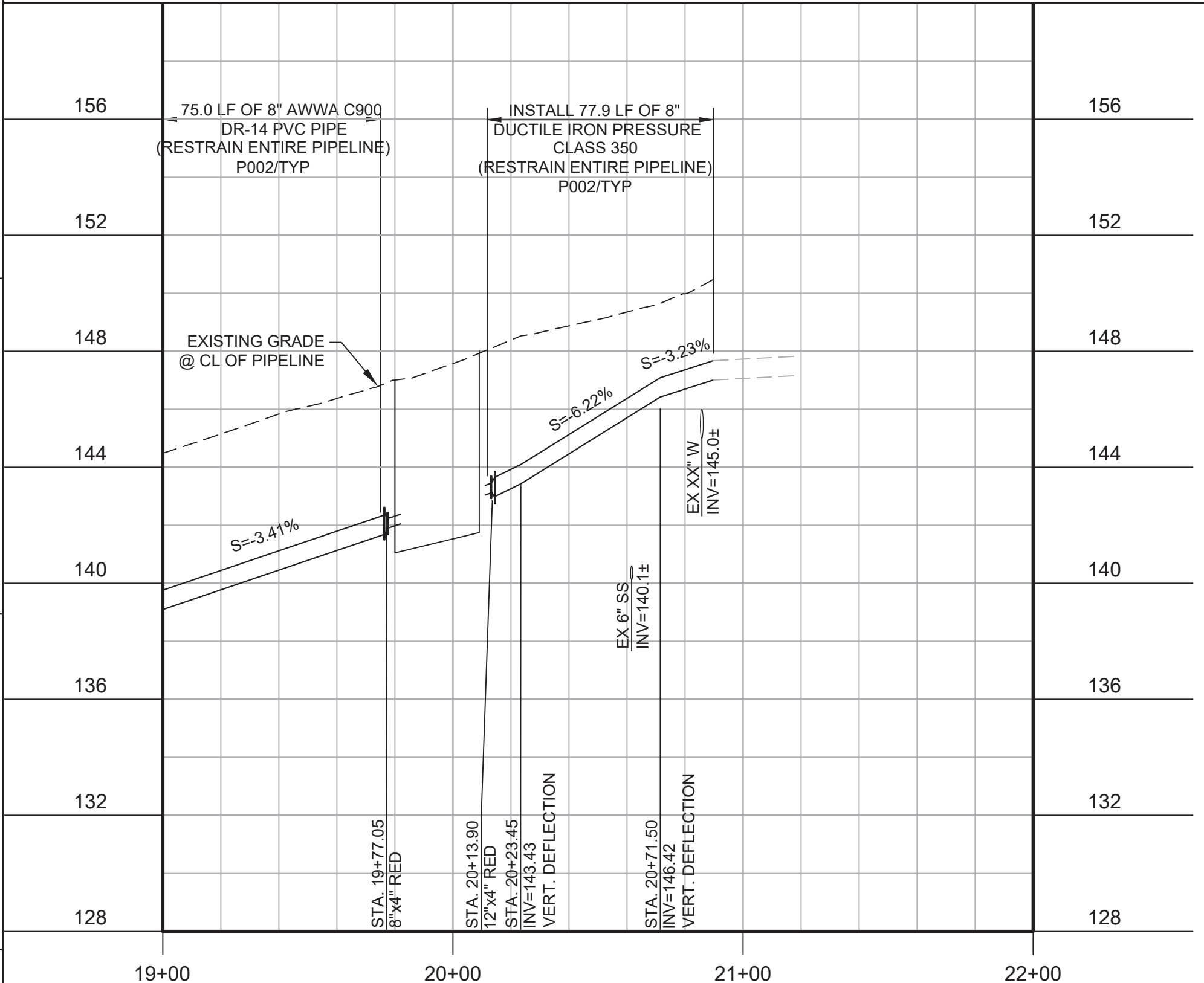
**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
  - CLEAR AND GRUB AS REQUIRED TO FACILITATE INSTALLATION OF PIPE AND APPURTENANCES.
  - ARBORIST SHALL BE PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

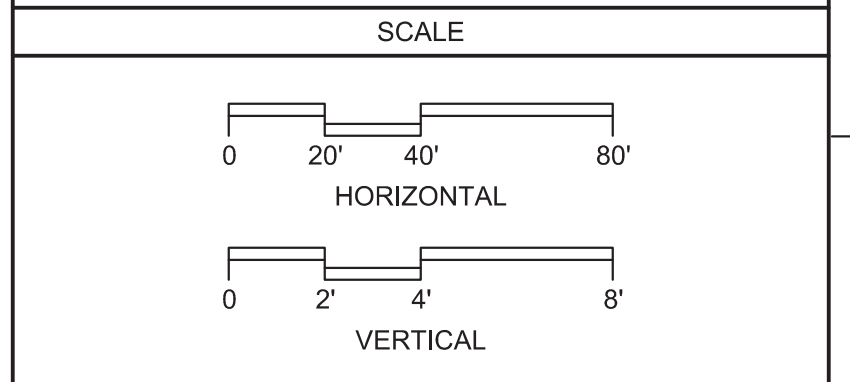
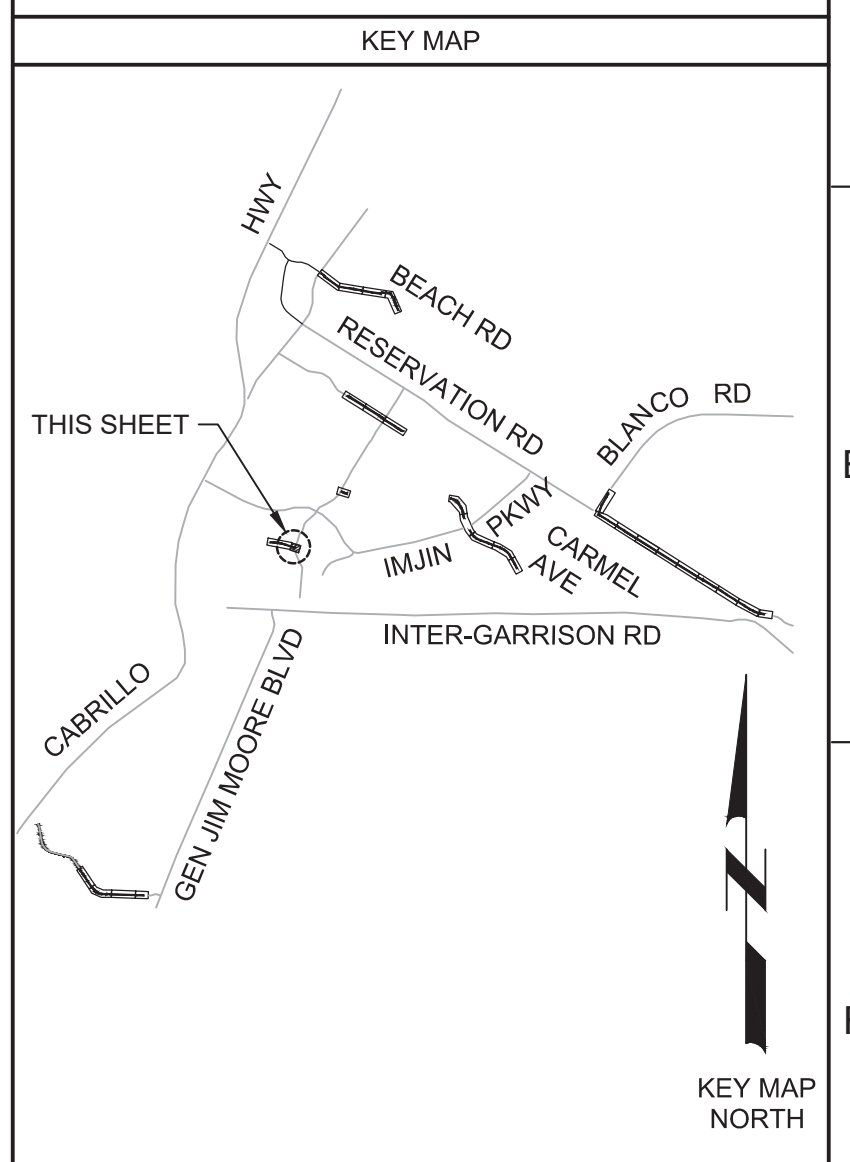
- KEY NOTES:**
- COORDINATE WITH RESIDENTIAL CONTRACTOR FOR TEMPORARY RELOCATION OF STORMWATER POLLUTION PREVENTION CONSTRUCTION ENTRANCE.
  - APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH AN 8" x 12" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION RESTRAINTS.



Know what's below.  
Call before you dig.



**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
2			
3			

DESIGNED JPM/KMM
DRAWN AL/BWH
CHECKED
DATE OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineering, Inc.  
Date: 2019.10.10 12:14:29 -0700



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
CIVIL DISTRIBUTION MAIN  
**9TH STREET  
STA 19+00 TO 20+89.77**

VERIFY SCALES BAR IS ONE INCH ON ORIGINAL DRAWING 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	JOB NO. 7568C.10 DRAWING NO. <b>P25</b> SHEET NO. 47 OF 66
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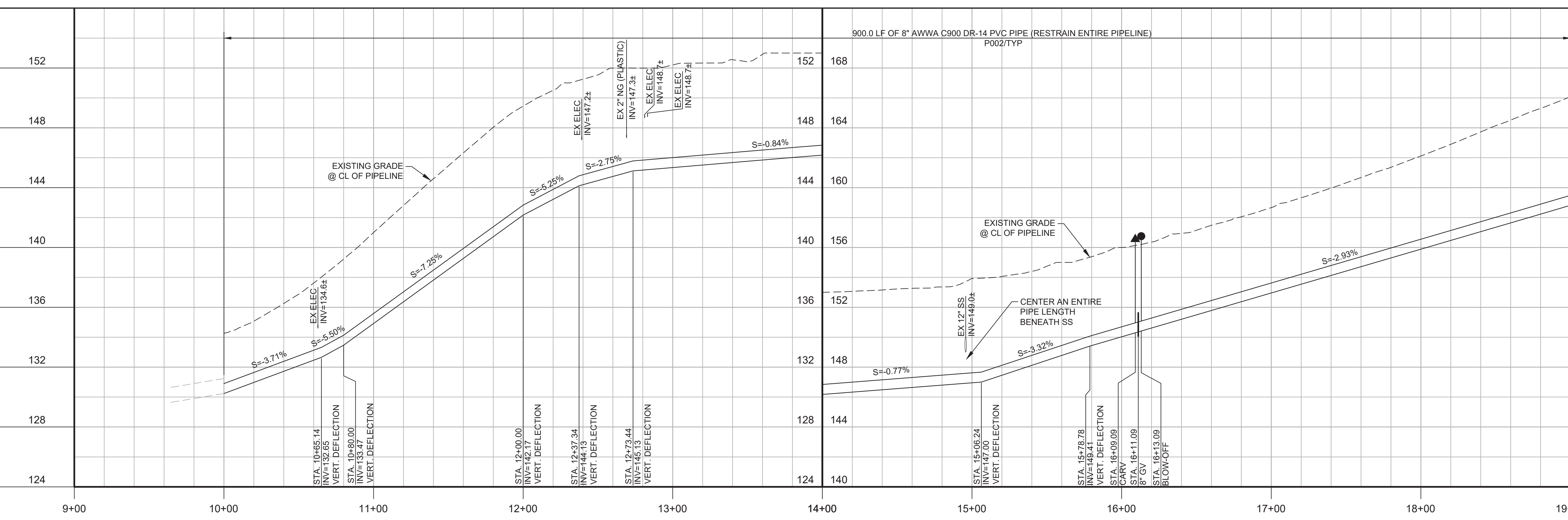
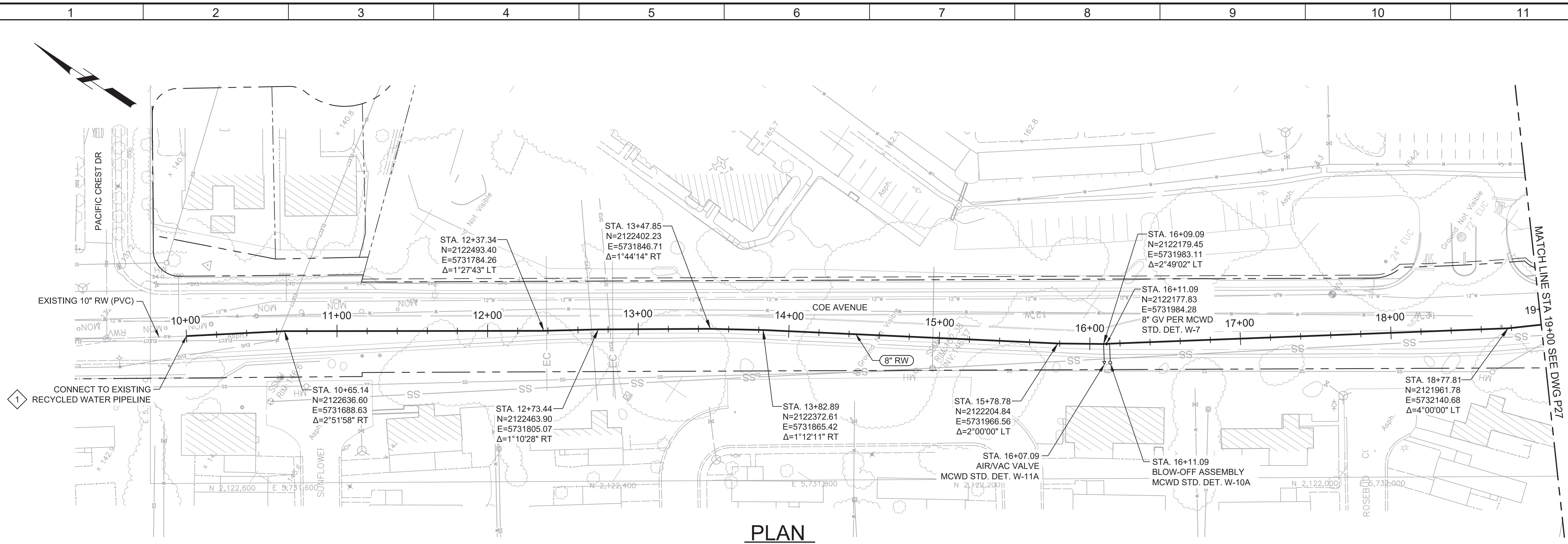


Plot Date: 10/10/2019 7:10:34 AM

FILE NAME: 7568C10P26.dwg

PROJECT NO. 7568C10

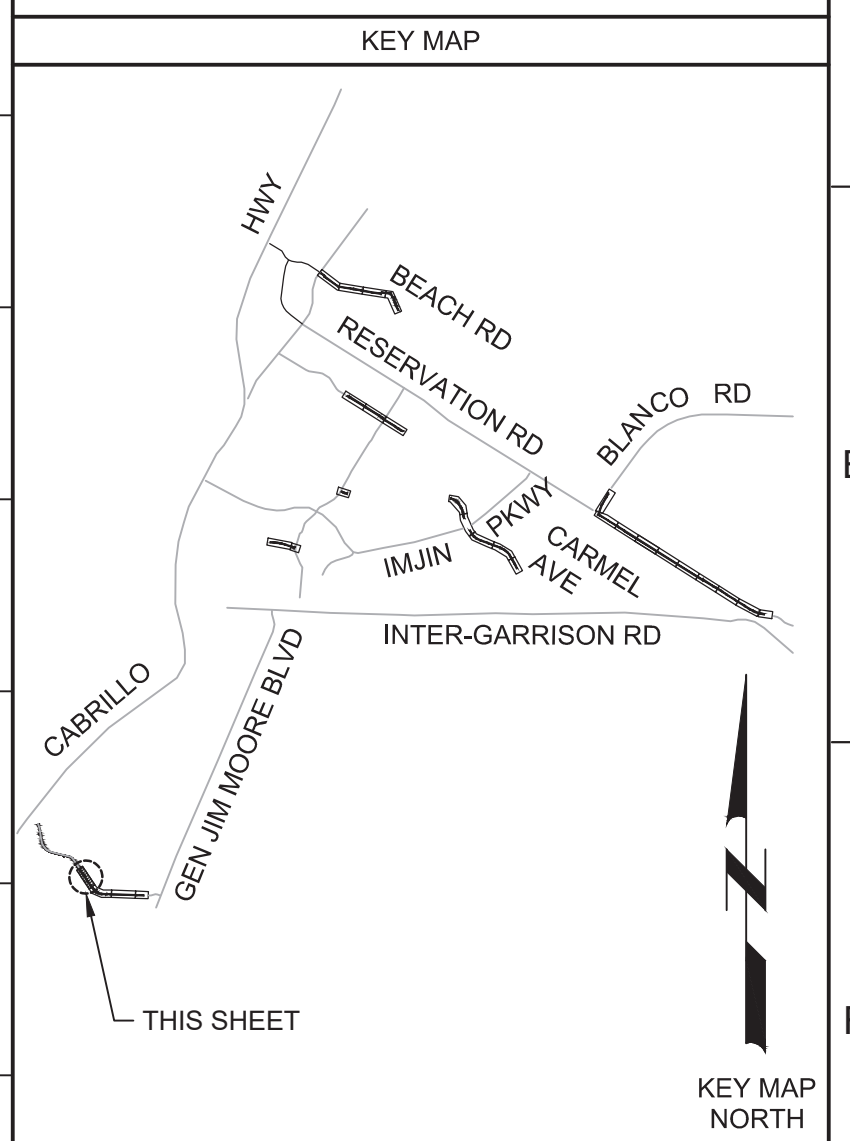
LAST SAVED BY: bhwaves



- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - CONTRACTOR SHALL CCTV ALL STORM DRAIN CROSSINGS BEFORE AND AFTER CONSTRUCTION. CCTV INFORMATION SHALL BE PROVIDED TO THE DISTRICT FOR REVIEW WITHIN TWO WEEKS FROM THE DATE OF THE FINAL PAVING. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO THE STORM DRAIN PIPE AND APPURTENANCES AS DETERMINED BY THE DISTRICT.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION OF THE SPECIFICATIONS.
- KEY NOTES:**
- APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH AN 8" x 10" MECHANICAL JOINT REDUCER WITH MECHANICAL JOINT WEDGE ACTION JOINT RESTRAINTS.



Know what's below.  
Call before you dig.



REV	DATE	BY	DESCRIPTION
1			
2			
3			

**BID DOCUMENTS**

DESIGNED  
JPM/KMM

DRAWN  
AL/BWH

CHECKED

DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact Info: Carollo Engineering, Inc.  
Date: 2019.10.10 13:14:00 -0700



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL DISTRIBUTION MAIN  
**COE AVENUE**  
**STA 10+00 TO 19+00**

**VERIFY SCALES**

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1" 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

**JOB NO.**  
7568C.10

**DRAWING NO.**  
P26

**SHEET NO.**  
48 OF 66

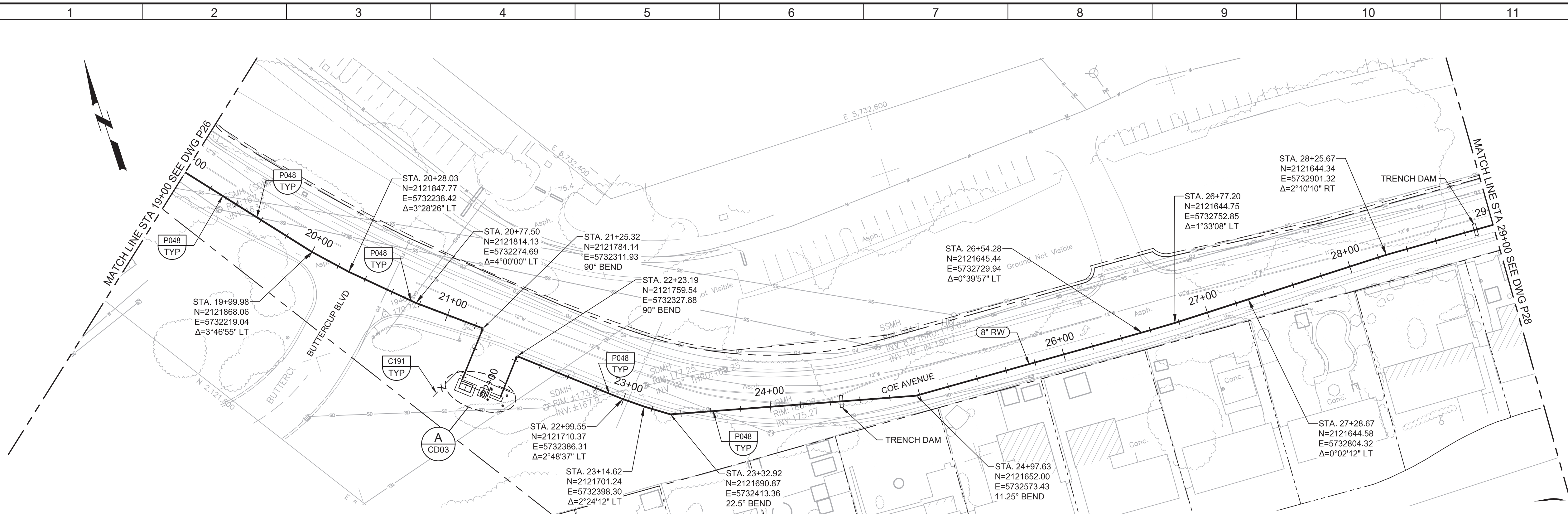


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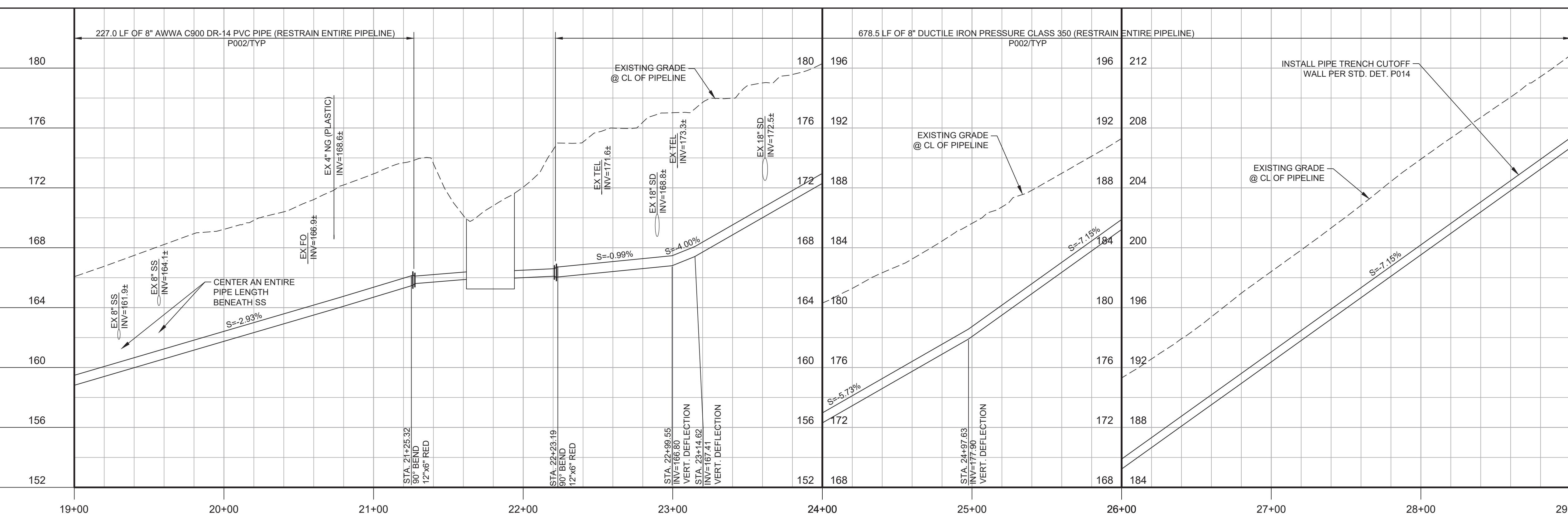
FILE NAME: 7568C10P27.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101



**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101

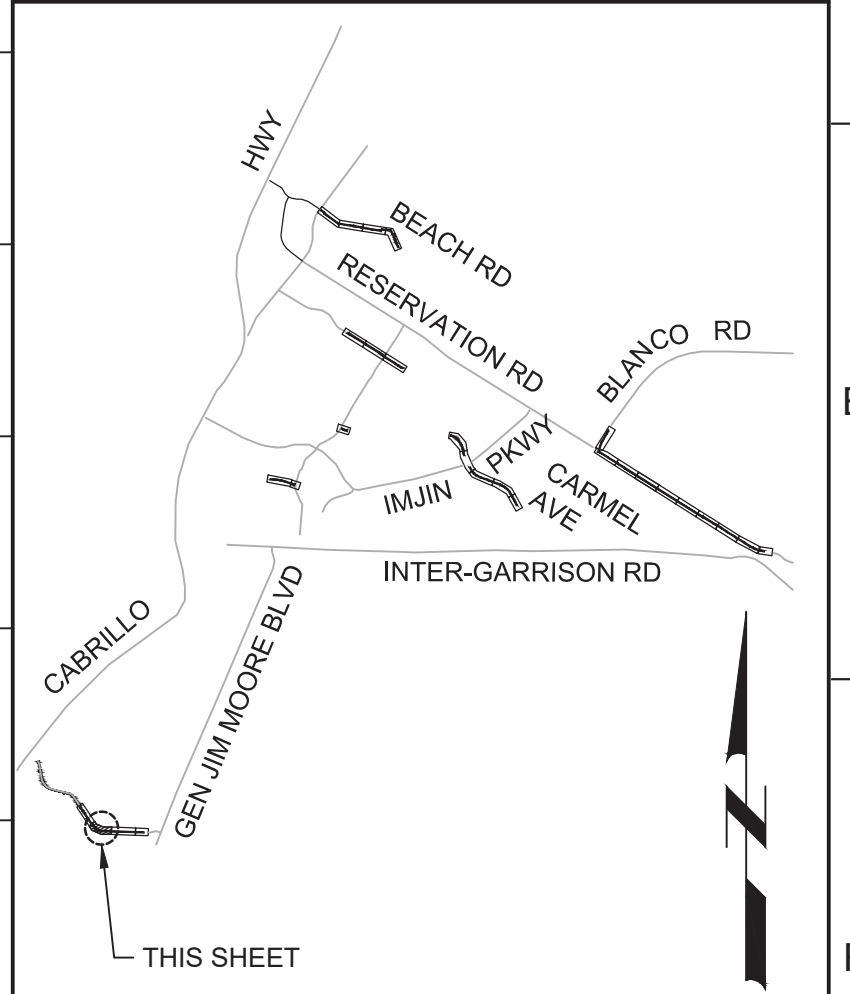
**GENERAL NOTES:**

1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
2. CONTRACTOR SHALL CCTV ALL STORM DRAIN CROSSINGS BEFORE AND AFTER CONSTRUCTION. CCTV INFORMATION SHALL BE PROVIDED TO THE DISTRICT FOR REVIEW WITHIN TWO WEEKS FROM THE DATE OF THE FINAL PAVING. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO THE STORM DRAIN PIPE AND APPURTENANCES AS DETERMINED BY THE DISTRICT.
3. REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
4. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

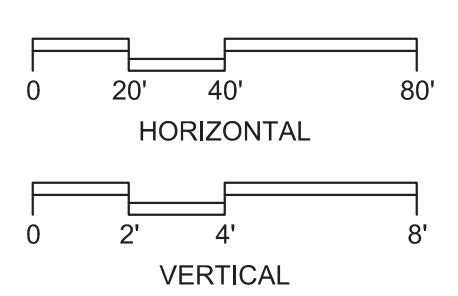


Know what's below.  
Call before you dig.

**KEY MAP**



**SCALE**



**BID DOCUMENTS**

DESIGNED  
JPM/KMM  
DRAWN  
AL/BWH  
CHECKED  
  
DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
DN: cn=Jonathan P. Marshall, o=Carollo Engineering, ou=Carollo Engineering, email=jmarshall@carollo.com, c=US  
Date: 2019.10.10 13:32:07 -0700



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**  
**RECYCLED WATER DISTRIBUTION MAINS**  
CIVIL DISTRIBUTION MAIN  
**COE AVENUE**  
**STA 19+00 TO 29+00**

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10  
DRAWING NO.  
**P27**  
SHEET NO.  
49 OF 66

REV	DATE	BY	DESCRIPTION
1			
2			
3			

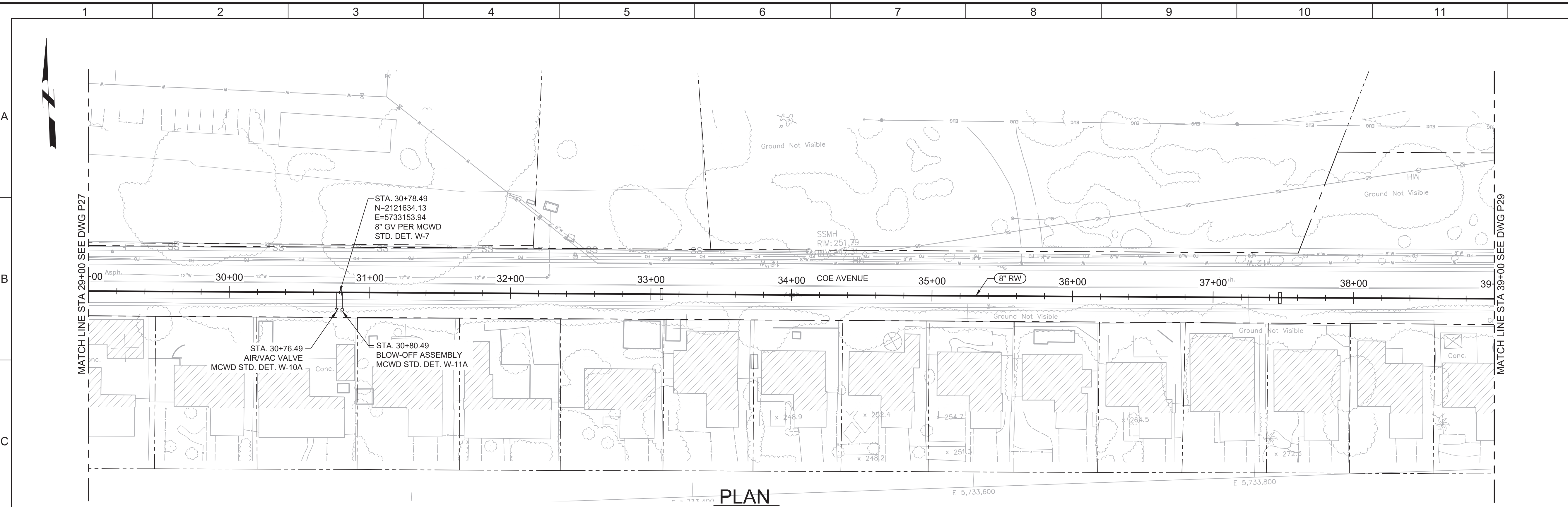


Plot Date: 10/9/2019 12:59:47 PM

FILE NAME: 7568C10P28.dwg

PROJECT NO. 7568C10

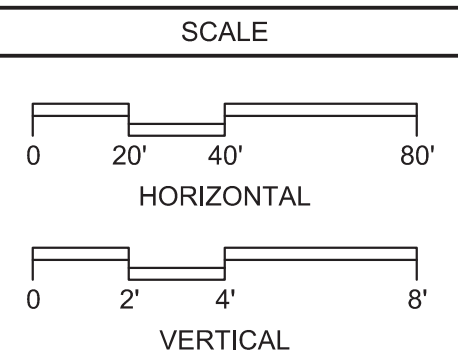
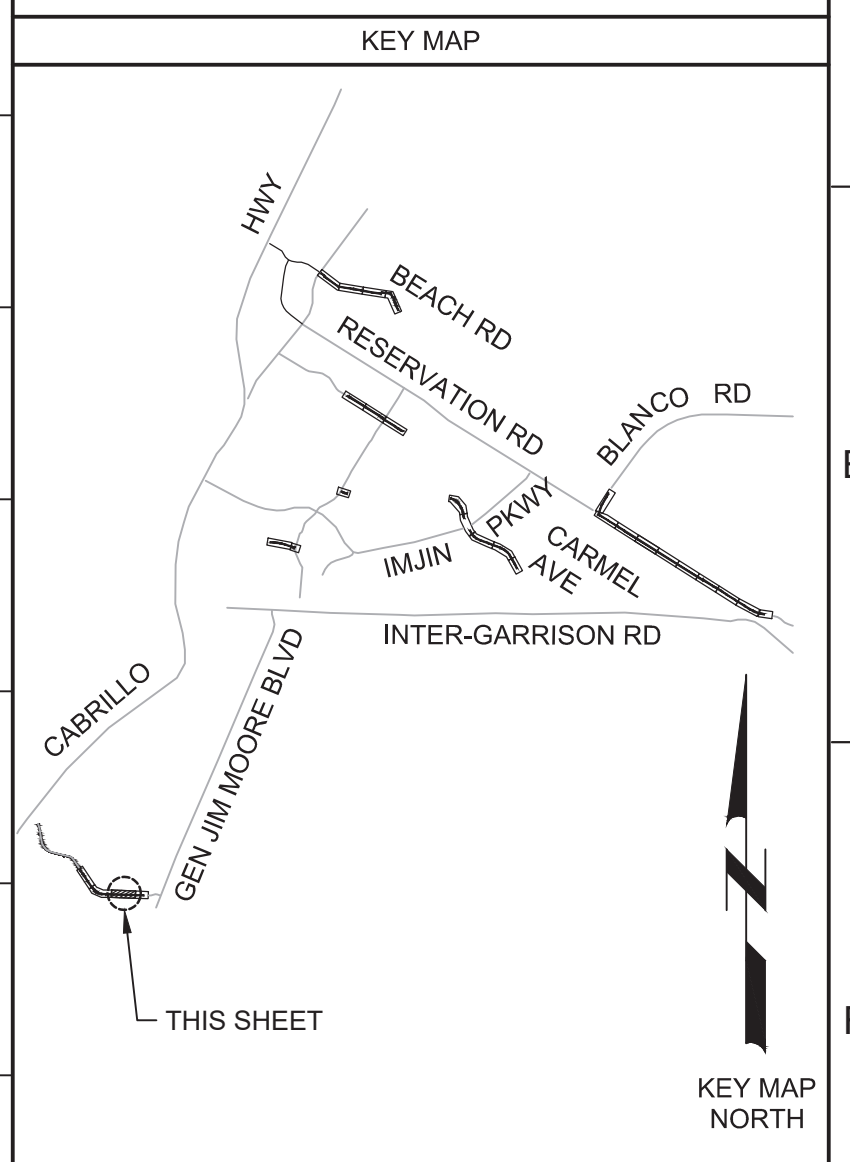
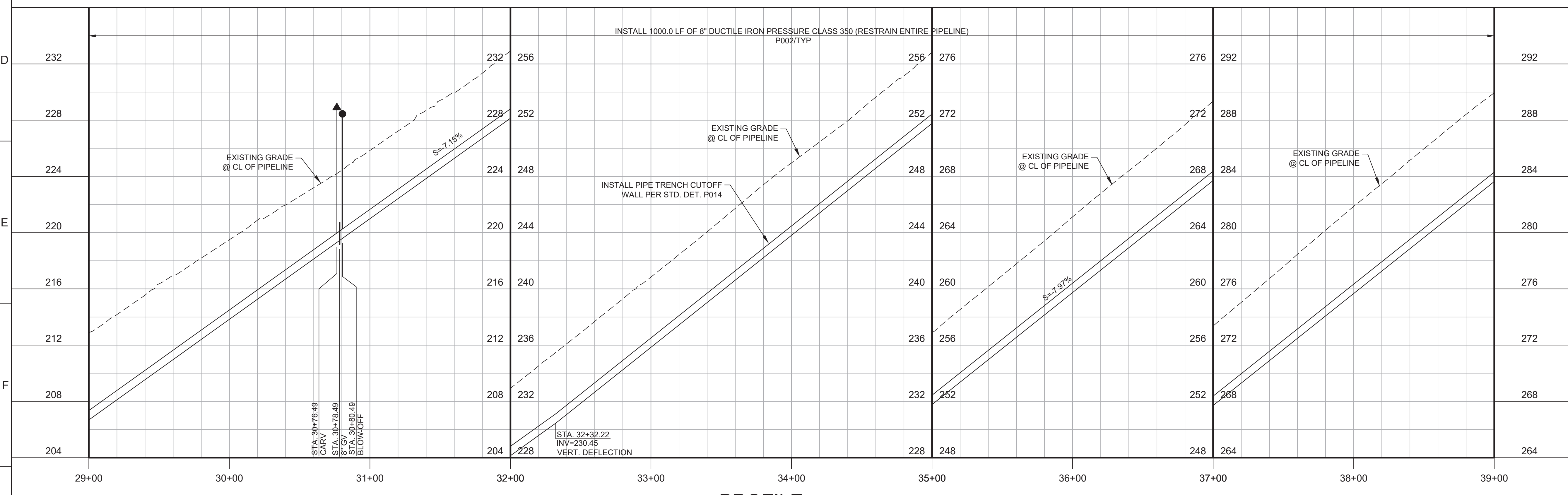
LAST SAVED BY: bhawes



- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - CONTRACTOR SHALL CCTV ALL STORM DRAIN CROSSINGS BEFORE AND AFTER CONSTRUCTION. CCTV INFORMATION SHALL BE PROVIDED TO THE DISTRICT FOR REVIEW WITHIN TWO WEEKS FROM THE DATE OF THE FINAL PAVING. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO THE STORM DRAIN PIPE AND APPURTENANCES AS DETERMINED BY THE DISTRICT.



Know what's below.  
Call before you dig.



REV	DATE	BY	DESCRIPTION
1			
2			
3			

**BID DOCUMENTS**

DESIGNED: JPM/KMM  
DRAWN: AL/BWH  
CHECKED: [Signature]  
DATE: OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineers, Inc.  
Date: 2019.10.10 13:12:56 -0700

*Jonathan P. Marshall*



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL DISTRIBUTION MAIN  
**COE AVENUE**  
**STA 29+00 TO 39+00**

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. **P28**  
SHEET NO. 50 OF 66

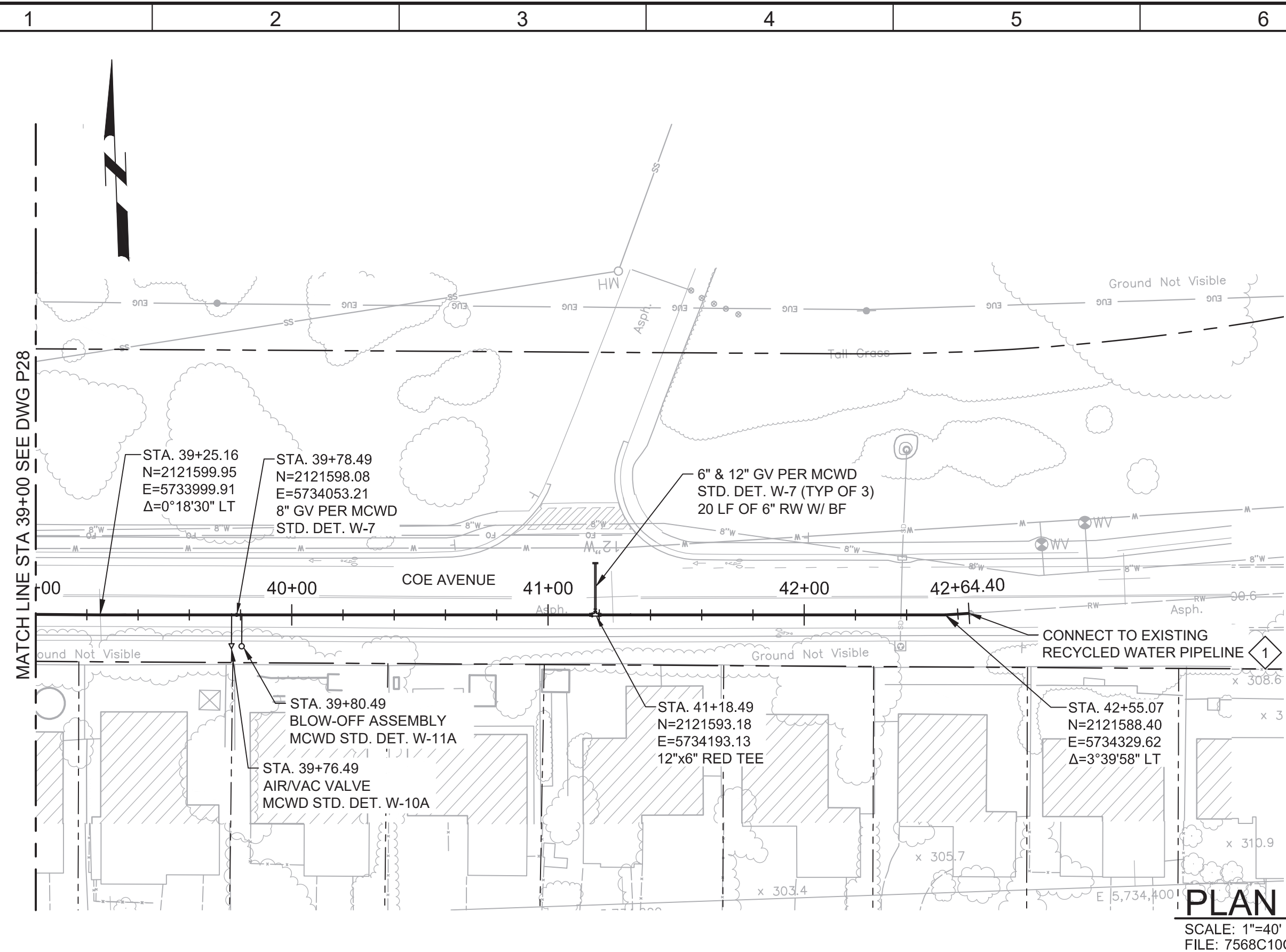


Plot Date: 10/9/2019 1:03:18 PM

FILE NAME: 7568C10P29.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



**GENERAL NOTES:**

- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
- CONTRACTOR SHALL CCTV ALL STORM DRAIN CROSSINGS BEFORE AND AFTER CONSTRUCTION. CCTV INFORMATION SHALL BE PROVIDED TO THE DISTRICT FOR REVIEW WITHIN TWO WEEKS FROM THE DATE OF THE FINAL PAVING. CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OF ANY DAMAGES TO THE STORM DRAIN PIPE AND APPURTENANCES AS DETERMINED BY THE DISTRICT.

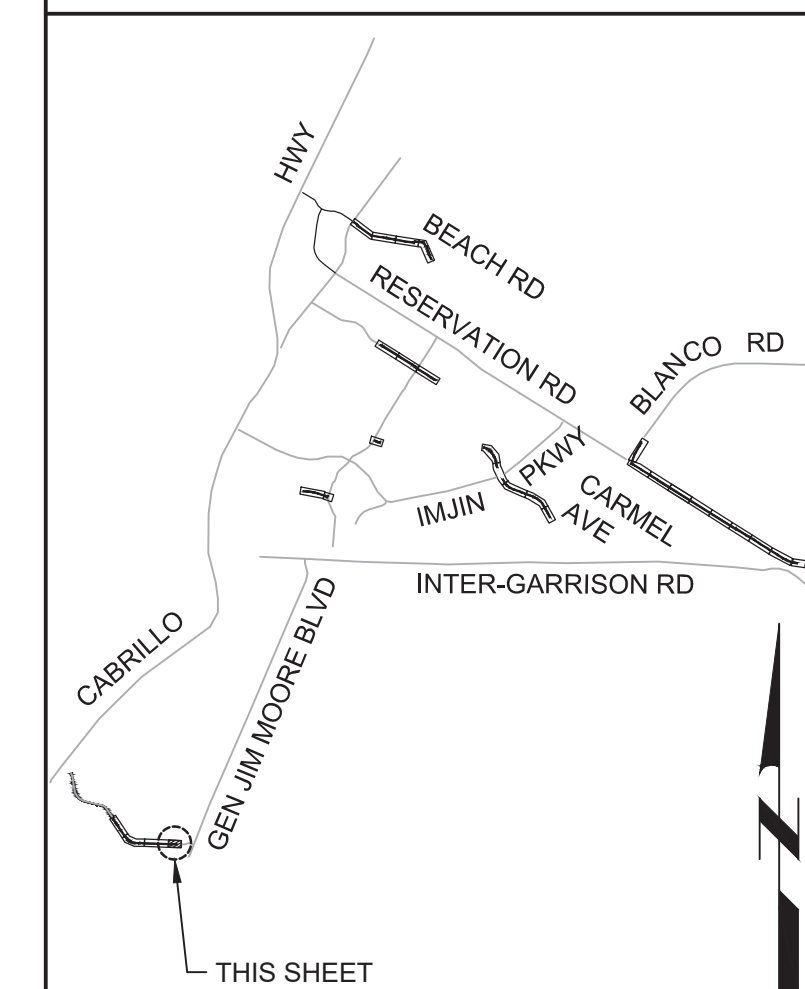
**KEY NOTES:**

- APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE, CAP AND CONNECT TO THE EXISTING PIPE WITH AN 8" x 12" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION RESTRAINTS.

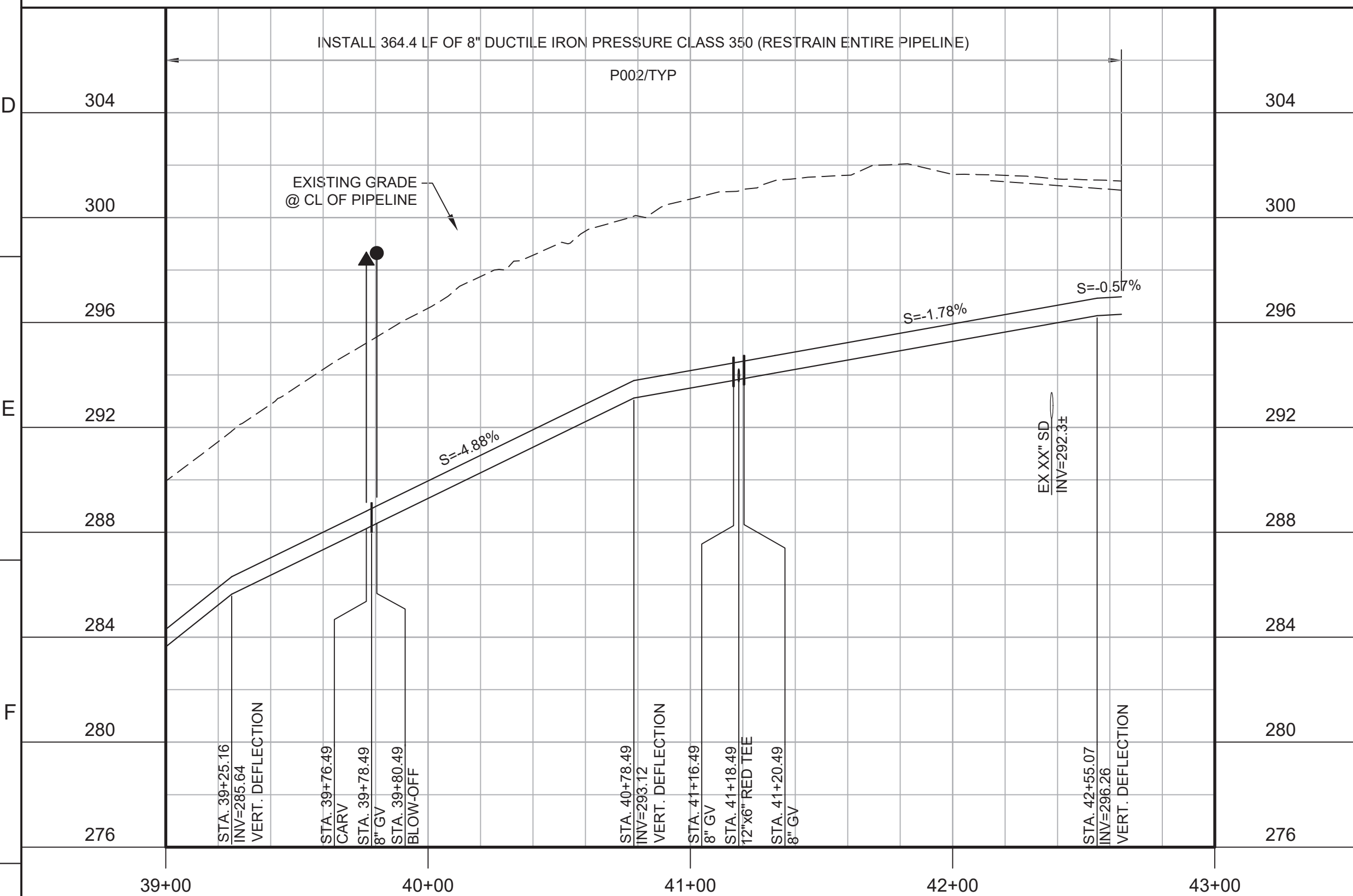
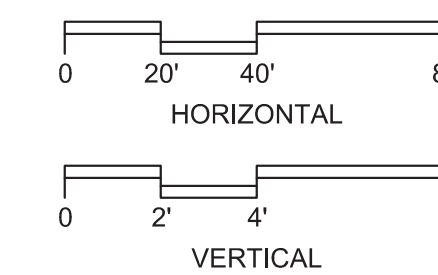


Know what's below.  
Call before you dig.

**KEY MAP**



**SCALE**



**BID DOCUMENTS**

DESIGNED  
JPM/KMM

DRAWN

CHECKED

DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marschall  
Contact info: Carollo Engineering, Inc.  
Date: 2019.10.16 13:13:29 -0700



**Marina  
Coast  
Water  
District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL DISTRIBUTION MAIN

**COE AVENUE  
STA 39+00 TO 42+64.40**

**VERIFY SCALES**

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10

DRAWING NO.  
**P29**

SHEET NO.

51 OF 66

REV	DATE	BY	DESCRIPTION
1			
2			
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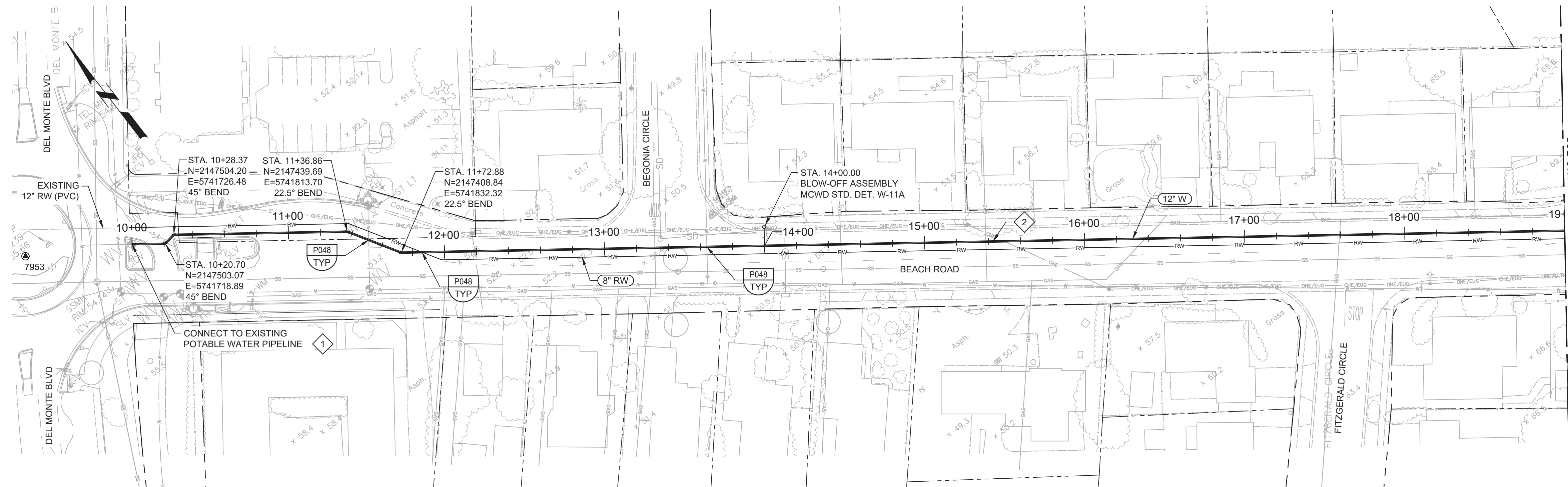


Plot Date: 10/9/2019 1:11:09 PM

FILE NAME: 7568C10P30.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



**PLAN**  
 SCALE: 1"=40'  
 FILE: 7568C10C101

**GENERAL NOTES:**

1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
2. REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
3. MAINTAIN MINIMUM 4' HORIZONTAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER LINES. INSTALL RECYCLED WATER LINE 1' LOWER THAN POTABLE WATER LINE.
4. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

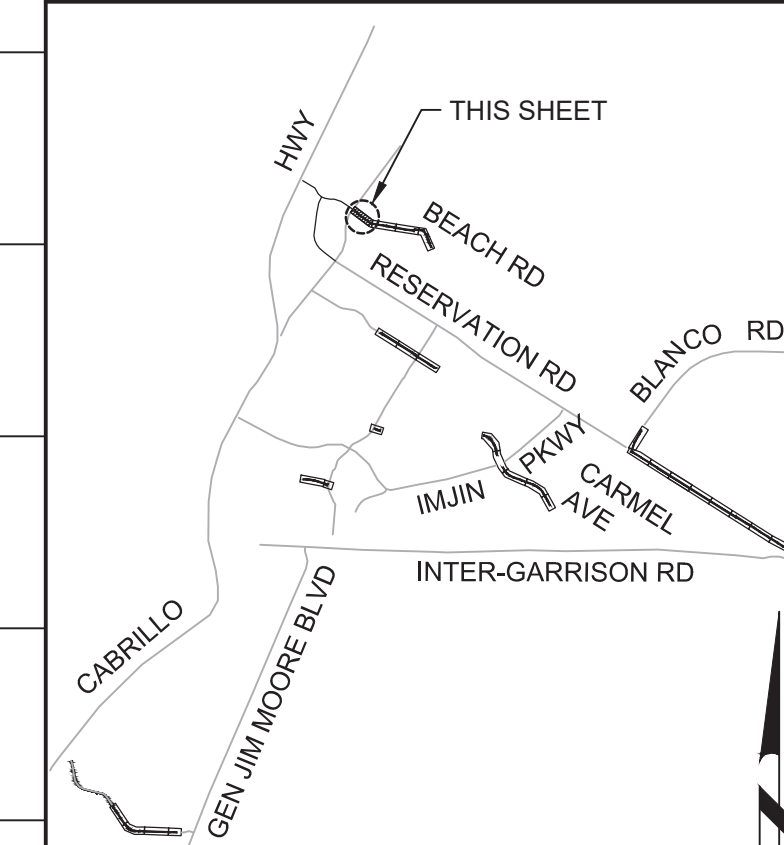
**KEY NOTES:**

1. APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 8 FT DEEP AND ENCLOSED IN A CASING. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH RESTRAINED TRANSITION COUPLING.



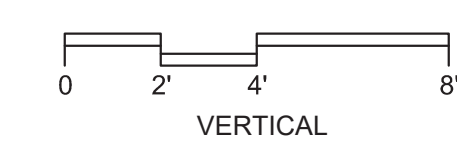
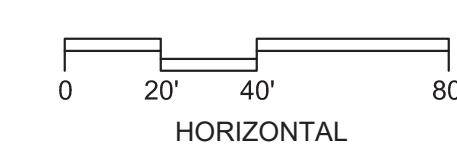
Know what's below.  
 Call before you dig.

**KEY MAP**



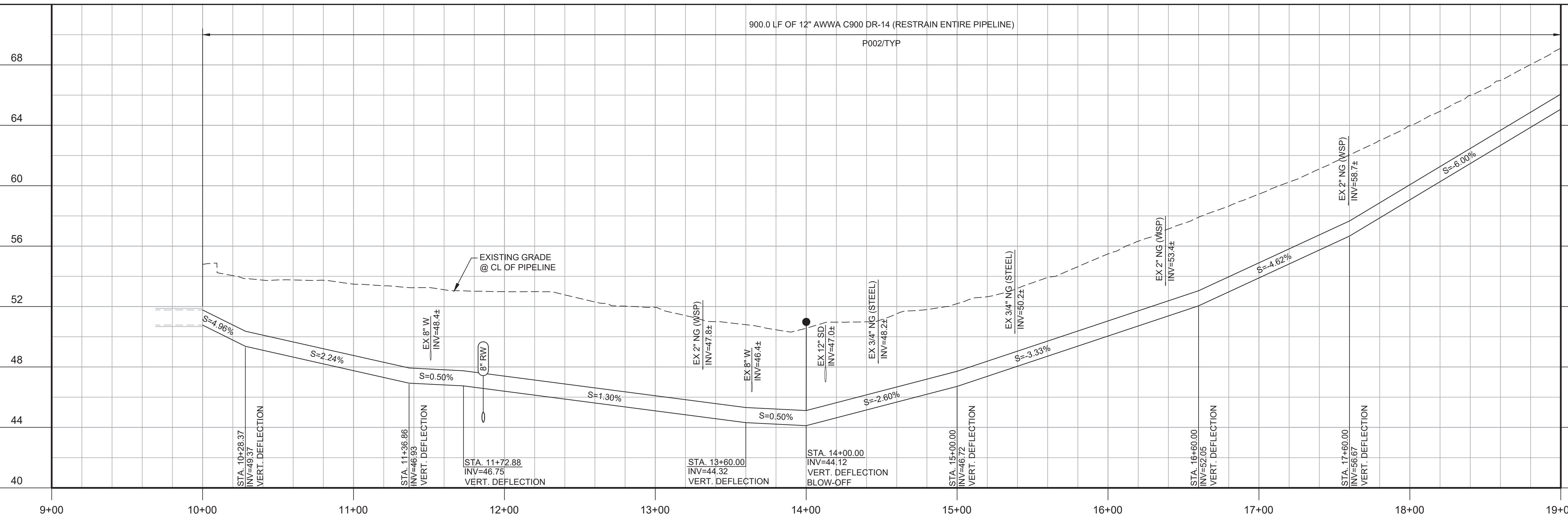
KEY MAP NORTH

**SCALE**



**PROFILE**

HORIZ SCALE: 1"=40'  
 VERT SCALE: 1"=4'  
 FILE: 7568C10C101



**BID DOCUMENTS**

DESIGNED  
 JPM/KMM  
 DRAWN  
 AL/BWH  
 CHECKED

DATE  
 OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 DN: cn=Jonathan P. Marshall, o=Carollo Engineering, ou=Carollo Engineering, email=jmarshall@carollo.com, c=US



Marina  
 Coast  
 Water  
 District

**CAPITAL IMPROVEMENT PROGRAM**

POTABLE WATER MAINS  
 CIVIL WL DISTRIBUTION MAIN  
 BEACH ROAD  
 STA 10+00 TO 19+00

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1" 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
 7568C.10  
 DRAWING NO.  
 P30  
 SHEET NO.  
 52 OF 66

1	2	3	4	5	6	7	8	9	10	11	12	13
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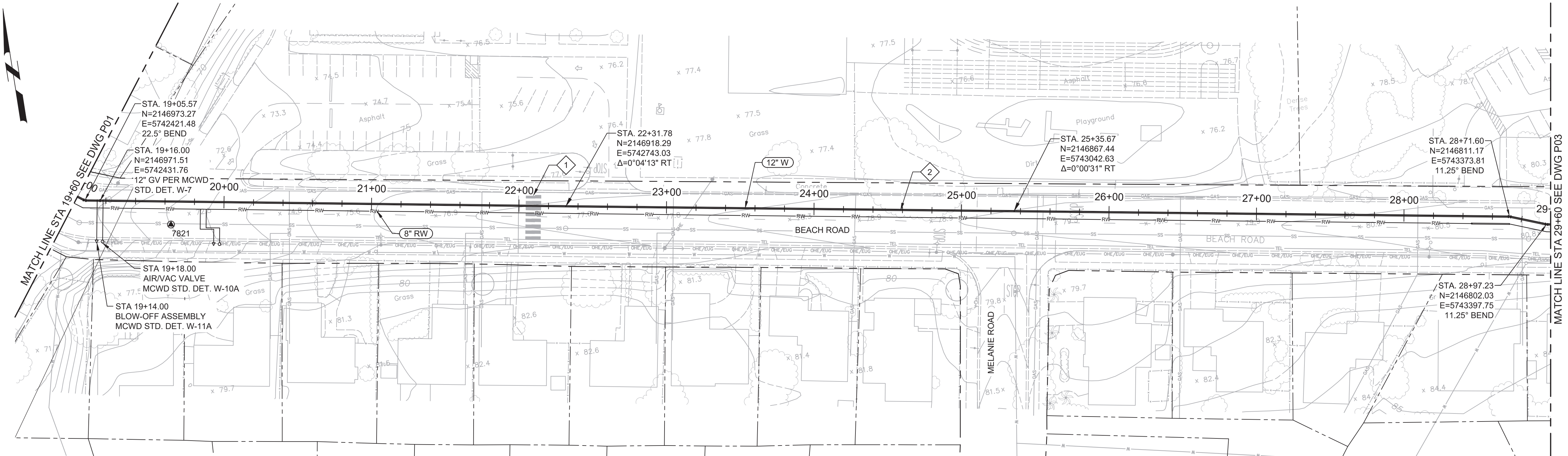


Plot Date: 10/10/2019 8:27:16 AM

FILE NAME: 7568C10P31.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bbawes

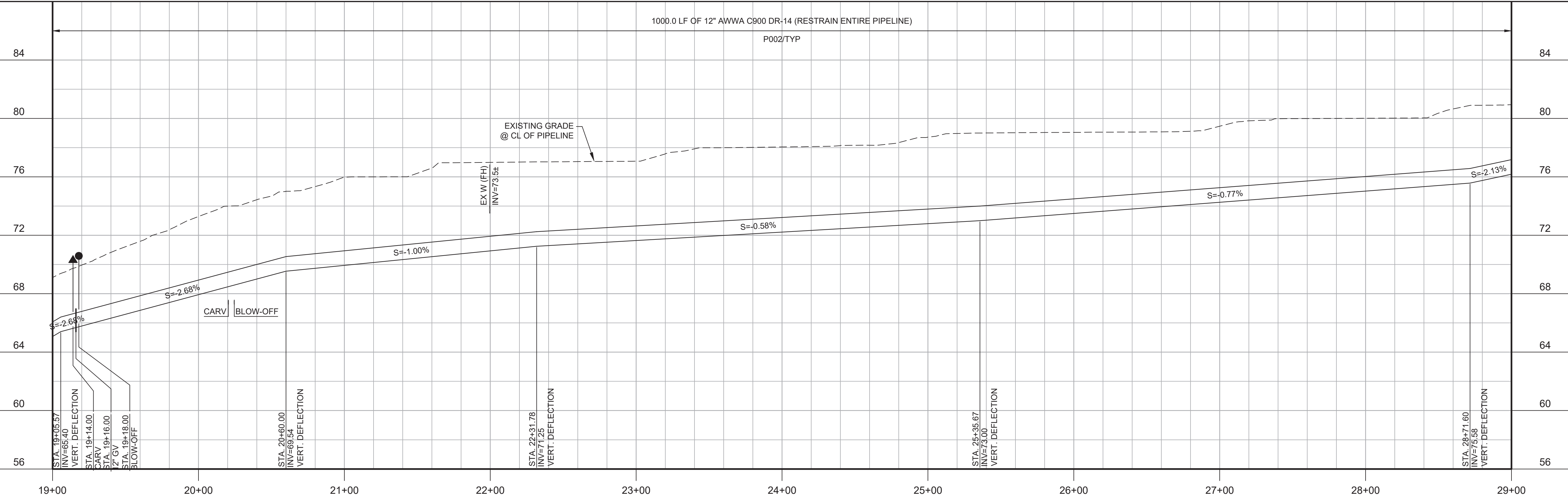


**PLAN**  
 SCALE: 1"=40'  
 FILE: 7568C10C101

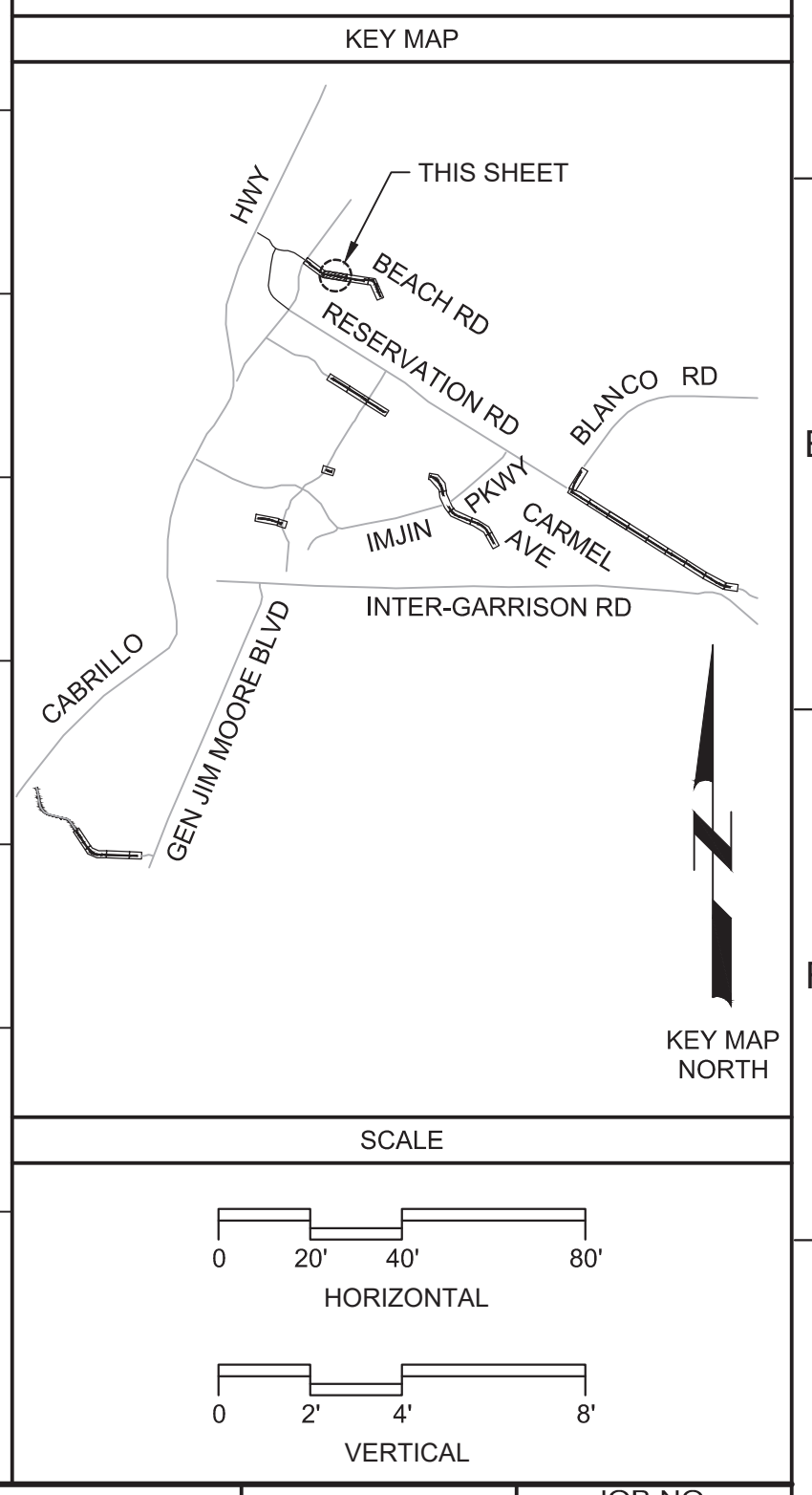
- GENERAL NOTES:**
- CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  - ARBORIST SHALL PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562.
  - REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
  - MAINTAIN MINIMUM 4' HORIZONTAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER LINES. INSTALL RECYCLED WATER LINES 1' LOWER THAN POTABLE WATER LINE.
  - DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE MANUFACTURER'S ALLOWABLE JOINT OR PIPE BARREL DEFLECTION.
- KEY NOTES:**
- 1 PROTECT EXISTING CROSSWALK LIGHTING IN PLACE. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGES TO THE LIGHTING SYSTEM.



Know what's below.  
 Call before you dig.



**PROFILE**  
 HORIZ SCALE: 1"=40'  
 VERT SCALE: 1"=4'  
 FILE: 7568C10C101



**BID DOCUMENTS**

DESIGNED  
 JPM/KMM  
 DRAWN  
 AL/BWH  
 CHECKED  
 DATE  
 OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineers, Inc.  
 Date: 2019.10.10 13:12:59 -0700



**Marina Coast Water District**

**CAPITAL IMPROVEMENT PROGRAM**  
**POTABLE WATER MAINS**  
 CIVIL WL DISTRIBUTION MAIN  
**BEACH ROAD**  
**STA 19+00 TO 29+00**

**VERIFY SCALES**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1" 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

**JOB NO.**  
 7568C.10  
**DRAWING NO.**  
**P31**  
**SHEET NO.**  
 53 OF 66

REV	DATE	BY	DESCRIPTION
1			
2			
3			

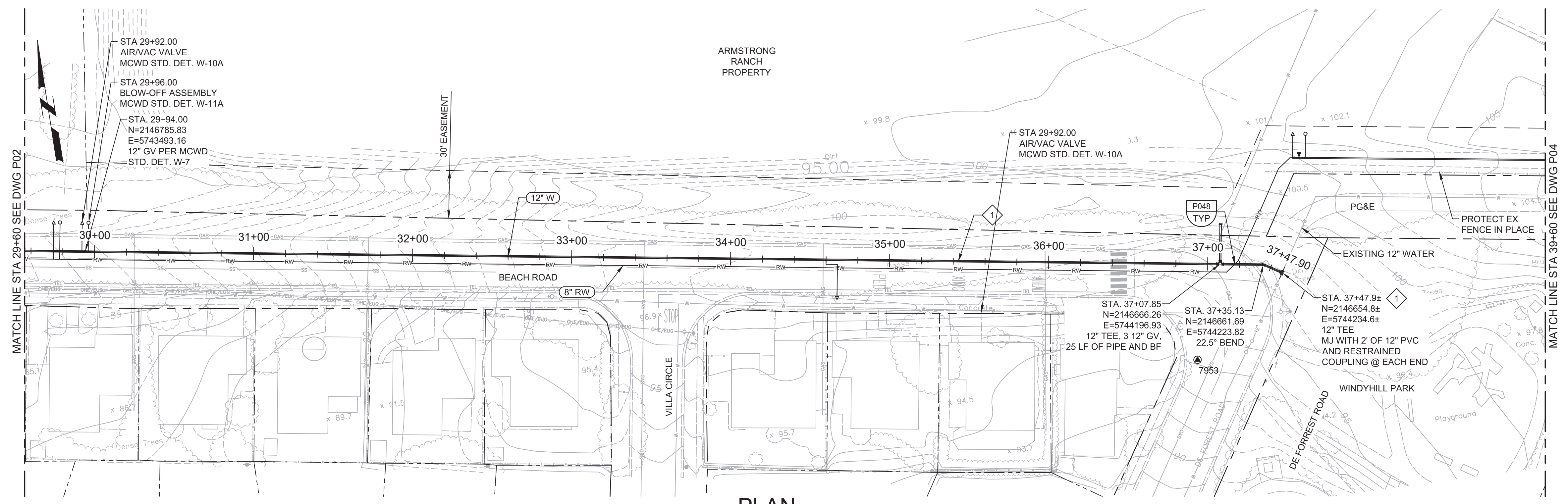


Plot Date: 10/10/2019 8:23:32 AM

FILE NAME: 7568C10P32.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



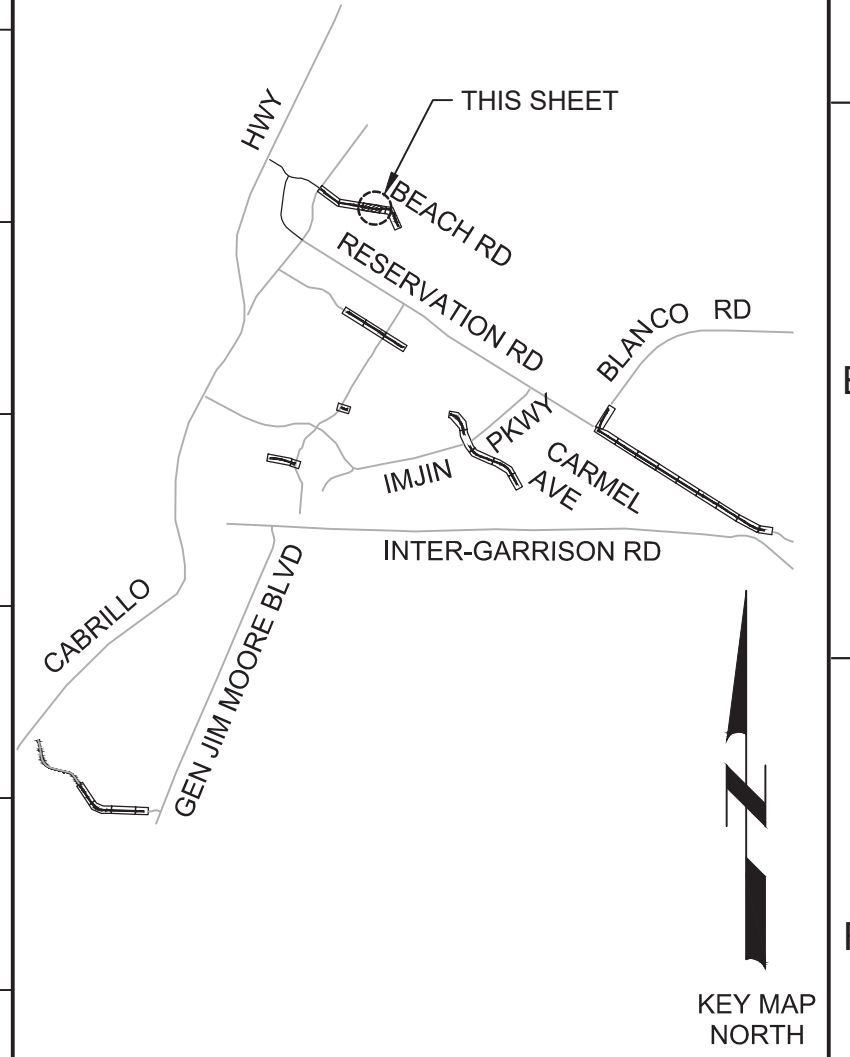
**PLAN**  
SCALE: 1"=40'  
FILE: 7568C10C101

- GENERAL NOTES:**
1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  2. CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO WINDYHILL PARK AT ALL TIMES.
  3. REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
  4. ARBORIST SHALL BE PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562. PIPE SHALL BE INSTALLED TO THE DEPTH SHOWN ON THE DRAWINGS AS BEST POSSIBLE. IN AREAS WHERE THE ARBORIST DETERMINES THAT THE REQUIRED DEPTH CANNOT BE ACHIEVED DUE TO CONFLICTS WITH ROOTS, CONTRACTOR SHALL INSTALL THE PIPE SHALLOWER WITH A CONCRETE ENCASEMENT. THE CONTRACTOR SHALL CONFER WITH THE CONSTRUCTION MANAGER PRIOR TO ANY DESIGN CHANGES BEING MADE.
- KEY NOTES:**
- 1 APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. CONNECT TO THE EXISTING PIPE.
  - 2 CONTRACTOR TO PROTECT AND RELOCATE NG PIPELINE AS NECESSARY.

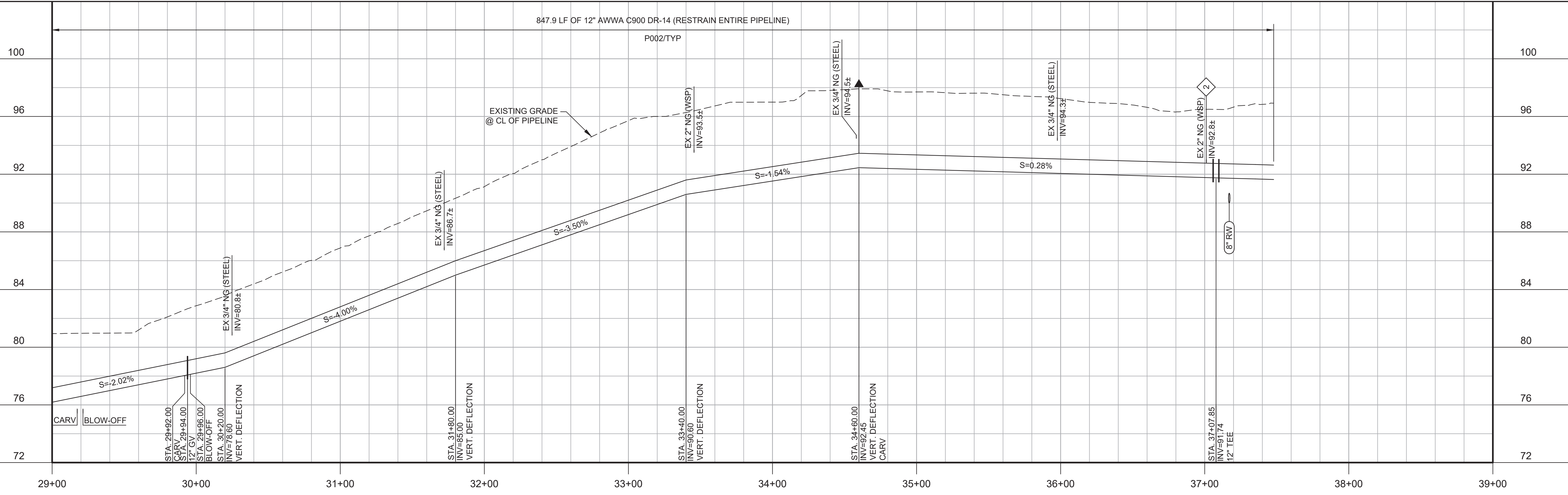
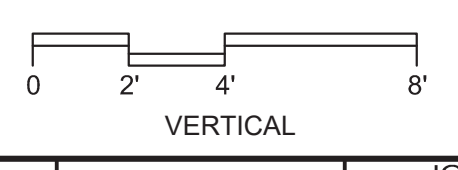
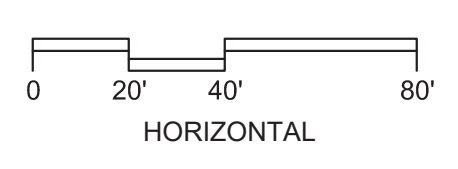


Know what's below.  
Call before you dig.

KEY MAP



SCALE



**PROFILE**  
HORIZ SCALE: 1"=40'  
VERT SCALE: 1"=4'  
FILE: 7568C10C101

**BID DOCUMENTS**

DESIGNED  
JPM/KMM  
DRAWN  
AL/BWH  
CHECKED  
  
DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
DN: cn=Jonathan P. Marshall, o=Carollo Engineering, ou=Carollo Engineering, email=jmarshall@carollo.com, c=US  
Date: 2019.10.10 13:12:09 -0700



**Marina Coast Water District**

**CAPITAL IMPROVEMENT PROGRAM**  
**POTABLE WATER MAINS**  
CIVIL WL DISTRIBUTION MAIN  
**BEACH ROAD**  
STA 29+00 TO 37+47.90

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. P32  
SHEET NO. 54 OF 66

REV	DATE	BY	DESCRIPTION
1			
2			
3			

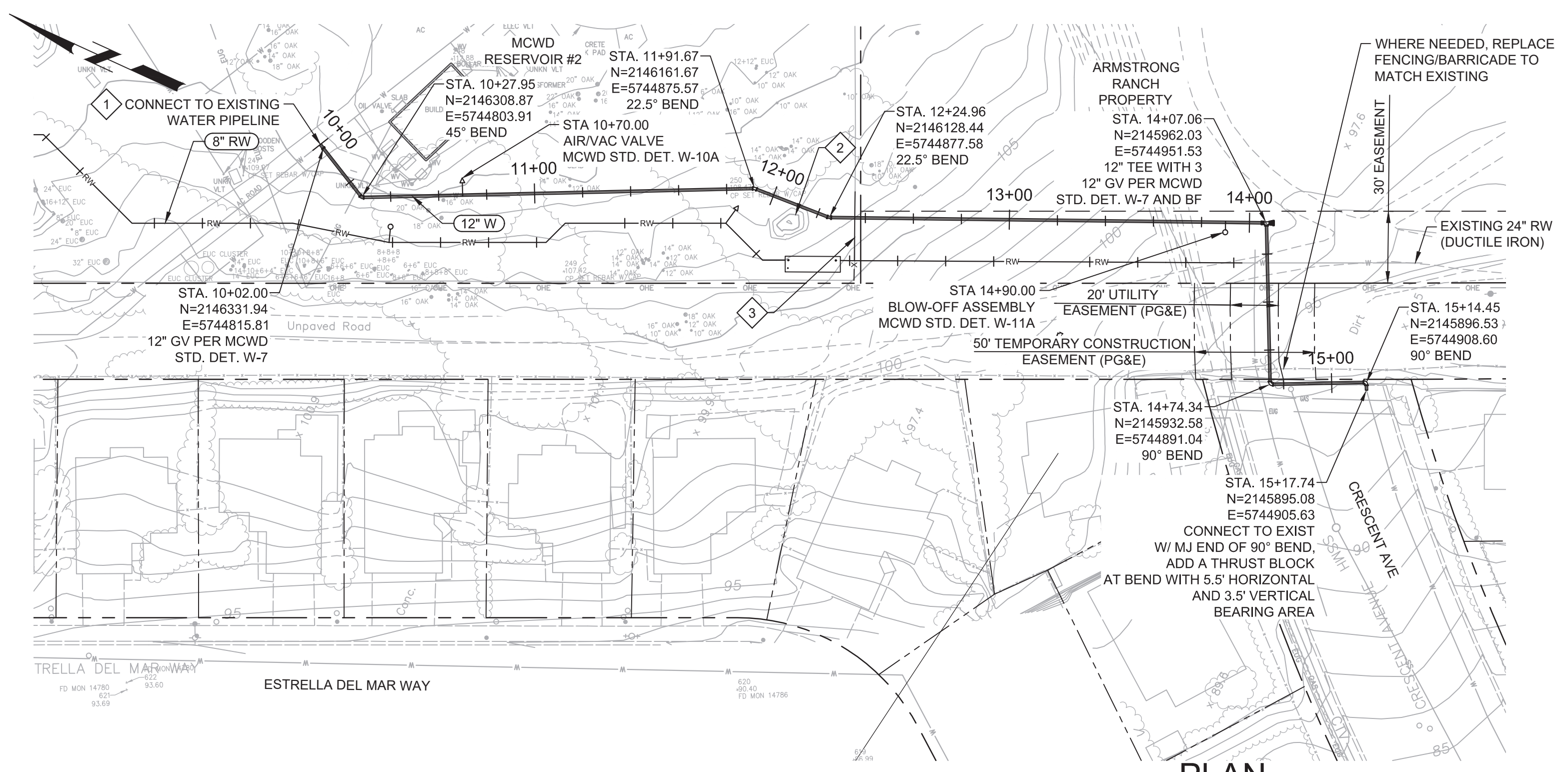


Plot Date: 10/10/2019 8:19:43 AM

FILE NAME: 7568C10F33.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



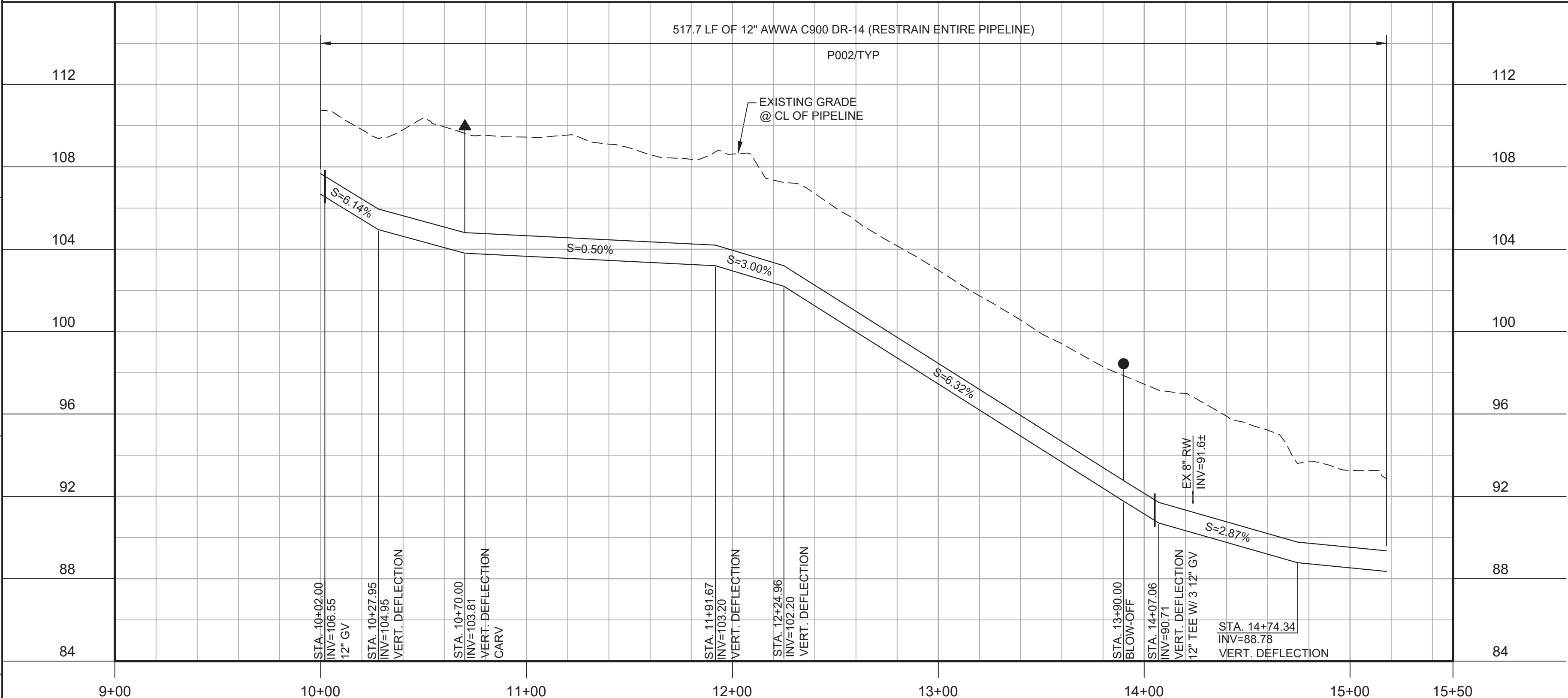
**PLAN**  
 SCALE: 1"=40'  
 FILE: 7568C10C101

- GENERAL NOTES:**
1. CONSTRUCT PIPELINE WITH A MINIMUM 4' OF COVER UNLESS SPECIFICALLY CALLED OUT TO BE LESS THAN 4'.
  2. CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS TO WINDYHILL PARK AT ALL TIMES.
  3. REPAIR ALL DAMAGED FACILITIES, INCLUDING FENCES AND LANDSCAPING, TO THEIR ORIGINAL CONDITION.
  4. ARBORIST SHALL BE PRESENT FOR ALL WORK NEAR TREES PER SPECIFICATION SECTION 01562.
  5. MAINTAIN MINIMUM 4' HORIZONTAL CLEARANCE BETWEEN POTABLE WATER AND RECYCLED WATER LINES. INSTALL RECYCLED WATER LINES 1' LOWER THAN POTABLE WATER LINE.
  6. DEFLECTIONS (CHANGES IN DIRECTION) OF PVC PIPE SHALL BE ACHIEVED BY BENDING ONE OR MORE PIPE BARRELS. DO NOT EXCEED THE ALLOWABLE JOINT OR PIPE BARREL DEFLECTION PER THE SPECIFICATIONS.

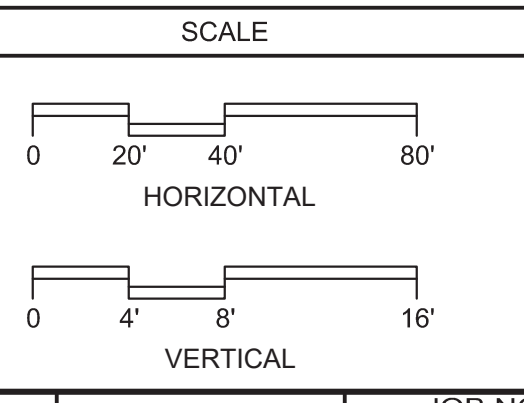
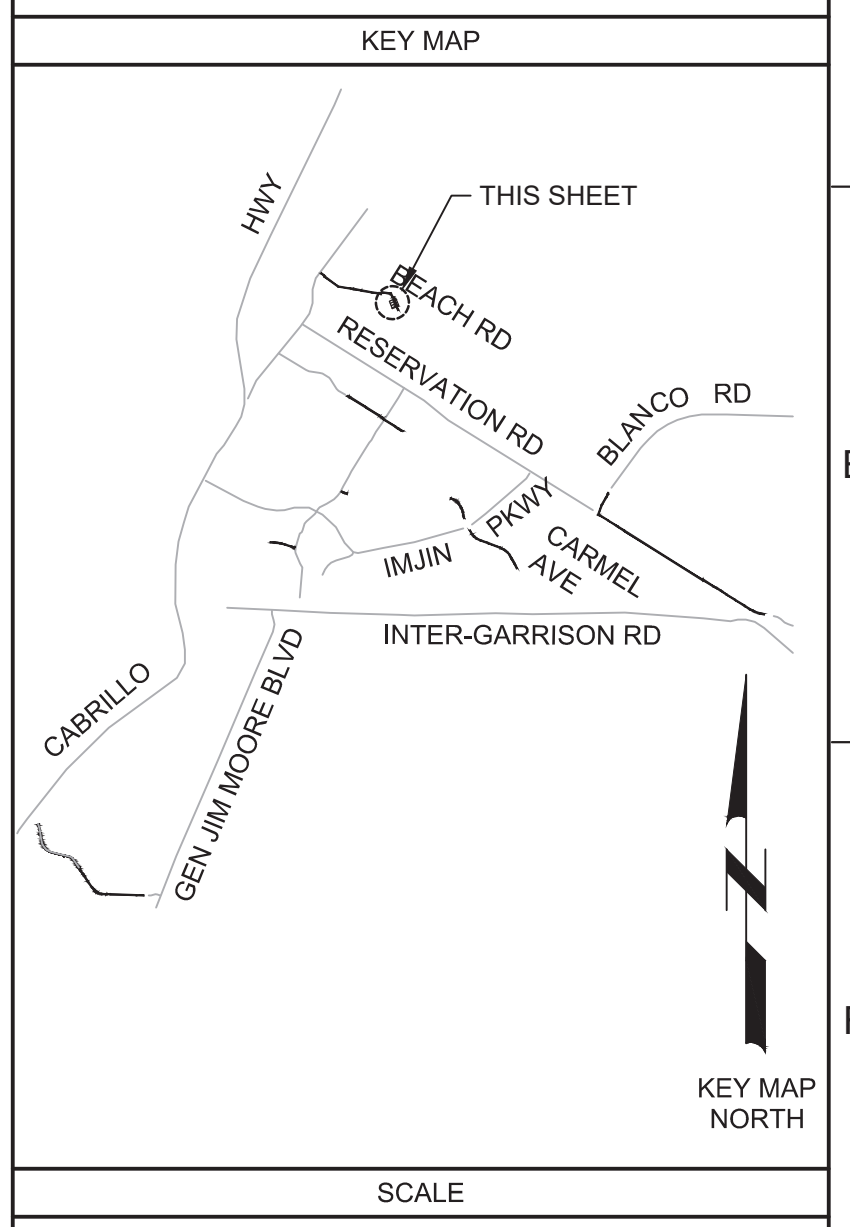
- KEY NOTES:**
1. APPROXIMATE TIE-IN LOCATION. EXISTING PIPELINE IS APPROXIMATELY 4 FT DEEP. CONTRACTOR TO POTHOLE TO VERIFY. REMOVE EXISTING PIPE CAP AND CONNECT TO THE EXISTING PIPE WITH 8" X 24" MECHANICAL JOINT REDUCER WITH MECHANICAL WEDGE ACTION JOINT RESTRAINTS AND 8" GV.
  2. REMOVE EXISTING DIRT PILE AND MATCH AREA GRADE TO SURROUNDING AREA.
  3. INSTALL 30" WIDE GATE PER C190/TC01.



Know what's below.  
 Call before you dig.



**PROFILE**  
 HORIZ SCALE: 1"=40'  
 VERT SCALE: 1"=4'  
 FILE: 7568C10C101



REV	DATE	BY	DESCRIPTION
1			
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3			

**BID DOCUMENTS**

DESIGNED  
JPM/KMM

DRAWN  
AL/BWH

CHECKED

DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 DN: cn=Jonathan P. Marshall, o=Carollo Engineering, Inc., ou=Carollo Engineering, Inc., email=jmarshall@carollo.com, c=US



**Marina Coast Water District**

**CAPITAL IMPROVEMENT PROGRAM**

**POTABLE WATER MAINS**

CIVIL DISTRIBUTION MAIN

**RESERVOIR 2 TO CRESCENT AVE**

**STA 10+00 TO 15+17.74**

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING

0 1" 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10

DRAWING NO.  
**P33**

SHEET NO.  
55 OF 66

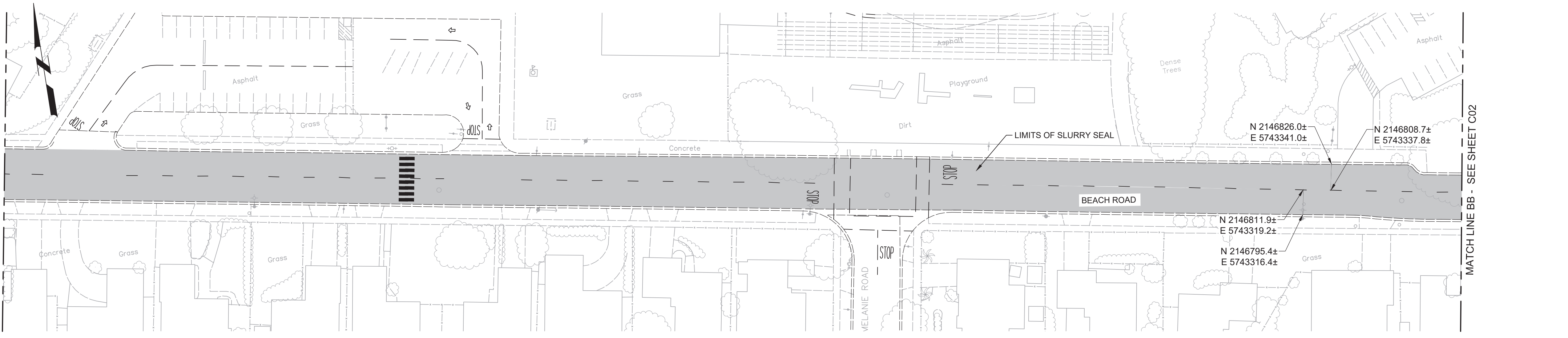
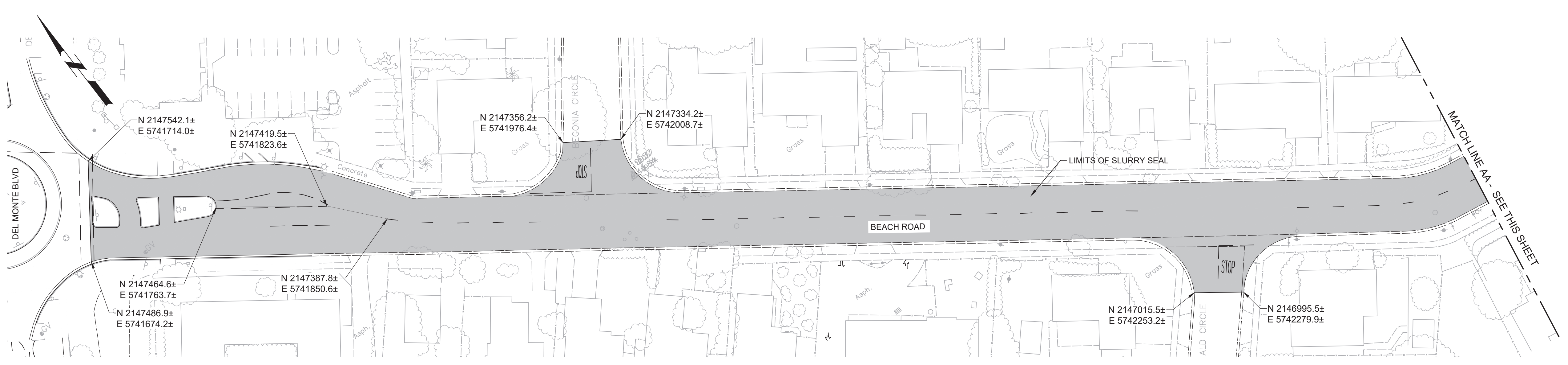


Plot Date: 10/9/2019 6:38:16 PM

FILE NAME: 7568C10C01.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



LEGEND

SLURRY SEAL

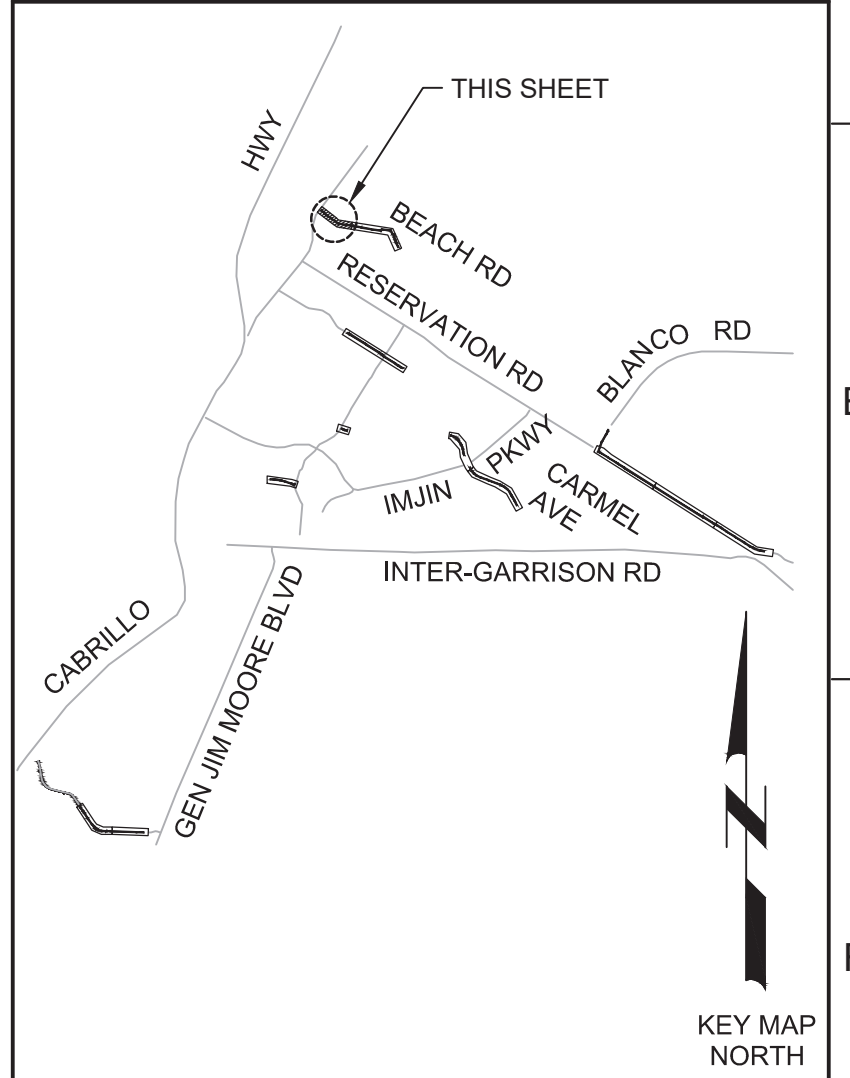
GENERAL NOTES:

1. INSTALL SLURRY SEAL IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF MARINA STANDARD SPECIFICATIONS AND PLANS.
2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
3. PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING OVERLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER OVERLAY IS COMPLETE.
4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF MARINA STANDARDS.

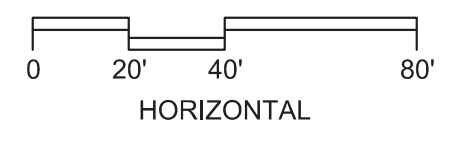


Know what's below. Call before you dig.

KEY MAP



SCALE



BID DOCUMENTS

DESIGNED JPM  
 DRAWN EH  
 CHECKED AP  
 DATE OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.10 12:11:30 -0700



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL PAVING PLAN - BEACH ROAD 1

VERIFY SCALES  
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 0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
 DRAWING NO. C01  
 SHEET NO. 56 OF 66

REV	DATE	BY	DESCRIPTION
1			
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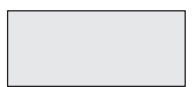

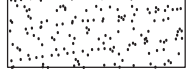
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FILE NAME: 7568C10C02.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes

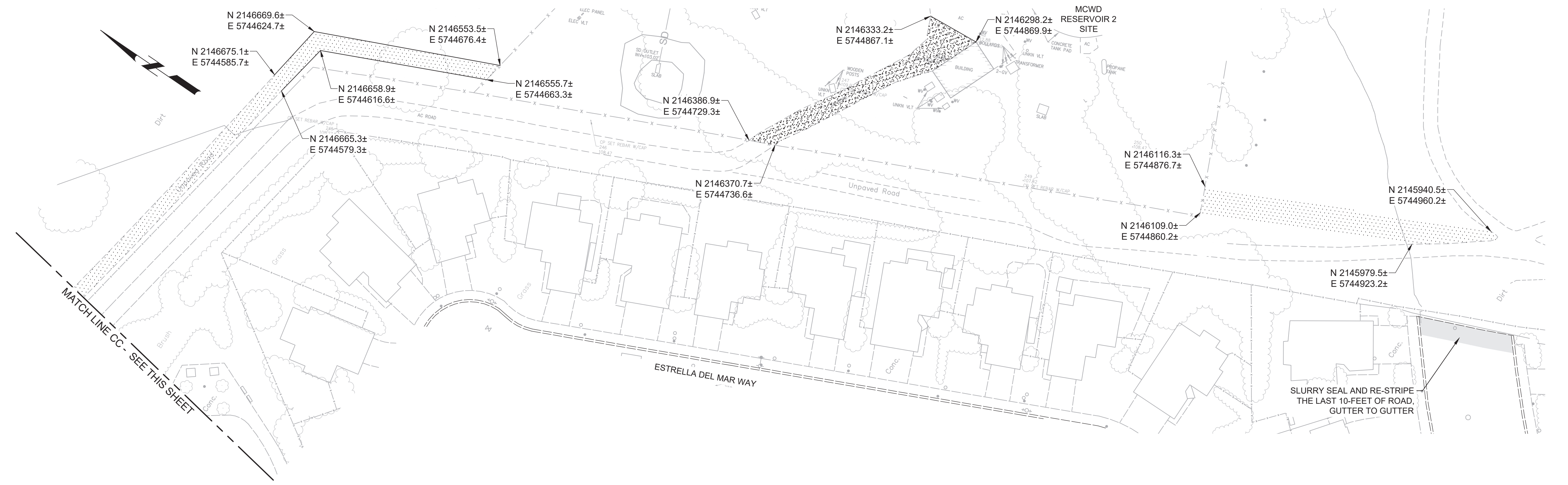
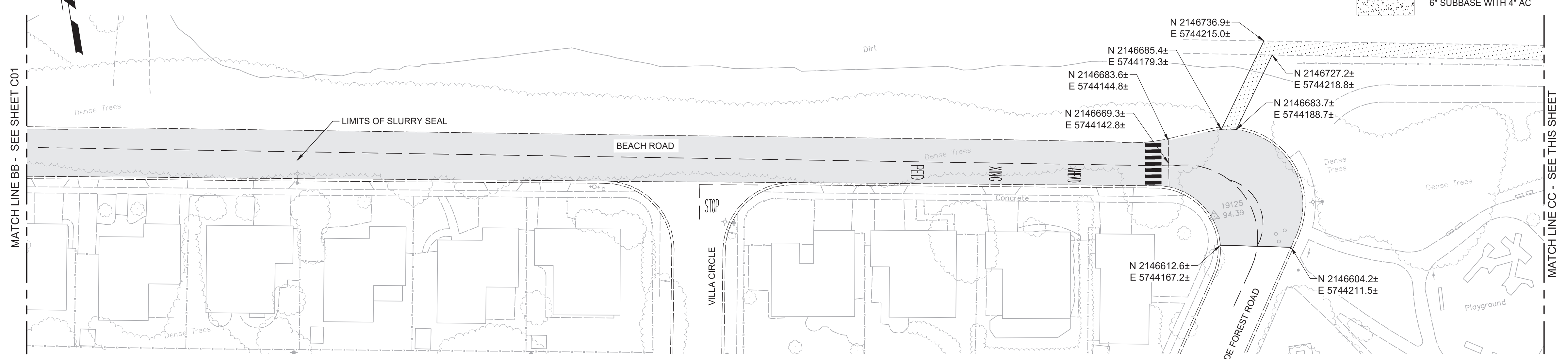
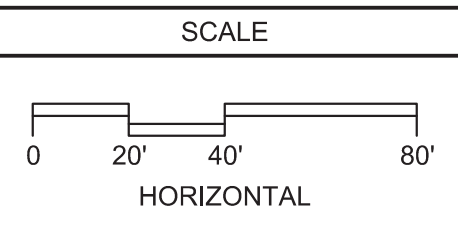
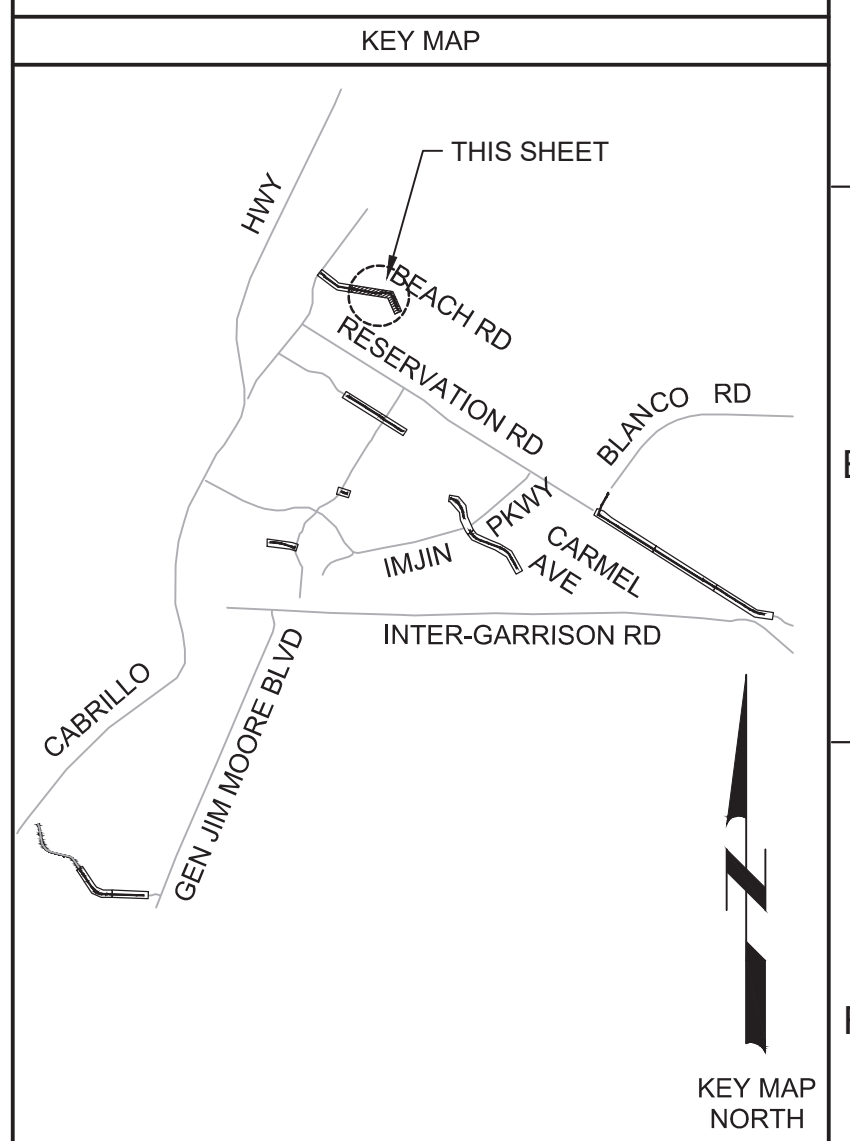
**LEGEND**

-  SLURRY SEAL
-  2" AGGREGATE BASE COURSE
-  6" SUBBASE WITH 4" AC

- GENERAL NOTES:**
1. INSTALL SLURRY SEAL AGGREGATE BASE COURSE AND AC PAVING IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF MARINA AND MCWD STANDARD SPECIFICATIONS AND PLANS.
  2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
  3. PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A PAVEMENT STRIPING AND MARKINGS PLAN TO MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING OVERLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER OVERLAY IS COMPLETE.
  4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK ALONG BEACH RD SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF MARINA STANDARDS.



Know what's below. Call before you dig.



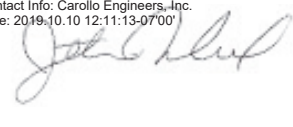
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**BID DOCUMENTS**

DESIGNED JPM  
 DRAWN EH  
 CHECKED AP  
 DATE OCTOBER 2019



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 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.10 12:11:52 -0700




**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL

**PAVING PLAN - BEACH ROAD 2**

**VERIFY SCALES**

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1" 1"

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JOB NO. 7568C10  
 DRAWING NO. C02  
 SHEET NO. 57 OF 66

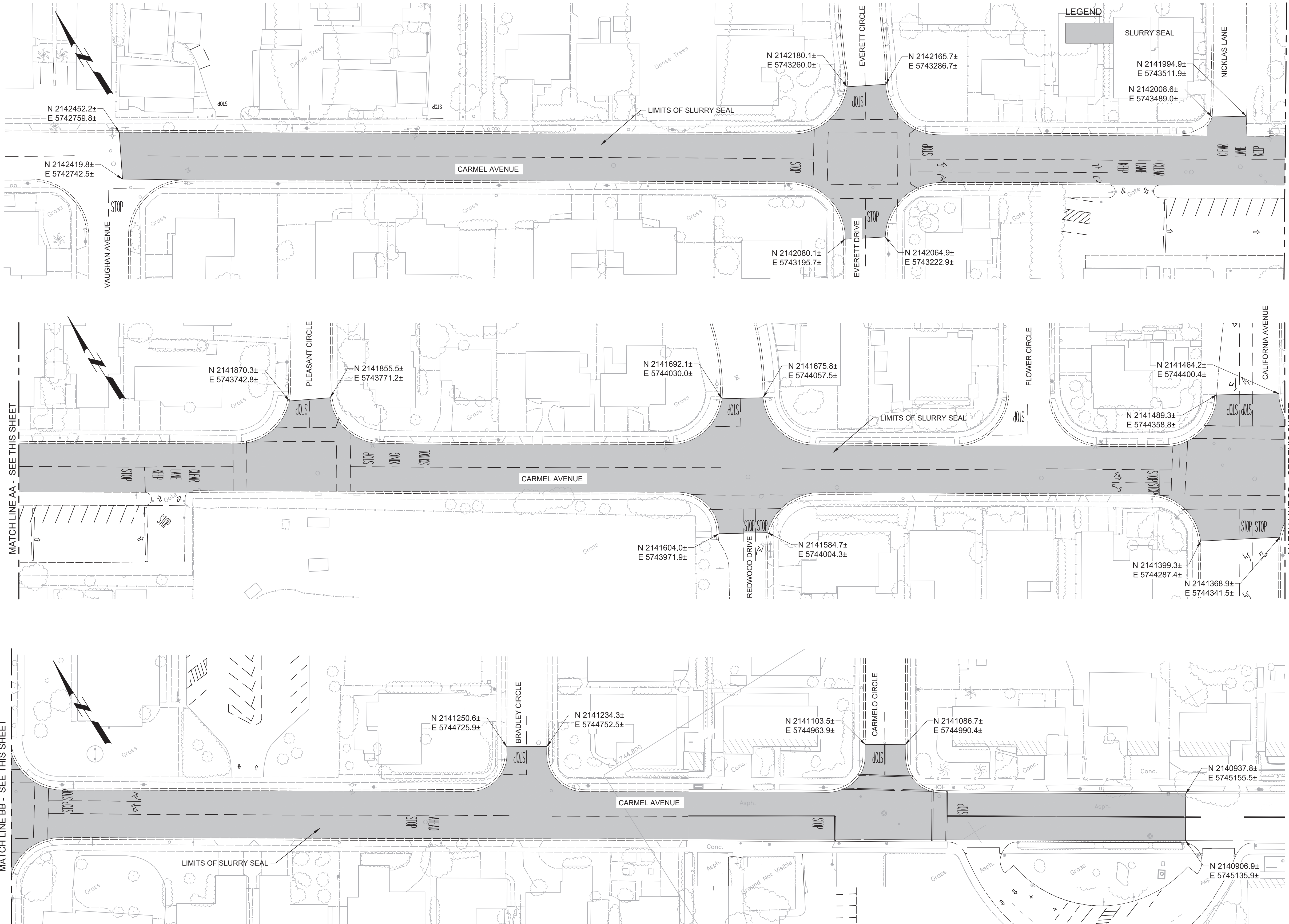


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FILE NAME: 7568C10C03.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves

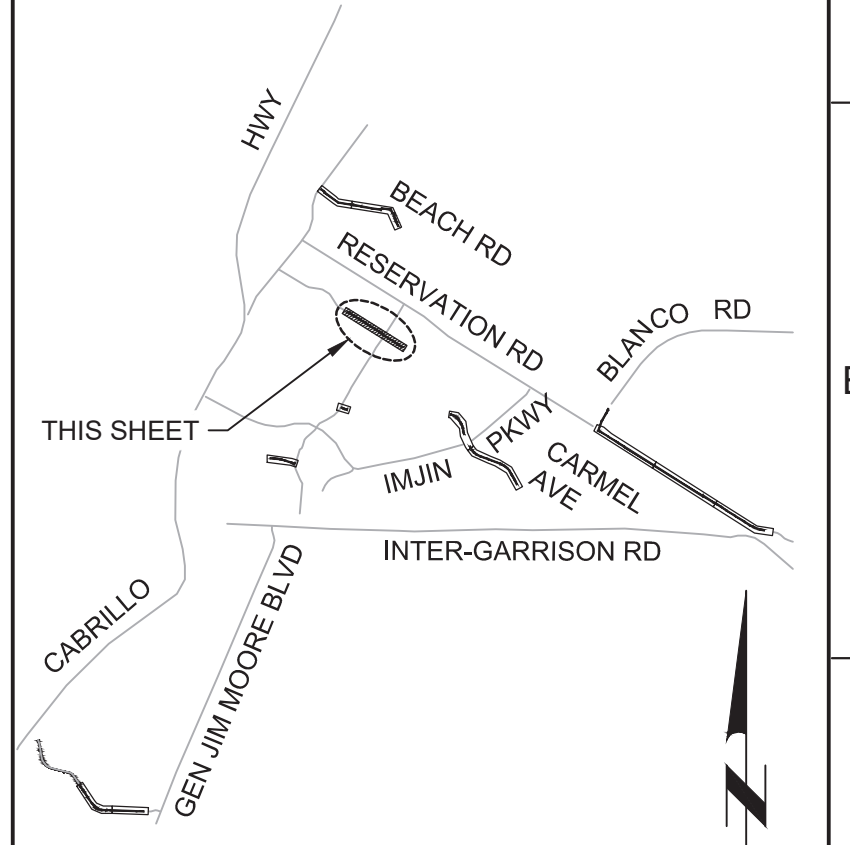


- GENERAL NOTES:**
1. INSTALL SLURRY SEAL IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF MARINA STANDARD SPECIFICATIONS AND PLANS.
  2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
  3. PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A PAVEMENT STRIPING AND MARKINGS PLAN TO MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING OVERLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER OVERLAY IS COMPLETE.
  4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF MARINA STANDARDS.



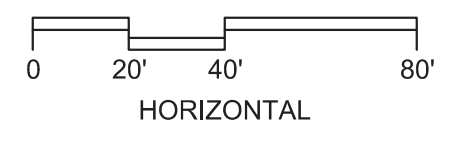
Know what's below.  
Call before you dig.

KEY MAP



KEY MAP NORTH

SCALE



**BID DOCUMENTS**

DESIGNED JPM  
DRAWN EH  
CHECKED AP  
DATE OCTOBER 2019



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Contact info: Carollo Engineering, Inc.  
Date: 2019.10.10 13:10:00 -0700  
*Jonathan P. Marshall*



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
CIVIL  
**PAVING PLAN - CARMEL AVENUE**

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. C03  
SHEET NO. 58 OF 66

REV	DATE	BY	DESCRIPTION
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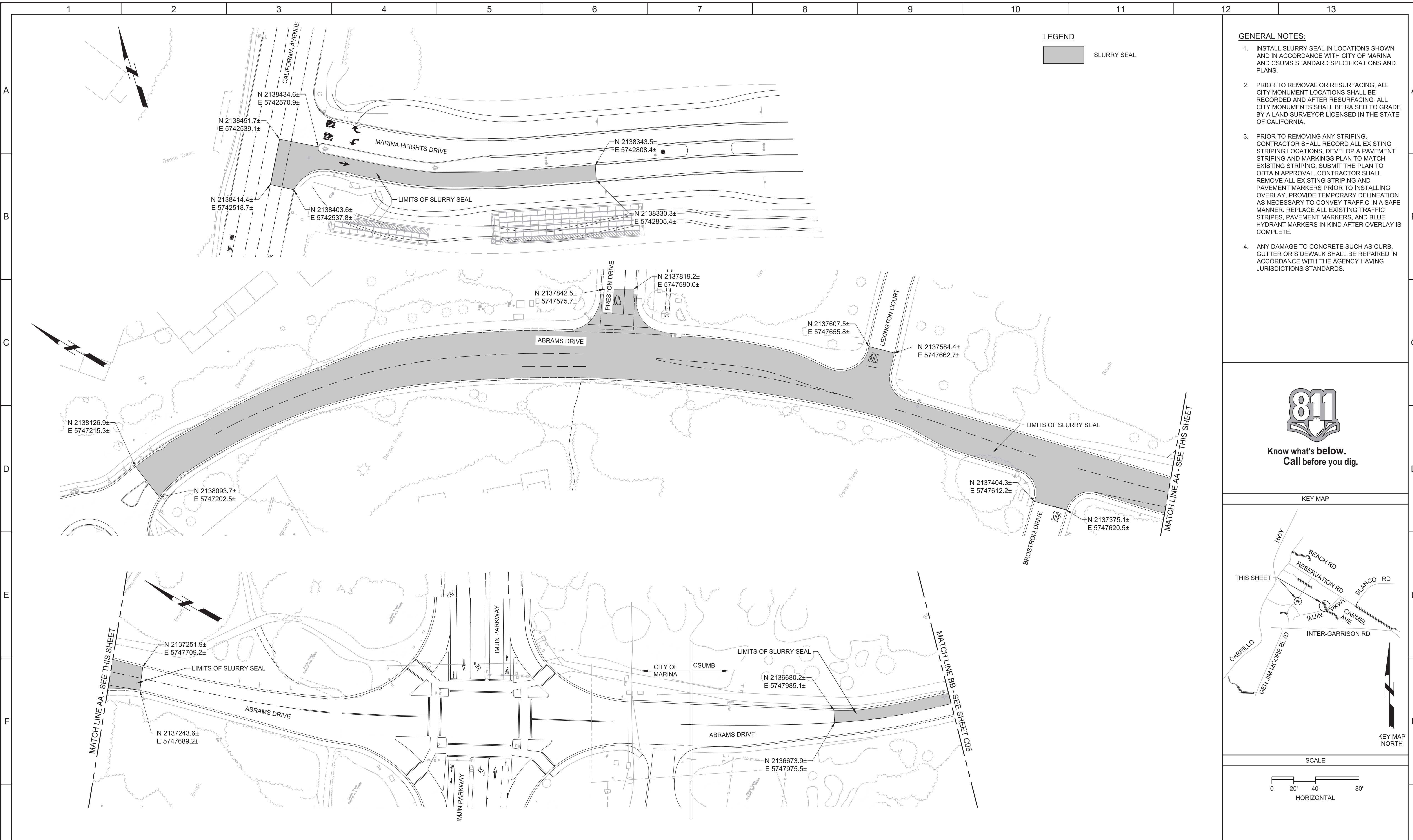


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FILE NAME: 7568C10C04.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes



**LEGEND**

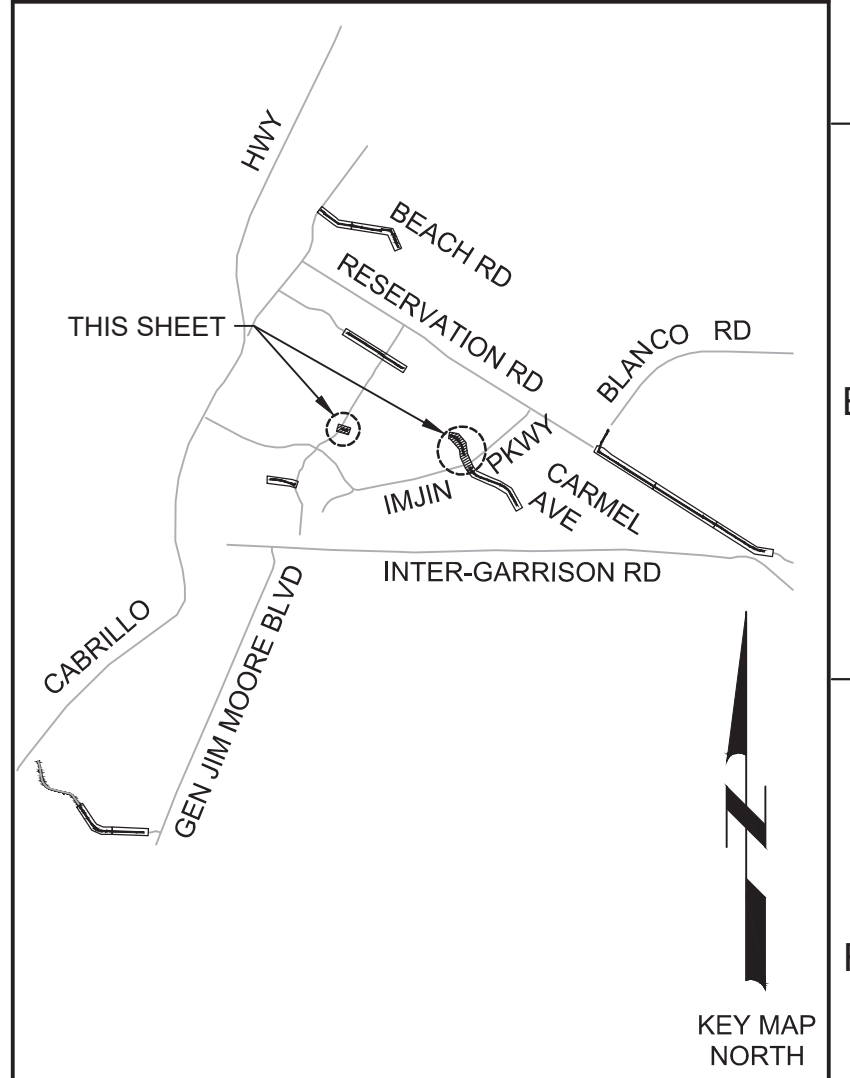
SLURRY SEAL

- GENERAL NOTES:**
1. INSTALL SLURRY SEAL IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF MARINA AND CSUMS STANDARD SPECIFICATIONS AND PLANS.
  2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
  3. PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A PAVEMENT STRIPING AND MARKINGS PLAN TO MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING OVERLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER OVERLAY IS COMPLETE.
  4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH THE AGENCY HAVING JURISDICTIONS STANDARDS.

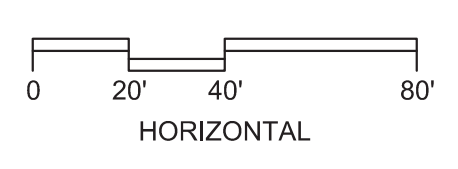


Know what's below.  
Call before you dig.

KEY MAP



SCALE



REV				DATE				BY				DESCRIPTION			

DESIGNED	JPM
DRAWN	EH
CHECKED	AP
DATE	OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.10 13:10:29 -0700

*Jonathan P. Marshall*



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 CIVIL  
**PAVING PLAN - MARINA HEIGHTS DRIVE AND ABRAMS DRIVE 1**

VERIFY SCALES	JOB NO.
BAR IS ONE INCH ON ORIGINAL DRAWING	7568C.10
0 1"	DRAWING NO.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	<b>C04</b>
	SHEET NO.
	59 OF 66

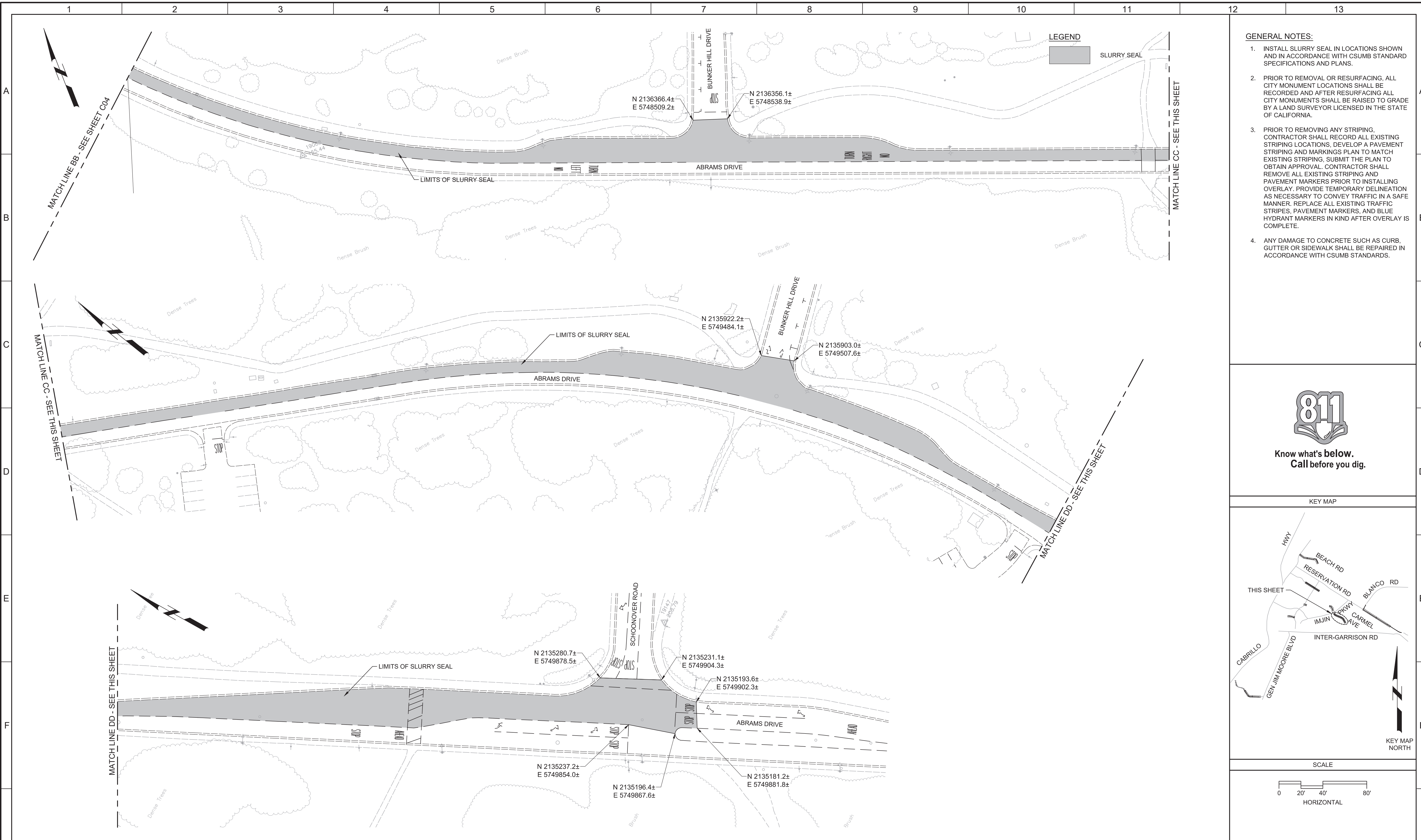


Plot Date: 10/9/2019 7:22:33 PM

FILE NAME: 7568C10C05.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhawes

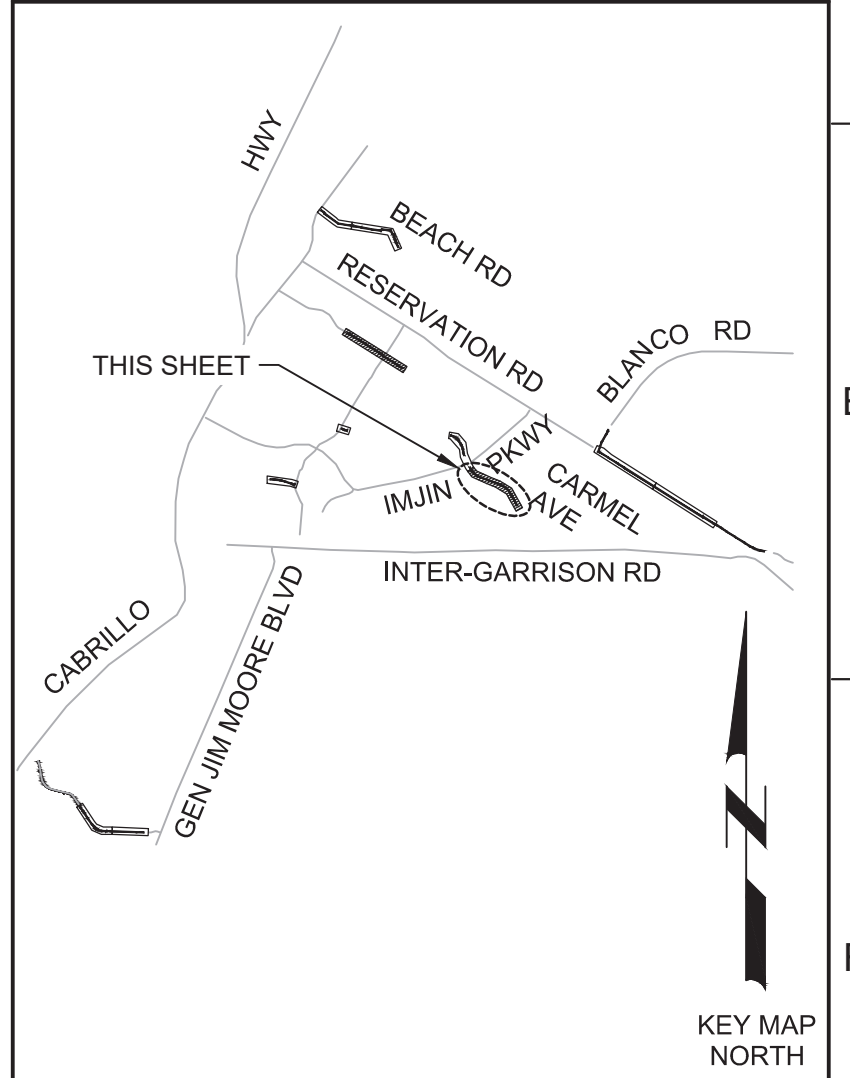


- GENERAL NOTES:**
1. INSTALL SLURRY SEAL IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CSUMB STANDARD SPECIFICATIONS AND PLANS.
  2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
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  4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH CSUMB STANDARDS.

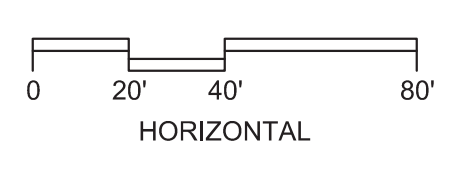


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KEY MAP



SCALE



BID DOCUMENTS			
DESIGNED	JPM		
DRAWN	EH		
CHECKED	AP		
DATE	OCTOBER 2019		
REV	DATE	BY	DESCRIPTION

REGISTERED PROFESSIONAL ENGINEER  
 JAVATHON P. MARSHALL  
 No. 73265  
 CIVIL  
 STATE OF CALIFORNIA

Digitally signed by Jonathan P. Marshall  
 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.10 13:10:09 -0700



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 CIVIL  
 PAVING PLAN - ABRAMS DRIVE 2

VERIFY SCALES	JOB NO. 7568C.10
BAR IS ONE INCH ON ORIGINAL DRAWING	DRAWING NO. C05
0 1" IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SHEET NO. 60 OF 66

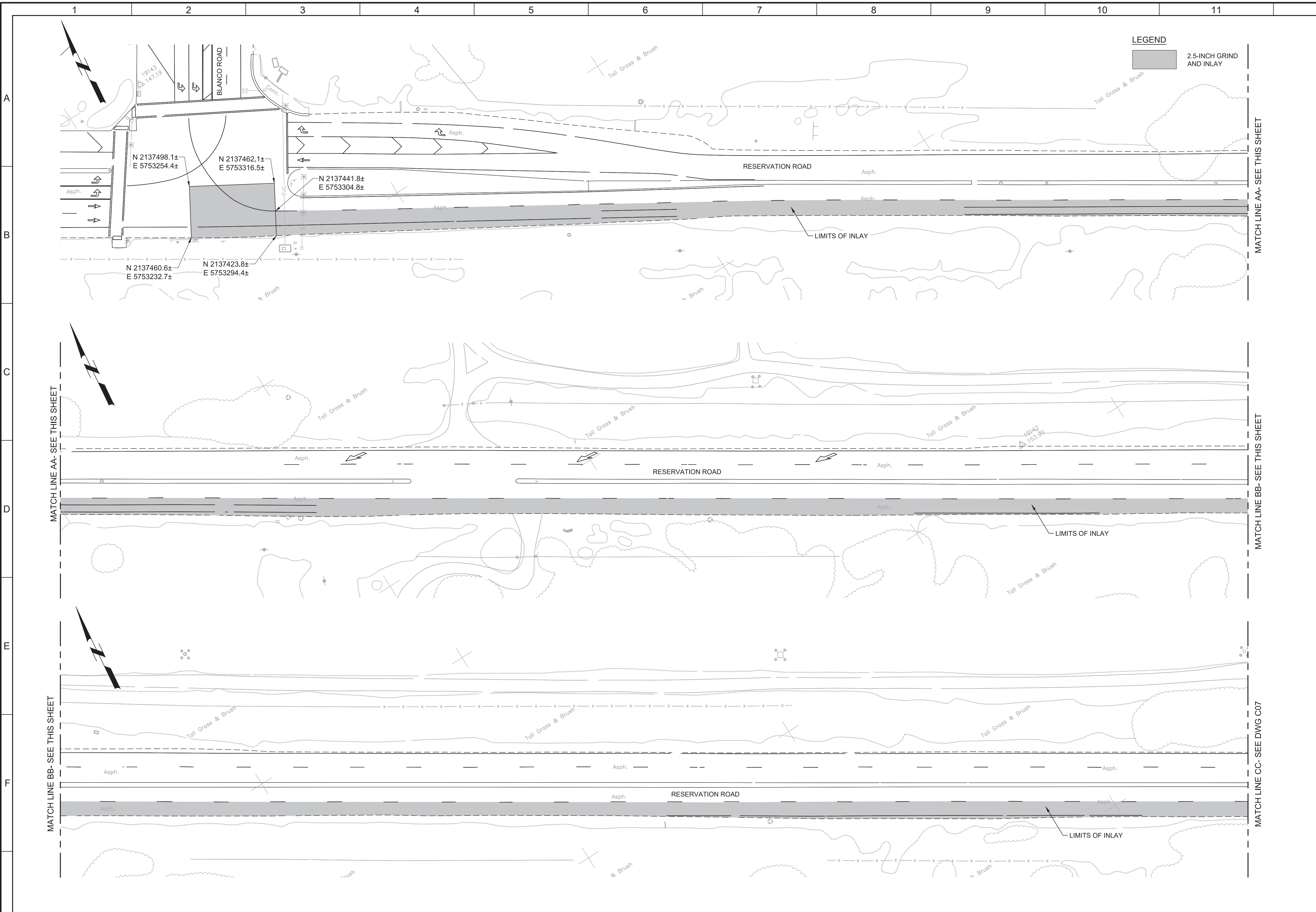


Plot Date: 10/9/2019 7:03:27 PM

FILE NAME: 7568C10C06.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bhwaves



**LEGEND**

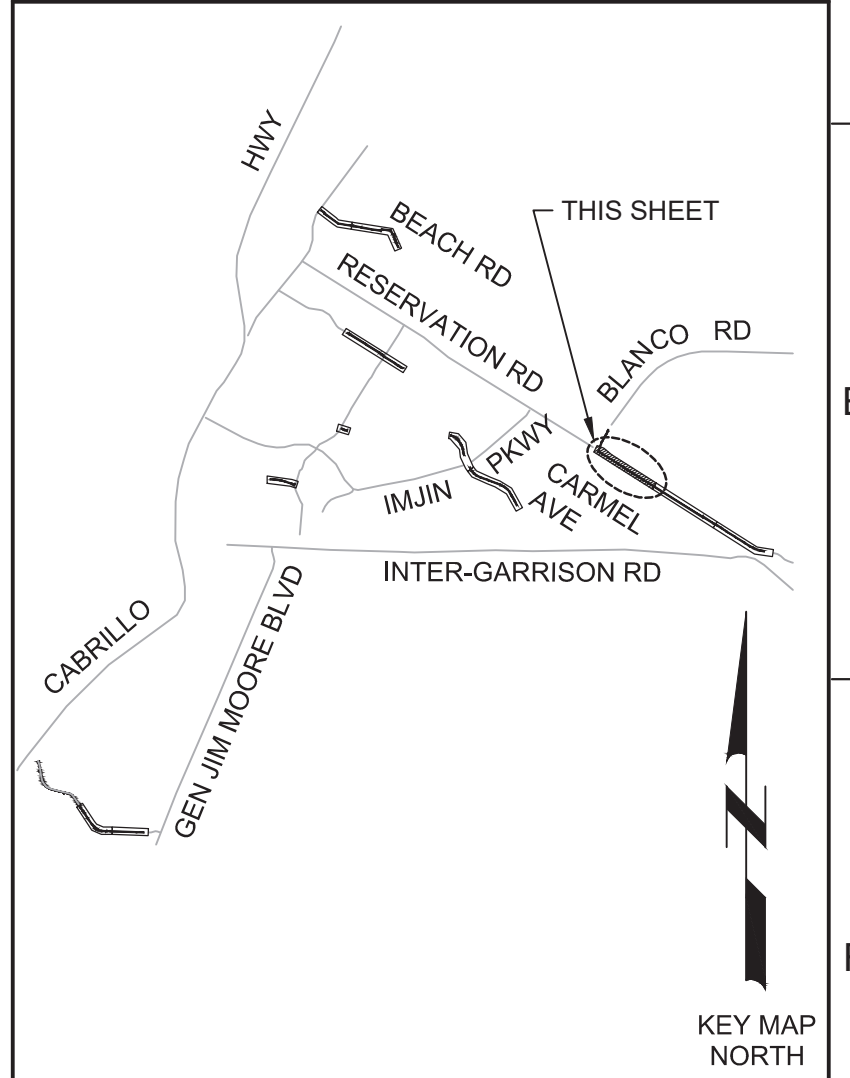
2.5-INCH GRIND AND INLAY

- GENERAL NOTES:**
1. INSTALL 2.5-INCH GRIND AND INLAY IN LOCATIONS SHOWN AND IN ACCORDANCE WITH MONTEREY COUNTY STANDARD SPECIFICATIONS AND PLANS.
  2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
  3. PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A PAVEMENT STRIPING AND MARKINGS PLAN TO MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING INLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER WORK IS COMPLETE.
  4. TRENCH CUT SHALL FOLLOW FOG LINE FROM STA 21+25 TO 31+40.
  5. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH MONTEREY COUNTY STANDARDS. WHERE DAMAGED BY WORK, REPLACE AC DIKES PER CALTRANS STANDARDS.

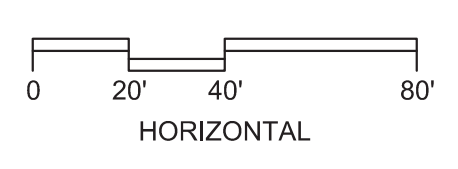


Know what's below.  
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KEY MAP



SCALE



REV	DATE	BY	DESCRIPTION
1			
2			
3			

**BID DOCUMENTS**

DESIGNED JPM  
DRAWN EH  
CHECKED AP  
DATE OCTOBER 2019



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Contact info: Carollo Engineering, Inc.  
Date: 2019.10.10 12:50:00 -0700



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
CIVIL  
PAVING PLAN - RESERVATION ROAD 1

VERIFY SCALES  
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JOB NO. 7568C.10  
DRAWING NO. C06  
SHEET NO. 61 OF 66

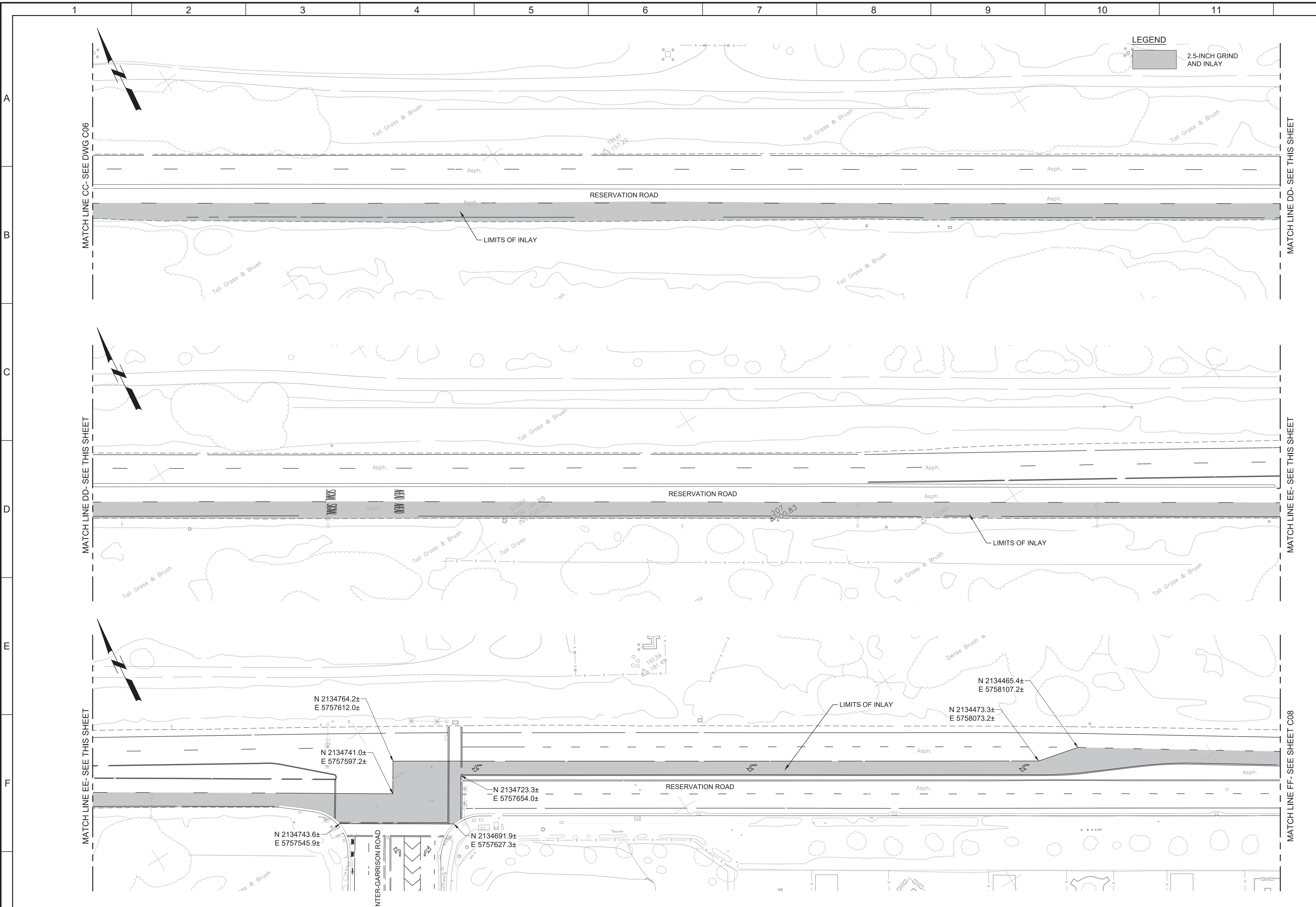


Plot Date: 10/9/2019 7:04:56 PM

FILE NAME: 7568C10C07.dwg

PROJECT NO. 7568C10

LAST SAVED BY: bbraves

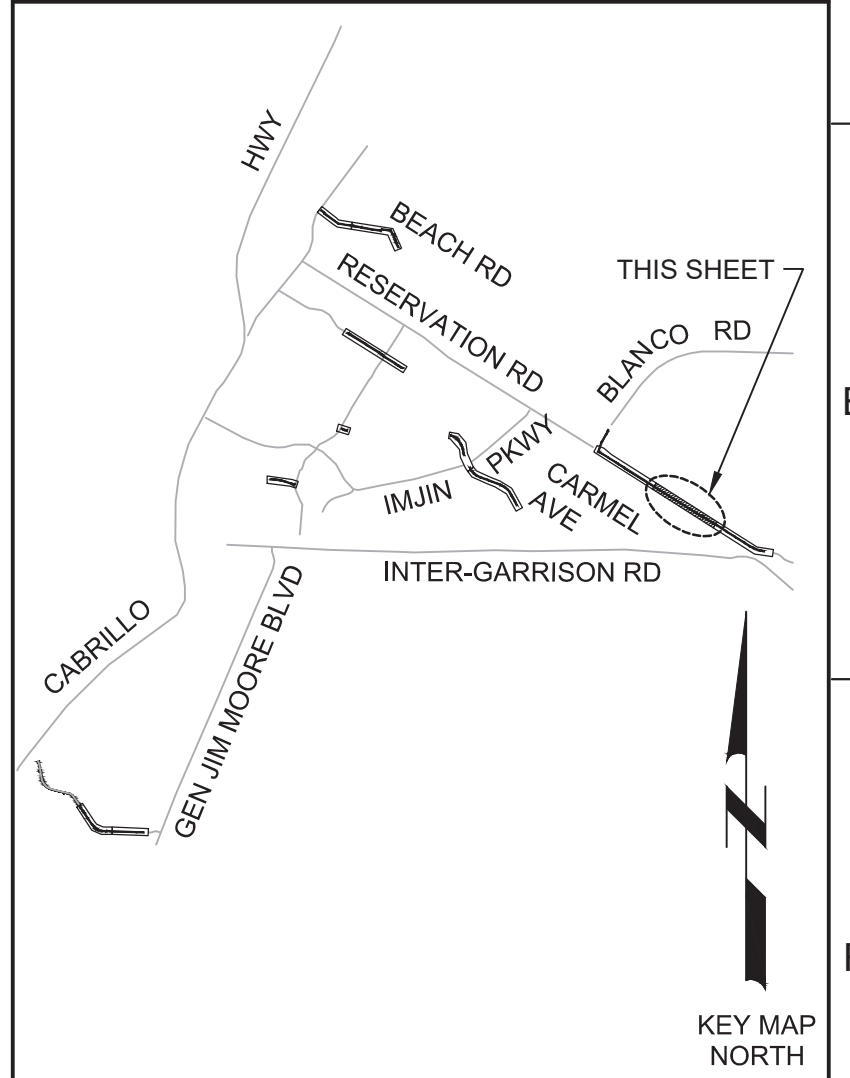


- GENERAL NOTES:**
1. INSTALL 2.5-INCH GRIND AND INLAY IN LOCATIONS SHOWN AND IN ACCORDANCE WITH MONTEREY COUNTY STANDARD SPECIFICATIONS AND PLANS.
  2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
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  4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH MONTEREY COUNTY STANDARDS. WHERE DAMAGED BY WORK, REPLACE AC DIKES PER CALTRANS STANDARDS.

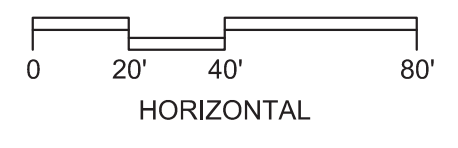


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KEY MAP



SCALE



REV	DATE	BY	DESCRIPTION
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**BID DOCUMENTS**

DESIGNED  
JPM

DRAWN  
EH

CHECKED  
AP

DATE  
OCTOBER 2019



Digitally signed by Jonathan P. Marshall  
Contact info: Carollo Engineering, Inc.  
Date: 2019.10.19 13:50:29 -0700

*Jonathan P. Marshall*



**Marina Coast Water District**

REGIONAL URBAN WATER AUGMENTATION PROJECT

RECYCLED WATER DISTRIBUTION MAINS

CIVIL

PAVING PLAN - RESERVATION ROAD 2

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1" 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO.  
7568C.10

DRAWING NO.  
**C07**

SHEET NO.  
62 OF 66

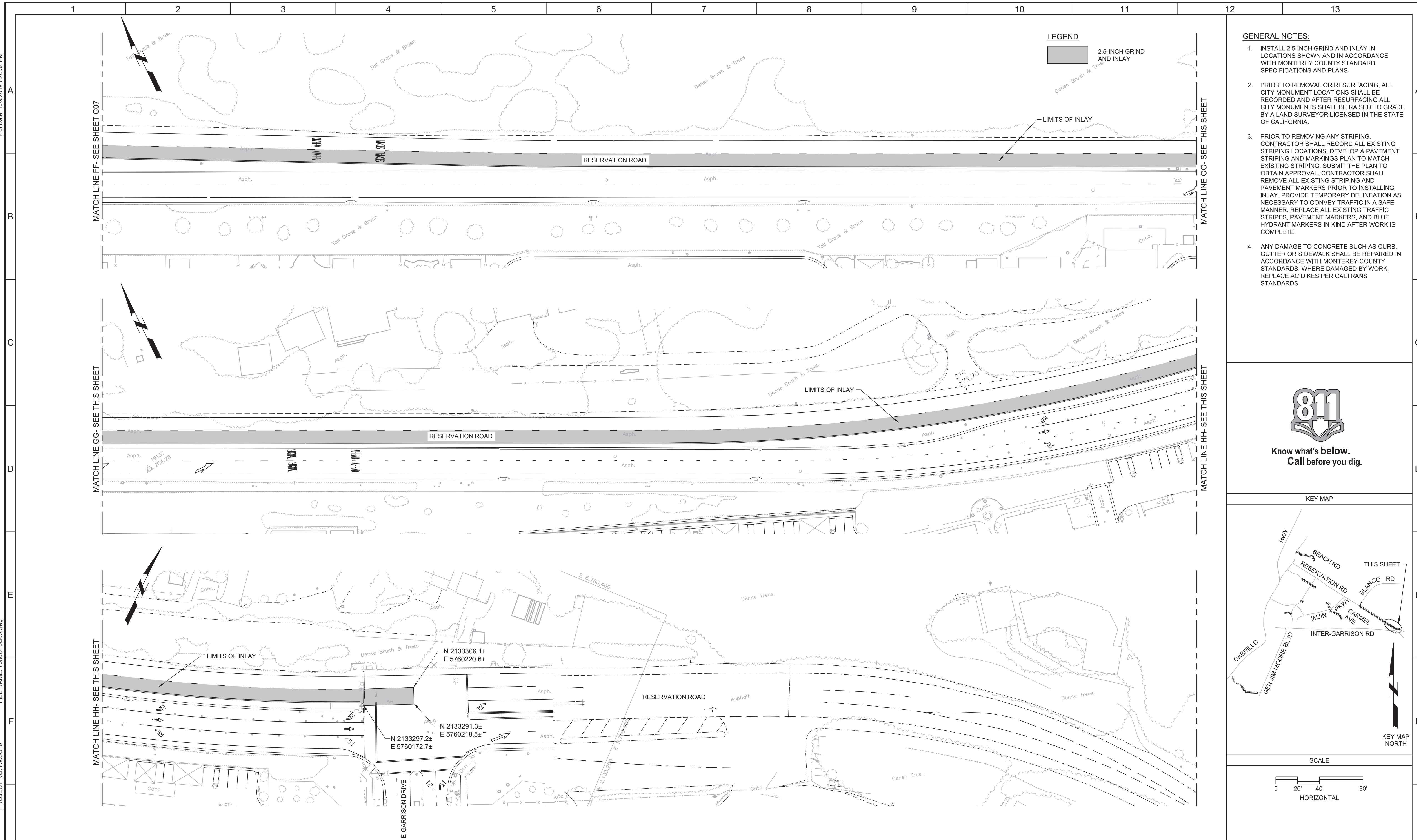


Plot Date: 10/9/2019 7:26:52 PM

FILE NAME: 7568C10C08.dwg

PROJECT NO. 7568C10

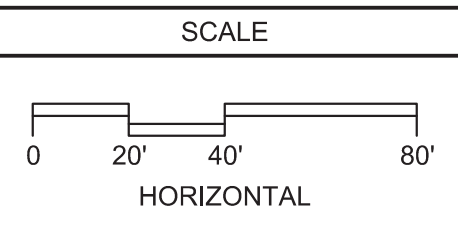
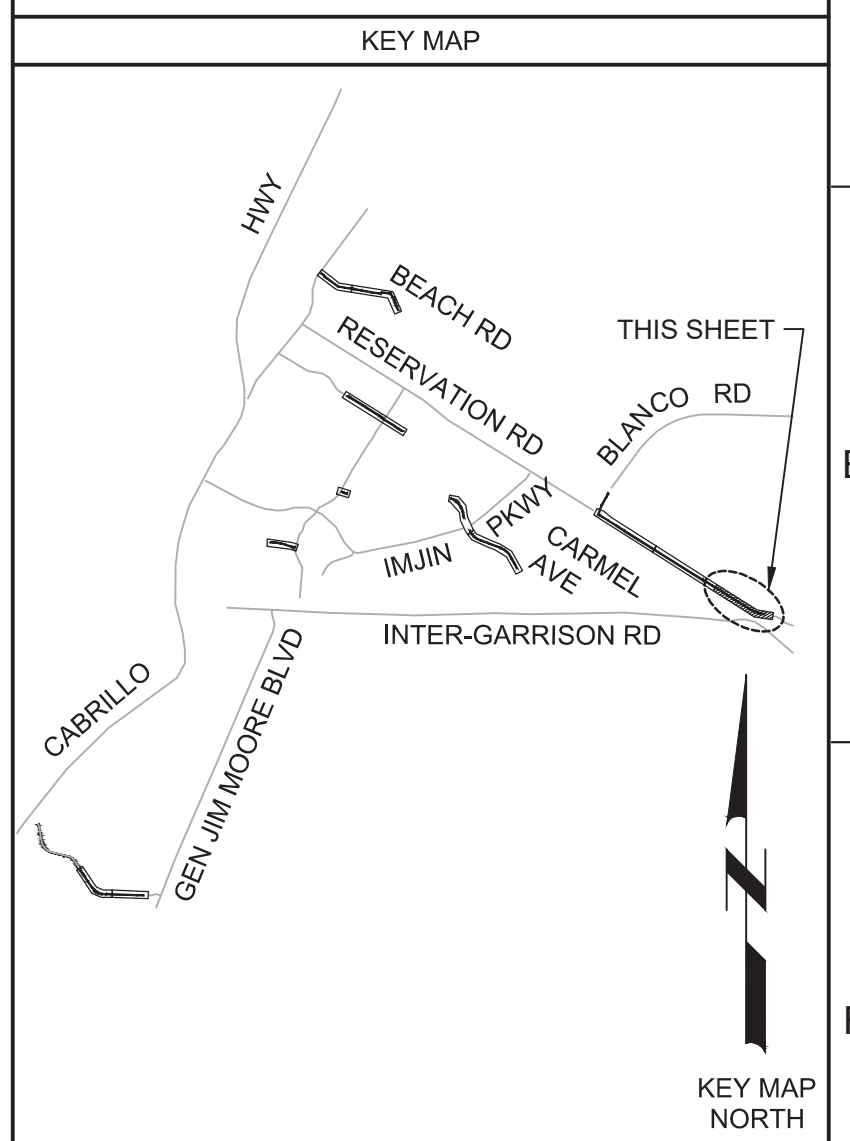
LAST SAVED BY: bbraves



- GENERAL NOTES:**
1. INSTALL 2.5-INCH GRIND AND INLAY IN LOCATIONS SHOWN AND IN ACCORDANCE WITH MONTEREY COUNTY STANDARD SPECIFICATIONS AND PLANS.
  2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
  3. PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A PAVEMENT STRIPING AND MARKINGS PLAN TO MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING INLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER WORK IS COMPLETE.
  4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH MONTEREY COUNTY STANDARDS. WHERE DAMAGED BY WORK, REPLACE AC DIKES PER CALTRANS STANDARDS.



Know what's below.  
Call before you dig.



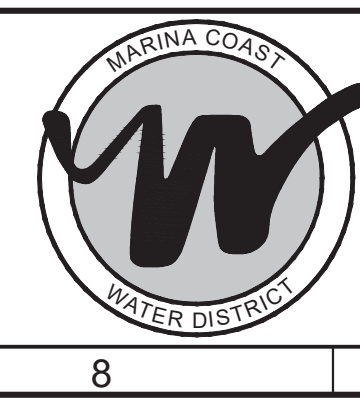
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**BID DOCUMENTS**

DESIGNED JPM  
DRAWN EH  
CHECKED AP  
DATE OCTOBER 2019



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Contact info: Carollo Engineers, Inc.  
Date: 2019.10.10 13:52:29 -0700



**Marina Coast Water District**

**REGIONAL URBAN WATER AUGMENTATION PROJECT**

**RECYCLED WATER DISTRIBUTION MAINS**

CIVIL

**PAVING PLAN - RESERVATION ROAD 3**

**VERIFY SCALES**

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1" 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 7568C.10  
DRAWING NO. C08  
SHEET NO. 63 OF 66

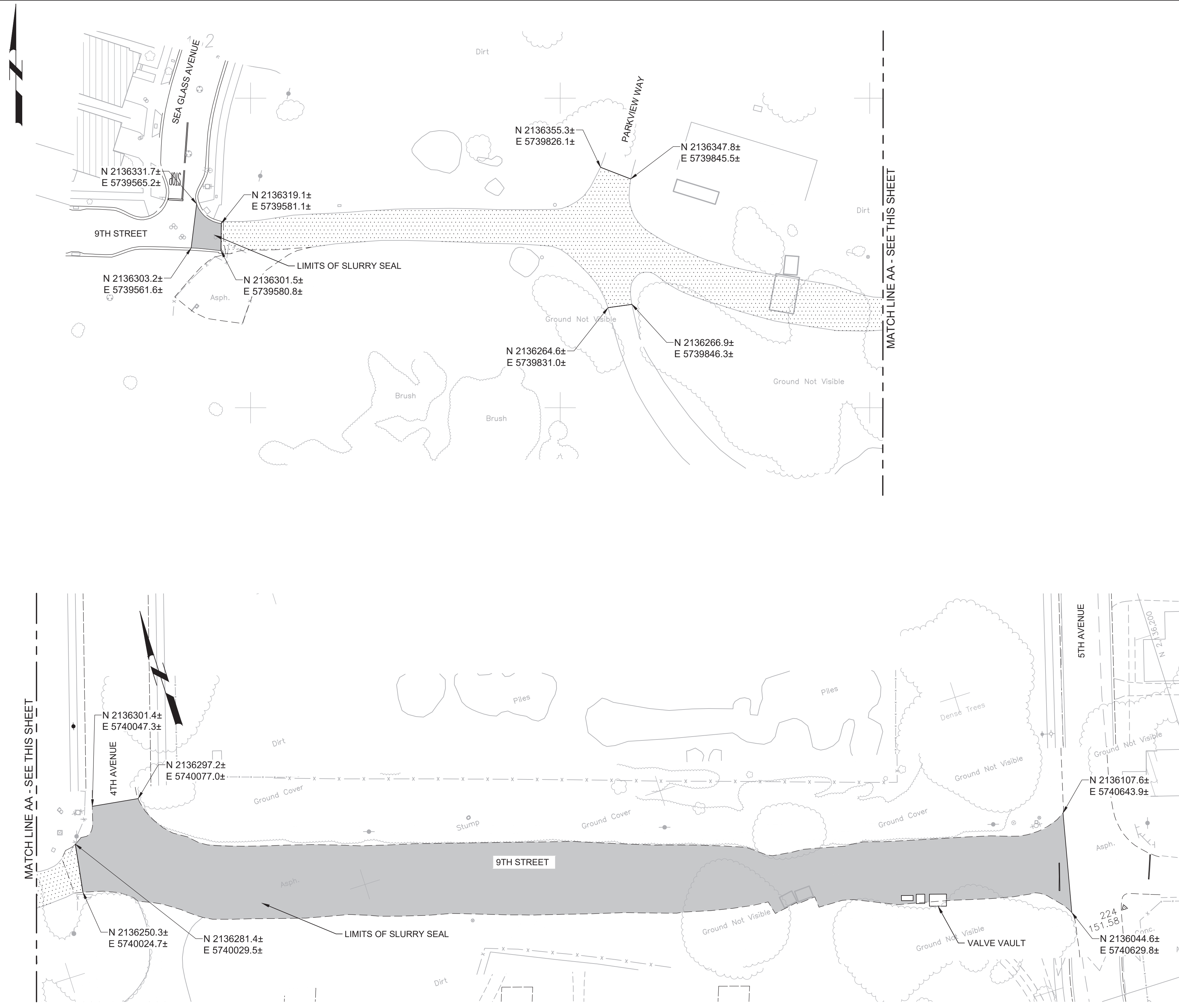


Plot Date: 10/9/2019 7:10:44 PM

FILE NAME: 7568C10C09.dwg

PROJECT NO. 7568C10

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**LEGEND**

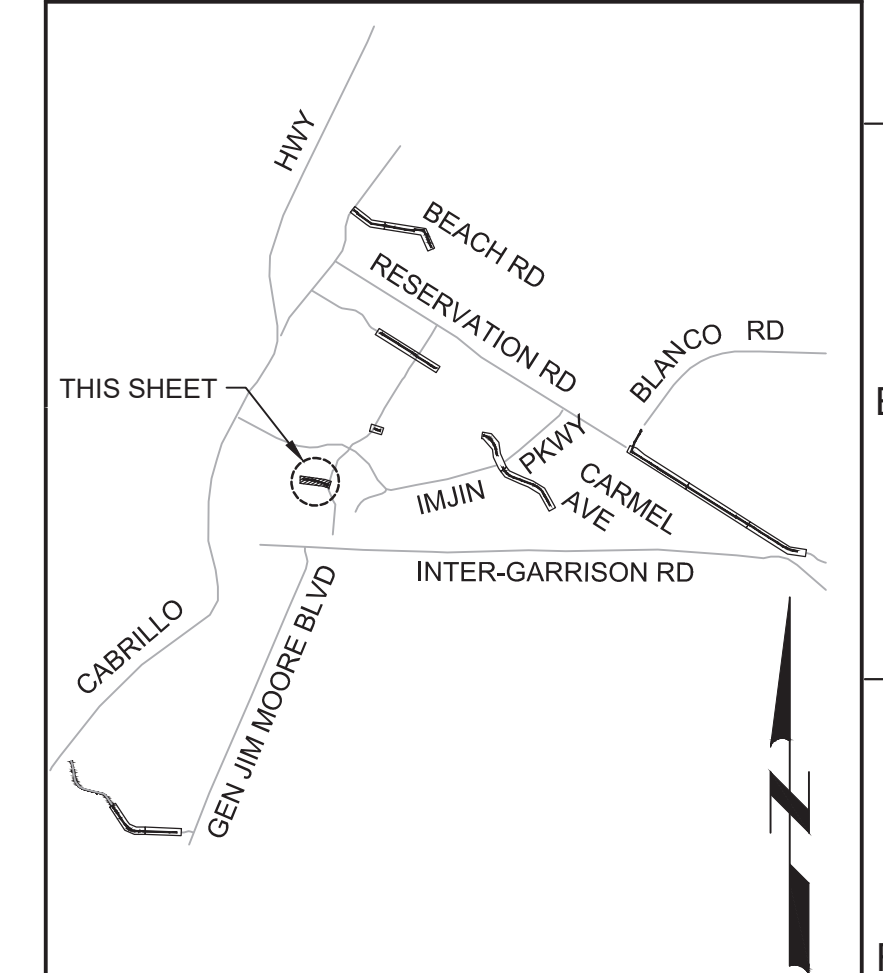
- SLURRY SEAL
- RECOMPACTED NATIVE

- GENERAL NOTES:**
- INSTALL SLURRY SEAL AND AGGREGATE BASE COURSE IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF MARINA STANDARD SPECIFICATIONS AND PLANS.
  - PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
  - PRIOR TO REMOVING ANY STRIPING, CONTRACTOR SHALL RECORD ALL EXISTING STRIPING LOCATIONS, DEVELOP A PAVEMENT STRIPING AND MARKINGS PLAN TO MATCH EXISTING STRIPING, SUBMIT THE PLAN TO OBTAIN APPROVAL. CONTRACTOR SHALL REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKERS PRIOR TO INSTALLING OVERLAY. PROVIDE TEMPORARY DELINEATION AS NECESSARY TO CONVEY TRAFFIC IN A SAFE MANNER. REPLACE ALL EXISTING TRAFFIC STRIPES, PAVEMENT MARKERS, AND BLUE HYDRANT MARKERS IN KIND AFTER OVERLAY IS COMPLETE.
  - ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF MARINA STANDARDS.

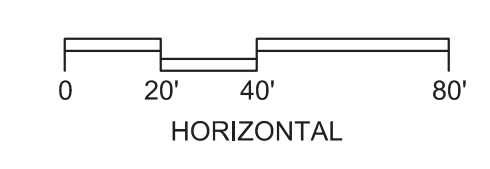


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KEY MAP



SCALE



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JPM  
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EH  
CHECKED  
AP  
DATE  
OCTOBER 2019



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Date: 2019.10.10 12:50:09-0700

*Jonathan P. Marshall*



Marina  
Coast  
Water  
District

REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
CIVIL  
PAVING PLAN - 9TH STREET

VERIFY SCALES  
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JOB NO.  
7568C.10  
DRAWING NO.  
C09  
SHEET NO.  
64 OF 66

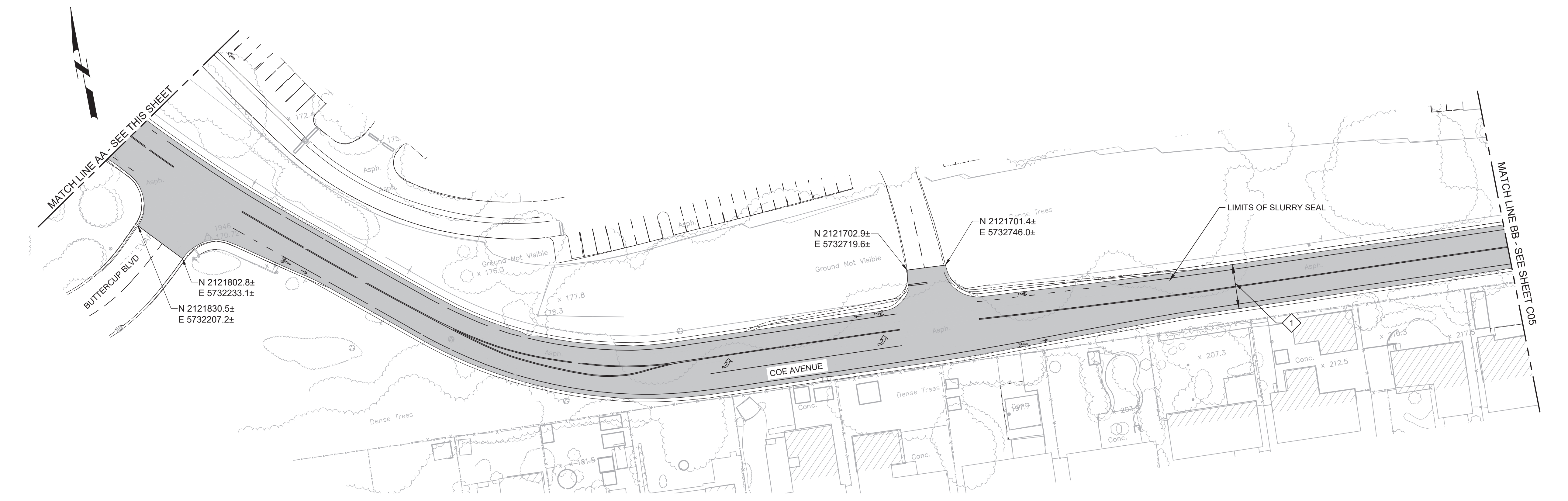
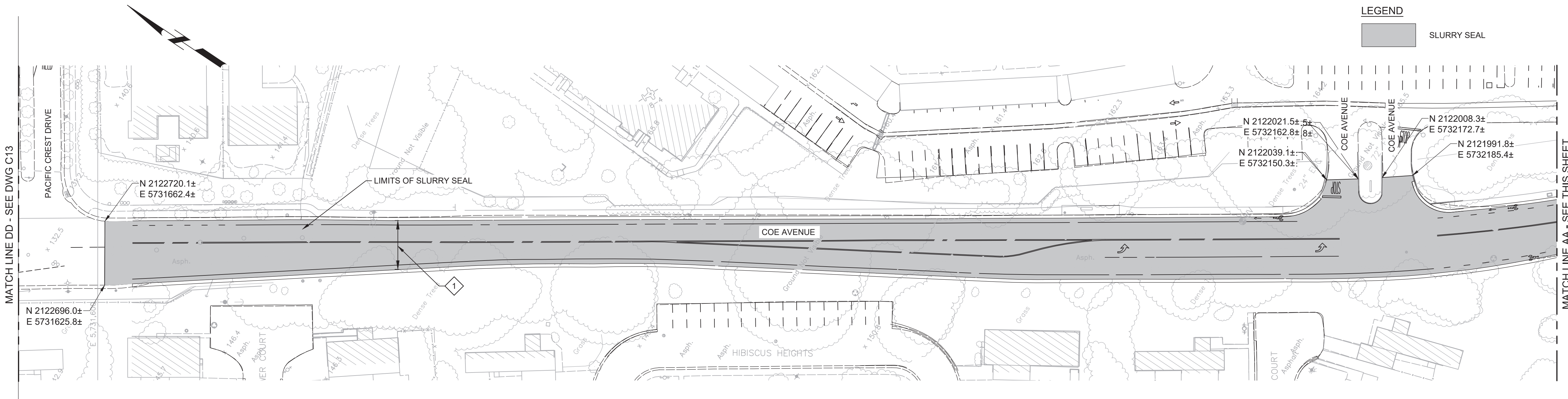


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PROJECT NO. 7568C10

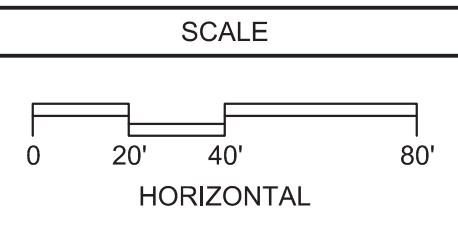
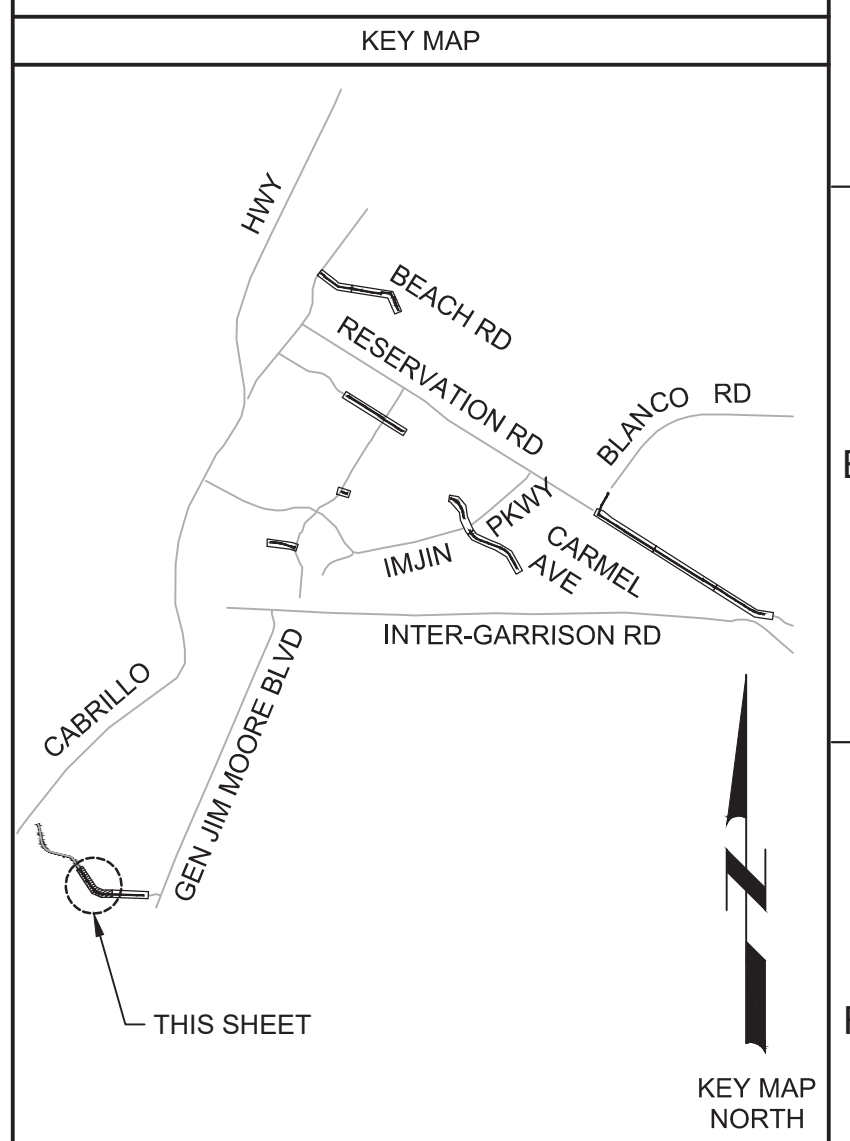
LAST SAVED BY: bhawes



- GENERAL NOTES:**
1. INSTALL SLURRY SEAL IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF SEASIDE STANDARD SPECIFICATIONS AND PLANS.
  2. PRIOR TO REMOVAL OR RESURFACING, ALL CITY MONUMENT LOCATIONS SHALL BE RECORDED AND AFTER RESURFACING ALL CITY MONUMENTS SHALL BE RAISED TO GRADE BY A LAND SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
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  4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF SEASIDE STANDARDS.
- KEY NOTES:**
- ◊ SLURRY SEAL SHALL BE PLACED FROM GUTTER TO GUTTER.



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DATE OCTOBER 2019



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Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT  
RECYCLED WATER DISTRIBUTION MAINS  
CIVIL  
PAVING PLAN - COE AVENUE 1

VERIFY SCALES  
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JOB NO. 7568C.10  
DRAWING NO. C10  
SHEET NO. 65 OF 66

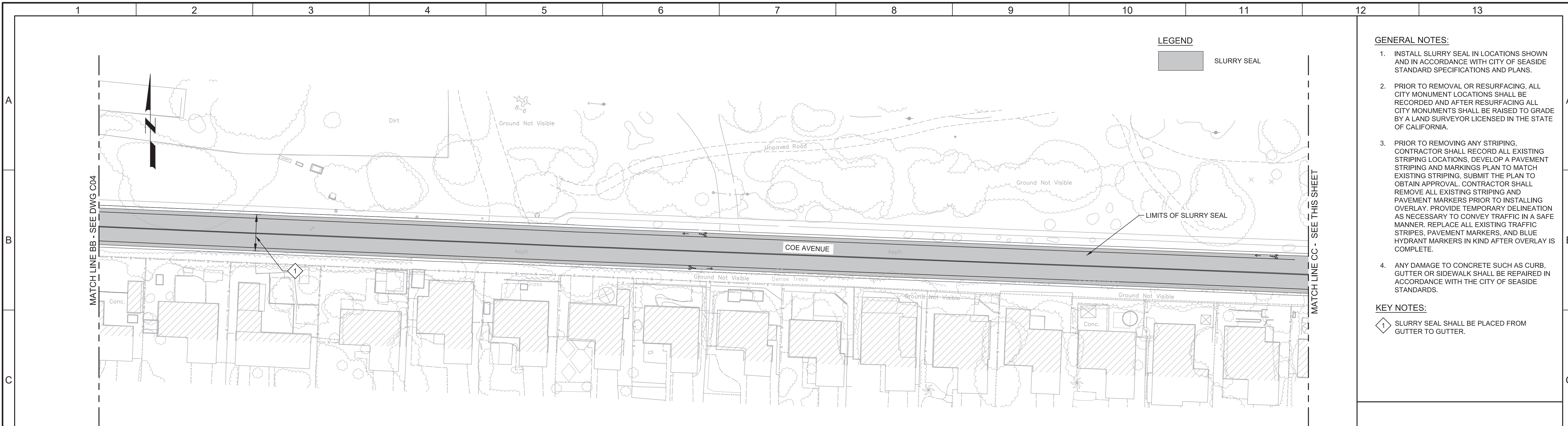


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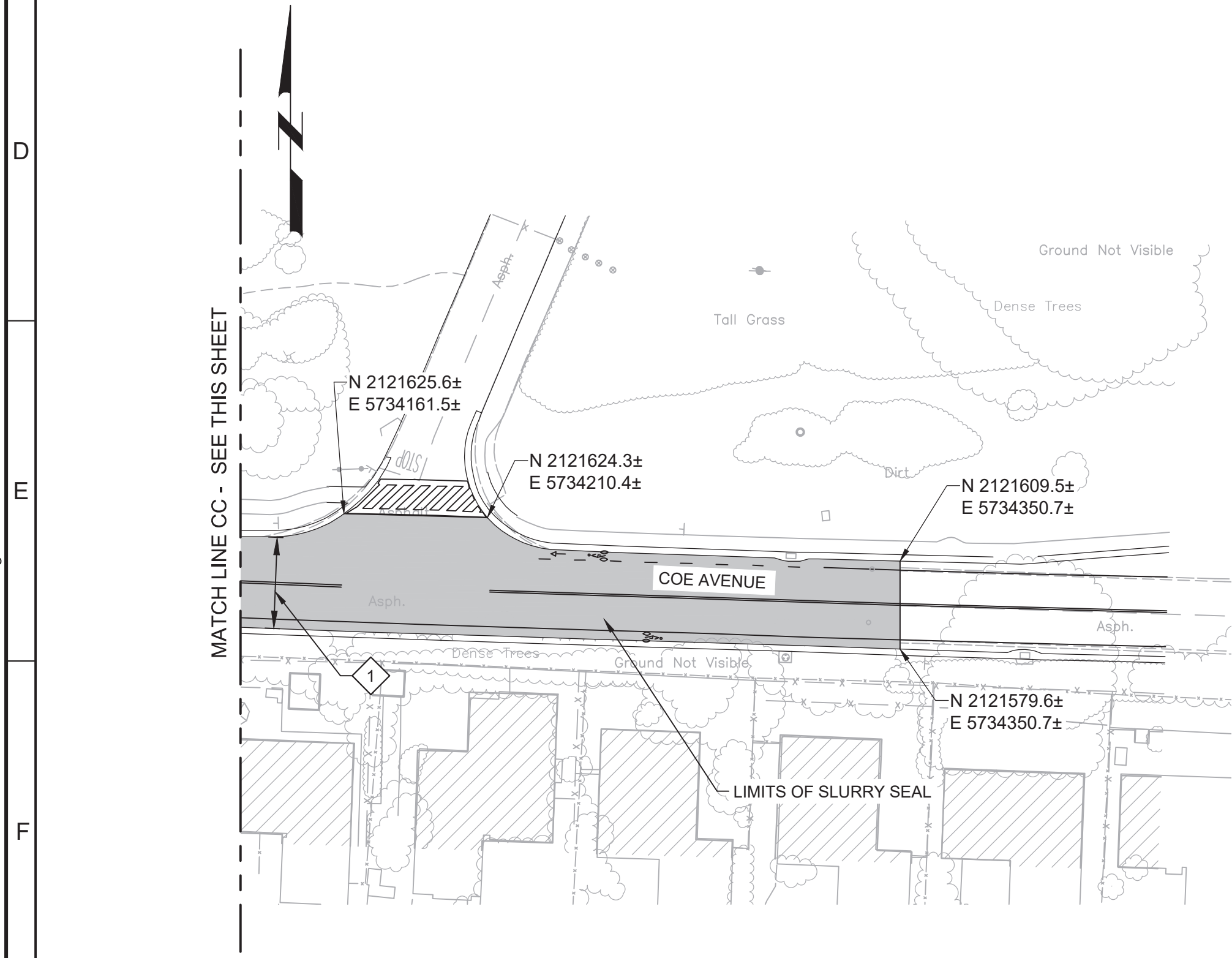
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PROJECT NO. 7568C10

LAST SAVED BY: bhwaves

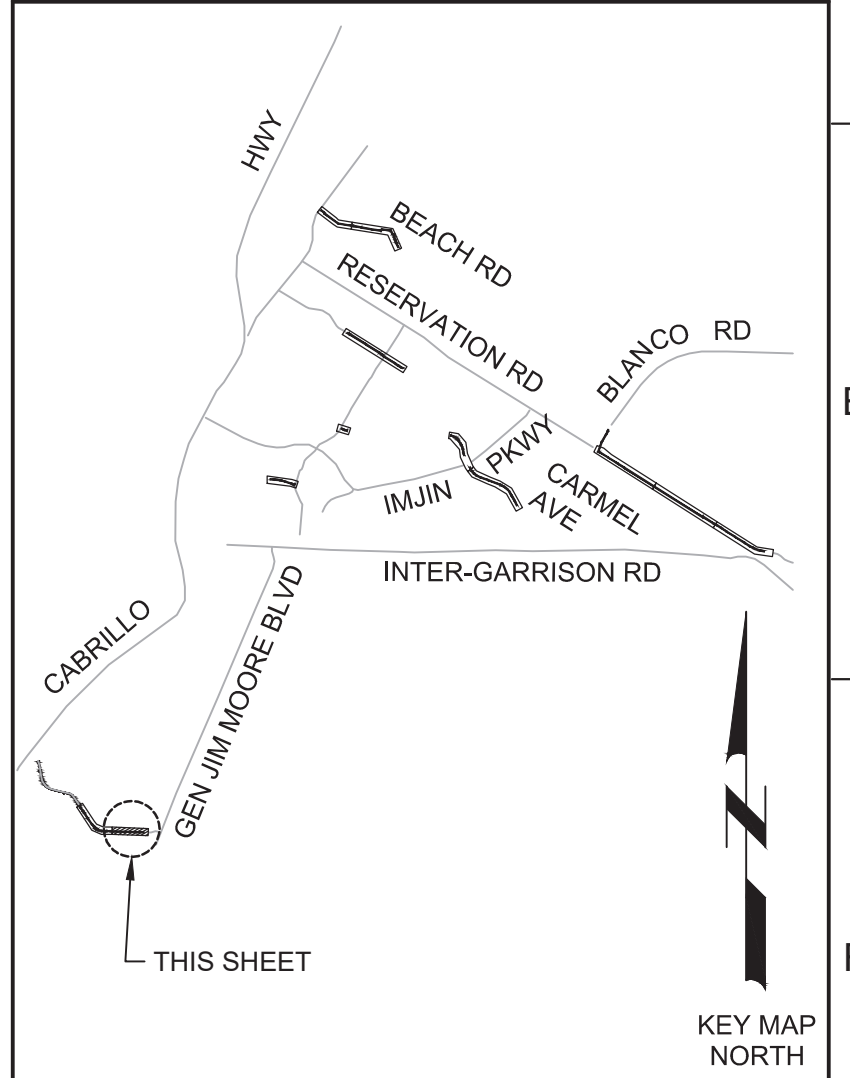


- GENERAL NOTES:**
1. INSTALL SLURRY SEAL IN LOCATIONS SHOWN AND IN ACCORDANCE WITH CITY OF SEASIDE STANDARD SPECIFICATIONS AND PLANS.
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  4. ANY DAMAGE TO CONCRETE SUCH AS CURB, GUTTER OR SIDEWALK SHALL BE REPAIRED IN ACCORDANCE WITH THE CITY OF SEASIDE STANDARDS.
- KEY NOTES:**
- 1 SLURRY SEAL SHALL BE PLACED FROM GUTTER TO GUTTER.

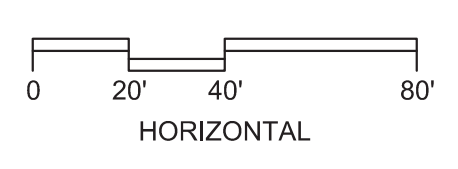


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KEY MAP



SCALE



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DRAWN	EH
CHECKED	AP
DATE	OCTOBER 2019



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 Contact info: Carollo Engineering, Inc.  
 Date: 2019.10.10 13:50:29 -0700

*Jonathan P. Marshall*



Marina Coast Water District

REGIONAL URBAN WATER AUGMENTATION PROJECT  
 RECYCLED WATER DISTRIBUTION MAINS  
 CIVIL  
 PAVING PLAN - COE AVENUE 2

VERIFY SCALES  
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 0 1" 1"  
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JOB NO. 7568C.10  
 DRAWING NO. C11  
 SHEET NO. 66 OF 66