CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
PROJECT NO. 05-17
LOCATION "D"

LEGEND

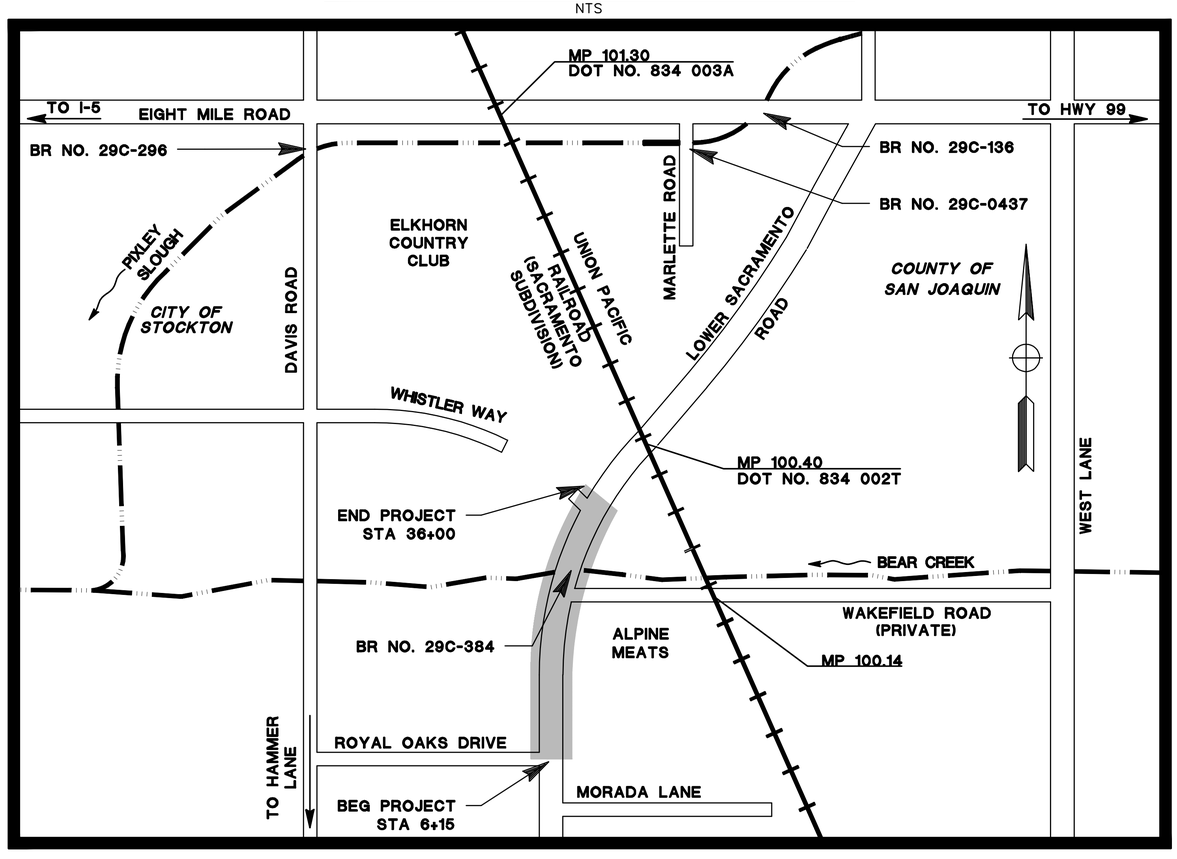
DESCRIPTION	EXISTING	PROPOSED
STORM DRAIN	12"SD	12"SD
WATER MAIN	24"W	24"W
GAS MAIN	GS	GS
KINDER MORGAN GAS MAIN	KM 10" GAS	
PG&E OVERHEAD ELECTRICAL WITH UTILITY POLE	E(OH)	E(OH)
MCI FIBER OPTIC	COM	
QWEST FIBER OPTIC	QWEST	
UTILITY REMOVAL	12"SD	
STREET LIGHT		
FIRE HYDRANT		
GATE VALVE		
DROP INLET		
MANHOLE		
FLARED END SECTION		
CONTROL LINE		
EASEMENT		
RIGHT-OF-WAY		
PROPERTY LINE		
C&G		
SAWCUT LINE		SAW
LIMITS OF SLURRY SEAL		
FENCE		
HINGE POINT		H
FILL LIMIT		F
CUT LIMIT		C
SLOPE		
GRADE BREAK		GB
FLOW LINE		
ELEVATION	23.06	XX.XX
TREE		(TO BE REMOVED)
BILLBOARD	B/B	
RAILROAD TRACK		
METAL BEAM GUARD RAIL		

ABBREVIATIONS

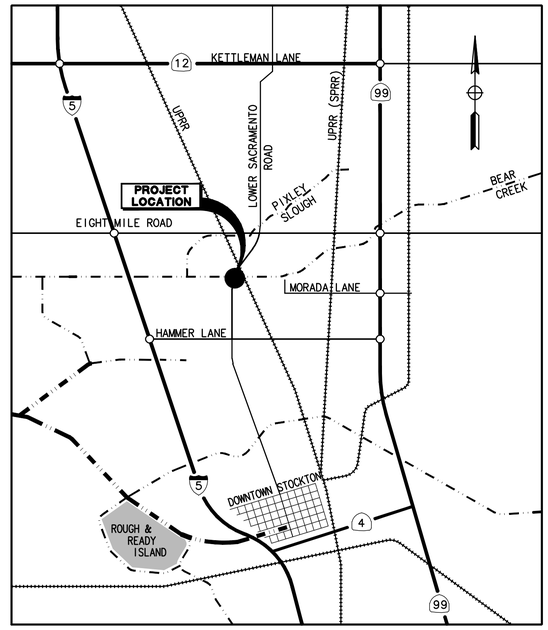
AB	AGGREGATE BASE	MIN	MINIMUM
AC	ASPHALT CONCRETE	MBGR	METAL BEAM GUARD RAILING
AP	ANGLE POINT	MH	MANHOLE
BB	BEGIN BRIDGE	NIC	NOT IN CONTRACT
BC	BEGIN CURVE	NO.	NUMBER
BEG	BEGIN	NTS	NOT TO SCALE
BFC	BOTTOM FACE OF CURB	OC	ON CENTER
BOW	BACK OF WALK	OG	ORIGINAL GROUND
BVC	BEGIN VERTICAL CURVE	OH	OVERHEAD
CG	CURB & GUTTER	P/L	PROPERTY LINE
CL	CENTER LINE	PROP	PROPOSED
CMP	CORRUGATED METAL PIPE	PCC	POINT OF COMPOUND CURVATURE
CONC	CONCRETE		PORTLAND CEMENT CONCRETE
CONST	CONSTRUCT	PG	PROFILE GRADE
COS	CITY OF STOCKTON	PRC	POINT OF REVERSE CURVATURE
CP	CATCH POINT	PRF	PAVEMENT REINFORCING FABRIC
DI	DRAINAGE INLET	RCP	REINFORCED CONCRETE PIPE
DWY	DRIVEWAY	RET WALL	RETAINING WALL
EB	END BRIDGE	RSP	ROCK SLOPE PROTECTION
EC	END CURVE	RT	RIGHT
EG	EDGE OF GRAVEL	R/W	RIGHT OF WAY
EP	EDGE OF PAVEMENT	SAW	SAWCUT
EM	EIGHT MILE ROAD	SB	SUBBASE
ESMT	EASEMENT	SD	STORM DRAIN
ETW	EDGE OF TRAVELED WAY	SJC	SAN JOAQUIN COUNTY
EVC	END VERTICAL CURVE	SL	STREET LIGHT
EX	EXISTING	STA	STATION
FES	FLARED END SECTION	STD	STANDARD
FG	FINISH GRADE	SW	SIDEWALK
FL	FLOW LINE	TEMP	TEMPORARY
FOC	FACE OF CURB	TF	TOP OF FOOTING
FOW	FRONT OF WALK	TFC	TOP FACE OF CURB
HMA	HOT MIX ASPHALT	TI	TRAFFIC INDEX
GB	GRADE BREAK	TPD	TREATED PERMEABLE BASE
HP	HINGE POINT	TYP	TYPICAL
LF	LINEAR FEET	UPRR	UNION PACIFIC RAILROAD
LIP	LIP OF GUTTER	VAR	VARIABLE
LL	LIMIT LINE	VC	VERTICAL CURVE
LOL	LAYOUT LINE	VERT	VERTICAL
LT	LEFT	WID	WOODBRIDGE IRRIGATION DISTRICT
MOD	MODIFIED	WSE	WATER SURFACE ELEVATION

LOCATION MAP

NTS



VICINITY MAP



SHEET INDEX

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REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
TITLE SHEET

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 1
T-1
OF 124 SHEETS
PROJECT NO.
05-17

5129C

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE CITY OF STOCKTON STANDARD SPECIFICATIONS, AND ALL UPDATES, ADDENDUMS AND MEMORANDUMS TO THEM.

2. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR FURNISHING, INSTALLING AND MAINTAINING ALL WARNING SIGNS AND DEVICES NECESSARY TO SAFEGUARD THE GENERAL PUBLIC AND THE WORK AND FOR PROVIDING PROPER AND SAFE ROUTING OF THE VEHICULAR AND PEDESTRIAN TRAFFIC DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO WORKING HOURS. THE USE OF FLAGGERS, BARRICADES AND CONSTRUCTION SIGNING SHALL COMPLY WITH THE CURRENT EDITION OF WORK AREA AND TRAFFIC CONTROL HANDBOOK (W.A.T.C.H.). AND THE CALIFORNIA MUTCD.

3. AT THE TIME THE CONTRACT IS AWARDED, THE CONTRACTOR SHALL POSSESS A CLASS "A" LICENSE, OR A COMBINATION OF CLASSES REQUIRED BY THE CATEGORIES AND CLASSES OF WORK INCLUDED IN THIS CONTRACT.

4. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE DIVISION OF OCCUPATIONAL SAFETY & HEALTH PRIOR TO ANY TRENCHING EXCAVATION 5 FEET OR MORE IN DEPTH. A COPY OF THIS PERMIT SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.

5. THE CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR PRESERVING ALL EXISTING MONUMENTS WHICH WILL BE DISTURBED OR REMOVED AS REQUIRED BY CONTRACTOR'S WORK. CONTRACTOR SHALL COORDINATE WITH RESIDENT ENGINEER/SURVEYOR PRIOR TO DISTURBANCE OF EXISTING MONUMENTS, AND SHALL RESET MONUMENTS OR PROVIDE PERMANENT WITNESS MONUMENTS AND FILE DOCUMENTATION WITH THE COUNTY SURVEYOR PURSUANT TO BUSINESS AND PROFESSIONS CODE SECTION 8771.

6. ALL CURB, GUTTER, AND SIDEWALK SHOWN TO BE REMOVED SHALL BE REMOVED TO THE NEAREST EXPANSION JOINT OR SCORE MARK. DAMAGE TO EXISTING CURB, GUTTER AND SIDEWALK WHICH IS SHOWN ON THE PLANS TO REMAIN, SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

7. THE CONTRACTOR, SUBCONTRACTOR OR SURVEYOR SHALL NOT CUT PERMANENT CROSSES INTO EXISTING CONCRETE CURBS, GUTTERS OR SIDEWALKS. THE CONTRACTOR SHALL BE ASSESSED AN ADMINISTRATIVE PENALTY OF $500 FOR EACH CROSS THAT IS CUT PERMANENTLY INTO EXISTING CONCRETE CURBS, GUTTERS AND SIDEWALKS.

8. CONTRACTOR SHALL COORDINATE WITH UPRR ON THE REMOVAL OF ALL EXISTING UPRR FACILITIES IN CONFLICT WITH THESE PROPOSED IMPROVEMENTS.

9. SEE LIGHTING PLANS FOR REMOVAL OF EXISTING LIGHT STANDARDS.

10. REFER TO UTILITY SHEETS FOR ADDITIONAL UTILITY FACILITIES TO BE REMOVED, ABANDONED, OR MODIFIED. ABANDONING WATER LINES INCLUDES ALL VALVES AND WATER APPURTENANCES.

11. TREE BRANCHES EXTENDING OVER THE ROADWAY AND WITHIN 20 FEET OF FINISHED GRADE SHALL BE CUT OFF CLOSE TO TRUNKS IN ACCORDANCE WITH RECOGNIZED STANDARDS OF GOOD ARBORICULTURAL PRACTICES.

12. CONTRACTOR SHALL NOT WORK WITHIN BEAR CREEK DURING ASSOCIATED FLOOD SEASON (NOV 1 – APR 15) UNLESS APPROVED IN WRITING BY THE CENTRAL VALLEY FLOOD PROTECTION BOARD.

13. CONTRACTOR SHALL PROVIDE THE AGENCY A MINIMUM OF TWO (2) WEEKS NOTICE PRIOR TO COMMENCING ANY WORK THAT COULD DAMAGE OR DESTROY ANY SURVEY MONUMENTS. REGARDING REFERENCING, PRESERVING AND RECONSTRUCTING MONUMENTS, WHETHER OR NOT MONUMENTS ARE SHOWN IN THESE PLANS. IF MONUMENT IS DAMAGED BY CONTRACTOR'S OPERATIONS, CONTRACTOR SHALL REPLACE AT CONTRACTOR'S COST.

UTILITY CONTACT TABLE

UTILITY AGENCY	CONTACT PERSON	ADDRESS	PHONE NUMBER
PG&E – GENERAL	DON HELLIER	4040 WEST LANE STOCKTON, CA 95204	(209) 932–6505
PG&E – GAS TRANSMISSION MAIN	RYAN WEBER	3301 INDUSTRIAL AVE ROCKLIN, CA 95765	(916) 408–3295
PG&E – GAS DISTRIBUTION MAIN	DAVE RYMERS	4040 WEST LANE P.O. BOX 930 STOCKTON, CA 95201	(209) 942–1626
PG&E – ELECTRICAL	DEBBIE GHILARDUCCI	8 RIVER PARK PLACE, SUITE E FRESNO, CA 93720	(559) 347–5004
AT&T – COMMUNICATION	DAVE KOCH	2300 EAST EIGHT MILE ROAD STOCKTON, CA 95210	(209) 747–4774
SPRINT – FIBER OPTIC	KEN WEGER	3075 PROSPECT PARK DRIVE RANCHO CORDOVA, CA 95670	(916) 207–8519
MCI – FIBER OPTIC	REBECCA DANIELS	2775 MITCHELL DRIVE BUILDING 8, FLOOR 2 WALNUT CREEK, CA 94598	(925) 951–2711
MUNICIPAL UTILITIES AGENCY (MUD)	TONY TOVAR	2500 NAVY DRIVE STOCKTON, CA 95206	(209) 937–8790

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CONSTRUCTION STAKING NOTES

1. CONTRACTOR SHALL SUBMIT ALL STAKING REQUESTS ON THE STAKING REQUEST FORM PROVIDED IN THE CONTRACT SPECIFICATIONS TO THE RESIDENT ENGINEER FOR REVIEW AND APPROVAL WITH A MINIMUM OF 72 HOURS NOTICE IN ADVANCE OF STARTING AN OPERATION THAT WILL USE THE STAKES.

2. RESIDENT ENGINEER SHALL PROVIDE A MINIMUM OF 48 HOURS NOTICE TO THE SURVEY CREW TO SCHEDULE MOBILIZATION. FRIDAY TO MONDAY DOES NOT CONSTITUTE 48 HOURS NOTICE.

3. IN THE EVENT THAT A STAKING OPERATION IS ESTIMATED TO TAKE MORE THAN ONE DAY TO COMPLETE, ADD 24 HOURS TO THE MINIMUM 48 HOURS ADVANCE NOTICE FOR EACH ESTIMATED ADDITIONAL DAY OF STAKING.

4. CONTRACTOR SHALL ESTABLISH STAKING PRIORITIES FOR EACH STAKING REQUEST AND NOTE THE PRIORITIES ON THE STAKING REQUEST FORM. IF NO PRIORITIES ARE GIVEN BY THE CONTRACTOR, STAKING WILL PROCEED IN THE ORDER LISTED ON THE STAKING REQUEST FORM. THE CONTRACTOR SHALL NOT REQUEST ADDITIONAL PRIORITIES OR DIFFERENT CREW MOBILIZATIONS IN EXCESS OF THAT LISTED ON EACH STAKING REQUEST ONCE THE SURVEY CREW HAS BEEN MOBILIZED.

5. CONTRACTOR SHALL DISCUSS THE SCHEDULING OF STAKING NEEDS BY PROVIDING A 3 WEEK LOOK–AHEAD SCHEDULE OF OPERATIONS AND TIME ESTIMATES TO THE RESIDENT ENGINEER.

6. CONTRACTOR SHALL SUBMIT A STAKING REQUEST TO THE RESIDENT ENGINEER ENSURING THAT THE REQUESTED STAKING AREA IS READY FOR STAKES AND THAT THE STAKES WILL BEGIN TO BE USED WITHIN 5 DAYS OF STAKING.

7. RESIDENT ENGINEER SHALL VERIFY THAT THE CONTRACTOR'S REQUESTS FOR CONSTRUCTION STAKES ARE ACCEPTABLE, INCLUDING

   (i) THE REQUESTED STAKING AREA IS READY FOR STAKES
   (ii) THE STAKES WILL BE USED IN A REASONABLE TIME PERIOD
   (iii) THE STAKES HAVE BEEN REQUESTED IN A REASONABLE LENGTH OF TIME IN ADVANCE
   (iv) REQUESTS FOR "ORIGINAL" STAKES ARE TRULY ORIGINAL.

8. CONTRACTOR SHALL COORDINATE CONSTRUCTION OPERATIONS SUCH THAT AREAS TO RECEIVE STAKES ARE RELATIVELY CLEAR OF CONSTRUCTION EQUIPMENT AND ACTIVITY SUCH THAT STAKES CAN BE SET IN SAFE AND EXPEDITIOUS MANNER.

9. IF A SURVEY FIELD CREW IS MOBILIZED TO AN AREA THAT IS NOT READY FOR STAKES, THE RESIDENT ENGINEER WILL CHARGE THE CONTRACTOR A MINIMUM OF 4 HOURS OF FIELD CREW TIME AS AN EXTRA ABOVE THE CONTRACT AMOUNT AND THE STAKING REQUEST WILL BE VOIDED BY THE RESIDENT ENGINEER. THE CONTRACTOR SHALL SUBMIT A NEW REQUEST FOR THE STAKES WHEN THE AREA OR FACILITY HAS BEEN PROPERLY PREPARED.

10. IF THE CONTRACTOR DETERMINES THAT THE STAKING PROVIDED APPEARS TO HAVE DISCREPANCIES OR IS AMBIGUOUS, A REQUEST FOR CLARIFICATION MUST BE SENT TO THE RESIDENT ENGINEER WITHIN 24 HOURS FROM THE TIME OF STAKING. IF THE ORIGINAL STAKING PROVIDED HAS UNDERGONE UNIT CONVERSION, ALTERED OR DISTURBED THEN THE CONTRACTOR ASSUMES ALL RESPONSIBILITY OF THE ACCURACY OF THE CONVERSIONS AND/OR ALTERATIONS.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING WORKING STAKES (IE:"BLUETOPS") AS REQUIRED TO COMPLETE THE WORK.

12. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL WHEN NECESSARY.

TRAFFIC CONTROL NOTES

1. CONSTRUCTION SIGNS SHOWN ARE REQUIRED FOR STAGE CONSTRUCTION AND ARE ADDITIONAL TO THOSE SHOWN ON SIGNING & STRIPING PLANS. ALL CONSTRUCTION SIGNS SHALL BE 3M DIAMOND GRADE FLUORESCENT WORK ZONE SHEETING OR APPROVED EQUAL. REMOVE ALL CONSTRUCTION SIGNS AFTER COMPLETION OF THE PROJECT.

2. LOCATIONS OF CONSTRUCTION SIGNS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE RESIDENT ENGINEER AND PER CHAPTER 6 OF THE MUTCD.

3. ALL EXISTING SIGNS NOT SHOWN ON TRAFFIC CONTROL PLANS FOR REMOVAL OR RELOCATION ARE SHOWN ON THE SIGNING & STRIPING PLANS.

4. PERMANENT ROADWAY SIGNS NECESSARY FOR TRAFFIC CONTROL SHALL BE IN PLACE BEFORE REQUIRED BY CONSTRUCTION STAGING. FOR PERMANENT SIGNS, SEE SIGNING & STRIPING PLANS.

5. EXISTING ROADWAY SIGNS NOT SHOWN ARE TO REMAIN. RESIDENT ENGINEER TO INSPECT ALL SIGNS TO REMAIN AND DETERMINE IF THEY MEET THE STANDARDS OF THE CURRENT MUTCD. IF THE DO NOT MEET THE STANDARDS OF THE MUTCD THEY WILL BE REPLACED.

6. ADDITIONAL SIGNS, CHANNELIZERS, BARRICADES NEEDED FOR TRAFFIC SAFETY AND MAINTAINING TRAFFIC FOR TEMPORARY LANE CLOSURES AND ROADWAY CLOSURES ARE NOT SHOWN AND SHALL BE INCLUDED IN THE BID ITEMS FOR CONSTRUCTION AREA SIGN AND TRAFFIC CONTROL SYSTEMS.

7. ALL TEMPORARY TRAFFIC STRIPES AND MARKINGS PLACED IN STAGES 1 AND 2 SHALL BE PAINT.

8. ALL EXISTING AND TEMPORARY OR PERMANENT STRIPING AND MARKINGS THAT CONFLICT WITH NEW TEMPORARY STRIPING AND MAKINGS SHALL BE REMOVED DURING THE SAME WORK SHIFT.

9. DRIVEWAY ACCESS MUST BE MAINTAINED WHEN THERE IS NO WORK ACTIVITY. AT LEAST ONE DRIVEWAY SHALL BE MAINTAINED AT ALL TIMES TO EACH SITE. USE PORTABLE DELINEATORS 30' O.C. TO CLOSE OFF DRIVEWAYS WHILE WORK IS UNDERWAY.

10. ALL TEMPORARY AND EXISTING DELINEATION SHALL BE REMOVED AS THE LAST ITEM OF WORK.

11. CONTRACTOR SHALL COORDINATE WITH RESIDENT ENGINEER AND SUBMIT A TRAFFIC CONTROL PLAN FOR EACH PHASE OF WORK. SEE SECTION 10–1.19 "MAINTAINING TRAFFIC" OF THE SPECIAL PROVISIONS FOR FURTHER INFORMATION.

12. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF STOCKTON STANDARD SPECIFICATIONS AND DRAWINGS 2003, CALTRANS STANDARD PLANS AND SPECIFICATIONS DATED MAY 2006, CALIFORNIA MUTCD, SIGN SPECIFICATIONS AND THE SPECIAL PROVISIONS.

13. CONTRACTOR SHALL MAINTAIN EMERGENCY, LOCAL RESIDENTIAL, AND BUSINESS ACCESS AT ALL TIME.

14. THE LOCAL FIRE DEPARTMENT, SHERIFF/POLICE DEPARTMENT, CALIFORNIA HIGHWAY PATROL, LOCAL SCHOOL DISTRICT, UNITED STATES POSTAL SERVICE AND REGIONAL TRANSIT SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF CONSTRUCTION WORK.

15. CONTRACTOR SHALL INSTALL TEMPORARY WHITE REFLECTORS ALONG THE K–RAIL AT 20' ON CENTER FACING THE APPROACHING TRAFFIC. TEMPORARY REFLECTORS TO BE INSTALLED AS PER SECTION 12–3.08 OF CALTRANS STANDARD SPECIFICATIONS.

16. CONTRACTOR IS RESPONSIBLE TO INSTALL BLACK PLASTIC TO COMPLETELY COVER ANY CONFLICTING ROADSIDE SIGN, MAINTAIN COVER IN GOOD CONDITION DESPITE INCLEMENT WEATHER, AND TO REMOVE THE COVER AFTER THE CONSTRUCTION. AVOID ANY CONFLICTING SIGNAGE.

17. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE TO EXISTING PAVEMENTS RESULTING FROM CONSTRUCTION OPERATIONS. THIS REPAIR SHALL INCLUDE ALL CONSTRUCTION AND MATERIALS TO RESTORE THE DAMAGED PAVEMENT TO EXISTING CONDITIONS OR BETTER. THE CONTRACTOR SHOULD EVALUATE THE CONDITION OF THE EXISTING PAVEMENT WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION AND MAKE NECESSARY PROVISIONS TO PROTECT THE PAVEMENT WITH THE USE OF APPROPRIATE EQUIPMENT AND METHODS OF CONSTRUCTION.

18. NIGHT WORK– THE NCHRP REPORT 476 PROVIDES GUIDELINES FOR DESIGN & OPERATION OF NIGHTTIME TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE & CONSTRUCTION. SEE TYPICAL APPLICATIONS NTWA–1 THROUGH NTWA–7. COMPLY WITH ANSI 107–1999 FOR APPAREL, NIGHTWORK WILL REQUIRE ILLUMINATION (LEVEL 1 THRU LEVEL 3, AS APPROPRIATE), CORRECTION FOR GLARE, USE OF FLASHING BEACONS, ETC.

19. THE CONTRACTOR SHALL GRIND OFF EXISTING STRIPE BEFORE APPLYING TEMPORARY STRIPE AS SHOWN ON THE PLAN. RESTORE STRIPING TO "BEFORE" CONDITION AFTER CONSTRUCTION IS COMPLETED BY SLURRY SEAL AND REMARK ROADWAY SURFACE TO PROVIDE CLEAR, CONSISTENT TRAFFIC MARKINGS. SLURRY SEAL SHALL COVER THE ENTIRE PAVEMENT SURFACE UP TO 2" BEYOND EDGE STRIPE. APPLYING BLACK PAINT TO COVER EXISTING/TEMPORARY STRIPE IS NOT ACCEPTABLE.

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MTCO JOB NUMBER: 57–0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By
–				

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
GENERAL NOTES
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=40'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 2
DESIGNED BY: DWM		C-1
DRAWN BY: JMN, AMR, BES		OF 124 SHEETS
CHECKED BY: MAS	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17
RECORD DWG:		

LEGEND

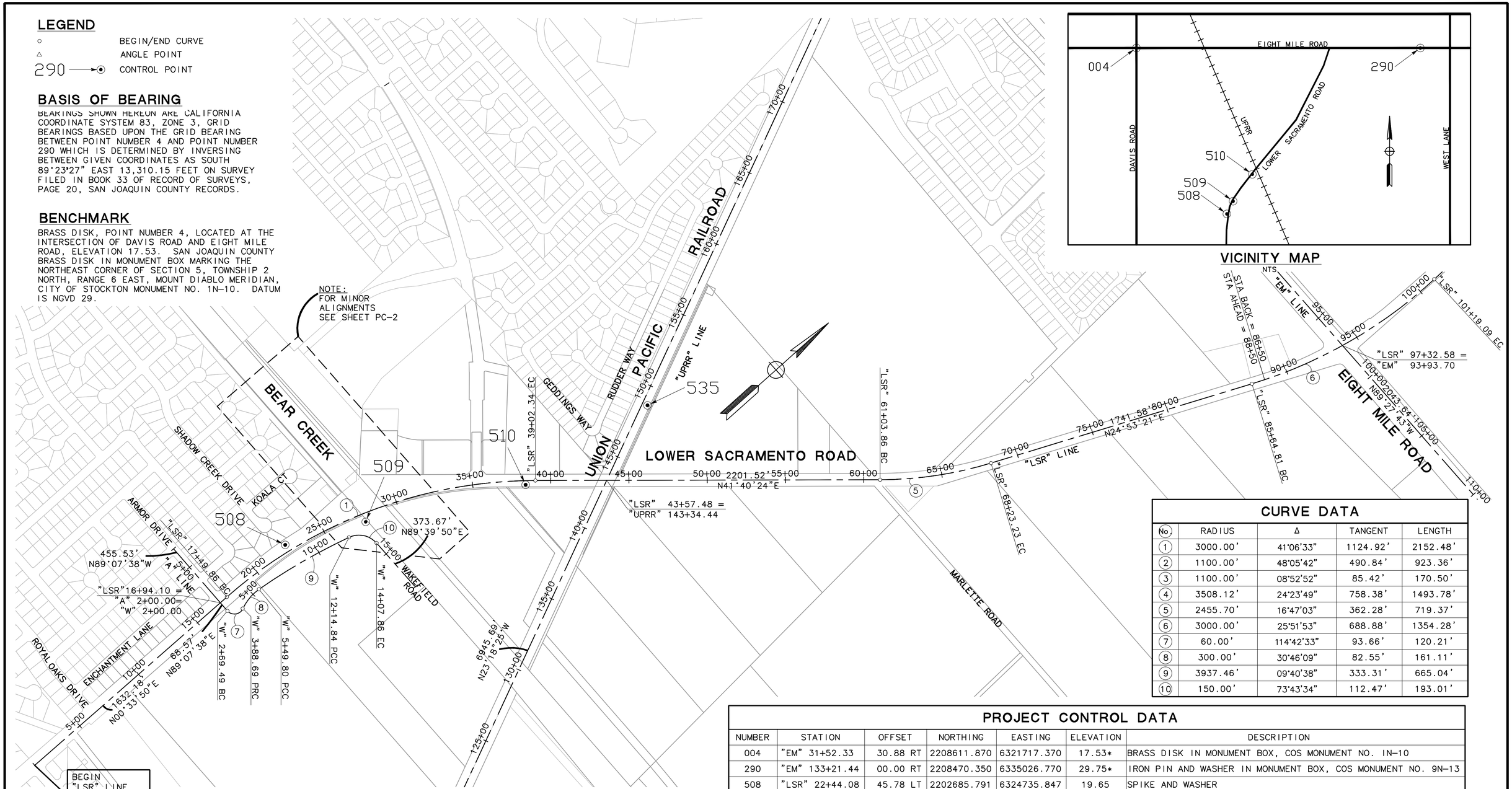
- ○ BEGIN/END CURVE
- △ ANGLE POINT
- 290 → ⊙ CONTROL POINT

BASIS OF BEARING

BEARINGS SHOWN HEREON ARE CALIFORNIA COORDINATE SYSTEM 83, ZONE 3, GRID BEARINGS BASED UPON THE GRID BEARING BETWEEN POINT NUMBER 4 AND POINT NUMBER 290 WHICH IS DETERMINED BY INVERSING BETWEEN GIVEN COORDINATES AS SOUTH 89°23'27" EAST 13,310.15 FEET ON SURVEY FILED IN BOOK 33 OF RECORD OF SURVEYS, PAGE 20, SAN JOAQUIN COUNTY RECORDS.

BENCHMARK

BRASS DISK, POINT NUMBER 4, LOCATED AT THE INTERSECTION OF DAVIS ROAD AND EIGHT MILE ROAD, ELEVATION 17.53. SAN JOAQUIN COUNTY BRASS DISK IN MONUMENT BOX MARKING THE NORTHEAST CORNER OF SECTION 5, TOWNSHIP 2 NORTH, RANGE 6 EAST, MOUNT DIABLO MERIDIAN, CITY OF STOCKTON MONUMENT NO. 1N-10. DATUM IS NGVD 29.



VICINITY MAP
NTS

CURVE DATA

No.	RADIUS	Δ	TANGENT	LENGTH
1	3000.00'	41°06'33"	1124.92'	2152.48'
2	1100.00'	48°05'42"	490.84'	923.36'
3	1100.00'	08°52'52"	85.42'	170.50'
4	3508.12'	24°23'49"	758.38'	1493.78'
5	2455.70'	16°47'03"	362.28'	719.37'
6	3000.00'	25°51'53"	688.88'	1354.28'
7	60.00'	114°42'33"	93.66'	120.21'
8	300.00'	30°46'09"	82.55'	161.11'
9	3937.46'	09°40'38"	333.31'	665.04'
10	150.00'	73°43'34"	112.47'	193.01'

PROJECT CONTROL DATA

NUMBER	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
004	"EM" 31+52.33	30.88 RT	2208611.870	6321717.370	17.53*	BRASS DISK IN MONUMENT BOX, COS MONUMENT NO. 1N-10
290	"EM" 133+21.44	00.00 RT	2208470.350	6335026.770	29.75*	IRON PIN AND WASHER IN MONUMENT BOX, COS MONUMENT NO. 9N-13
508	"LSR" 22+44.08	45.78 LT	2202685.791	6324735.847	19.65	SPIKE AND WASHER
509	"LSR" 27+70.49	54.80 RT	2203166.799	6324968.737	24.83	5/8" REBAR
510	"LSR" 38+39.13	26.45 RT	2204086.575	6325473.078	19.35	SPIKE AND WASHER
535	"LSR" 46+19.06	478.49 LT	2205004.890	6325613.612	18.48	SPIKE AND WASHER

* PROJECT ELEVATION DOES NOT MATCH PUBLISHED VALUE FOR THIS POINT.

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Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT

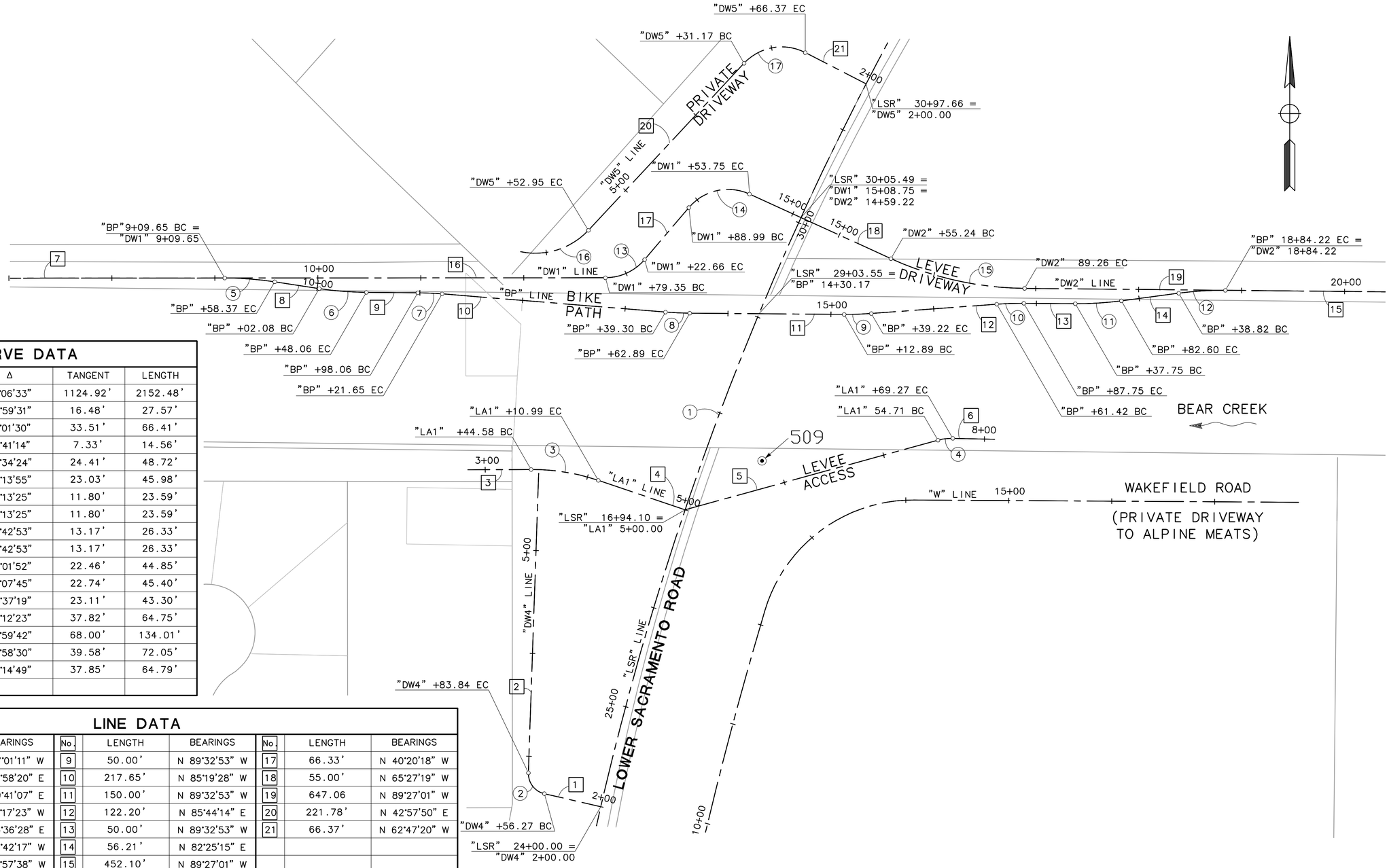
PROJECT CONTROL

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=300'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 3
PC-1
OF 124 SHEETS
PROJECT NO. 05-17



CURVE DATA

No.	RADIUS	Δ	TANGENT	LENGTH
1	3000.00'	41°06'33"	1124.92'	2152.48'
2	20.00'	78°59'31"	16.48'	27.57'
3	200.00'	19°01'30"	33.51'	66.41'
4	50.00'	16°41'14"	7.33'	14.56'
5	320.00'	08°34'24"	24.41'	48.72'
6	320.00'	08°13'55"	23.03'	45.98'
7	320.00'	04°13'25"	11.80'	23.59'
8	320.00'	04°13'25"	11.80'	23.59'
9	320.00'	04°42'53"	13.17'	26.33'
10	320.00'	04°42'53"	13.17'	26.33'
11	320.00'	08°01'52"	22.46'	44.85'
12	320.00'	08°07'45"	22.74'	45.40'
13	50.00'	49°37'19"	23.11'	43.30'
14	50.00'	74°12'23"	37.82'	64.75'
15	320.00'	23°59'42"	68.00'	134.01'
16	70.00'	58°58'30"	39.58'	72.05'
17	50.00'	74°14'49"	37.85'	64.79'
18				

LINE DATA

No.	LENGTH	BEARINGS	No.	LENGTH	BEARINGS	No.	LENGTH	BEARINGS
1	56.27'	N 77°01'11" W	9	50.00'	N 89°32'53" W	17	66.33'	N 40°20'18" W
2	291.16'	N 01°58'20" E	10	217.65'	N 85°19'28" W	18	55.00'	N 65°27'19" W
3	61.41'	N 89°41'07" E	11	150.00'	N 89°32'53" W	19	647.06	N 89°27'01" W
4	89.01'	N 71°17'23" W	12	122.20'	N 85°44'14" E	20	221.78'	N 42°57'50" E
5	254.70'	N 74°36'28" E	13	50.00'	N 89°32'53" W	21	66.37'	N 62°47'20" W
6	40.62'	N 88°42'17" W	14	56.21'	N 82°25'15" E			
7	409.65'	N 89°57'38" W	15	452.10'	N 89°27'01" W			
8	43.71'	N 81°18'58" W	16	779.35'	N 89°57'37" E			

BEFORE EXCAVATING
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TOLL FREE
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UNION PACIFIC
CALL BEFORE YOU DIG
800-336-9193

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
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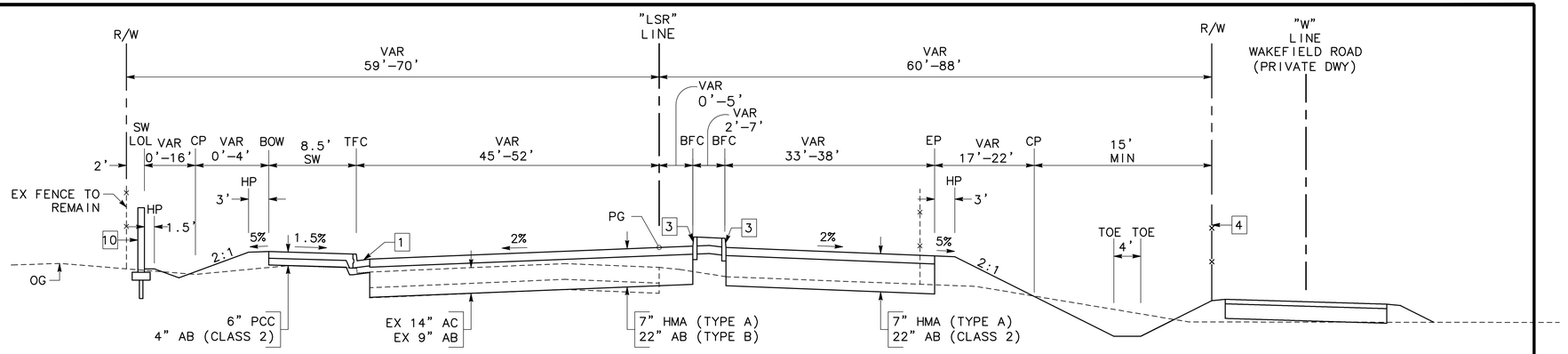
MARK THOMAS & COMPANY, INC.
7300 FOLSOM BOULEVARD, SUITE 203
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180
WWW.MARKTHOMAS.COM
MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

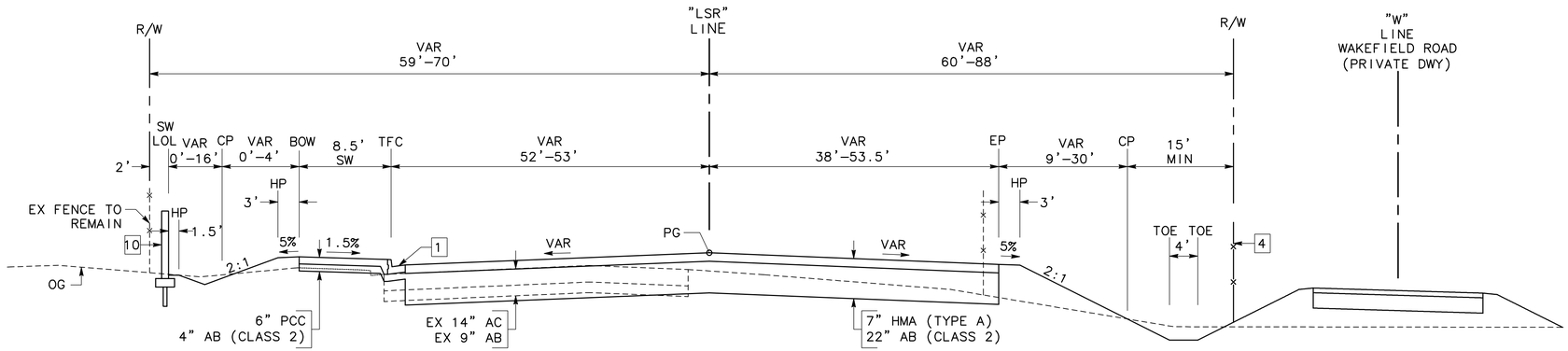
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
PROJECT CONTROL
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

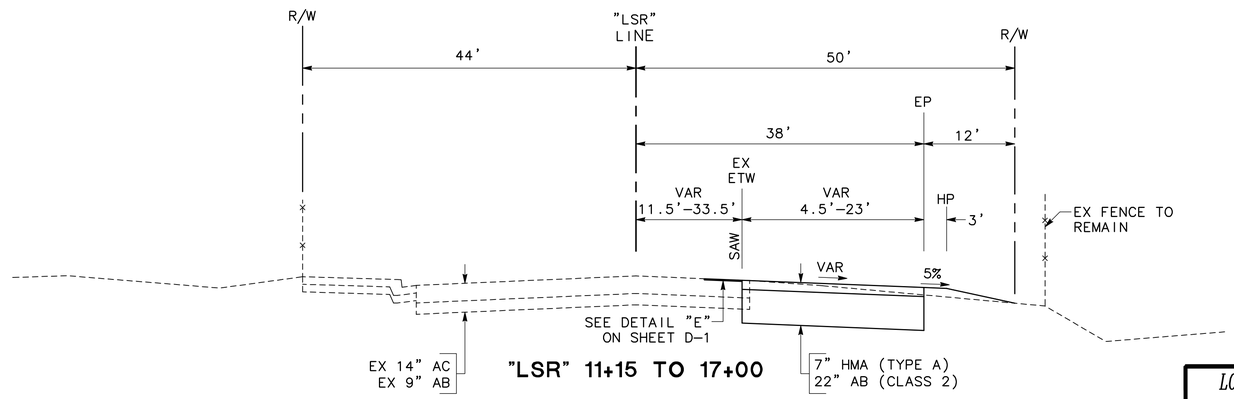
SCALE: 1"=300'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 4	
DESIGNED BY: DWM		PC-2	
DRAWN BY: JMN, AMR, BES		OF 124 SHEETS	
CHECKED BY: MAS	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17	
RECORD DWG:			



"LSR" 17+50 TO 20+02



"LSR" 17+00 TO 17+50



"LSR" 11+15 TO 17+00

GENERAL NOTES

1. EXISTING PAVEMENT SECTIONS SHOWN ARE BASED ON AS-BUILT INFORMATION AND ARE SUBJECT TO VARIATION DUE TO CONSTRUCTION TOLERANCES AND MAINTENANCE ACTIVITIES (i.e. OVERLAYS). THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE ACTUAL DEPTH AND EXTENT OF THE ROADWAY STRUCTURAL SECTION.
2. EMBANKMENT AND DITCH SIDE SLOPES ARE SHOWN AS MAXIMUM STEEPNESS. REFER TO THE GENERAL CROSS SECTIONS IN THE RESIDENT ENGINEER FILE FOR SLOPE STAKING.

CONSTRUCTION NOTES

1. CONSTRUCT MODIFIED TYPE 25B VERTICAL CURB AND GUTTER PER DETAIL "D" ON SHEET D-1.
2. CONSTRUCT MODIFIED TYPE "B" VERTICAL CURB PER CITY OF STOCKTON STANDARD DRAWING NO. 25C
3. CONSTRUCT TYPE "B" VERTICAL CURB PER CITY OF STOCKTON STANDARD DRAWING NO. 25C
4. INSTALL BARBED WIRE FENCE WITH METAL POSTS PER CALTRANS STANDARD PLAN A86
5. INSTALL MEDIAN PAVING PER DETAIL "L" ON SHEET D-4.
6. INSTALL LANDSCAPING MAINTENANCE BORDER (SEE LANDSCAPE SHEETS)
7. INSTALL HARDSCAPED MEDIAN (SEE LANDSCAPE SHEETS)
8. UTILITY POLES TO BE REMOVED AND RELOCATED BY OTHERS (PG&E)
9. INSTALL STREET LIGHTS (SEE ELECTRICAL PLANS)
10. CONSTRUCT SOUND WALL (SEE SOUND WALL PLANS)

DESIGN DESIGNATIONS

ORIGINAL GROUND R VALUE = 15
T.I. VALUE = 11
DESIGN SPEED = 55 MPH

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MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

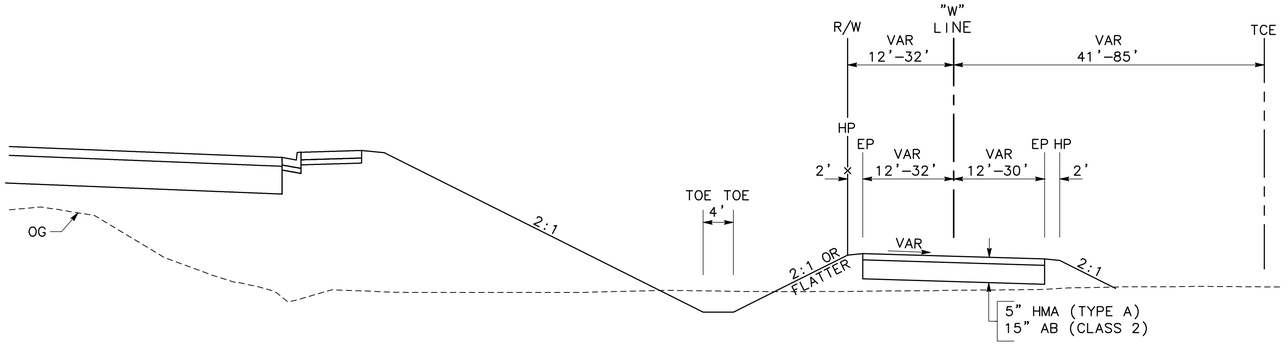
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT

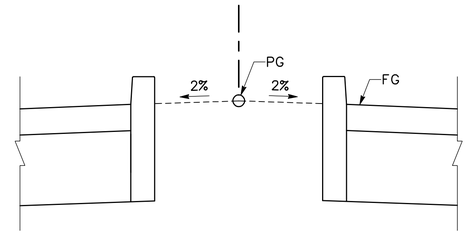
TYPCIAL CROSS SECTIONS

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

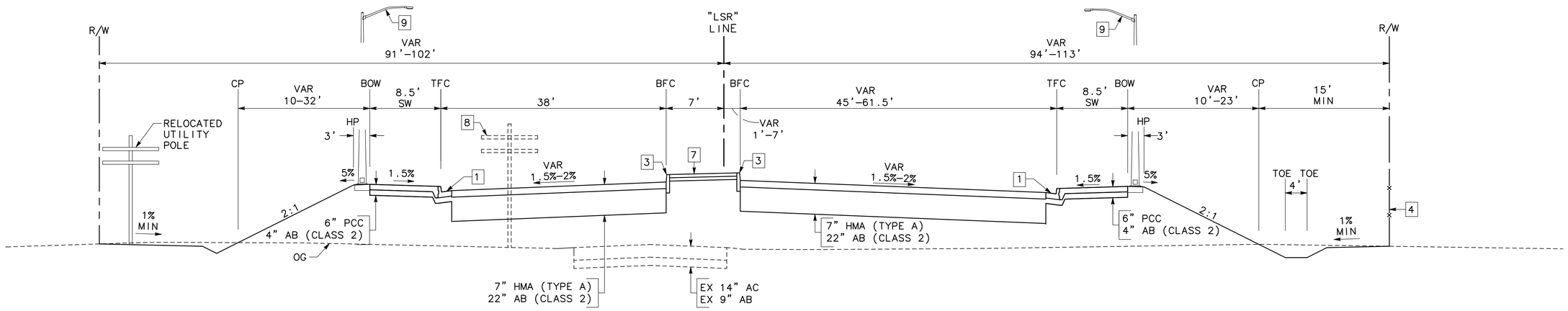
SCALE: NTS	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 5	
DESIGNED BY: DWM		X-1	
DRAWN BY: JMN, AMR, BES		OF 124 SHEETS	
CHECKED BY: MAS	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17	
RECORD DWG:			



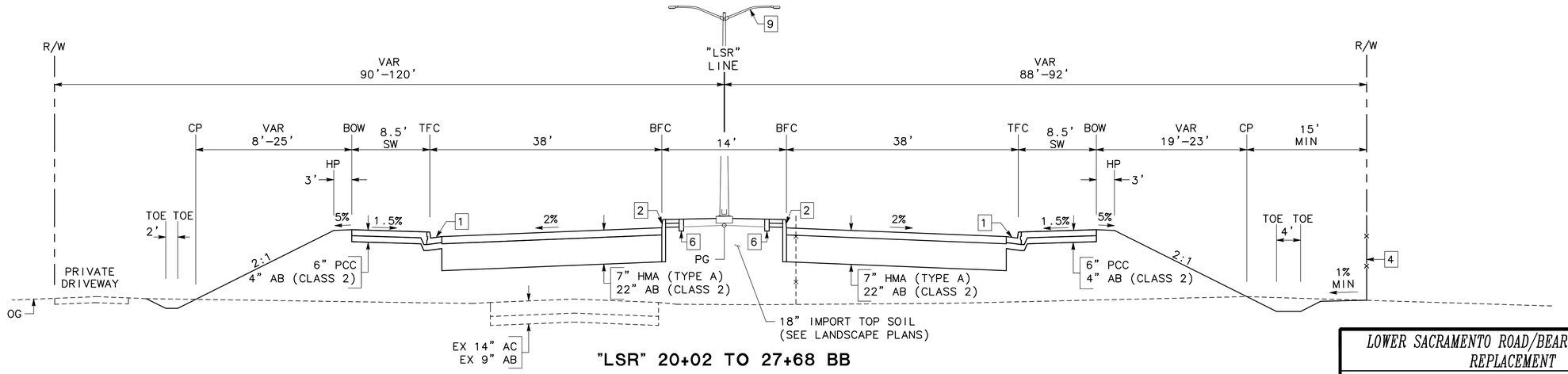
"W" 2+38 TO 14+50



PROFILE GRADE (PG) DETAIL
NTS



"LSR" 29+21 EB TO 34+86



"LSR" 20+02 TO 27+68 BB

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STATE OF CALIFORNIA

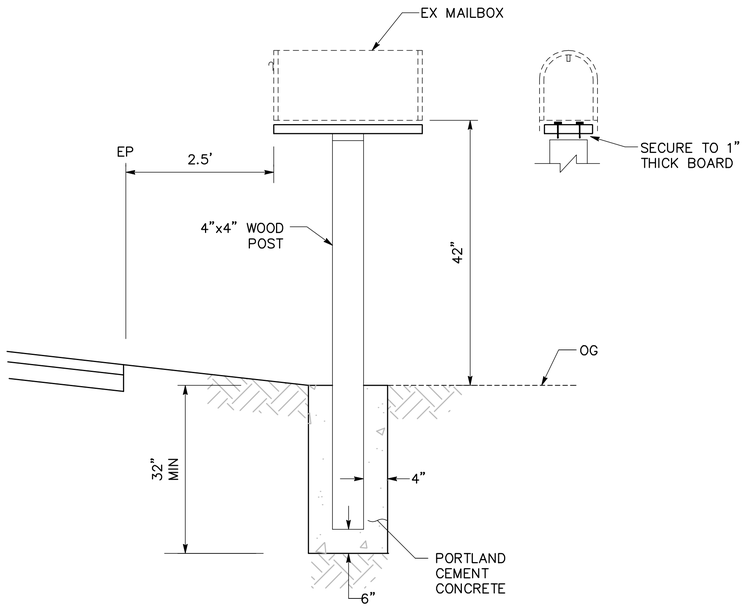
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
TYPCIAL CROSS SECTIONS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

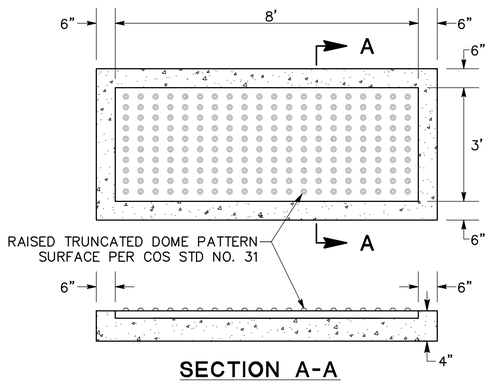
SCALE:	NTS
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 6
X-2
OF 124 SHEETS
PROJECT NO.
05-17

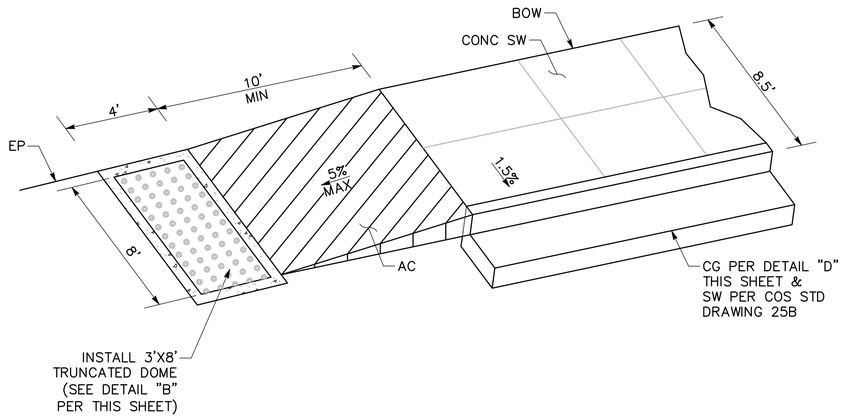


RELOCATE MAILBOX DETAIL (A)
NTS

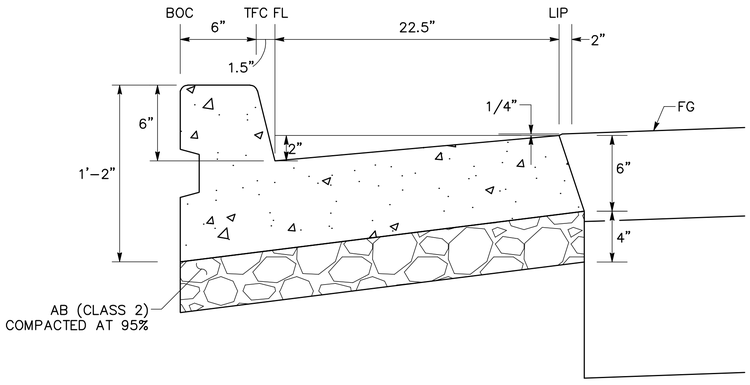


SECTION A-A

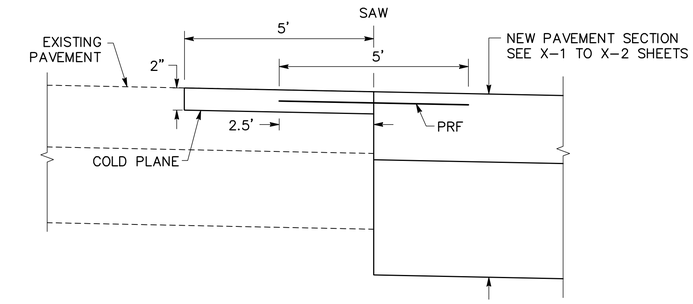
PCC PAD FOR DETECTABLE WARNING SURFACE IN AC PATH DETAIL (B)
NTS



AC RAMP DETAIL (C)
NTS



MODIFIED TYPE 25B VERTICAL CURB AND GUTTER (D)
NTS



COLD PLANE (EDGE GRIND) DETAIL (E)
NTS

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REGISTERED PROFESSIONAL ENGINEER
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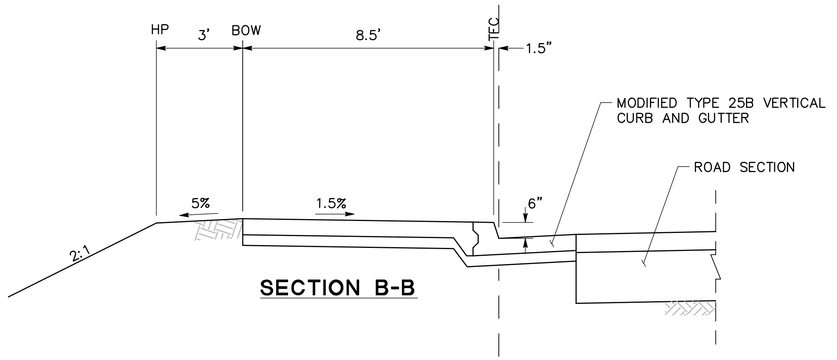
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

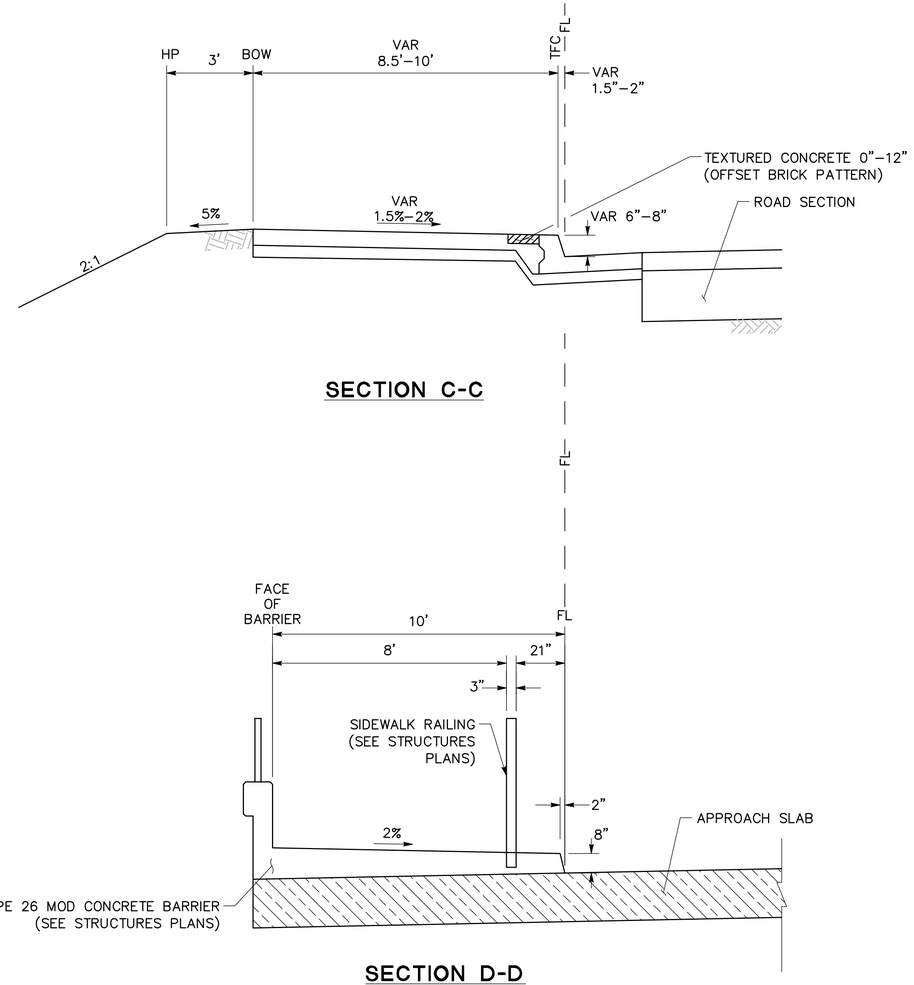
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
ROADWAY DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: NTS	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 7	
DESIGNED BY: DWM		D-1	
DRAWN BY: JMN, AMR, BES		OF 124 SHEETS	
CHECKED BY: MAS	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17	
RECORD DWG:			

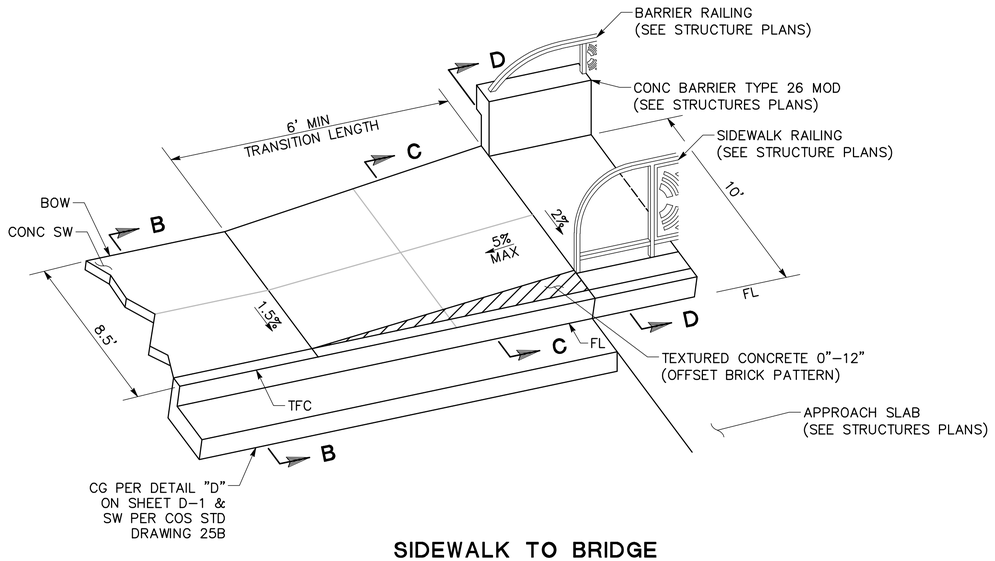


SECTION B-B



SECTION C-C

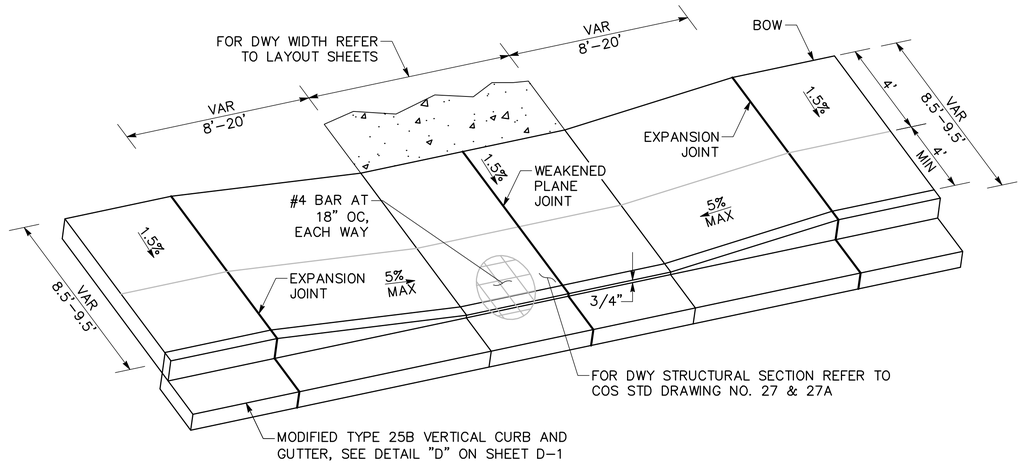
SECTION D-D



SIDEWALK TO BRIDGE TRANSITION DETAIL

NTS

F



CONCRETE DRIVEWAY DETAIL

NTS

G

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ROBERT A. HIMES
No. 45787
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CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
ROADWAY DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	NTS
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

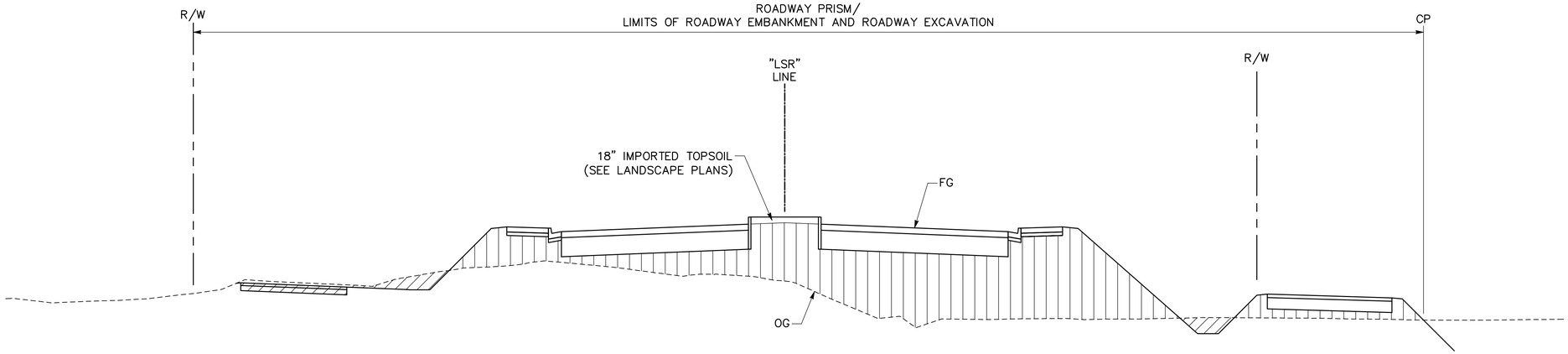
APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 8
D-2
OF 124 SHEETS
PROJECT NO.
05-17

LEGEND:

ROADWAY EMBANKMENT

ROADWAY EXCAVATION

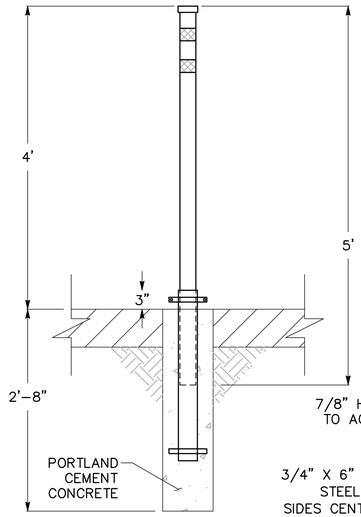


ROADWAY EMBANKMENT AND EXCAVATION PAYMENT LIMITS

NTS (H)

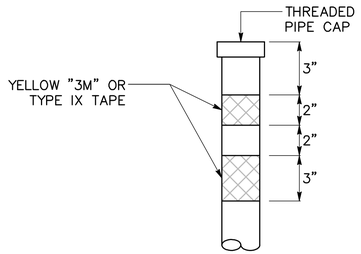
NOTES:

1. PIPE SHALL BE SCHEDULE 40 GALVANIZED STEEL.

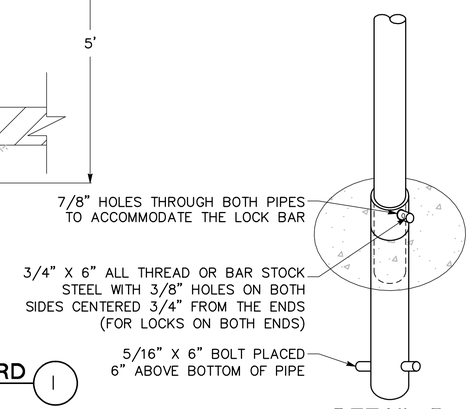


PIPE BOLLARD

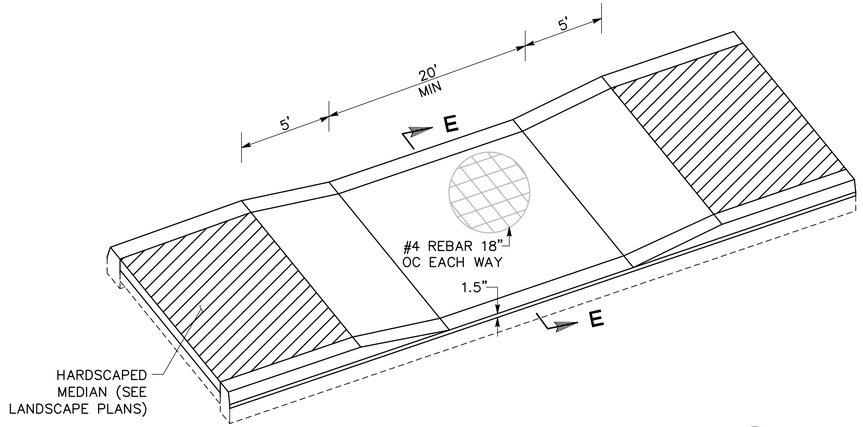
NTS (I)



DETAIL A

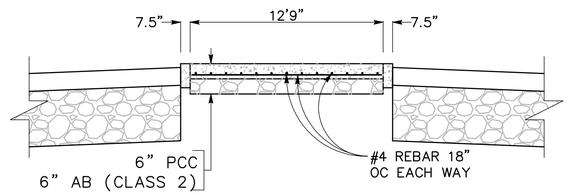


DETAIL B



DEPRESSED MEDIAN DETAIL

NTS (J)



SECTION E-E

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No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By
–				

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT

ROADWAY DETAILS

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

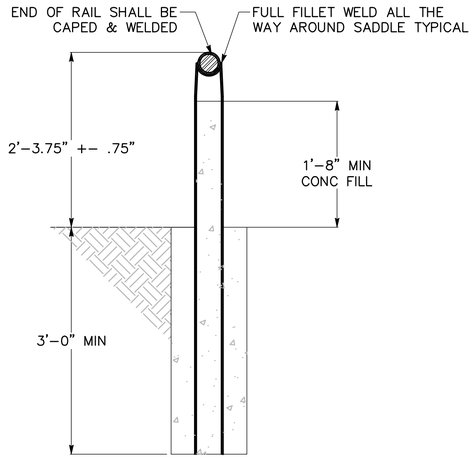
SCALE:	NTS
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

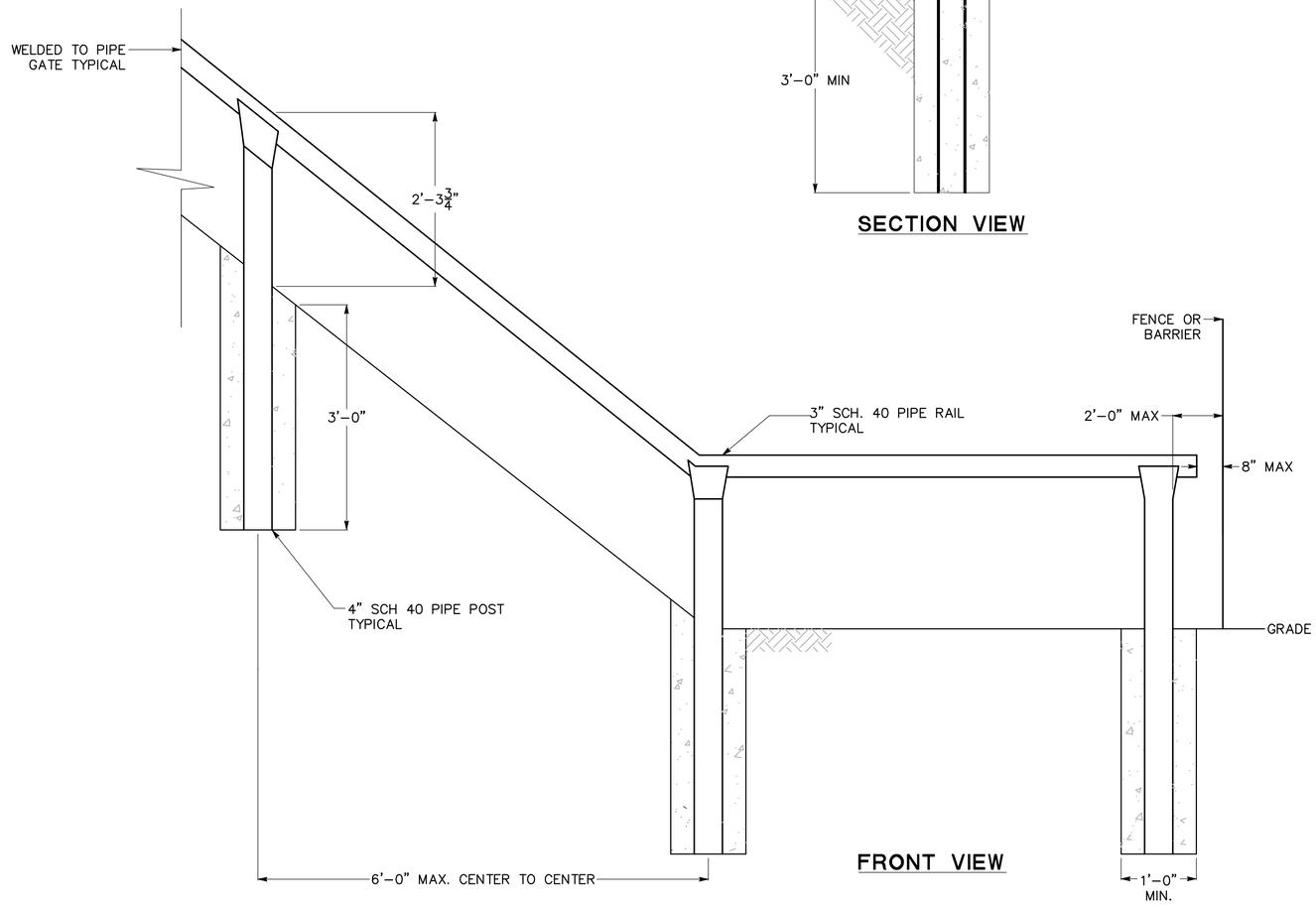
SHEET NO. 9
D-3
OF 124 SHEETS
PROJECT NO.
05-17

NOTES:

1. POSTS SHALL BE COLLAPSED ON TOP TO FIT TO O.D. OF RAIL.
2. SADDLE SHALL BE CUT INTO POST AND WELDED ALL ALONG JOINT.
3. JOINTS IN THE RAIL SHALL BE JOINED BY FULL FILLET WELD ALL THE WAY AROUND JOINT.
4. CONCRETE SHALL BE 2,500 P.S.I. MINIMUM.
5. THE PIPE FENCE AND ADJOINING GATES SHALL BE PAINTED WITH ONE COAT OF METAL PRIMER AND TWO COATS OF "SAFETY RED" PAINT.

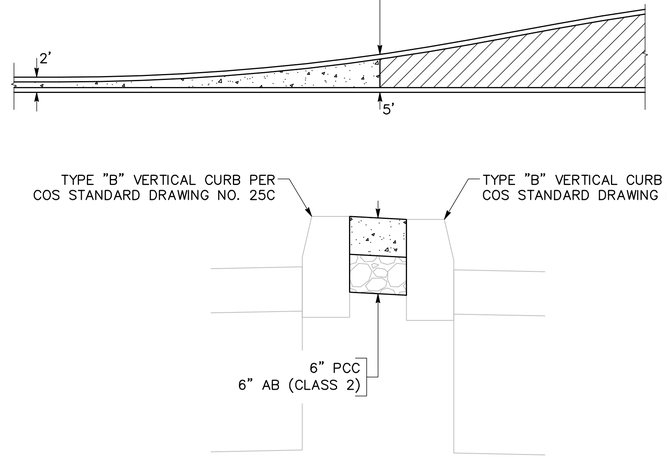


SECTION VIEW



FRONT VIEW

PIPE FENCE
NTS
K



MEDIAN PAVING
NTS
L

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Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
ROADWAY DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: NTS	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 10	
DESIGNED BY: DWM		D-4	
DRAWN BY: JMN, AMR, BES		OF 124 SHEETS	
CHECKED BY: MAS	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17	
RECORD DWG:			

GENERAL NOTES

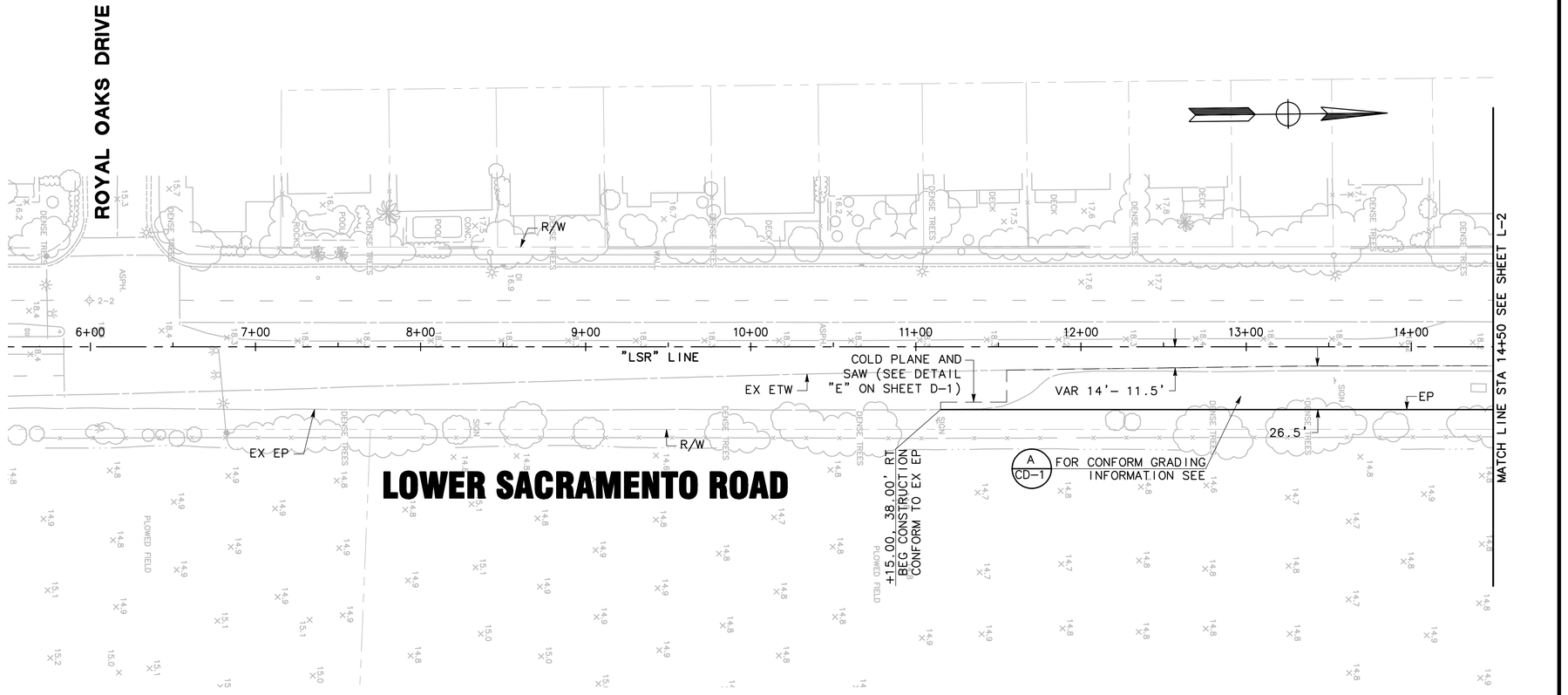
1. STATION AND OFFSET CALLOUTS FOR CURB AND GUTTER ARE TO THE TOP FACE OF CURB UNLESS OTHERWISE NOTED. STATION AND OFFSET CALLOUTS FOR MEDIAN CURB ARE TO THE BOTTOM FACE OF CURB UNLESS OTHERWISE NOTED.
2. STATION AND OFFSET CALLOUTS ARE REFERRING TO "LSR" LINE UNLESS OTHERWISE NOTED.
3. ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED.
4. SEE STRUCTURE SHEETS FOR DEMOLITION OF EXISTING BRIDGE.
5. SEE SS SHEETS FOR DEMOLITION OF EXISTING STREET SIGNS.
6. SEE LIGHTING PLAN FOR REMOVAL OF EXISTING LIGHT STANDARDS.
7. TREE BRANCHES EXTENDING OVER THE ROADWAY AND WITHIN 20 FEET OF FINISHED GRADE SHALL BE CUT OFF CLOSE TO TRUNKS IN ACCORDANCE WITH RECOGNIZED STANDARDS OF GOOD ARBORICULTURAL PRACTICES.

CONSTRUCTION NOTES

1. CONSTRUCT MODIFIED TYPE 25B VERTICAL CURB AND GUTTER PER DETAIL "D" ON SHEET D-1 AND SIDEWALK PER CITY OF STOCKTON STANDARD DRAWING NO. 25B.
2. CONSTRUCT MODIFIED TYPE "B" VERTICAL CURB PER CITY OF STOCKTON STANDARD DRAWING NO. 25C.
3. CONSTRUCT TYPE "B" VERTICAL CURB PER CITY OF STOCKTON STANDARD DRAWING NO. 25C.
4. INSTALL BARBED WIRE FENCE PER CALTRANS STANDARD PLANS A86.
5. INSTALL MEDIAN PAVING PER DETAIL "L" ON SHEET D-4.
6. CONSTRUCT SW TO BRIDGE TRANSITION PER DETAIL "F" ON SHEET D-2.
7. INSTALL SIDEWALK RAILING (SEE STRUCTURE PLANS).
8. CONSTRUCT DRIVEWAY PER ROADWAY DETAIL "G" ON SHEET D-2.
9. CONSTRUCT AC RAMP PER DETAIL "C" ON SHEET D-1.
10. CONSTRUCT SOUND WALL (SEE SOUND WALL SHEETS).
11. CONSTRUCT ROLL TYPE CURB, GUTTER & SIDEWALK PER CITY OF STOCKTON STANDARD DRAWING NO. 25A.
12. CONSTRUCT WHEELCHAIR RAMP PER CITY OF STOCKTON STANDARD DRAWING NO. 31.
13. CONSTRUCT SPECIAL WHEELCHAIR RAMP PER CITY OF STOCKTON STANDARD DRAWING NO. 32.
14. INSTALL PIPE FENCE PER DETAIL "K" ON SHEET D-4.
15. INSTALL PIPE GATE PER CITY OF STOCKTON STANDARD DRAWING NO. 27C
16. CONSTRUCT DEPRESSED MEDIAN PER DETAIL "J" ON SHEET D-3

LEGEND

3" AB (CLASS 2) ACCESS ROAD



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ORIGINAL SCALE IN INCHES FOR REDUCED PLAN
0 1 2 3

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MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

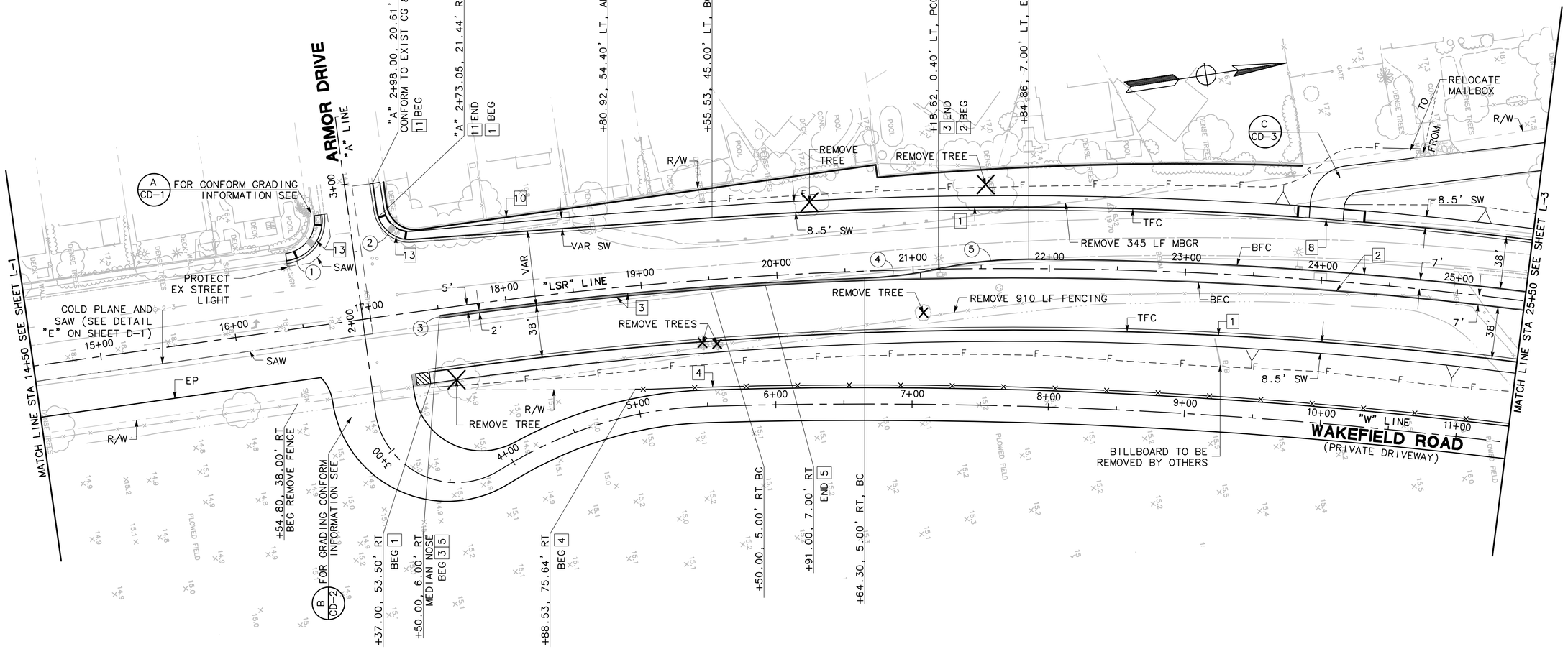
Revision No.	Description	Date	By	Aprvd. By
—				

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
LAYOUT
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010 DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 11
L-1
OF 124 SHEETS
PROJECT NO. 05-17



LOWER SACRAMENTO ROAD

CURVE DATA

No.	RADIUS	Δ	LENGTH	TANGENT
1	30.00'	94°44'47"	47.51'	30.39'
2	25.00'	85°30'29"	37.31'	23.11'
3	1.00'	180°00'00"	3.14'	–
4	303.00'	10°19'37"	54.61'	27.38'
5	303.00'	12°37'46"	66.79'	33.53'

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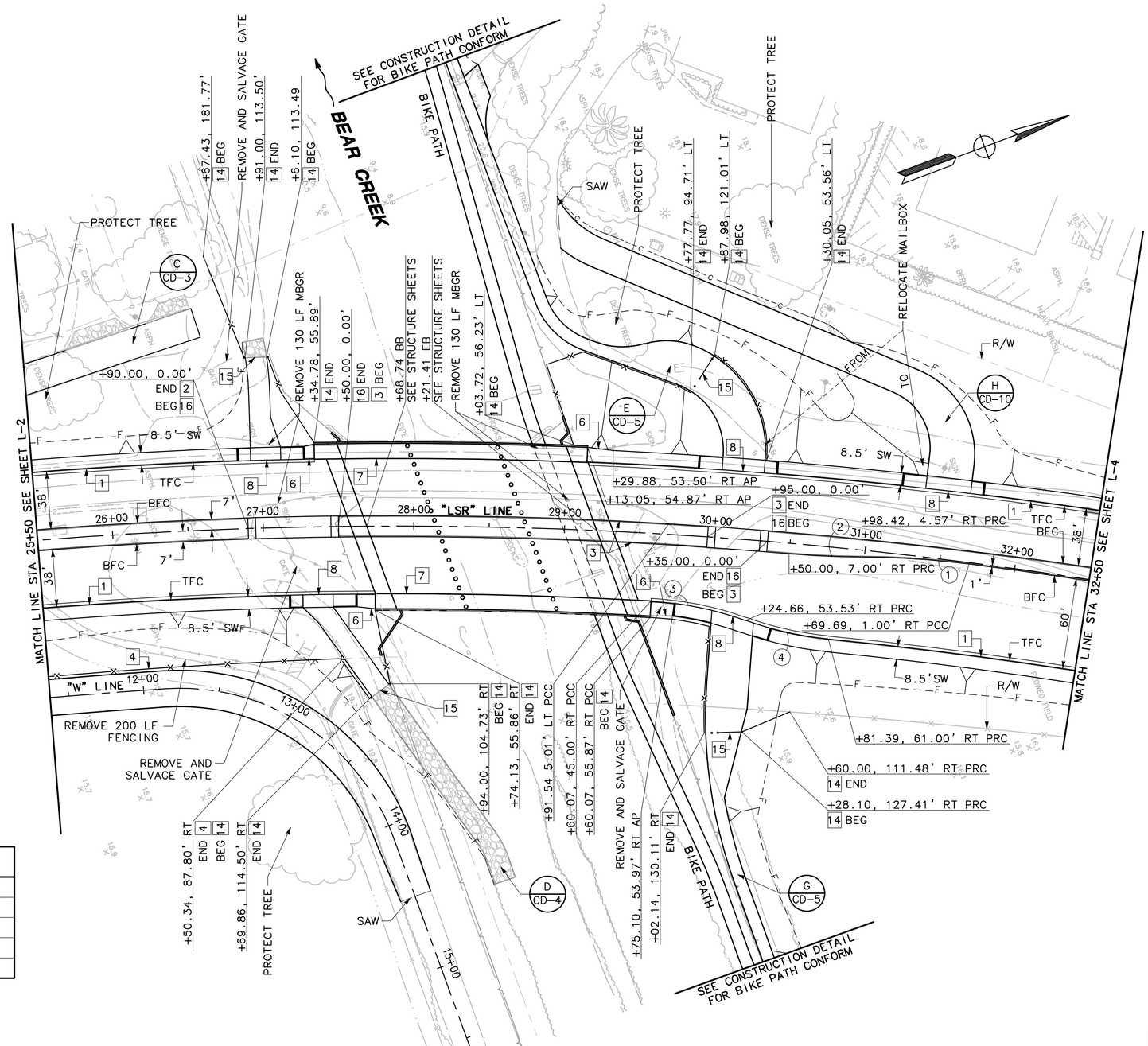
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
LAYOUT
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=40'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 12	
DESIGNED BY: DWM		L-2	
DRAWN BY: JMN, AMR, BES		OF 124 SHEETS	
CHECKED BY: MAS	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17	
RECORD DWG:			



CURVE DATA				
No.	RADIUS	Δ	LENGTH	TANGENT
1	575.00'	07°06'30"	71.34'	35.71'
2	575.00'	04°49'21"	48.40'	24.21'
3	223.00'	16°31'33"	64.32'	32.38'
4	227.00'	14°12'31"	56.29'	28.29'

LOWER SACRAMENTO ROAD

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ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
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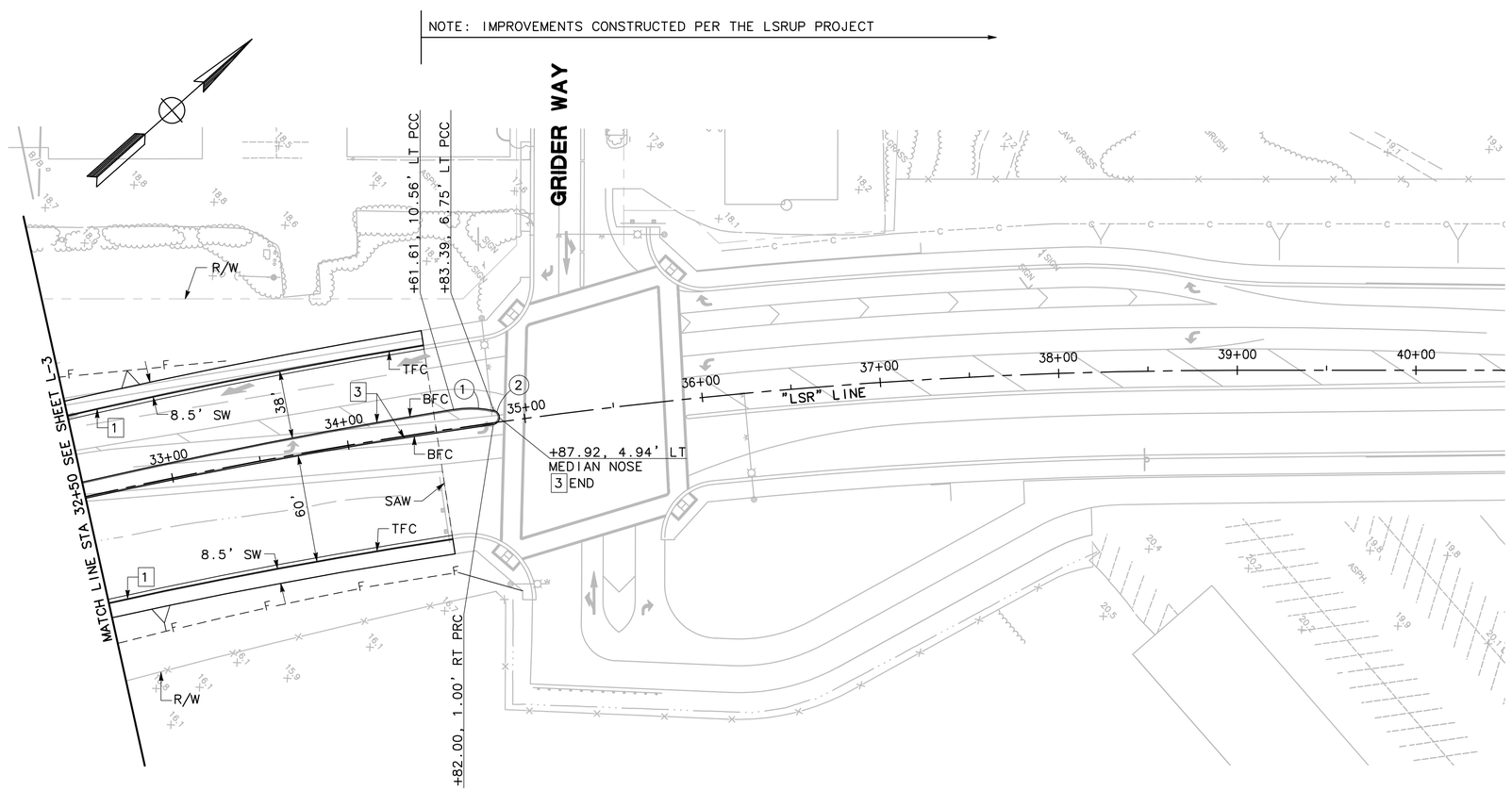
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
LAYOUT

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 13
DESIGNED BY:	DWM		L-3
DRAWN BY:	JMN, AMR, BES		OF 124 SHEETS
CHECKED BY:	MAS	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17
RECORD DWG:			



LOWER SACRAMENTO ROAD

CURVE DATA				
No.	RADIUS	Δ	LENGTH	TANGENT
1	60.00'	21°34'52"	22.60'	11.14'
2	4.00'	159°38'16"	11.14'	22.27'

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Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
LAYOUT
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'
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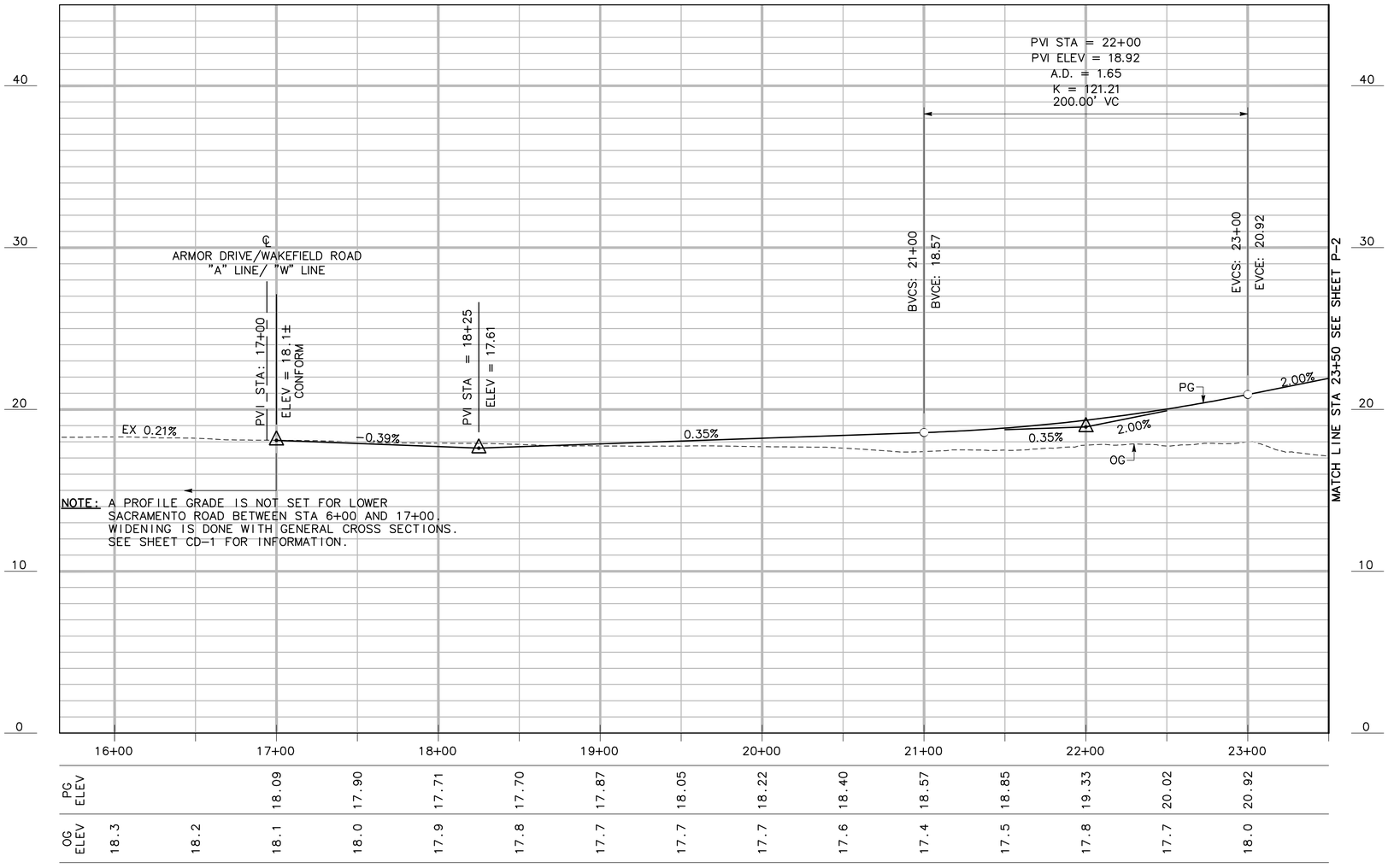
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 14
L-4
OF 124 SHEETS
PROJECT NO.
05-17



NOTE: A PROFILE GRADE IS NOT SET FOR LOWER SACRAMENTO ROAD BETWEEN STA 6+00 AND 17+00. WIDENING IS DONE WITH GENERAL CROSS SECTIONS. SEE SHEET CD-1 FOR INFORMATION.

PG ELEV			18.09	17.90	17.71	17.70	17.87	18.05	18.22	18.40	18.57	18.85	19.33	20.02	20.92
OG ELEV	18.3	18.2	18.1	18.0	17.9	17.8	17.7	17.7	17.7	17.6	17.4	17.5	17.8	17.7	18.0

PROFILE GRADE
"LSR" LINE

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ORIGINAL SCALE IN INCHES
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REGISTERED PROFESSIONAL ENGINEER
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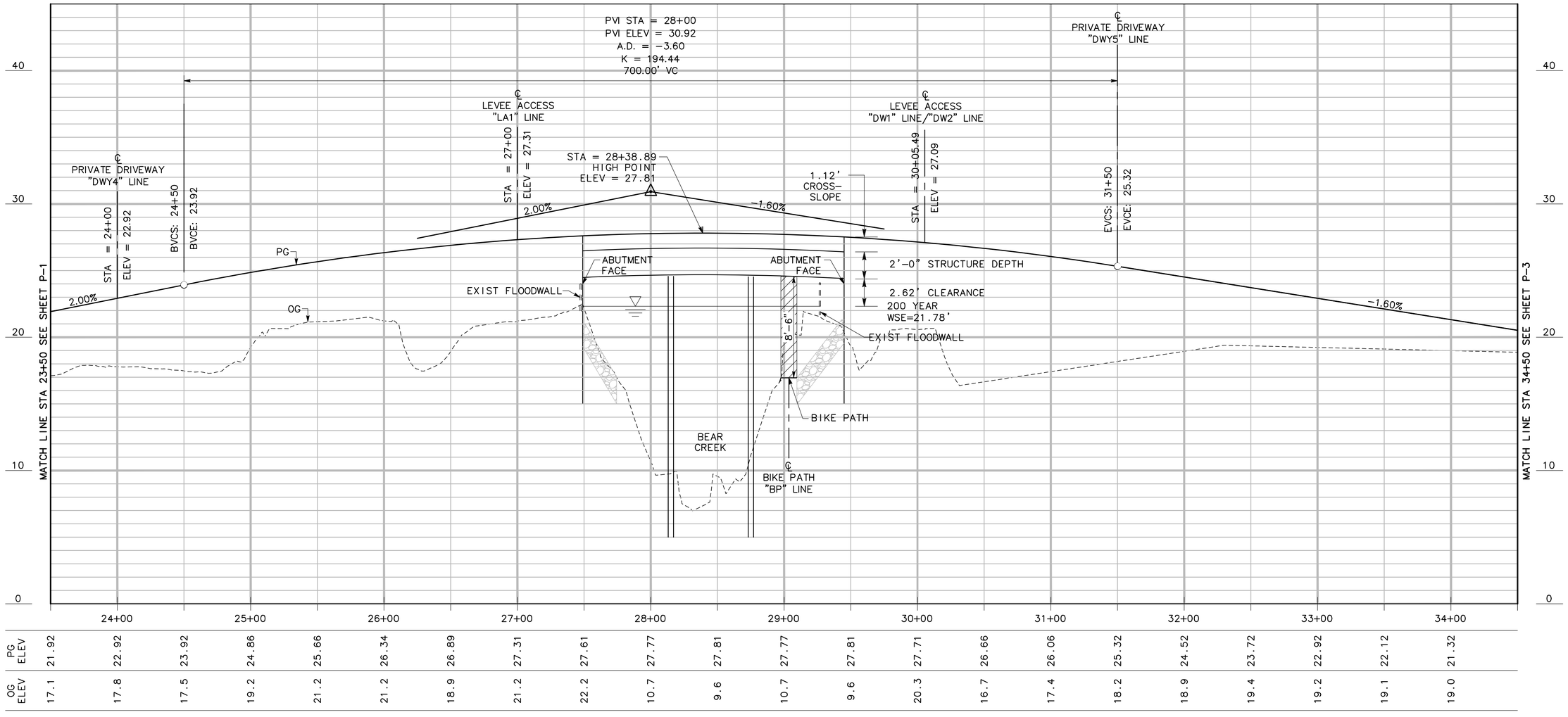
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
PROFILE
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: HOR: 1"=40' VER: 1"=4'	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: DWM	CITY ENGINEER STOCKTON, CALIFORNIA
DRAWN BY: JMN, AMR, BES	
CHECKED BY: MAS	
RECORD DWG:	

SHEET NO. 15
P-1
OF 124 SHEETS
PROJECT NO. 05-17



PG ELEV	21.92	22.92	23.92	24.86	25.66	26.34	26.89	27.31	27.61	27.77	27.81	27.77	27.81	27.71	26.66	26.06	25.32	24.52	23.72	22.92	22.12	21.32
OG ELEV	17.1	17.8	17.5	19.2	21.2	21.2	18.9	21.2	22.2	10.7	9.6	10.7	9.6	20.3	16.7	17.4	18.2	18.9	19.4	19.2	19.1	19.0

PROFILE GRADE
"LSR" LINE

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STATE OF CALIFORNIA

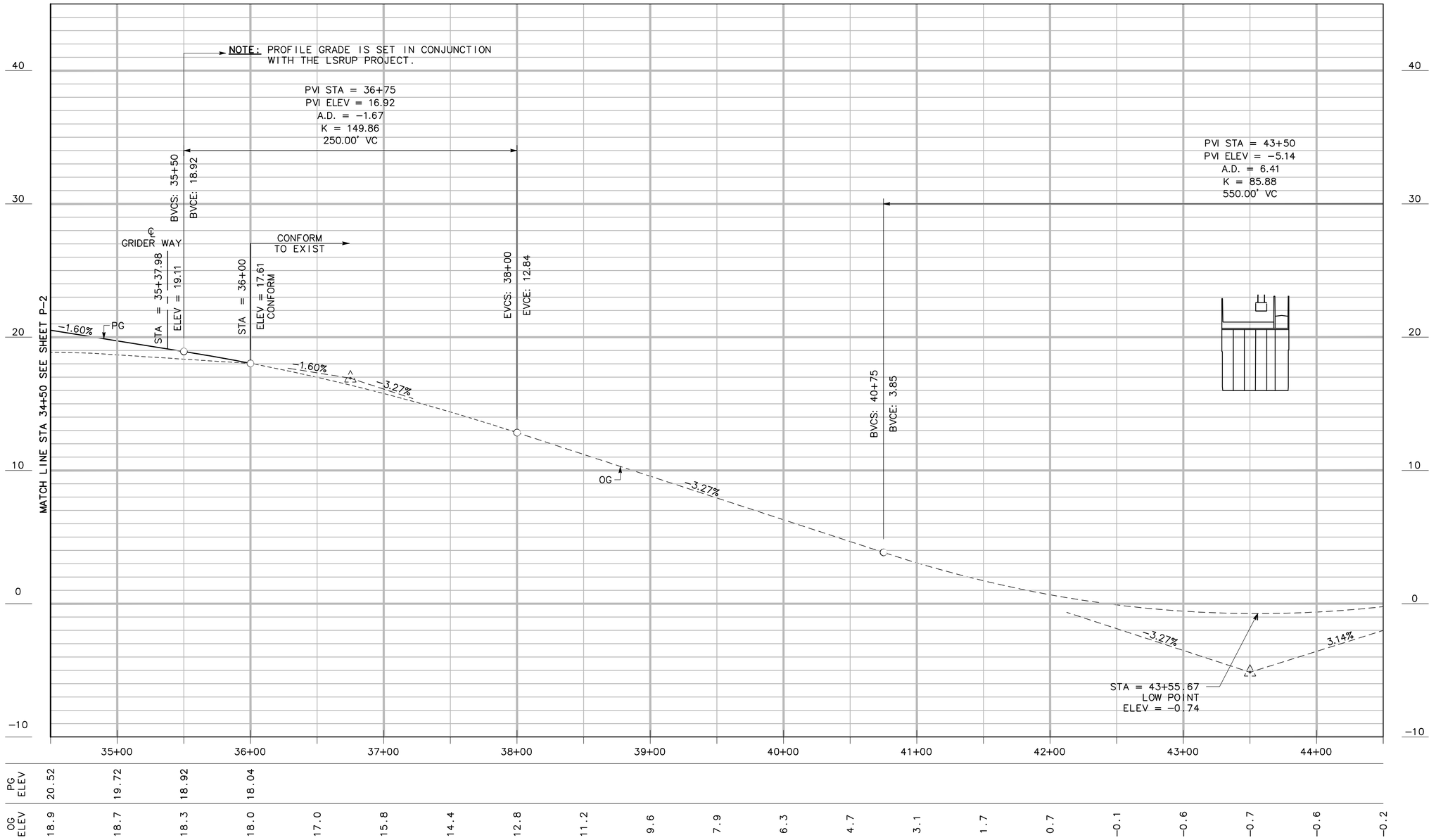
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
PROFILE
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: HOR: 1"=40' VER: 1"=4'
DESIGNED BY: DWM
DRAWN BY: JMN, AMR, BES
CHECKED BY: MAS
RECORD DWG:

APPROVED BY: JULY 12, 2010 DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 16
P−2
OF 124 SHEETS
PROJECT NO.
05−17



PROFILE GRADE
"LSR" LINE

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0 1 2 3

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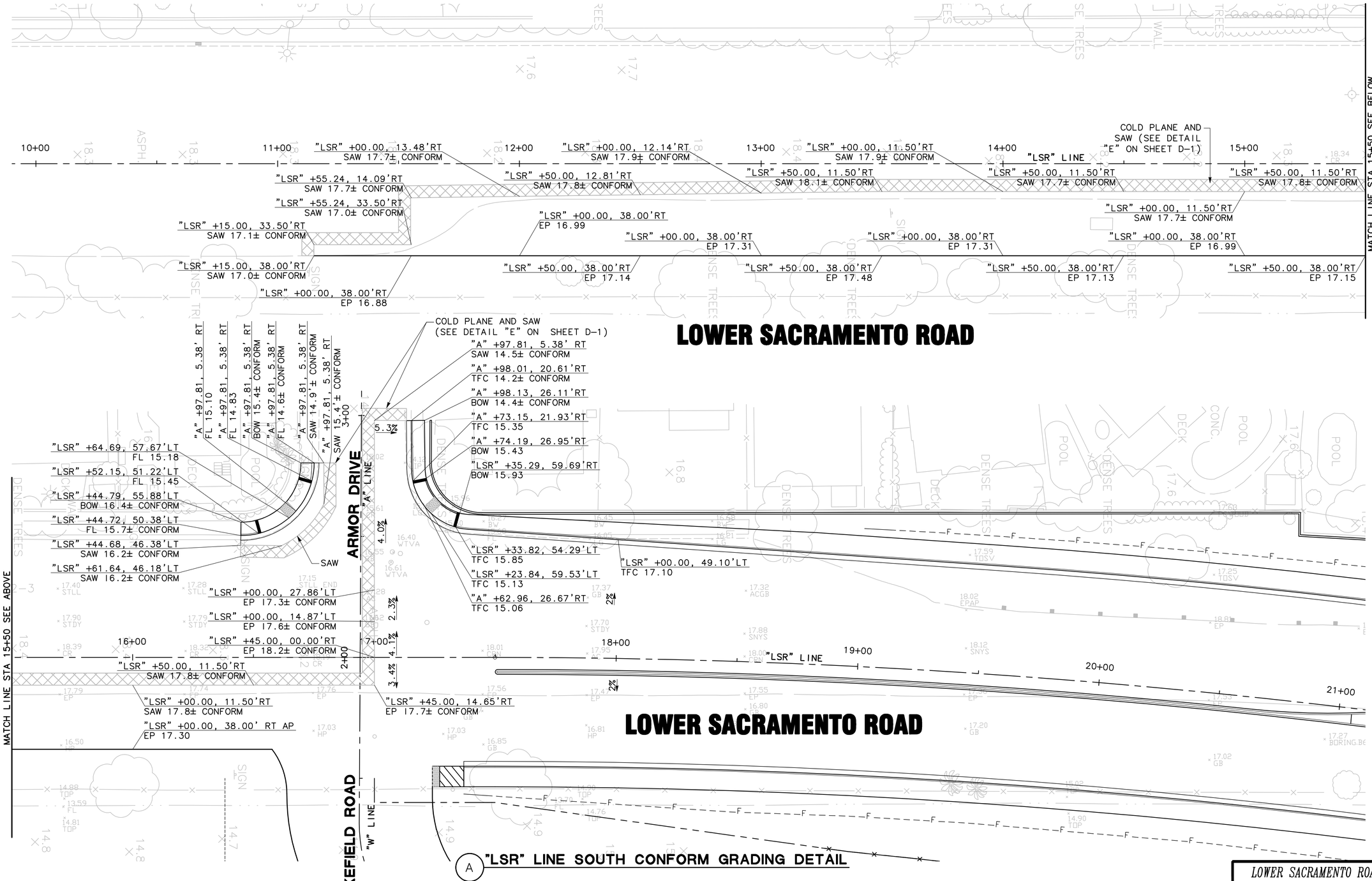
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
PROFILE
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: HOR: 1"=40' VER: 1"=4'	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: DWM	CITY ENGINEER STOCKTON, CALIFORNIA
DRAWN BY: JMN, AMR, BES	SHEET NO. 17 P-3 OF 124 SHEETS
CHECKED BY: MAS	PROJECT NO. 05-17
RECORD DWG:	



A "LSR" LINE SOUTH CONFORM GRADING DETAIL

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FOR REDUCED PLAN
0 1 2 3

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No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By
–				

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
CONSTRUCTION DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=20'
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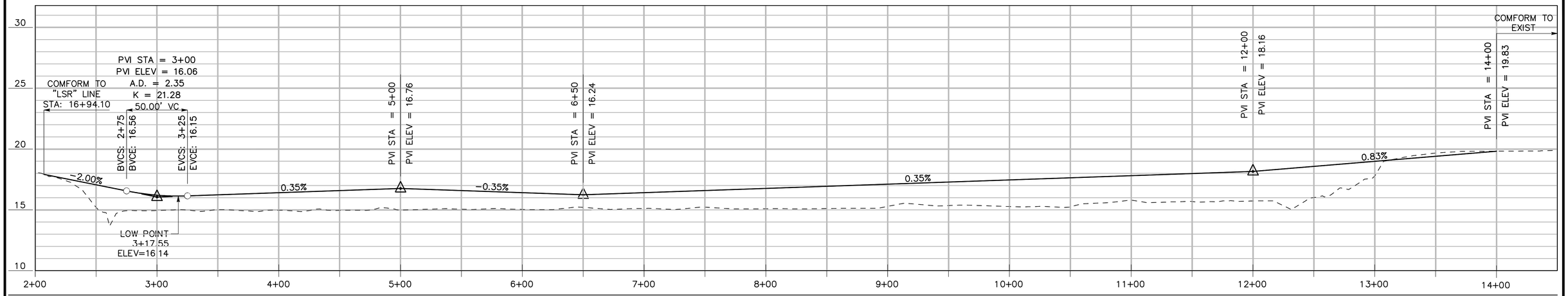
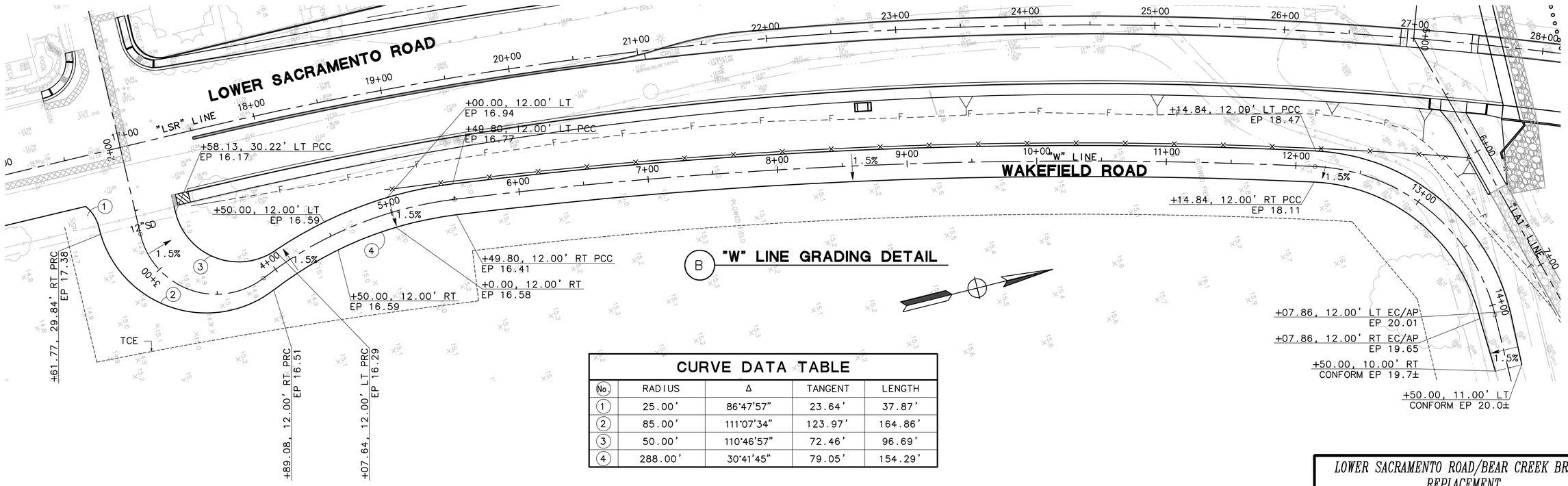
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 18
CD-1
OF 124 SHEETS
PROJECT NO.
05-17



PG ELEV 22.92	15.2	15.0	15.0	15.0	15.0	15.0	15.1	15.0	15.2	15.1	15.2	15.1	15.1	15.3	15.4	15.3	15.3	15.8	15.7	15.7	16.0	17.8	19.7	19.8
OG ELEV 17.8	17.06	16.21	16.24	16.41	16.59	16.76	16.59	16.45	16.14	16.41	16.59	16.76	16.94	17.11	17.29	17.46	17.64	17.81	17.99	18.16	18.58	18.99	19.41	19.83



B "W" LINE GRADING DETAIL

CURVE DATA TABLE

No.	RADIUS	Δ	TANGENT	LENGTH
1	25.00'	86°47'57"	23.64'	37.87'
2	85.00'	111°07'34"	123.97'	164.86'
3	50.00'	110°46'57"	72.46'	96.69'
4	288.00'	30°41'45"	79.05'	154.29'

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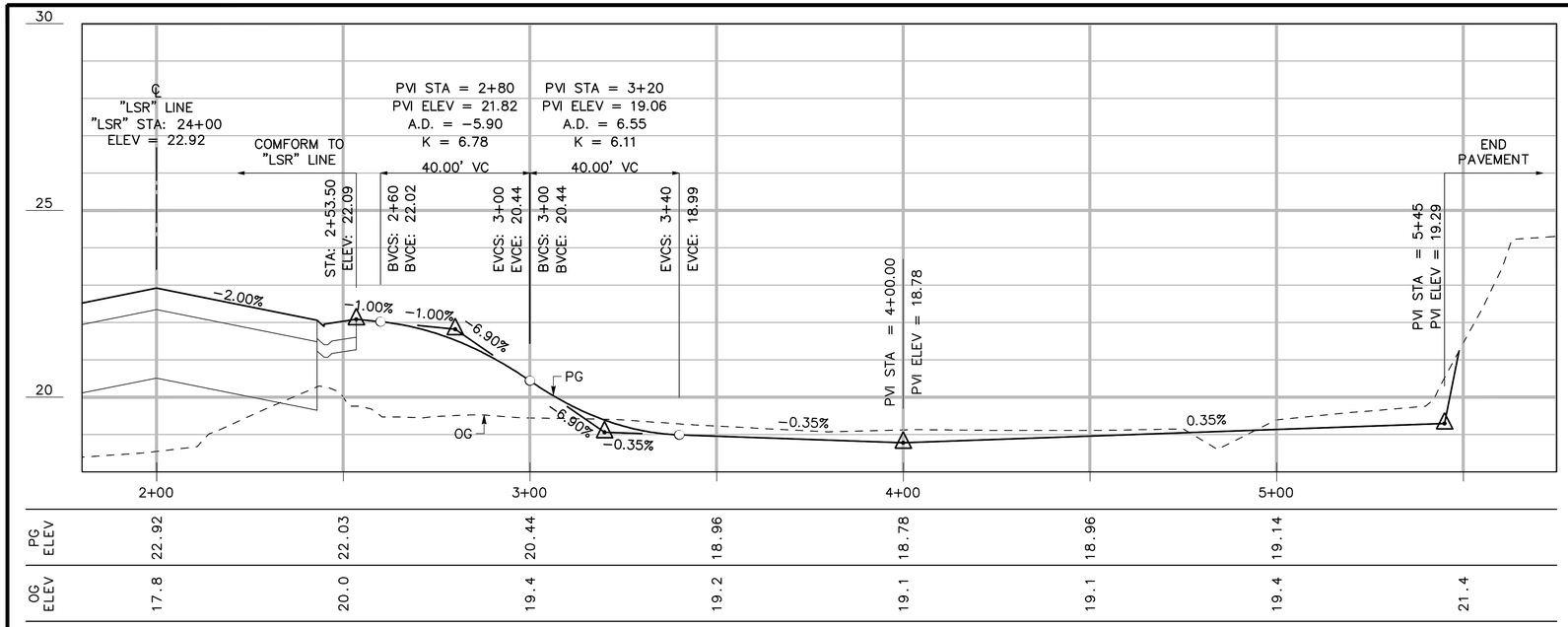
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

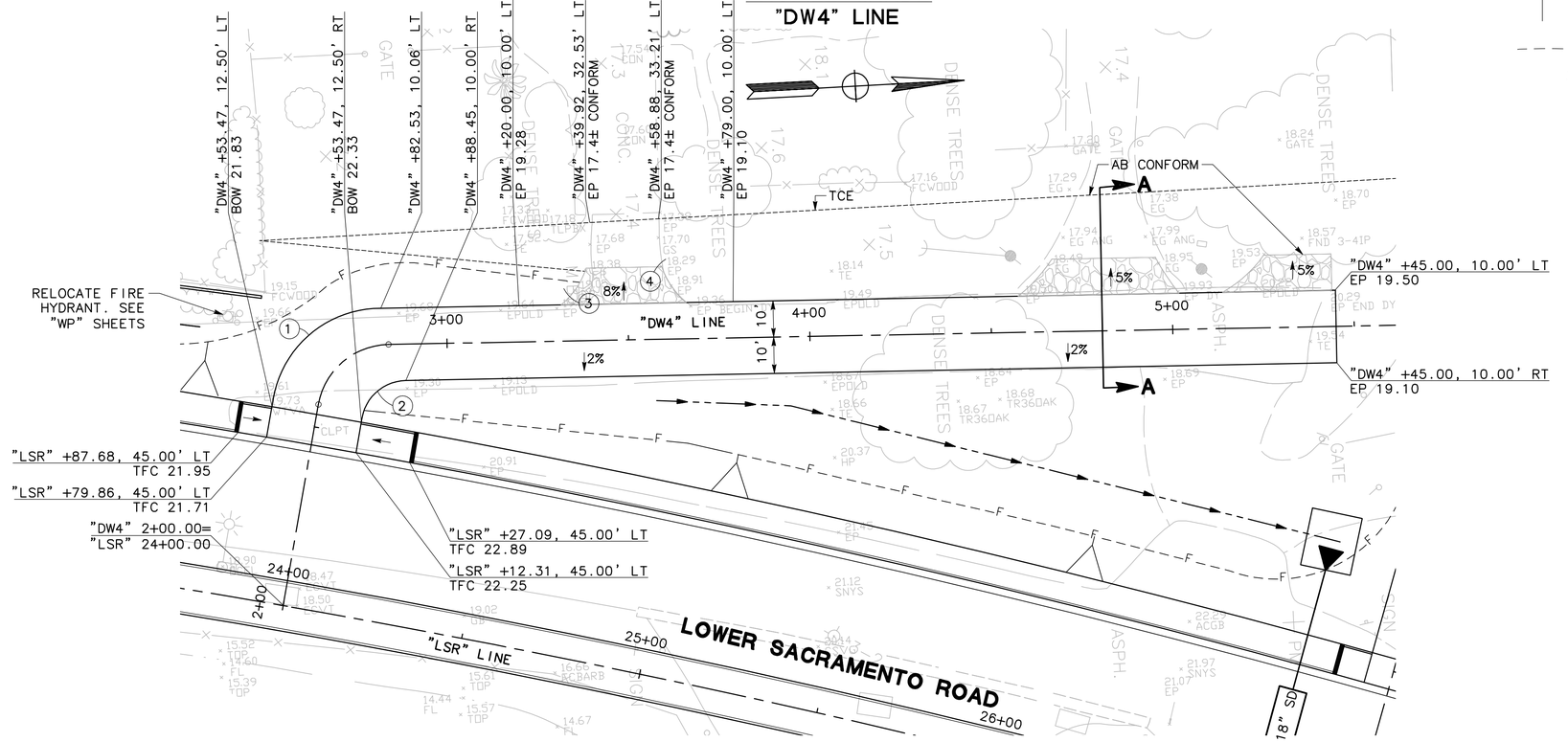
LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
CONSTRUCTION DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: HORIZ 1"=40' VERT 1"=4'	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: DWM	CITY ENGINEER STOCKTON, CALIFORNIA
DRAWN BY: JMN, AMR, BES	SHEET NO. 19
CHECKED BY: MAS	CD-2
RECORD DWG:	OF 124 SHEETS
	PROJECT NO. 05-17



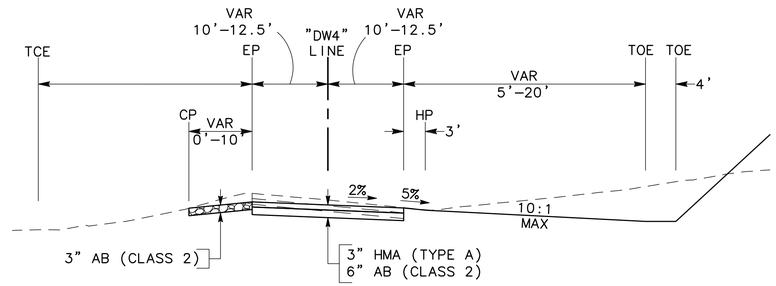
PG ELEV	22.92	22.03	20.44	18.96	18.78	18.96	19.14	
OG ELEV	17.8	20.0	19.4	19.2	19.1	19.1	19.4	21.4

PROFILE GRADE "DW4" LINE



"DW4" LINE GRADING DETAIL

ORIGINAL SCALE IN INCHES FOR REDUCED PLAN
0 1 2 3



SECTION A-A
NTS

CURVE DATA TABLE

No.	RADIUS	Δ	TANGENT	LENGTH
1	30.00'	80°05'07"	41.93'	41.93'
2	10.00'	78°59'31"	10.30'	17.23'
3	20.00'	92°02'36"	20.73'	32.13'
4	20.00'	87°57'24"	19.30'	30.70'

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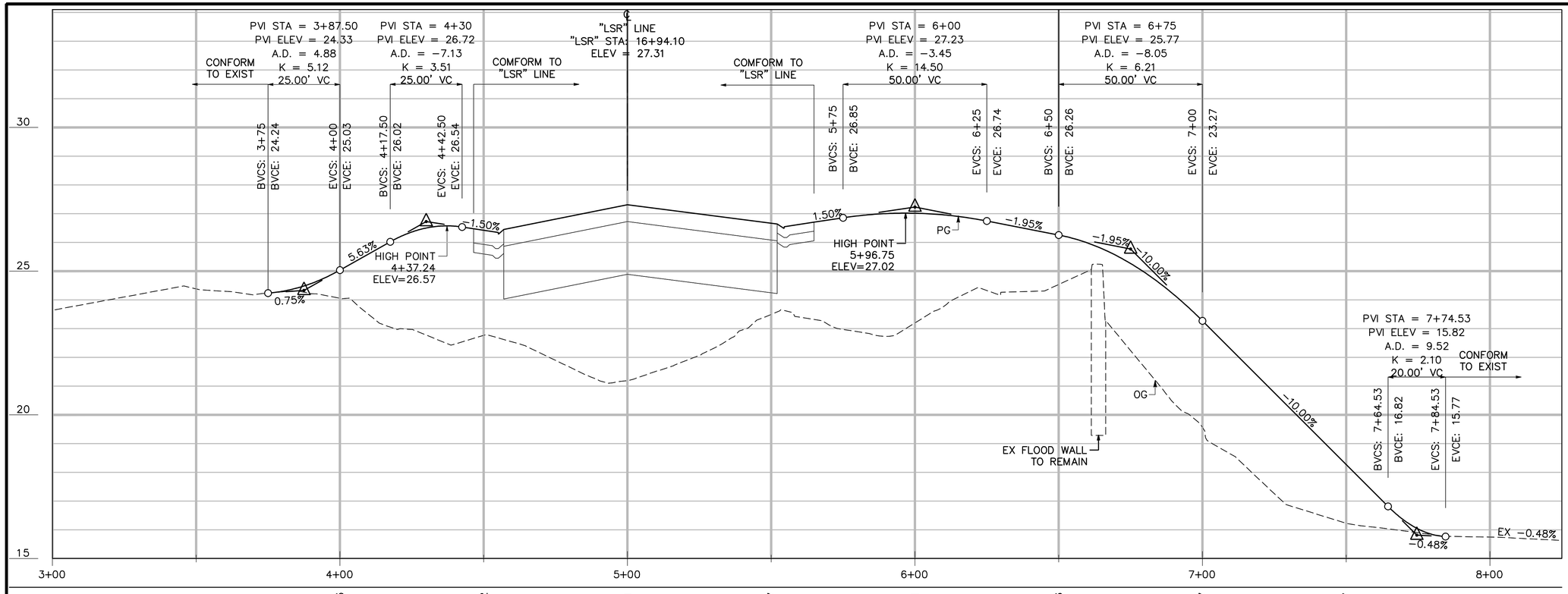
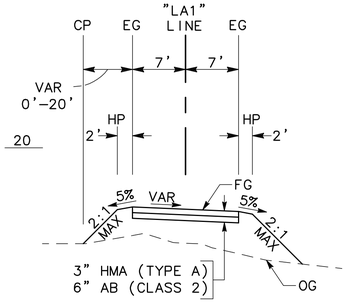
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
CONSTRUCTION DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

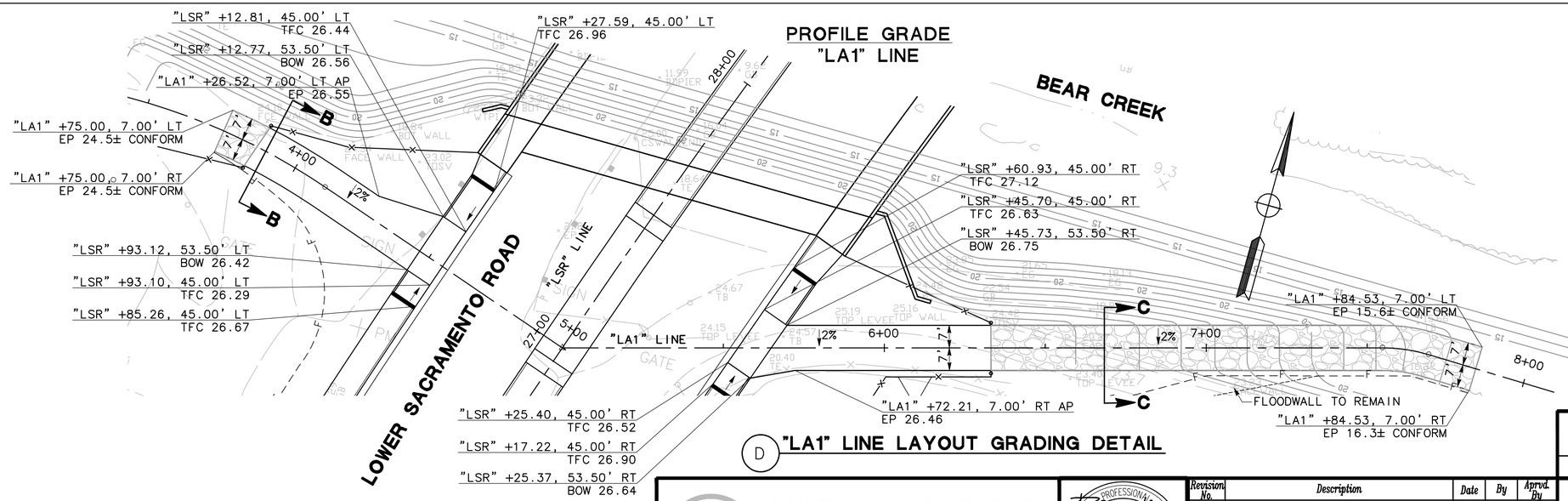
SCALE: HORIZ 1"=20' VERT 1"=2'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 20
DESIGNED BY: DWM		CD-3
DRAWN BY: JMN, AMR, BES	CITY ENGINEER	OF 124 SHEETS
CHECKED BY: MAS	STOCKTON, CALIFORNIA	PROJECT NO.
RECORD DWG:		05-17



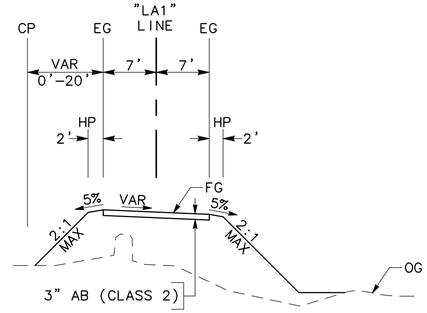
PG ELEV		25.03	26.42	27.31	26.67	27.01	26.26	23.27	18.27
OG ELEV	23.6	24.4	24.1	22.8	21.2	23.5	23.2	24.5	19.6	16.2	15.7



SECTION B-B
NTS



"LA1" LINE LAYOUT GRADING DETAIL



SECTION C-C
NTS

BEFORE EXCAVATING
CALL U.S.A.
UNDERGROUND SERVICE ALERT
800−227−2600
TOLL FREE
2 WORKING DAYS BEFORE ALL
PLANNED WORK OPERATIONS

CALL BEFORE YOU DIG
800−227−2600

UNION PACIFIC
CALL BEFORE YOU DIG
800−336−9193

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

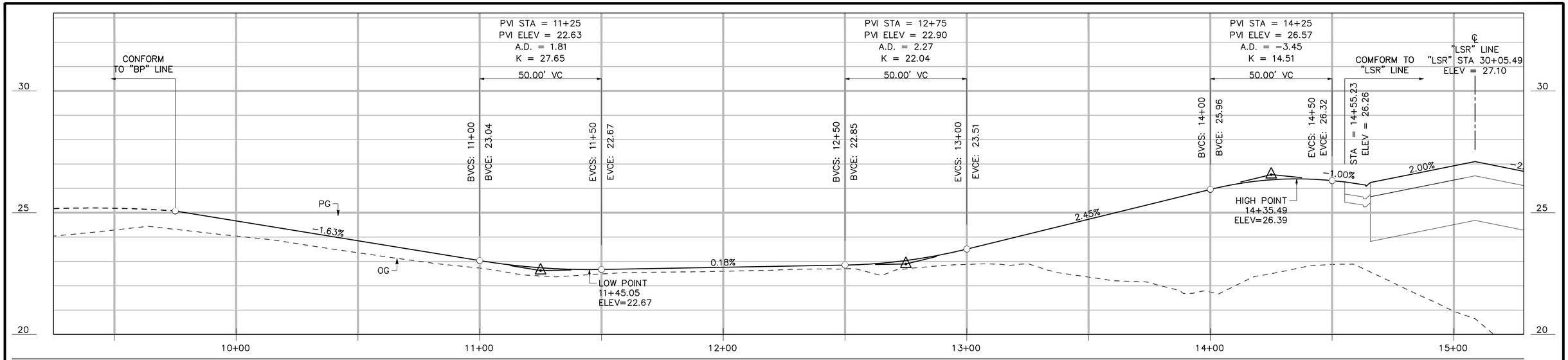
MARK THOMAS & COMPANY, INC.
7300 FOLSOM BOULEVARD, SUITE 203
SACRAMENTO, CALIFORNIA 95826
(916) 381−9100 FAX: (916) 381−9180
WWW.MARKTHOMAS.COM
MTCO JOB NUMBER: 57−0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
CONSTRUCTION DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: HORIZ 1"=20' VERT 1"=2'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 21	
DESIGNED BY: DWM		CD-4	
DRAWN BY: JMN, AMR, BES		OF 124 SHEETS	
CHECKED BY: MAS	CITY ENGINEER	PROJECT NO.	
RECORD DWG:	STOCKTON, CALIFORNIA	05-17	



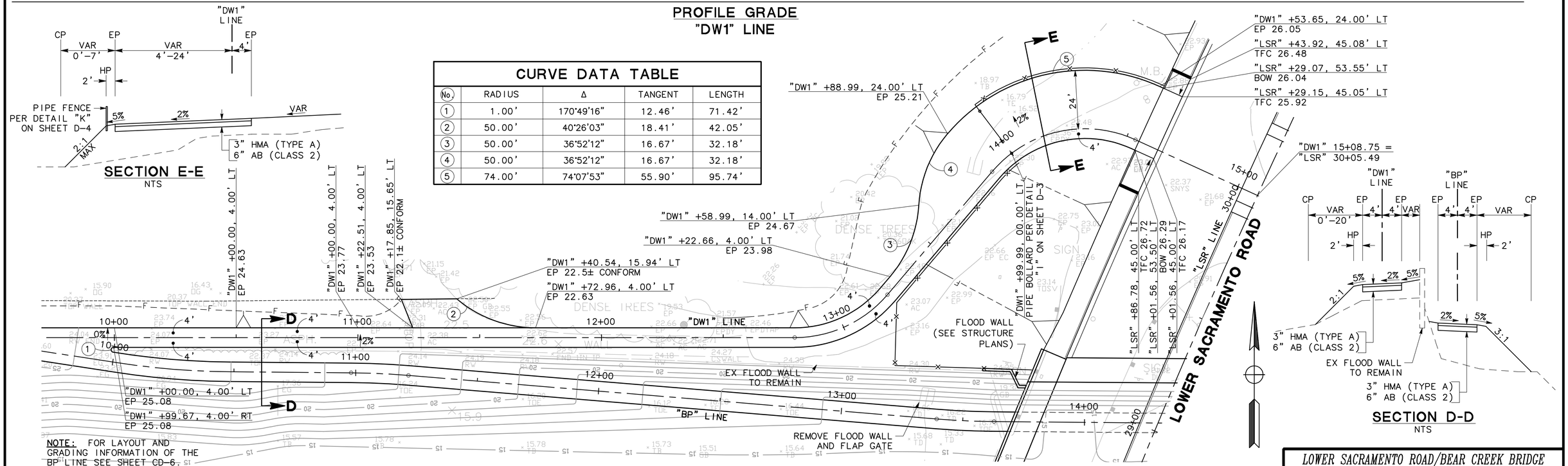
PG ELEV		24.67	23.85	23.04	22.67	22.76	22.85	23.51	24.73	25.96	26.32	26.93
OG ELEV	24.3	24.0	23.4	22.7	22.5	22.6	22.7	22.9	22.4	21.7	22.9	21.0

PROFILE GRADE "DW1" LINE

SECTION E-E
NTS

CURVE DATA TABLE

No.	RADIUS	Δ	TANGENT	LENGTH
1	1.00'	170°49'16"	12.46'	71.42'
2	50.00'	40°26'03"	18.41'	42.05'
3	50.00'	36°52'12"	16.67'	32.18'
4	50.00'	36°52'12"	16.67'	32.18'
5	74.00'	74°07'53"	55.90'	95.74'



NOTE: FOR LAYOUT AND GRADING INFORMATION OF THE BP LINE SEE SHEET CD-6.

(E) "DW1" LINE LAYOUT & GRADING DETAIL

SECTION D-D
NTS

BEFORE EXCAVATING
CALL U.S.A.
UNDERGROUND SERVICE ALERT
800-227-2600
TOLL FREE
2 WORKING DAYS BEFORE ALL PLANNED WORK OPERATIONS

CALL BEFORE YOU DIG 811 800-227-2600

UNION PACIFIC
CALL BEFORE YOU DIG
800-336-9193

ORIGINAL SCALE IN INCHES FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
7300 FOLSOM BOULEVARD, SUITE 203
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180
WWW.MARKTHOMAS.COM
MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
CONSTRUCTION DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: HORIZ 1"=20' VERT 1"=2'	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: DWM	CITY ENGINEER STOCKTON, CALIFORNIA
DRAWN BY: JMN, AMR, BES	SHEET NO. 22 CD-5
CHECKED BY: MAS	OF 124 SHEETS
RECORD DWG:	PROJECT NO. 05-17

PVI STA = 8+25
PVI ELEV = 23.90
A.D. = 1.42
K = 35.33
50.00' VC

PVI STA = 10+00
PVI ELEV = 27.12
A.D. = −6.11
K = 49.11
300.00' VC

450' VC

CONFORM TO EXIST
STA: 7+25.00
ELEV: 23.5±

BVCS: 8+00
BVCE: 23.79

BVCS: 8+50
BVCE: 24.36

EVCS: 8+50
EVCE: 24.36

0.43%
1.84%
−4.27%

9+40.51
HIGH POINT
ELEV=25.19

TOP OF WALL: 24.07

PG
OG

EVCS: 11+50
EVCE: 20.73

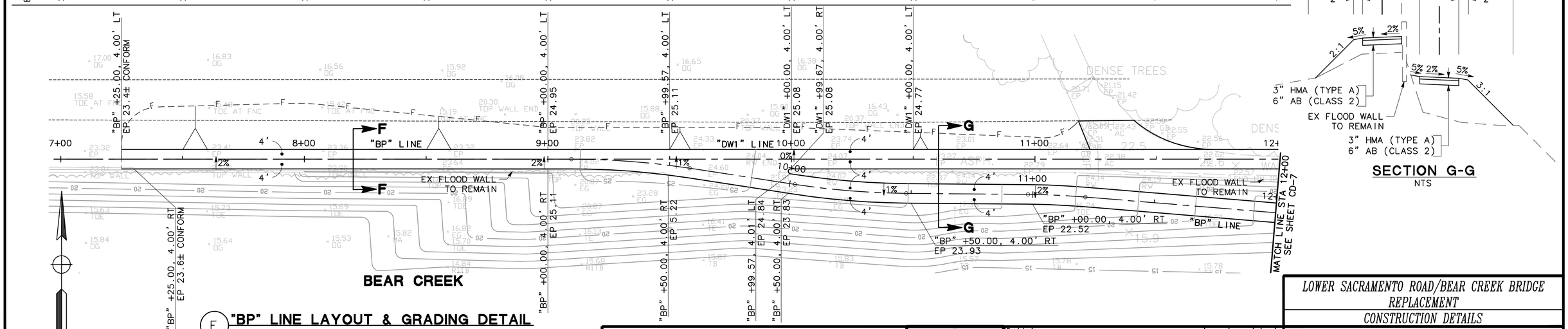
BVCS: 11+75
BVCE: 19.66

−4.27%

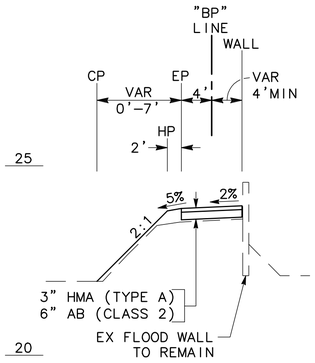
MATCH LINE STA 12+00 SEE SHEET CD-7

PROFILE GRADE
"BP" LINE

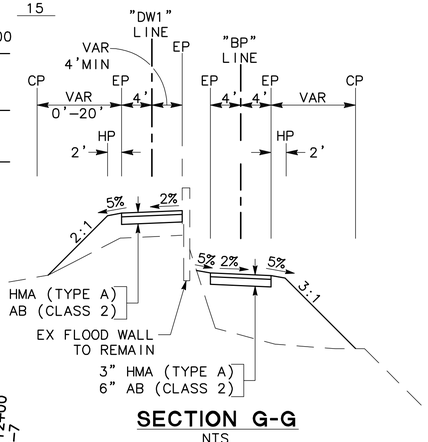
	7+00	8+00	9+00	10+00	11+00	12+00
PG ELEV	23.58	23.79	24.36	25.03	25.18	24.83	23.97	22.60	20.73	18.65
OG ELEV	23.4	23.5	23.5	23.5	23.9	24.3	22.7	20.6	19.5	18.7	17.9



"BP" LINE LAYOUT & GRADING DETAIL



SECTION F-F
NTS



SECTION G-G
NTS

BEFORE EXCAVATING
CALL U.S.A.
UNDERGROUND SERVICE ALERT
800-227-2600
TOLL FREE
2 WORKING DAYS BEFORE ALL
PLANNED WORK OPERATIONS

CALL BEFORE YOU DIG 800-227-2600

UNION PACIFIC
CALL BEFORE YOU DIG
800-336-9193

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
7300 FOLSOM BOULEVARD, SUITE 203
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180
WWW.MARKTHOMAS.COM

MTCO JOB NUMBER: 57-0221B

PROFESSIONAL ENGINEER
REGISTERED
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
CONSTRUCTION DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: HORIZ 1"=20' VERT 1"=2'	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: DWM	CITY ENGINEER STOCKTON, CALIFORNIA
DRAWN BY: JMN, AMR, BES	SHEET NO. 23
CHECKED BY: MAS	CD-6
RECORD DWG:	OF 124 SHEETS
	PROJECT NO. 05-17

PVI STA = 14+00
PVI ELEV = 10.06
A.D. = 8.77
K = 51.34
450.00' VC

400' VC

LOWER SACRAMENTO ROAD

8'-6" CLEARANCE ENVELOPE

62' 62'

EVCS: 16+25
EVCE: 20.19

BVCS: 16+50
BVCE: 21.31

4.50%

PG

OG

13+93.98
LOW POINT
ELEV=14.99

-4.27%

4.50%

MATCH LINE STA 12+00 SEE SHEET CD-6

MATCH LINE STA 16+75 SEE SHEET CD-8

PROFILE GRADE
"BP" LINE

	12+00	13+00	14+00	15+00	16+00
PG ELEV	18.65	17.01	15.85	15.18	14.99
OG ELEV	17.9	17.0	16.4	16.8	22.0

PG ELEV	15.29	16.08	17.36	19.12	21.31
OG ELEV	16.9	16.7	19.2	20.9	18.0

SECTION H-H
NTS

F "BP" LINE LAYOUT & GRADING DETAIL

BEFORE EXCAVATING
CALL U.S.A.
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800-227-2600
TOLL FREE
2 WORKING DAYS BEFORE ALL
PLANNED WORK OPERATIONS

CALL BEFORE YOU DIG
800-227-2600

UNION PACIFIC
CALL BEFORE YOU DIG
800-336-9193

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
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SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180
WWW.MARKTHOMAS.COM

MTCO JOB NUMBER: 57-0221B

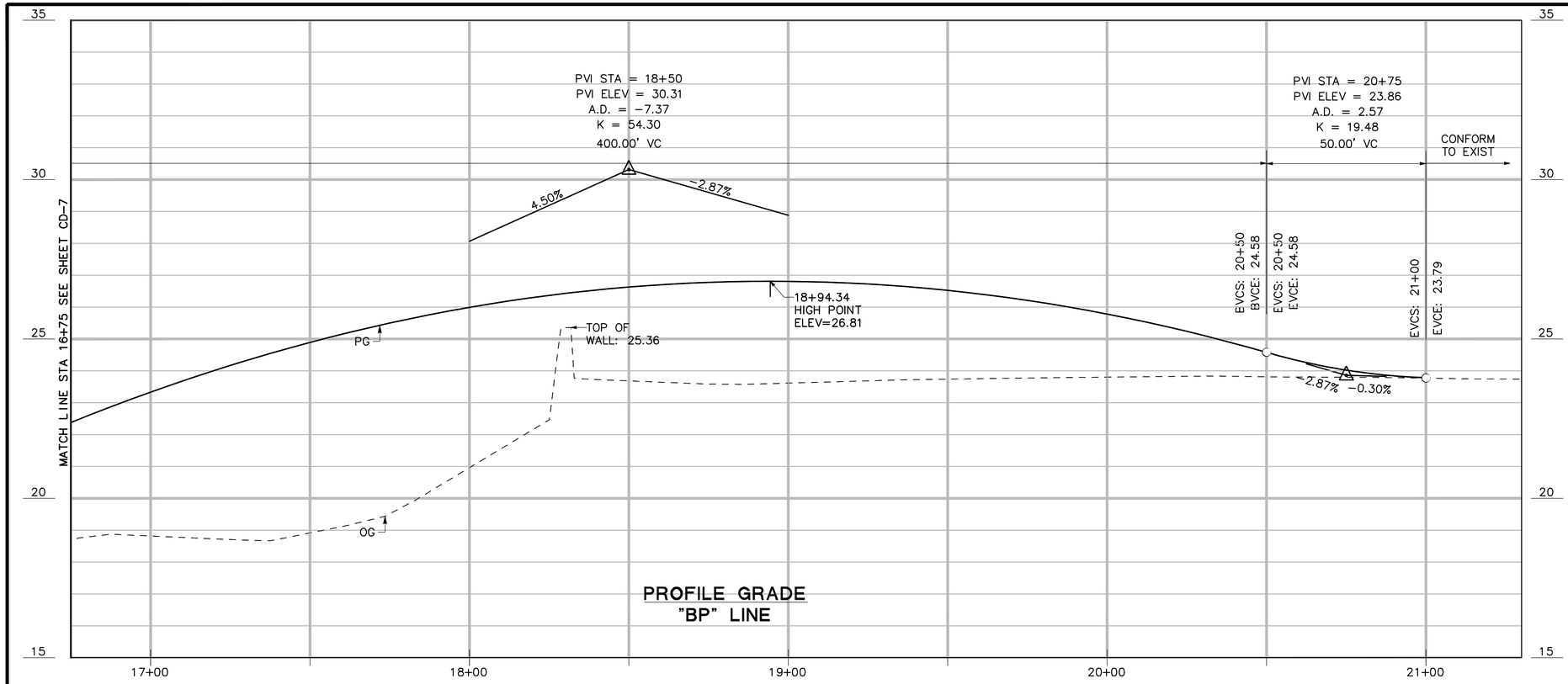
REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
CONSTRUCTION DETAILS

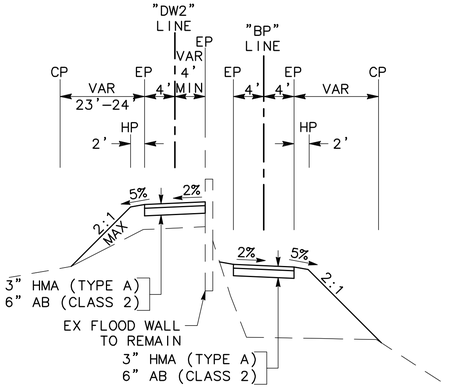
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: HORIZ 1"=20' VERT 1"=2'	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: DWM	CITY ENGINEER STOCKTON, CALIFORNIA
DRAWN BY: JMN, AMR, BES	SHEET NO. 24
CHECKED BY: MAS	CD-7
RECORD DWG:	OF 124 SHEETS
	PROJECT NO. 05-17

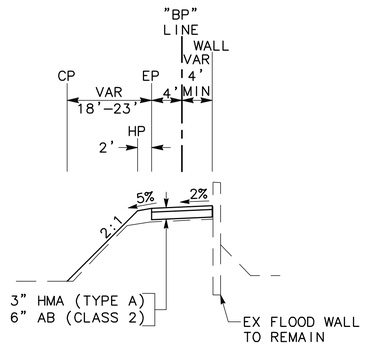


PROFILE GRADE
"BP" LINE

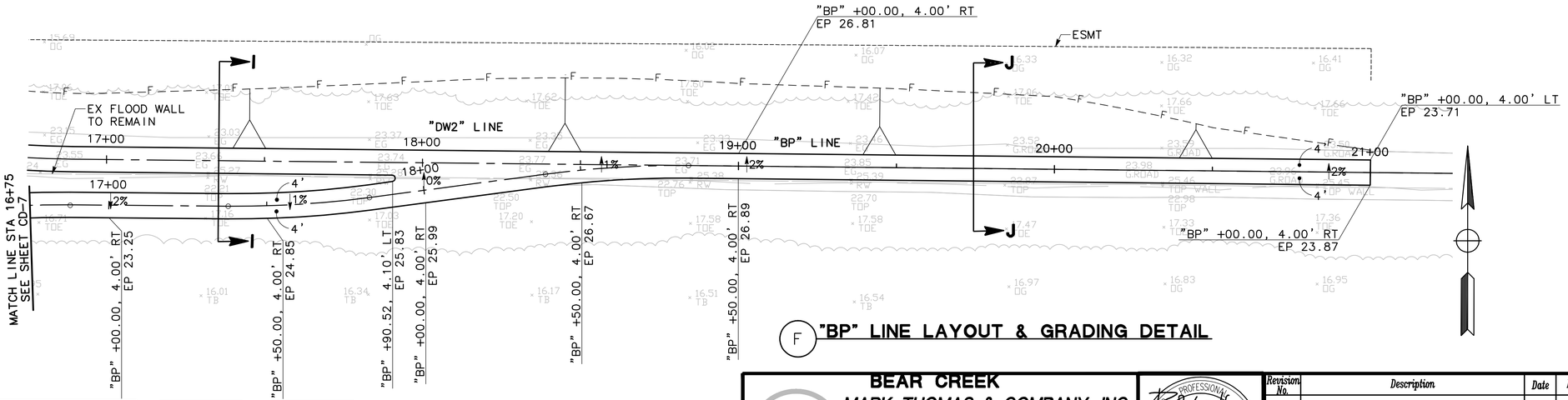
PG ELEV	23.33	24.89	25.99	26.63	26.81	26.52	25.78	24.58	23.79
OG ELEV	18.8	18.9	21.0	23.7	23.6	23.7	23.8	23.8	23.8



SECTION I-I
NTS



SECTION J-J
NTS



(F) "BP" LINE LAYOUT & GRADING DETAIL

BEFORE EXCAVATING
CALL U.S.A.
UNDERGROUND SERVICE ALERT
800-227-2600
TOLL FREE
2 WORKING DAYS BEFORE ALL
PLANNED WORK OPERATIONS

CALL BEFORE YOU DIG 800-227-2600

UNION PACIFIC
CALL BEFORE YOU DIG
800-336-9193

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

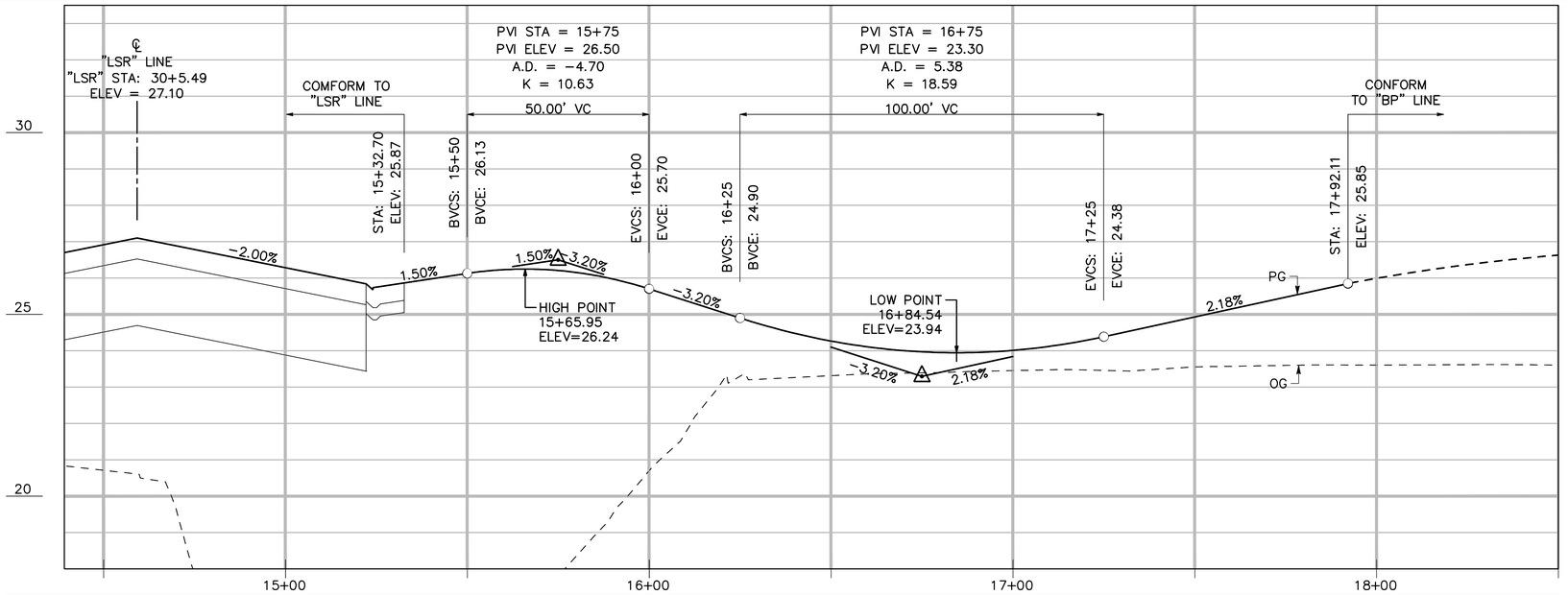
BEAR CREEK
MARK THOMAS & COMPANY, INC.
7300 FOLSOM BOULEVARD, SUITE 203
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180
WWW.MARKTHOMAS.COM
MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

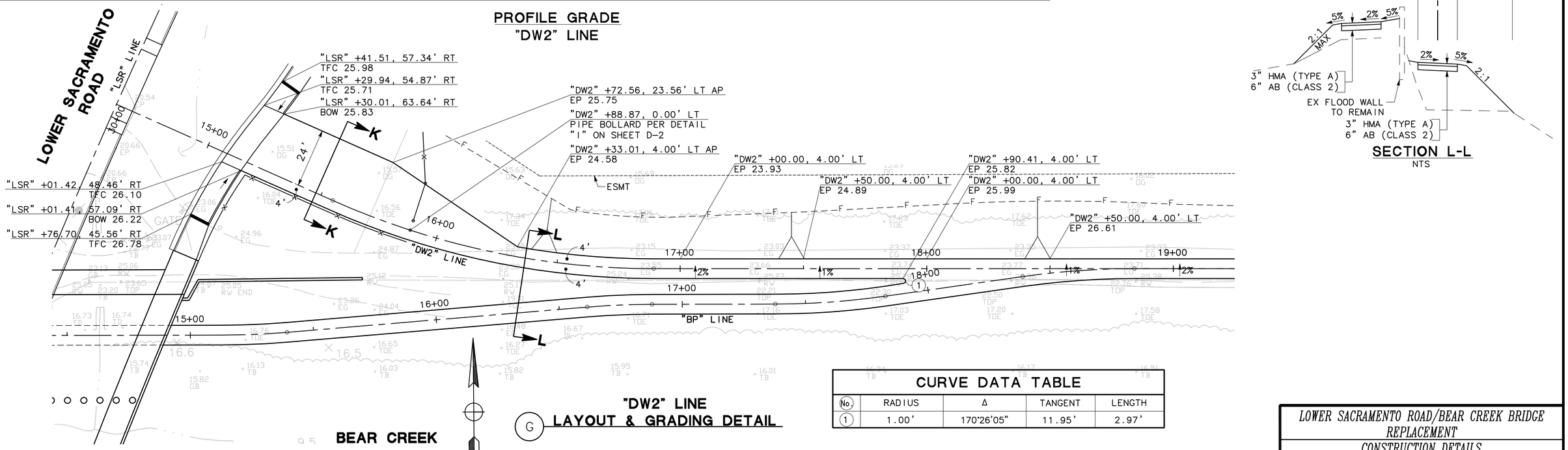
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
CONSTRUCTION DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: HORIZ 1"=20' VERT 1"=2'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 25	
DESIGNED BY: DWM		CD-8	
DRAWN BY: JMN, AMR, BES	CITY ENGINEER	OF 124 SHEETS	
CHECKED BY: MAS	STOCKTON, CALIFORNIA	PROJECT NO. 05-17	
RECORD DWG:			

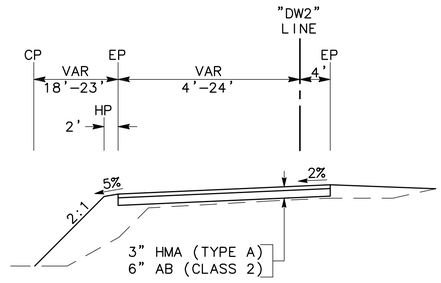


PROFILE GRADE
"DW2" LINE

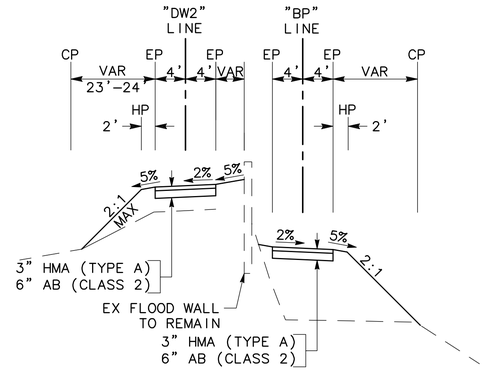


"DW2" LINE LAYOUT & GRADING DETAIL
(G)

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3



SECTION K-K
NTS



SECTION L-L
NTS

CURVE DATA TABLE

No.	RADIUS	Δ	TANGENT	LENGTH
1	1.00'	170°26'05"	11.95'	2.97'

BEFORE EXCAVATING
CALL U.S.A.
UNDERGROUND SERVICE ALERT
800-227-2600
TOLL FREE
2 WORKING DAYS BEFORE ALL
PLANNED WORK OPERATIONS

CALL BEFORE YOU DIG
800-227-2600

UNION PACIFIC
CALL BEFORE YOU DIG
800-336-9193

MARK THOMAS & COMPANY, INC.
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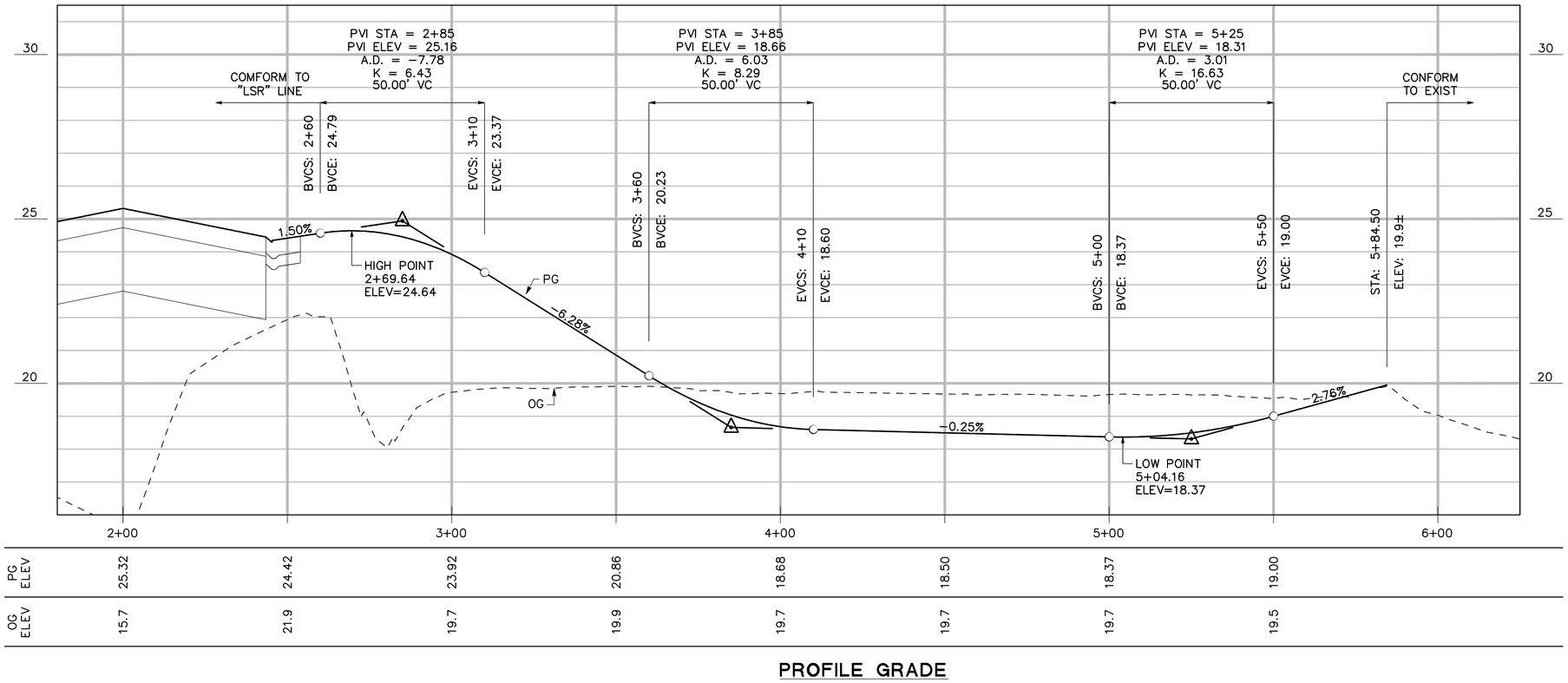
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180
WWW.MARKTHOMAS.COM
MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

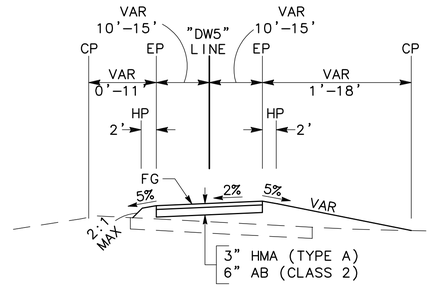
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
CONSTRUCTION DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

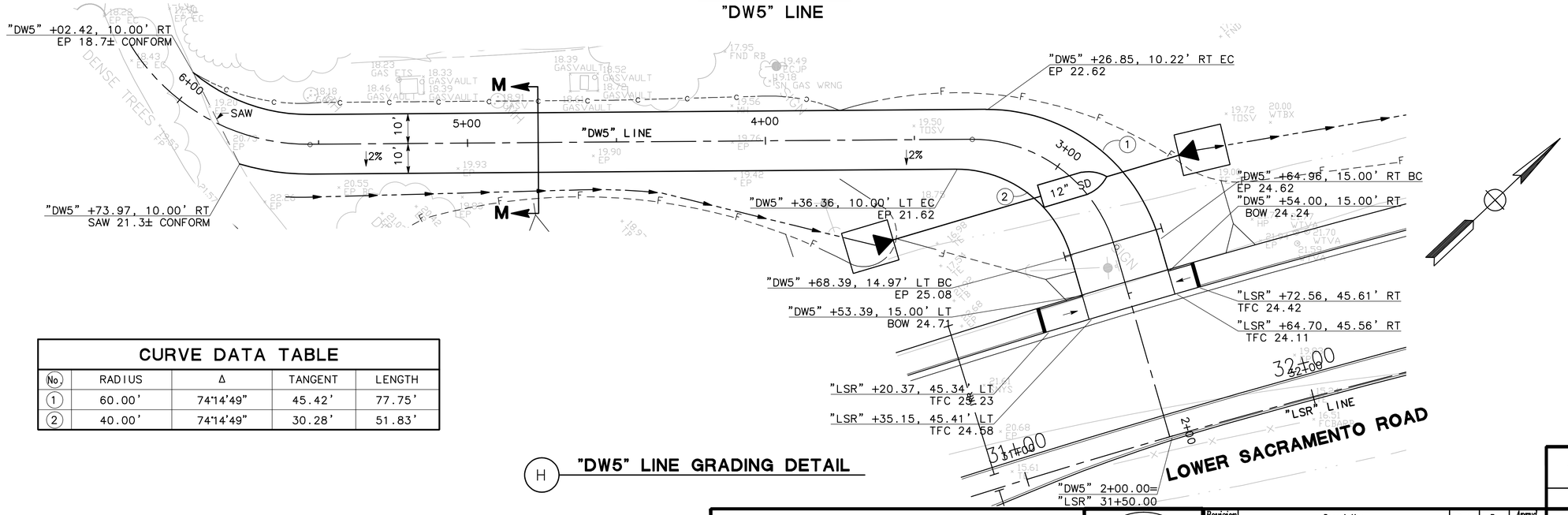
SCALE: HORIZ 1"=20' VERT 1"=2'	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: DWM	CITY ENGINEER STOCKTON, CALIFORNIA
DRAWN BY: JMN, AMR, BES	SHEET NO. 26 CD-9
CHECKED BY: MAS	OF 124 SHEETS
RECORD DWG:	PROJECT NO. 05-17



PROFILE GRADE
"DW5" LINE



SECTION M-M
NTS



"DW5" LINE GRADING DETAIL (H)

CURVE DATA TABLE				
No.	RADIUS	Δ	TANGENT	LENGTH
1	60.00'	74°14'49"	45.42'	77.75'
2	40.00'	74°14'49"	30.28'	51.83'

BEFORE EXCAVATING
CALL U.S.A.
UNDERGROUND SERVICE ALERT
800-227-2600
TOLL FREE
2 WORKING DAYS BEFORE ALL
PLANNED WORK OPERATIONS

CALL BEFORE YOU DIG 800-227-2600

UNION PACIFIC
CALL BEFORE YOU DIG
800-336-9193

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
7300 FOLSOM BOULEVARD, SUITE 203
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180
WWW.MARKTHOMAS.COM
MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

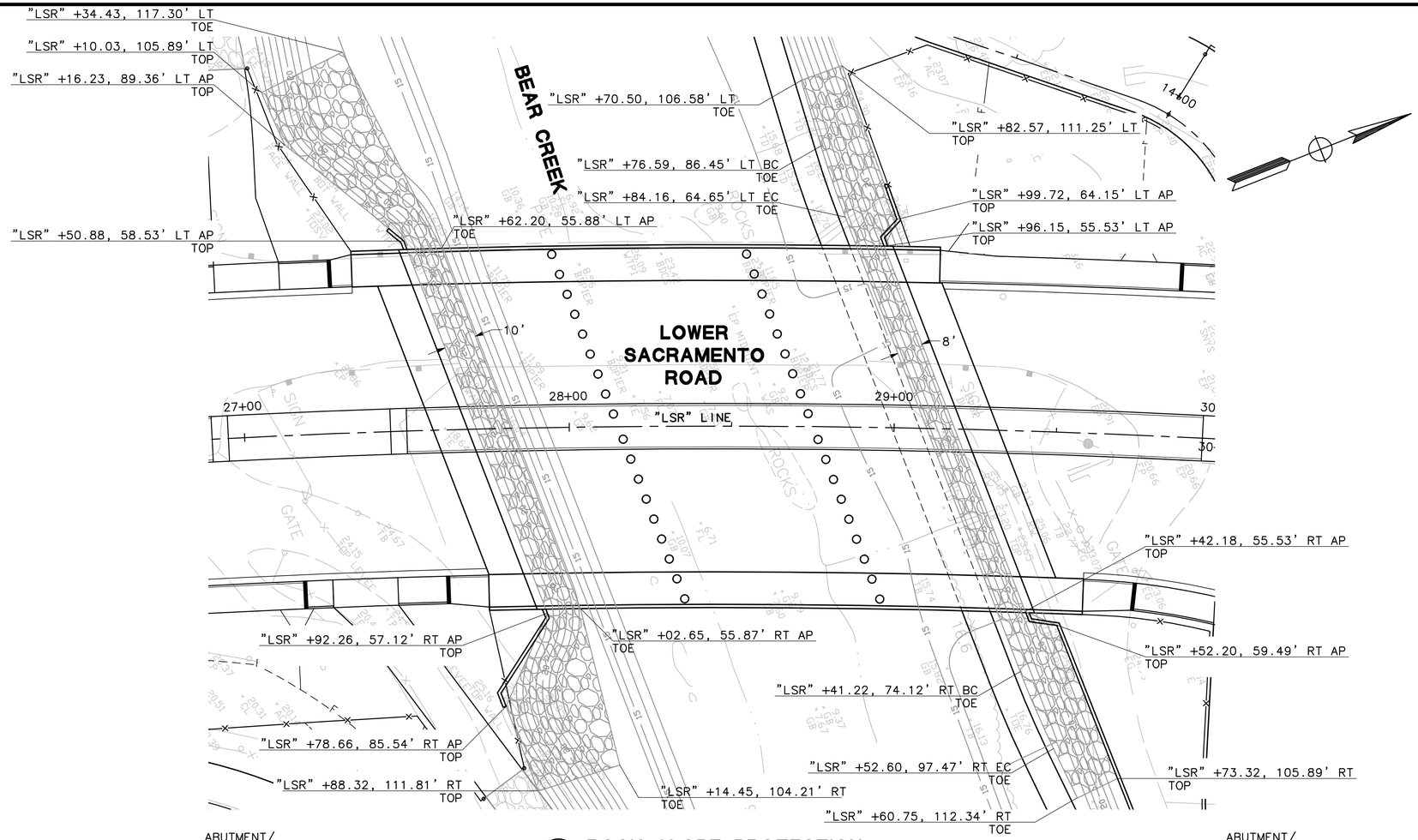
LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
CONSTRUCTION DETAILS

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

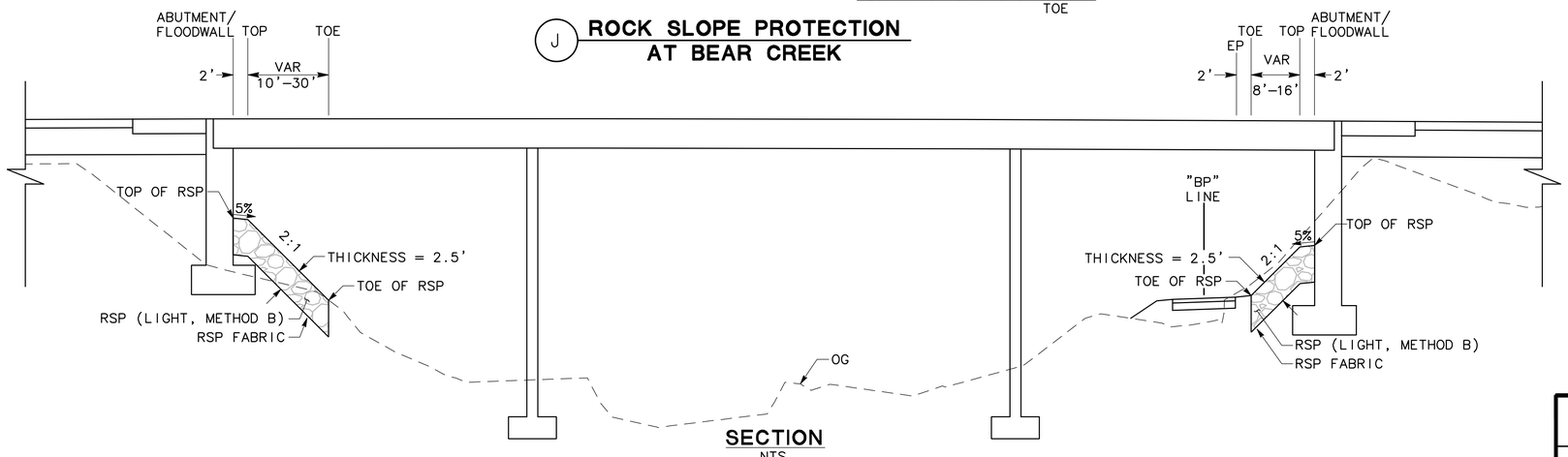
SCALE: HORIZ 1"=20' VERT 1"=2'
DESIGNED BY: DWM
DRAWN BY: JMN, AMR, BES
CHECKED BY: MAS
RECORD DWG:

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 27
CD-10
OF 124 SHEETS
PROJECT NO. 05-17



(J) ROCK SLOPE PROTECTION AT BEAR CREEK



SECTION
NTS

BEFORE EXCAVATING
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UNDERGROUND SERVICE ALERT
800–227–2600
TOLL FREE
2 WORKING DAYS BEFORE ALL
PLANNED WORK OPERATIONS

CALL BEFORE YOU DIG 800-227-2600

UNION PACIFIC
CALL BEFORE YOU DIG
800–336–9193

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

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SACRAMENTO, CALIFORNIA 95826
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MTCO JOB NUMBER: 57–0221B

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Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

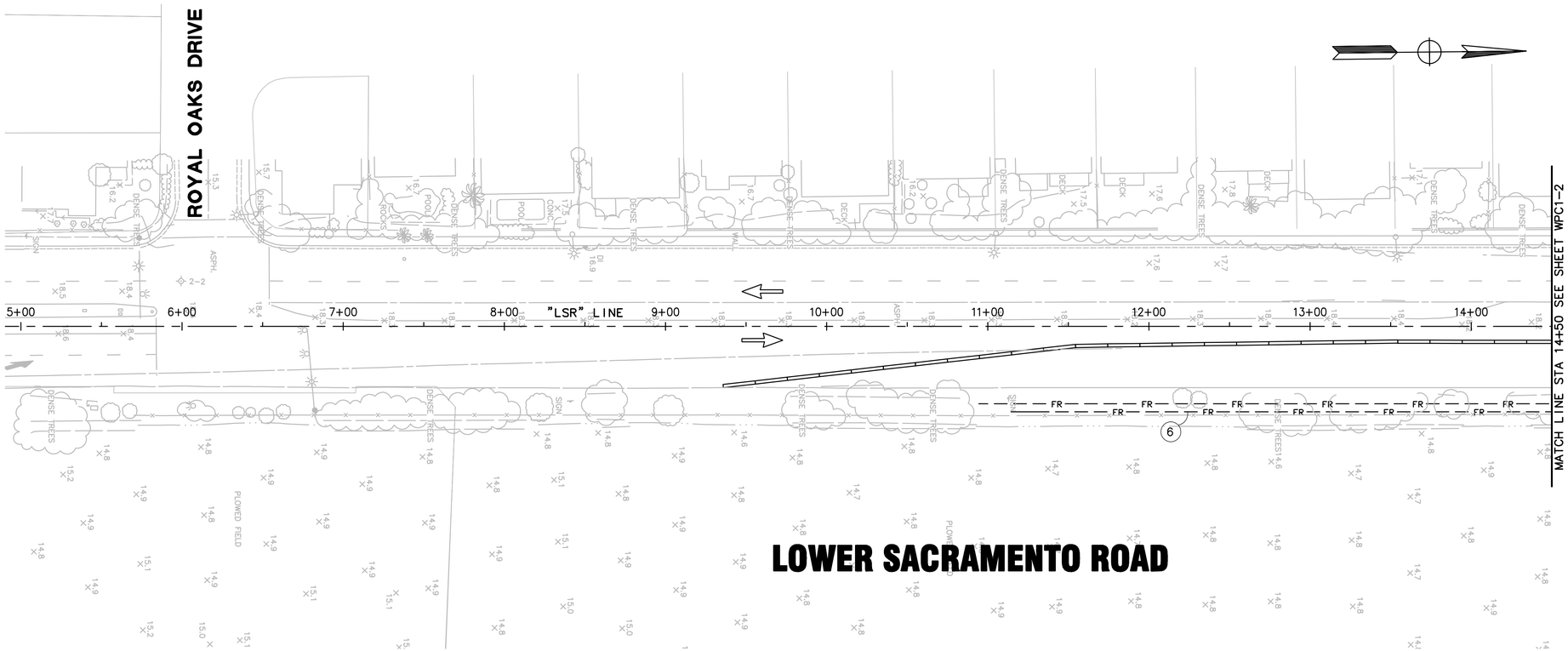
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
CONSTRUCTION DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=20'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 28
CD–11
OF 124 SHEETS
PROJECT NO. 05–17



GENERAL WATER POLLUTION CONTROL NOTES

1. THE INFORMATION ON THESE DRAWINGS ARE ACCURATE FOR TEMPORARY WATER POLLUTION CONTROL PURPOSES ONLY.
2. THE INFORMATION ON THIS PLAN IS INTENDED TO BE USED AS A GUIDELINE FOR THE CONTRACTOR AND SUBCONTRACTORS TO INSTALL TEMPORARY WATER POLLUTION CONTROL DEVICES AT GENERAL LOCATIONS THROUGHOUT THE SITE.
3. CONTRACTOR TO CREATE SWPPP AND IDENTIFY ALL LOCATIONS OF BMP'S TO SUIT HIS CONSTRUCTION ACTIVITIES.
4. TEMPORARY SOIL STABILIZATION MEASURES SHALL BE IMPLEMENTED 10 DAYS PRIOR TO THE START OF THE DEFINED RAINY SEASON AND AT REGULAR INTERVALS THROUGHOUT THE RAINY SEASON TO ACHIEVE AND MAINTAIN THE CONTRACT'S DISTURBED SOIL AREA (DSA) PROTECTION REQUIREMENTS (SEE CONTRACT SPECIFICATIONS).
5. PERMANENT EROSION CONTROL SHALL BE INSTALLED AS AREAS ARE DETERMINED TO BE SUBSTANTIALLY COMPLETE.
6. ALL DRAINAGE INLETS RECEIVING RUNOFF FROM DISTURBED SOIL AREAS SHALL BE PROTECTED WITH STORM DRAIN INLET PROTECTION.

STORM WATER POLLUTION CONTROL CONSTRUCTION NOTES:

(1) INSTALL STABILIZED TYPE 1 CONSTRUCTION ENTRANCE/EXIT. SEE CALTRANS STD PLANS T-58 FOR INSTALLATION INSTRUCTIONS.

(2) INSTALL TYPE 1 STORM DRAIN INLET PROTECTION. SEE CALTRANS STD PLANS STORM WATER QUALITY PREPARATION MANUAL DETAILS AND DRAWINGS TG-1 FOR INSTALLATION INSTRUCTIONS.

(3) INSTALL SEDIMENT TRAP. SEE CALTRANS STORM WATER QUALITY PREPARATION MANUAL DETAILS AND DRAWINGS T58 FOR INSTALLATION INSTRUCTIONS.

(4) INSTALL CONCRETE WASTE MANAGEMENT CONTROL. SEE CALTRANS STD PLANS T59 FOR INSTALLATION INSTRUCTIONS.

(5) INSTALL TYPE 1 CHECK DAMS IN DITCH FLOWLINE WITH A MAXIMUM SPACING OF 200'. SEE CALTRANS STORM QUALITY PREPERATION MANUAL DETAILS AND DRAWING SC-6 FOR INSTALLATION INSTRUCTIONS.

(6) INSTALL FIBER ROLLS. SEE CALTRANS STD PLANS T56 FOR INSTALLATION INSTRUCTIONS.

(7) INSTALL SANDBAGS

LEGEND

- CWM / CWM — Temp CONCRETE WASHOUT FACILITY
- FR — Temp FIBER ROLLS
- Temp STABILIZED CONSTRUCTION ENTRANCE/EXIT.
- Temp SEDIMENT TRAPS
- Temp CHECK DAMS
- Temp INLET PROTECTION
- Temp FENCE (TYPE ESA)

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Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By
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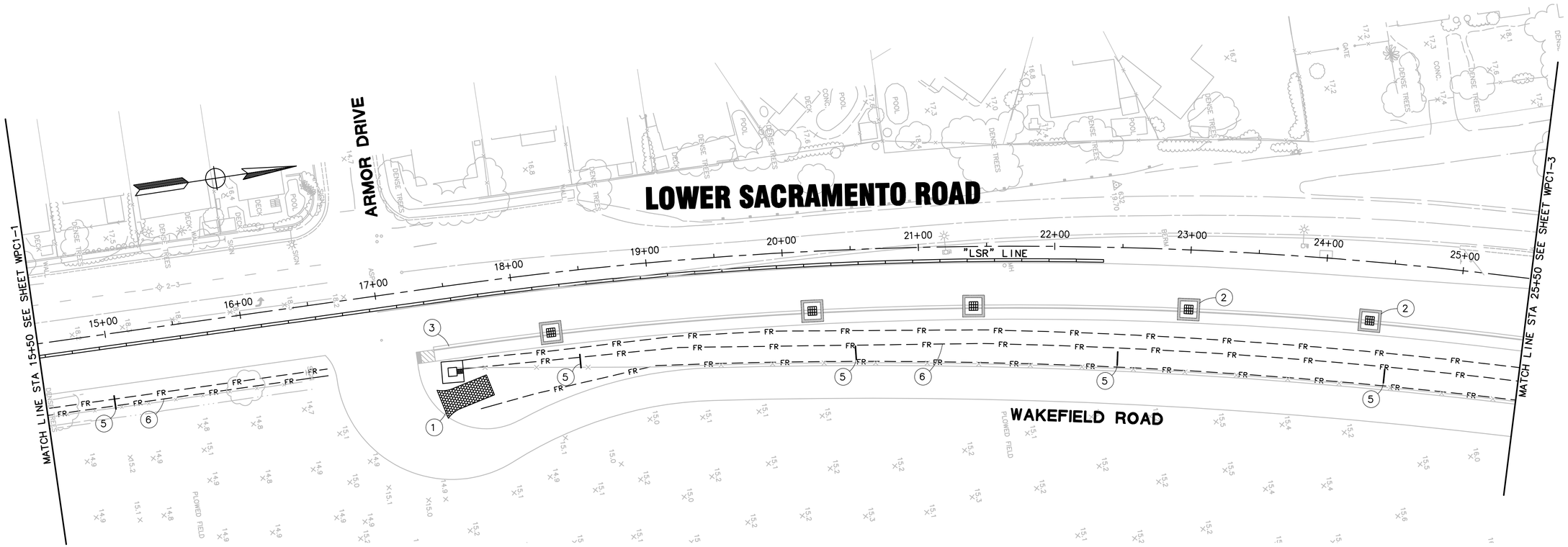
LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
TEMP WATER POLLUTION CONTROL - STAGE 1
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010 DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 29
WPC1-1
OF 124 SHEETS
PROJECT NO. 05-17



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TEMP WATER POLLUTION CONTROL - STAGE 1

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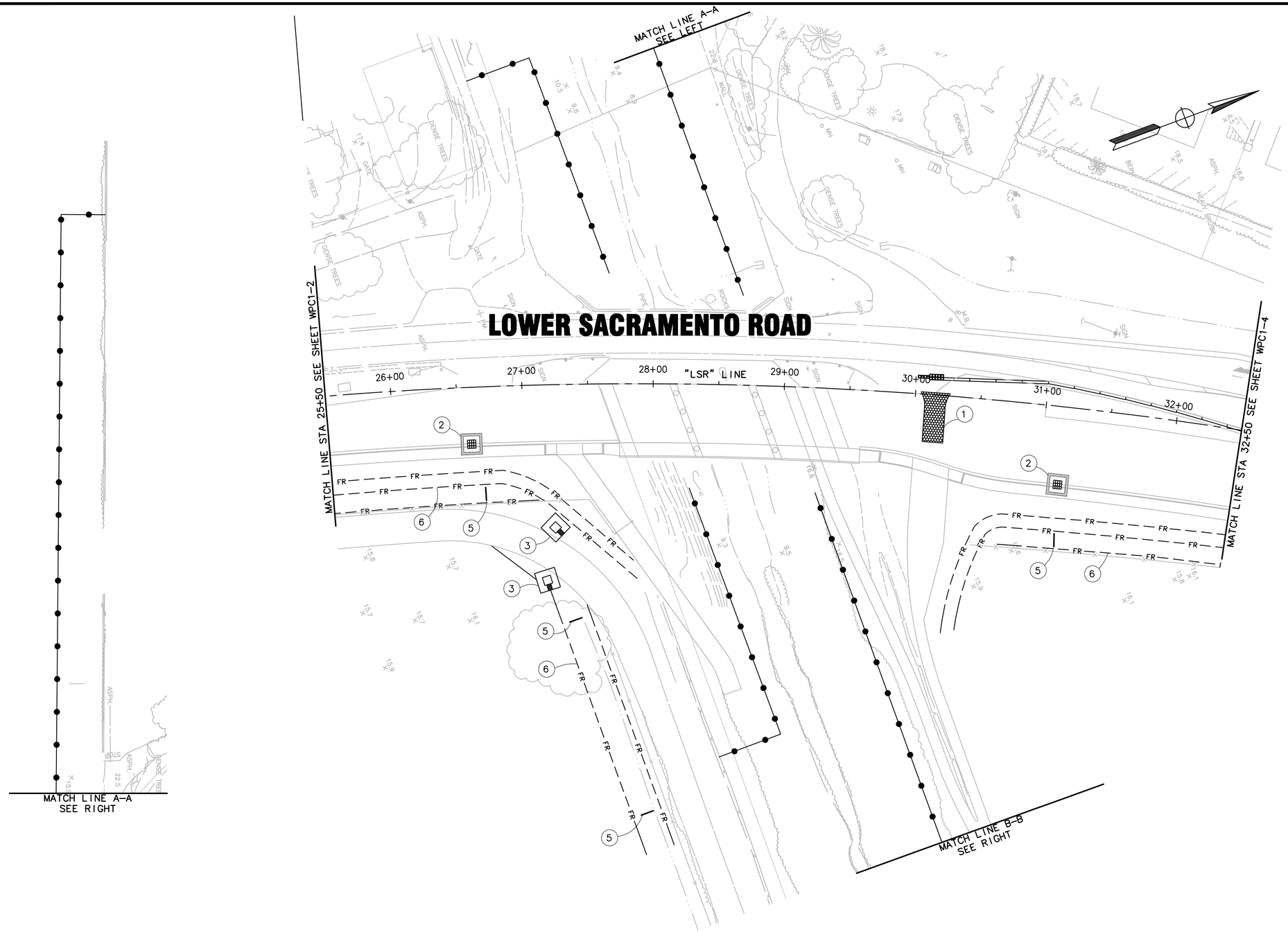

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TEMP WATER POLLUTION CONTROL - STAGE 1

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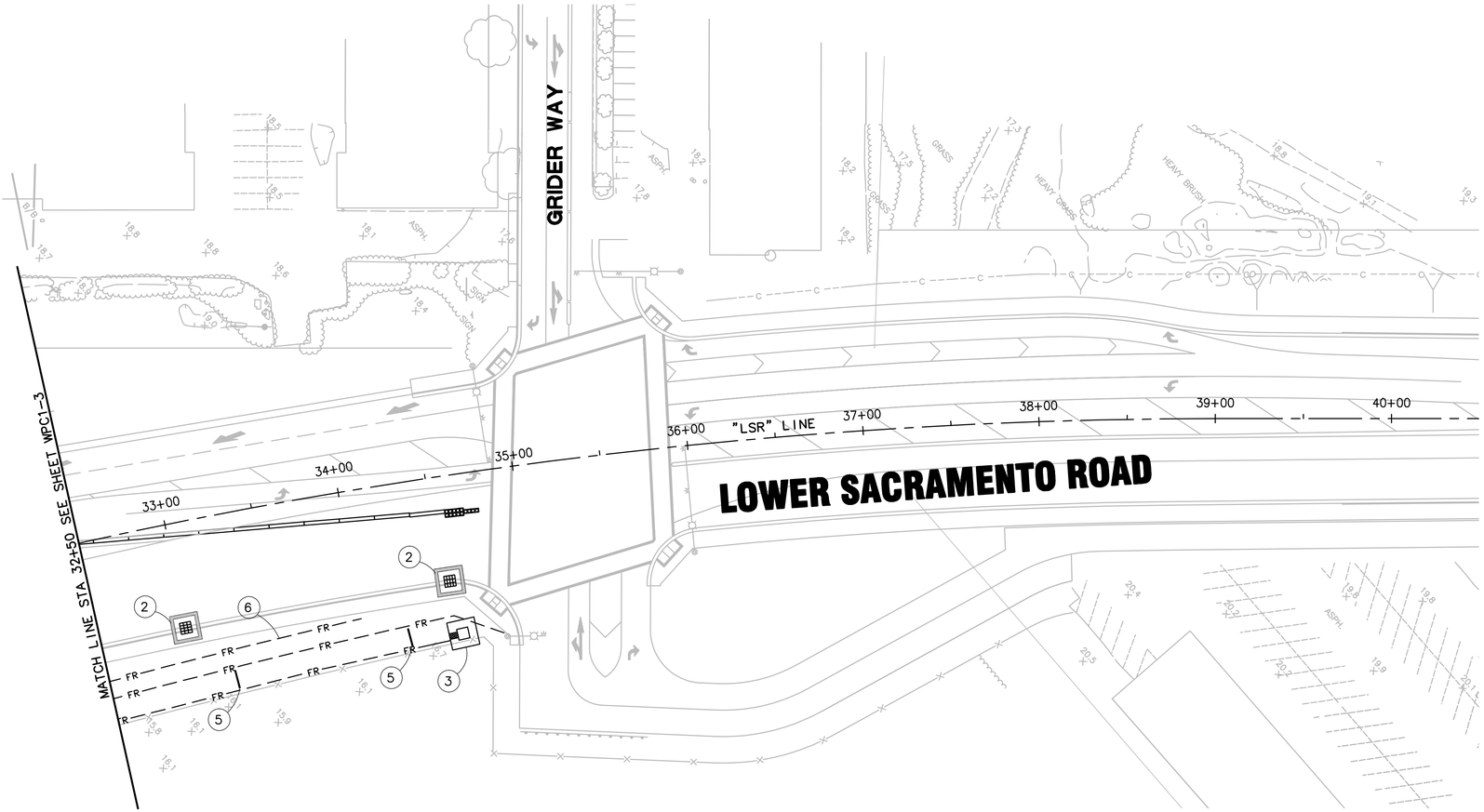

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TEMP WATER POLLUTION CONTROL - STAGE 1
CITY OF STOCKTON
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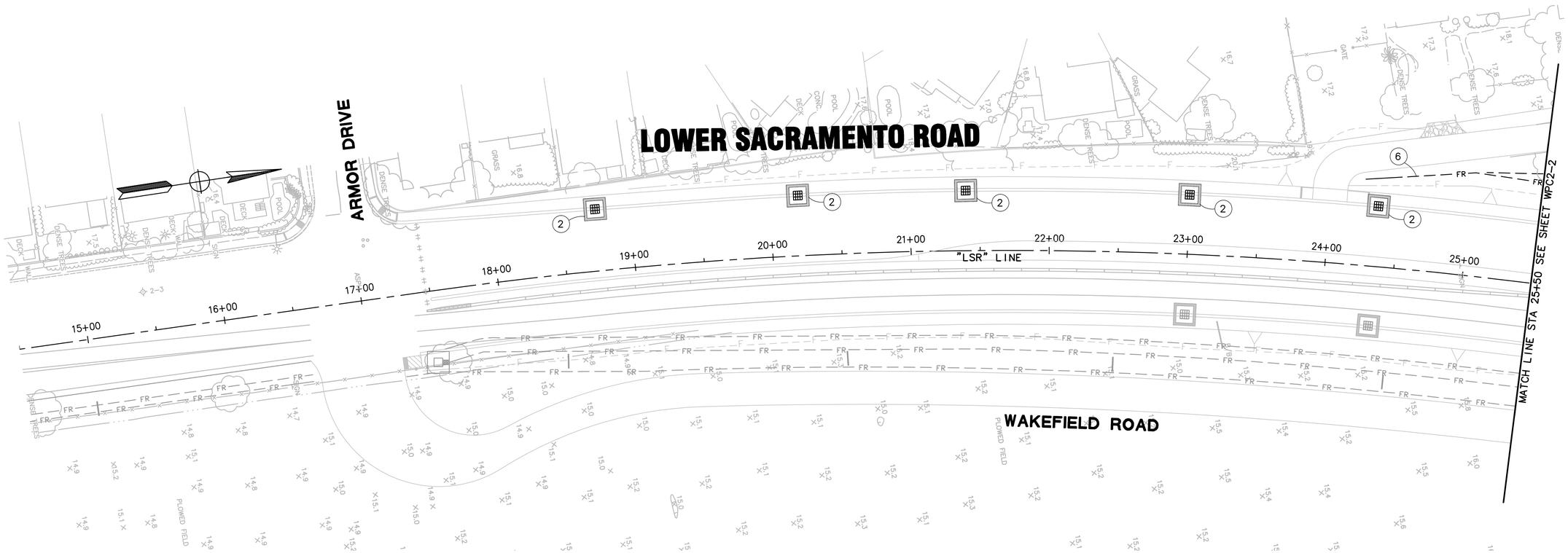

GENERAL WATER POLLUTION CONTROL NOTES

1. ALL STAGE 1 TEMPORARY WATER POLLUTION CONTROL ITEMS SHOWN SHALL REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION.

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TEMP WATER POLLUTION CONTROL - STAGE 2
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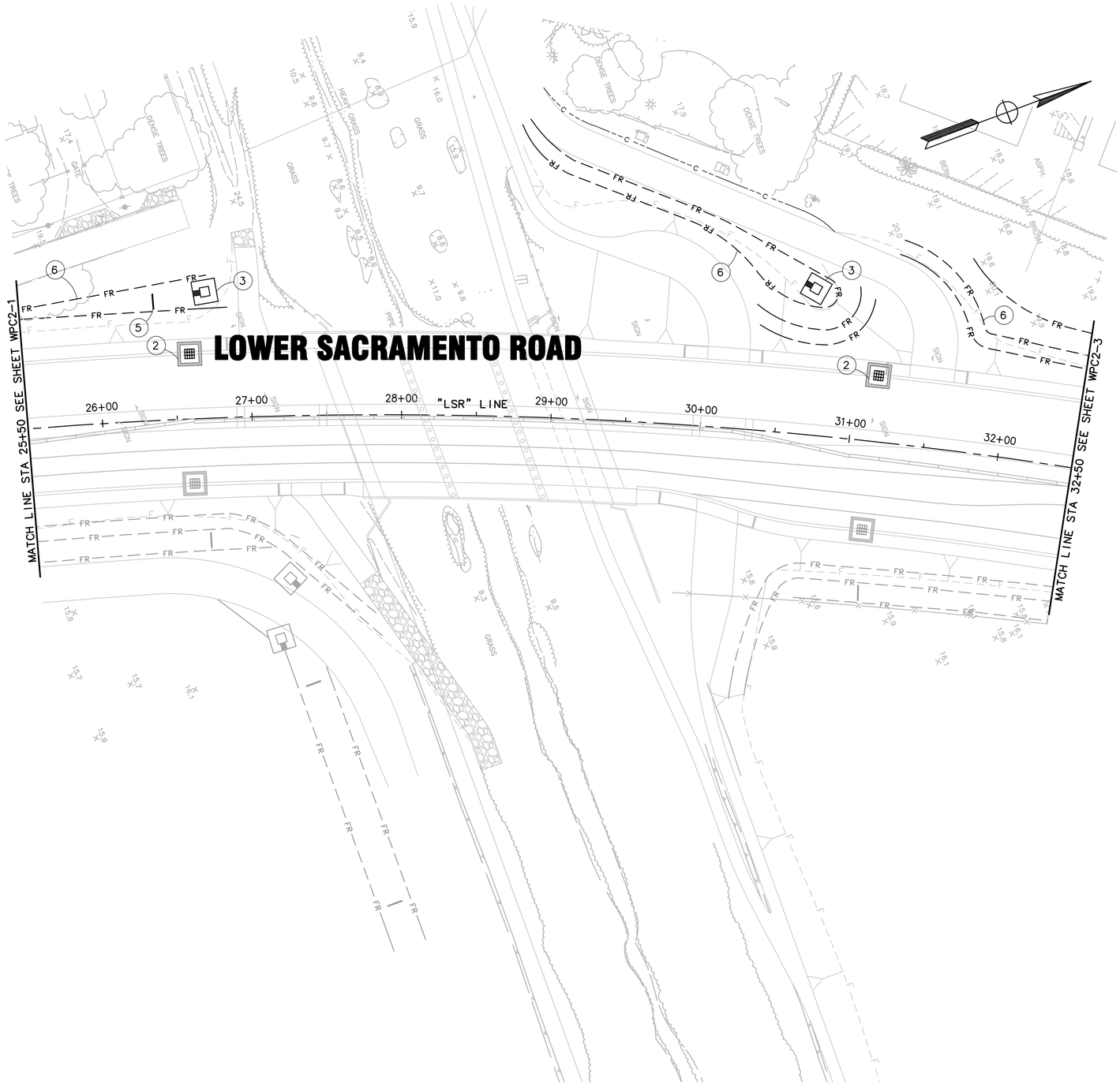

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CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

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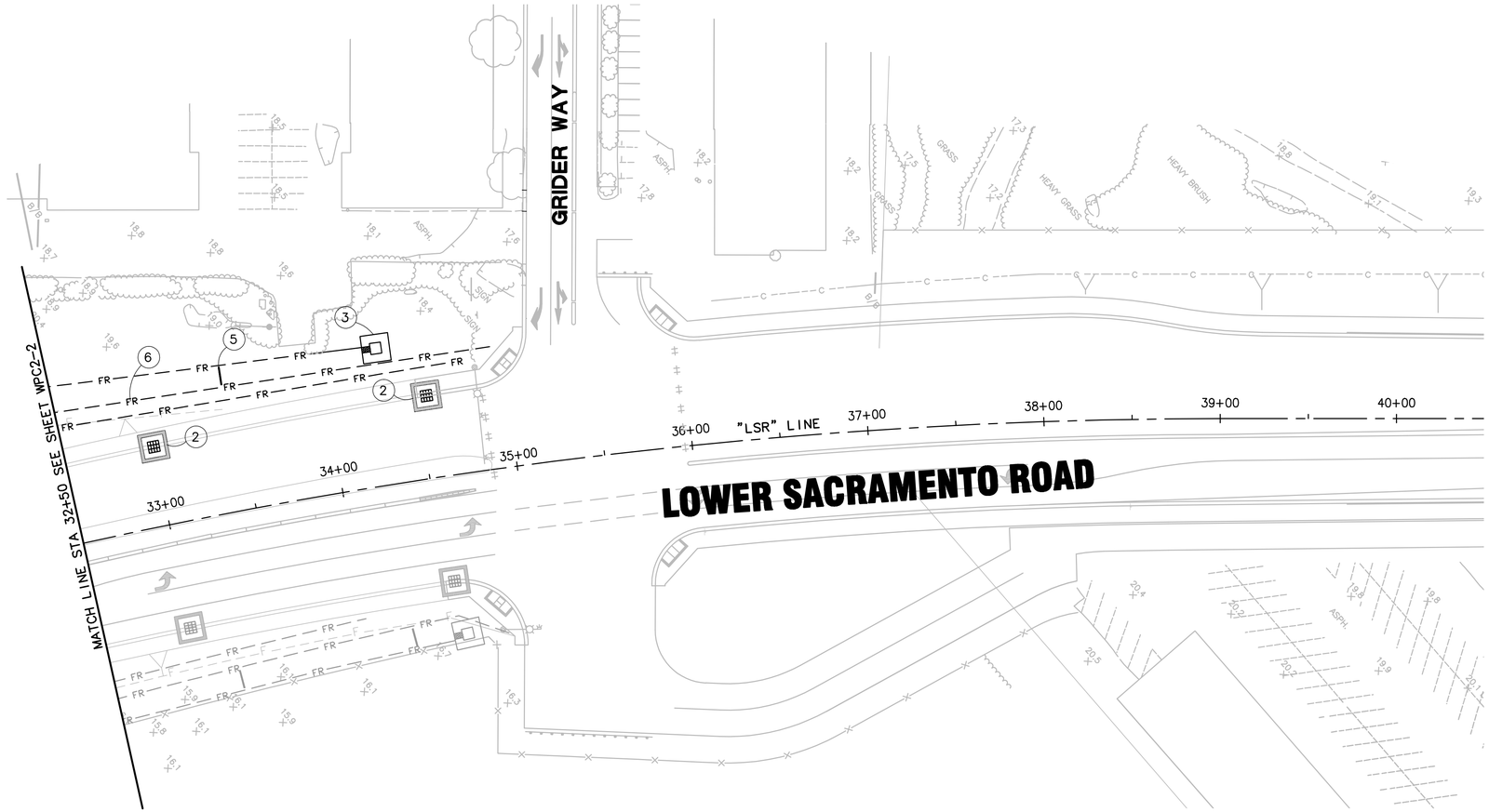

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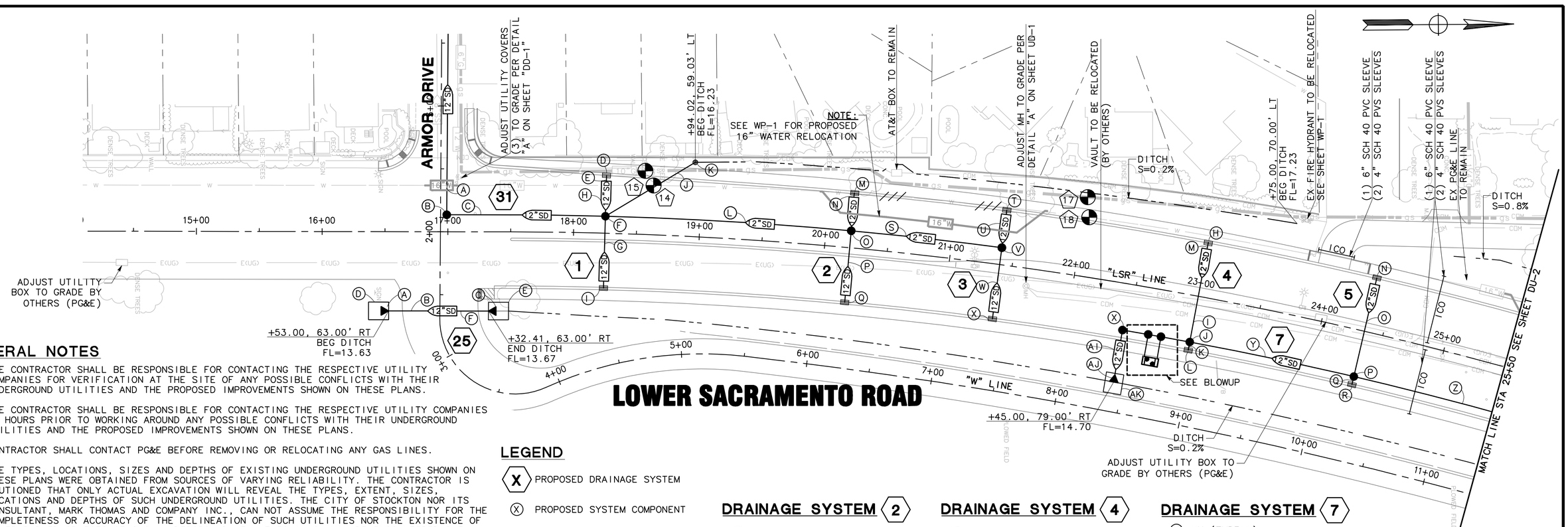


GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE RESPECTIVE UTILITY COMPANIES FOR VERIFICATION AT THE SITE OF ANY POSSIBLE CONFLICTS WITH THEIR UNDERGROUND UTILITIES AND THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE RESPECTIVE UTILITY COMPANIES 48 HOURS PRIOR TO WORKING AROUND ANY POSSIBLE CONFLICTS WITH THEIR UNDERGROUND UTILITIES AND THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
3. CONTRACTOR SHALL CONTACT PG&E BEFORE REMOVING OR RELOCATING ANY GAS LINES.
4. THE TYPES, LOCATIONS, SIZES AND DEPTHS OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. THE CITY OF STOCKTON NOR ITS CONSULTANT, MARK THOMAS AND COMPANY INC., CAN NOT ASSUME THE RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE DELINEATION OF SUCH UTILITIES NOR THE EXISTENCE OF OTHER BURIED OBJECTS OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE PLANS.
4. ALL DROP INLETS STATION OFFSETS ARE THE CURB FLOW LINE.
5. WHEN CONNECTING TO AN EXISTING STORM SYSTEM, THE CONTRACTOR SHALL VERIFY THE EXISTING ELEVATION AT THE CONNECTION LOCATION PRIOR TO ORDERING OR INSTALLING ANY NEW DRAINAGE FACILITIES.
6. PIPE LENGTHS ARE MEASURED FROM THE CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
7. WHEN CONSTRUCTING THE NEW STORM SYSTEM, THE CONTRACTOR SHALL TRENCH THE ENTIRE LENGTH OF THE SYSTEM TO VERIFY THAT THE PROPOSED SYSTEM CAN BE CONSTRUCTED PER PLAN PRIOR TO LAYING PIPE. THE TRENCH SHALL BE STEEL PLATED WITH BACKFILL PAVED WORK.
8. FOR PROPOSED STREET LIGHTING SEE E SHEETS.
9. FOR PROPOSED IRRIGATION SEE LS SHEETS.
10. FOR PROPOSED WATER LINE IMPROVEMENTS SEE WP SHEETS.
11. FOR COMPLETE SYSTEM INFORMATION SEE DP SHEETS.
12. CONSTRUCT ALL FLARED END SECTIONS PER CALTRANS STD DRAWING D94A.
13. CONSTRUCT FIELD INLET PER DETAIL "D" ON SHEET DD-1.
14. FOR COMPLETE STORM DRAIN TREATMENT UNIT DETAILS SEE SHEETS DD-2 TO DD-5.
18. CONCRETE PIPE PROTECTION IS TO BE USED ON ANY PIPE NOT MEETING MINIMUM CLEARANCE REQUIREMENTS BELOW SUB GRADE; SEE DETAIL "B" ON SHEET DD-1.
19. FOR ROCK SLOPE PROTECTION DETAILS SEE DETAIL C ON SHEET DD-1.
20. POTHOLE ELEVATIONS GIVEN AT TOP OF PIPE.
21. CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL PIPING AND CONDUITS. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGES, ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR
22. ANY STORM DRAIN OR SEWER PIPE CROSSING A WATER LINE SHALL FOLLOW CALIFORNIA PUBLIC HEALTH REQUIREMENTS PER CITY OF STOCKTON STANDARD DRAWING 47.

LEGEND

- (X) PROPOSED DRAINAGE SYSTEM
- (X) PROPOSED SYSTEM COMPONENT
- ROCK SLOPE PROTECTION
- POTHOLE LOCATION
- (X) POTHOLE NUMBER

DRAINAGE SYSTEM 1

- (D) DI (TYPE 2)
- (E) 12" DIP
- (F) MH (TYPE 1)
- (G) 12" PVC
- (H) CONC PIPE PROTECTION
- (I) DI (TYPE 2)
- (J) 12" PVC
- (K) FIELD INLET

DRAINAGE SYSTEM 2

- (M) DI (TYPE 2)
- (N) 12" DIP
- (O) MH (TYPE 1)
- (P) 12" PVC
- (Q) DI (TYPE 2)

DRAINAGE SYSTEM 3

- (T) DI (TYPE 2)
- (U) 12" DIP
- (V) MH (TYPE 1)
- (W) 12" PVC
- (X) DI (TYPE 2)

DRAINAGE SYSTEM 4

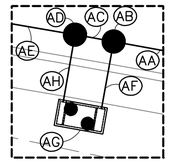
- (H) DI (TYPE 2)
- (I) 12" PVC
- (J) MH (TYPE 1)
- (K) 12" PVC
- (L) DI (TYPE 2)
- (M) CONC PIPE PROTECTION

DRAINAGE SYSTEM 5

- (N) DI (TYPE 2)
- (O) 12" PVC
- (P) MH (TYPE 1)
- (Q) 12" PVC
- (R) DI (TYPE 2)

DRAINAGE SYSTEM 7

- (X) MH (TYPE 1)
- (Y) 12" PVC
- (Z) 12" PVC
- (AA) 12" PVC
- (AB) MH (CONTECH)
- (AC) 12" PVC
- (AD) MH (TYPE 1)
- (AE) 12" PVC
- (AF) 12" PVC
- (AG) TREATMENT UNIT (LSR3)
- (AH) 12" PVC
- (AI) 12" PVC
- (AJ) 12" FES
- (AK) RSP



SYSTEM 7 BLOWUP

NOTE: FOR DETAILED PLAN VIEW OF INVERT ELEVATIONS SEE DETAIL ON SHEET DD-3

DRAINAGE SYSTEM 25

- (A) 12" FES
- (B) 12" PVC
- (C) 12" FES
- (D) RSP
- (E) RSP
- (F) CONC PIPE PROTECTION

DRAINAGE SYSTEM 31

- (A) 12" DIP
- (B) MH (TYPE 1)
- (C) 12" PVC
- (L) 12" PVC
- (S) 12" PVC

POTHOLE DATA TABLE

NUMBER (X)	SIZE	TYPE	NORTHING	EASTING	UTILITY ELEVATION
PH 14	16"	WATER	2202300.420	6324699.502	12.96
PH 15	10"	GAS (PG&E)	2202293.958	6324687.846	12.23
PH 17	10"	GAS (PG&E)	2202645.600	6324711.627	14.55
PH 18	16"	WATER	2202646.611	6324727.629	15.41

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DRAINAGE AND UTILITIES
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

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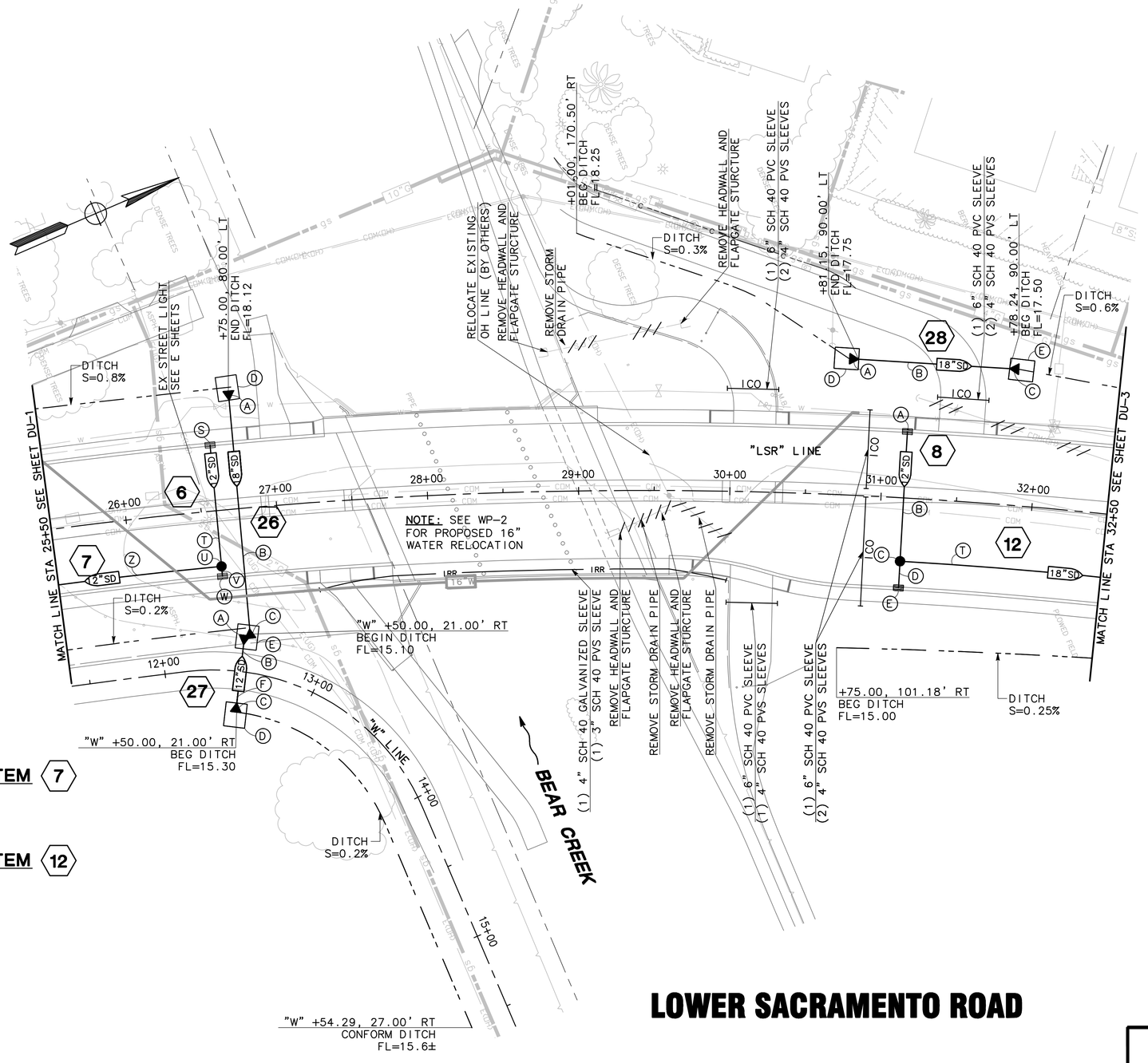

DRAINAGE SYSTEM 6

- (S) DI (TYPE 2)
- (T) 12" PVC
- (U) MH (TYPE 1)
- (V) 12" PVC
- (W) DI (TYPE 2)

DRAINAGE SYSTEM 7

- (Z) 12" PVC

DRAINAGE SYSTEM 12

- (T) 18" PVC

DRAINAGE SYSTEM 8

- (A) DI (TYPE 2)
- (B) 12" PVC
- (C) MH (TYPE 1)
- (D) 12" PVC
- (E) DI (TYPE 2)

DRAINAGE SYSTEM 26

- (A) 18" FES
- (B) 18" RCP
- (C) 18" FES
- (D) RSP
- (E) RSP

DRAINAGE SYSTEM 27

- (A) 12" FES
- (B) 12" PVC
- (C) 12" FES
- (D) RSP
- (E) RSP
- (F) CONC PIPE PROTECTION

DRAINAGE SYSTEM 28

- (A) 18" FES
- (B) 18" RCP
- (C) 18" FES
- (D) RSP
- (E) RSP

LOWER SACRAMENTO ROAD

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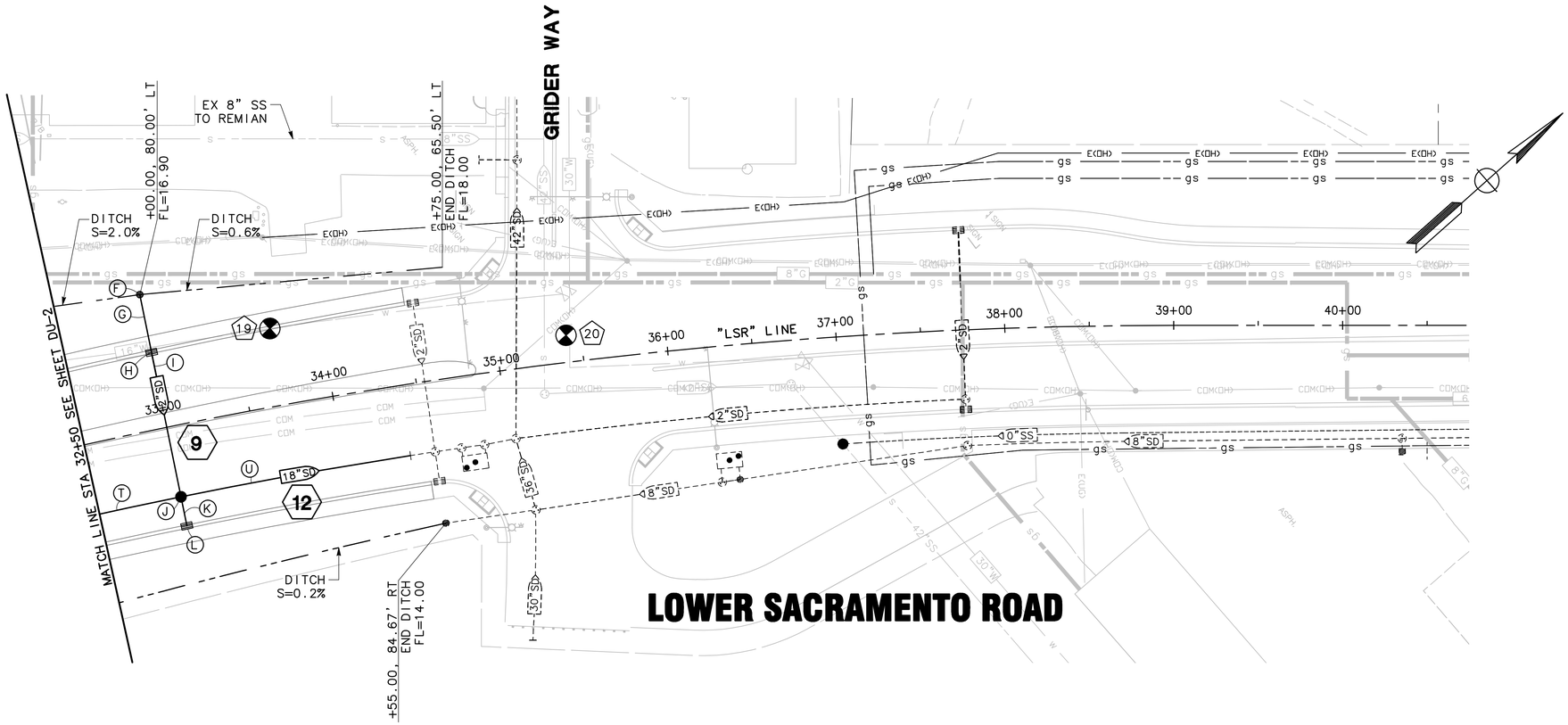
DRAINAGE SYSTEM (9)

- (F) FIELD INLET
- (G) 12" PVC
- (H) DI (TYPE 2)
- (I) 12" PVC
- (J) MH (TYPE 1)
- (K) 12" PVC
- (L) DI (TYPE 2)

DRAINAGE SYSTEM (12)

- (T) 18" RCP
- (U) 18" RCP
- (V) 18" RCP
- (W) MH (CONTECH)
- (X) 18" RCP
- (Y) MH (TYPE 1)
- (Z) 12" PVC
- (AA) TREATMENT UNIT (LSR2)
- (AB) 12" PVC



POTHOLE DATA TABLE

NUMBER (X)	SIZE	TYPE	NORTHING	EASTING	UTILITY ELEVATION
PH 19	16"	WATER	2203748.831	6325138.589	16.13
PH 20	30"	WATER	2203877.116	6325258.146	11.19

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TOLL FREE
2 WORKING DAYS BEFORE ALL
PLANNED WORK OPERATIONS

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UNION PACIFIC
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ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
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SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180
WWW.MARKTHOMAS.COM

MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
DRAINAGE AND UTILITIES
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

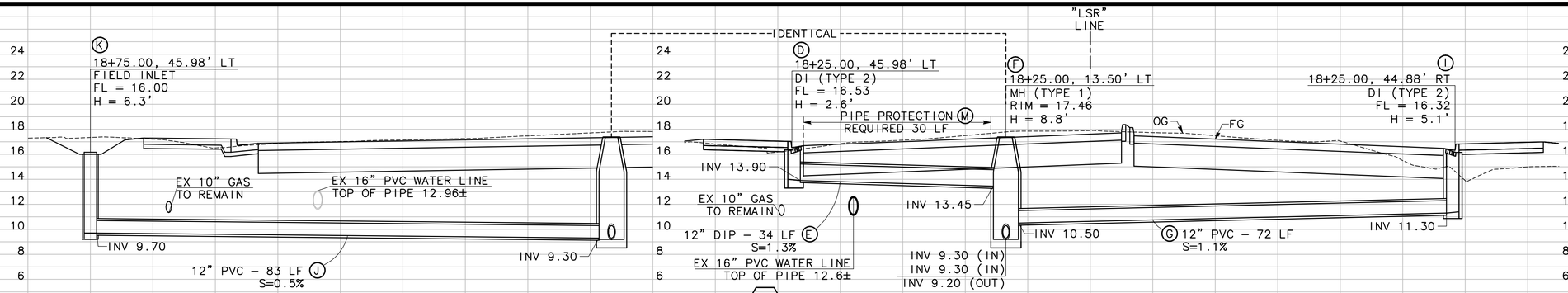
SCALE:	1"=40'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010 DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 38
DU-3
OF 124 SHEETS
PROJECT NO. 05-17

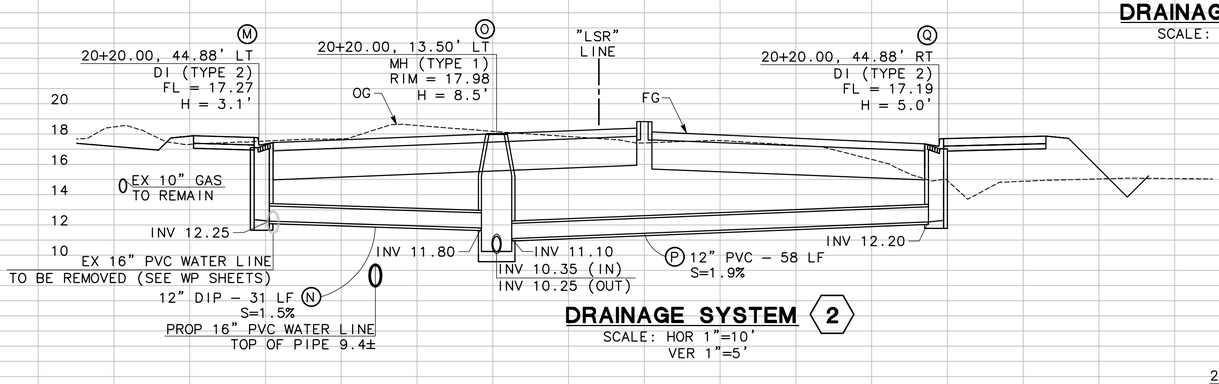
GENERAL NOTES

1. FOR COMPLETE STORM DRAIN TREATMENT UNIT DETAILS SEE SHEETS DD-4 TO DD-5.



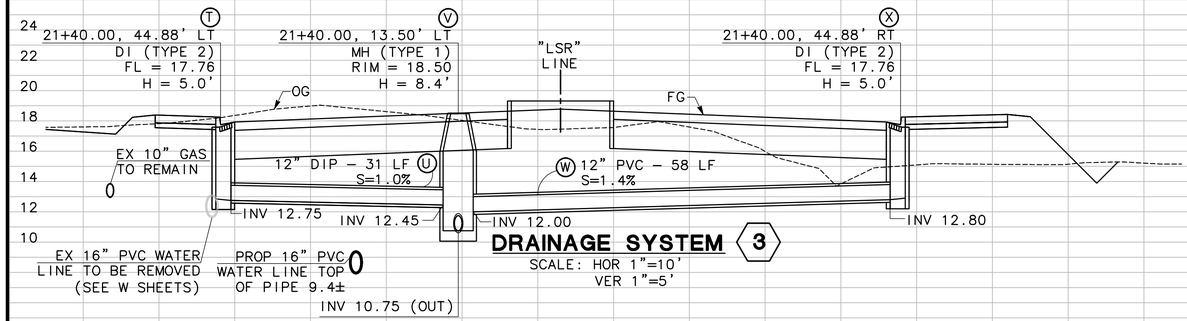
DRAINAGE SYSTEM 1

SCALE: HOR 1"=10'
VER 1"=5'



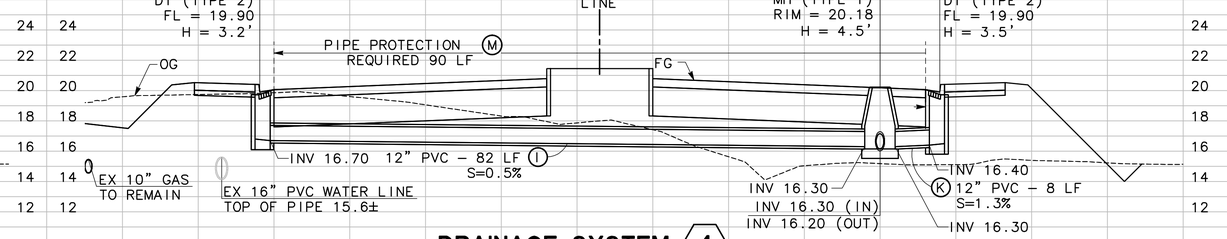
DRAINAGE SYSTEM 2

SCALE: HOR 1"=10'
VER 1"=5'



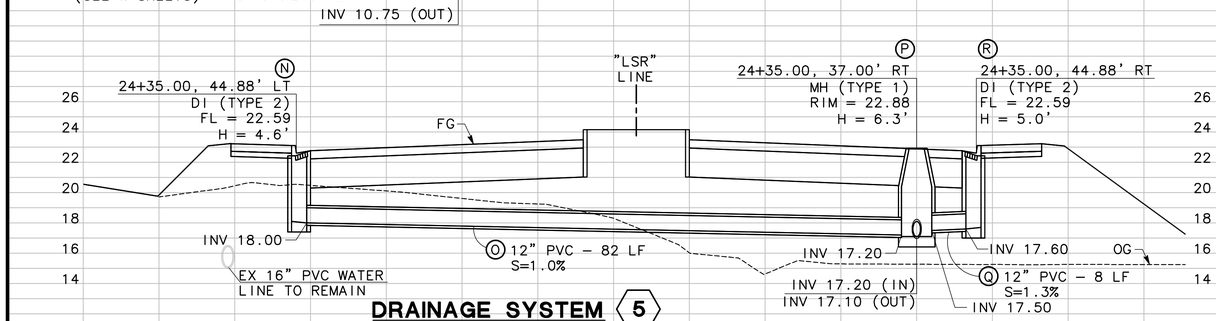
DRAINAGE SYSTEM 3

SCALE: HOR 1"=10'
VER 1"=5'



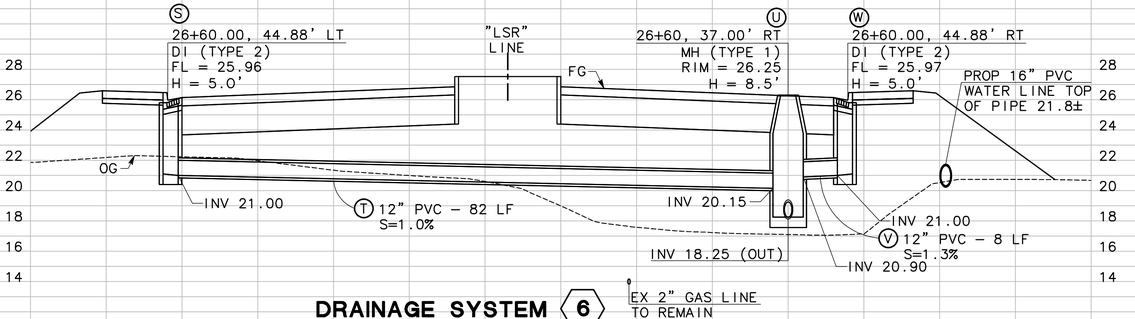
DRAINAGE SYSTEM 4

SCALE: HOR 1"=10'
VER 1"=5'



DRAINAGE SYSTEM 5

SCALE: HOR 1"=10'
VER 1"=5'



DRAINAGE SYSTEM 6

SCALE: HOR 1"=10'
VER 1"=5'

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FOR REDUCED PLAN
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MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

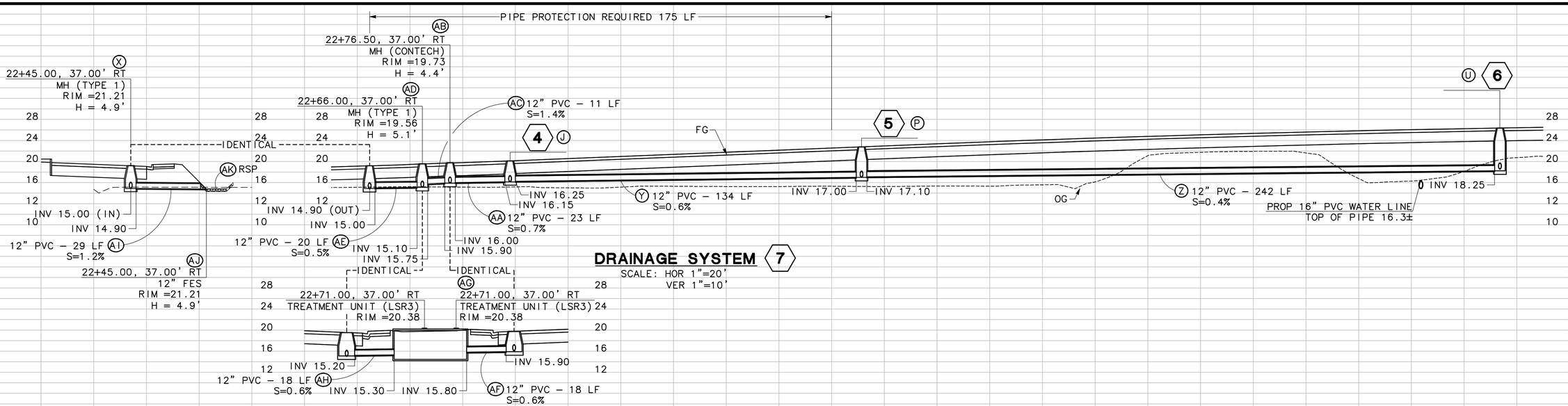
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT

DRAINAGE PROFILES

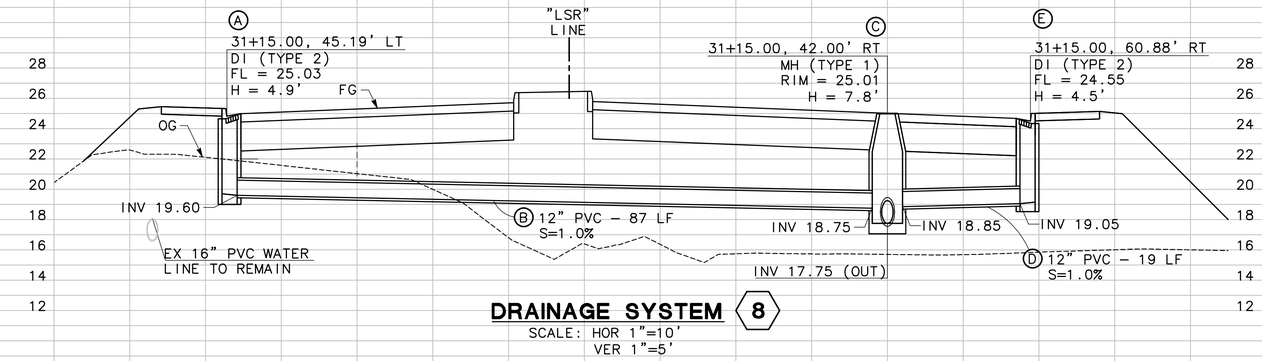
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: AS SHOWN	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 39	
DESIGNED BY: DWM		DP-1	
DRAWN BY: JMN, AMR, BES		OF 124 SHEETS	
CHECKED BY: MAS	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17	
RECORD DWG:			



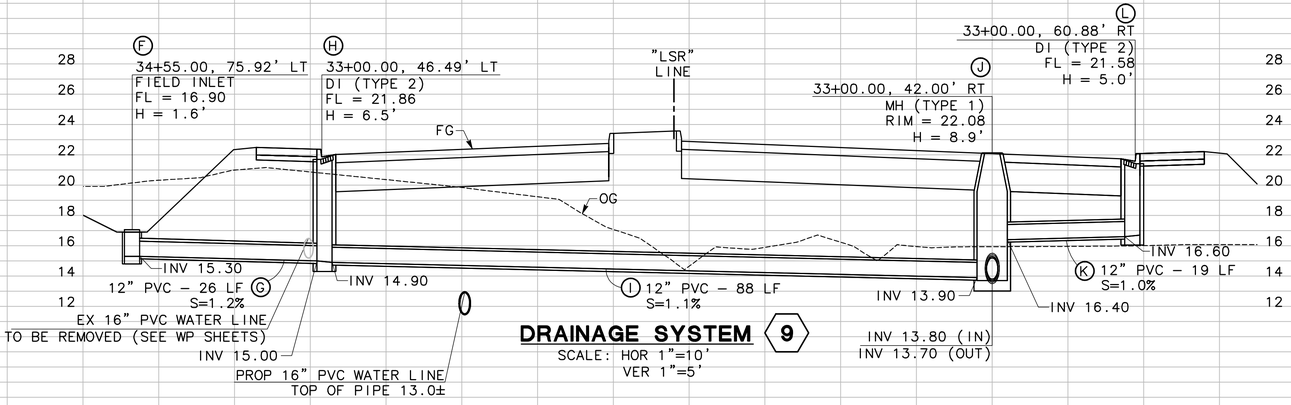
DRAINAGE SYSTEM 7

SCALE: HOR 1"=20'
VER 1"=10'



DRAINAGE SYSTEM 8

SCALE: HOR 1"=10'
VER 1"=5'



DRAINAGE SYSTEM 9

SCALE: HOR 1"=10'
VER 1"=5'

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PLANNED WORK OPERATIONS

CALL BEFORE YOU DIG U.S.A. 800-227-2600

UNION PACIFIC
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ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
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CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By
–				

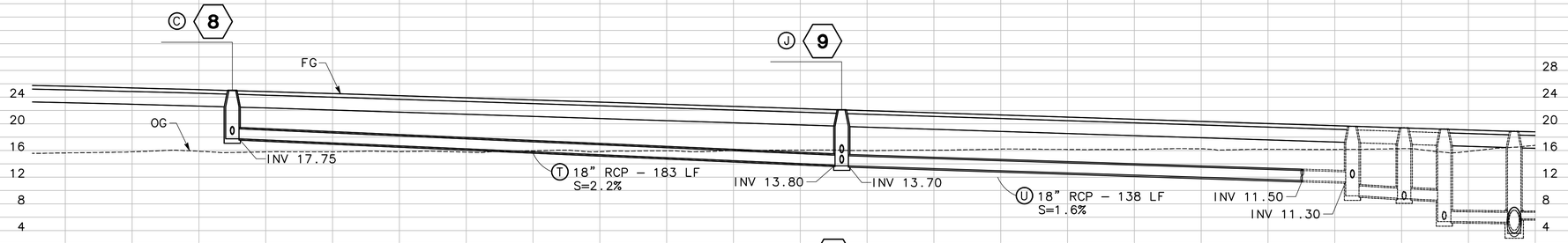
LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT

DRAINAGE PROFILES

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

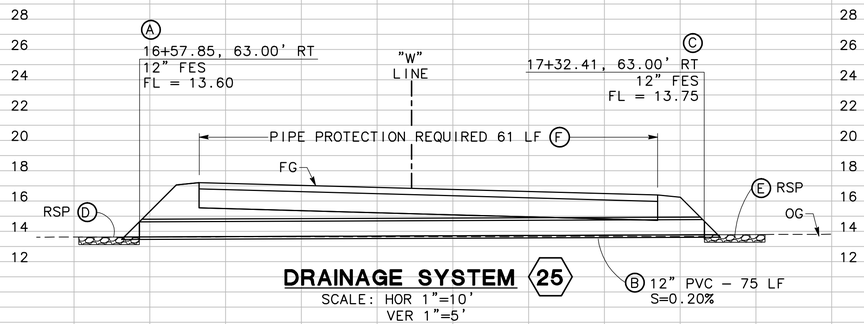
SCALE: AS SHOWN	SHEET NO. 40
DESIGNED BY: DWM	DP-2
DRAWN BY: JMN, AMR, BES	OF 124 SHEETS
CHECKED BY: MAS	PROJECT NO.
RECORD DWG:	05-17

APPROVED BY: JULY 12, 2010 (DATE)
CITY ENGINEER
STOCKTON, CALIFORNIA



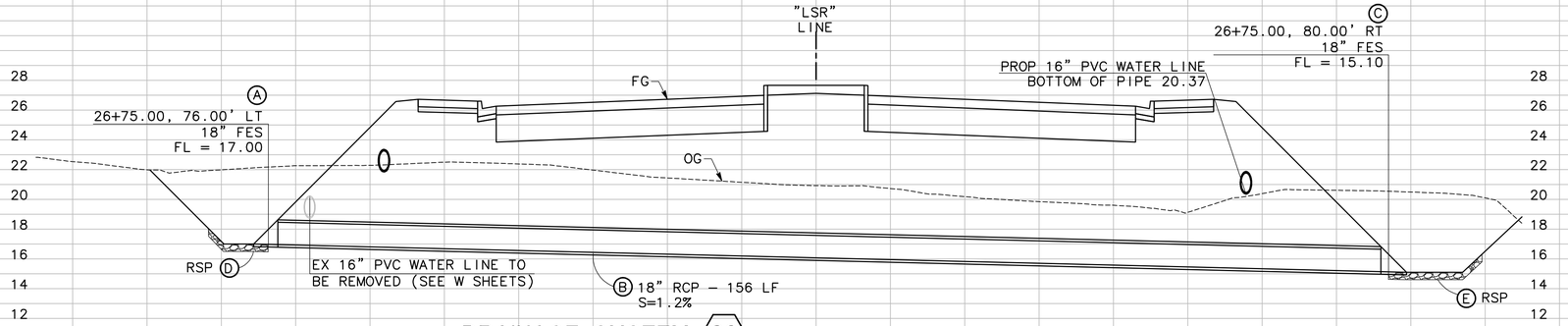
DRAINAGE SYSTEM 12

SCALE: HOR 1"=20'
VER 1"=10'



DRAINAGE SYSTEM 25

SCALE: HOR 1"=10'
VER 1"=5'



DRAINAGE SYSTEM 26

SCALE: HOR 1"=10'
VER 1"=5'

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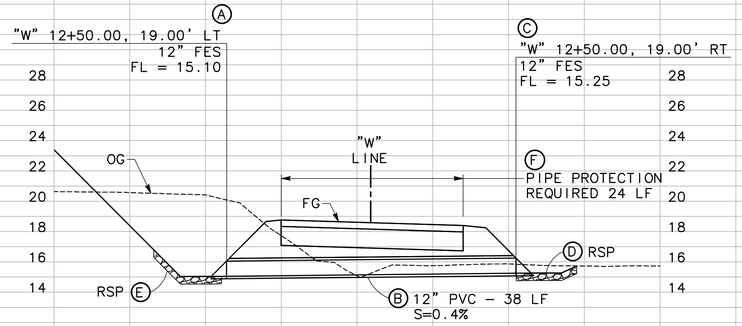
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

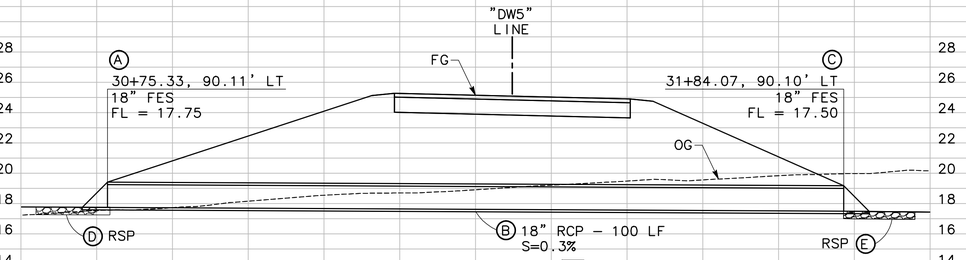
LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
DRAINAGE PROFILES
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: AS SHOWN	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 41	
DESIGNED BY: DWM		DP-3	
DRAWN BY: JMN, AMR, BES		OF 124 SHEETS	
CHECKED BY: MAS	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17	
RECORD DWG:			



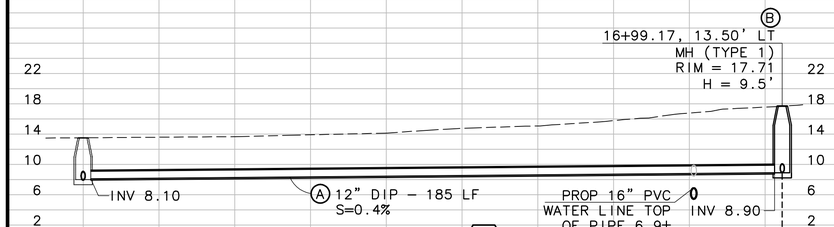
DRAINAGE SYSTEM 27

SCALE: HOR 1"=10'
VER 1"=5'



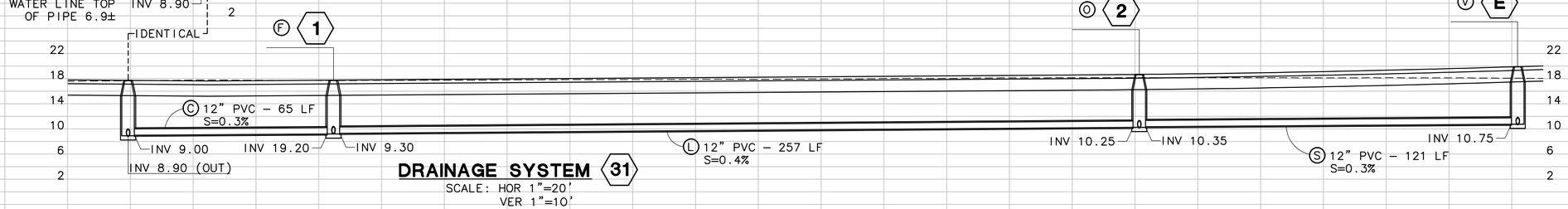
DRAINAGE SYSTEM 28

SCALE: HOR 1"=10'
VER 1"=5'



DRAINAGE SYSTEM 31

SCALE: HOR 1"=20'
VER 1"=10'



DRAINAGE SYSTEM 31

SCALE: HOR 1"=20'
VER 1"=10'

BEFORE EXCAVATING
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ORIGINAL SCALE IN INCHES
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MTCO JOB NUMBER: 57-0221B

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ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

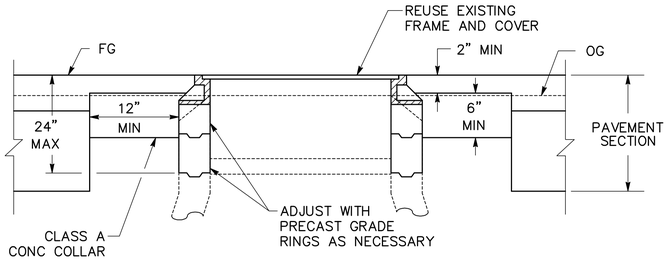
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT

DRAINAGE PROFILES

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

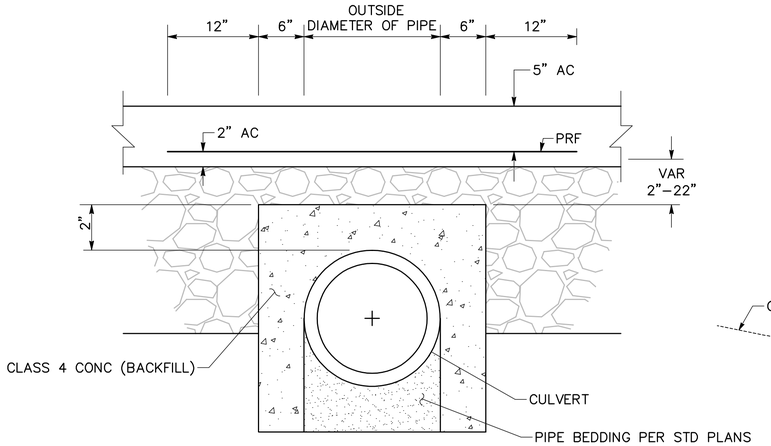
SCALE: AS SHOWN	APPROVED BY:	SHEET NO. 42
DESIGNED BY: DWM	JULY 12, 2010 DATE	DP-4
DRAWN BY: JMN, AMR, BES		OF 124 SHEETS
CHECKED BY: MAS	CITY ENGINEER	PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA	05-17



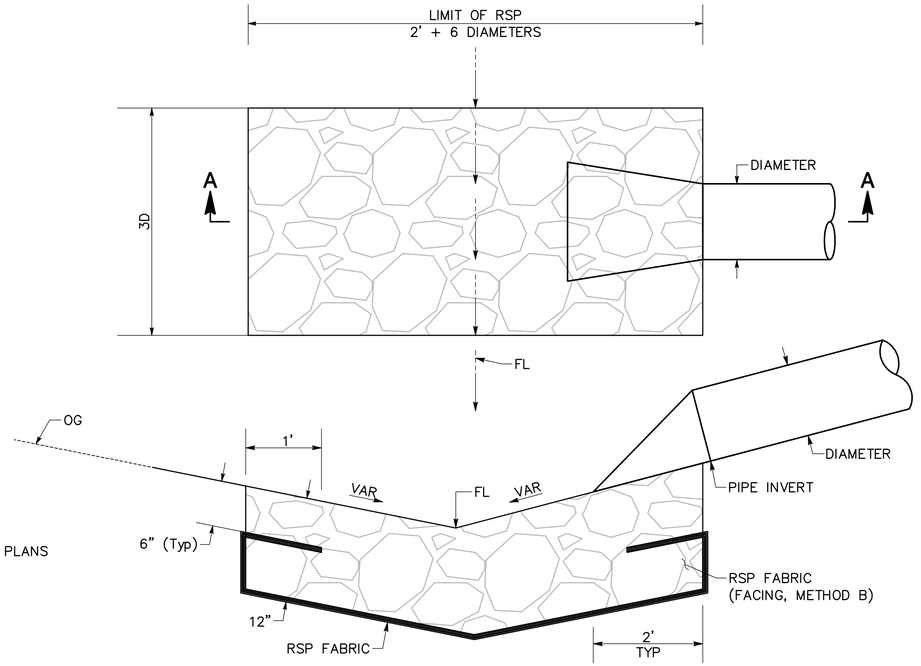
NOTES:

1. FLEXIBLE COUPLING ON ALL PIPE UP TO 15" DIA. ENTERING MAINTENANCE HOLES WITHIN 12" OF BASE. "COR-N-SEAL" OR APPROVED EQUAL.

ADJUST FRAME TO GRADE (A)
NTS

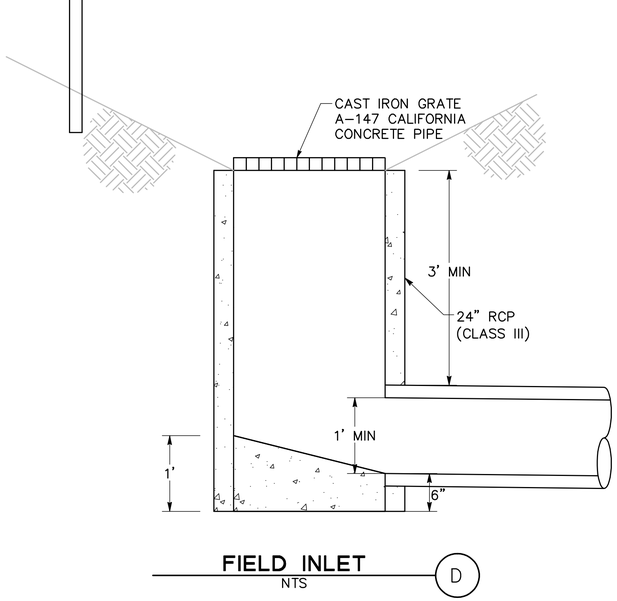


CONCRETE PIPE PROTECTION (B)
(NEW ROADWAY)
NTS



SECTION A-A

ROCK SLOPE PROTECTION (C)
NTS



FIELD INLET (D)
NTS

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FOR REDUCED PLAN
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CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

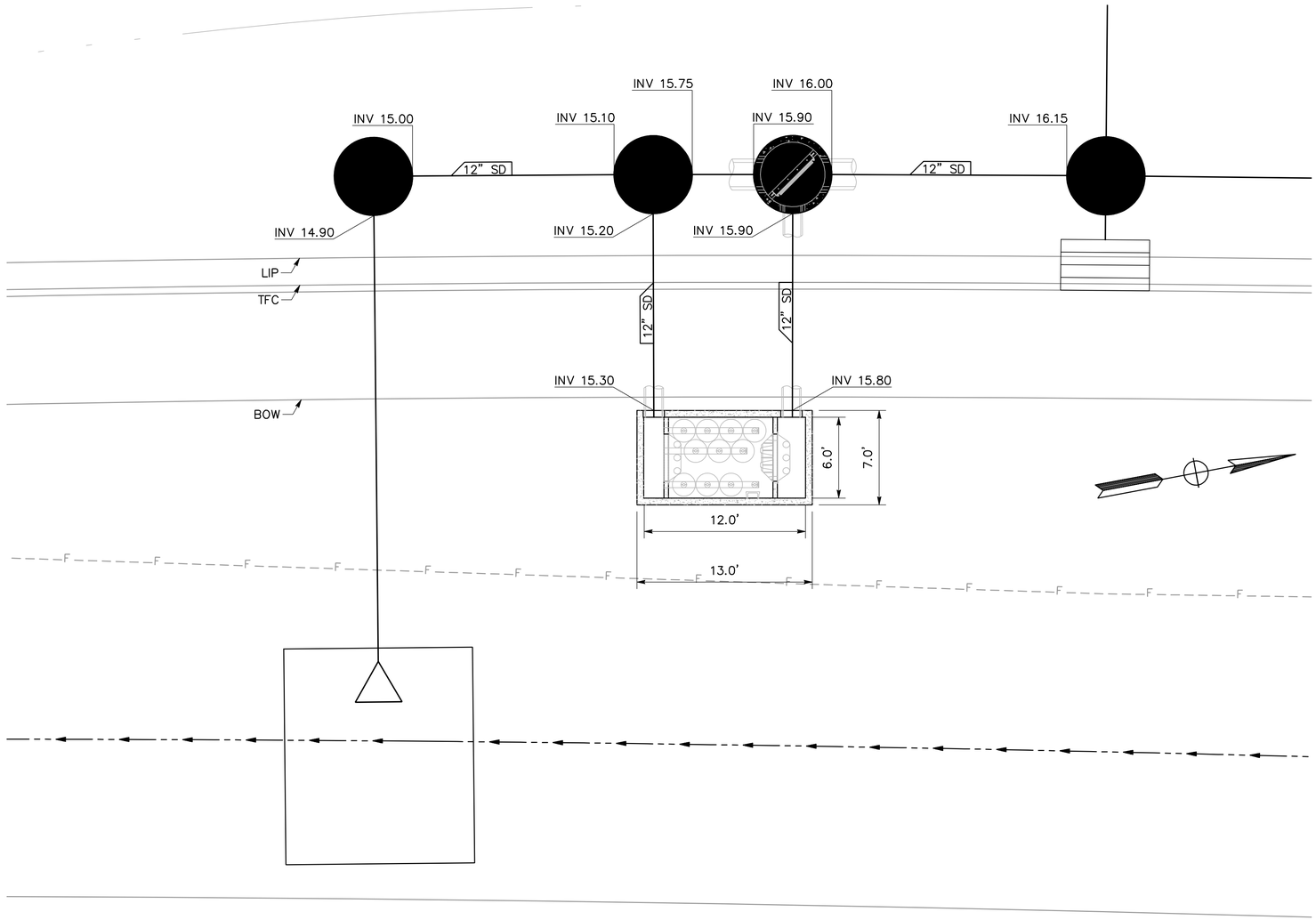
LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
DRAINAGE DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: NTS	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: DWM	CITY ENGINEER, STOCKTON, CALIFORNIA
DRAWN BY: JMN, AMR, BES	SHEET NO. 43
CHECKED BY: MAS	DD-1
RECORD DWG:	OF 124 SHEETS
	PROJECT NO. 05-17

GENERAL NOTES

1. THIS SHEET IS USED ONLY TO SHOW INVERT ELEVATIONS OF TREATMENT UNIT SYSTEMS

2. FOR COMPLETE STORM DRAIN TREATMENT SYSTEM DETAILS SEE SHEETS UD-3 TO UD-4.



STORM DRAIN TREATMENT SYSTEM (LSR3) E

SEE SYSTEM 7
STA 22+70

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MTCO JOB NUMBER: 57-0221B

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CIVIL
STATE OF CALIFORNIA

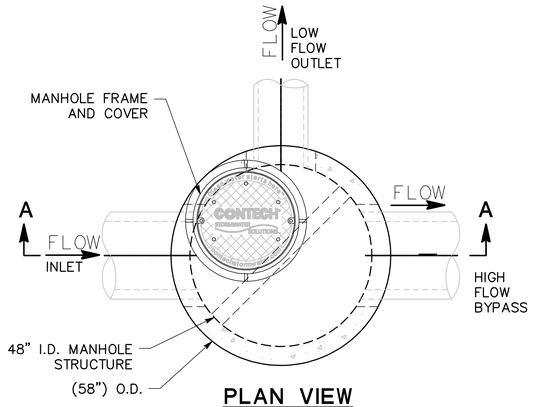
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
DRAINAGE DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

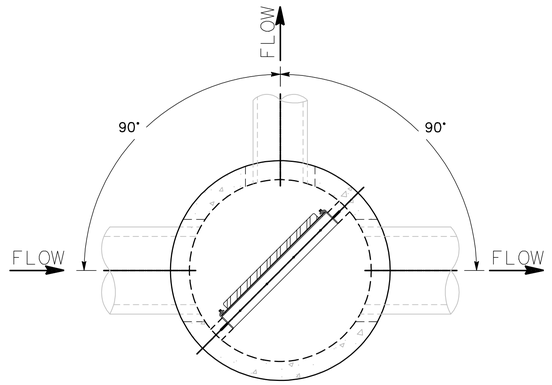
SCALE:	1"=5'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

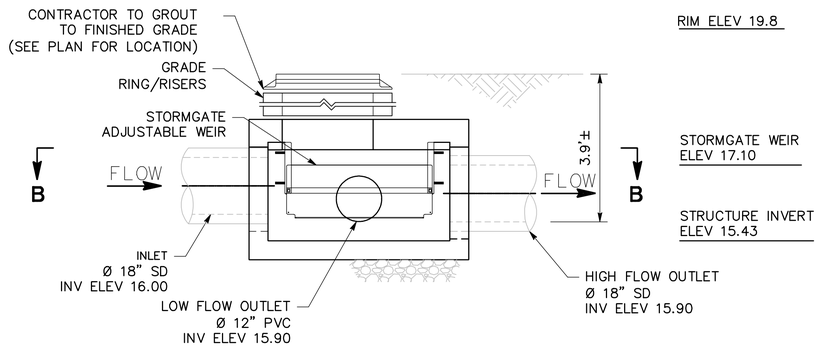
SHEET NO. 44
DD-2
OF 124 SHEETS
PROJECT NO.
05-17



PLAN VIEW



SECTION B-B



SECTION A-A

MATERIALS LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
1	STORMGATE WEIR ASSEMBLY	CONTECH
1	8" CAP WITH 12" ORIFICE	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
1	Ø 24"x 4" FRAME AND COVER	CONTRACTOR

SITE DESIGN DATA

WATER QUALITY FLOW RATE	0.23 cfs
PEAK FLOW RATE	1.52 cfs
RETURN PERIOD OF PEAK FLOW	10 yrs

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS PLEASE CONTACT YOUR LOCAL CONTECH STORMWATER SOLUTIONS REPRESENTATIVE. www.contechstormwater.com
4. STORMGATE BYPASS STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE AND CASTINGS SHALL MEET AASHTO H20 LOAD RATING.

INSTALLATION NOTES

1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMGATE STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
5. ADJUST STORMGATE WEIR TO DESIGN ELEVATION SPECIFIED IN DRAWING. DO NOT EXCEED 5.0 FT-LBS TORQUE WHEN TIGHTENING SCREWS ON WEIR FRAME. SEAL WEIR TO FRAME WITH RTV SILICONE SEALANT AFTER FINAL ADJUSTMENT.

STORM GATE™

THIS PRODUCT MAY BE PROTECTED BY U.S. PATENTS, RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

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CONTECH STORMWATER SOLUTIONS
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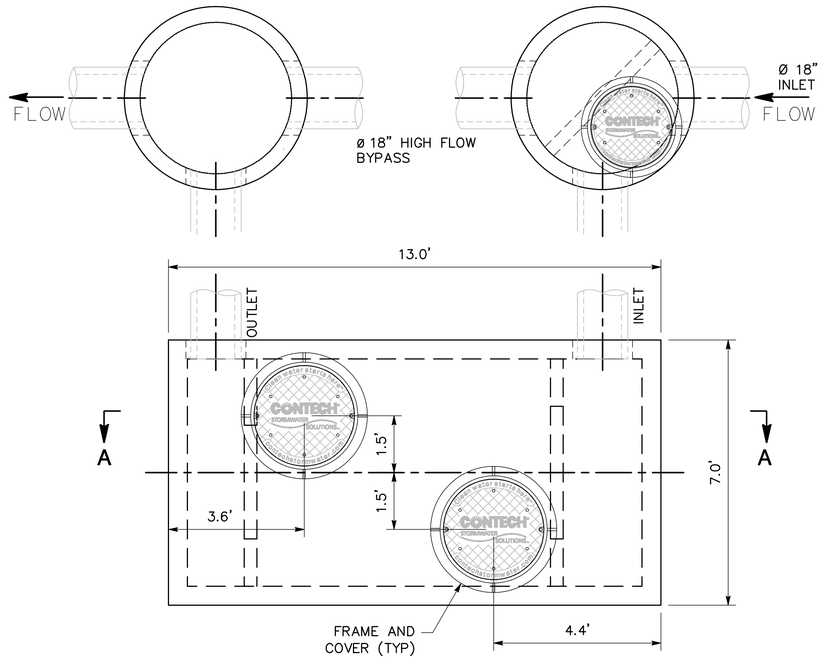
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT

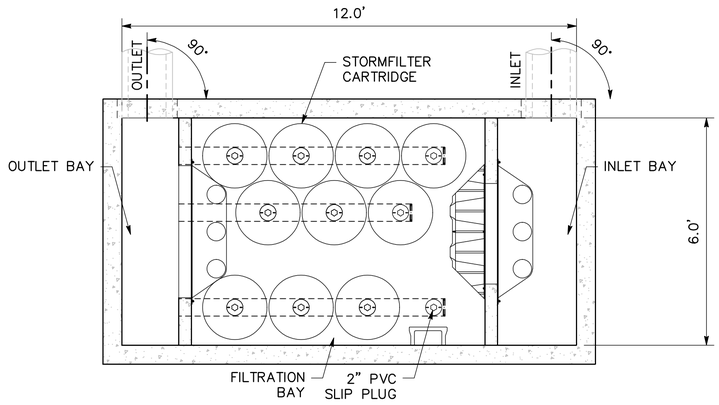
DRAINAGE DETAILS - LSR3

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: NTS	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 45	
DESIGNED BY:		DD-3	
DRAWN BY:		OF 124 SHEETS	
CHECKED BY:	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17	
RECORD DWG:			



PLAN VIEW



SECTION B-B

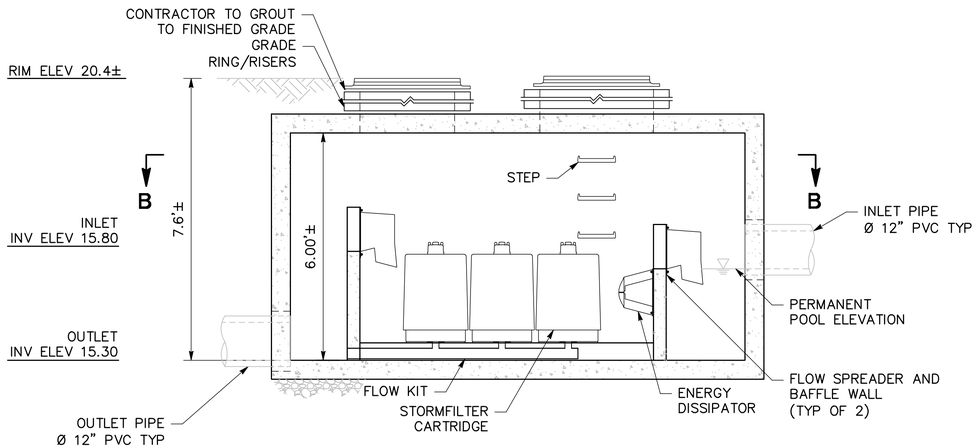
VAULT STYLE: 11F INLET BAY – OUTLET BAY

SITE DESIGN DATA

WATER QUALITY FLOW RATE	0.23 CFS
PEAK FLOW RATE	1.52 CFS
RETURN PERIOD OF PEAK FLOW	10 YRS
FILTER MEDIA TYPE	ZPG

MATERIALS LIST - PROVIDED BY CONTECH

COUNT	DESCRIPTION	INSTALLED BY
11	12", 10 GPM, ZPG CARTRIDGE (GRY)	CONTECH
–	2" PVC SLIP PLUG	CONTECH
1	FLOW KIT	CONTECH
1	ENERGY DISSIPATOR	CONTECH
1	FLOW SPREADER	CONTECH
1	SEALANT FOR JOINTS	CONTRACTOR
–	GRADE RING/RISERS	CONTRACTOR
2	Ø 30"x 4" FRAME AND COVER	CONTRACTOR



SECTION A-A

PERFORMANCE SPECIFICATION

FILTER CARTRIDGES SHALL BE MEDIA–FILLED, PASSIVE, SIPHON ACTUATED, RADIAL FLOW, AND SELF CLEANING. RADIAL MEDIA DEPTH SHALL BE 7–INCHES. FILTER MEDIA CONTACT TIME SHALL BE AT LEAST 37 SECONDS. SPECIFIC FLOW RATE SHALL BE 2 GPM/SF (MAXIMUM). SPECIFIC FLOW RATE IS THE MEASURE OF THE FLOW (GPM) DIVIDED BY THE MEDIA SURFACE CONTACT AREA (SF). MEDIA VOLUMETRIC FLOW RATE SHALL BE 6 GPM/CF OF MEDIA (MAXIMUM).

GENERAL NOTES

1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH ( ) ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED VAULT DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH STORMWATER SOLUTIONS REPRESENTATIVE. www.contechstormwater.com
4. STORMFILTER WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
5. STRUCTURE AND CASTINGS SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' – 5', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.

INSTALLATION NOTES

1. ANY SUB–BASE, BACKFILL DEPTH, AND/OR ANTI–FLOTATION PROVISIONS ARE SITE–SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STORMFILTER VAULT (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL VAULT SECTIONS AND ASSEMBLE VAULT.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH OUTLET PIPE INVERT WITH OUTLET BAY FLOOR.
5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT CARTRIDGES FROM CONSTRUCTION–RELATED EROSION RUNOFF.

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Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT

DRAINAGE DETAILS - LSR3

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: NTS
DESIGNED BY:
DRAWN BY:
CHECKED BY:
RECORD DWG:

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 46
DD-4
OF 124 SHEETS
PROJECT NO.
05-17

GENERAL NOTES:

1. ALL MATERIALS USED SHALL CONFORM TO THE CURRENT CITY OF STOCKTON STANDARDS AND SPECIFICATIONS AND THESE MATERIAL SPECIFICATIONS. CONTRACTOR SHALL PROVIDE MANUFACTURERS SUBMITTALS ON ALL EQUIPMENT SPECIFIED IN THIS MATERIALS SPECIFICATION.

2. DOMESTIC WATER FACILITIES: UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER, ALL DOMESTIC WATER FACILITIES IMPROVEMENTS SHOWN ON THESE PLANS SHALL CONFORM TO THE REQUIREMENTS OF COS STANDARD SPECIFICATIONS AND PLANS, SECTION 76.

3. EXPOSED PIPE: STEEL, AWWA C200 WELDED STEEL PIPE. (MIN WALL THICKNESS = .375) EXPOSED STEEL PIPE SHALL BE EPOXY LINED PER AWWA C213, AND COATED PER AWWA C218, 4.2.8.

4. BURIED PIPE: POLY-VINYL CHLORIDE (PVC), AWWA C905 PIPE; AND STEEL, AWWA C200 WELDED WITH 80 MILL AWWA C214 DOUBLE TAPE WRAP AND AWWA C205 MORTAR LINING. (MIN WALL THICKNESS OF BURIED STEEL PIPE SHALL BE 0.375) ALL BURIED PIPE SHALL BE INSTALLED IN STRICT ACCORDANCE WITH PIPE MANUFACTURERS SPECIFICATIONS AND CITY OF STOCKTON STANDARDS.

5. FITTINGS: PIPE FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF ANSI/AWWA C110/A21.20, DUCTILE-IRON AND GRAY-IRON FITTINGS, 3-INCH THROUGH 48-INCH, FOR WATER AND OTHER LIQUIDS. FITTINGS SHALL BE FLANGED, MECHANICAL JOINT, OR PUSH-ON TO SUIT THE CONDITIONS SPECIFIED. FABRICATED STEEL PIPE FITTINGS SHALL BE PER AWWA C208.

6. INSTALLATION: ALL WATER PIPE, VALVES, CASINGS, AND OTHER APPURTENANCES SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND WITH THE CITY OF STOCKTON STANDARD SPECIFICATIONS. UNLESS OTHERWISE SPECIFIED ON THE PLANS, VERTICAL GRADE BREAKS SHALL BE CONSTRUCTED BY DEFLECTING AN APPROPRIATE NUMBER OF PIPE JOINTS. IN NO CASE SHALL JOINTS BE DEFLECTED BEYOND PIPE MANUFACTURERS SPECIFICATIONS.

7. ACTUAL CONNECTIONS TO EXISTING WATER LINES WILL NOT BE PERMITTED PRIOR TO THE COMPLETION OF STERILIZATION AND TESTING OF NEW WATER MAINS. ALL EXISTING WATER VALVES TO BE OPERATED UNDER THE DIRECTION OF THE WATER DIVISION OF THE REGULATORY AGENCY PERSONNEL ONLY.

8. UNLESS OTHERWISE SPECIFIED, A SINGLE VALVE MANUFACTURER SHALL PROVIDE VALVES OF THE SAME SIZE AND SERVICE. FLANGES SHALL MEET THE REQUIREMENTS OF ANSI B16.5. PUSH-ON AND MECHANICAL JOINTS SHALL MEET THE REQUIREMENTS OF ANSI A21.11. WAFER STYLE VALVES WHERE ALLOWED SHALL BE DESIGNED FOR INSTALLATION BETWEEN 125 POUND FLANGES. SELECTED VALVES SHALL MEET THE REQUIREMENTS OF THE CITY OF STOCKTON STANDARD SPECIFICATIONS.

9. ISOLATION VALVES: VALVES THREE (3) INCH THROUGH TWELVE (12) INCH DIAMETER SHALL BE GATE VALVES, AND VALVES LARGER THAN TWELVE (12) INCH SHALL BE BUTTERFLY VALVES. GATE VALVES SHALL BE DOUBLE DISK WITH NON-RISING STEM MEETING OR EXCEEDING THE LATEST REVISIONS OF AWWA C500. GATE VALVES SHALL BE MUELLER NO. A-2380 OR APPROVED EQUAL. BUTTERFLY VALVES SHALL MEET OR EXCEED THE LATEST REVISION OF AWWA C504.

10. AIR RELEASE VALVES: UNLESS OTHERWISE SPECIFIED, AIR RELEASE VALVES SHALL BE MANUFACTURED BY APCO, MODEL #50, SCREWED INLET.

11. SERVICE SADDLES FOR LARGE DIAMETER DUCTILE IRON PIPE SHALL BE MANUFACTURED BY APAC PRODUCTS, OR APPROVED EQUAL.

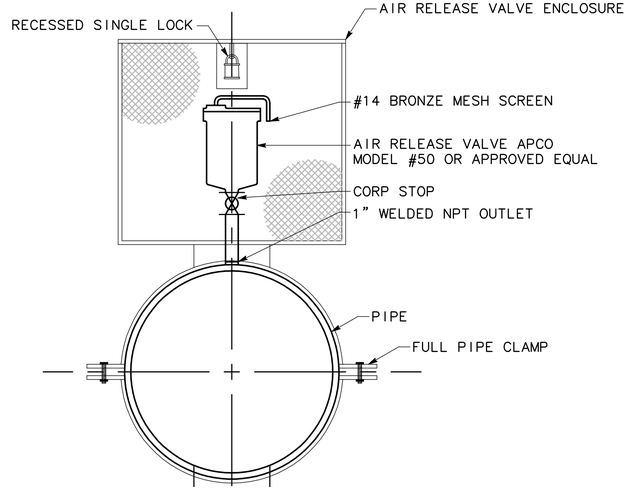
12. CORPORATION STOPS AT SERVICE CONNECTIONS SHALL BE MANUFACTURED BY FORD, MODEL FV110-7, OR APPROVED EQUAL.

13. VALVE BOXES SHALL BE INSTALLED PER THE CITY OF STOCKTON STANDARD SPECIFICATIONS AND SHALL BE MANUFACTURED BY CHRISTY, MODEL G5.

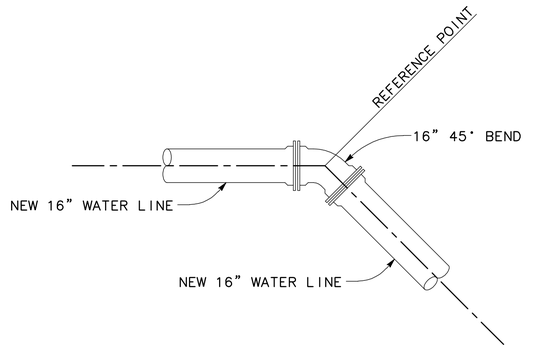
14. HYDROSTATIC TESTING OF THE COMPLETED WATER TRANSMISSION LINE SHALL BE CONDUCTED IN ACCORDANCE WITH SECTIONS 76-1.03B(1) OF THE COS STANDARD SPECIFICATIONS AND PLANS. ALL LEAKAGE TESTS SHALL BE COMPLETED FOLLOWING THE PLACEMENT AND COMPACTION OF THE BACKFILL. WHEN LEAKAGE EXCEEDS THE AMOUNT ALLOWED IN THE SPECIFICATION, THE CONTRACTOR SHALL LOCATE THE LEAKS AND MAKE ALL NECESSARY REPAIRS OR REPLACEMENTS TO REDUCE THE LEAKAGE TO THE SPECIFIED LIMITS. ANY INDIVIDUALLY DETECTABLE LEAKS SHALL BE REPAIRED, REGARDLESS OF THE RESULTS OF THE TESTS. THE CONTRACTOR SHALL PROVIDE ALL PLUGS, CAPS, GAUGES AND TEST EQUIPMENT REQUIRED FOR TESTS.

15. ALL PIPING SYSTEMS SHALL BE FLUSHED AND CLEANED FOLLOWING COMPLETION OF TESTING. THE CONTRACTOR MAY, AT HIS OPTION, CLEAN AND TEST SECTIONS OF A BURIED OR EXPOSED PIPING SYSTEM. THIS PROCEDURE, HOWEVER, WILL NOT WAIVE THE REQUIREMENT FOR A FULL PRESSURE TEST OF THE COMPLETED SYSTEM. CLEANING AND FLUSHING SHALL BE DONE IN ACCORDANCE WITH AWWA C600. DISINFECTION OF FINISHED WATER PIPING SHALL BE DONE IN ACCORDANCE WITH COS STANDARD SPECIFICATIONS AND PLANS, SECTION 76-1.03(C).

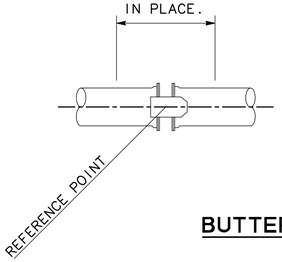
16. ANY STORM DRAIN OR SEWER PIPE CROSSING A WATER LINE SHALL FOLLOW CALIFORNIA PUBLIC HEALTH REQUIREMENTS PER CITY OF STOCKTON STANDARD DRAWING 47.

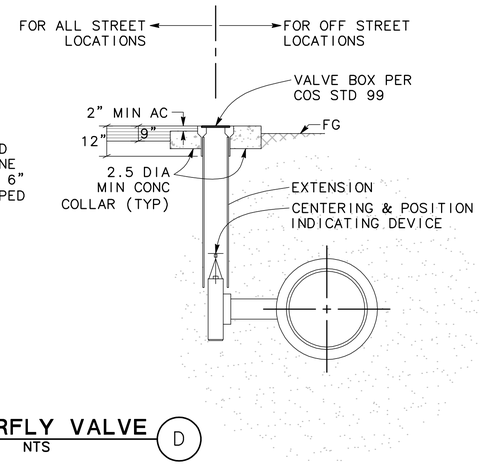


A AIR RELEASE VALVE ASSEMBLY
NTS



B 45 DEGREE BEND
NTS





D BUTTERFLY VALVE
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MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
WATER DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=20'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 47
WD-1
OF 124 SHEETS
PROJECT NO.
05-17

RESTRAINED JOINT 100 LF 16"W
RESTRAINED JOINT 26 LF 16"W
RESTRAINED JOINT 128 LF 16"W
RESTRAINED JOINT 158 LF 16"W
RESTRAINED JOINT 15 LF 16"W
RESTRAINED JOINT 20 LF 16"W
RESTRAINED JOINT 20 LF 16"W
RESTRAINED JOINT 20 LF 16"W
RESTRAINED JOINT 100 LF 16"W

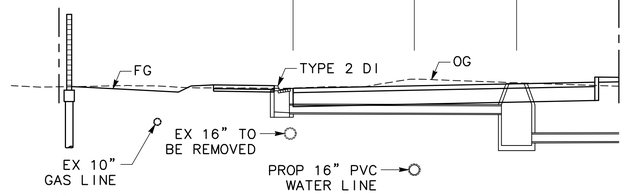
"LSR" 16+81.44, 36.83' LT 45° BEND PER DETAIL B ON SHEET WD-1
"LSR" 16+85.17, 36.84' LT 45° BEND PER DETAIL B ON SHEET WD-1
PROP 12" DIP CULVERT
"LSR" 17+05.17, 36.85' LT 45° BEND PER DETAIL B ON SHEET WD-1
"LSR" 17+05.17, 36.85' LT 45° BEND PER DETAIL B ON SHEET WD-1
"LSR" 18+36.50, 38.21' LT 16" BUTTERFLY VALVE PER DETAIL D ON SHEET WD-1
"LSR" 18+40.50, 38.32' LT 16"X16"X6" TEE
"LSR" 19+94.70, 42.56' LT 45° BEND PER DETAIL B ON SHEET WD-1
15 LF 16" WATER PVC C-905 S=30.7%
"LSR" 20+10.00, 27.00' LT 45° BEND PER DETAIL B ON SHEET WD-1
"LSR" 21+50.00, 27.00' LT 45° BEND PER DETAIL B ON SHEET WD-1
20 LF 16" WATER PVC C-905 S=31.4%
"LSR" 21+69.86, 47.24' LT 45° BEND PER DETAIL B ON SHEET WD-1
"LSR" 23+85.70, 47.24' LT EX 16"X16"X8"

9.24 16" W
8.18 16" W
5.50 16" W
5.50 16" W
12.58 16" W
8.00 16" W
14.27 16" W
8.00 16" W

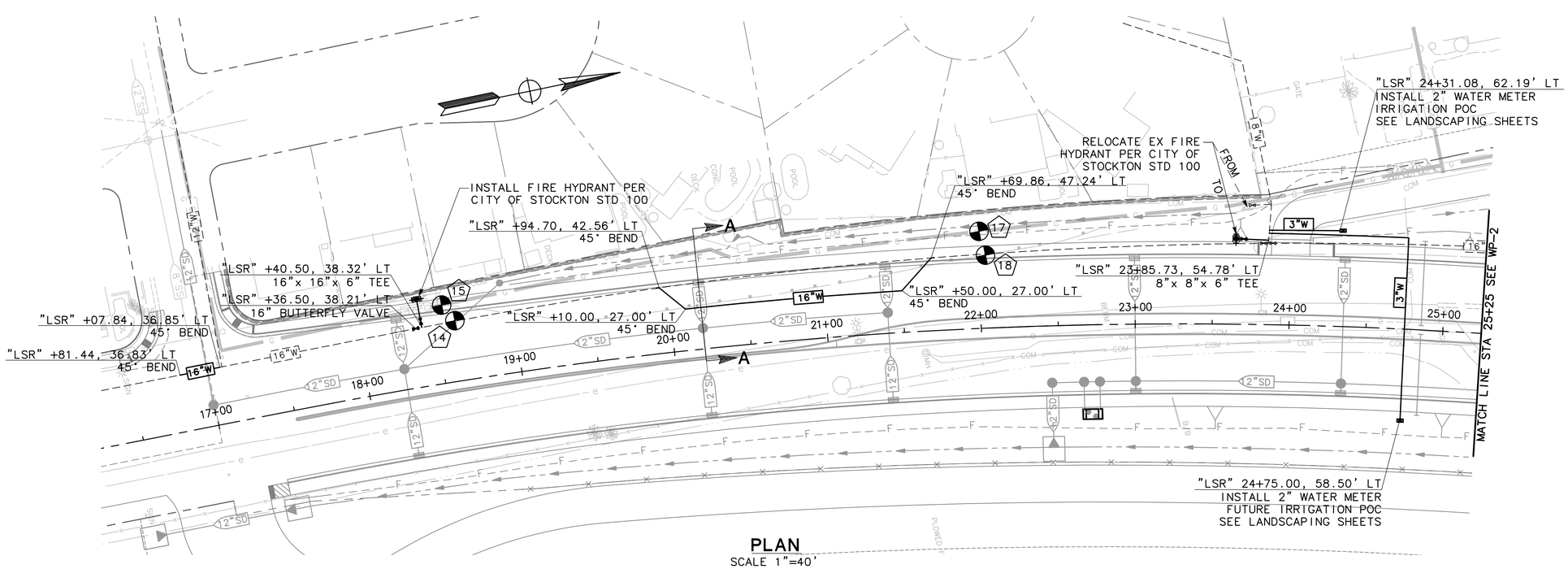
PROP 12" DIP CULVERT
PROP 12" DIP CULVERT
PROP 12" DIP CULVERT
OG
FG
EX 16" PVC WATER LINE

4 LF 16" WATER PVC C-905 S=100.0%
3 LF 16" WATER PVC C-905 S=100.0%
20 LF 16" WATER PVC C-905 S=0.0%
140 LF 16" WATER PVC C-905 S=0.0%

50 40 30 20 10 0 −10 −20
17+00 18+00 19+00 20+00 21+00 22+00 23+00 24+00 25+00
MATCH LINE STA 25+25 SEE WP-2



SECTION A-A
NTS



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No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

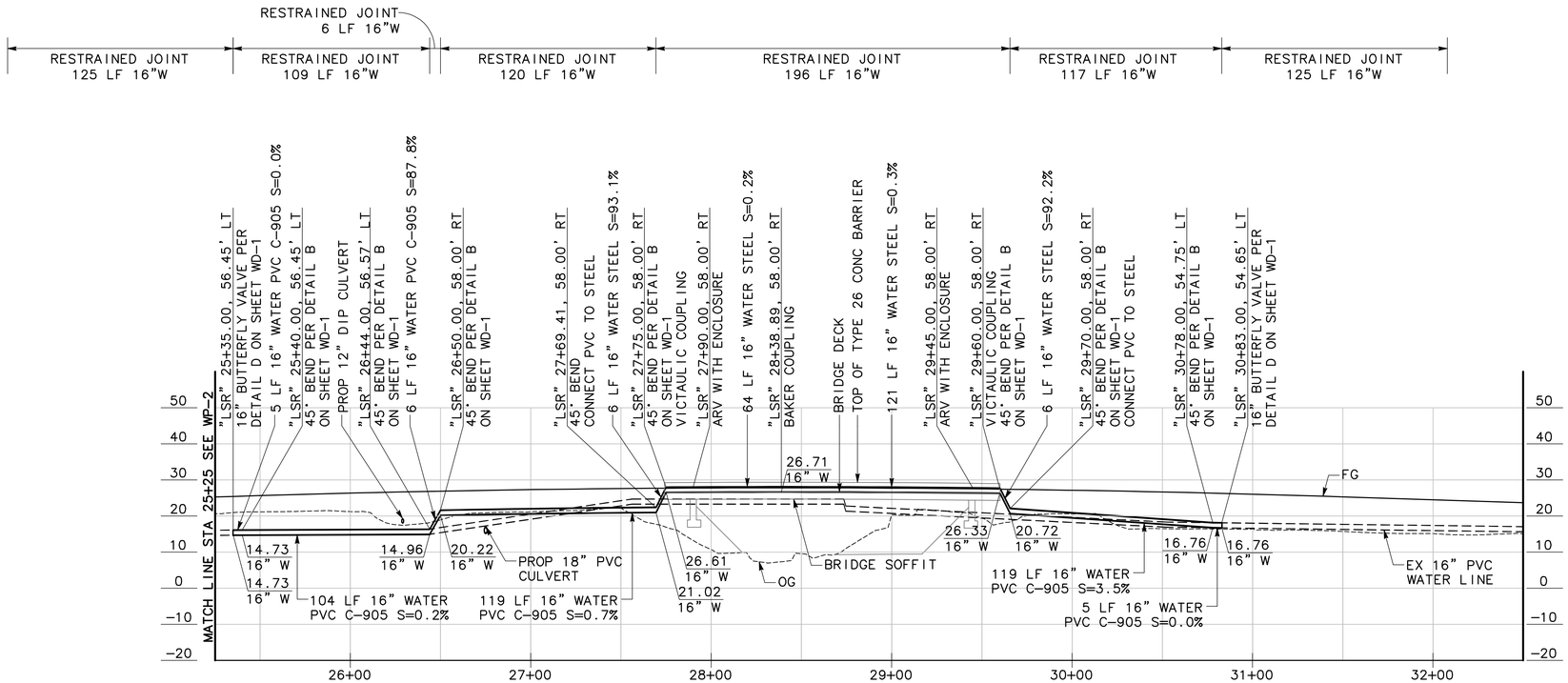
LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
WATER PLAN

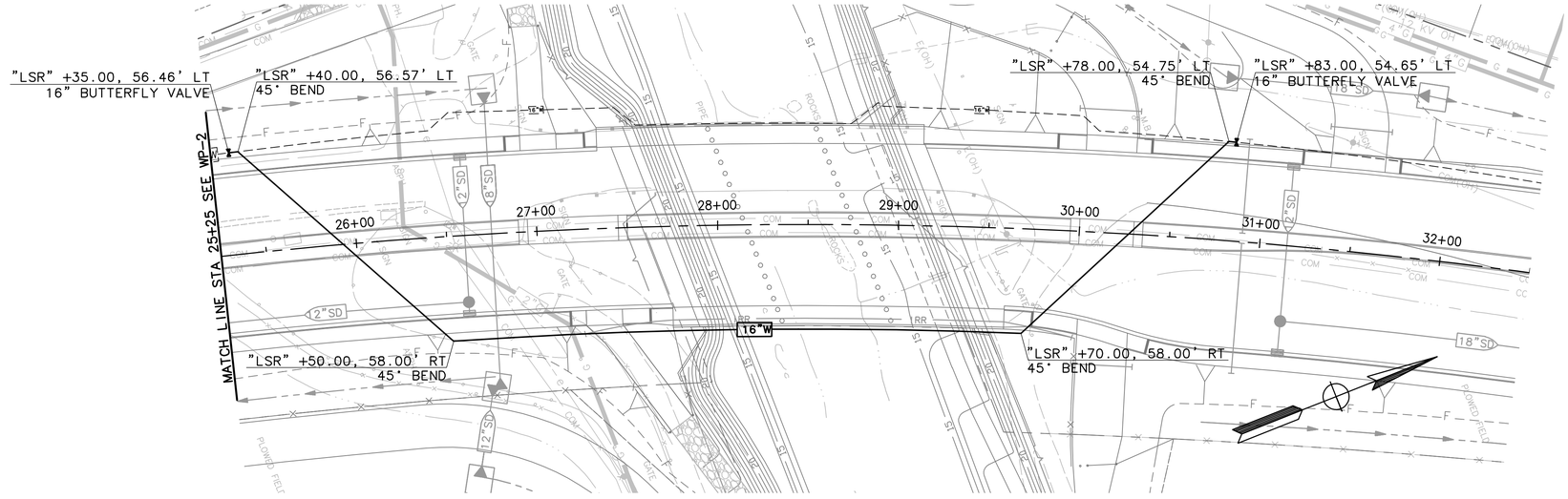
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=20'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 48
WP-1
OF 124 SHEETS
PROJECT NO. 05-17





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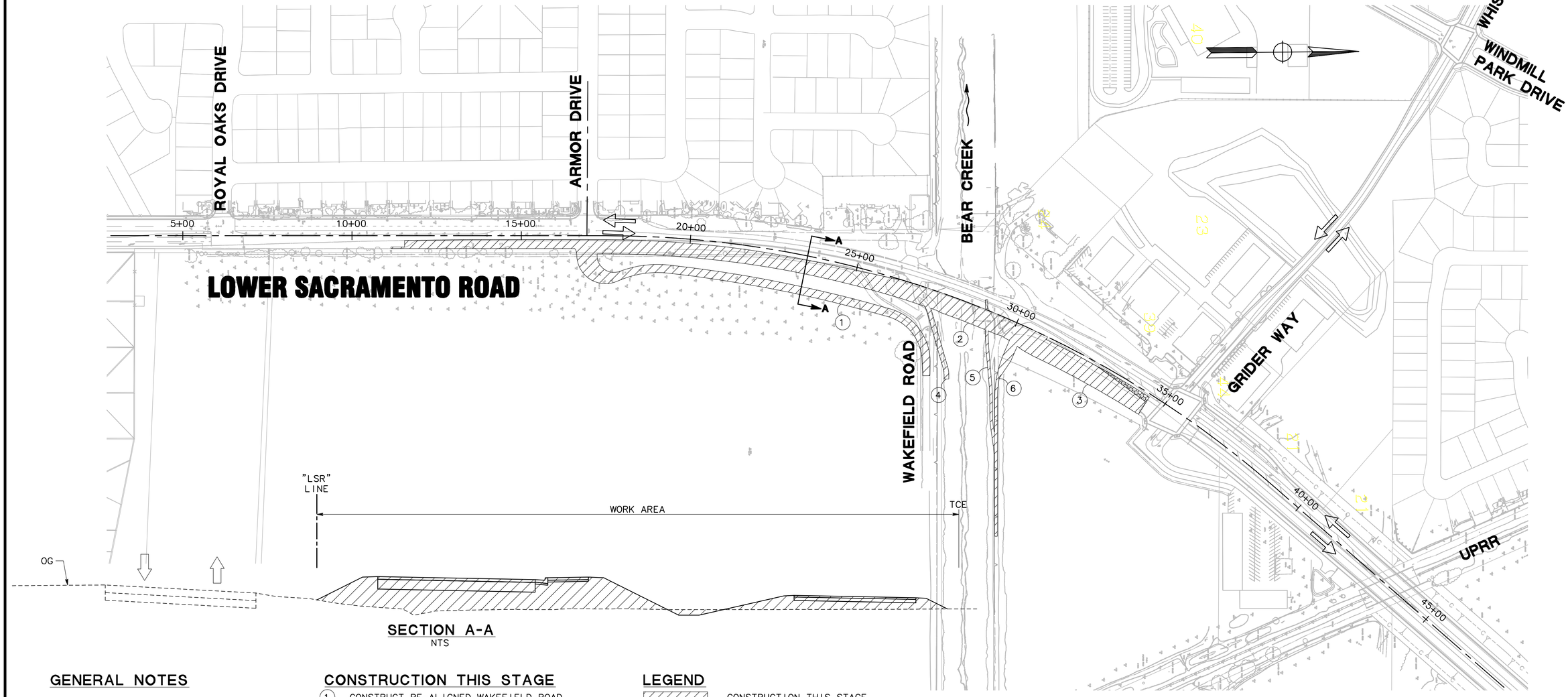
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
WATER PLAN

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: AS SHOWN	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: DWM	CITY ENGINEER STOCKTON, CALIFORNIA
DRAWN BY: JMN, AMR, BES	
CHECKED BY: MAS	
RECORD DWG:	

SHEET NO. 49
WP-2
OF 124 SHEETS
PROJECT NO.
05-17



SECTION A-A
NTS

GENERAL NOTES

1. WORK THAT IS NOT IN CONFLICT OR IS NOT NECESSARY FOR STAGING OPERATION CAN BE DONE AT ANY TIME AND IS NOT SHOWN.
2. REFER TO SPECIAL PROVISIONS FOR LIMITATIONS OF WORK PERIODS.
3. REFER TO TRAFFIC CONTROL SHEETS FOR TRAFFIC HANDLING DETAILS.

CONSTRUCTION THIS STAGE

1. CONSTRUCT RE-ALIGNED WAKEFIELD ROAD
2. CONSTRUCT "STAGE 1" OF LOWER SACRAMENTO ROAD BRIDGE AT BEAR CREEK
3. CONSTRUCT WIDENING OF LOWER SACRAMENTO ROAD FROM ROYAL OAKS DRIVE TO GRIDER WAY
4. CONSTRUCT "LA1" LINE FROM STA 5+25 TO 8+00
5. CONSTRUCT "BP" LINE FROM STA 14+00 TO 21+00
6. CONSTRUCT "DW2" LINE
7. ADJUST LOWER SACRAMENTO ROAD/GRIDER WAY INTERSECTION TO GRADE UNDER FLAGGING

LEGEND

- CONSTRUCTION THIS STAGE
- AREA OF CONSTRUCTION TO BE PAVED WHILE MAINTAINING ALL TRAFFIC MOVEMENTS AT ALL TIMES BY USING FLAGGERS, CONES, ETC.
- (#) CONSTRUCTION ITEM THIS STAGE
- DIRECTION OF TRAFFIC

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Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By
—				

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
STAGE CONSTRUCTION - STAGE 1
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=300'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 50
SC1-1
OF 124 SHEETS
PROJECT NO. 05-17

CONSTRUCTION THIS STAGE:

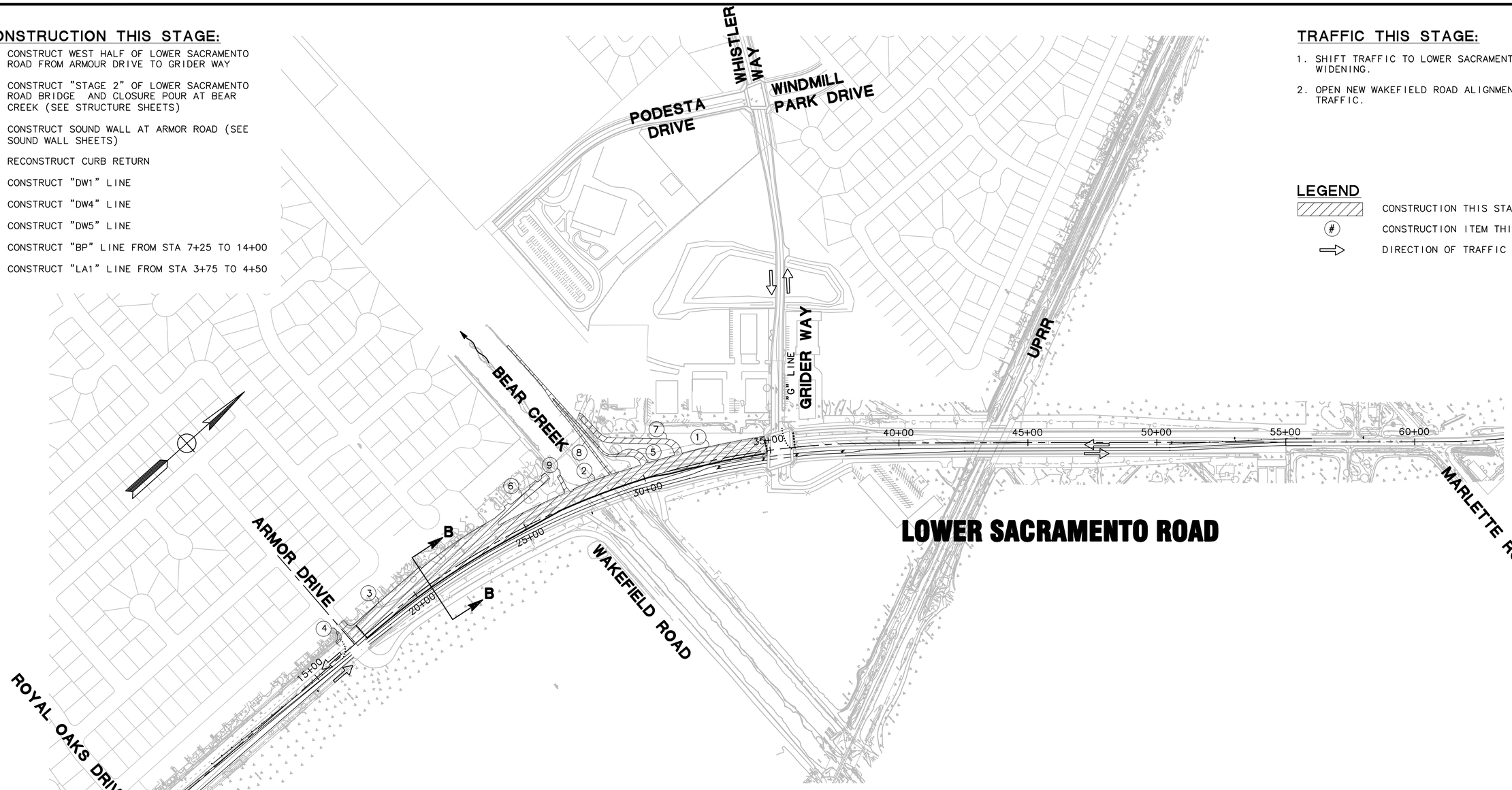
1. CONSTRUCT WEST HALF OF LOWER SACRAMENTO ROAD FROM ARMOUR DRIVE TO GRIDER WAY
2. CONSTRUCT "STAGE 2" OF LOWER SACRAMENTO ROAD BRIDGE AND CLOSURE POUR AT BEAR CREEK (SEE STRUCTURE SHEETS)
3. CONSTRUCT SOUND WALL AT ARMOR ROAD (SEE SOUND WALL SHEETS)
4. RECONSTRUCT CURB RETURN
5. CONSTRUCT "DW1" LINE
6. CONSTRUCT "DW4" LINE
7. CONSTRUCT "DW5" LINE
8. CONSTRUCT "BP" LINE FROM STA 7+25 TO 14+00
9. CONSTRUCT "LA1" LINE FROM STA 3+75 TO 4+50

TRAFFIC THIS STAGE:

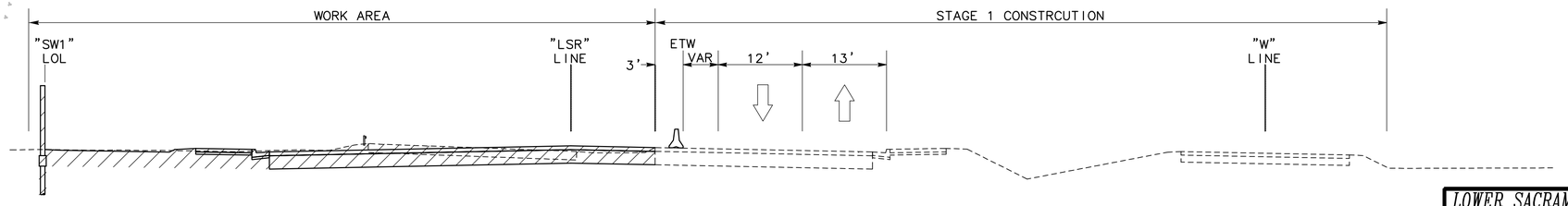
1. SHIFT TRAFFIC TO LOWER SACRAMENTO ROAD WIDENING.
2. OPEN NEW WAKEFIELD ROAD ALIGNMENT TO TRAFFIC.

LEGEND

- CONSTRUCTION THIS STAGE
- (#) CONSTRUCTION ITEM THIS STAGE
- DIRECTION OF TRAFFIC



LOWER SACRAMENTO ROAD



SECTION B-B
NTS

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Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

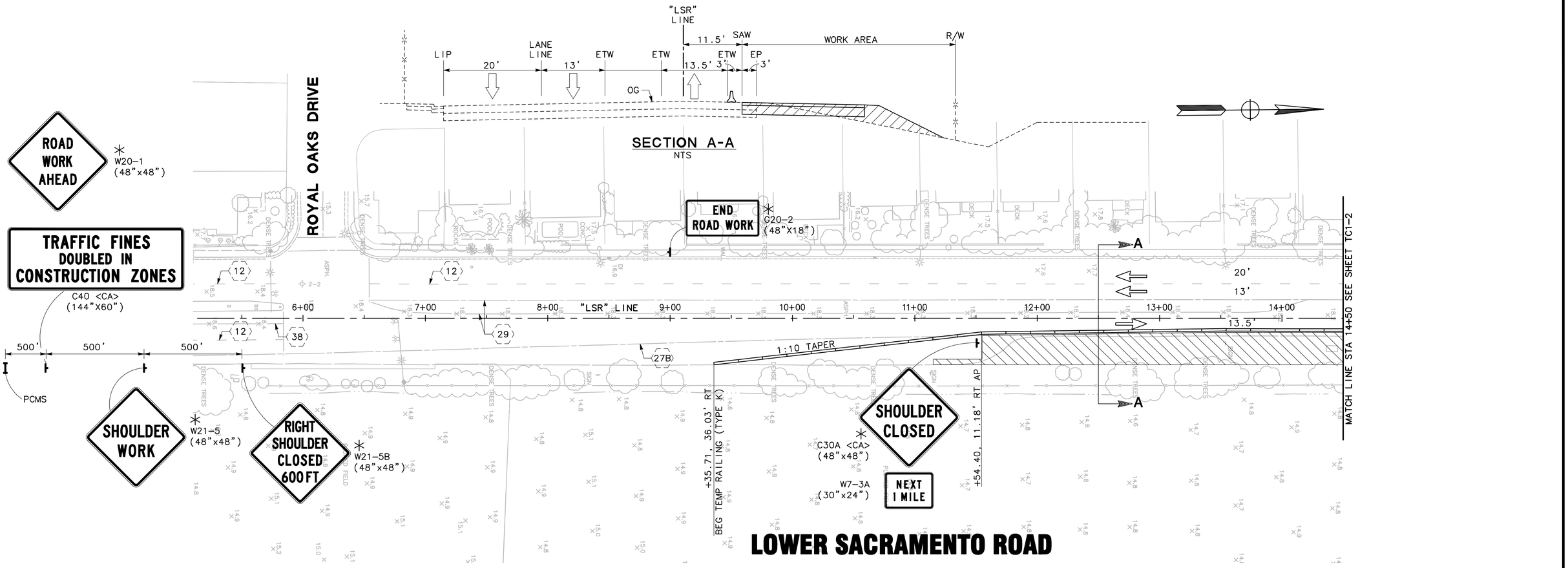
Revision No.	Description	Date	By	Aprvd. By
—				

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
STAGE CONSTRUCTION - STAGE 2
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=300'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 51
SC2-1
OF 124 SHEETS
PROJECT NO. 05-17



LOWER SACRAMENTO ROAD

LEGEND

	STAGE 1 CONSTRUCTION
	STAGE 1 CONSTRUCTION WITH LANE CLOSURES AND FLAGGING
LL	LIMIT LINE – 12" SOLID WHITE STRIPE
OC	ON CENTER
○	BC/EC
△	ANGLE POINT
	TRAFFIC LINE LIMIT
• •	CHANNELIZER (SURFACE MOUNTED)
	CRASH CUSHION (TYPE TS-14) WITH TYPE P MARKER UNLESS OTHERWISE NOTED
XXX	TRAFFIC LINE DETAIL NUMBER
XXX	EXISTING TRAFFIC LINE DETAIL NUMBER
	TEMPORARY RAILING (TYPE K)
I	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
	TYPE (IV) ARROW (TEMPORARY PAINT PAVEMENT MARKING)
	TYPE VI ARROW
SIGNAL AHEAD	MISC PAVEMENT MARKING
	DIRECTIONAL ARROWS
⬣	CONSTRUCTION SIGN TO REMAIN
⬥	CONSTRUCTION SIGN TO BE REMOVED
✳	CONSTRUCTION SIGN TO BE INSTALLED
▲	CONSTRUCTION SIGN TO BE RELOCATED
///	REMOVE STRIPING
	CHANGE SIGNAL OPERATION FOR THIS STAGE

GENERAL NOTES

1. PERMANENT DRAINAGE AND UTILITIES FACILITIES NOT SHOWN ON THESE PLANS. SEE DRAINAGE AND UTILITIES FOR INFORMATION ON PERMANENT DRAINAGE AND UTILITIES FACILITIES.
2. SIGNAL AT GRIDER WAY AND LOWER SACRAMENTO ROAD SHOULD BE SWITCHED TO OPERATE ON TIMER FOR STAGE 1. FOR TEMPORARY SIGNAL OPERATION SEE ELECTRICAL PLANS.
3. FOR ADDITIONAL TRAFFIC CONTROL NOTES SEE SHEET G-1.
4. STATION OFFSETS FOR K-RAIL ARE TO CENTER OF K-RAIL.

BEFORE EXCAVATING
CALL U.S.A.
UNDERGROUND SERVICE ALERT
800-227-2600
TOLL FREE
2 WORKING DAYS BEFORE ALL
PLANNED WORK OPERATIONS

CALL BEFORE YOU DIG 800-227-2600

UNION PACIFIC
CALL BEFORE YOU DIG
800-336-9193

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
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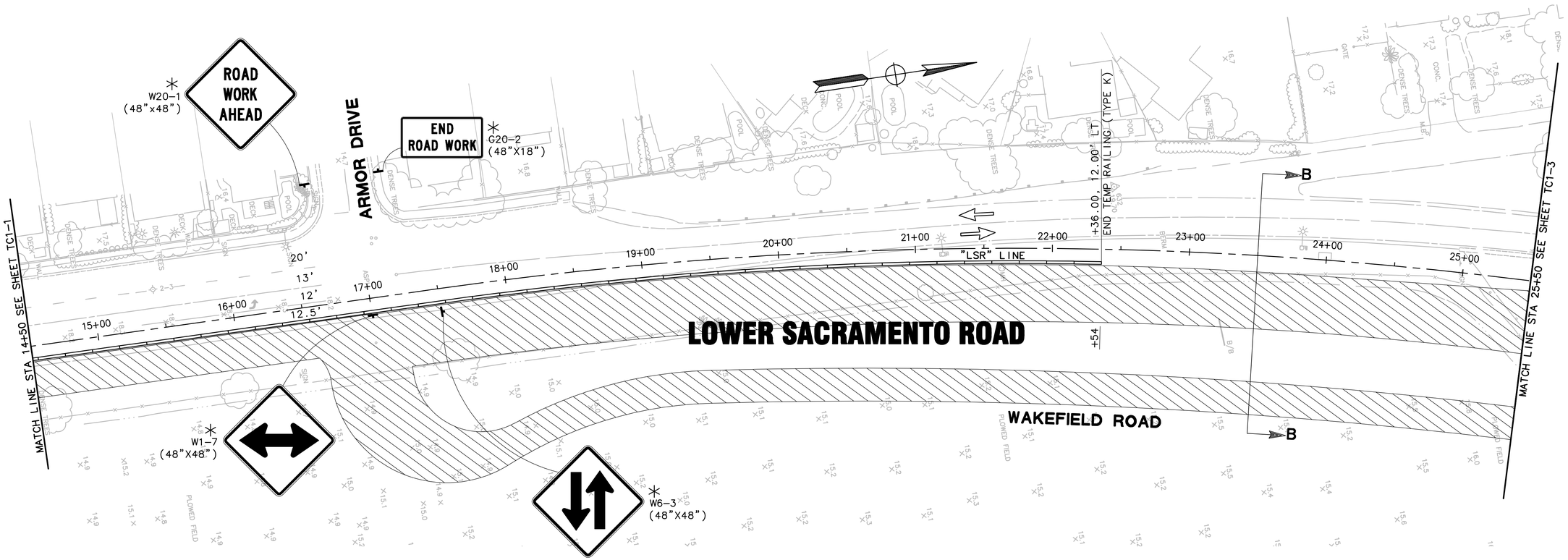
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180
WWW.MARKTHOMAS.COM
MTCO JOB NUMBER: 57-0221B

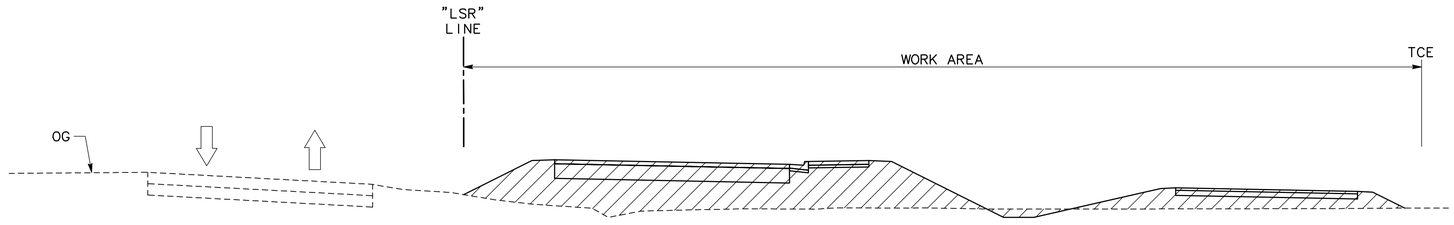
REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
TRAFFIC CONTROL - STAGE 1
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=40'	APPROVED BY:	DATE: JULY 12, 2010	SHEET NO. 52
DESIGNED BY: DWM			TC1-1
DRAWN BY: JMN, AMR, BES			OF 124 SHEETS
CHECKED BY: MAS	CITY ENGINEER		PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA		05-17





SECTION B-B
NTS

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ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

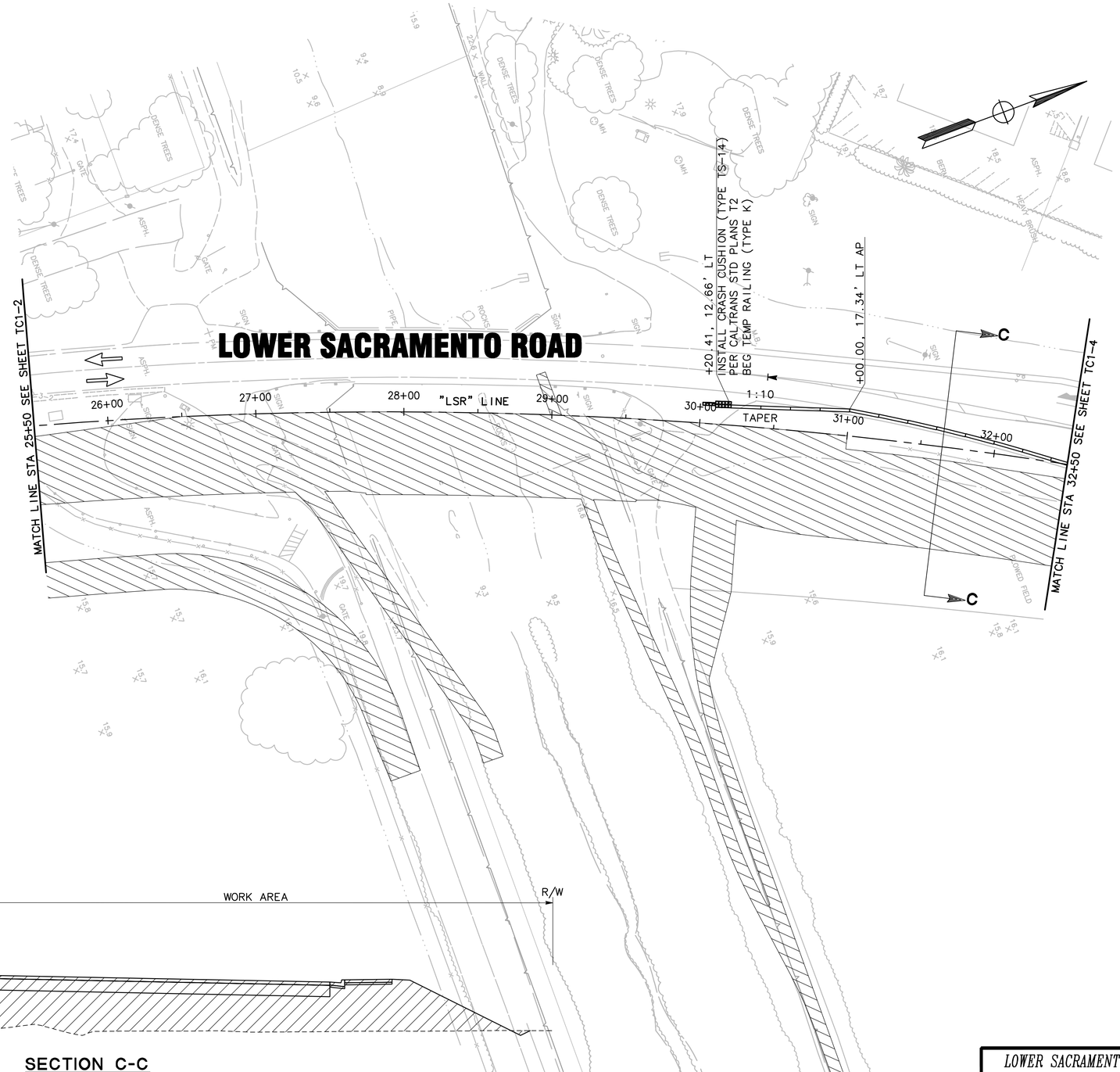
Revision No.	Description	Date	By	Aprvd. By
–				

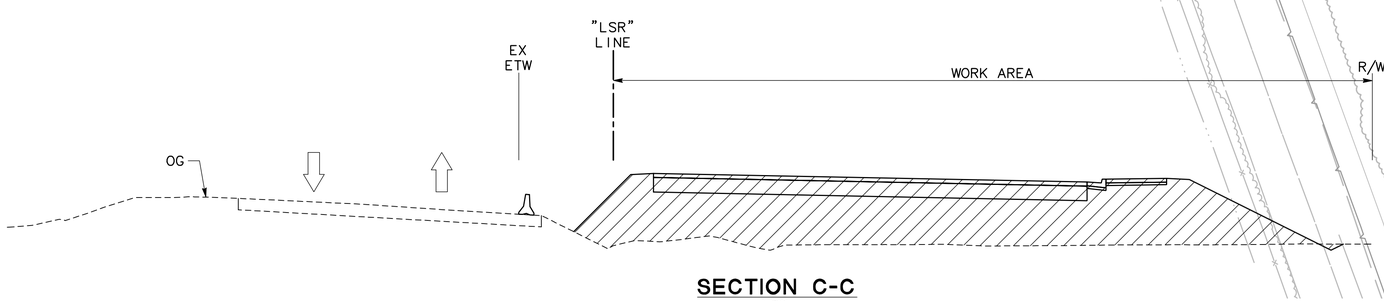
LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
TRAFFIC CONTROL - STAGE 1
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 53
TC1-2
OF 124 SHEETS
PROJECT NO.
05-17





SECTION C-C
NTS

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PLANNED WORK OPERATIONS

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ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
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PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

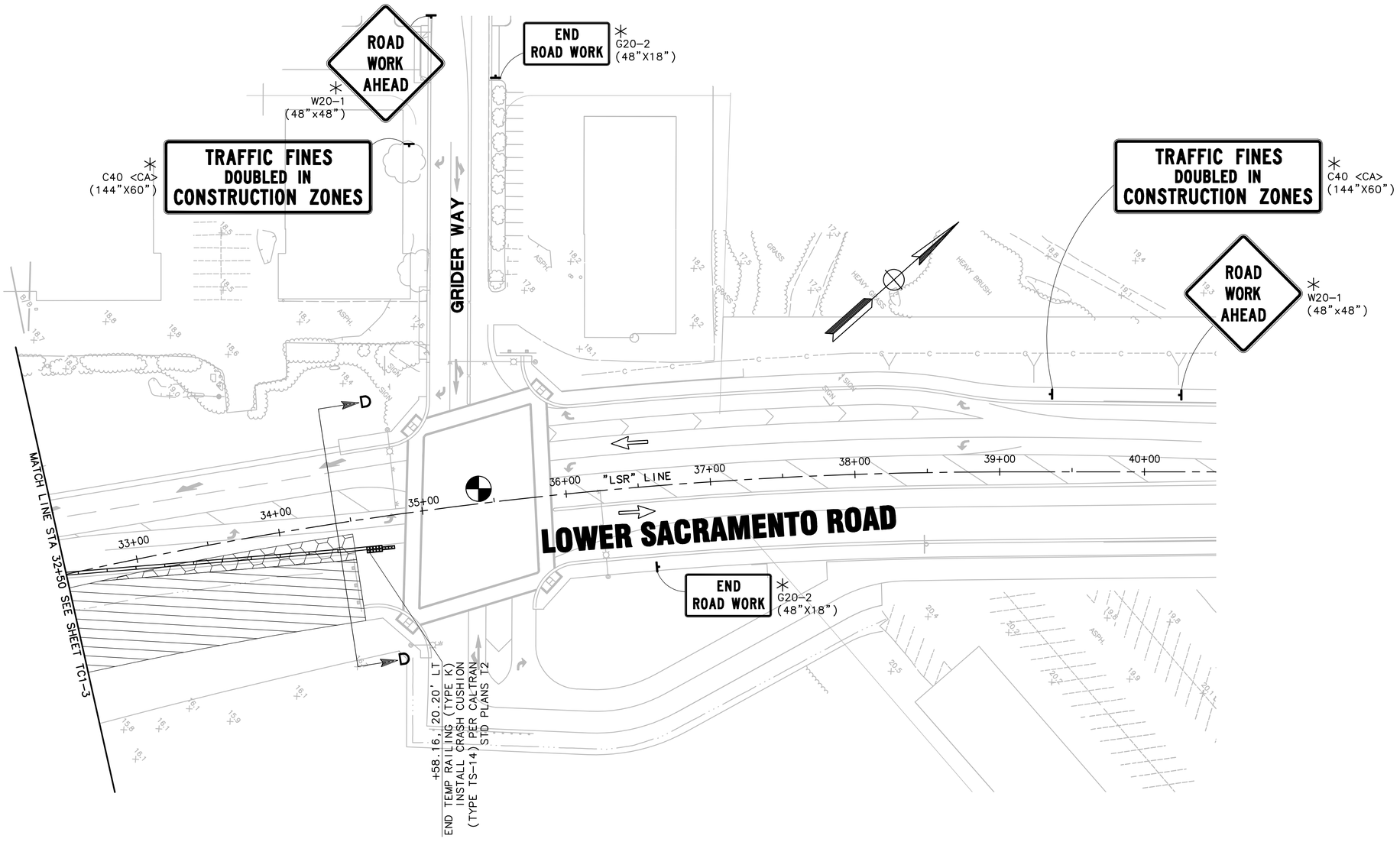
Revision No.	Description	Date	By	Aprvd. By

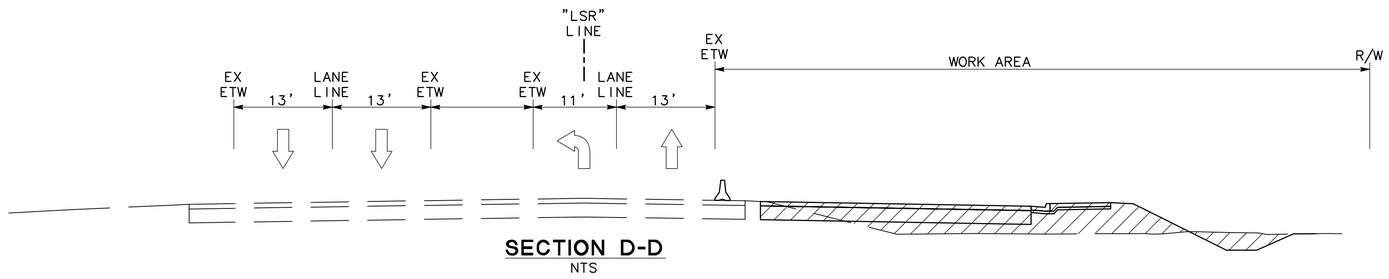
LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
TRAFFIC CONTROL - STAGE 1
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 54
TC1-3
OF 124 SHEETS
PROJECT NO.
05-17





SECTION D-D
NTS

BEFORE EXCAVATING
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UNDERGROUND SERVICE ALERT
800-227-2600
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PLANNED WORK OPERATIONS

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ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
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MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

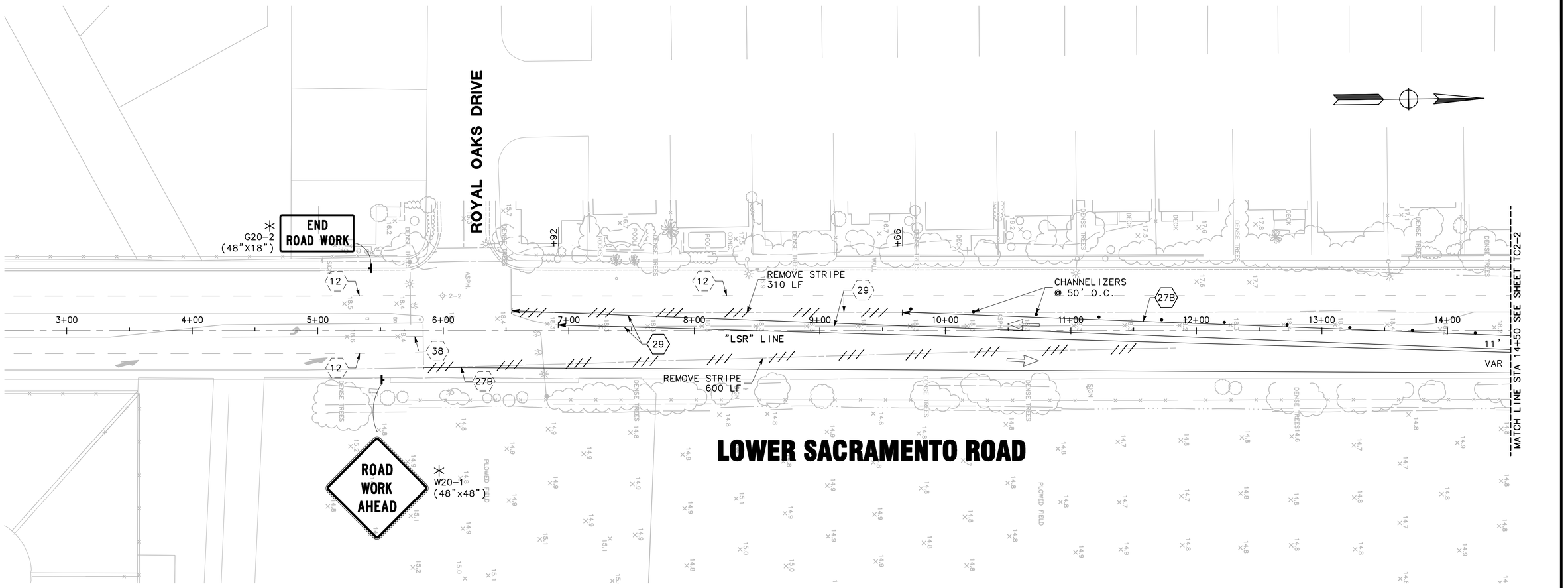
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT

TRAFFIC CONTROL - STAGE 1

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=40'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 55	
DESIGNED BY: DWM		TC1-4	
DRAWN BY: JMN, AMR, BES		OF 124 SHEETS	
CHECKED BY: MAS	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17	
RECORD DWG:			



LEGEND

- STAGE 2 CONSTRUCTION
- STAGE 2 CONSTRUCTION WITH LANE CLOSURES AND FLAGGING
- LL — LIMIT LINE – 12" SOLID WHITE STRIPE
- OC — ON CENTER
- BC/EC
- ANGLE POINT
- TRAFFIC LINE LIMIT
- CHANNELIZER (SURFACE MOUNTED)
- CRASH CUSHION (TYPE TS-14) WITH TYPE P MARKER UNLESS OTHERWISE NOTED
- XXX — TRAFFIC LINE DETAIL NUMBER
- XXX — EXISTING TRAFFIC LINE DETAIL NUMBER
- TEMPORARY RAILING (TYPE K)
- TYPE (IV) ARROW (TEMPORARY PAINT PAVEMENT MARKING)
- TYPE VI ARROW
- SIGNAL AHEAD — MISC PAVEMENT MARKING
- DIRECTIONAL ARROWS
- CONSTRUCTION SIGN TO REMAIN
- CONSTRUCTION SIGN TO BE REMOVED
- CONSTRUCTION SIGN TO BE INSTALLED
- CONSTRUCTION SIGN TO BE RELOCATED
- REMOVE STRIPING
- CHANGE SIGNAL OPERATION FOR THIS STAGE

GENERAL NOTES

1. PERMANENT DRAINAGE AND UTILITIES FACILITIES NOT SHOWN ON THESE PLANS. SEE DRAINAGE AND UTILITIES FOR INFORMATION ON PERMANENT DRAINAGE AND UTILITIES FACILITIES.
2. SIGNAL AT GRIDER WAY AND LOWER SACRAMENTO ROAD SHOULD BE SWITCHED TO OPERATE ON TIMER FOR STAGE 1. FOR TEMPORARY SIGNAL OPERATION SEE ELECTRICAL PLANS.
3. FOR ADDITIONAL TRAFFIC CONTROL NOTES SEE SHEET G-1.
4. STATION OFFSETS FOR K-RAIL ARE TO CENTER OF K-RAIL.
5. REMOVE ALL LANE CLOSURE SIGNS AND PAVEMENT MARKINGS BETWEEN SUNNY OAKS WAY AND MORADA LANE.

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UNION PACIFIC
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ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

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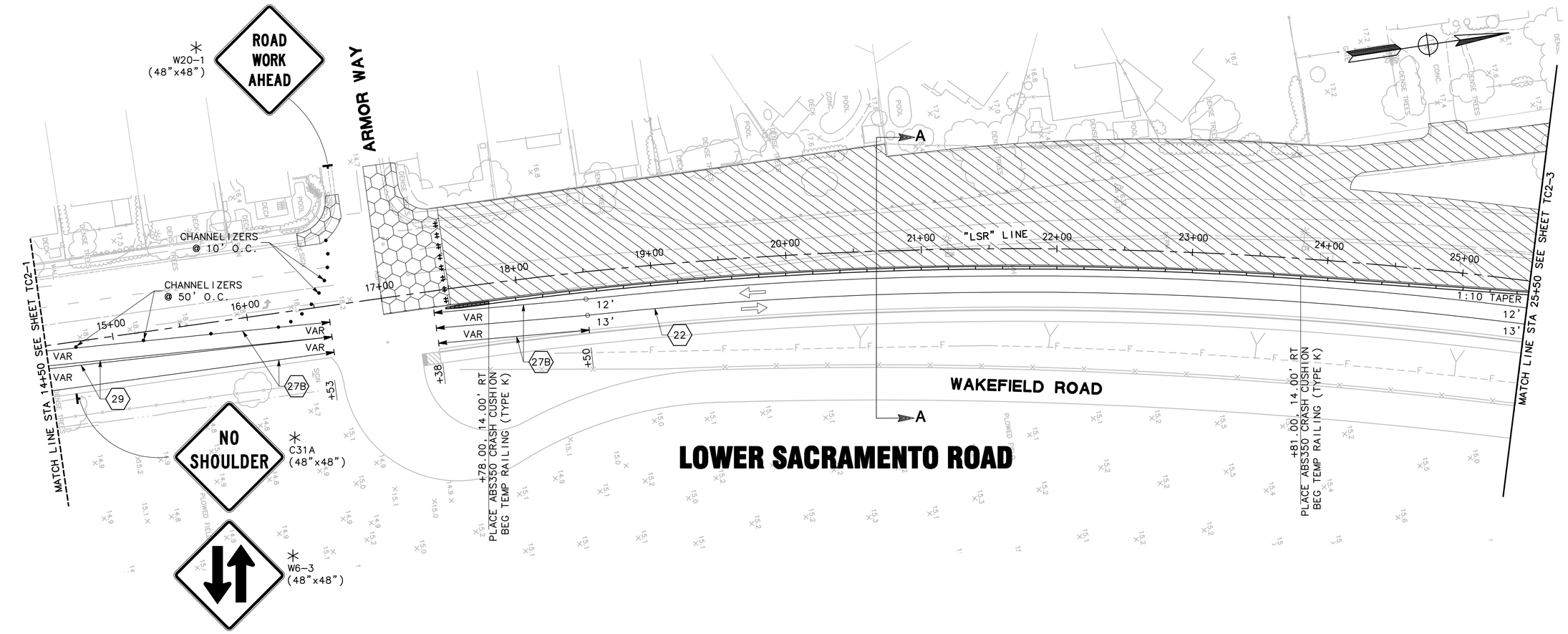
MTCO JOB NUMBER: 57-0221B

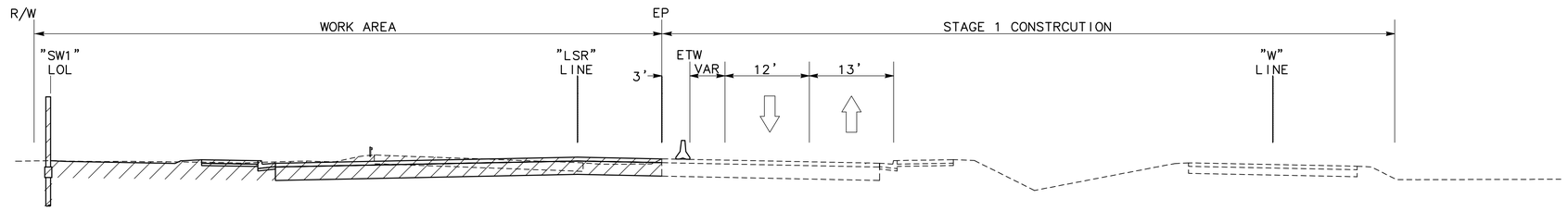
REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
TRAFFIC CONTROL - STAGE 2
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 56
DESIGNED BY:	DWM		TC2-1
DRAWN BY:	JMN, AMR, BES		OF 124 SHEETS
CHECKED BY:	MAS	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17
RECORD DWG:			





SECTION A-A
NTS

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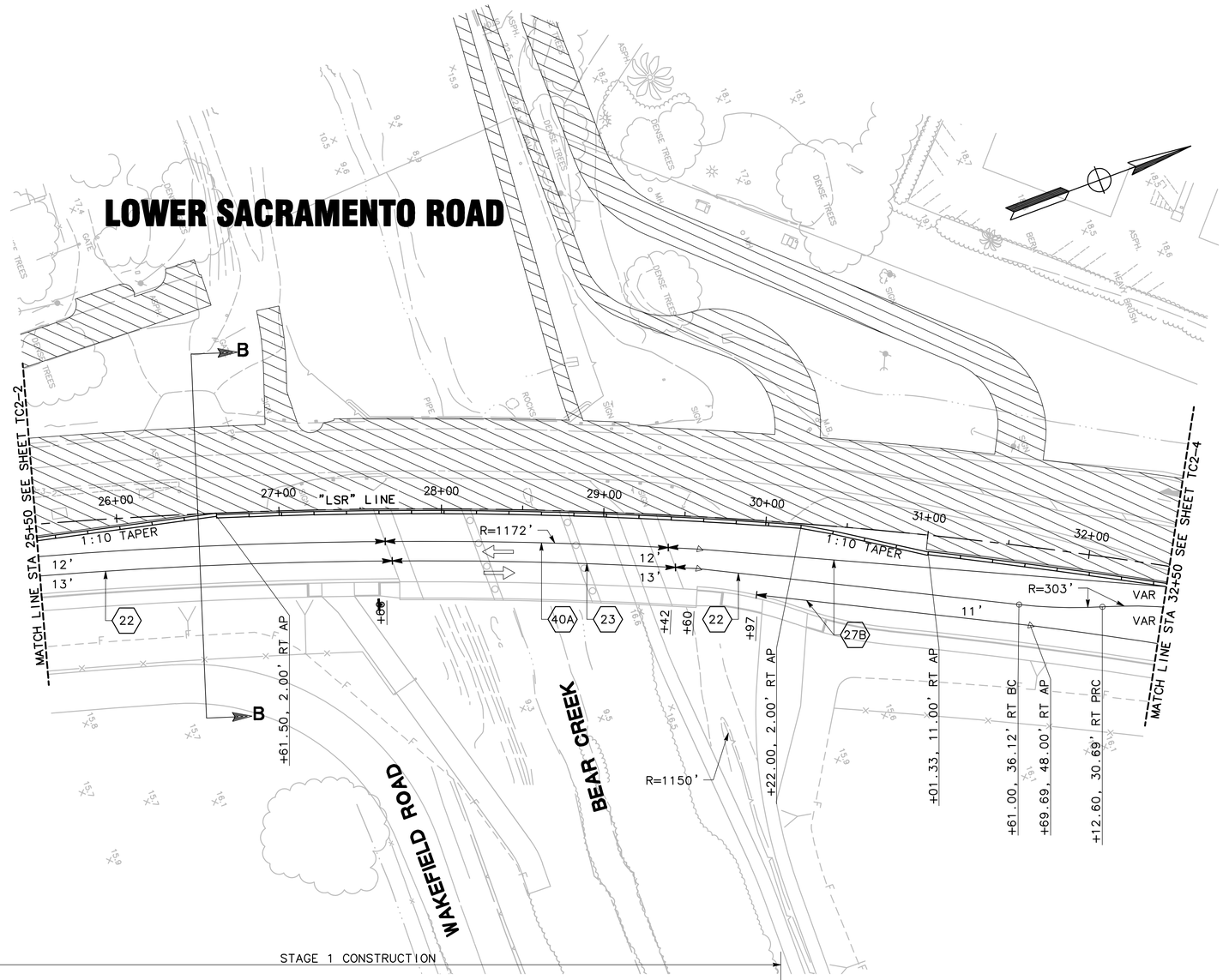
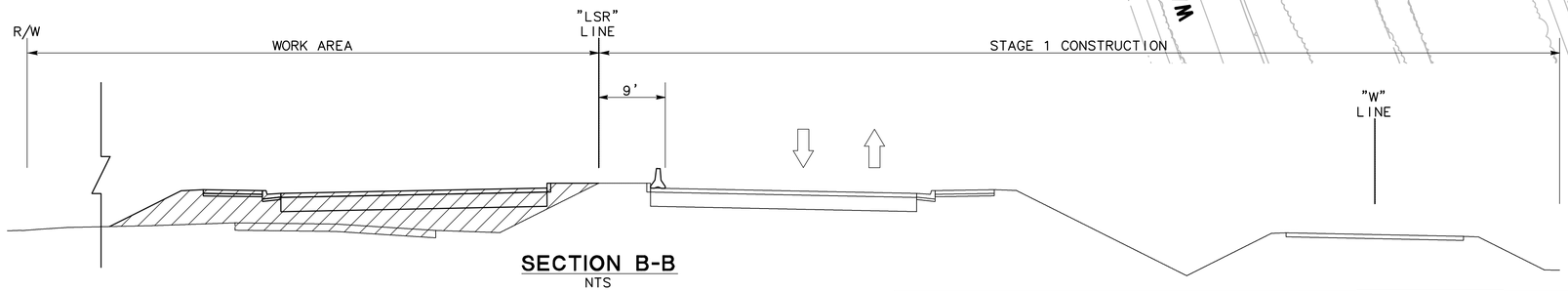
PROFESSIONAL ENGINEER
REGISTERED
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
TRAFFIC CONTROL - STAGE 2
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=40'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 57	TC2-2
DESIGNED BY: DWM		OF 124 SHEETS	
DRAWN BY: JMN, AMR, BES		PROJECT NO.	05-17
CHECKED BY: MAS	CITY ENGINEER STOCKTON, CALIFORNIA		
RECORD DWG:			





SECTION B-B
NTS

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PLANNED WORK OPERATIONS

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ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
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REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

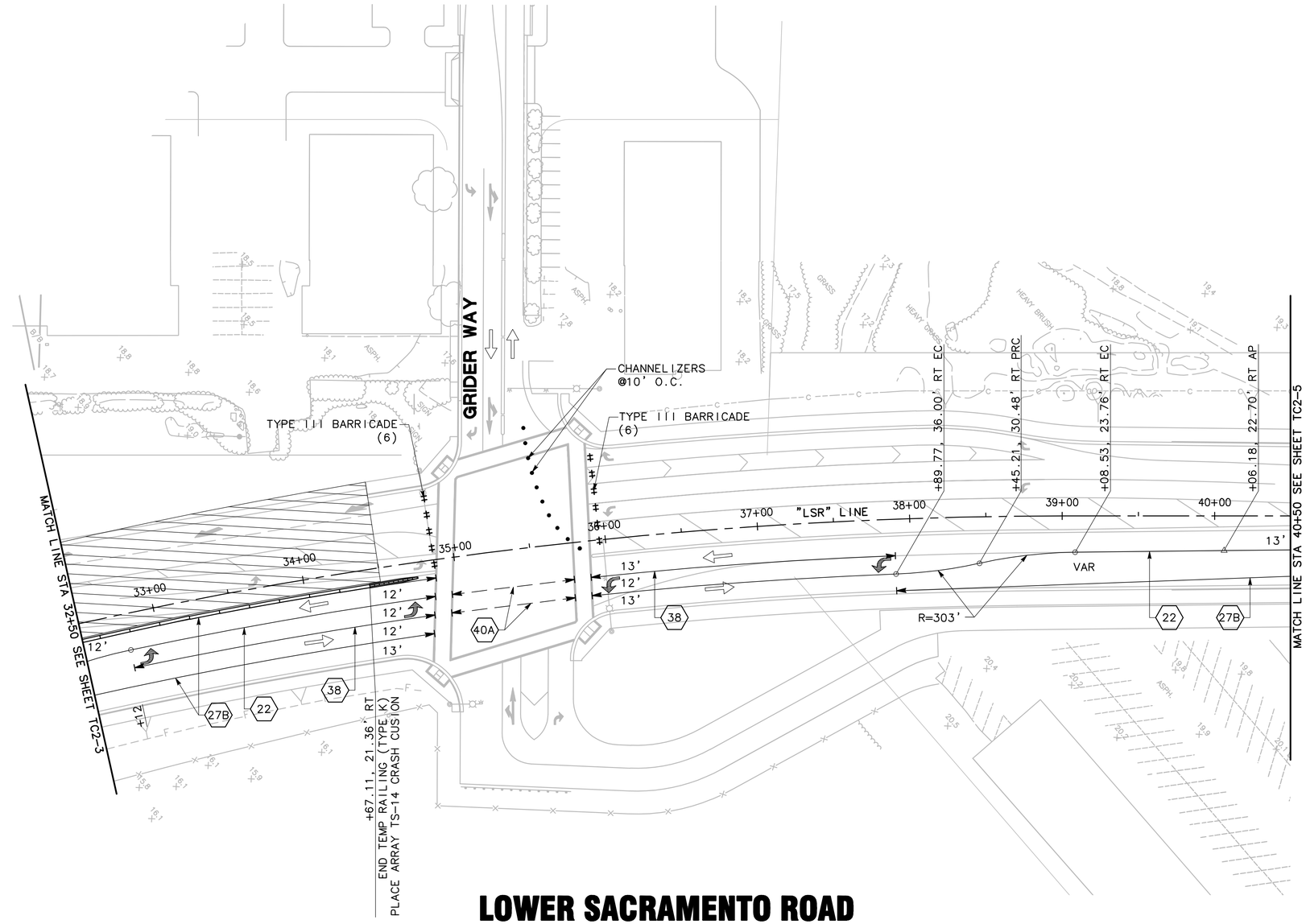
LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
TRAFFIC CONTROL - STAGE 2

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 56
TC2-3
OF 124 SHEETS
PROJECT NO.
05-17



LOWER SACRAMENTO ROAD

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CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT

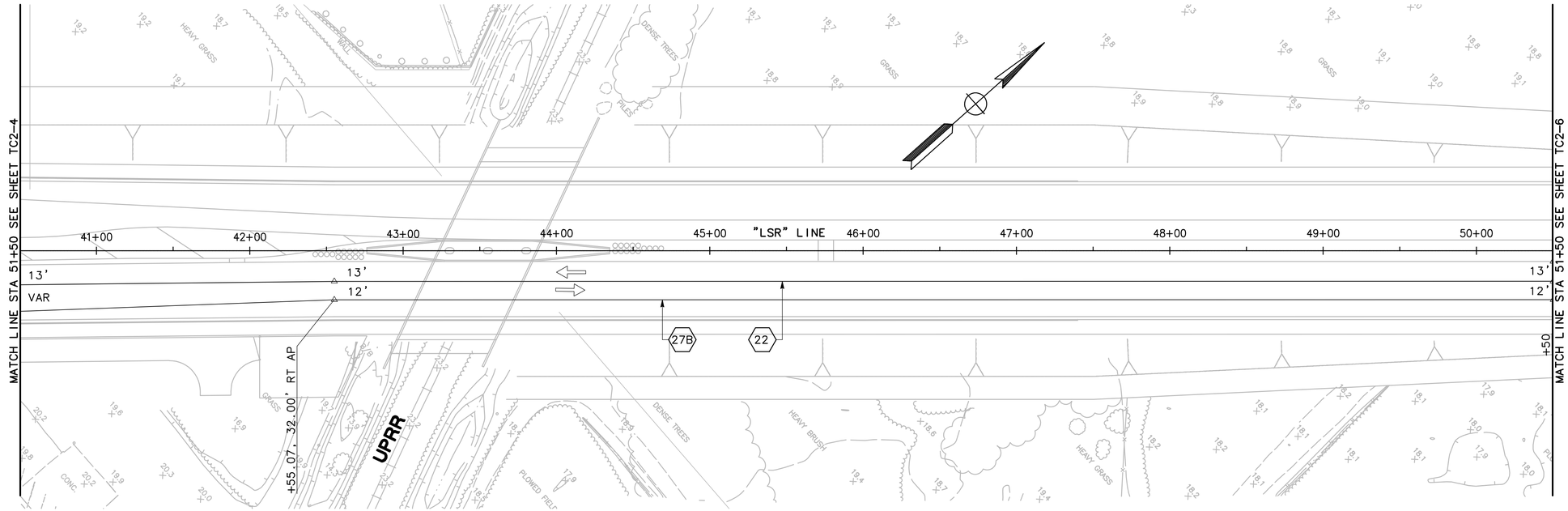
TRAFFIC CONTROL - STAGE 2

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 59
TC2-4
OF 124 SHEETS
PROJECT NO.
05-17



LOWER SACRAMENTO ROAD

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PLANNED WORK OPERATIONS

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CURVE DATA

No.	RADIUS	Δ	LENGTH	TANGENT
2	2455.70'	16°47'00"	719.33'	362.26'

ORIGINAL SCALE IN INCHES
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Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT

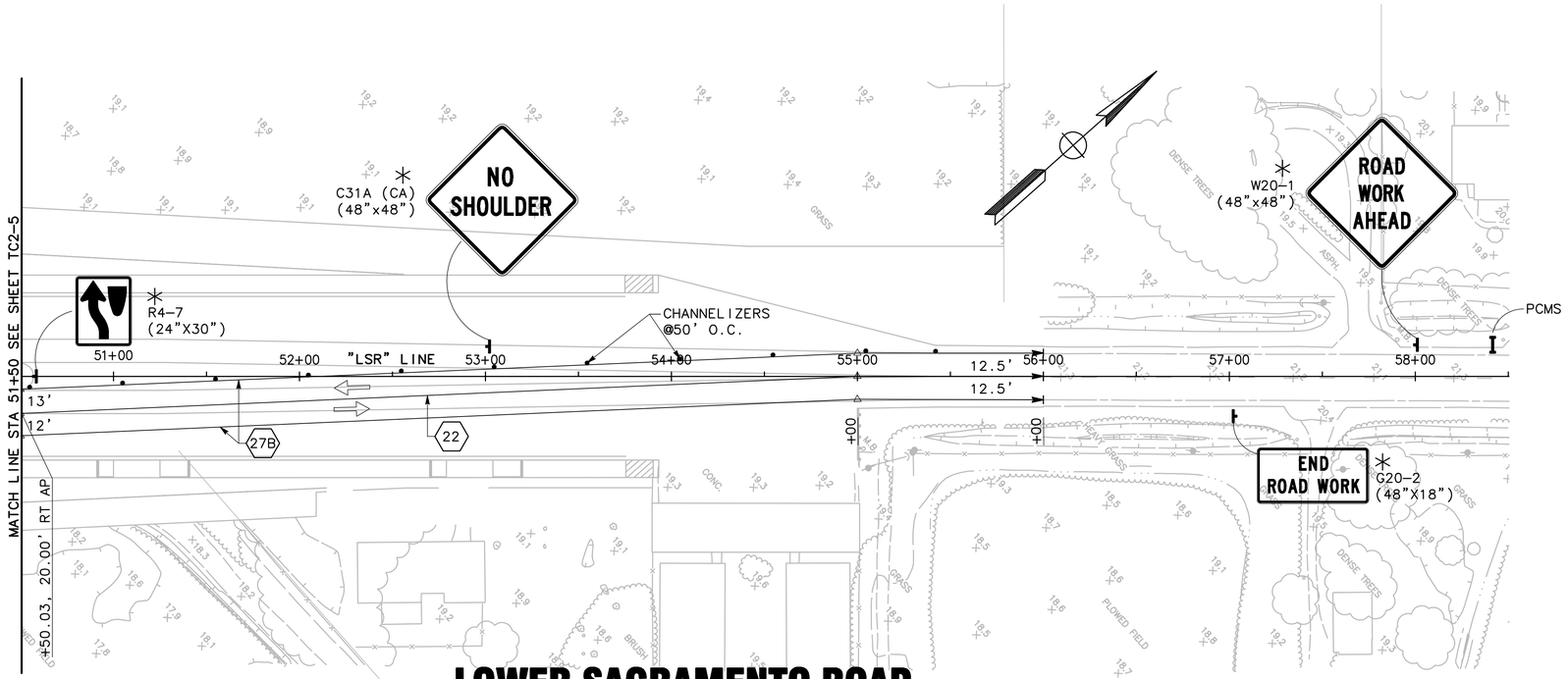
TRAFFIC CONTROL - STAGE 2

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 60
TC2-5
OF 124 SHEETS
PROJECT NO.
05-17



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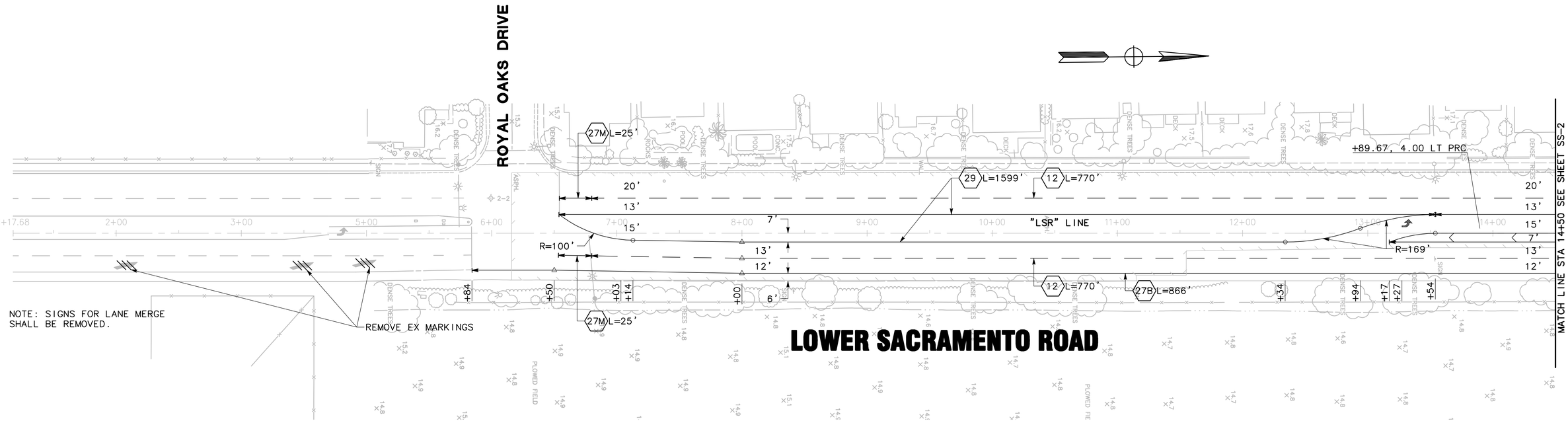
MTCO JOB NUMBER: 57-0221B

PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
TRAFFIC CONTROL - STAGE 2
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 61
DESIGNED BY:	DWM		TC2-6
DRAWN BY:	JMN, AMR, BES		OF 124 SHEETS
CHECKED BY:	MAS	CITY ENGINEER	PROJECT NO.
RECORD DWG:		STOCKTON, CALIFORNIA	05-17



PAVEMENT DELINEATION AND SIGNING CONSTRUCTION NOTES

1 INSTALL WHITE 12" THICK LIMIT LINE

PAVEMENT DELINEATION AND SIGNING LEGEND

⬢	ROADSIDE SIGN TO REMAIN	⊢	TRAFFIC LINE LIMIT
◆	ROADSIDE SIGN TO BE REMOVED AND SALVAGED	o	BC/EC
▲	ROADSIDE SIGN TO BE RELOCATED AND REPLACED WITH NEW	△	ANGLE POINT
■	ROADSIDE SIGN TO BE RESET	→	TYPE I ARROW (24')
✳	ROADSIDE SIGN TO BE INSTALLED		TYPE IV ARROW
⊣	PROPOSED TYPE K-1 MARKER		TYPE VI ARROW
⊢	EXISTING ROADSIDE SIGN ON METAL POLE	→	BIKE LANE ARROW
⊢	EXISTING ROADSIDE SIGN ON WOOD POST		BIKE LANE DETECTOR LOOP SYMBOL (AT INTERSECTION)
⊢	PROPOSED ROADSIDE SIGN ON METAL POLE	SIGNAL AHEAD	MISC PAVEMENT MARKING
⊢	PROPOSED ROADSIDE SIGN ON WOOD POST		8" DIA PREFORMED PAVEMENT STRIPING TAPE @ 6' O.C.
SNS	STREET NAME SIGN		LIMIT OF SLURRY SEAL
MAS	MAST ARM SIGN	++	TYPE III BARRICADE
RES	REAL ESTATE SIGN	• •	CHANNELIZER (SURFACE MOUNTED)
GPS	GAS PIPELINE SIGN		
XXX	TRAFFIC LINE DETAIL NUMBER		
XXX	EXISTING TRAFFIC LINE DETAIL NUMBER		

PAVEMENT DELINEATION AND SIGNING GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH: THE CITY OF STOCKTON DESIGN & PROCEDURES MANUAL, CITY STANDARD SPECIFICATIONS, CALTRANS STANDARD PLANS, LATEST EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).
2. SEE CA MUTCD CHAPTER 3A FOR STRIPING DETAILS. ALL SIGNS SHALL MEET THE REQUIREMENTS OF CALTRANS APPROVED SIGN SPECIFICATIONS. SIGN POLE POSTS SHALL BE A 1 3/4"-INCH UNISTRUT PER COS STD 36, 36A, AND 36B.
3. EXACT POSITION AND LOCATION OF ALL ROADSIDE SIGNS SHALL BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.
4. REMOVAL OF EXISTING STRIPING AND PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY SANDBLASTING OR OTHER APPROVED GRINDING METHODS.
5. ALL STRIPING AND TRAFFIC MARKINGS SHALL BE THERMOPLASTIC, UNLESS OTHERWISE NOTED.
6. CROSSWALKS SHALL BE 12 FEET WIDE INCLUDING THE 12" SOLID PAVEMENT MARKINGS AND SHALL BE WHITE UNLESS OTHERWISE NOTED.
7. EXISTING SIGNS NOT SHOWN ON THESE PLANS SHALL BE REMOVED OR RELOCATED AS DIRECTED BY THE RESIDENT ENGINEER.
8. CONTRACTOR SHALL VERIFY WITH RESIDENT ENGINEER THE EXACT STREET NAME AND STREET ADDRESS FOR PLACEMENT OF STREET NAME SIGNS PRIOR TO ORDERING SIGNS.
9. MOUNT SIGNS USING BANDING ON SIGNAL AND STREET LIGHT POLES WHERE FEASIBLE AND AS DIRECTED BY THE RESIDENT ENGINEER.
10. TRAFFIC SIGNS SHALL BE INSTALLED BEHIND THE SIDEWALK WHEN THE SIDEWALK IS IMMEDIATELY ADJACENT TO THE CURB. SIGNS SHALL BE INSTALLED BETWEEN THE CURB AND SIDEWALK WHEN THE SIDEWALK IS DETACHED. SIGNS IN PEDESTRIAN AREAS SHALL HAVE A CLEARANCE FROM THE GROUND OF AT LEAST SEVEN FEET. IF THIS CLEARANCE REQUIREMENT IS NOT SATISFIED AFTER THE INSTALLATION OF ADDITIONAL SIGN PANELS, THE CONTRACTOR SHALL INSTALL A NEW SIGN POST.
11. LANE WIDTHS ADJACENT TO CURBS ARE MEASURED TO THE FACE OF CURB.
12. THIS PLAN IS ACCURATE FOR SIGNING AND STRIPING WORK ONLY.
13. SEE LAYOUT SHEETS FOR LIMIT OF PAVEMENT OVERLAY.
14. SEE ELECTRICAL SHEETS FOR TRAFFIC SIGNAL SIGNAGE MODIFICATIONS.
15. ALL TRAFFIC STRIPES AND PAVEMENT MARKINGS NEED TO BE GRINDED AND REMOVED WITHIN SLURRY SEAL LIMITS, AND/OR THAT ARE IN CONFLICT WITH PROPOSED STRIPING.
16. ALL LOCATIONS OF SIGNS SHALL BE VERIFIED BY RESIDENT ENGINEER BEFORE FINAL ACCEPTANCE.
17. ALL SIGNS ATTACHED TO UTILITY POLES SHALL BE RELOCATED WITH POLE. SEE ELECTRICAL PLANS FOR UTILITY POLE RELOCATION.
18. ALL SIGNS WITHIN PROJECT LIMITS SHALL MEET CURRENT CA MUTCD REQUIREMENTS. EXISTING SIGNS TO REMAIN THAT DO NOT MEET CURRENT STANDARDS SHALL BE REPLACED WITH A NEW CURRENT SIGN.
19. CHEVRON STRIPING SHALL BE 8" WIDE.
20. REMOVE ALL CONSTRUCTION AREA SIGNS, TEMPORARY STRIPING AND TRAFFIC CONTROL DEVICES FROM STAGE CONSTRUCTION.
21. ALL MEDIAN NOSES SHALL BE PAINTED WITH YELLOW REFLECTIVE PAINT FROM BC TO EC AND TYPE "H" ONE WAY REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED (5' APART) ALONG THE TOP OF PAINTED CURB.
22. STOP MARKINGS SHALL BE LOCATED 8 FEET BEHIND LIMIT LINES.

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SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180
WWW.MARKTHOMAS.COM
MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

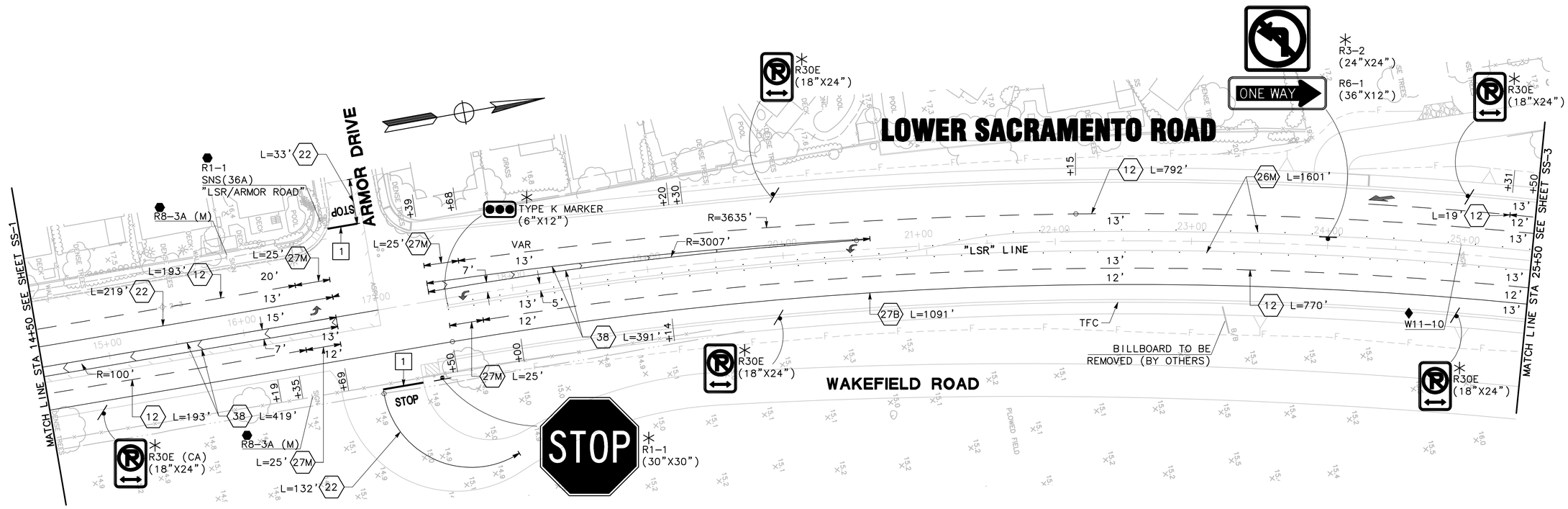
Revision No.	Description	Date	By	Aprvd. By

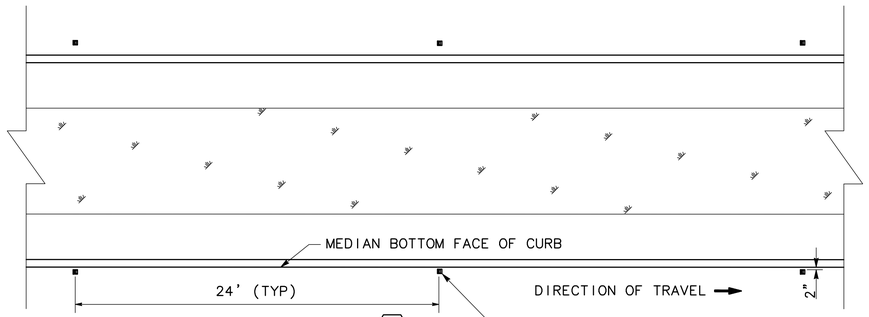
LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
SIGNING & STRIPING
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'
DESIGNED BY:	DWM
DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

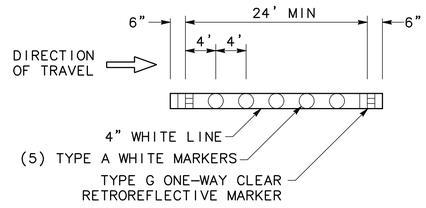
APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 62
SS-1
OF 124 SHEETS
PROJECT NO. 05-17





DETAIL 26 - MODIFIED ("26M")
N.T.S



DETAIL 27 - MODIFIED ("27M")
NTS

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Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
SIGNING & STRIPING
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'
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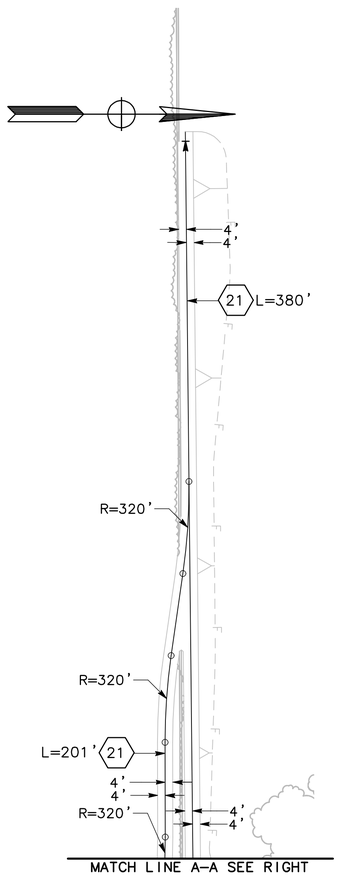
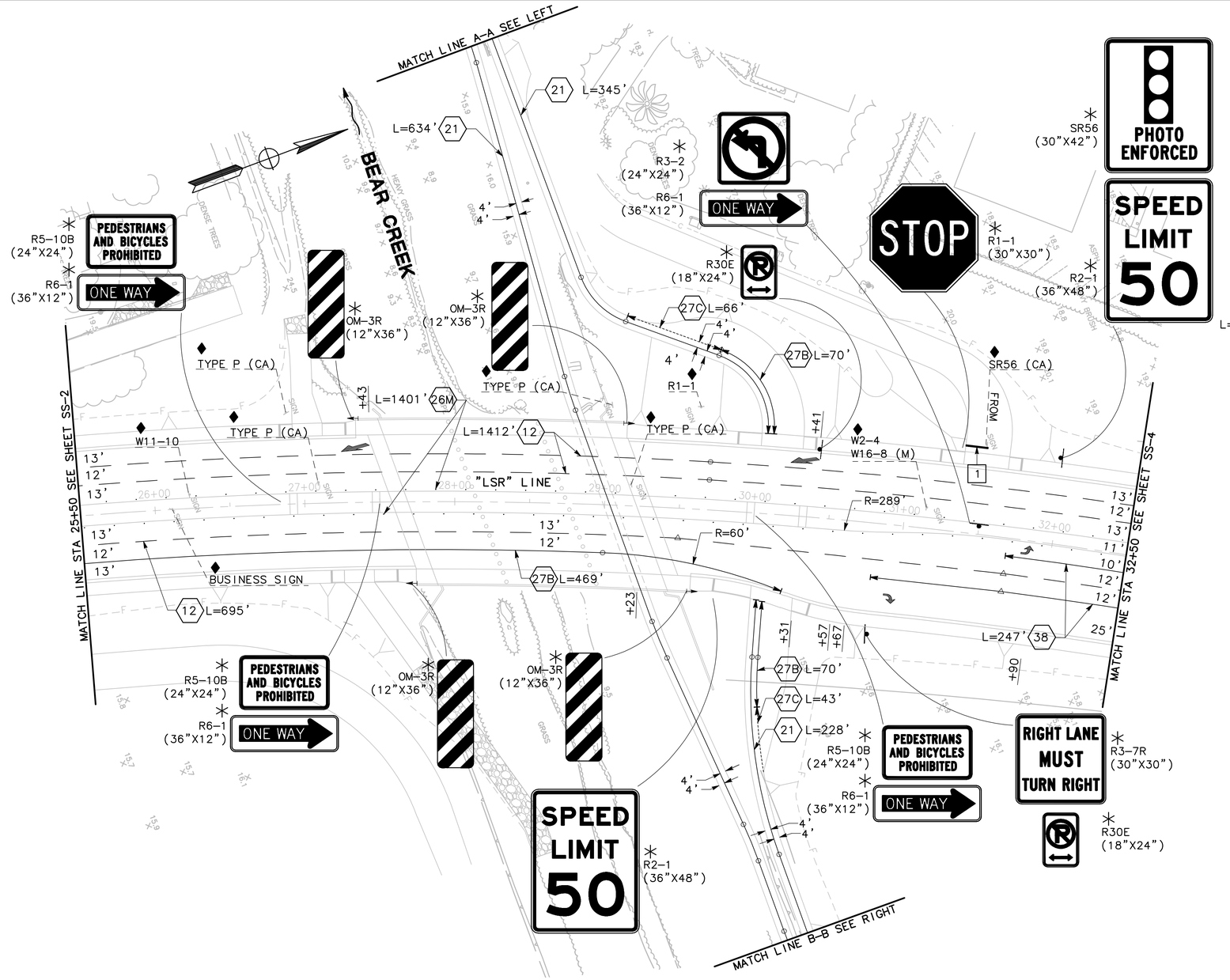
APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 63
SS-2
OF 124 SHEETS
PROJECT NO.
05-17





LOWER SACRAMENTO ROAD

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Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
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CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

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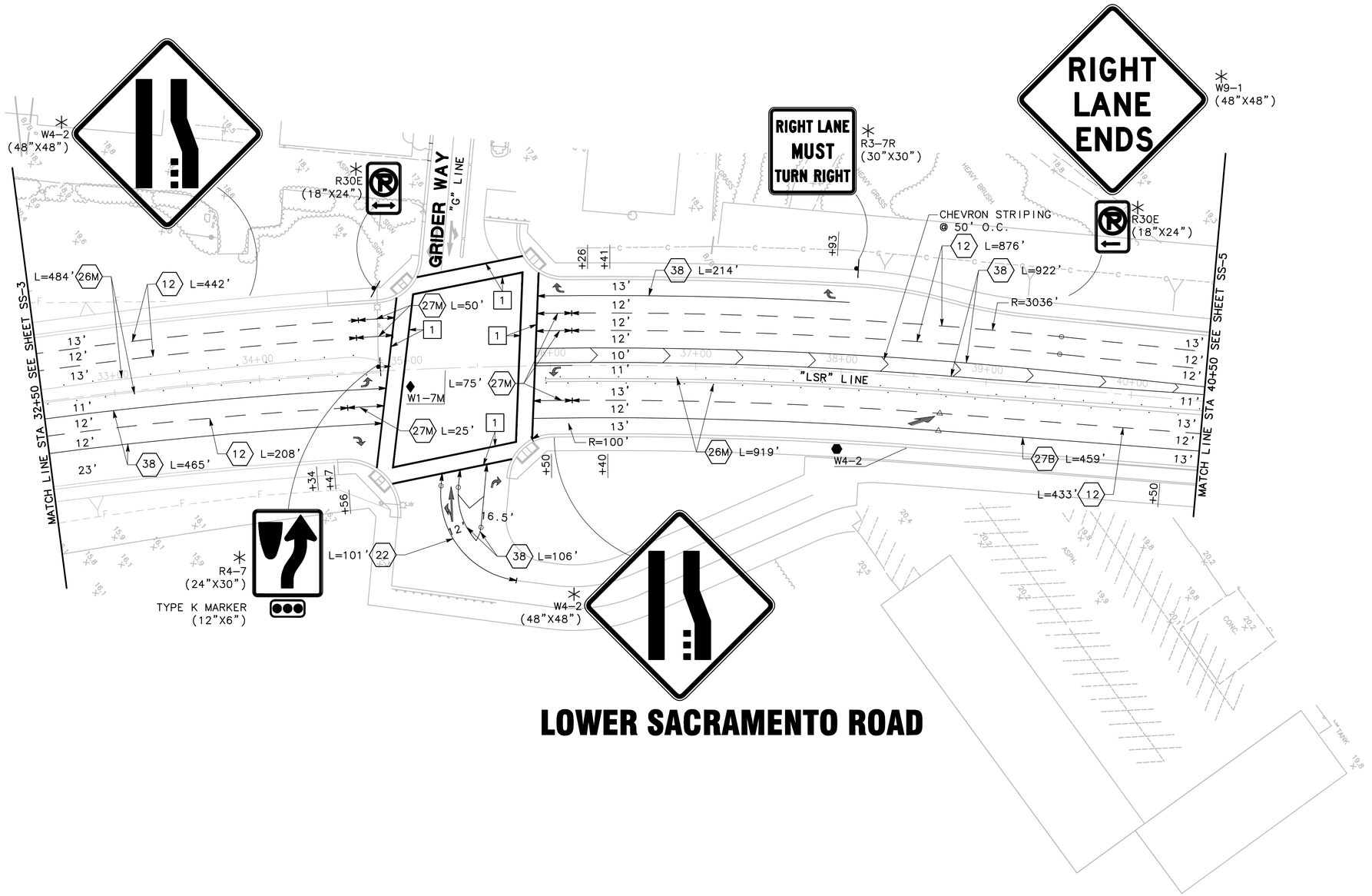
APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 64
SS-3
OF 124 SHEETS
PROJECT NO.
05-17



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No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT

SIGNING & STRIPING

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

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DRAWN BY:	JMN, AMR, BES
CHECKED BY:	MAS
RECORD DWG:	

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 65
SS-4
OF 124 SHEETS
PROJECT NO.
05-17

LOWER SACRAMENTO ROAD

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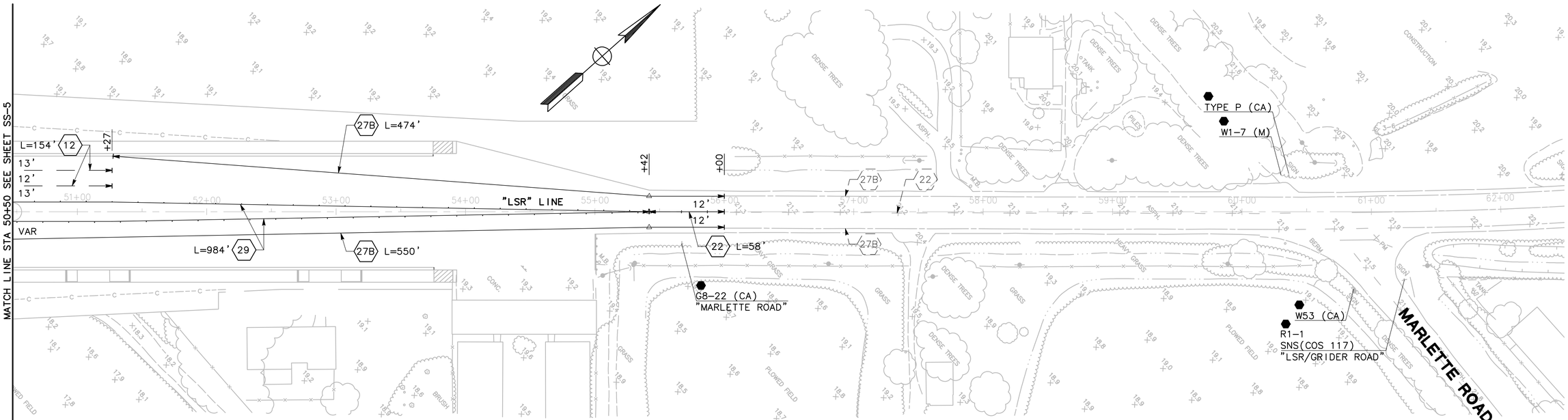
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
SIGNING & STRIPING
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 66
DESIGNED BY:	DWM		SS-5
DRAWN BY:	JMN, AMR, BES		OF 124 SHEETS
CHECKED BY:	MAS	CITY ENGINEER	PROJECT NO.
RECORD DWG:		STOCKTON, CALIFORNIA	05-17



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Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
SIGNING & STRIPING
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

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DRAWN BY:	JMN, AMR, BES
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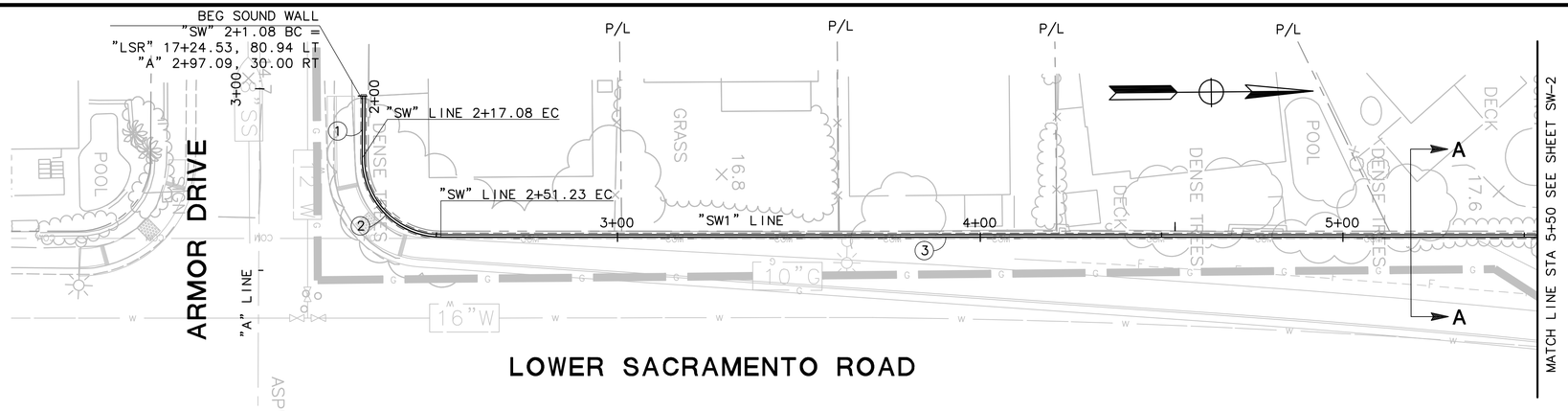
APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 67
SS-6
OF 124 SHEETS
PROJECT NO.
05-17



PLAN VIEW - SOUND WALL NO. 1

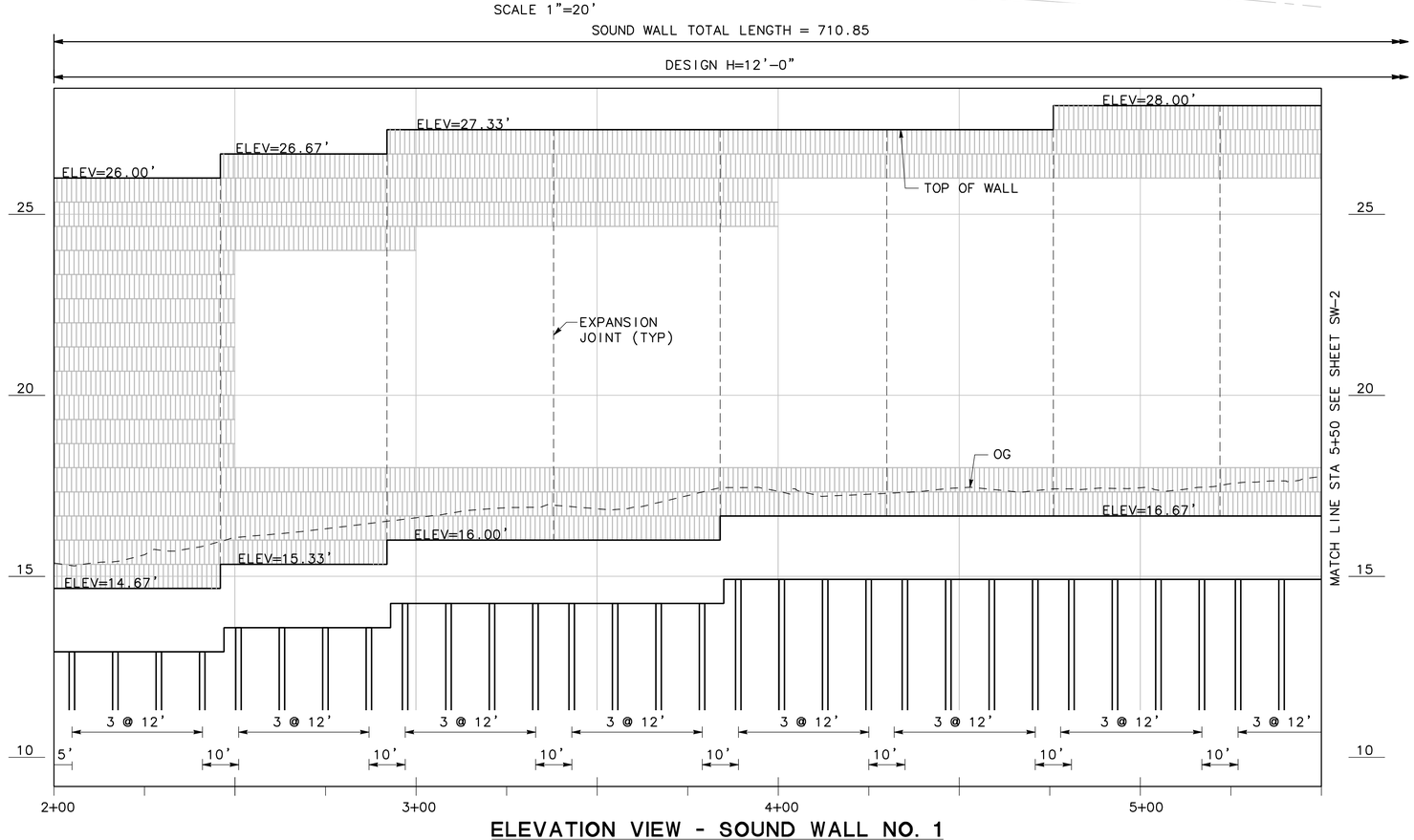
SCALE 1"=20'

GENERAL NOTES

1. REFER TO CALTRANS STANDARD PLAN SHEETS B15-3, B15-4, AND B15-5 FOR WALL DETAILS.
2. SOUNDWALL IS MASONRY BLOCK ON PILE CAP; CASE 2; $\Phi = 30$
3. MASONRY BLOCK SHALL BE GRAY SPLIT FACE.

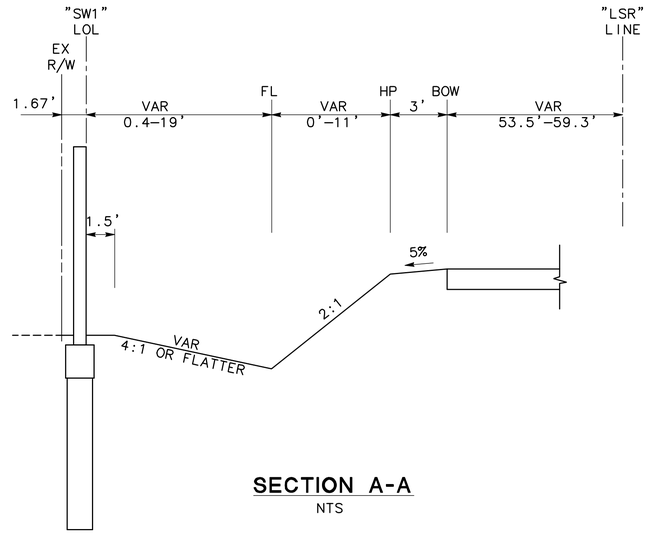
LINE & CURVE DATA

#	RADIUS	Δ	TANGENT	LENGTH	BEARING
1	–	–	–	17.08'	N89°07'38"W
2	20.00'	90°20'22"	20.12'	34.15'	–
3	–	–	–	337.87'	N00°32'00"E



ELEVATION VIEW - SOUND WALL NO. 1

SCALE H:1"=20'
V:1"=2'



SECTION A-A

NTS

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REGISTERED PROFESSIONAL ENGINEER
ROBERT A. HIMES
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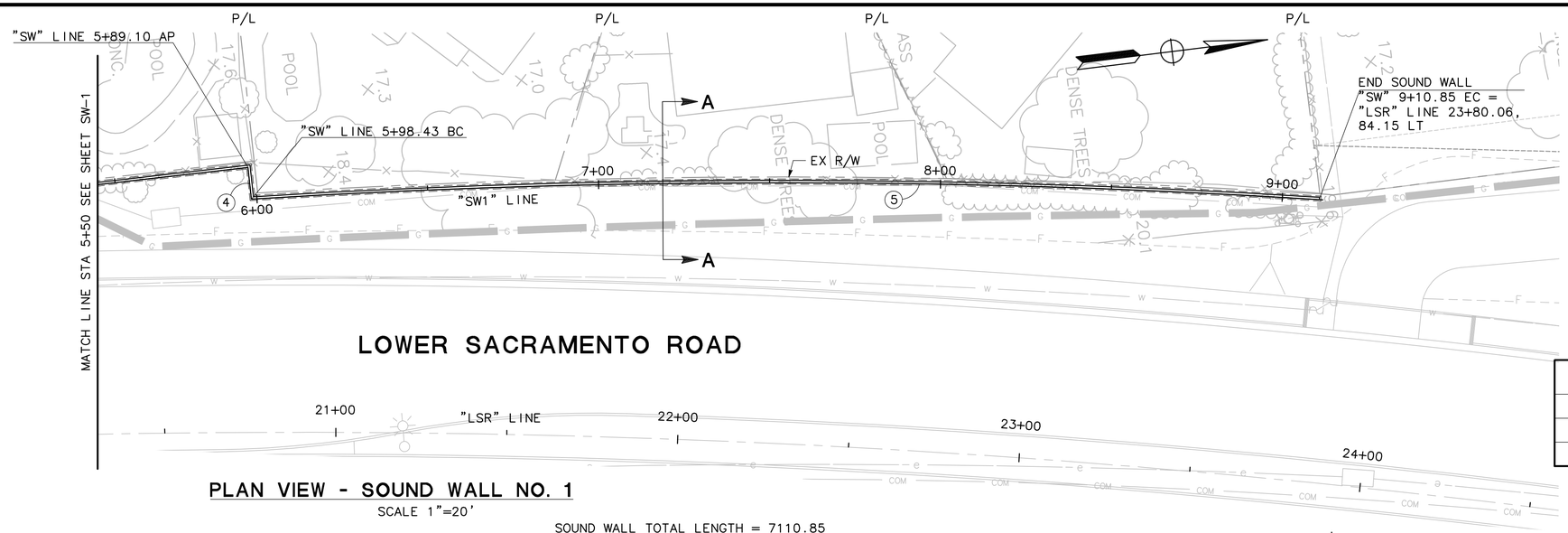
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
SOUND WALL

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: AS SHOWN	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 68
DESIGNED BY: DWM		SW-1
DRAWN BY: JMN, AMR, BES		OF 124 SHEETS
CHECKED BY: MAS	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17
RECORD DWG:		



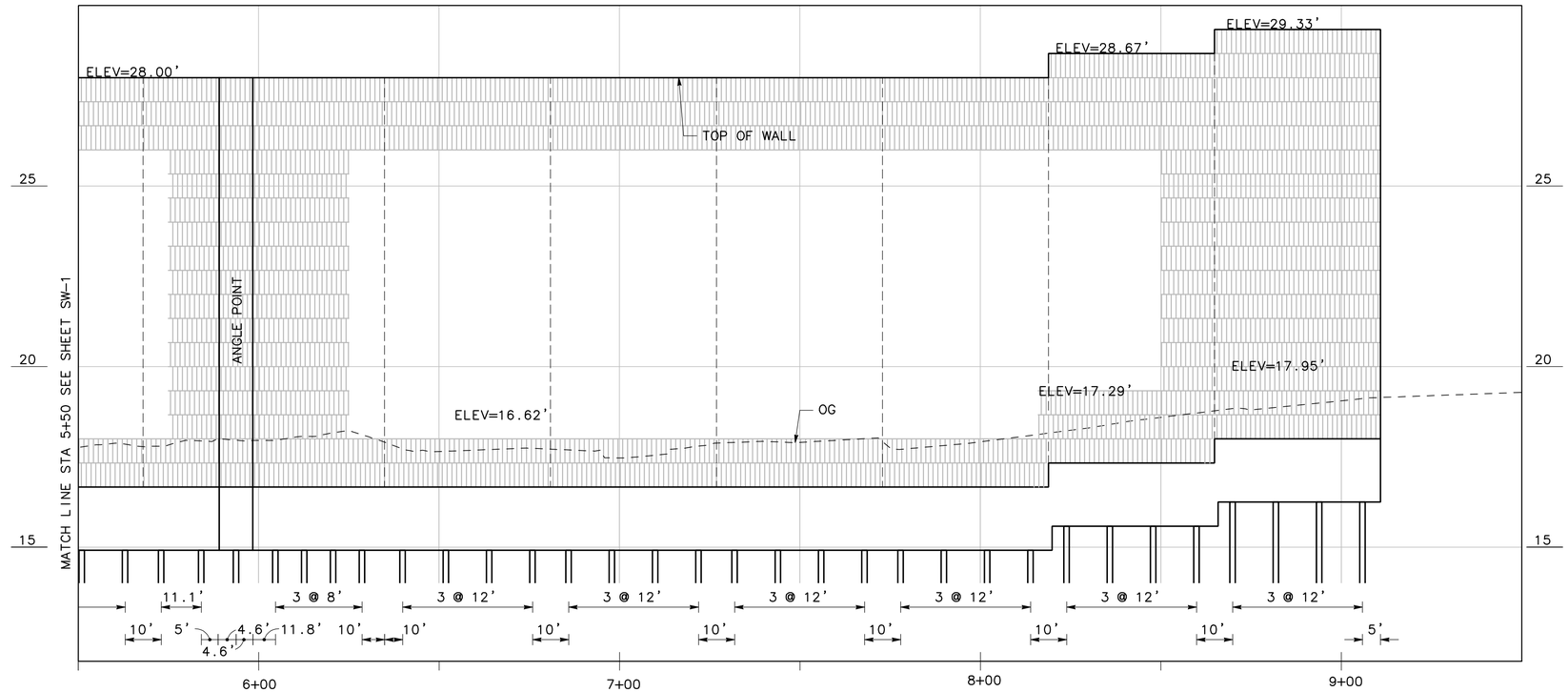
PLAN VIEW - SOUND WALL NO. 1

SCALE 1"=20'

LINE & CURVE DATA					
#	RADIUS	Δ	TANGENT	LENGTH	BEARING
4	–	–	–	9.29'	N89°07'38"W
5	2508.33'	7°08'14"	156.43'	312.46'	–

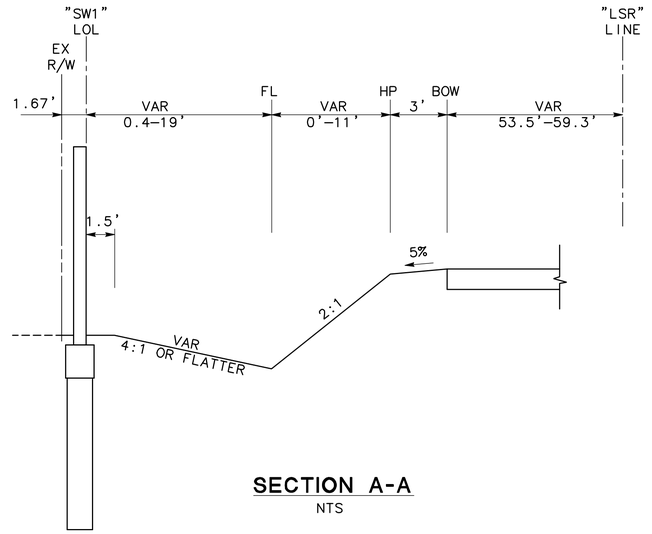
SOUND WALL TOTAL LENGTH = 7110.85

DESIGN H=12'-0"



ELEVATION VIEW - SOUND WALL NO. 1

SCALE H:1"=20'
V:1"=2'



SECTION A-A

NTS

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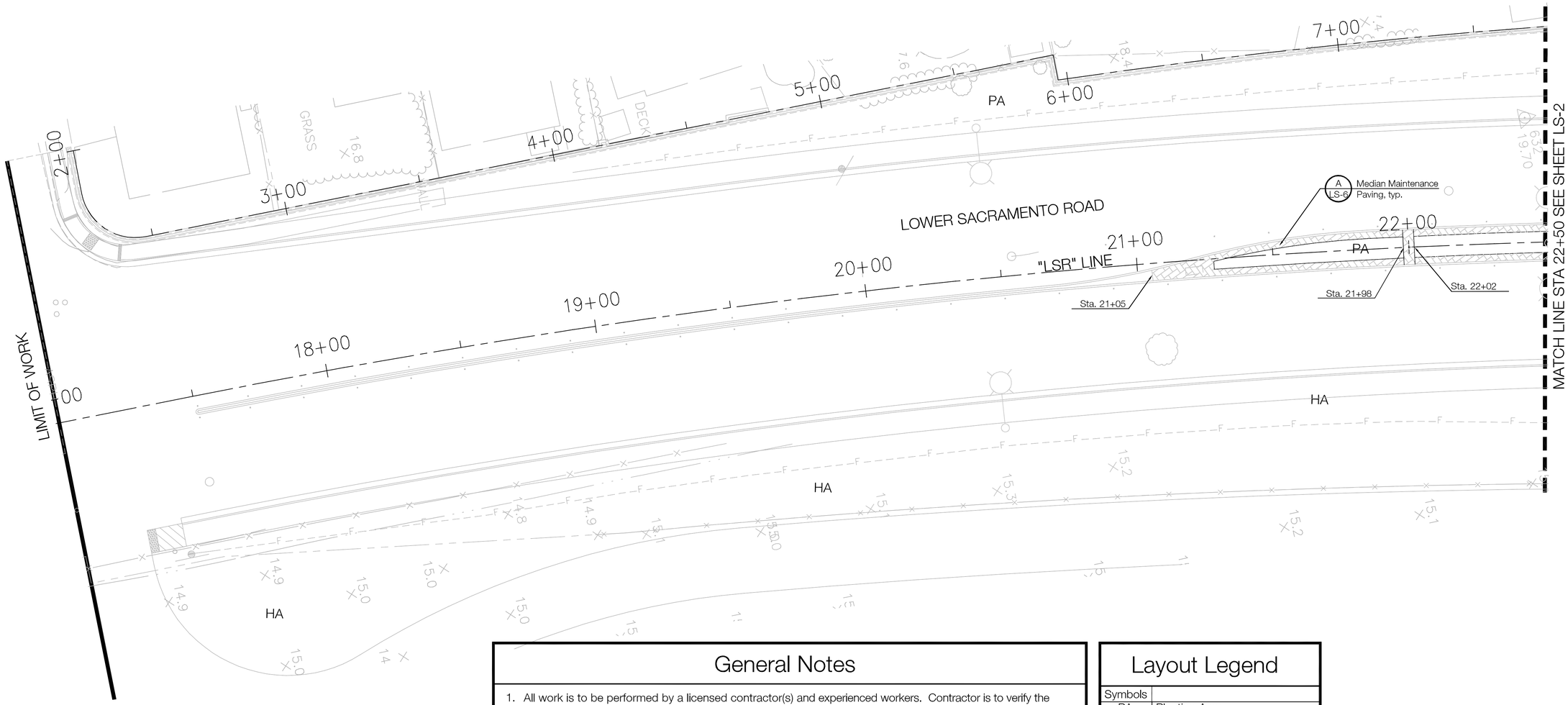
No. 45787
Exp. 12/31/10
CIVIL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD/BEAR CREEK BRIDGE REPLACEMENT
SOUND WALL
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: AS SHOWN	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 69	SW-2
DESIGNED BY: DWM		OF 124 SHEETS	
DRAWN BY: JMN, AMR, BES		PROJECT NO.	05-17
CHECKED BY: MAS	CITY ENGINEER STOCKTON, CALIFORNIA		
RECORD DWG:			



General Notes

1. All work is to be performed by a licensed contractor(s) and experienced workers. Contractor is to verify the locations of existing underground utilities and structures prior to performing any excavation. Contractor shall repair any damage to utilities caused by their work at no additional cost to owner.
2. Contractor shall contact C.G.A. at 811 for locations of all underground utilities 48 hours before starting excavation.
3. Contractor shall conform to all local codes.
4. Contractor shall obtain and pay for all permits necessary to complete work.
5. Contractor shall notify landscape architect of any discrepancies between field conditions and plans prior to proceeding with work. The written dimension shall supersede the drawn dimension. All field adjustments must be approved by the landscape architect prior to installation.
6. All dimensions are to back of curb, edge of paving, or face of building, unless otherwise noted. All dimensions are at 45° or 90° unless noted otherwise.
7. Install all walls and true and plumb.
8. Utility sleeving shall be coordinated with concrete work.
9. All materials and finishes shall be as per drawings, details and specifications. Some materials may require a several week order lead time. Contractor is responsible for determining any and all ordering delays, and providing required materials at the project site in a timely manner. No unapproved substitutions will be allowed. Contact the landscape architect immediately if a specified material is not available.
10. All concrete paving is to match as closely as possible to existing concrete color, score alignment and abutting elevations.
11. Refer to specifications and details for additional information.
12. Insure grades for landscape areas are in accordance with typical cross sections. Any additional soil shall be removed prior to starting landscaping.

Layout Legend

Symbols	
PA	Planting Area
Typ.	Typical
HA	Hydroseeded Area

Station line
01+ 00
Station number

Note

See sheet LS-6 for Construction Details

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The HLA Group
Landscape Architects & Planners, Inc.
1050 Twentieth Street, Suite 200
Sacramento, California 95811
916.447.7400 / 916.447.8270 faX / www.hlagroup.com
HLA JOB NUMBER: 77707

LICENSED LANDSCAPE ARCHITECT
JOHN H. NICOLAUS
CRLA 3266
Signature
9.30.11
Renewal Date
7.13.10
Date
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE
LANDSCAPE LAYOUT PLAN
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'	APPROVED BY: DATE JULY 12, 2010	SHEET NO. 70
DESIGNED BY: SMC		LS-1
DRAWN BY: AS, KA		OF 124 SHEETS
CHECKED BY: JHN	CITY ENGINEER	PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA	5129C

CAD USER: kashida

PLOT DATE: Jul 13, 2010-03:26:16pm

FILE NAME: _777Lay-E

PATH: C:\Documents and Settings\kashida\Local Settings\Temp\AcPublish_3064\

8+00

9+00

17+00

PA

HA

12" Concrete Curb, typ. (B / LS-6)

21'-6"

19'-6"

A / LS-6 Median Maintenance Paving, typ.

LOWER SACRAMENTO ROAD

BEAR CREEK

23+00

24+00

25+00

26+00

27+00

28+00

Sta. 23+48

Sta. 23+52

Sta. 25+48

Sta. 25+52

Sta. 26+88

"LSR" LINE

N 1°10'00" E

GRASS

PIPE

SIGN

MATCH LINE STA 28+50 SEE SHEET LS-3

MATCH LINE A-A SEE SHEET LS-4

Note:

See sheet LS-1 for General Notes and Layout Legend, See sheet LS-6 for Construction Details

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HLA JOB NUMBER: 77707

LICENSED LANDSCAPE ARCHITECT — JOHN H. NICOLAUS — CRLA 3266 — Signature — 9.30.11 Renewal Date — 7.13.10 Date — STATE OF CALIFORNIA

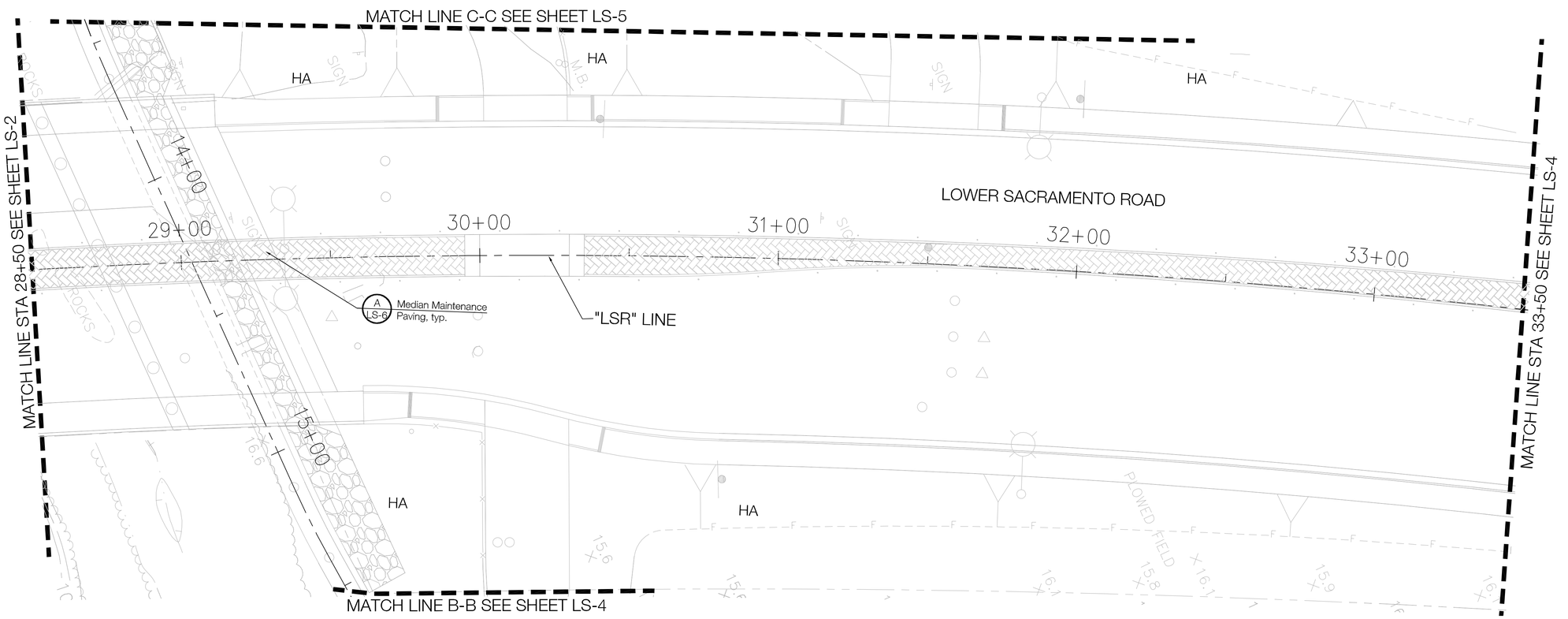
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE

LANDSCAPE LAYOUT PLAN

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'	APPROVED BY: DATE JULY 12, 2010
DESIGNED BY: SMC	CITY ENGINEER, STOCKTON, CALIFORNIA
DRAWN BY: AS, KA	SHEET NO. 71
CHECKED BY: JHN	LS-2
RECORD DWG:	OF 124 SHEETS
	PROJECT NO. 5129C



Note:

See sheet LS-1 for General Notes and Layout Legend, See sheet LS-6 for Construction Details

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LICENSED LANDSCAPE ARCHITECT
JOHN H. NICOLAUS
CA/LA 3266
Signature
9.30.11
Renewal Date
7.13.10
Date
STATE OF CALIFORNIA

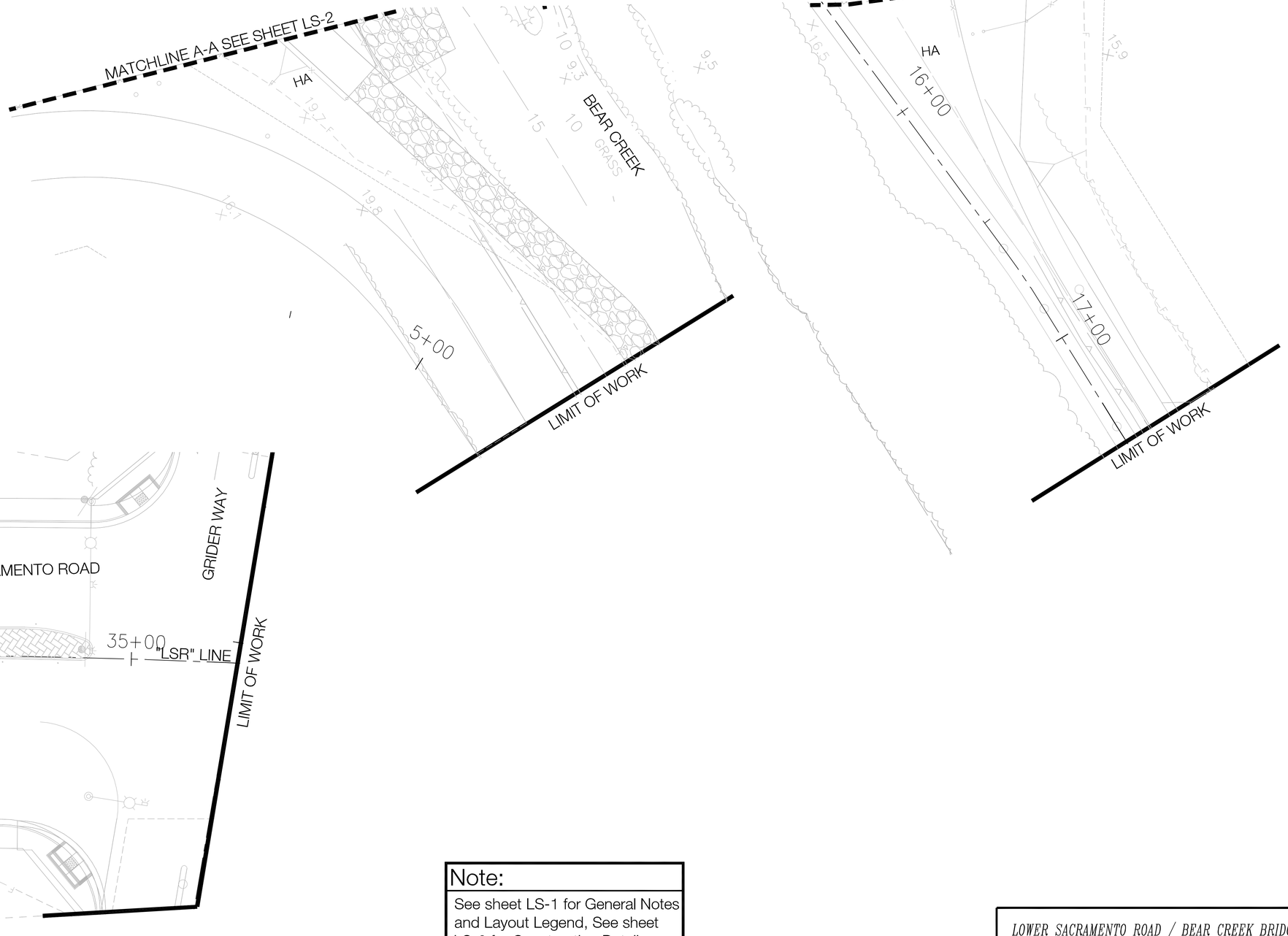
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE

LANDSCAPE LAYOUT PLAN

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 72
DESIGNED BY: SMC		LS-3
DRAWN BY: AS, KA		OF 124 SHEETS
CHECKED BY: JHN	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 5129C
RECORD DWG:		



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LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE

LANDSCAPE LAYOUT PLAN

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'	APPROVED BY: JULY 12, 2010 DATE
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CHECKED BY: JHN	
RECORD DWG:	

SHEET NO. 73
LS-4
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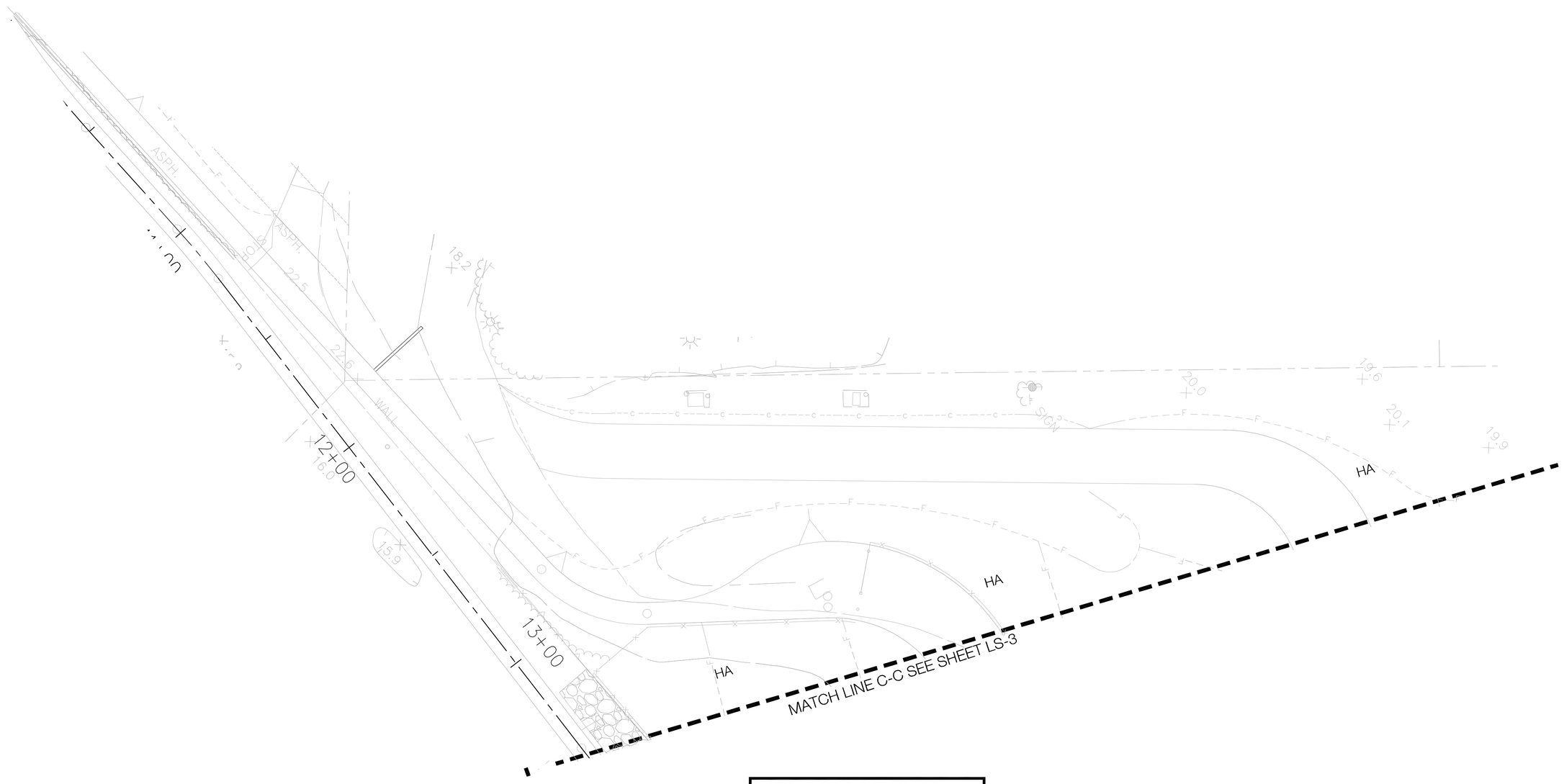
PROJECT NO.
5129C



Note:

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LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE

LANDSCAPE LAYOUT PLAN

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'
DESIGNED BY: SMC
DRAWN BY: AS, KA
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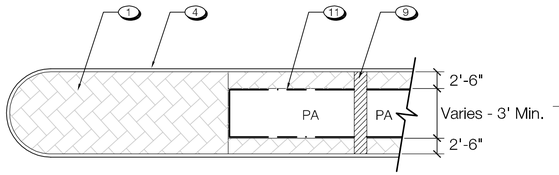
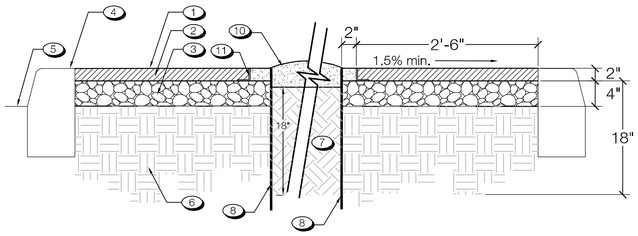
RECORD DWG:

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 74
LS-5
OF 124 SHEETS
PROJECT NO.
5129C



Plan View - Not to Scale

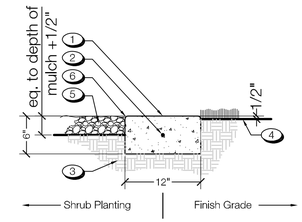


Key:

1. Median maintenance border paving - Street Print surfacing system. Pattern: Offset Brick, Color: Chestnut Brown. Street print surfacing system by Integrated Paving Concepts. Contact Gavin Lee (707) 759-5354
2. Asphalt concrete paving mix.
3. Class II aggregate base. Compacted to 95% R.D.
4. Type B vertical curb - see Engineer's Plans.
5. Pavement - See Engineer's Plans.
6. Subgrade, compact to 90% R.D.
7. Median planting area, 18" import topsoil, see specifications for more information.
8. Tree root barrier, install per Root Barrier Detail
9. Street Print surfacing system. Pattern: Stacked Brick, Color: San Diego Buff
10. Gravel mulch 3" min. depth
11. Asphalt edging system, Iron Edge T Paver Restraints by Border Concepts Inc. Refer to manufacturer's specificaitons for installation information

A | Median Maintenance Paving

1" = 1'-0" — Section



Key:

1. Concrete curb. Standard gray concrete with light broom finish.
2. #3 rebar. Center in curb and run continuous between expansion joints. Overlap 18" min. where required. Keep 2" clear min. from all edges.
3. Compacted subgrade to 90% relative density.
4. Finish surface / finish grade.
5. Bark mulch. Refer to specifications for more information.
6. 1/2" rad. tooled edge, typ.

Notes:

A) Install fiber expansion joint in curb: 40'-0" o.c. max.

B) Install fiber expansion joint between curb and adjacent hardscaping or building.

C) Install tooled score joints 10'-0" o.c or at changes of direction.

D) Refer to specifications and plan sheets for more information.

B | 12" Concrete Curb

1"=1'-0" — Section

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Revision No.	Description	Date	By	Aprvd. By

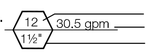
LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE

LANDSCAPE LAYOUT DETAILS

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 75
DESIGNED BY: SMC		LS-6
DRAWN BY: AS, KA		OF 124 SHEETS
CHECKED BY: JHN	CITY ENGINEER	PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA	5129C

Irrigation Notes

1. The sprinkler system is based on the minimum operating pressure and the maximum flow demand shown on the drawings. The contractor shall verify water pressure prior to construction. Report to the landscape architect any difference between the water pressure shown on the drawings and the actual pressure reading at the point of connection. In the event pressure differences are not reported in writing prior to the start of construction, the contractor shall assume full responsibility for any necessary revisions.
2. This design is diagrammatic. All piping, valves, etc., shown within paved areas are for design clarification only. Install piping and valves in planting areas where possible, and locate electric control and quick coupling valves in ground cover/shrub areas, 6" to 12" away from edge of sidewalk for easy access.
3. It is the responsibility of the contractor to familiarize himself with all grade differences, location of walls, structures, and utilities. The contractor shall exercise extreme care and be responsible for any damage in excavating and working near existing utilities. He shall coordinate his work for the location of utilities and the installation of pipe sleeves through walls, under roadways, and near structures. Prior to construction, contact all applicable agencies and C.G.A. at 811 to field locate all existing utilities.
4. The final location of all automatic controllers shall be approved by the landscape architect prior to installation.
5. 

Indicates controller station number
Indicates gallons per minute
Indicates remote control valve size
6. For additional information, see project details and specifications.
7. The contractor shall flush all lines prior to installing sprinkler heads. The contractor shall be responsible for complete and effective coverage of all planting areas, and eliminating overspray onto walks, streets, buildings, etc. Adjustments that may be required include installation of filter screens, adjustable arc nozzles, and check valves to eliminate low head drainage.
8. Field adjustments may be required to provide optimum operating efficiency. The contractor shall be responsible for contacting the landscape architect to review proposed field adjustments prior to installation. In the event that no written request is received by the landscape architect, the contractor shall be responsible for any revisions.
9. Sleeve all pressure mainline pipe, lateral pipe, and control wires under streets and concrete walkways with the proper size schedule 40 pvc and depth as specified. All irrigation line under pavement shall be installed with tracer wire. Sleeving shall be coordinated with other trades and placed before other work where possible.
10. Do not willfully install the sprinkler system as diagrammatically shown on the drawings when it is obvious in the field that obstructions, grade differences or differences in site dimensions exist that might not have been foreseen and considered in the engineering. The landscape architect should be informed in writing of such obstructions and differences, but in the event that this notification is not performed, the contractor shall assume full responsibility for any revisions and repair work necessary.
11. Install all pipe materials and equipment as shown in the construction details. Use teflon tape on all pvc male threads of all sprinkler swing joints and valve assemblies except marlex fittings.
12. Install additional (1) common wire and (3) control wires for each controller location, looped in and out of each valve box, the entire length of mainline. 24-volt wire for open stations shall be stubbed out for future at furthest remote control valve box from controller or as indicated on plan.
13. All sleeving across roads/paving shall terminate into a valve box, typ.
14. Existing radio repeater for irrigation controller shall be located at Faklis Park, 5250 Cosumnes Drive. Contact Victor Machado, City of Stockton, at 209-937-8899 for more information.

Irrigation Legend

Symbol	Manufacturer	Description	PSI	GPM	P/R	Radius
○	Rain Bird	1812-SAM-15F-NPCAP pop-up shrub sprinkler	30	3.70	1.58	15'
⌓	Rain Bird	1812-SAM-15H-NPCAP pop-up shrub sprinkler	30	1.85	1.58	15'
▽	Rain Bird	1812-SAM-15Q-NPCAP pop-up shrub sprinkler	30	.92	1.58	15'
◪	Rain Bird	1812-SAM-15CST-NPCAP pop-up shrub sprinkler	30	1.21	---	4x30
ⓥ	Rain Bird	1812-SAM-VAN15TQ-NPCAP shrub sprinkler	30	2.78	1.58	15'
⊛	Rain Bird	1812-SAM-12F-NPCAP pop-up shrub sprinkler	30	2.60	1.74	12'
⌓	Rain Bird	1812-SAM-12H-NPCAP pop-up shrub sprinkler	30	1.20	1.91	12'
△	Rain Bird	1812-SAM-10F-NPCAP pop-up shrub sprinkler	30	1.58	1.52	10'
⌓	Rain Bird	1812-SAM-10H-NPCAP pop-up shrub sprinkler	30	0.79	1.52	10'
⬡	Rain Bird	1812-SAM-8F-NPCAP pop-up shrub sprinkler	30	1.05	1.58	8'
⊖	Rain Bird	1812-SAM-8H-NPCAP pop-up shrub sprinkler	30	0.52	1.58	8'
⊕	Rain Bird	1812-SAM-8Q-NPCAP pop-up shrub sprinkler	30	0.26	1.58	8'
⊟	Rain Bird	1812-SAM-5H-NPCAP pop-up shrub sprinkler	30	0.20	1.58	5'
⊞	Rain Bird	1812-SAM-5Q-NPCAP pop-up shrub sprinkler	30	0.10	.60	5'
⊡	Hunter	Hunter Rotor I-20 with Nozzle 4.0 ARV	50	4.2	0.56	41'
⊡	Hunter	Hunter Rotor I-20 with Nozzle 2.0 ARV	50	2.0	0.30	36'
⁘	Rain Bird	Root Watering System: RWS-M-B-1402P, two bubblers per tree	---	1.0	---	---
◔	Griswold	2030 series with pressure regulator module (factory set at 50 psi), size per plan. Install with line size Matco bronze ball valve upstream of control valve within a purple lid valve box.				
⋈	Nibco	Gate valve T-113 threaded gate valve (1"-11/2") or F-619 flanged gate valve with operating nut (2"-4"), line size. Install within a purple lid valve box.				
⊙	Crispin	Air relief valve, 2" in size. Install at highest point along mainline.				
◒	Rain Bird	Quick coupler valve within a valve box. model: 44LRC with purple rubber cap. Size: 1"				
Ⓔ	Rain Master	Irrigation Controller: Rain Master DX2 Series, SA6-RM4-24/PMR-CAC/RSE-DX/RHG/FAN-OPT/FSAV-150P-200, 24 stations with stainless steel pedestal, radio and high gain antenna assembly. Contact Mike Smith at (707) 448.1700				
WM	City approved	Water meter, 2" in size. Meter shall be furnished and installed by the City of Stockton through payment of permit fees. Contractor shall provide and install all fittings on both sides of meter.				
⧓	Watts	2" Reduced pressure backflow preventer, install with Weatherguard blanket in LeMeur Welding & Manufacturing enclosure Model: LBF-118, color: green. Call (877) 453.6387 for ordering information.				
P	Custom Pump & Power	Booster Pump, Custom Pump and Power, Model: 5HLA02172010-1/10VFD, Single-Phase: 230-Volts: 2-pole, 60-Amp breaker for 5 hp, 31-amp load. Contact Mike Parilo at 916.825.2033.				
M	Not Shown	Master control valve, normally open per Rain Master specifications.				
F	Not Shown	Flow sensor per Rain Master specifications.				
— — —		Mainline, PVC class 315 purple pipe for size 2" and larger, and PVC Sch. 40 for size less than 2". Size as shown per plans.				
———		Lateral line, Class 200 purple pipe, size as shown on plan.				
— — — —		Sleeve, Schedule 40, size twice of diameter of irrigation line.				

Contoller: E
Location: Lower Sacramento Road / Bear Creek Bridge

Static water pressure for domestic water irrigation supply is approx 40 psi. Booster pump is designed for 70 gpm maximum flow with a boost 45 psi resulting in a total pressure of minimum 85 psi.

Program	Valve Numbers	Total GPM	Run Time (min.)	Start Time
1	4, 5,	24.0	15	4:00 AM
2	9, 15,	41.0	8	4:15 AM
3	1, 2, 3, 6, 7,	67.7	7	4:22 AM
4	8, 10, 11,	62.8	7	4:29 AM
5	12, 13,	54.3	7	4:36 AM
6	14, 16, 19	62.2	7	4:43 AM
7	17, 18	47.0	7	4:50 AM
8	20 throug 24	Not used		
End time irrigating			58	4:57 AM
Total minutes irrigating			1.0	

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Community Design • Parks and Recreation • Urban Design • Planning • Environmental Design • Business Environments

Irrigation Scheduling Guidelines

* Based upon WUCOLS III 2000, CIMIS, & UC CE guide

Project Name: Lower Sacramento Road/Bear Creek — **Date:** 02.19.2010
Project #: 77707 — **POC:** 2"

Reference Data / Turfgrass Evapotranspiration (ET_O)

Nearest Data Location: Stockton

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Reference ET_O (in./mo.)	0.90	1.73	3.38	5.04	6.45	7.54	8.02	7.11	5.19	3.33	1.6	0.86
Historical Average Precipitation	2.73	2.26	1.70	1.22	0.35	0.06	0.00	0.00	0.09	0.73	1.35	3.42
Effective Precip (Hist. Ave. - 0.2" * 75%)	1.90	1.55	1.13	0.77	0.11	0.00	0.00	0.00	0.00	0.40	0.86	2.42
Base Required Irrigation (inches/mo.)	0.00	0.19	2.26	4.28	6.34	7.54	8.02	7.11	5.19	2.93	0.74	0.00

Required Irrigation (RI) by Hydrozone

Zone Description	Species k_s	Density k_d	Climate k_{mc}	Coefficient (K_L=K_s*K_d*K_{mc})	Required Irrigation (inches/month) = (ET_O x K_L) - Effective Precipitation											
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Shrub/Spray/Sun	0.2	1.3	1.3	0.338	0.00	0.00	0.02	0.94	2.07	2.55	2.71	2.40	1.75	0.73	0.00	0.00
Shrub/Rotor/Sun	0.2	1.3	1.3	0.338	0.00	0.00	0.02	0.94	2.07	2.55	2.71	2.40	1.75	0.73	0.00	0.00
Trees/bubbler/Sun	0.2	1	1.3	0.26	0.00	0.00	0.00	0.55	1.56	1.96	2.09	1.85	1.35	0.47	0.00	0.00

Run Time Scheduling Guidelines

Zone Description	Precipitation Rate (PR)	Irrigation Efficiency (IE)	Required runtimes (minutes/week) = [RI / (PR x IE)] x (1 / days in month) x (7 day / wk) x (60 min / hr)											
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Shrub/Spray/Sun	1.58	0.65	0	0	0	13	27	35	36	32	24	10	0	0
Shrub/Rotor/Sun	0.6	0.8	0	0	0	27	58	74	77	68	51	21	0	0
Trees/bubbler/Sun	0.9	0.9	0	0	0	9	26	34	35	31	23	8	0	0

Controller Schedule by Zone

Zone Description	Station #'s	X	
		X	Days per week
		X	Cycles per day
		X	Minutes per cycle

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Shrub/Spray/Sun (E1, E2, E3, E6, E7, E8, E10, E11, E12, E13, E14, E16)	1	1	3	3	3	4	4	4	4	3	3	1
	1	1	1	1	1	1	1	1	1	1	1	1
	0	0	0	4	9	9	9	8	6	3	0	0
Shrub/Rotor/Sun (E4, E5)	1	1	3	3	3	4	4	4	4	3	3	1
	1	1	1	1	1	1	1	1	1	1	1	1
	0	0	0	9	19	19	19	17	13	7	0	0
Trees/bubbler/Sun (E9, E15)	1	1	3	3	3	4	4	4	4	3	3	1
	1	1	1	1	2	3	1	1	1	1	1	1
	0	0	0	5	5	5	5	5	5	5	0	0

Run Time Summary (will be less for controller capable of simultaneous multiple valve operation to a max flow)

Zone Description	Number of Stations per Zone Type:	X	Minutes per watering day per Zone type

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Shrub/Spray/Sun (12)	0	0	1	51	109	104	107	95	72	38	0	0
Shrub/Rotor/Sun (2)	0	0	0	18	39	37	38	34	26	14	0	0
Trees/bubbler/Sun (2)	0	0	0	10	20	30	10	10	10	10	0	0
Total Hours per watering day:	0.0	0.0	0.0	1.3	2.8	2.9	2.6	2.3	1.8	1.0	0.0	0.0

Notes

1 This is a guideline only. Actual water requirements are dependant on site conditions and varying weather. The irrigation system should be monitored to avoid over or underwatering.
2 Increase run times by 25-50% during plant establishment period.
3 Reference ET_O is an historical average based upon CIMIS station data.
4 Historical average precipitation is based upon weather station data available through the California DWR's California Data Exchange Center.
5 Controller specified may be capable of operating multiple valves simultaneously. Sum of individual station run times does not necessarily equal actual run time..

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LICENSED LANDSCAPE ARCHITECT — JOHN H. NICOLAUS — CRLA 3266 — Signature — 9.30.11 Renewal Date — 7.13.10 Date — STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE

LANDSCAPE IRRIGATION LEGEND & NOTES

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'
DESIGNED BY: SMC
DRAWN BY: AS, KA
CHECKED BY: JHN
RECORD DWG:

APPROVED BY: JULY 12, 2010 DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 76
LS-7
OF 124 SHEETS
PROJECT NO. 5129C

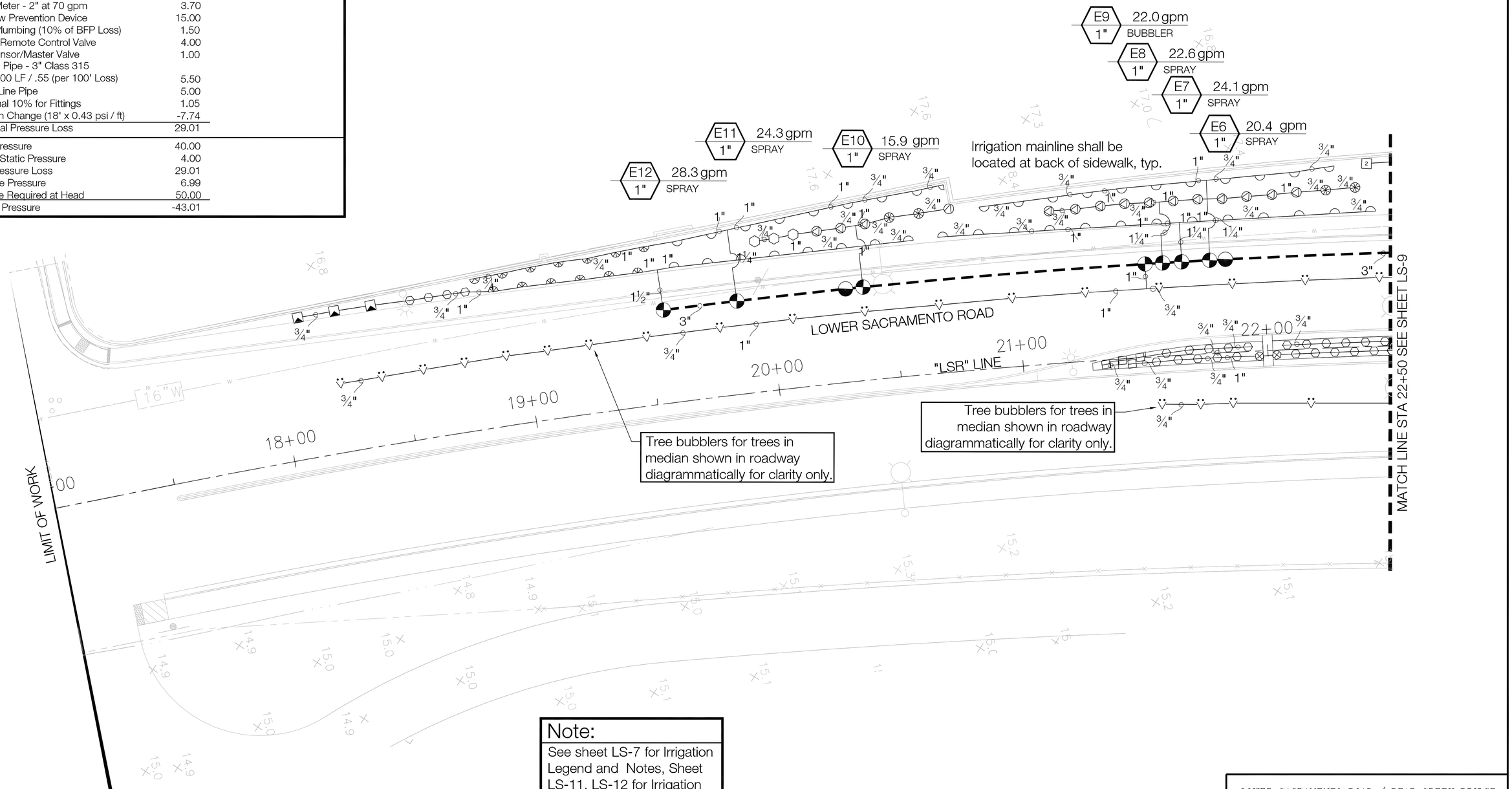
PATH: J:\P-77707_E_Lower Satto Rd-Bear Creek\

Hydraulic Pressure Loss Calcs

Controller 'E' at Approx. STA 25+00
Point of Connection: 2"
System designed for a maximum water flow of 70 gpm at a minimum static pressure of 40 psi at P.O.C. with a boost of 45 psi resulting in a total pressure of 85 psi.

Pressure Loss for:	
Water Meter - 2" at 70 gpm	3.70
Backflow Prevention Device	15.00
P.O.C Plumbing (10% of BFP Loss)	1.50
Electric Remote Control Valve	4.00
Flow Sensor/Master Valve	1.00
Mainline Pipe - 3" Class 315	
1000 LF / .55 (per 100' Loss)	5.50
Lateral Line Pipe	5.00
Additional 10% for Fittings	1.05
Elevation Change (18' x 0.43 psi / ft)	-7.74
Sub Total Pressure Loss	29.01
Static Pressure	40.00
10% of Static Pressure	4.00
Total Pressure Loss	29.01
Available Pressure	6.99
Pressure Required at Head	50.00
Surplus Pressure	-43.01

Note:
Static water pressure for domestic water irrigation supply is approximately 40.0 psi. contractor shall verify pressure at point of connection prior to work. if pressure is not as stated, contractor shall contact Landscape Architect, in writing, for direction. Failure to do so will result in contractor being responsible for any changes as a result.



Note:
See sheet LS-7 for Irrigation Legend and Notes, Sheet LS-11, LS-12 for Irrigation Details

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The HLA Group
Landscape Architects & Planners, Inc.
1050 Twentieth Street, Suite 200
Sacramento, California 95811
916.447.7400 / 916.447.8270 faX / www.hlagroup.com
HLA JOB NUMBER: 77707

LICENSED LANDSCAPE ARCHITECT
JOHN H. NICOLAUS
CRLA 3266
Signature
9.30.11 Renewal Date
7.13.10 Date
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE
LANDSCAPE IRRIGATION PLAN
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 77
DESIGNED BY: SMC		LS-8
DRAWN BY: AS, KA		OF 124 SHEETS
CHECKED BY: JHN	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 5129C
RECORD DWG:		

CAD USER: kashida

PLOT DATE: Jul 13, 2010-03:29:24pm

FILE NAME: _777lrr-E

PATH: J:\P-77707_E_Lower Sacto Rd-Bear Creek\

Irrigation POC.
Install 2" backflow preventer to existing 2" water meter as installed by the City of Stockton. Refer to Civil Plans for exact location of meter. This system is designed for a maximum water flow of 35 gpm at a minimum static pressure of 40psi at P.O.C. with boost of 45 psi resulting in total pressure of minimum 85 psi.
Irrigation shown diagrammatically for clarity. Refer to Civil Plans for exact location of POC and Controller location.

Electrical pedestal for booster pump and irrigation controller. Refer to Electrical Plans for more info.

E5 1" 12.0 gpm ROTOR
E4 1" 12.0 gpm ROTOR
E2 1" 10.2 gpm SPRAY
E1 1" 4.7 gpm SPRAY
E3 1" 8.3 gpm SPRAY
E P M F
E17 1" 16.2 gpm SPRAY
E18 1" 30.8 gpm SPRAY
E19 1" 19.0 gpm SPRAY
E14 1" 26.2 gpm SPRAY
E13 1" 26.0 gpm SPRAY
E15 1" 19.0 gpm BUBBLER
E16 1" 17.7 gpm SPRAY

MATCH LINE STA 22+50 SEE SHEET LS-8

Irrigation mainline shall be located at back of sidewalk, typ.

LOWER SACRAMENTO ROAD

BEAR CREEK

PIPE

23+00 24+00 25+00 26+00 27+00 28+00

"LSR" LINE

Install line size gate valve and extra control wires (E20-24) at this location for future use. Install in locking valve box.

4" sch. 40 galvanized pipe and 3" irrigation sleeve with pull rope ends shall be terminated at back of sidewalk for future use. Terminate pipe and sleeve into valve box.

MATCH LINE STA 28+50 SEE SHEET LS-10

Tree bubblers for trees in median shown in roadway diagrammatically for clarity only.

Future POC at approx. sta. 24+75. See Civil's plan.

(1) 6" and (1) 4" Irrigation sleeve with pull rope for future use.

Root watering systems shown in street for clarity, typ. Refer to detail H/LS-12 for installation.

Note:
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LANDSCAPE IRRIGATION PLAN
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PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'
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RECORD DWG:

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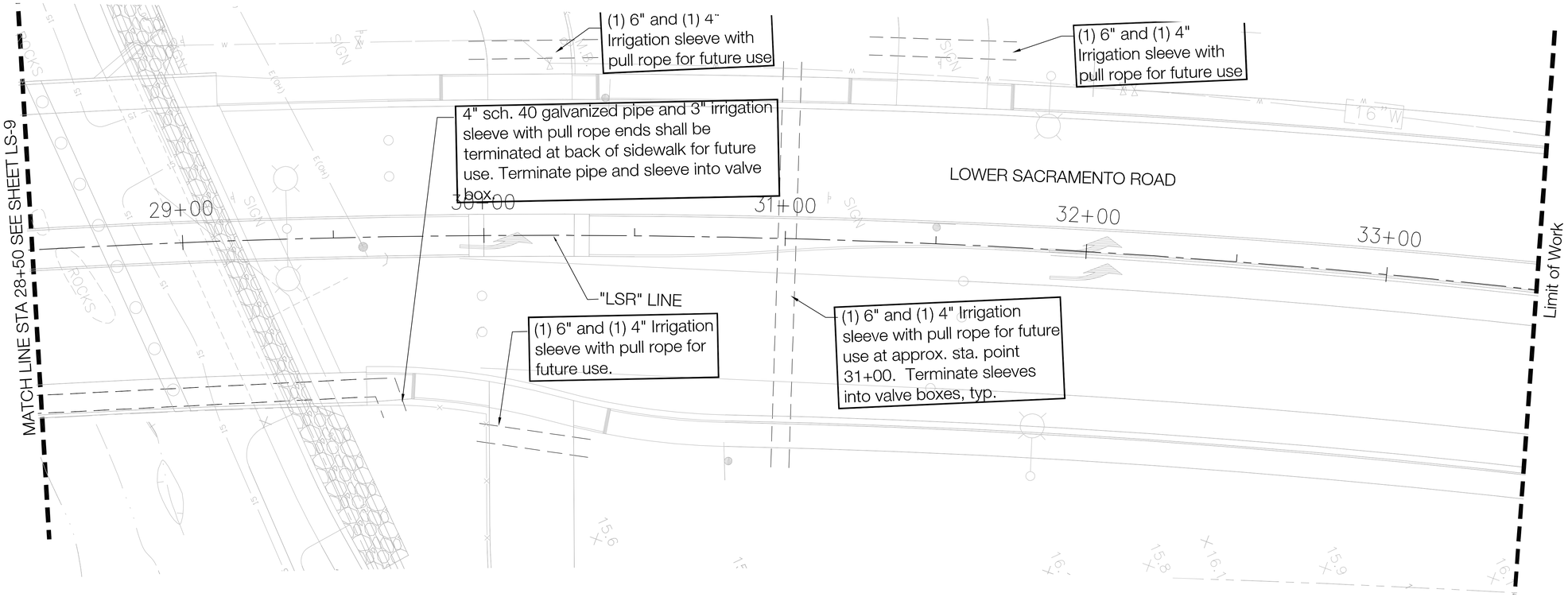
STOCKTON, CALIFORNIA

SHEET NO. 78
LS-9
OF 124 SHEETS
PROJECT NO. 5129C



Note:
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SHEET NO. 79
LS-10
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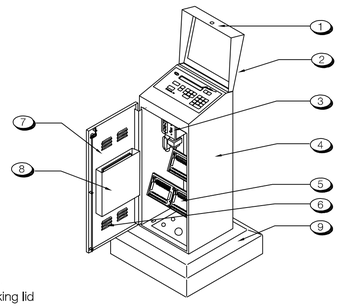
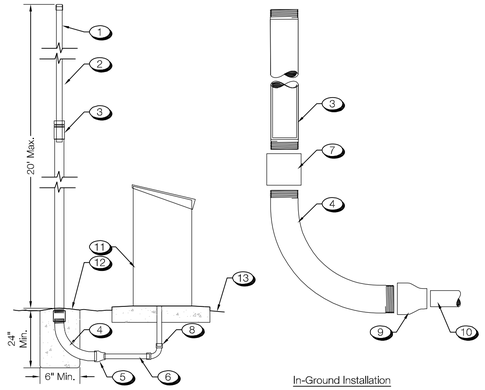


Key:
1. Locking lid
2. Not Used
3. AC on/off switch with built-in GFI utility outlet.
4. Natural brushed stainless steel finish reflects surrounding colors.
5. Angled station terminal boards
6. Louvered vents top and bottom with splash guard filter.
7. Two point latching utility door.
8. Stainless steel document basket
9. Mounting pad minimum size 28"x28"x8" concrete pad with beveled edges

Notes:
A) Common wire to be white and control wire to be red in color. Bundle and tape wiring at interval of 10'-0".
B) No splice shall be made between controller and remote control valve under 500 linear feet.
C) Refer to specifications and plan sheets for additional information.

A | RainMaster Evolution DX2 Stainless Steel Pedestal
NTS — Section

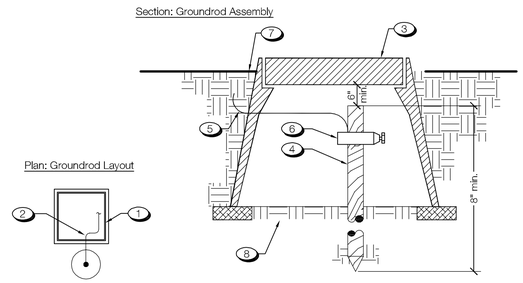


Key:
1. Rain Master EV-ANT-F Antenna
2. Rain Master EV-ANT-KIST coupling
3. 1 1/2" galvanized steel mounting pole
4. Galvanized 1 1/2" sweep ell
5. 1 1/2" x 1" bell reducer
6. 1" conduit - length as needed
7. Galvanized 1 1/2" coupler
8. 1" sweep ell
9. 1 1/2" x 1" bell reducer
10. 1" conduit
11. Pedestal Cabinet, refer to detail A / LS-11
12. Concrete footing, as needed for support
13. Finish grade

Notes:
A) Apply teflon tape to all treaded connections

In-Ground Installation

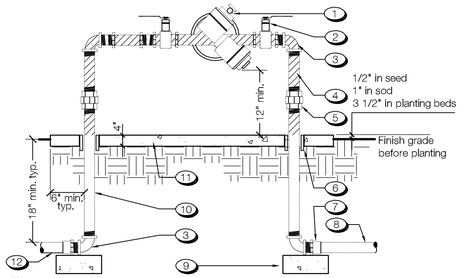
B | Evolution DX2 - High Gain Antenna Installation
Not to Scale — Section



Key:
1. Irrigation controller or equipment, refer to plan and legend.
2. Solid bare copper wire (#10 AWG) from grounding rod to controller. Make wire as short as possible.
3. Cover grounding rod with round valve box. (Refer to specifications.)
4. 5/8" x 8'-0" copper clad grounding rod.
5. Bare copper wire (#10 AWG) to controller
6. Brass clamp.
7. Finish grade.
8. Subgrade.

Notes:
A) Detail provided for reference. Installation of all irrigation equipment shall comply with manufaturer's instructions and specifications.

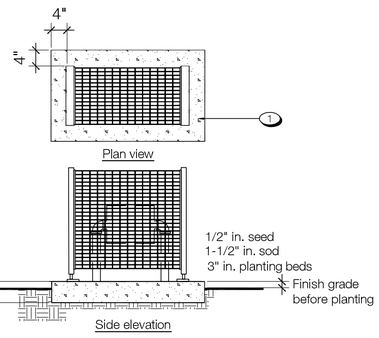
C | Grounding Rod
Not To Scale — Plan/Section



Key:
1. Backflow preventer see irrigation legend for manufacturer and model number.
2. Ball valve, typ. 2 places
3. Brass ell
4. Brass nipple, typ. 5 places.
5. Brass union, typ. 2 places.
6. PVC riser sleeve size as req'd, typ.
7. Sch. 80 PVC male adapter, typ. 2 places
8. PVC pressure main line to remote control valves
9. 6"x12"x12" concrete support block, typ. 2 places.
10. Brass nipple, typ. 2 places
11. Concrete pad slope to drain, 2%
12. Pressure main line from water source.

Notes:
A) Equipment to be installed a minimum of 24" from any structures or hardscaping.
B) When unit is near a structure (ie: wall, building, etc.) mount test cocks on open or non-obstructed side.
C) Refer to specifications and plan sheets for more information.
D) Wrap all metal pipe with 10 mil. vinyl tape.
E) Install with Weatherguard blanket within enclosure

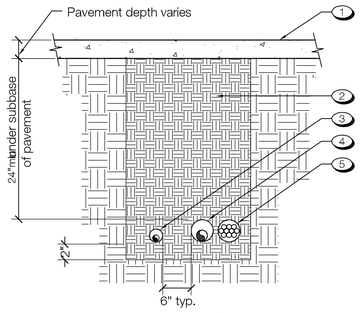
D | Reduced Pressure Backflow Preventer (2")
Not To Scale — Section



Key:
1. Concrete pad. Slope to drain at 2%.

Notes:
A) Enclosures shall be as indicated on Irrigation Legend.
B) Refer to backflow preventer detail for further information.
C) Install enclosure per manufacturer's recommendations.
D) Refer to specifications and plan sheets for more information.

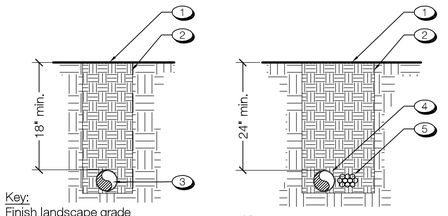
E | Backflow Preventer Enclosure Detail
Not To Scale — Plan View / Elevation



Key:
1. Finish grade of asphalt paving, concrete or other impervious materials
2. Clean backfill - see specs 95% compaction under paving
3. Non pressure lateral line sleeve req'd. under paving (twice dia. of non pressure lateral line)
4. Main line sleeve req'd. under paving (twice dia. of pressure main line)
5. Control wire sleeve under paving. Size as req'd. Install adjacent to pressure main line

Notes:
A) All sleeves to be sch. 40 PVC.
B) Extend all sleeves min. 12" beyond edge of hardscaping at both ends, cap ends and flag locations.
C) Refer to specifications and plan sheets for more information.

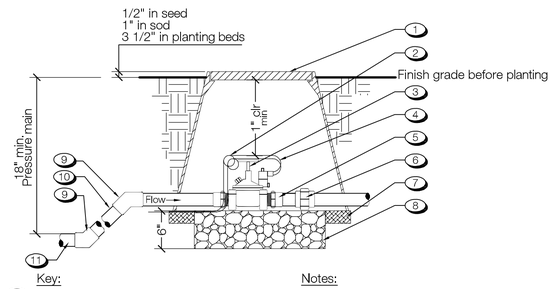
F | Pipe Trenching Under Pavement
Not To Scale — Section



Key:
1. Finish landscape grade
2. Clean backfill - see specs, 85% compaction
3. Non pressure lateral
4. Pressure main line
5. Control wire adjacent to pressure mainline. Bundle & tape at 10'-0" interval to pipe

Notes:
A) Refer to specifications and plan sheets for more information.

G | Pipe Trenching
Not To Scale — Section



Key:
1. Plastic valve box and locking cover w/ box extensions as req'd. (Refer to specifications)
2. Pig tail expansion loop (min. 18")
3. Master control valve
4. Control & common wires
5. Sch. 40 PVC male adaptor, FIPT x SLIP, typ. 2 places
6. Sch. 80 PVC union
7. Standard brick, typ. 2 places
8. 3/4" dia. drain rock
9. Sch. 80 PVC 45° elbow (line size)
10. Sch. 80 PVC nipple
11. PVC mainline pipe

Notes:
A) Valve shall be line sized unless otherwise noted.
B) Install valves a minimum of 12" from structures or hardscaping.
C) Install valves in planting beds wherever possible.
D) Place valve box at right angles to structures or hardscaping.
E) Install valve box so that top of valve box is flush with adjacent hardscaping.
F) Place 3/4" dia. drain rock prior to installation of valve box.
G) Refer to specifications and plan sheets for more info.
H) Use Teflon tape on all threaded fittings.

H | Master Control Valve: Threaded Ends
Not To Scale — Section

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LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE
LANDSCAPE IRRIGATION DETAILS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 80
DESIGNED BY: SMC		LS-11
DRAWN BY: AS, KA		OF 124 SHEETS
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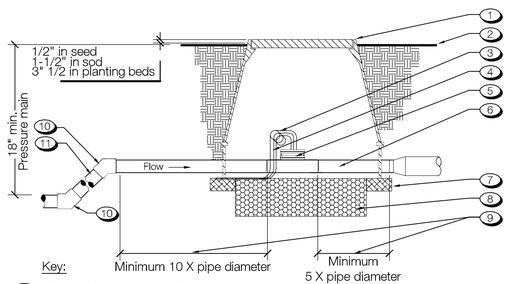

Key:

1. Plastic valve box with bolt down cover, and box extension if req'd. Refer to specifications.
2. Finish grade before planting.
3. Pig tail expansion loop (min. 18").
4. Communication cable. Return to controller within 1" gray schedule 40 PVC conduit.
5. Flow sensor with sensor body. Sensor must be installed vertically. Refer to Irrigation Legend for model, size, and additional information.
6. Irrigation mainline.
7. Standard brick, typ. 2 places.
8. 3/4" dia. drain rock below valve.
9. Minimum distance from flow sensor assembly of straight mainline without any turns, fittings, or reducing couplings.
10. Schedule 80 PVC 45 ° elbow (line size).
11. Schedule 80 PVC Nipple.

Notes:

A) Install flow sensor a minimum of 12" from structures or hardscaping.
B) Install flow sensor in planting beds wherever possible.
C) Place valve box at right angles to structures or hardscaping.
D) Place 3/4" dia. drain rock prior to installation of valve box.
E) Refer to the irrigation legend and plans, and project specifications for more information.
F) Install valve box so that top of valve box is flush with adjacent hardscaping.
G) Use Teflon Tape on all threaded fittings.

A Flow Sensor

Not To Scale — Section

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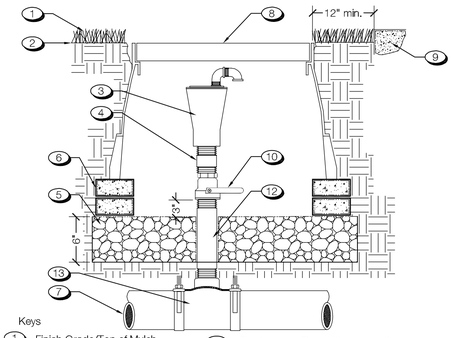


Keys

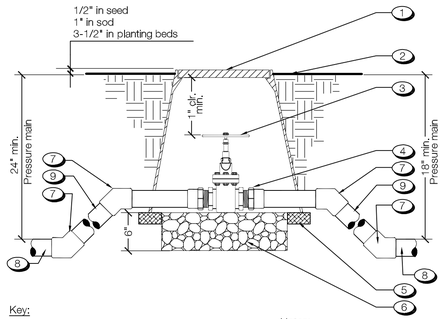
1. Finish Grade/Top of Mulch
2. Turf
3. 2"-Air Relief Valve
4. PVC Sch.80 Nipple-6" Long
5. 6" compacted drain rock
6. Stacked brick 'vault' typ.
7. Main Line Supply
8. Plastic Valve Box With Locking Cover
9. Curb, Walk
10. 2"-Ball valve
11. Not Used
12. PVC Sch.80 Nipple-Length As Required
13. Main Line Fitting

Notes

1) Compact soil around valve box to same density as undisturbed adjacent soil.
2) Use teflon tape or teflon paste on all threaded fittings.

B Air Relief Valve Detail

Not To Scale — With Stainless Steel Trim — Section



Key:

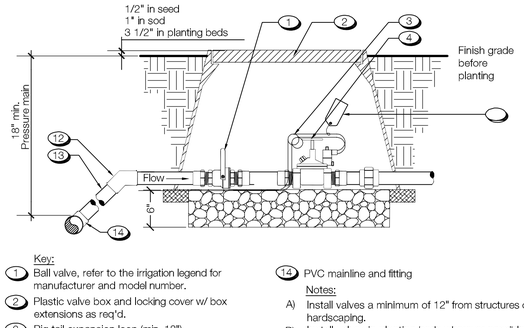
1. Plastic valve box and locking cover, w/ box extensions as req'd. Refer to specifications.
2. Finish grade before planting
3. Gate valve, see irrigation legend for manufacturer and model number.
4. Sch. 40 PVC male adaptor, FIPT x SLIP, typ. 2 places
5. Standard brick, typ. 2 places
6. 3/4" dia. drain rock (below valve)
7. Sch. 80 PVC 45° elbow (line size)
8. PVC mainline pipe (line size)
9. Schedule 80 nipple.

Notes:

A) Install gate valves a minimum of 12" from structures or hardscaping.
B) Install gate valves in planting beds wherever possible.
C) Install valve box so that top of valve box is flush with adjacent hardscaping.
D) Use Teflon tape on all threaded fittings.
E) Place 3/4" dia. drain rock prior to installation of valve box.
F) Refer to specifications and plan sheets for more information.

C Gate Valve: Threaded Ends

Not To Scale — Section



Key:

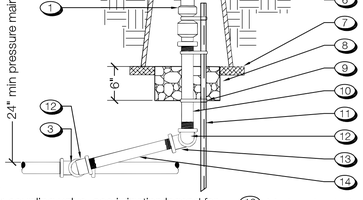
1. Ball valve, refer to the irrigation legend for manufacturer and model number.
2. Plastic valve box and locking cover w/ box extensions as req'd.
3. Pig tail expansion loop (min. 18")
4. Electric control valve
5. Valve identification tag
6. Control & common wires
7. Lateral line, angle to 12" min. depth as req'd.
8. Standard brick, typ. 2 places
9. Sch. 80 PVC union
10. Sch. 40 PVC adaptor, FIPT x SLIP, typ. 4 places
11. 3/4" dia. drain rock below valve.
12. 13. Sch. 80 PVC nipple
14. PVC mainline and fitting

Notes:

A) Install valves a minimum of 12" from structures or hardscaping.
B) Install valves in planting beds wherever possible.
C) Place valve box at right angles to structures or hardscaping.
D) Install valve box so that top of valve box is flush with adjacent hardscaping.
E) Place 3/4" dia. drain rock prior to installation of valve box.
F) Ball valve & fittings shall be line size unless noted otherwise.
G) Refer to specifications and plan sheets for more information.

D Electric Control Valve & Ball Valve: 3" & Smaller

Not To Scale — Section



Key:

1. Quick coupling valve, see irrigation legend for manufacturer and model number.
2. Sch. 40 PVC 90° ell, FIPT x MIPT
3. Sch. 40 PVC tee, SLIP x SLIP x FIPT
4. Plastic valve box, and locking cover. Refer to specifications
5. Structure or hardscape
6. Finish grade before planting
7. Standard brick typ. (2) places
8. 3/4" drain rock
9. Stainless steel screw clamp, min. (3) places
10. Sch. 80 PVC threaded nipple, 12" long
11. #5 rebar or angle iron (36" long)
12. Marlex street ell
13. Sch. 40 PVC 90° ell, FIPT x FIPT
14. Sch. 80 PVC threaded nipple (12" long)

Notes:

A) Install quick coupling valves in planting areas wherever possible.
B) Install valve box so that top of valve box is flush with adjacent hardscaping.
C) Place 3/4" dia. drain rock prior to installation of valve box.
D) Refer to specifications and plan sheets for more information.
E) Size of assembly to be equal to the inlet of the quick coupler.

E Quick Coupling Valve (Within Valve Box)

Not To Scale — Section

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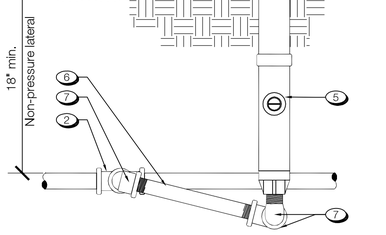


Key:

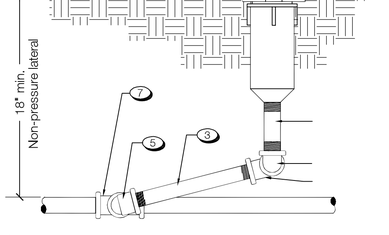
1. Not Used
2. Sch. 40 PVC tee, SLIP x SLIP x FIPT
3. 12" pop-up sprinkler
4. Finish grade before planting
5. Side inlet shall not be utilized
6. Sch. 80 PVC threaded nipple (6" long)
7. Marlex street ell, FIPT x MIPT

Notes:

A) Locate head 2" from walks, curbs, hardscaping, mow strips, header boards, etc.
B) Locate sprinklers with stream or bubbler nozzles 6" from all structures, and spray heads 12" from all structures.
C) Size of assembly to be equal to the inlet of the head.
D) Refer to specifications and plan sheets for more information.

F 12" Pop-up Spray

Not To Scale — Section



Keys:

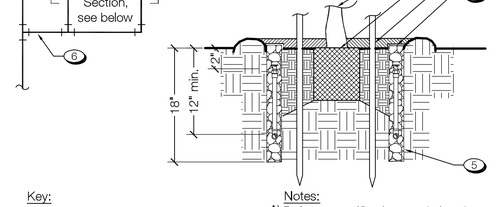
1. Finish grade before planting
2. Pop-up rotor
5. Marlex street ell, FIPT x MIPT
6. Sch. 40 PVC 90° ell, FIPT x FIPT
7. Sch. 40 PVC tee, SLIP x SLIP x FIPT

Notes:

A) Locate head 2" from walks, curbs, hardscaping, mow strips, header boards, etc.
B) Locate head 12" from structures.
C) Refer to specifications and plan sheets for more information.
D) Size of assembly to be equal to the FIPT of the head.

G Pop-up Rotor

Not to Scale — Section



Key:

1. Refer to tree planting detail for other requirements.
2. Root ball
3. Tree stakes
4. Pre-manufactured RainBird root watering system. Refer to irrigation legend and manufacturer for additional information.
5. 4" dia. augered hole, 3'-0" min. depth, typ.
6. PVC lateral, typ.

Notes:

A) Refer to specifications and plan sheets for more information.
B) Apply teflon tape to all male threaded fittings.
C) Deep water bubblers planted on slope shall be installed parallel to the slope and one foot upslope of the rootball.

H Deep Water Bubbler

Not To Scale — Plan/Section

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ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
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916.447.7400 / 916.447.8270 faX / www.hlagroup.com
HLA JOB NUMBER: 77707

LICENSED LANDSCAPE ARCHITECT — JOHN H. NICOLAUS — CRLA 3266 — Signature — 9.30.11 Renewal Date — 7.13.10 Date — STATE OF CALIFORNIA

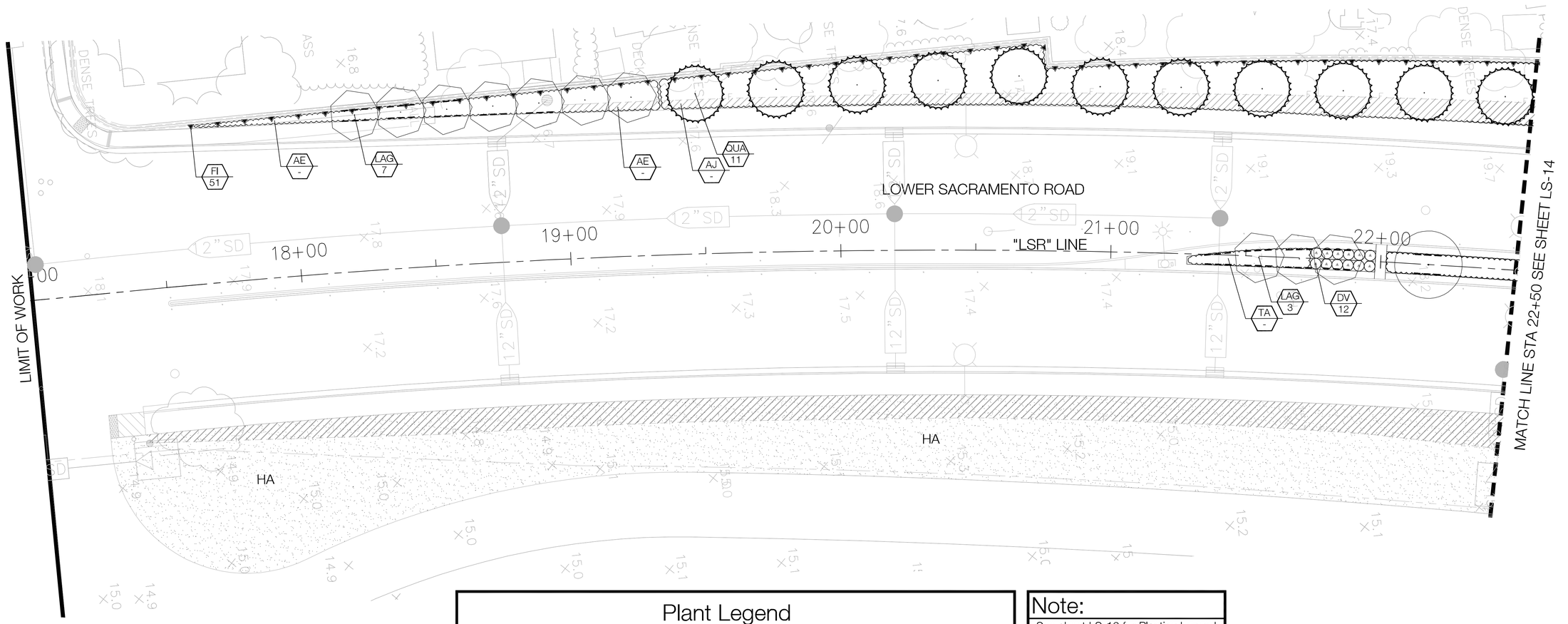
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE

LANDSCAPE IRRIGATION DETAILS

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 81
DESIGNED BY: SMC		LS-12
DRAWN BY: AS, KA		OF 124 SHEETS
CHECKED BY: JHN	CITY ENGINEER	PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA	5129C



Plant Legend

Symbol	Botanical Name	Common Name	Size	Remarks	Wat. Use
Trees					
ACR	Acer rubrum 'Red Sunset'	Red Maple	24" Box	---	M
LAG	Lagerstroemia hybrids 'Tuskegee'	Crape Myrtle	24" Box	Multi- Trunk	L
QUA	Quercus agrifolia	Coast Live Oak	24" Box	---	L
Shrubs / Groundcovers					
AE	Arctostaphylos 'Emerald Carpet'	Carpet Manzanita	1 Gal	48" O.C.	L
AJ	Arctostaphylos 'John Dourley'	Manzanita	1 Gal	48" O.C.	L
DV	Dietes vegata	Fortnight Lily	1 Gal	---	M
TA	Trachelospermum asiaticum	Asian Jasmine	1 Gal	24" O.C.	M
FI	Ficus pumila	Creeping Fig	5 Gal	10' O.C.	M
HA	Non - Irrigated Hydroseed	60% Zorro Fesuce 40% Rose Clover, Inoculate By Mark Seeding Services, Inc. Call for additional information. 1-800-476-4937 See Specifications for more information			
Non-Planting					
- - - - -	Root barrier to be installed where trees are less than 5' from paving or walls. Refer to specifications for additional information				
	Jute mesh to be installed on all slopes with 2:1 slope or greater. Refer to Civil plans for slope locations and grades. Refer to specifications for additional information.				

Note:

See sheet LS-13 for Planting Legend, Sheet LS-18 for Planting Notes, and Details

0' 20' 40' 60'
Scale 1"=20'-0" PN77707

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LICENSED LANDSCAPE ARCHITECT
JOHN H. NICOLAUS
CRLA 3266
Signature
9.30.11 Renewal Date
7.13.10 Date
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

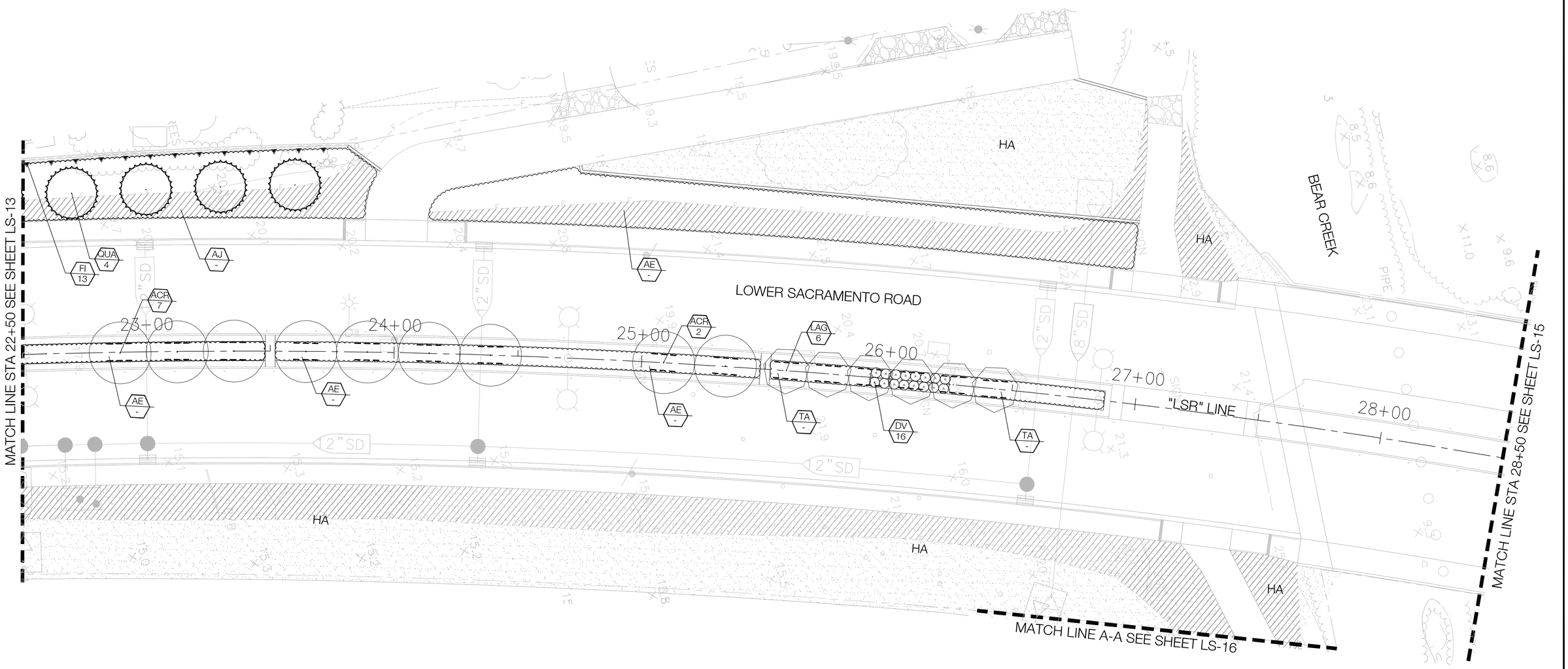
LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE

LANDSCAPE PLANTING PLAN

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: SMC	CITY ENGINEER
DRAWN BY: AS, KA	STOCKTON, CALIFORNIA
CHECKED BY: JHN	
RECORD DWG:	

SHEET NO. 82
LS-13
OF 124 SHEETS
PROJECT NO. 5129C



Note:
See sheet LS-13 for Planting Legend, Sheet LS-18 for Planting Notes, and Details

0' 20' 40' 60'
Scale 1"=20'-0" PN77707

LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE
LANDSCAPE PLANTING PLAN
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'
DESIGNED BY: SMC
DRAWN BY: AS, KA
CHECKED BY: JHN
RECORD DWG:

APPROVED BY: JULY 12, 2010 DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 83
LS-14
OF 124 SHEETS
PROJECT NO. 5129C

Revision No.	Description	Date	By	Aprvd. By

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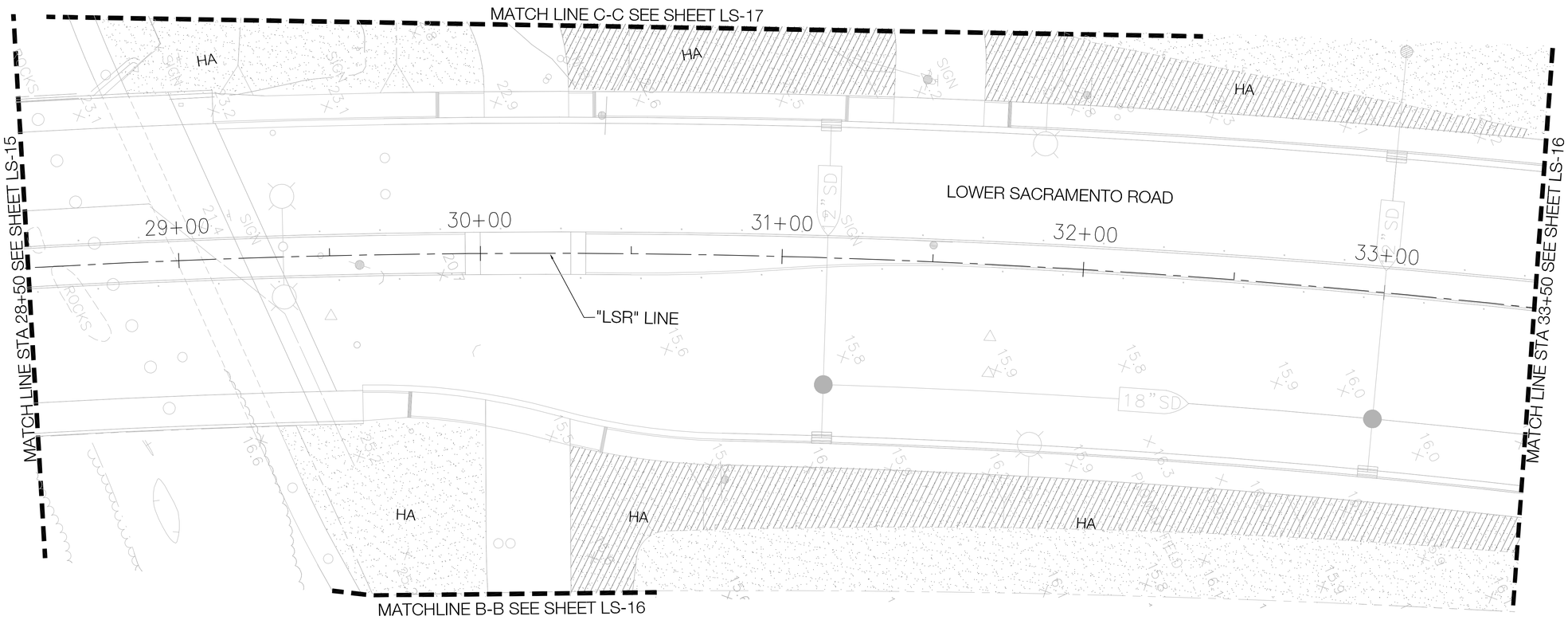

Note:

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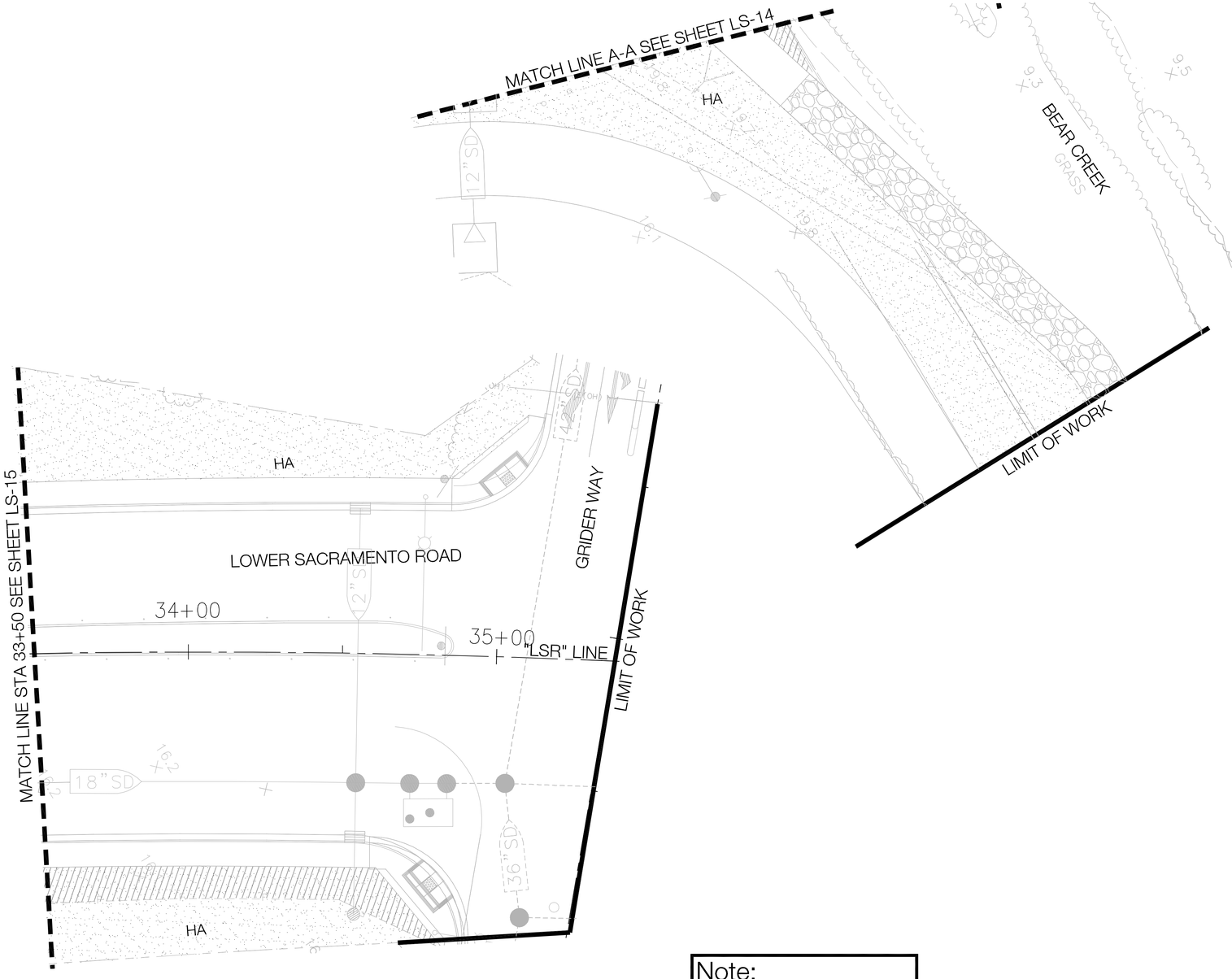
LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE

LANDSCAPE PLANTING PLAN

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 84
DESIGNED BY: SMC		LS-15
DRAWN BY: AS, KA		OF 124 SHEETS
CHECKED BY: JHN	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 5129C
RECORD DWG:		



Note:

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Scale 1"=20'-0"
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Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE

LANDSCAPE LAYOUT PLAN

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

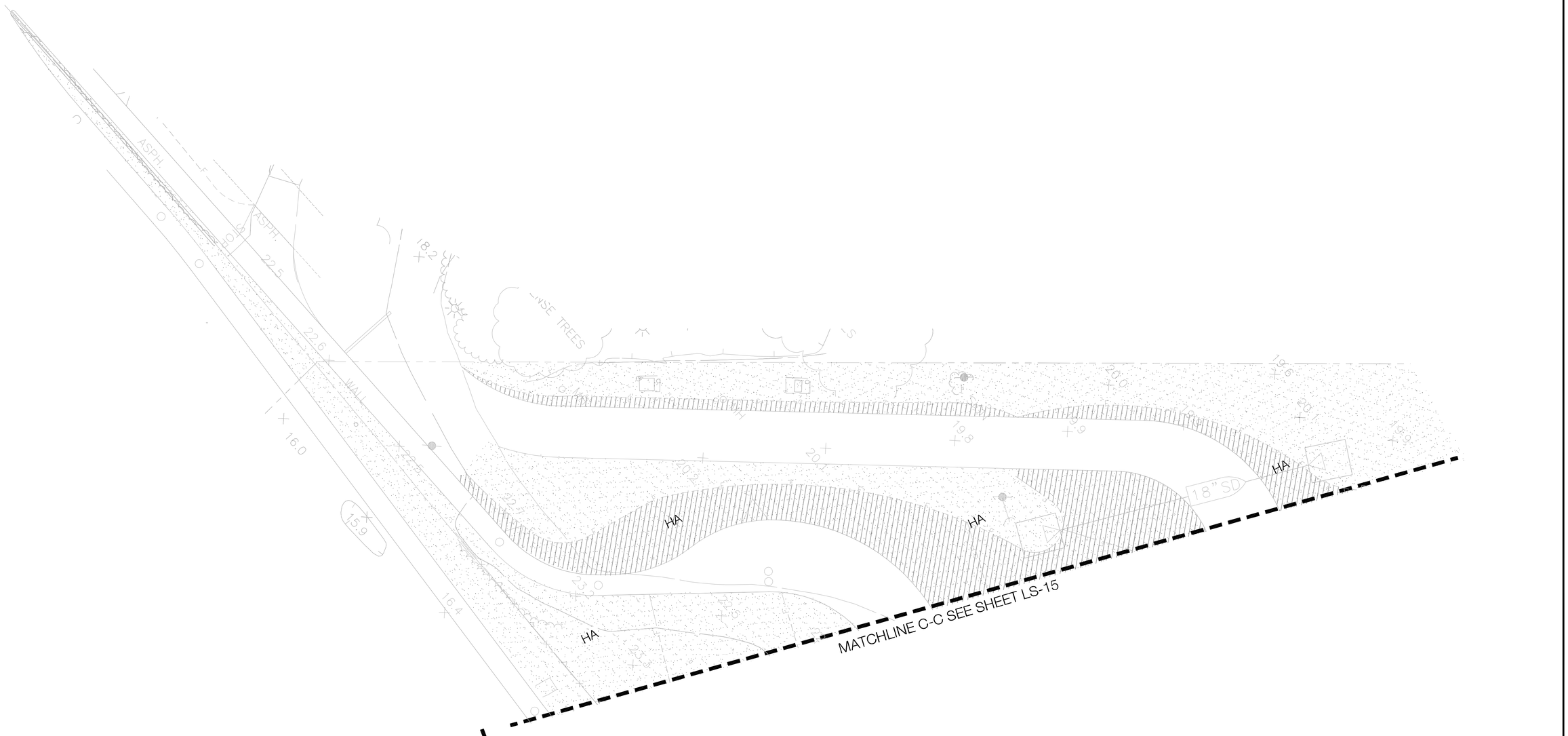
SCALE: 1"=20'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 85
DESIGNED BY: SMC		LS-16
DRAWN BY: AS, KA		OF 124 SHEETS
CHECKED BY: JHN	CITY ENGINEER	PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA	5129C

FILE NAME: __777Plnt-E

PLOT DATE: Jul 13, 2010-03:35:40pm

CAD USER: kashida

PATH: J:\P-77707__E_Lower Sacto Rd-Bear Creek\



Note:

See sheet LS-13 for Planting Legend, Sheet LS-18 for Planting Notes, and Details

0' 20' 40' 60'

Scale 1"=20'-0" PN77707

LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE

LANDSCAPE PLANTING PLAN

CITY OF STOCKTON
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APPROVED BY: JULY 12, 2010
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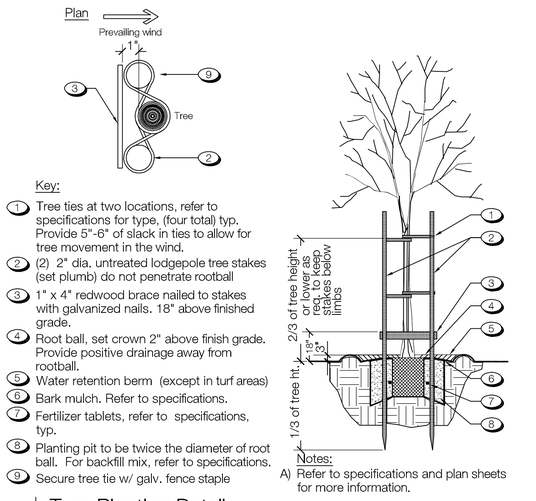
STOCKTON, CALIFORNIA

SHEET NO. 86
LS-17
OF 124 SHEETS
PROJECT NO.
5129C



Key:

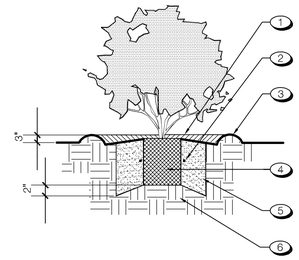
1. Tree ties at two locations, refer to specifications for type, (four total) typ. Provide 5"-6" of slack in ties to allow for tree movement in the wind.
2. (2) 2" dia. untreated lodgepole tree stakes (set plumb) do not penetrate rootball
3. 1" x 4" redwood brace nailed to stakes with galvanized nails. 18" above finished grade.
4. Root ball, set crown 2" above finish grade. Provide positive drainage away from rootball.
5. Water retention berm (except in turf areas)
6. Bark mulch. Refer to specifications.
7. Fertilizer tablets, refer to specifications, typ.
8. Planting pit to be twice the diameter of root ball. For backfill mix, refer to specifications.
9. Secure tree tie w/ galv. fence staple

Notes:

A) Refer to specifications and plan sheets for more information.

A Tree Planting Detail

Not To Scale — Plan/Section



Key:

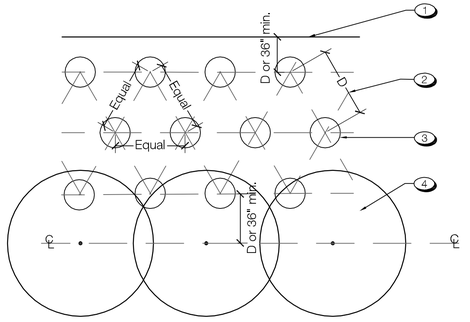
1. Bark mulch, refer to specifications
2. Fertilizer tablets, refer to specifications, typ.
3. Water retention berm
4. Root ball- set crown 1" above finish grade. Provide positive drainage away from rootball.
5. Planting pit to be twice the diameter of rootball. For backfill mix, refer to specifications.
6. Undisturbed native soil under rootball. Provide positive drainage away from rootball.

Notes:

A) Refer to specifications and plan sheets for more information.

B Shrub Planting

Not to Scale — Section

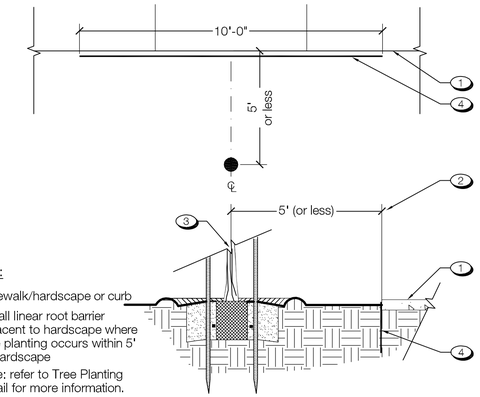


Key:

1. Mow band, pavement edge, or header
2. Typical spacing (D). Refer to planting plan
3. Groundcover plant, size as denoted on planting plan
4. Shrub mass, typical

C Ground Cover Spacing

Not to Scale — Plan



Key:

1. Sidewalk/hardscape or curb
2. Install linear root barrier adjacent to hardscape where tree planting occurs within 5' of hardscape
3. Tree: refer to Tree Planting Detail for more information.
4. Liner root barrier by Root Solutions (Model: R5-24) available from Vespro Inc. (1-800-554-0914), install centered on tree, parallel to all hard edges less than 5' - 0" from tree. All corners shall be 90 degrees. Connect all corners with manufacturer's couplings. Install per manufacturer's instructions.

Notes:

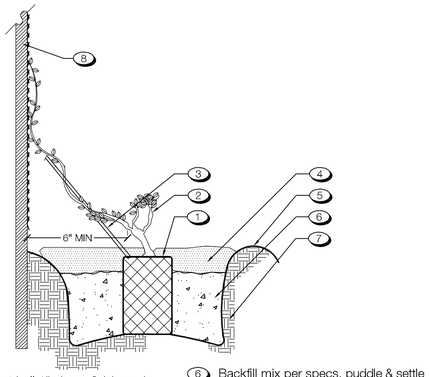
A) Refer to planting notes and specifications for more information.

D Tree Root Barrier

Not To Scale — Plan/Section

Planting Notes

1. Plant material quantities shown on drawings are informational only. The Contractor is responsible for all plant material required.
2. LA 12 — Plant Key / Quantity
3. Immediately after award of contract, the Contractor shall notify the Landscape Architect if specified plant material is available from commercial nurseries. In case plant material is not available, the Landscape Architect will provide alternate plant material selections. Such changes will not alter the Contractor's original bid price unless a credit is due to the Owner.
4. Excavated plant pits shall have positive drainage. Plant pits when fully flooded with water shall drain within 2 hours of filling. The Contractor shall ensure all plant pits have positive drainage. Refer to specifications for exact requirements.
5. All plant material shall comply with form and characteristic requirements as specified. All plant material with comply with ANSI Z601 "Standard for Nursery Stock".
6. Landscape installation specifications are in book form. The Contractor shall conform to all conditions and requirements contained within. The Contractor shall have available on the job site at all time, the Construction Issue Specification Manual for inspection by the Landscape Architect. The Contractor shall insert in the manual all official/approved addendums and/or change orders relative to the landscape installation in chronological order.
7. The Contractor is responsible for soil erosion control measures that may be required through the duration of the contract period. Should there be existing soil erosion conditions that require mitigation when the Contractor initially accepts the site, the Landscape Architect or Owner's Representative should be alerted to its existence. Failure of the Contractor to notify the Landscape Architect or Owner's Representative implies acceptance of the site by the Contractor in its existing condition. All costs necessary to mitigate existing erosion problems shall be at the Contractor's expense and at no extra cost to the Owner or increase in original bid amount.
8. The Contractor shall verify locations of all underground utility systems prior to beginning any phase of construction that may cause damage to existing structures. Call C.G.A. to locate existing utilities at 811. The Contractor shall be responsible for the repair/replacement of damaged utilities to the satisfaction of the Owner or governing agency and at no extra cost to the Owner or increase in bid amount.
9. A 3" layer of decorative bark mulch (3/4" size max.) shall be provided in all non-lawn planting areas except in areas designated as Hydroseed. Shredded bark is not acceptable
10. The Contractor shall apply a pre-emergent herbicide to all plant areas following installation.
11. The location of tree, shrubs and groundcover shall be adjusted in field as necessary to accommodate existing utilities etc.
12. Trees planted within 5 feet of paving shall contain root barriers. Install barrier along all edges of paving for a distance of no less than 10' on center per tree. Install per Detail D, this sheet.
13. Jute Mesh slope protection blanket to be installed on all planted slopes 2:1 slopes (or greater) as shown on Planting Plan. Refer to Specifications for additional information.



Key:

1. Set top of root ball 1" above finish grade
2. Remove nursury stake & reset vine with 1" x 8" redwood stake
3. Lean & attach stake to wall or support structure
4. Mulch depth and type per specifications.
5. 4" earth basin
6. Backfill mix per specs, puddle & settle backfill prior to settling plant
7. Undisturbed soil
8. Wall, See Civil Plans for additional information.

Notes:

A) See shrub planting detail for fertilization.
B) See specifications for soil amendments.
C) Plant vines stem as close to structure as possible, but allow 6" minimum between post and plant.

E Vine Detail

1" = 1" — Section

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LICENSED LANDSCAPE ARCHITECT — JOHN H. NICOLAS — CRLA 3266 — Signature — 9.30.11 Renewal Date — 7.13.10 Date — STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD / BEAR CREEK BRIDGE

LANDSCAPE PLANTING DETAILS

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=20'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 87
DESIGNED BY: SMC		LS-18
DRAWN BY: AS, KA		OF 124 SHEETS
CHECKED BY: JHN	CITY ENGINEER	PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA	5129C

TRAFFIC SIGNAL AND STREET LIGHTING GENERAL NOTES

1. CONTRACTOR SHALL MARK LOOP LOCATIONS, LOOP WIRE RUNS AND DETECTOR HANDHOLES AND HAVE LOCATIONS APPROVED BY THE RESIDENT ENGINEER PRIOR TO INSTALLATION.
2. PEDESTRIAN PUSH BUTTONS SHALL MEET ADA ACCESSIBILITY GUIDELINES.
3. REFER TO CITY OF STOCKTON STANDARD DRAWINGS FOR STREET NAME SIGN ASSEMBLY AND MOUNTINGS.
4. ALL WORK AND MATERIAL EMBRACED IN THIS PROJECT SHALL BE DONE IN ACCORDANCE WITH THE LATEST PROVISIONS OF THE CITY OF STOCKTON, DEPT. OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND PLANS, THE LATEST EDITION OF THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CAMUTCD), AND THE LATEST EDITION OF CALTRANS STANDARD PLANS AND SPECIFICATIONS AND IN ACCORDANCE WITH THE SPECIAL PROVISIONS OF THIS PROJECT.
5. POLES, PULL BOXES, DETECTOR HAND HOLES, INDUCTIVE LOOPS AND CONTROLLER CABINET LOCATIONS SHALL BE LOCATED IN THE FIELD BY THE CONTRACTOR WITH THE APPROVAL OF THE CITY TRAFFIC ENGINEER. TYPICALLY, DETECTOR HANDHOLES SHOULD BE INSTALLED ON LANE LINES.
6. CONTRACTOR SHALL RETURN ALL EXISTING & SALVAGEABLE EQUIPMENT AND SIGNS TO THE CITY OF STOCKTON CORPORATION YARD AT 1465 SOUTH LINCOLN STREET, STOCKTON, CALIFORNIA, 95206. CONTRACTOR SHALL NOTIFY THE CORP. YARD (VIJAY SINHA) AT (209)937-7004 A MINIMUM OF 72 HOURS IN ADVANCE OF DELIVERY. SECTION 86-7 "REMOVING, REINSTALLING OR SALVAGING ELECTRICAL EQUIPMENT" SHALL APPLY.
7. CONTRACTOR SHALL BACKFILL WITH CUTBACK EACH NIGHT ANY AREAS NOT COMPLETED TO ITS FINISHED STATE. ALL EXCAVATED AREAS SHALL BE PROTECTED FROM PEDESTRIAN AND VEHICULAR TRAFFIC AT ALL TIMES.
8. SIDEWALK REMOVAL SHALL BE TO THE NEAREST SCORE MARK OR AS DETERMINED BY THE ENGINEER. CONTRACTOR SHALL NEATLY SAW-CUT CONCRETE WHERE PULL BOXES ARE TO BE PLACED AND SHALL RESTORE THE SLAB TO MATCH THE EXISTING CONDITION.
9. ALL PULL BOXES SHALL BE CALTRANS STANDARD NUMBER 5 UNLESS OTHERWISE NOTED ON PLAN.
10. CONDUITS RUNNING FROM PULL BOX TO HAND HOLE AND HAND HOLE TO HAND HOLE SHALL BE A MINIMUM 2" DIA. UNLESS OTHERWISE NOTED.
11. THE CONTRACTOR SHALL CONTACT THE CITY OF STOCKTON PUBLIC WORKS INSPECTOR FOR A PRE-CONSTRUCTION CONFERENCE AFTER THE AWARD OF CONTRACT AND AT LEAST 72 HOURS IN ADVANCE OF WORK.
12. LABEL PEDESTRIAN AND SIGNAL COMMONS SEPARATELY IN THE CONTROLLER CABINET.
13. ALL VEHICLE INDICATIONS SHALL BE INTERNALLY FUSED LED'S.
14. CONDUIT ROUTING SHOWN IS ESSENTIALLY DIAGRAMMATIC. CONTRACTOR SHALL LAY OUT RUNS TO SUIT FIELD CONDITIONS AND THE COORDINATION REQUIREMENTS OF UTILITIES OR ANY OTHER TRADES, AND TO THE SATISFACTION OF THE CITY OF STOCKTON. UPON COMPLETION OF CONDUIT INSTALLATION, THE ACTUAL LOCATION OF THE CONDUITS SHALL BE NOTED ON AN AS-BUILT SET OF PRINTS AND FURNISHED TO THE CITY.
15. CONTRACTOR SHALL INSTALL TYPE V PHOTOELECTRIC CONTROL UNIT IN SERVICE CABINET. A SECONDARY PHOTOELECTRIC UINT IS ALSO REQUIRED ON THE NEAREST POLE TO THE SERVICE CABINET.
16. ALL VEHICLE INDICATIONS SHALL BE 12 INCH UNLESS OTHERWISE NOTED. ALL SIGNAL HEADS SHALL HAVE VENTILATED BACK PLATES.
17. THE CONTRACTOR SHALL NOTIFY THE INSPECTOR A MINIMUM OF 72 HOURS IN ADVANCE OF THE LAYOUT AND CUTTING OF TRAFFIC SIGNAL LOOPS.
18. THESE PLANS SHALL BE ACCOMPANIED BY SEPARATE SET OF SPECIAL PROVISIONS.
19. ALL STREET NAME SIGNS SHALL BE APPROVED FOR CONFORMANCE BY THE CITY TRAFFIC DEVICES STAFF PRIOR TO INSTALLATION, SUBMIT SUBMITTAL FOR APPROVAL PRIOR TO START OF WORK. A STREET BLOCK NUMBER SHALL BE OBTAINED PRIOR TO THE INSTALLATION OF THE STREET NAME SIGN.
20. THE 3M INFRARED DETECTOR SHALL BE DESIGNED FOR MOUNTING AT OR NEAR THE INTERSECTION ON MAST ARMS OR PEDESTALS. ALL 3M INFRARED DETECTORS SHALL BE MOUNTED VERTICALLY. THE CONTRACTOR SHALL PURCHASE AND FURNISH A LED DATA-ENCODED EMITTER WITH A 25 FOOT 3M CABLE FOR EACH SIGNALIZED INTERSECTION.
21. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY PG&E, AT&T, AND OTHER UTILITY COMPANIES PRIOR TO START OF WORK. THE CONTRACTOR SHALL CALL USA (811/800-227-2600) 48 HOURS PRIOR TO ANY EXCAVATION.
22. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK CALLED FOR ON THESE PLANS UNTIL THE CITY ENGINEER'S SIGNATURE OF APPROVAL IS AFFIXED HEREON AND ALL APPLICABLE PERMITS HAVE BEEN OBTAINED. AN APPROVED SET OF PLANS SHALL BE ON THE JOB SITE DURING ANY CONSTRUCTION.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING ALL CONFLICTS, ERRORS, OMISSIONS, ETC. TO THE RESIDENT ENGINEER IMMEDIATELY UPON DISCOVERY. IF SO DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL STOP WORK UNTIL REMEDIAL ACTION CAN BE TAKEN. ANY COSTS RESULTING FROM THE CONTRACTOR'S FAILURE TO REPORT OR FAILURE TO STOP WORK AS DIRECTED WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
24. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE CITY AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CITY OR ENGINEER.
25. ATTENTION IS CALLED TO: SECTION 1540(A) (1) OF THE CONSTRUCTION SAFETY ORDERS (TITLE 8 CALIFORNIA ADMINISTRATION CODE SECTION 1540), ISSUED BY THE OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD PURSUANT TO THE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT OF 1973, AS AMENDED, WHICH STATES:
26. "PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATION I.E., SEWER, WATER, FUEL, ELECTRIC LINES, ETC. WILL BE ENCOUNTERED AND, IF SO, WHETHER SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING AND WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION".
27. THE CONTRACTOR SHALL MEET G.O. 95 REQUIREMENTS AND LOCATE FOUNDATION SO AS TO PROVIDE A MINIMUM OF 6' RADIAL CLEARANCE FROM ALL EQUIPMENT TO OVER HEAD POWER LINE (PRIMARY) AND MINIMUM 3' RADIAL CLEARANCE TO COMMON NEUTRAL LINE. POLE HEIGHT AND LOCATION ARE INTENDED TO PROVIDE MINIMUM 10' OF RADIAL CLEARANCE TO PRIMARY LINES. CONTRACTOR SHALL CONTACT PG&E FOR ANY WORK TO BE DONE WITHIN 10' RADIAL CLEARANCE ZONE. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH WORKING WITHIN THE 10' RADIAL CLEARANCE ZONE.
28. THE CONTRACTOR IS REQUIRED TO TAKE ALL DUE PRECAUTIONARY MEASURES FOR THE PROTECTION OF ALL EXISTING IMPROVEMENTS AND UTILITIES, WHETHER OR NOT SHOWN ON THESE PLANS. ANY RESULTING DAMAGE DURING THE PERFORMANCE OF THE WORK SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE CITY OF STOCKTON AT THE CONTRACTOR'S EXPENSE.
29. ALL PEDESTRIAN SIGNAL INDICATIONS SHALL BE LIGHT EMITTING DIODE (LED) TYPE WITH COUNTDOWN.
30. CONTRACTOR SHALL FURNISH AND INSTALL PEDESTRIAN NAVIGATOR SYSTEMS.

LEGEND AND ABBREVIATIONS

SEE CALTRANS STD PLANS ES-1A, ES-1B AND ES-1C FOR ADDITIONAL LEGENDS AND ABBREVIATIONS.

(A)	POLE DESIGNATION/LOCATION
8A 4	DETECTOR DESIGNATION (TYP) / NUMBER LOOPS (TYP)
	EXISTING EQUIPMENT
	PROPOSED EQUIPMENT
AT&T	TELEPHONE COMPANY
PG&E	PACIFIC GAS AND ELECTRIC COMPANY
PTZ	PAN-TILT-ZOOM
R/W	RIGHT OF WAY
SMFO	SINGLE MODE FIBER OPTIC
EVA	EVP DETECTOR / CHANNEL DESIGNATION (TYP)
eva	EXISTING EVP DETECTOR / CHANNEL DESIGNATION (TYP)
	PROPOSED PAN-TILT-ZOOM CAMERA
	EXISTING PAN-TILT-ZOOM CAMERA
A1 — A2	STREET LIGHT (SEE PROJECT NOTES) / CIRCUIT DESIGNATION (TYP)

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TOLL FREE
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PLANNED WORK OPERATIONS

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UNION PACIFIC
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ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
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REGISTERED PROFESSIONAL ENGINEER
HERMID ZOLFAGHARI
No. E 15636
Exp. 12/31/11
ELECTRICAL
STATE OF CALIFORNIA

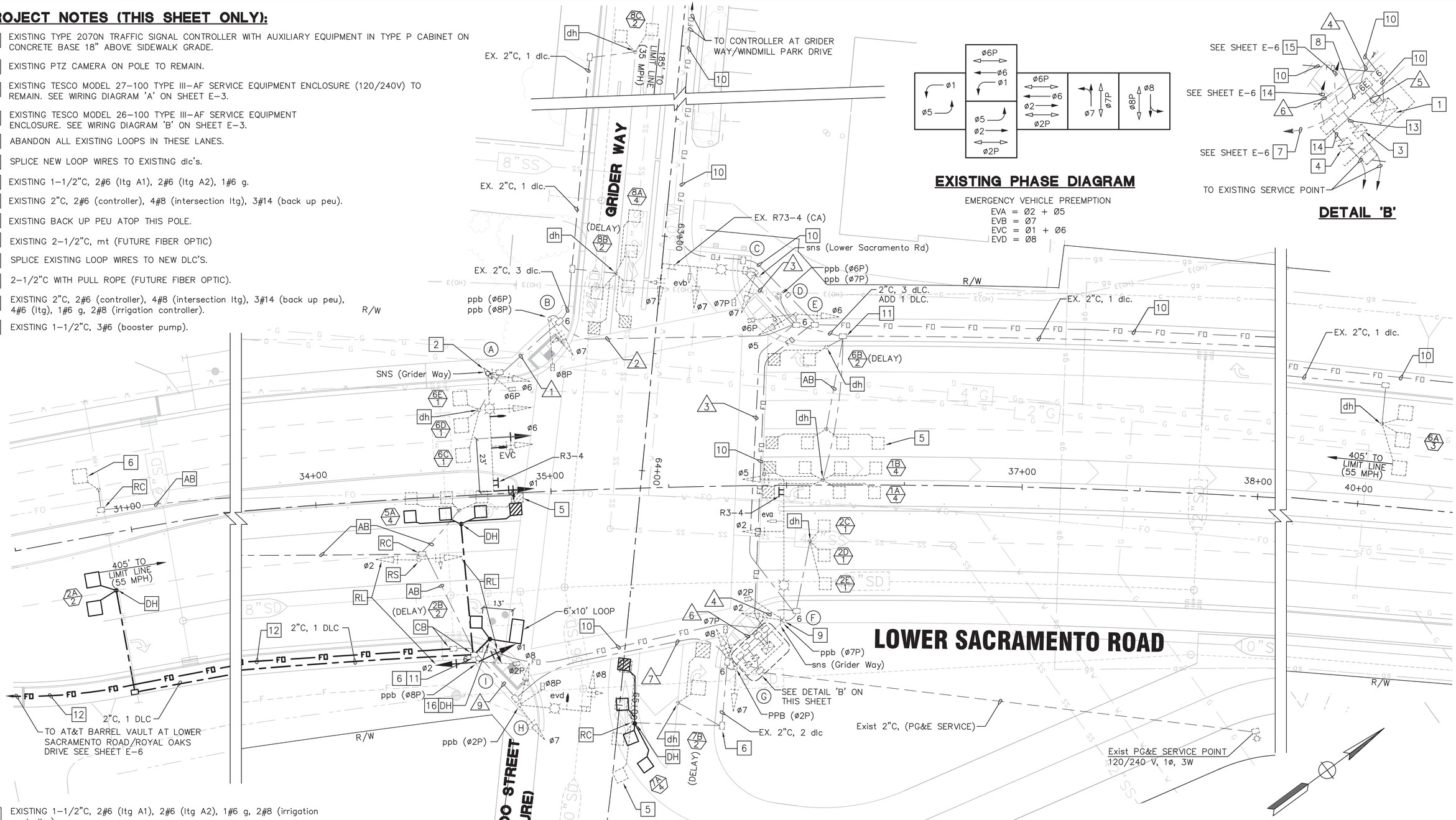
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD AT
BEAR CREEK OVERCROSSING
GENERAL NOTES, LEGEND, AND ABBREVIATIONS
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: NTS	APPROVED BY: JULY 12, 2010 (DATE)	SHEET NO.88	E-1
DESIGNED BY: JS		OF 124 SHEETS	
DRAWN BY: JS		PROJECT NO.	05-17
CHECKED BY: HZ	CITY ENGINEER, STOCKTON, CALIFORNIA		
RECORD DWG:			

PROJECT NOTES (THIS SHEET ONLY):

1. EXISTING TYPE 2070N TRAFFIC SIGNAL CONTROLLER WITH AUXILIARY EQUIPMENT IN TYPE P CABINET ON CONCRETE BASE 18" ABOVE SIDEWALK GRADE.
2. EXISTING PTZ CAMERA ON POLE TO REMAIN.
3. EXISTING TESCO MODEL 27-100 TYPE III-AF SERVICE EQUIPMENT ENCLOSURE (120/240V) TO REMAIN. SEE WIRING DIAGRAM 'A' ON SHEET E-3.
4. EXISTING TESCO MODEL 26-100 TYPE III-AF SERVICE EQUIPMENT ENCLOSURE. SEE WIRING DIAGRAM 'B' ON SHEET E-3.
5. ABANDON ALL EXISTING LOOPS IN THESE LANES.
6. SPLICE NEW LOOP WIRES TO EXISTING dlc's.
7. EXISTING 1-1/2"C, 2#6 (ltg A1), 2#6 (ltg A2), 1#6 g.
8. EXISTING 2"C, 2#6 (controller), 4#8 (intersection ltg), 3#14 (back up peu).
9. EXISTING BACK UP PEU ATOP THIS POLE.
10. EXISTING 2-1/2"C, mt (FUTURE FIBER OPTIC)
11. SPLICE EXISTING LOOP WIRES TO NEW DLC'S.
12. 2-1/2"C WITH PULL ROPE (FUTURE FIBER OPTIC).
13. EXISTING 2"C, 2#6 (controller), 4#8 (intersection ltg), 3#14 (back up peu), 4#6 (ltg), 1#6 g, 2#8 (irrigation controller). R/W
14. EXISTING 1-1/2"C, 3#6 (booster pump).



EXISTING PHASE DIAGRAM

EMERGENCY VEHICLE PREEMPTION
EVA = Ø2 + Ø5
EVB = Ø7
EVC = Ø1 + Ø6
EVD = Ø8

DETAIL 'B'

15. EXISTING 1-1/2"C, 2#6 (ltg A1), 2#6 (ltg A2), 1#6 g, 2#8 (irrigation controller).
16. INSTALL DETECTOR HANDHOLE AT GUTTER LIP PER DETAIL 'G' ON SHEET E-4.

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REGISTERED PROFESSIONAL ENGINEER
HAMID ZOLFAGHARI
No. E 15636
Exp. 12/31/11
ELECTRICAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD AT BEAR CREEK OVERCROSSING
TRAFFIC SIGNAL MODIFICATION
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE:	1"=20'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO.89
DESIGNED BY:	JS		E-2
DRAWN BY:	JS		OF 124 SHEETS
CHECKED BY:	HZ	CITY ENGINEER	PROJECT NO.
RECORD DWG:		STOCKTON, CALIFORNIA	05-17

CONDUCTOR SCHEDULE

AWG OR CABLE	CONDUCTOR DESIGNATION	NUMBER OF CONDUCTORS 1	2	3	4	5	6	7	8	9
NO. 14	ø1	(3)		(3)	(3)	(6)	(3)	(3)	(3)	(3)
	ø2				(3)	(6)		(3)	(3)	(3)
	ø3 (FUTURE)									
	ø4 (FUTURE)									
	ø5			(3)	(3)	(3)				
	ø6	(3)	(3)	(3)	(3)	(3)				
	ø7		(3)	(3)	(3)	(6)	(3)	(3)		
	ø8					(3)	(3)	(3)		
	PHOTOELECTRIC UNIT (BACK-UP)				(3)					
	SPARES	(3)	(3)	(3)	(3)	(6)	(3)	(3)	(3)	(3)
	TOTAL NO. 14	(9)	(12)	(15)	(21)	(33)	(12)	(15)	(9)	(9)
DETECTOR CABLES	ø1			1 (1)	1 (1)	1 (1)				
	ø2					(1)	(1)	(1)	(1)	(1)
	ø3 (FUTURE)									
	ø4 (FUTURE)									
	ø5					(1)	(1)	(1)	(1)	(1)
	ø6			(2)	(2)	(2)				
	ø7					(2)	(2)			
	ø8		(3)	(3)	(3)	(3)				
	ø2 SAMPLER				(3)	(3)				
	ø6 SAMPLER		(3)	(3)	(3)	(3)				
	TOTAL DETECTOR CABLES	(3)	(6)	1 (6)	1 (12)	1 (16)	(4)	(2)	(2)	(2)
NO. 10	SIGNAL NEUTRAL (120V)	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)
NO. 8	INTERSECTION LIGHTING (240 V)	(2)	(2)	(2)	(2)		(2)	(2)		
NO. 6	CONTROLLER (120 V)					(2)				
EVP CABLE (3M,TYPE 138)		(1)	(1)	(2)	(3)	(4)	(1)	(1)	–	
CAMERA WIRING (POWER,VIDEO&DATA)		(1)	–	(1)	(1)	(1)		–	–	
	CONDUIT SIZE	3"	2"	3"	3"	2-4"	3"	2"	2"	2"
	PERCENT FILL									
	NEW/EXISTING	EX	EX	EX	EX	EX	EX	EX	EX	EX

( ) – INDICATES EXISTING CONDUCTOR/CABLE TO REMAIN.

EQUIPMENT SCHEDULE

LOC	POLE TYPE	HGT	MAST ARM SIG	MAST ARM LUM	LUMINAIRE (WATTS)	VEHICLE SIGNAL PHASE	VEHICLE SIGNAL SECTION	VEHICLE SIGNAL MOUNTING	PED SIGNAL PHASE	PED SIGNAL MOUNTING	PPB TYPE 'B' PHASE	PPB TYPE 'B' ARROW	REMARKS
A	29-5-100	30'	50'	12'	200	ø1	'A'	MAS	–	–	–	–	EXISTING POLE TO REMAIN. INSTALL R3-4 SIGN ON SIGNAL MAST ARM.
						ø6	12"	MAS					
						ø6	12"	SV-1-T					
B	1-B	10'	–	–	–	ø7	12"	TV-1-T	ø8P	SP-1-T	ø6P ø8P	RIGHT LEFT	EXISTING POLE TO REMAIN.
C	26-4-100	30'	40'	12'	200	ø7	4-SECT	MAS-4B	ø7P	SP-1-T	–	–	EXISTING POLE TO REMAIN.
						ø7	12"	MAS					
						ø7	12"	SV-1-T					
D	PPB POST	3'	–	–	–	–	–	–	–	–	ø6P ø7P	LEFT RIGHT	EXISTING POLE TO REMAIN.
E	1-B	10'	–	–	–	ø5	'A'	TV-2-T	ø6P	SP-1-T	–	–	EXISTING POLE TO REMAIN.
						ø6	12"						
F	61-5-100	30'	60'	12'	200	ø5	'A'	MAS	ø2P	SP-1-T	ø7P	LEFT	EXISTING POLE TO REMAIN. INSTALL R3-4 SIGN ON MAST ARM.
						ø2	12"	MAS					
						ø2	12"	SV-1-T					
G	1-B	10'	–	–	–	ø8	'A'	TV-2-T	ø7P	SP-1-T	ø2P	RIGHT	EXISTING POLE TO REMAIN.
						ø7	12"						
H	19-4-100	30'	30'	12'	200	ø8	4-SECT	MAS-4B	ø8P	SP-1-T	ø2P	LEFT	EXISTING POLE TO REMAIN.
						ø8	12"	SV-1-T					
						ø7	12"	SV-1-T					
I	1-B	10'	–	–	–	ø1	'A'	TV-2-T	ø2P	SP-1-T	ø8P	RIGHT	INSTALL RELOCATED SIGNAL HEADS AND FRAME WORK FROM POLE J.
						ø2	12"						
J	1-B	10'	–	–	–	ø1	'A'	TV-2-T	–	–	–	–	RL SIGNAL HEADS AND FRAME WORK TO POLE I.
						ø2	12"						

– 'A' INDICATES ALL 12" ARROW HEAD SECTIONS.
– ALL PEDESTRIAN INDICATIONS SHALL BE INTERNATIONAL SYMBOLS, COUNTDOWN TYPE.
– REFER TO CITY STANDARD DRAWINGS FOR STREET NAME SIGN ASSEMBLY AND MOUNTING. SNS SIGNS SHALL BE MOUNTED AT INTERSECTION OF POLE AND MAST ARM.
– ALL VEHICLE AND PEDESTRIAN INDICATIONS SHALL BE INTERNALLY FUSED L.E.D. MODULES.

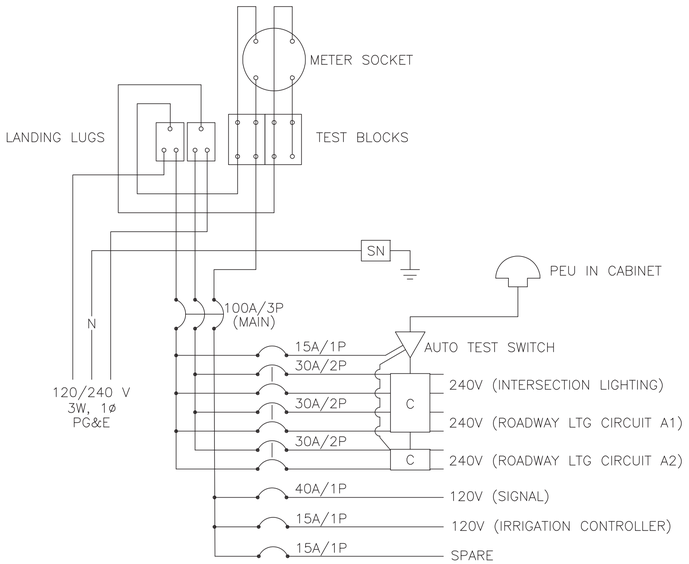
WIRING DIAGRAM SYMBOLS

- C — Contactor (Lighting)
- N — Neutral
- Auto-Test Switch
- Photoelectric Unit

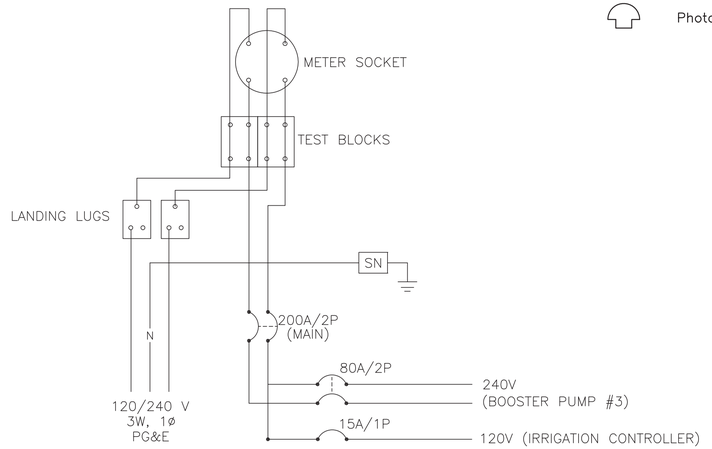
SENSOR TABLE

CH	DET	LOOP DETECTORS
1	1	1A (4)
2		2A (2)
3		5A (4)
4		6A (3)
1	2	7A (4)
2		8A (4)
3		1B (4)
4		2B (DELAY) (2)
1	3	5B (4)
2		6B (DELAY) (2)
3		7B (DELAY) (2)
4		8B (DELAY) (2)
1	4	8C SAMPLER (2)
2		2C SAMPLER (1)
3		2D SAMPLER (1)
4		2E SAMPLER (1)
1	5	6C SAMPLER (1)
2		6D SAMPLER (1)
3		6E SAMPLER (1)
4		
1	6	
2		
3		
4		

( ) LOOPS PER SENSOR



EXISTING SERVICE WIRING DIAGRAM 'A'



EXISTING SERVICE WIRING DIAGRAM 'B'

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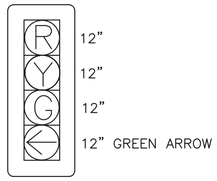
REGISTERED PROFESSIONAL ENGINEER
HAMID ZOLFAGHARI
No. E 15636
Exp. 12/31/11
ELECTRICAL
STATE OF CALIFORNIA

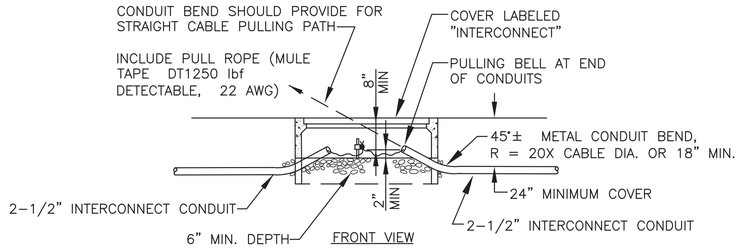
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD AT
BEAR CREEK OVERCROSSING
TRAFFIC SIGNAL MODIFICATION
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

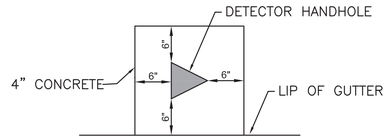
SCALE: NTS	APPROVED BY: JULY 12, 2010 DATE	SHEET NO.90	
DESIGNED BY: JS		E-3	
DRAWN BY: JS		OF 124 SHEETS	
CHECKED BY: HZ	CITY ENGINEER	PROJECT NO.	
RECORD DWG:	STOCKTON, CALIFORNIA	05-17	



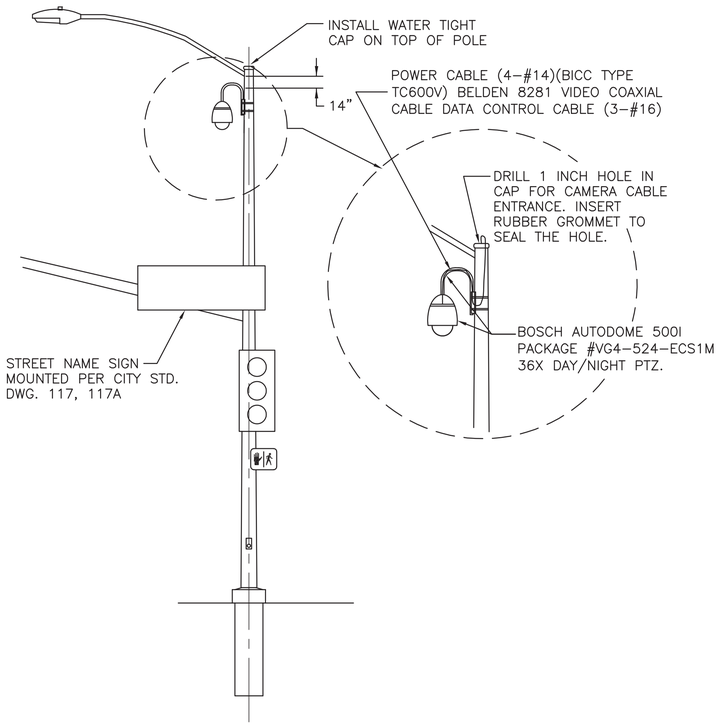
4-SECTION SIGNAL HEAD (E)
NO SCALE



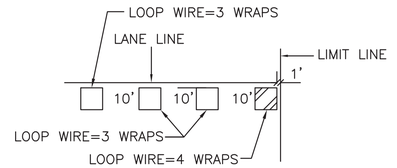
NO. 6 INTERCONNECT PULL BOX AND CONDUIT (A)
INSTALLATION DETAILS
NO SCALE



DETECTOR HANDHOLE AT GUTTER LIP (G)
NO SCALE

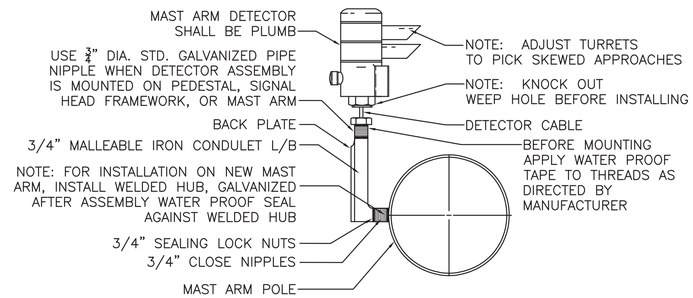


SIGNAL POLE CAMERA MOUNT DETAIL (D)
NO SCALE



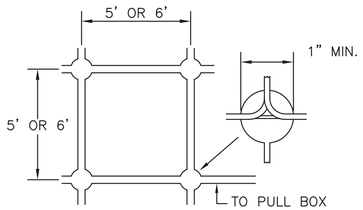
NOTE:
5'X5' LOOPS FOR 11' LANES AND NARROWER.
6'X6' LOOPS FOR LANES WIDER THAN 11'.
ALL SAMPLER AND ADVANCE LOOPS SHALL BE 6'X6'.
TWO LOOP SET FOR DELAY, BOTH LOOPS 4 WRAPS.

DETECTOR PLACEMENT (TYPICAL) (B)
NO SCALE



LEFT VIEW

OPTICOM DETECTOR MAST ARM MOUNTING (F)
NO SCALE



TYPE A LOOPS

DETECTOR INSTALLATION (TYPICAL) (C)
DETAIL-DRILLED CORNERS
NO SCALE

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REGISTERED PROFESSIONAL ENGINEER
FARHAD ZOLFAGHARI
No. E 15636
Exp. 12/31/11
ELECTRICAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

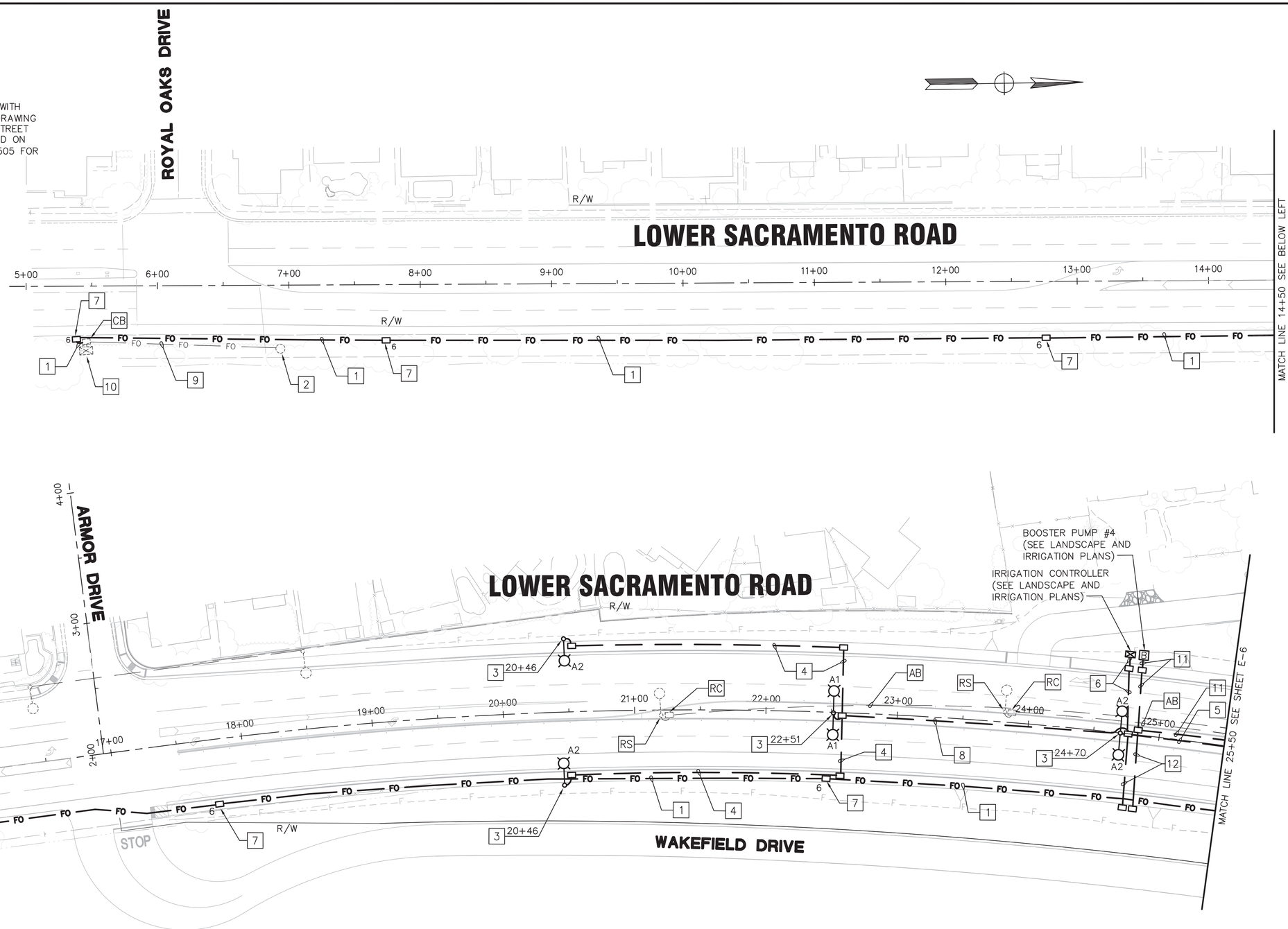
LOWER SACRAMENTO ROAD AT
BEAR CREEK OVERCROSSING
TRAFFIC SIGNAL DETAILS

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: NTS	APPROVED BY: JULY 12, 2010 DATE	SHEET NO.91	
DESIGNED BY: JS		E-4	
DRAWN BY: JS		OF 124 SHEETS	
CHECKED BY: HZ	CITY ENGINEER	PROJECT NO.	
RECORD DWG:	STOCKTON, CALIFORNIA	05-17	

PROJECT NOTES (THIS SHEET ONLY):

1. 2–1/2"C WITH PULL ROPE (FUTURE FIBER OPTIC).
2. EXISTING AT&T FIBER BARREL VAULT.
3. INSTALL TYPE 15D DOUBLE MAST ARM STREET LIGHT STANDARD WITH (2) 200W HPS LUMINAIRES. SEE CITY OF STOCKTON STANDARD DRAWING No. 114 AND CALTRANS STANDARD PLAN ES–6D FOR DETAILS. STREET LIGHT NUMBERS TO BE PROVIDED BY PG&E AND MUST BE PLACED ON POLE PRIOR TO ENERGIZING. CONTACT DON HELLIER (209)932–6505 FOR STREET LIGHT NUMBERS.
4. 1–1/2"C, 2#6 (LTG A2), 1#6 G.
5. 2"C, 2#6 (LTG A1), 2#6 (LTG A2) 1#6 G, 2#8 (IRRIGATION CONTROLLER).
6. 1–1/2"C, 2#8 (IRRIGATION CONTROLLER).
7. INSTALL No. 6 INTERCONNECT PULL BOX. SEE DETAIL 'A' ON SHEET E–4.
8. 1–1/2"C, 2#6 (LTG A1), 2#6 (LTG A2), 1#6 G.
9. EXISTING 2–1/2"C, 1 12–strand smfo cable.
10. EXISTING 2070 CONTROLLER IN TYPE P CABINET TO REMAIN.
11. 1–1/2"C, 3#6 (BOOSTER PUMP).
12. 1–1/2"C WITH PULL ROPE (FUTURE IRRIGATION CONTROLLER AND BOOSTER PUMP).



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ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
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FEHR & PEERS
TRANSPORTATION CONSULTANTS

2990 Lava Ridge Court
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Roseville, CA 95661
(916) 773–1900

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Reno, NV
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Seattle, WA

REGISTERED PROFESSIONAL ENGINEER
HAMID ZOLFAGHARI
No. E 15636
Exp. 12/31/11
ELECTRICAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

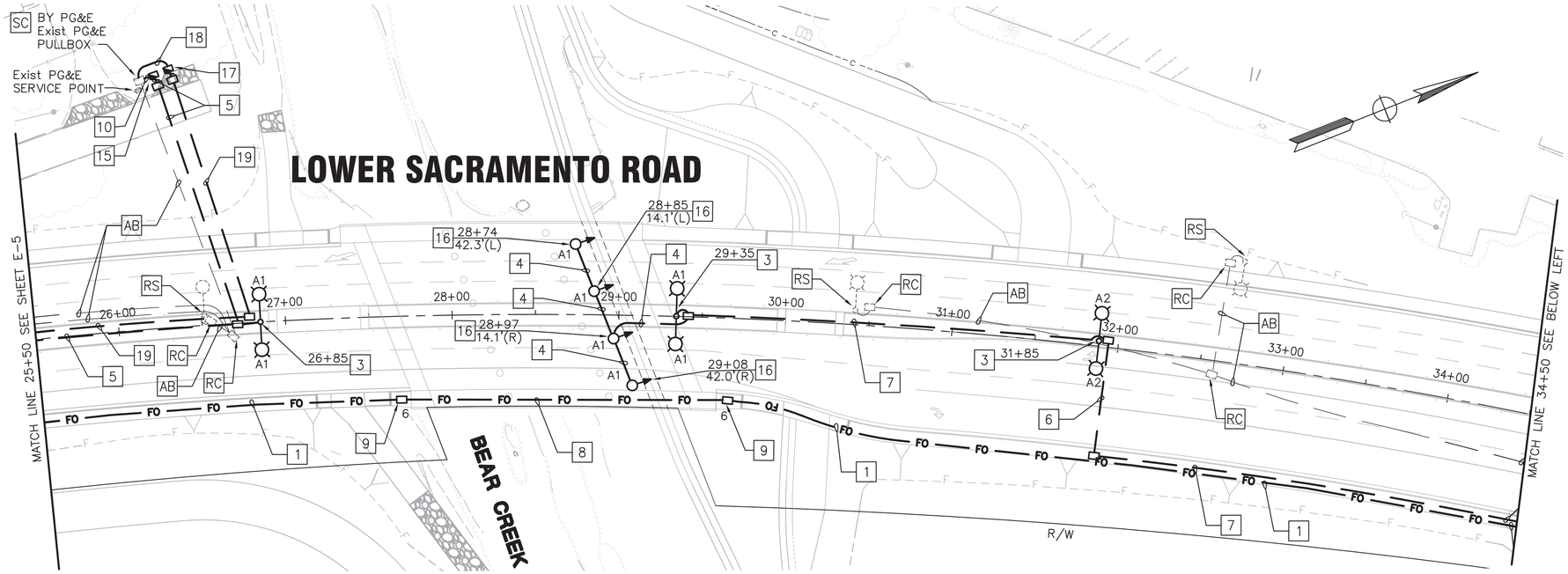
LOWER SACRAMENTO ROAD AT BEAR CREEK OVERCROSSING STREET LIGHTING INSTALLATION

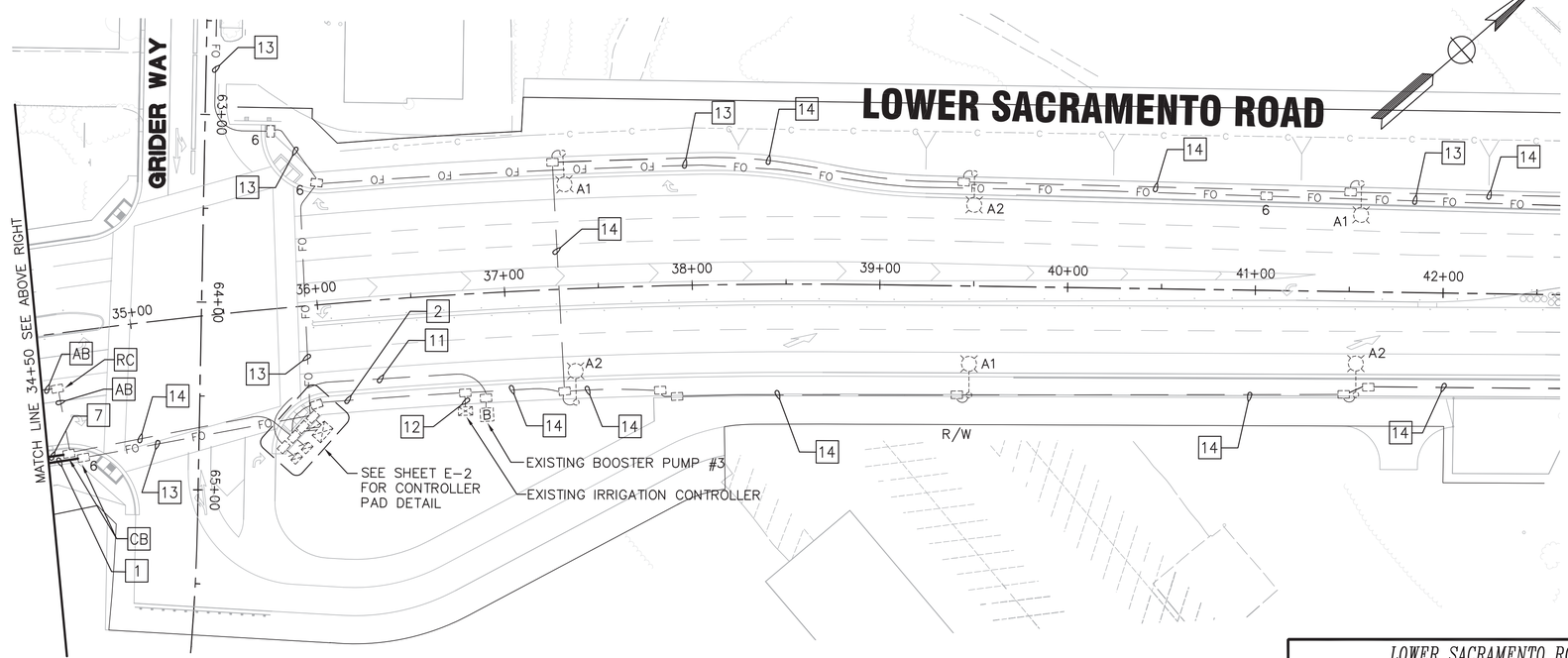
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=40'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 92	E–5
DESIGNED BY: JS		OF 124 SHEETS	
DRAWN BY: JS		PROJECT NO.	05–17
CHECKED BY: HZ	CITY ENGINEER STOCKTON, CALIFORNIA		
RECORD DWG:			

PROJECT NOTES (THIS SHEET ONLY):

1. 2-1/2"C WITH PULL ROPE (FUTURE FIBER OPTIC).
2. EXISTING 1-1/2"C, 2#6 (ltg A1), 2#6 (ltg A2), 1#6 g, 2#8 (irrigation controller).
3. INSTALL TYPE 15D DOUBLE MAST ARM STREET LIGHT STANDARD WITH (2) 200W LUMINAIRES. SEE CITY OF STOCKTON STANDARD DRAWING No. 114 AND CALTRANS STANDARD PLAN ES-6D FOR DETAILS. STREET LIGHT NUMBERS TO BE PROVIDED BY PG&E AND MUST BE PLACED ON POLE PRIOR TO ENERGIZING. CONTACT DON HELLIER (209)932-6505 FOR STREET LIGHT NUMBERS.
4. 1-1/2" TYPE 1 CONDUIT, 2#6 (LTG A2) 1#6 G.
5. 2"C, 2#6 (LTG A1), 2#6 (LTG A2), 1#6 G, 2#8 (IRRIGATION CONTROLLER)
6. 1-1/2"C, 2#6 (LTG A2), 1#6 G.
7. 1-1/2"C, 2#6 (LTG A1), 2#6 (LTG A2), 1#6 G.
8. INSTALL TWO 4" CONDUITS WITH PULL ROPE IN STRUCTURE.
9. INSTALL No. 6 INTERCONNECT PULL BOX. SEE DETAIL 'A' ON SHEET E-6.
10. 2"C, 3 #1/0 (SERVICE).
11. EXISTING 1-1/2"C, 3#6 (booster pump).
12. EXISTING 1-1/2"C, 2#8 (irrigation controller).
13. EXISTING 2-1/2"C, mt (future fiber optic).
14. EXISTING 1-1/2"C, 2#6 (ltg A1), 2#6 (ltg A2), 1#6 g.
15. FURNISH AND INSTALL TESCO MODEL 26-100 TYPE III-AF SERVICE EQUIPMENT ENCLOSURE. SEE WIRING DIAGRAM 'A' ON SHEET E-7.
16. INSTALL 100 W HPS SURFACE MOUNTED HOLOPHANE MODULE 600 SERIES LUMINAIRE OR APPROVED EQUAL.
17. FURNISH AND INSTALL TESCO MODEL 26-100 TYPE III-AF SERVICE EQUIPMENT ENCLOSURE. SEE WIRING DIAGRAM 'B' ON SHEET E-7.
18. 2"C, MT. PG&E TO FURNISH AND INSTALL CONDUCTORS AND MAKE ALL FINAL CONNECTIONS.
19. 1-1/2"C, 3#6 (BOOSTER PUMP).





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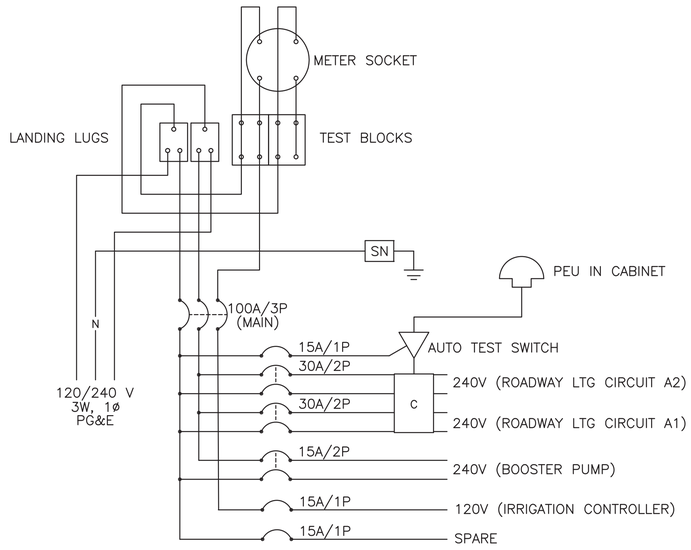
REGISTERED PROFESSIONAL ENGINEER
JAMMID ZOLFAGHARI
No. E 15636
Exp. 12/31/11
ELECTRICAL
STATE OF CALIFORNIA

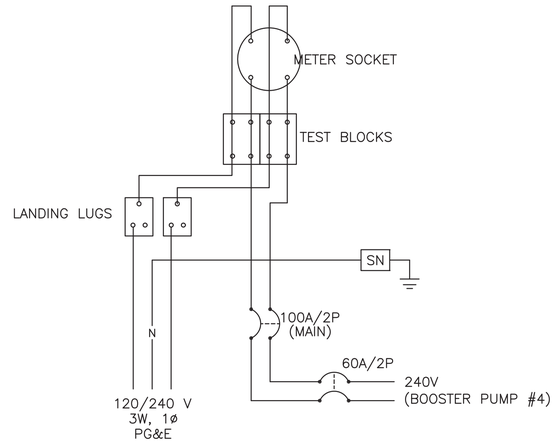
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO ROAD AT
BEAR CREEK OVERCROSSING
STREET LIGHTING INSTALLATION
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

SCALE: 1"=40'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO.93 E-6
DESIGNED BY: JS		OF 124 SHEETS
DRAWN BY: JS		PROJECT NO. 05-17
CHECKED BY: HZ	CITY ENGINEER STOCKTON, CALIFORNIA	
RECORD DWG:		



SERVICE WIRING DIAGRAM 'A'



SERVICE WIRING DIAGRAM 'B'

WIRING DIAGRAM SYMBOLS

- C — Contactor (Lighting)
- N — Neutral
- Auto–Test Switch
- Photoelectric Unit

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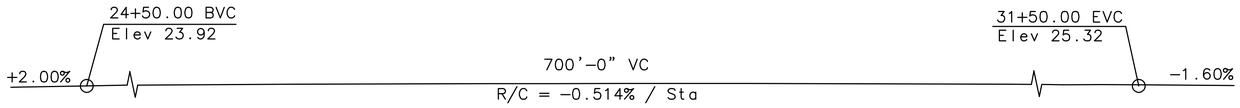
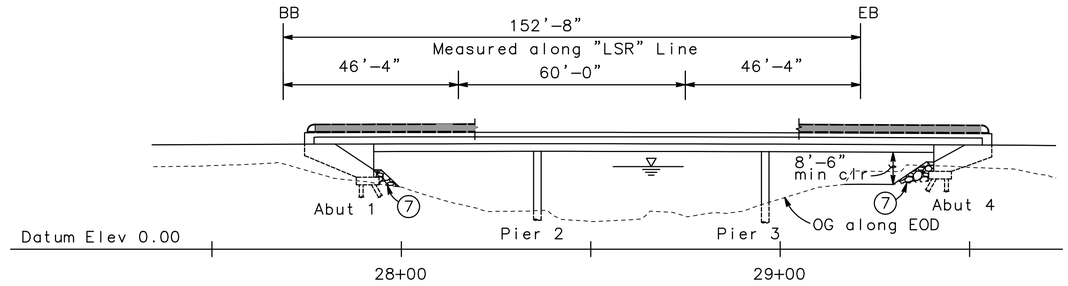
PUBLIC WORKS DEPARTMENT

SCALE:	1"=40'	APPROVED BY: JULY 12, 2010 DATE	SHEET NO.94
DESIGNED BY:	JS		E-7
DRAWN BY:	JS		OF 124 SHEETS
CHECKED BY:	HZ	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17
RECORD DWG:			

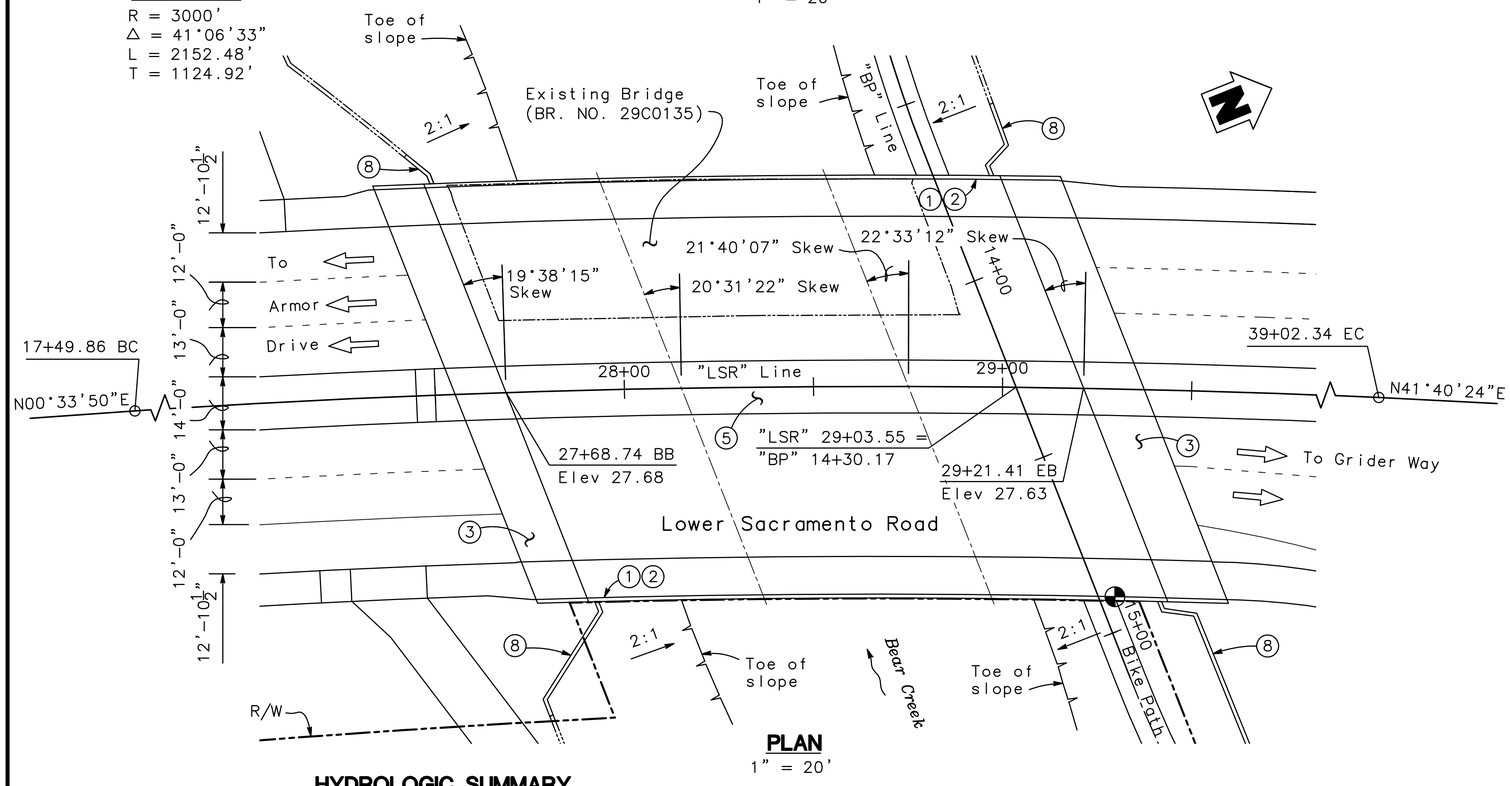


PROFILE GRADE
NO SCALE

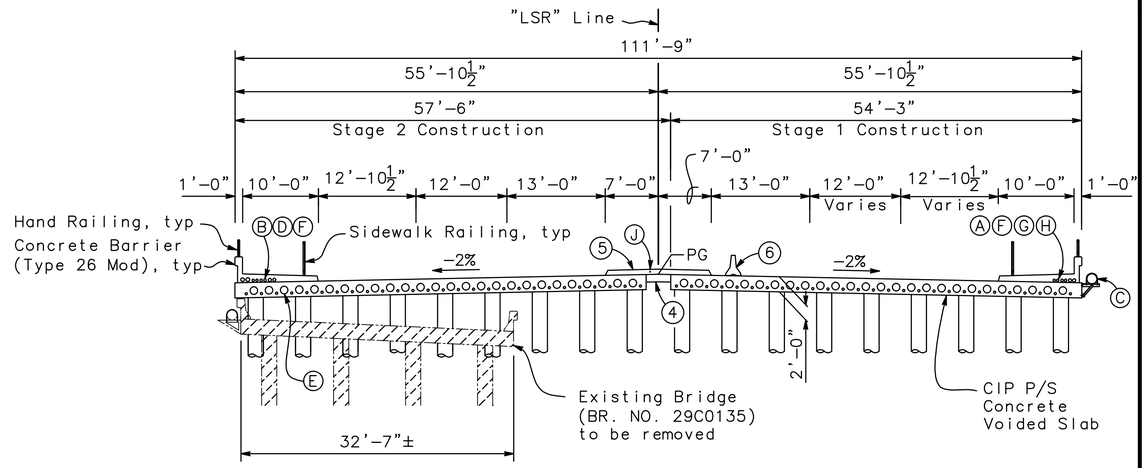


ELEVATION
1" = 20'

"LSR" LINE
R = 3000'
Δ = 41°06'33"
L = 2152.48'
T = 1124.92'



PLAN
1" = 20'



TYPICAL SECTION
1" = 10'

HYDROLOGIC SUMMARY

	Design Flood	Base Flood	Overtopping Flood
Frequency (Years)	N/A	100	200
Discharge (Cubic Foot per Sec)	N/A	6,944	7,826
Water Surface (Elevation at Bridge)	N/A	21.11	21.78

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

NOTES
1. Paint "Lower Sacramento Rd Bridge"
2. Paint "BR. NO. 29C0443" and year completed
3. Structure Approach Slab
4. 3'-3" Closure Pour
5. 14'-0" Raised Median
6. Temporary Railing (Type K), see "Road Plans"
7. Rock Slope Protection, see "Road Plans"
8. Flood Wall

For Index to Plans, General Notes, and Quantities see "Deck Contours" sheet.

For Pile Data Table, see "Foundation Plan" sheet.

The Contractor shall verify all controlling field dimensions before ordering or fabricating any material.

UTILITIES
- Ⓐ 2 – 4"ø Fiber Optic Conduits
- Ⓑ 4 – 4"ø AT&T Conduits
- Ⓒ 16"ø MUD Waterline
- Ⓓ 2 – 6"ø Future PG&E Electrical Conduits
- Ⓔ 10"ø Casing for Future PG&E Gas Line
- Ⓕ 2 – 5"ø Future Utility Conduits
- Ⓖ 4"ø Irrigation Conduit
- Ⓗ 3"ø Irrigation Conduit
- Ⓙ 1 1/2"ø Soffit Light Conduit

LEGEND
- Indicates Existing Structure
- Indicates Bridge Removal
- Indicates Point of Minimum Vertical Clearance

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

GENERAL PLAN

MARK THOMAS & COMPANY, INC.
7300 FOLSOM BOULEVARD, SUITE 203
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180

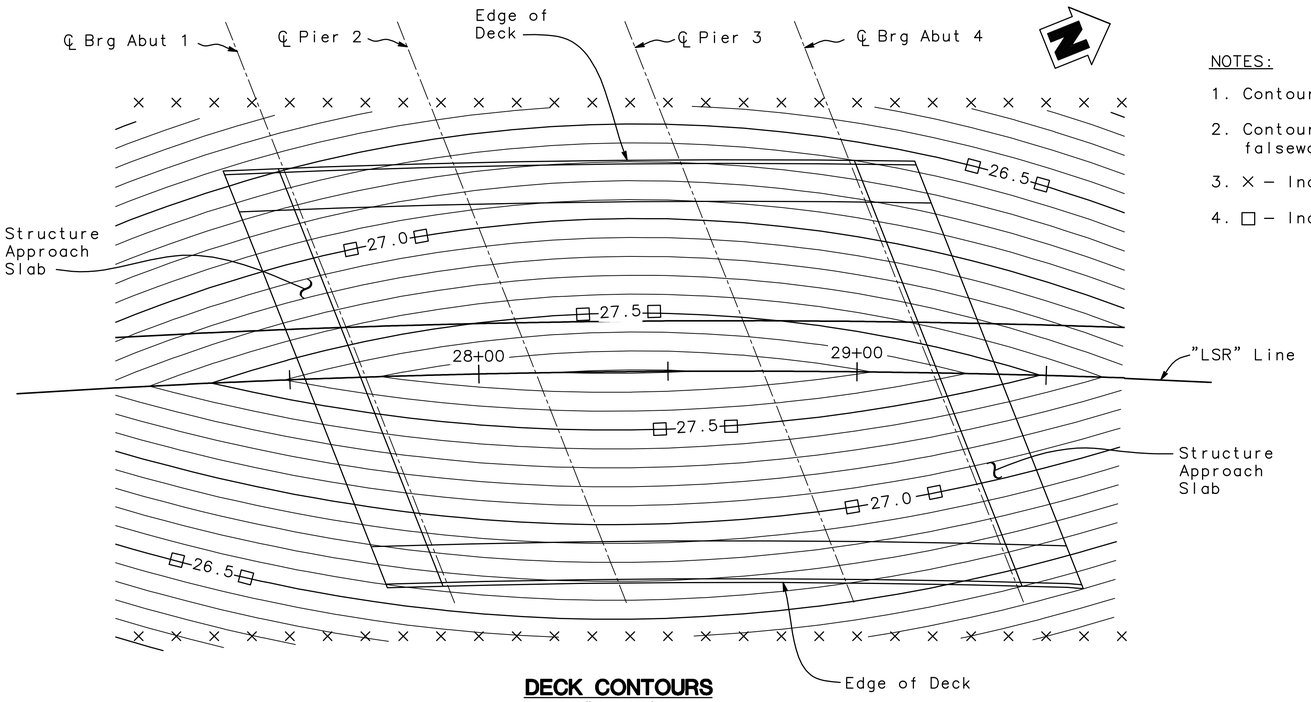
05/06/10 | 05/24/10 | 07/01/10 | 04/30/10 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 95
DESIGNED BY: JP		S1 of S30
DRAWN BY: GB		OF 124 SHEETS
CHECKED BY: TP	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17
RECORD DWG:		



DECK CONTOURS
1" = 20'

NOTES:

1. Contour interval is 0.1 feet.
2. Contours do not include camber or falsework settlement/camber.
3. × – Indicates 10 foot intervals.
4. □ – Indicates half feet contour.

QUANTITIES

REMOVE CONCRETE (FLOODWALL)	1	LS
BRIDGE REMOVAL	1	LS
STRUCTURE EXCAVATION (BRIDGE)	738	CY
STRUCTURE EXCAVATION (FLOODWALL)	194	CY
STRUCTURE BACKFILL (BRIDGE)	418	CY
STRUCTURE BACKFILL (FLOODWALL)	160	CY
30 INCH CAST-IN-DRILLED-HOLE CONCRETE PILING	2,598	LF
FURNISH PILING (CLASS 90) (ALTERNATIVE X)	2,216	LF
DRIVE PILE (CLASS 90) ALTERNATIVE X)	62	EA
PRESTRESSING CAST-IN-PLACE CONCRETE	1	LS
STRUCTURAL CONCRETE, BRIDGE FOOTING	270	CY
STRUCTURAL CONCRETE, BRIDGE	1,687	CY
STRUCTURAL CONCRETE, FLOODWALL	90	CY
STRUCTURAL CONCRETE, APPROACH SLAB (TYPE EQ)	89	CY
DRILL AND BOND DOWEL	56	LF
JOINT SEAL (MR 1")	240	LF
BAR REINFORCING STEEL (BRIDGE)	515,232	LB
BAR REINFORCING STEEL (FLOODWALL)	8,697	LB
10" WELDED STEEL PIPE CASING (BRIDGE)	183	LF
MINOR CONCRETE (BRIDGE MEDIAN)	39	CY
MISCELLANEOUS METAL (BRIDGE)	4,098	LB
CONCRETE BARRIER (TYPE 26 MODIFIED)	364	LF
HAND RAILING	361	LF
SIDEWALK RAILING	361	LF
CABLE RAILING		LF

INDEX TO PLANS

STANDARD PLANS DATED MAY, 2006

A10A & A10B	ACRONYMS AND ABBREVIATIONS
A10C & A10D	SYMBOLS
A62C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
B0-1	BRIDGE DETAILS
B0-3	BRIDGE DETAILS
B0-5	BRIDGE DETAILS
B0-13	BRIDGE DETAILS
B2-5	PILE DETAILS CLASS 90 AND CLASS 140
RSP B6-21	JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
B7-10	UTILITY OPENING BOX GIRDER
B8-5	CAST-IN-PLACE PRESTRESSED GIRDER DETAILS
B11-54	CONCRETE BARRIER TYPE 26
T3	TEMPORARY RAILING (TYPE K)

Standard Plan Sheet No.
Detail No.

CONCRETE STRENGTH AND TYPE LIMITS

- Structural Concrete, Bridge
- Structural Concrete, Bridge (f'c = 4.0 ksi @ 28 days)
- Structural Concrete, Bridge Footing
- Cast-In-Drilled-Hole Concrete Pile (f'c = 4.0 ksi @ 28 days), see "Pier Layout" sheet

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

DESIGN:
AASHTO LRFD Bridge Design Specifications, 4th edition with Interims through 2008 and the California Amendments

SEISMIC DESIGN:
Caltrans Seismic Design Criteria (SDC), Version 1.4 dated June 2006

DEAD LOAD:
Includes 35 psf for Future Wearing Surface

LIVE LOADING:
HL93 and Permit Design Load

SEISMIC LOADING:
Soil Profile Type D
Magnitude group 7.25 ± 0.25
Peak Rock Acceleration 0.2g

CONCRETE:
fy = 60 ksi
f'c = 3.6 ksi unless otherwise noted
n = 8

PRESTRESSED CONCRETE:
See Prestressing Notes on "Longitudinal Section" sheet

PILES:
See Pile Data Table on this sheet

MARK THOMAS & COMPANY, INC.
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SACRAMENTO, CALIFORNIA 95826
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REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

05/24/10 | 07/01/10 | 11/11/09 | 05/06/10 | MTCO JOB NUMBER: 57-0221B

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

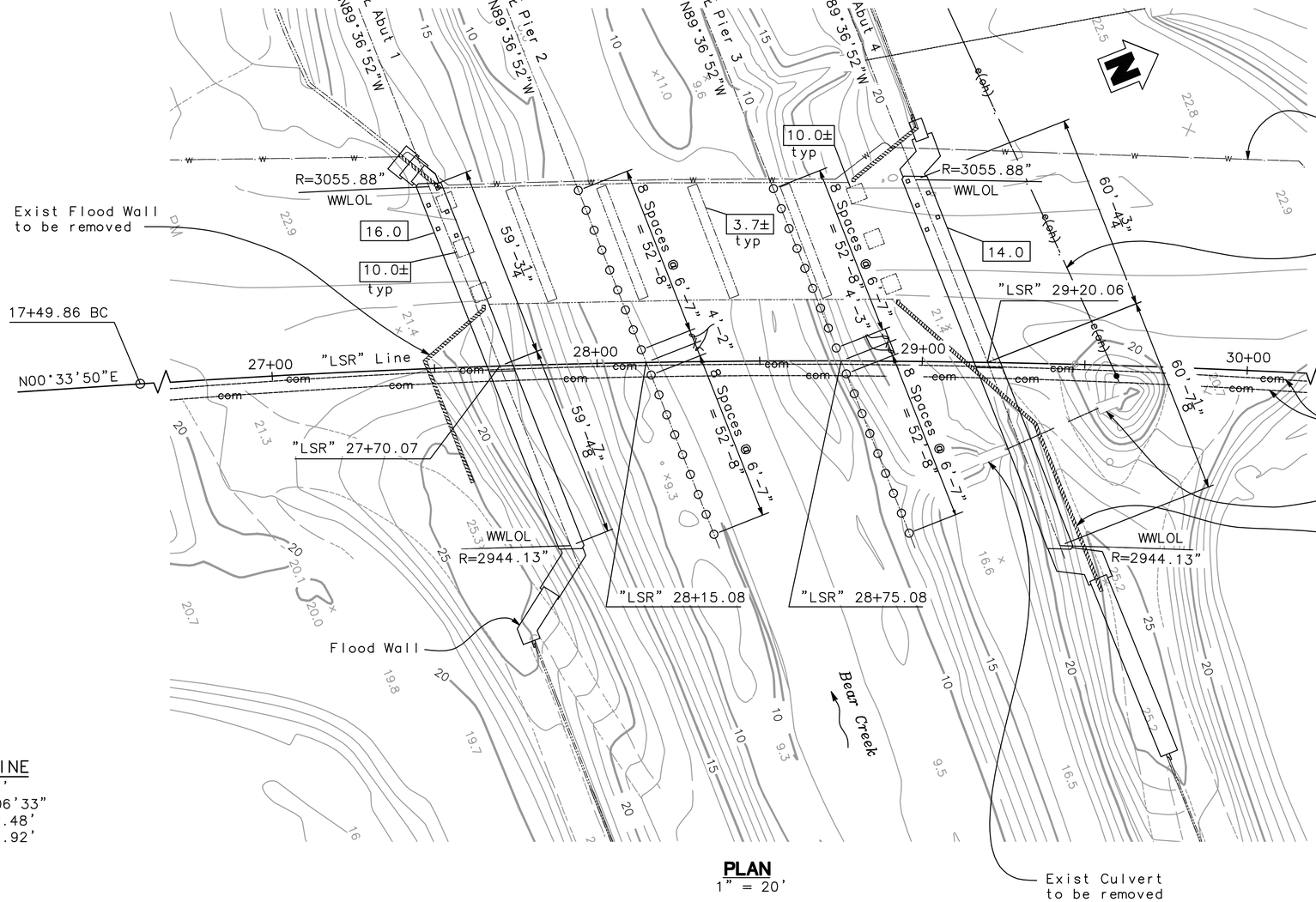
DECK CONTOURS

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443
DESIGNED BY: JP
DRAWN BY: GB
CHECKED BY: TP
RECORD DWG:

APPROVED BY: JULY 12, 2010 DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 96
S2 of S30
OF 124 SHEETS
PROJECT NO. 05-17



PLAN
1" = 20'

"LSR" LINE
R = 3000'
△ = 41°06'33"
L = 2152.48'
T = 1124.92'

BENCHMARK

City of Stockton BM #4
Monument #IN-10, a Brass Disk in monument well located at the intersection of Davis Road and Eight Mile Road.
Elevation 17.53 feet (NGVD 29 Datum)

LEGEND

- Indicates Bottom of Footing Elevation
- Indicates Precast Prestressed Concrete Pile (All Piles Not Shown)
- Indicates CIDH Pile
- Indicates Existing Structure
- Indicates Remove Concrete (Floodwall)

PILE DATA TABLE

Location	Pile Type	Nominal Resistance (kip)		Design Tip Elevations (ft)	Specified Tip Elevations (ft)	Nominal Driving Resistance (kip)
		Compression	Tension			
Abut 1	Class 90 (Alt X, T=12")	170	0	−20.0(a), −15.0(b), −4.0(c)	−20.0	170
Pier 2	30" CIDH	570	0	−43.0(a), −45.0(b), −38.0(c)	−45.0	N/A
Pier 3	30" CIDH	570	0	−43.0(a), −45.0(b), −38.0(c)	−45.0	N/A
Abut 4	Class 90 (Alt X, T=12")	180	0	−20.0(a), −15.0(b), −4.0(c)	−20.0	180

Note: Design tip elevations are controlled by (a) Compression, (b) Scour, (c) Lateral.

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

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07/01/10 | ~~09/01/09~~ | ~~04/30/10~~ | ~~05/23/10~~ | MTCO JOB NUMBER: 57-0221B

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Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

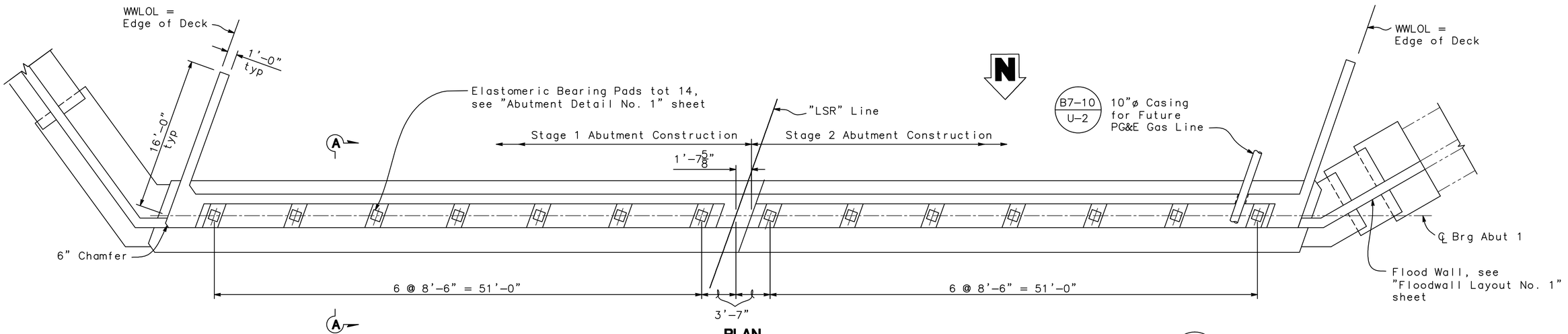
FOUNDATION PLAN

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

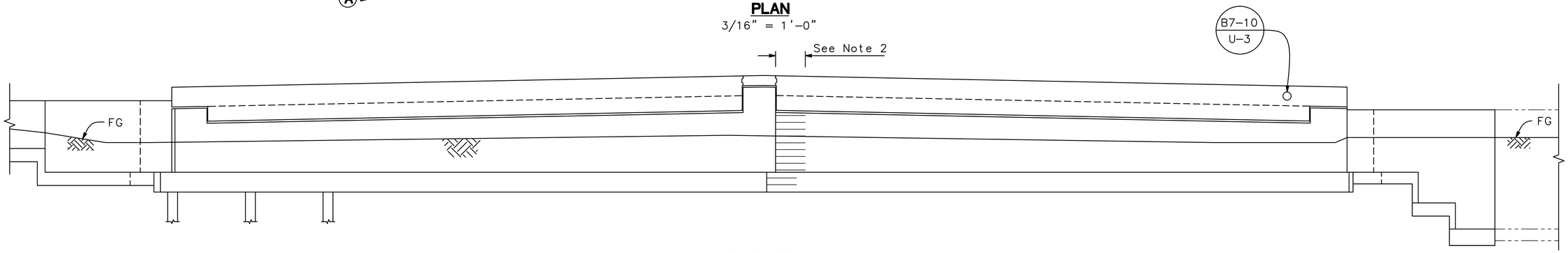
BRIDGE NO.: 29C0443
DESIGNED BY: JP
DRAWN BY: CB
CHECKED BY: TP
RECORD DWG:

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

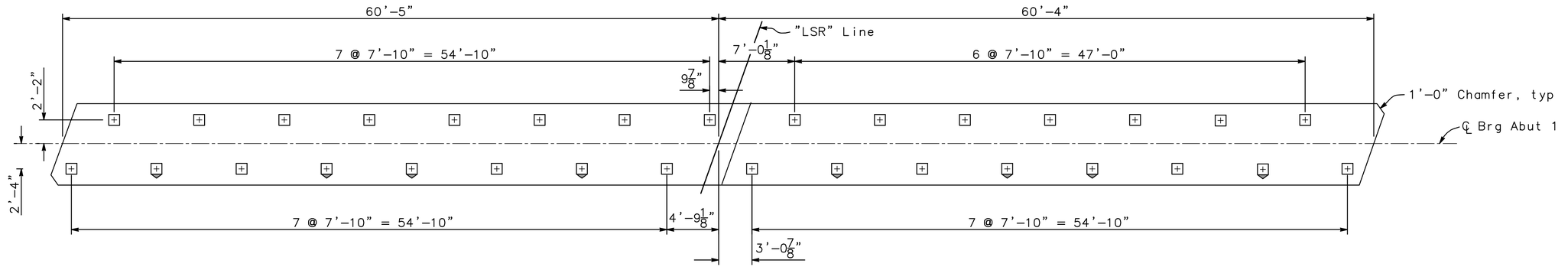
SHEET NO. 97
S3 of S30
OF 124 SHEETS
PROJECT NO.
05-17



PLAN
3/16" = 1'-0"



ELEVATION
3/16" = 1'-0"



FOOTING PLAN
3/16" = 1'-0"

NOTES:

1. For Section A–A, see "Abutment Details No. 1" sheet.
2. Extend footing and abutment reinforcement 3'–0" beyond construction joint to lap with stage 2 construction.

LEGEND:

⊞ Indicates Pile

⊞ Indicates Battered Pile

ORIGINAL SCALE IN INCHES
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05/06/10 | 06/29/10 | 07/17/09 | 09/01/09 | MTCO JOB NUMBER: 57-0221B

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STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

ABUTMENT 1 LAYOUT

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: DATE JULY 12, 2010
DESIGNED BY: JP	CITY ENGINEER, STOCKTON, CALIFORNIA
DRAWN BY: CB	
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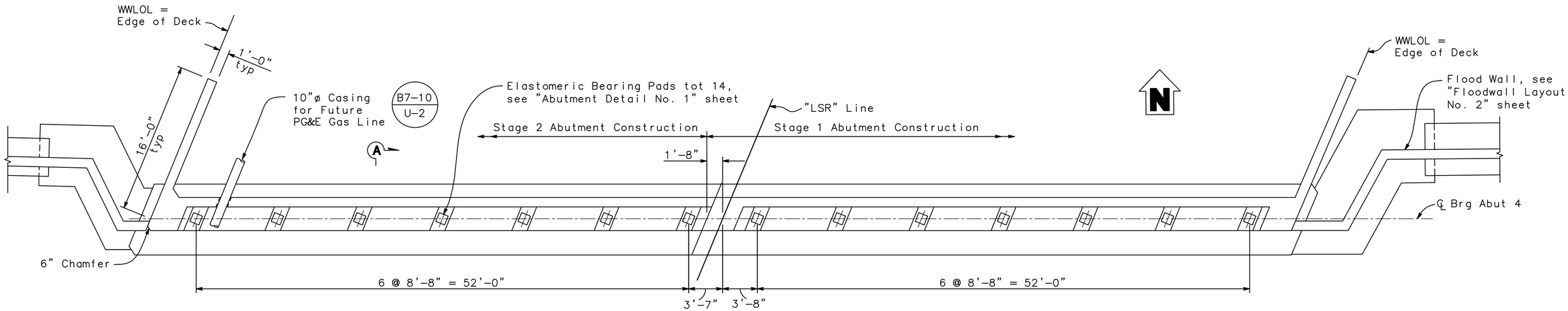
RECORD DWG:	

SHEET NO. 98
S4 of S30
OF 124 SHEETS
PROJECT NO. 05-17



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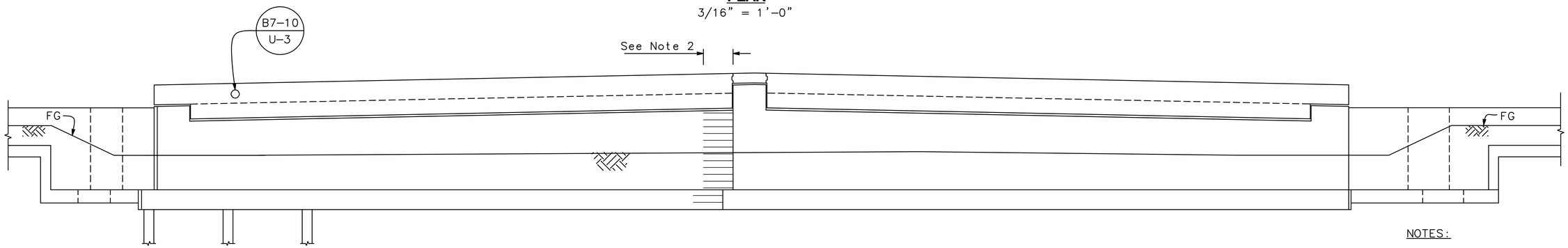
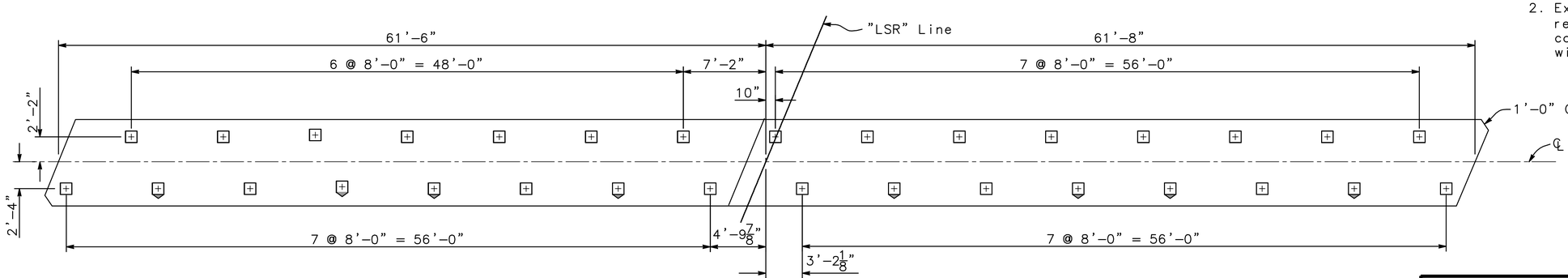
3/16" = 1'-0"



ELEVATION
3/16" = 1'-0"



FOOTING PLAN
3/16" = 1'-0"

LEGEND:

- ⊞ Indicates Pile
- ⊞ Indicates Battered Pile

NOTES:

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2. Extend footing and abutment reinforcement 3'-0" beyond construction joint to lap with stage 2 construction.

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
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Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

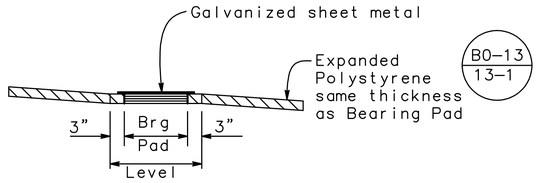
LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

ABUTMENT 4 LAYOUT

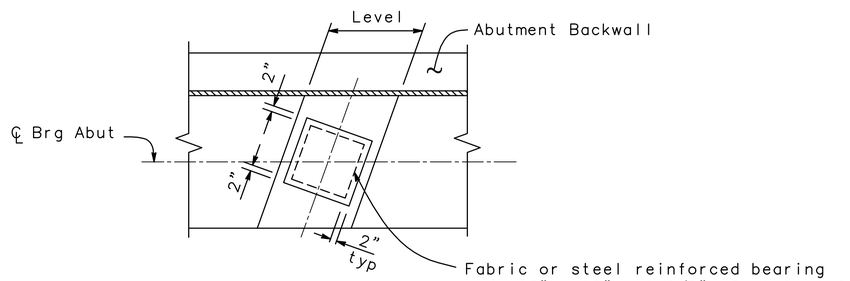
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: JP	CITY ENGINEER
DRAWN BY: CB	STOCKTON, CALIFORNIA
CHECKED BY: TP	
RECORD DWG:	

SHEET NO. 99
S5 of S30
OF 124 SHEETS
PROJECT NO. 05-17



ELEVATION

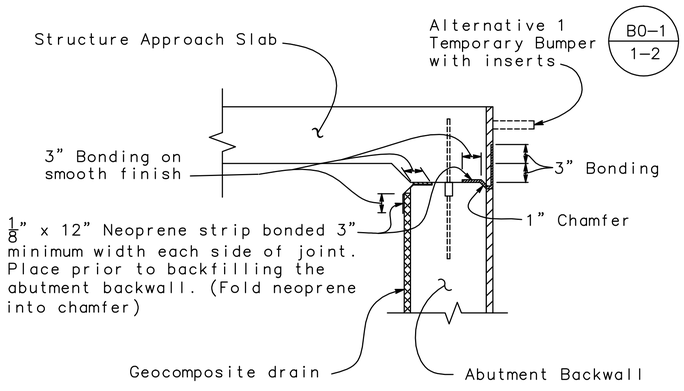


Fabric or steel reinforced bearing pads 12" x 12" x 1 1/2". Coat top of bearing with silicone grease. Place 0.079" thick galvanized sheet metal.

PLAN

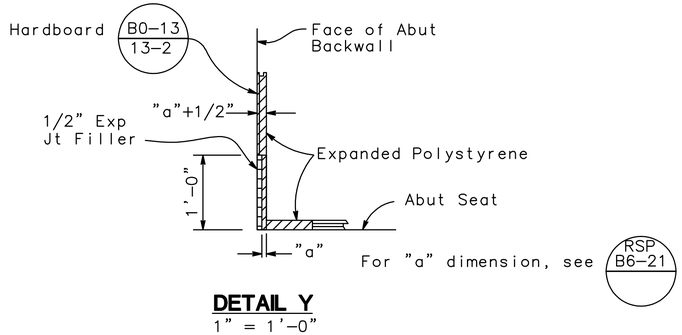
BEARING PAD DETAIL

NO SCALE



DETAIL Z - JOINT PROTECTION

NO SCALE

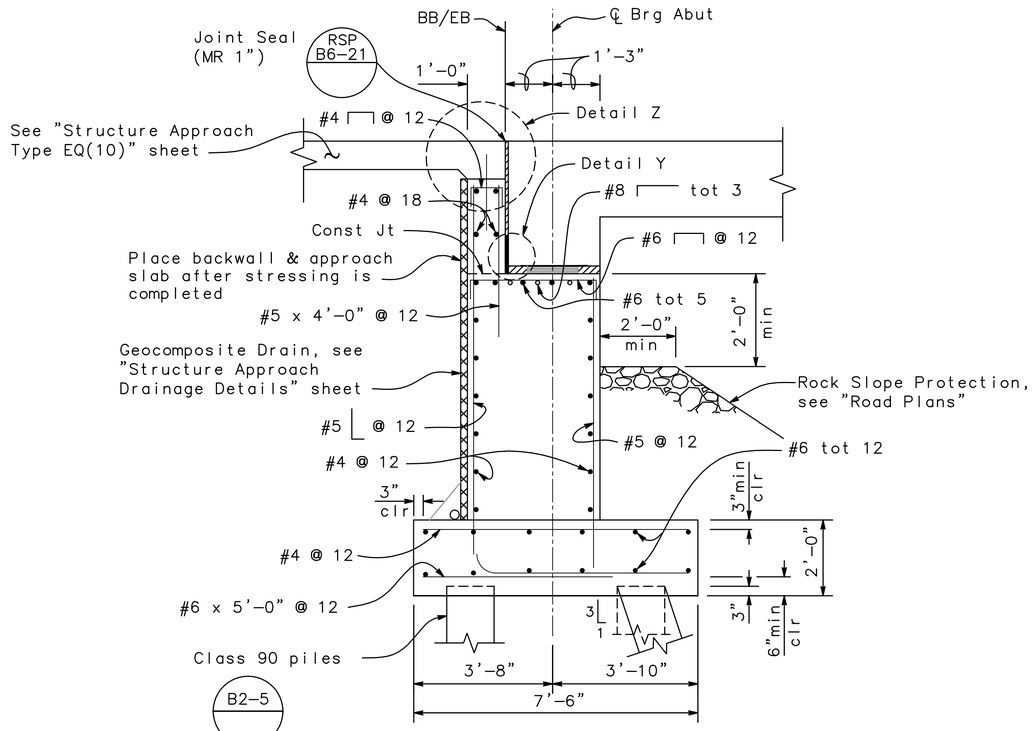


DETAIL Y

1" = 1'–0"

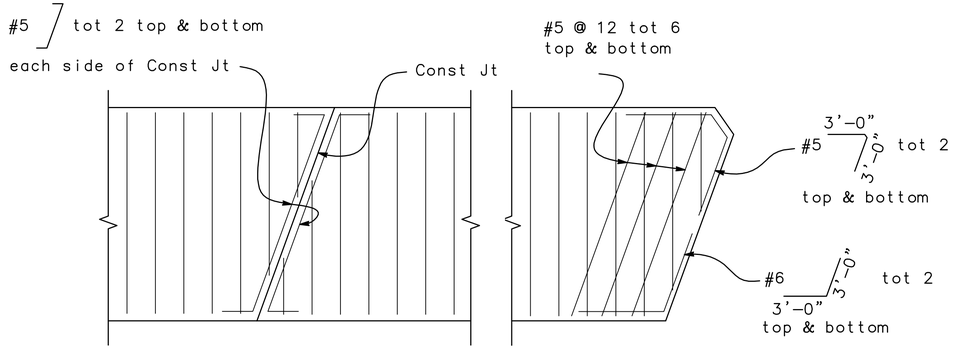
ORIGINAL SCALE IN INCHES FOR REDUCED PLAN

0 1 2 3



SECTION A-A

1/2" = 1'–0"



FOOTING DETAIL

3/8" = 1'–0"

NOTE:

For location of Section A–A, see "Abutment 1 Layout" and "Abutment 4 Layout" sheets.

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

ABUTMENT DETAILS NO. 1

MARK THOMAS & COMPANY, INC.
7300 FOLSOM BOULEVARD, SUITE 203
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180

PROFESSIONAL ENGINEER — REGISTERED — PO-KANG CHEN — No. S3112 — Exp. 9/30/11 — STRUCTURAL — STATE OF CALIFORNIA

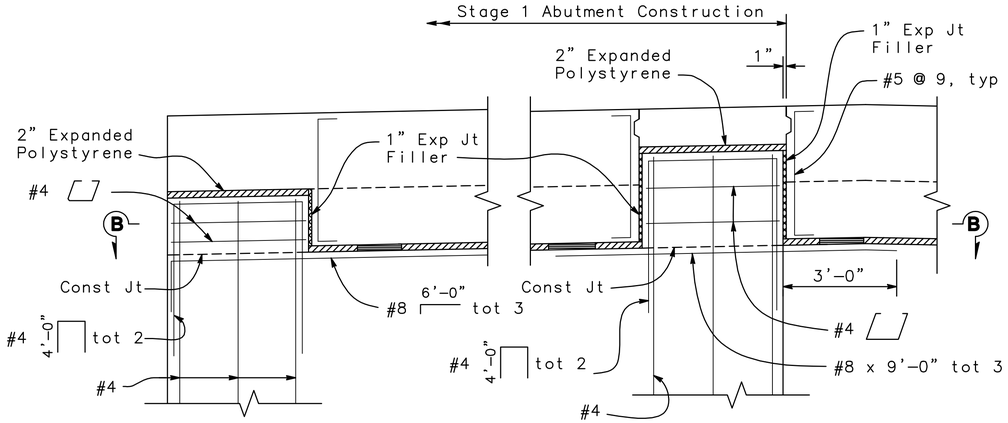
Revision No.	Description	Date	By	Aprvd. By

05/27/10 | 06/29/10 | 09/01/09 | 04/30/10 | MTCO JOB NUMBER: 57-0221B

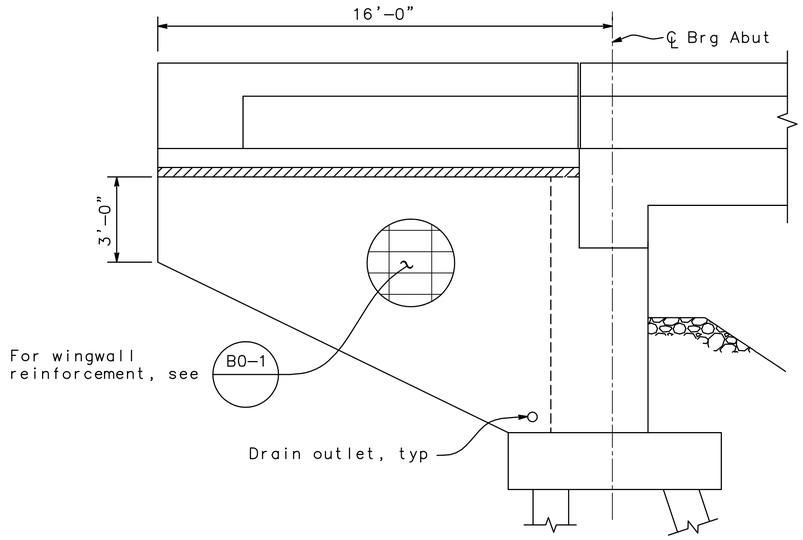
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: JP	CITY ENGINEER
DRAWN BY: CB	STOCKTON, CALIFORNIA
CHECKED BY: TP	
RECORD DWG:	

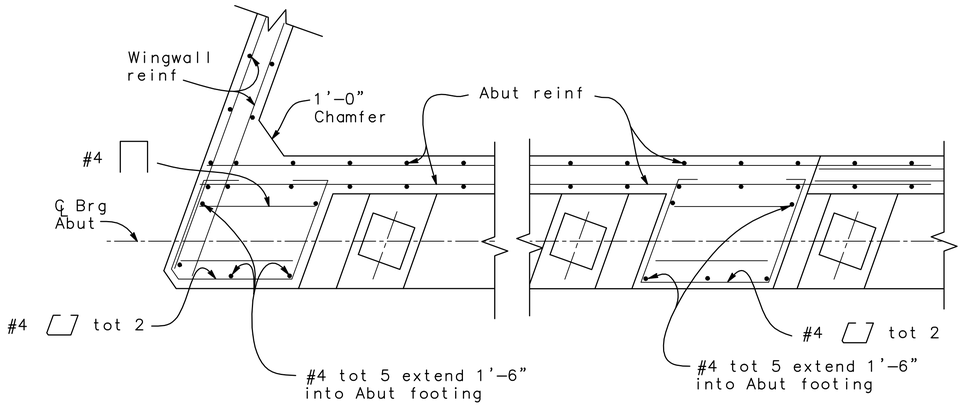
SHEET NO. 100
S6 of S30
OF 124 SHEETS
PROJECT NO. 05-17



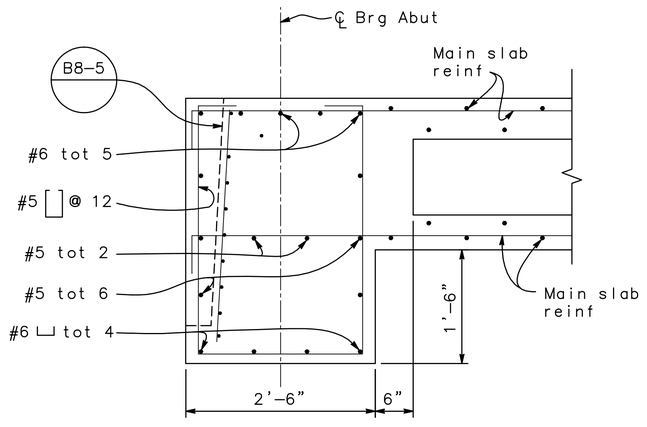
SHEAR KEY DETAIL
1/2" = 1'-0"



WINGWALL ELEVATION
3/8" = 1'-0"



SECTION B-B
1/2" = 1'-0"



END DIAPHRAGM
1" = 1'-0"

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
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PROFESSIONAL ENGINEER — REGISTERED — Po-Kang Chen — PO-KANG CHEN — No. S3112 — Exp. 9/30/11 — STRUCTURAL — STATE OF CALIFORNIA

05/06/10 | 06/30/10 | 07/17/09 | 09/01/09 | MTCO JOB NUMBER: 57-0221B

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

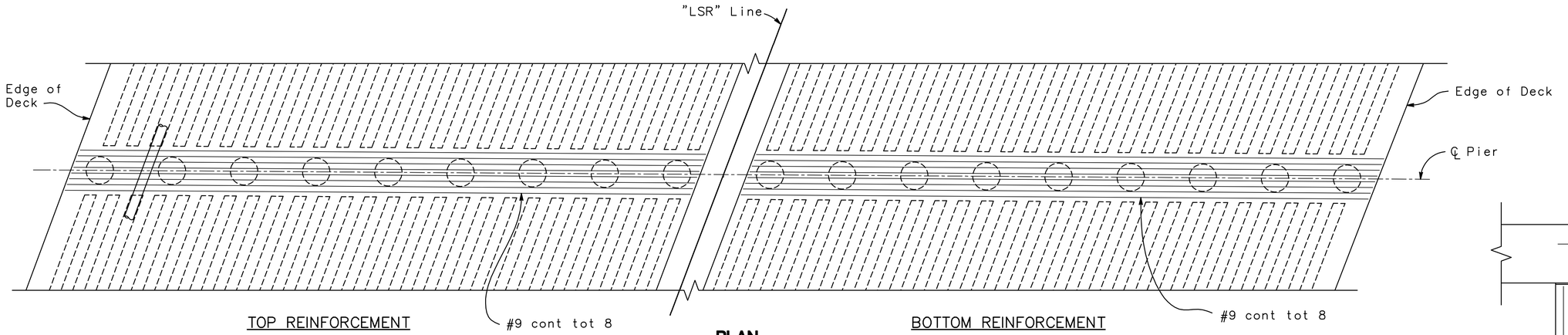
ABUTMENT DETAILS NO. 2

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

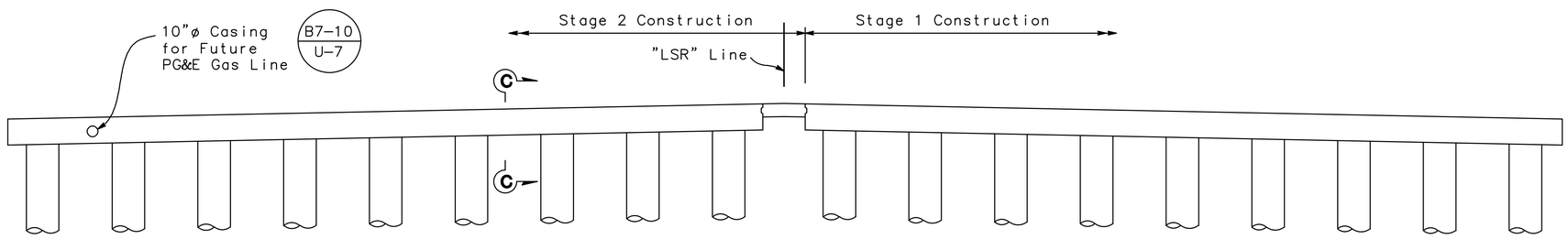
BRIDGE NO.: 29C0443
DESIGNED BY: JP
DRAWN BY: CB
CHECKED BY: TP
RECORD DWG:

APPROVED BY: JULY 12, 2010 DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

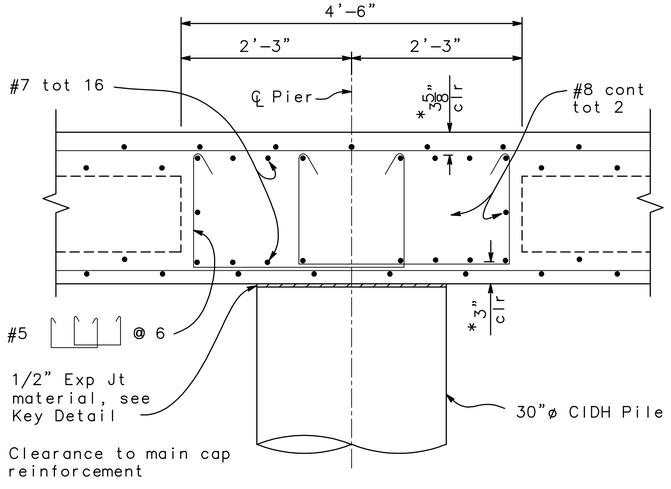
SHEET NO. 101
S7 of S30
OF 124 SHEETS
PROJECT NO. 05-17



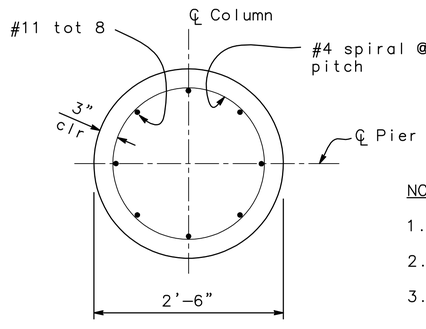
PLAN
3/16" = 1'-0"



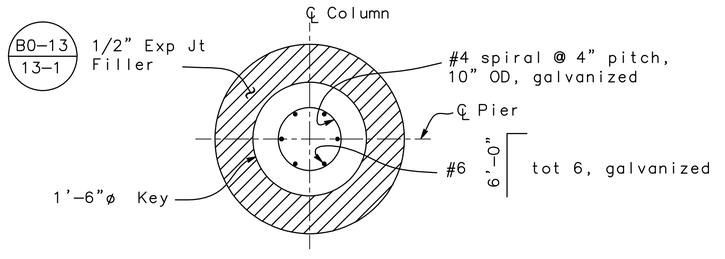
ELEVATION
3/16" = 1'-0"



SECTION C-C
1" = 1'-0"



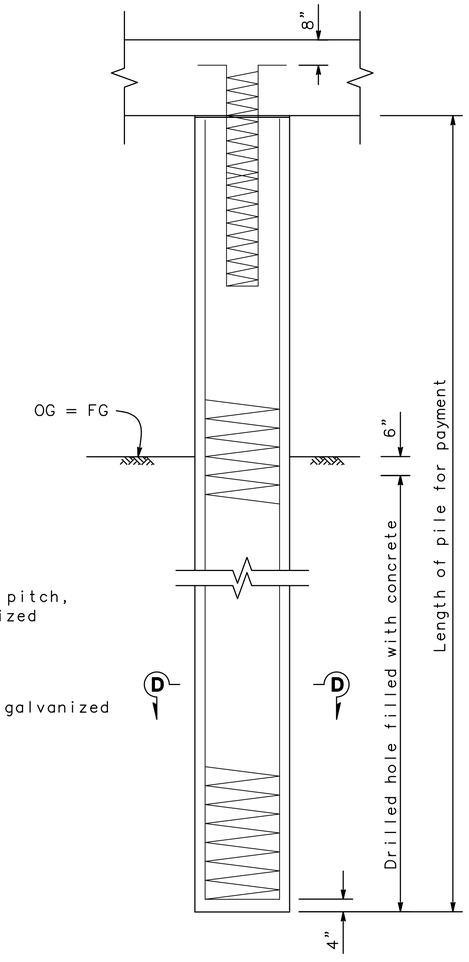
SECTION D-D
1" = 1'-0"



KEY DETAIL
1" = 1'-0"

NOTES:

1. No splices allowed in main cap reinforcement.
2. No splices allowed in longitudinal pile reinforcement.
3. Spiral pile reinforcement shall be ultimate butt spliced. Spiral pile reinforcement at ends shall be terminated by a 135° hook with a 6" tail hooked around a longitudinal bar.
4. Lapped splices in spiral column pin reinforcement shall be lapped at least 80 bar diameters. Spiral column pin reinforcement at splices and at ends shall be terminated by a 135° hook with a 6" tail hooked around a longitudinal bar.



CAST-IN-DRILLED-HOLE CONCRETE PILE
1/2" = 1'-0"

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
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SACRAMENTO, CALIFORNIA 95826
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09/01/09 | 05/06/10 | 05/27/10 | 07/17/09 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

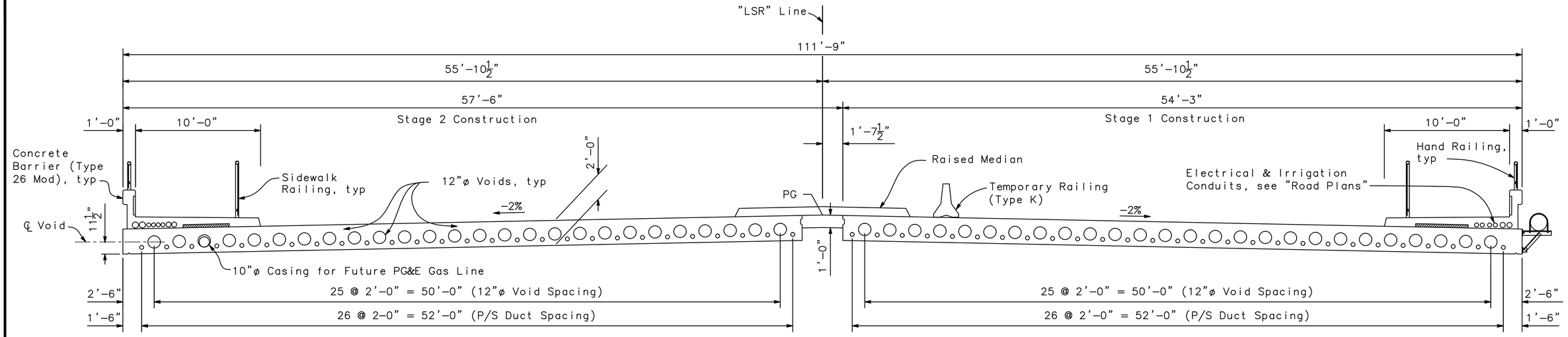
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

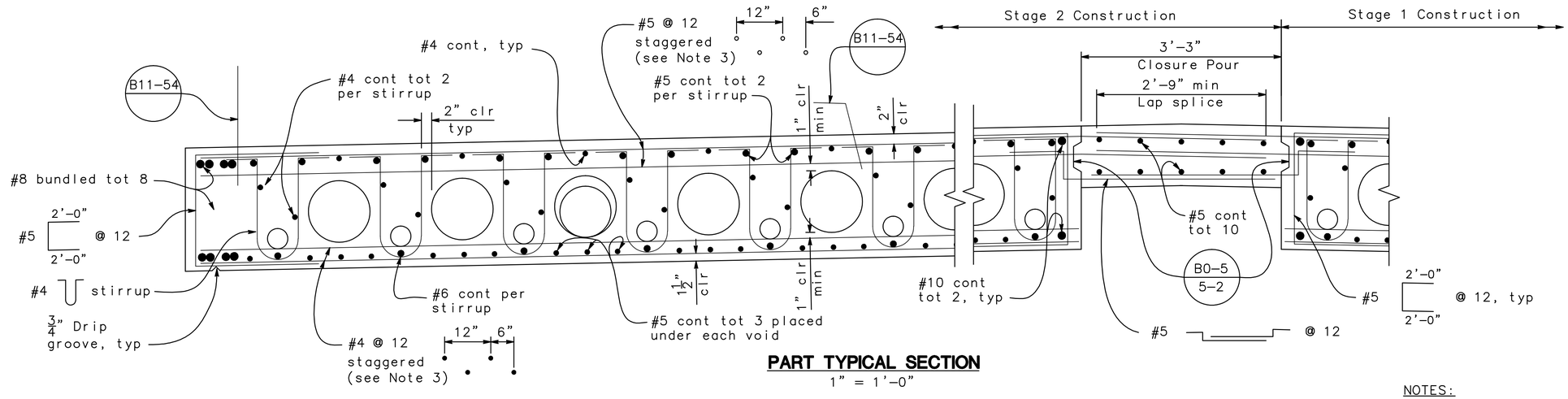
PIER LAYOUT

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

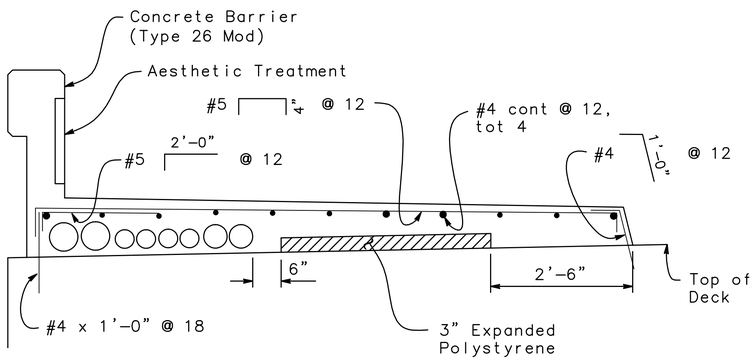
BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 102
DESIGNED BY: JP		S8 of S30
DRAWN BY: CB		OF 124 SHEETS
CHECKED BY: TP	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17
RECORD DWG:		



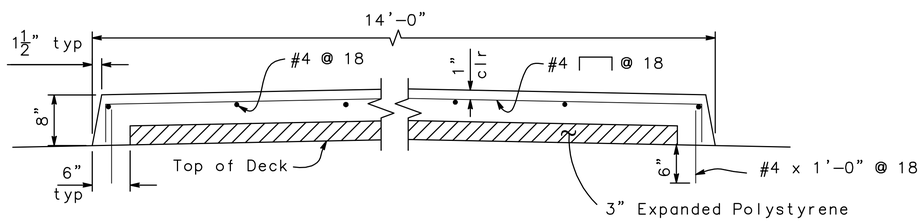
TYPICAL SECTION
1/4" = 1'-0"



PART TYPICAL SECTION
1" = 1'-0"



CONCRETE BARRIER DETAIL
3/4" = 1'-0"



RAISED MEDIAN DETAIL
1" = 1'-0"

NOTES:

1. For Hand Railing and Sidewalk Railing details, see "Barrier Railing Details" & "Sidewalk Railing Details" sheets.
2. For Water Line details, see "Water Line Details" sheet.
3. Adjust reinforcement as necessary to place prestress ducts.

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
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05/06/10 ~~05/26/10~~ 06/30/10 ~~07/17/09~~ MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

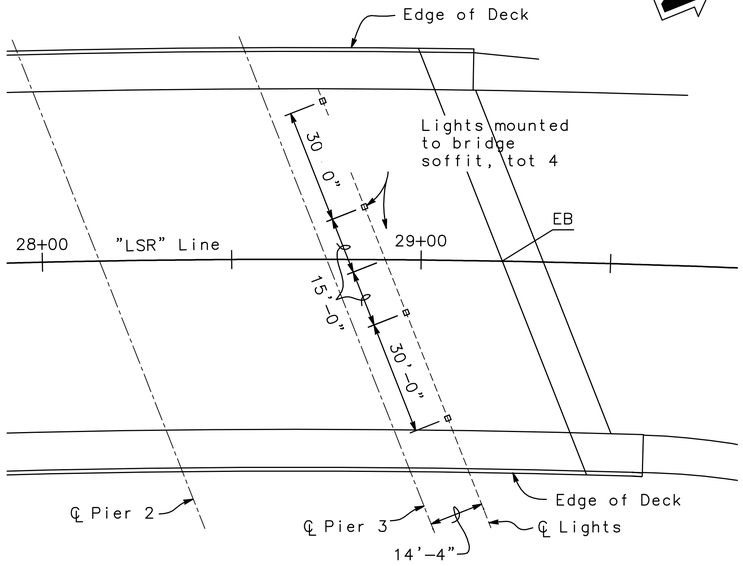
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

TYPICAL SECTION

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 103
DESIGNED BY: JP	CITY ENGINEER	S9 of S30
DRAWN BY: GB	STOCKTON, CALIFORNIA	OF 124 SHEETS
CHECKED BY: TP		PROJECT NO. 05-17
RECORD DWG:		



SOFFIT LIGHT LOCATIONS

1" = 20'

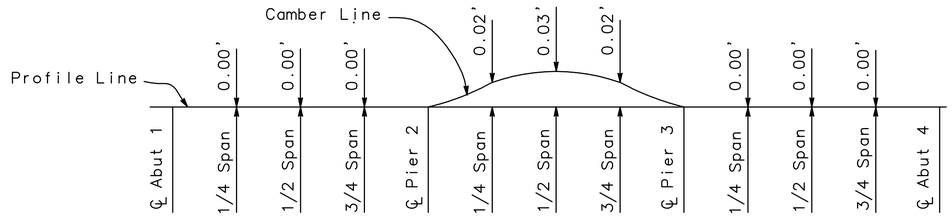
FALSEWORK RELEASE NOTES

Alternative 1:

Falsework shall be released as soon as permitted by the specifications. Closure pour shall not be placed sooner than 60 days after the falsework has been released.

Alternative 2:

Falsework shall not be released less than 28 days after the last concrete has been placed. Closure pour shall not be placed sooner than 14 days after the falsework has been released. When falsework Release Alternative 2 is used, camber values are 0.75 times those shown.



Note: Does not include allowance for falsework settlement or deflection.

CAMBER DIAGRAM

NO SCALE

PRESTRESSING NOTES

270 ksi low relaxation strand:

STAGE 1	STAGE 2
Pjack = 6,210 kips	Pjack = 6,210 kips
Anchor Set = 0.375"	Anchor Set = 0.375"
Friction Coefficients Curvature (u) = 0.15/rad Wobble (k) = 0.0002/ft	Friction Coefficients Curvature (u) = 0.15/rad Wobble (k) = 0.0002/ft

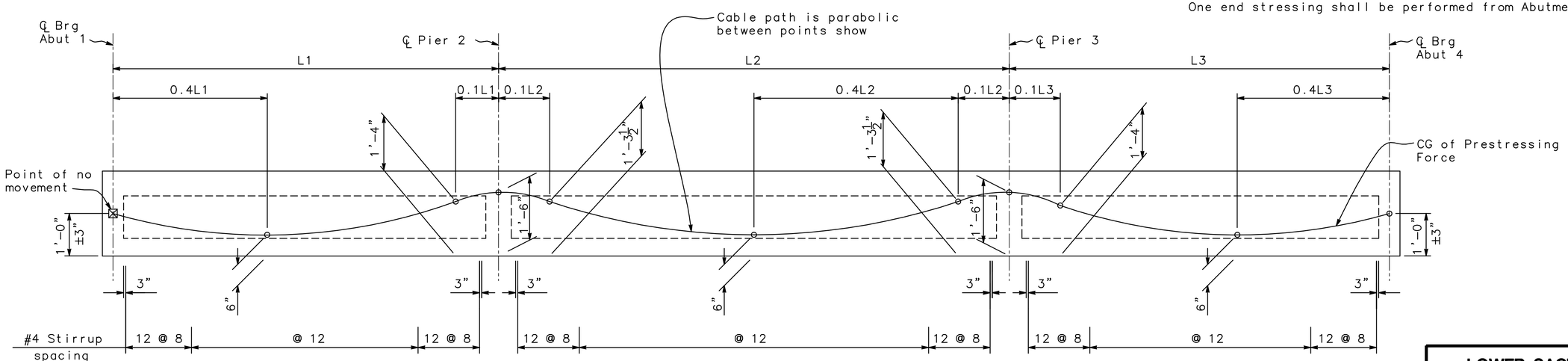
Distribution of prestress force (Pjack) between ducts shall not exceed ratio of 3:2.

Maximum final force variation between ducts shall not exceed 725 kips.

Concrete: f'c = 4.0 ksi @ 28 days
f'ci = 3.5 ksi @ time of stressing

Contractor shall submit elongation calculations based on initial stress at point of no movement
⊠ = 0.880 times jacking stress.

One end stressing shall be performed from Abutment 4.



LONGITUDINAL SECTION

NO SCALE

ORIGINAL SCALE IN INCHES FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
7300 FOLSOM BOULEVARD, SUITE 203
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180

09/01/09 | 05/06/10 | 06/30/10 | 07/17/09 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

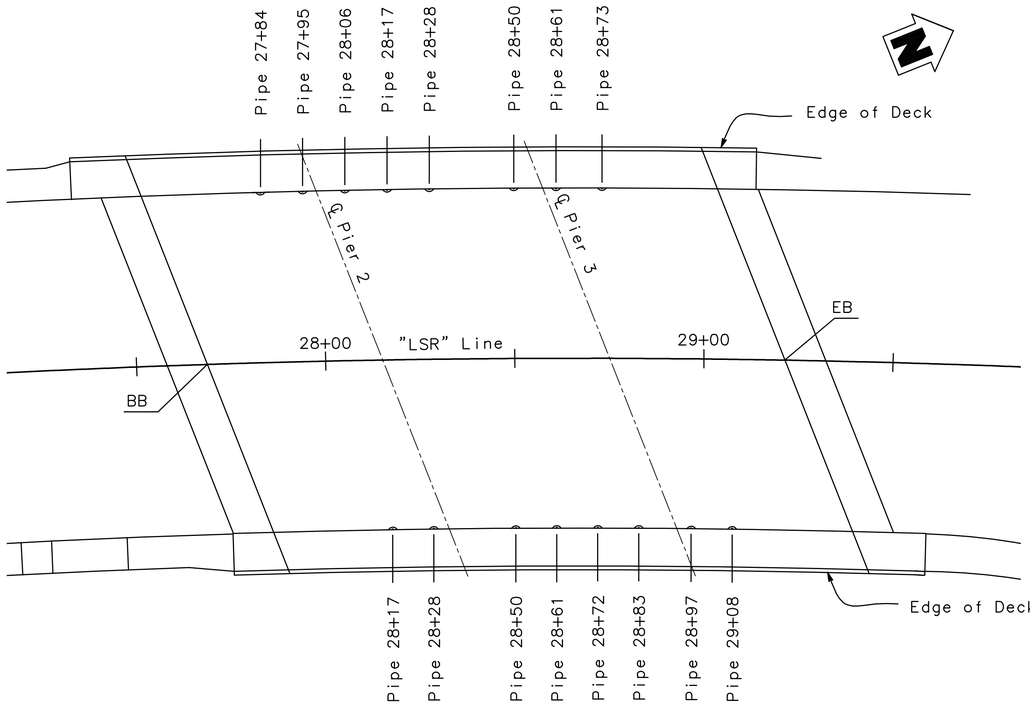
LONGITUDINAL SECTION

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

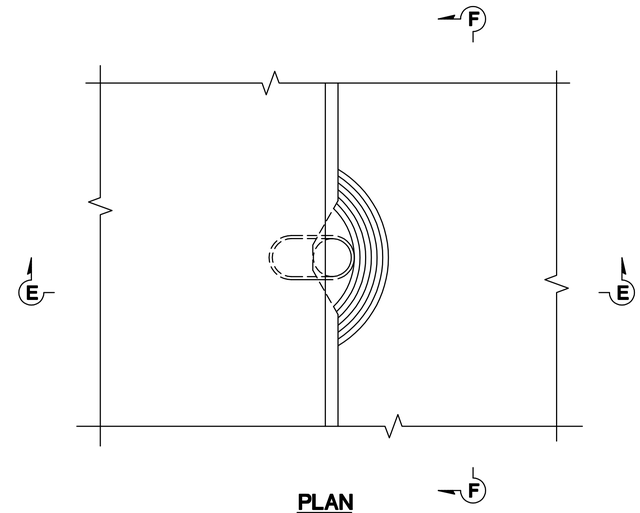
BRIDGE NO.: 29C0443
DESIGNED BY: JP
DRAWN BY: CB
CHECKED BY: TP
RECORD DWG:

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

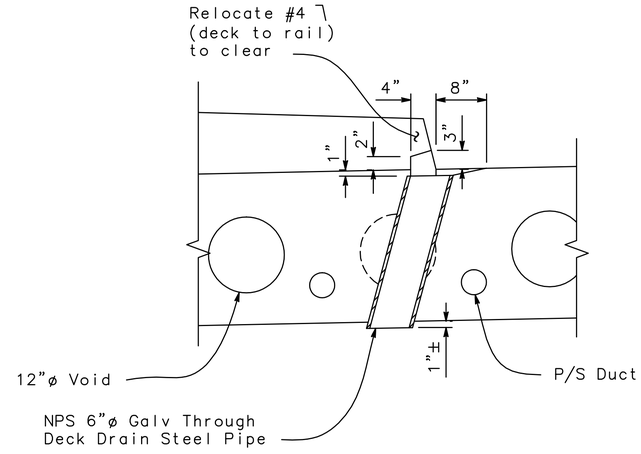
SHEET NO. 104
S10 of S30
OF 124 SHEETS
PROJECT NO. 05-17



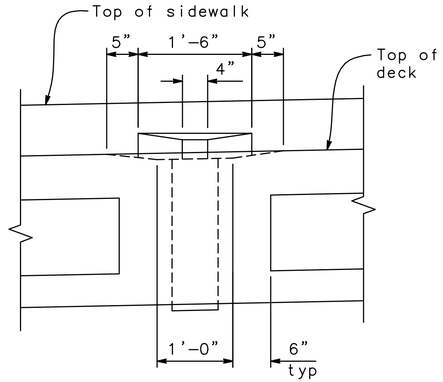
DECK DRAIN PLAN
1" = 20'



PLAN



SECTION E-E



SECTION F-F

DECK DRAIN DETAILS
1" = 1'-0"

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
7300 FOLSOM BOULEVARD, SUITE 203
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180

06/30/10 | ~~09/01/09~~ | ~~05/06/10~~ | ~~05/26/10~~ | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

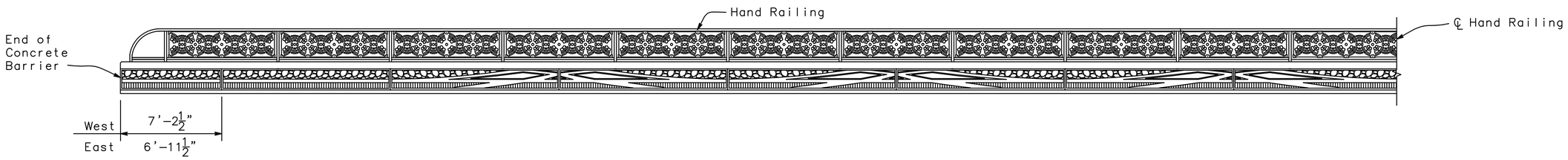
Revision No.	Description	Date	By	Aprvd. By

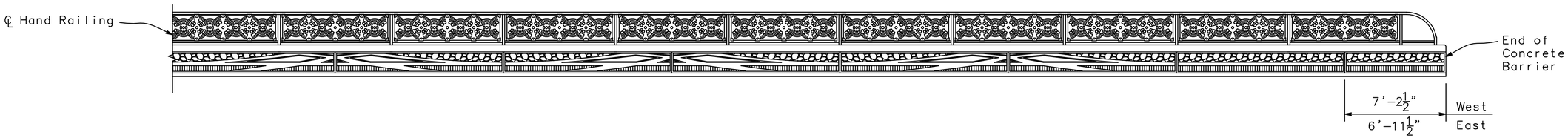
LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

DECK DRAINAGE DETAILS

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 105
DESIGNED BY: JP		S11 of S30
DRAWN BY: CB		OF 124 SHEETS
CHECKED BY: TP	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17
RECORD DWG:		





BARRIER LAYOUT

1/4" = 1'-0"

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
7300 FOLSOM BOULEVARD, SUITE 203
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180

08/10/09 | 09/02/09 | 04/30/10 | 06/29/10 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

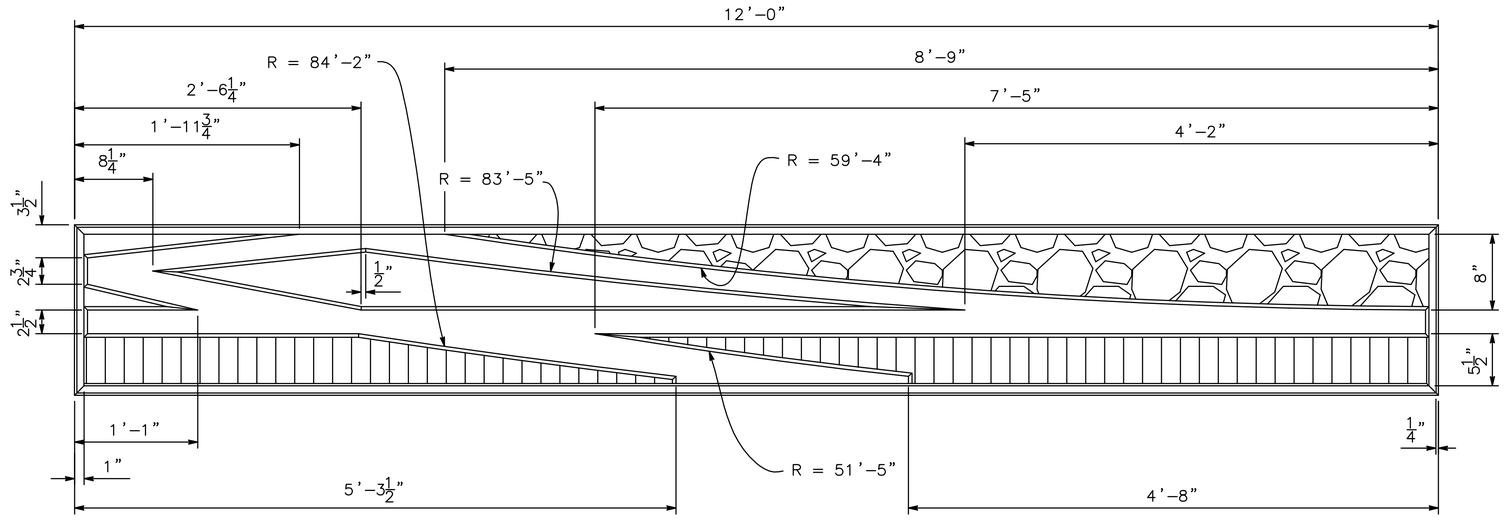
BARRIER AESTHETICS LAYOUT

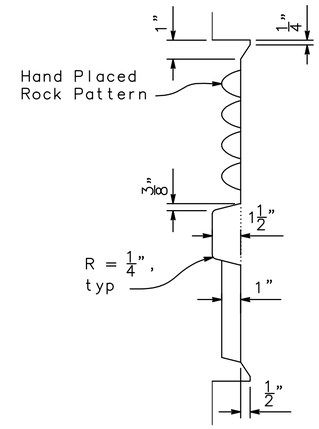
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443
DESIGNED BY: JP
DRAWN BY: CB
CHECKED BY: TP
RECORD DWG:

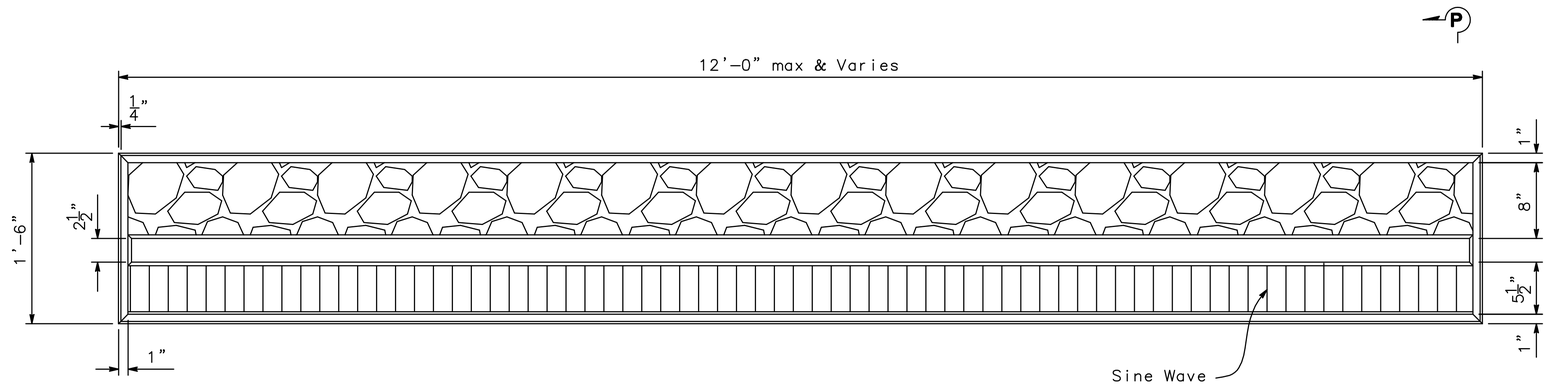
APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 106
S12 of S30
OF 124 SHEETS
PROJECT NO.
05-17

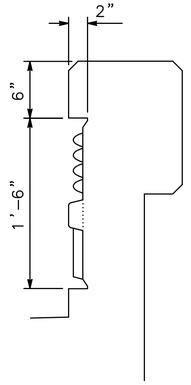




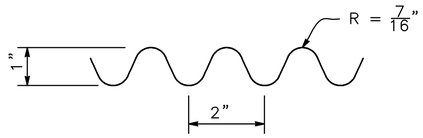
FORMLINER DETAIL
NO SCALE



TYPICAL DETAILS
1 1/2" = 1'-0"



SECTION P-P
1 1/2" = 1'-0"



SINE WAVE
NO SCALE

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
7300 FOLSOM BOULEVARD, SUITE 203
SACRAMENTO, CALIFORNIA 95826
(916) 381-9100 FAX: (916) 381-9180

08/03/09 | ~~04/30/10~~ | 07/01/10 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

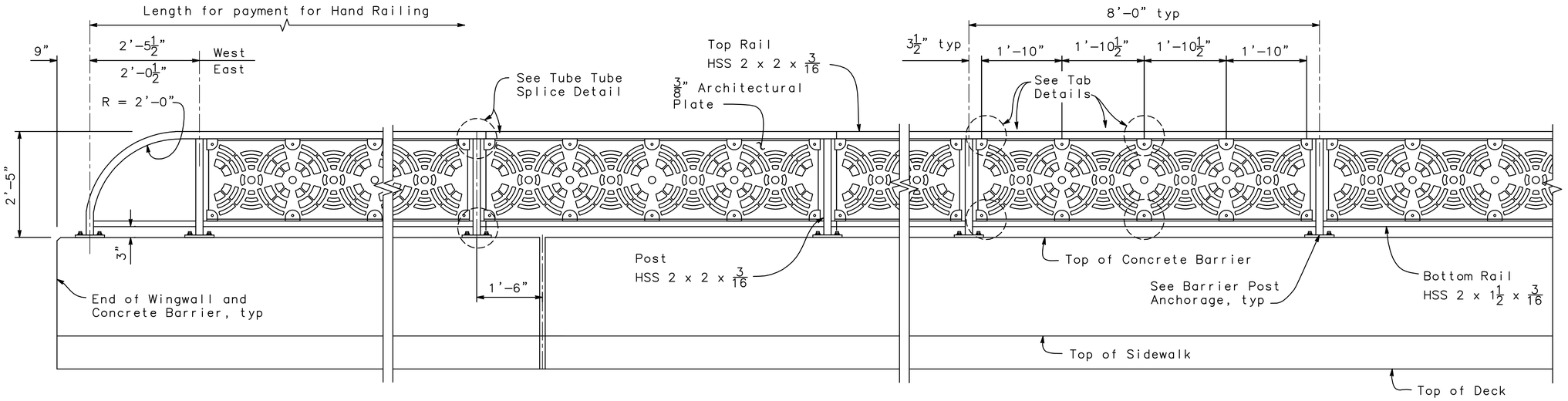
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

BARRIER AESTHETIC DETAILS

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 107
DESIGNED BY: JP		S13 of S30
DRAWN BY: CB		OF 124 SHEETS
CHECKED BY: TP	CITY ENGINEER	PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA	05-17



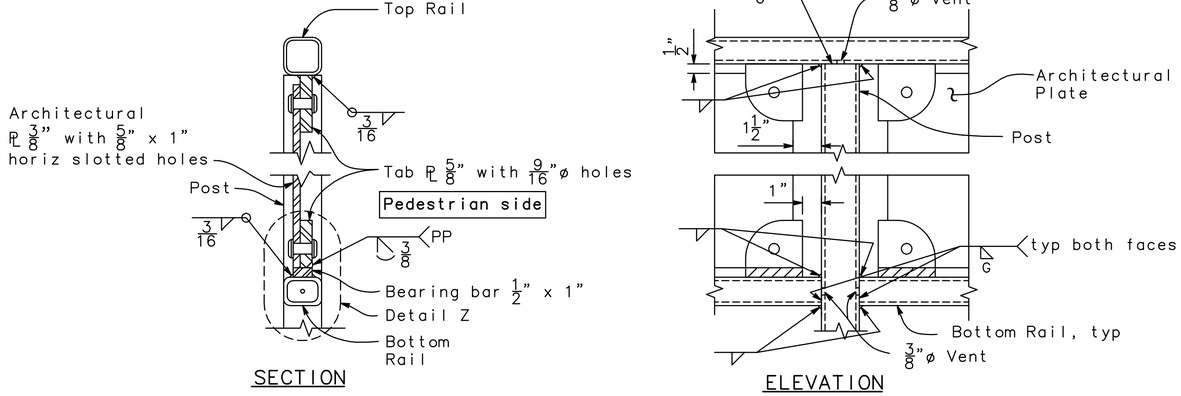
END POST

EXPANSION JOINT

INTERMEDIATE POST

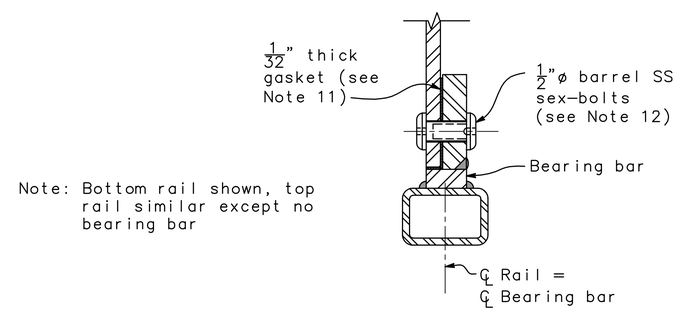
HAND RAILING ELEVATION

3/4" = 1'-0"



RAIL CONNECTION DETAILS

NO SCALE



Note: Bottom rail shown, top rail similar except no bearing bar

DETAIL Z

NO SCALE

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

NOTES:

1. Steel shall be ASTM A36. Steel shall be hot rolled, oiled and pickled.
2. Hand railing shall be painted green.
3. All posts shall be vertical.
4. All horizontal rails shall conform to vertical and horizontal alignment. Architectural plates shall have uniform gaps with posts and rails.
5. Tube splices shall be located in the tubes spanning deck or wall joints. Increase joint width in tube to match expansion joint width and increase sleeve length correspondingly.
6. Top rail tube shall be continuous over not less than two posts except near deck or joints, or other rail discontinuities as noted.
7. For Tube Splice Details and Tab Details, see "Hand Railing Details No. 2" sheet.
8. For Architectural Plate details, see "Architectural Plate Details No. 2" sheet.
9. The corners of architectural plates in contact with bearing bars and tabs shall be grinded smooth to eliminate sharp edges to the length of the bearing bars plus 1/2" on each side of bearing bars.
10. The gasket shall be 1/32" thick "Kingersil C-4201" or approved equal with adhesive backing, cut to shape of tabs and bonded to tabs and bearing bars.
11. The bolts shall be 1/2" diameter barrel stainless steel (SS) architectural sex-bolt (button-bolt) sets with vandal resistant drive. At final installation, hand tighten bolts to remove gap on gasket side plus 1/4 turn using thread locking fluid or equivalent locking device.
12. The Contractor shall submit railing shop drawings with all dimensions, splice locations, welds, bolts and fittings for Engineer's review prior to fabrication or purchase of material.

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08/03/09 | 09/02/09 | 04/30/10 | 06/29/10 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

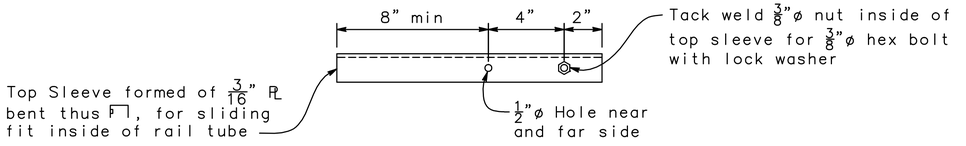
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

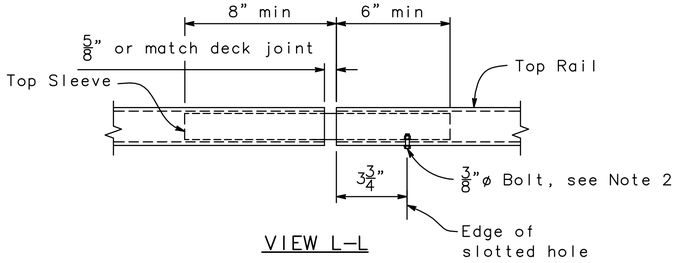
HAND RAILING DETAILS NO. 1

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

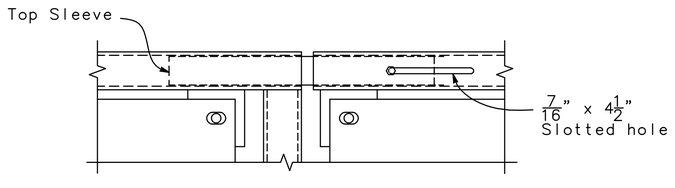
BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 108
DESIGNED BY: JP	CITY ENGINEER	S14 of S30
DRAWN BY: CB	STOCKTON, CALIFORNIA	OF 124 SHEETS
CHECKED BY: HM		PROJECT NO. 05-17
RECORD DWG:		



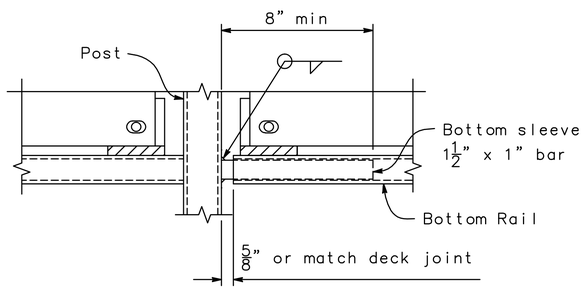
TOP SLEEVE



VIEW L–L

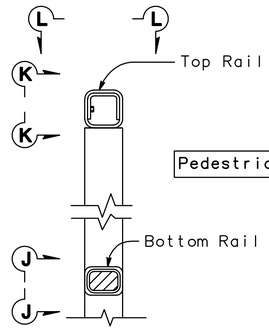


VIEW K–K

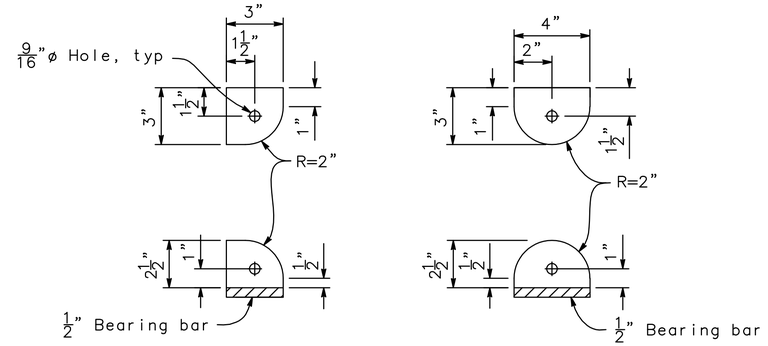


VIEW J–J

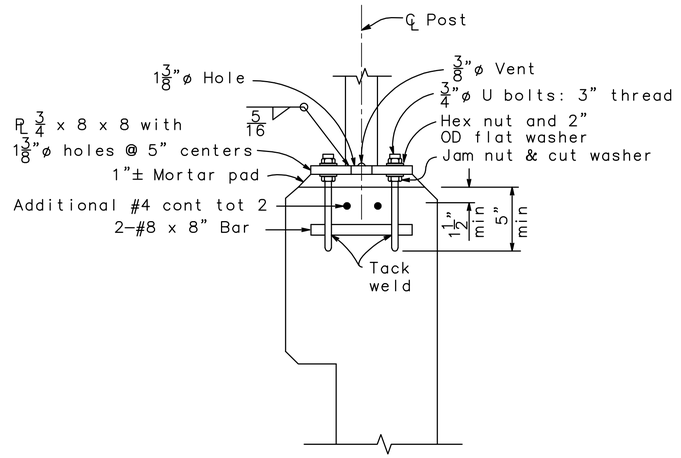
Note: Horizontal rail splices shall be located at deck joints and at a maximum spacing of 32'–0" spacing unless otherwise noted.



SECTION



TAB DETAILS
NO SCALE



Note: For barrier details and reinforcement not shown, see B11–54

BARRIER POST ANCHORAGE
NO SCALE

NOTES:

1. 3/8" Nut tack welded for sleeve may be replaced by drilled & tapped hole in sleeve.
2. For location of Tube Splice Details and Tab Details, see "Hand Railing Details No. 1" sheet.

TUBE SPLICE DETAILS
NO SCALE

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

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REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

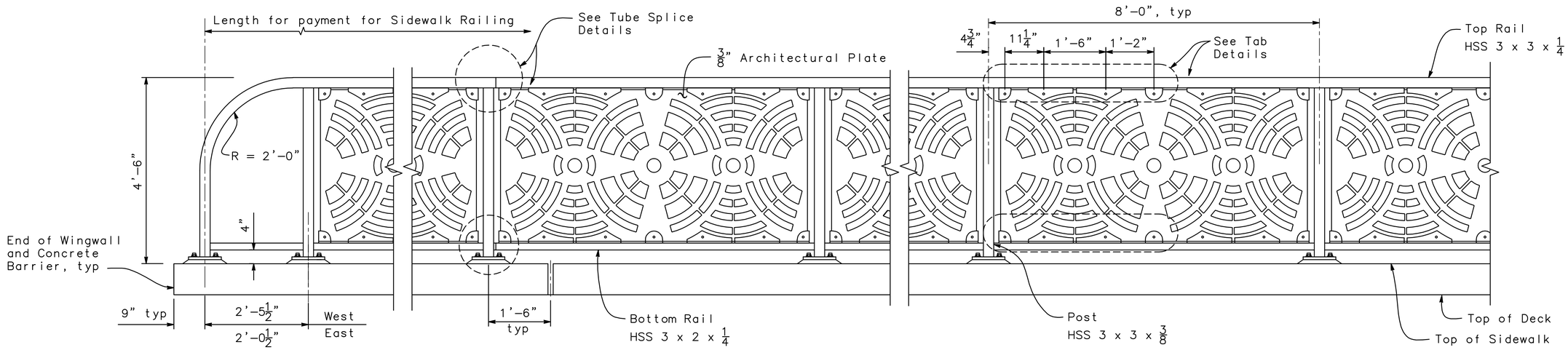
06/29/10 | MTCO JOB NUMBER: 57–0221B

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

HAND RAILING DETAILS NO. 2

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 109
DESIGNED BY: JP		S15 of S30
DRAWN BY: CB		OF 124 SHEETS
CHECKED BY: HM	CITY ENGINEER	PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA	05-17



END POST

EXPANSION JOINT

INTERMEDIATE POST

SIDEWALK RAILING ELEVATION
3/4" = 1'-0"

SECTION

ELEVATION

RAIL CONNECTION DETAILS
NO SCALE

Note: Bottom rail shown, top rail similar except no bearing bar

DETAIL Z
NO SCALE

NOTES:

1. Steel shall be ASTM 36. Steel shall be hot rolled, oiled and pickled.
2. Sidewalk railing shall be painted green.
3. All posts shall be vertical.
4. Railing shall conform to vertical alignment.
5. All horizontal rails shall conform to vertical and horizontal alignment. Architectural plates shall have uniform gaps with posts and rails.
6. Tube splices shall be located in the tubes spanning deck or wall joints. Increase joint width in tube to match expansion joint width and increase sleeve length correspondingly.
7. Top rail tube shall be continuous over not less than two posts except near deck joints.
8. For Tube Splice Details and Tab Details, see "Sidewalk Railing Details No. 2" sheet.
9. For Architectural Plate, see "Architectural Plate Details No. 1" sheet.
10. The corners of architectural plates in contact with bearing bars and tabs shall be grinded smooth to eliminate sharp edges to the length of the bearing bars plus 1/2" on each side of bearing bars.
11. The gasket shall be 1/32" thick "Kingersil C-4201" or approved equal with adhesive backing, cut to shape of tabs and bonded to tabs and bearing bars.
12. The bolts shall be 1/2" diameter barrel stainless steel (SS) architectural sex-bolt (button-bolt) sets with vandal resistant drive. At final installation, hand tighten bolts to remove gap on gasket side plus 1/4 turn using thread locking fluid or equivalent locking device.
13. The Contractor shall submit railing shop drawings with all dimensions, splice locations, welds, bolts and fittings for Engineer's review prior to fabrication or purchase of material.

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

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06/29/10 | 08/31/09 | 10/15/09 | 05/04/10 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

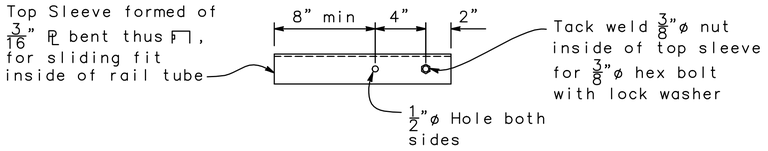
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

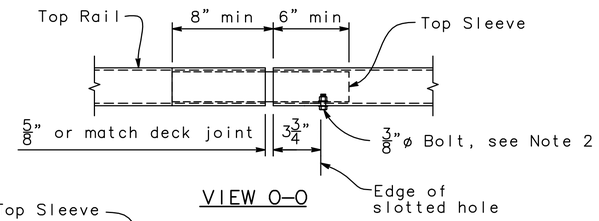
SIDEWALK RAILING DETAILS NO. 1

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

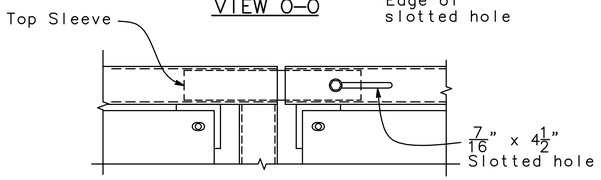
BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 110
DESIGNED BY: JP	CITY ENGINEER	S16 of S30
DRAWN BY: GB	STOCKTON, CALIFORNIA	OF 124 SHEETS
CHECKED BY: HM		PROJECT NO. 05-17
RECORD DWG:		



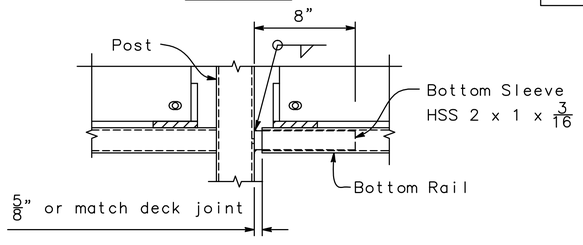
TOP SLEEVE



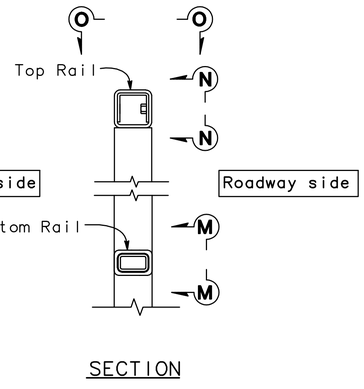
VIEW O–O



VIEW N–N



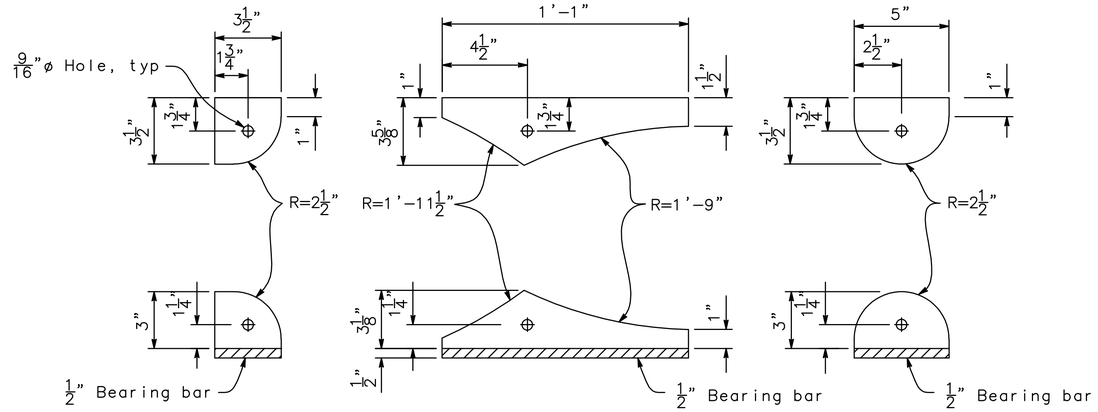
VIEW M–M



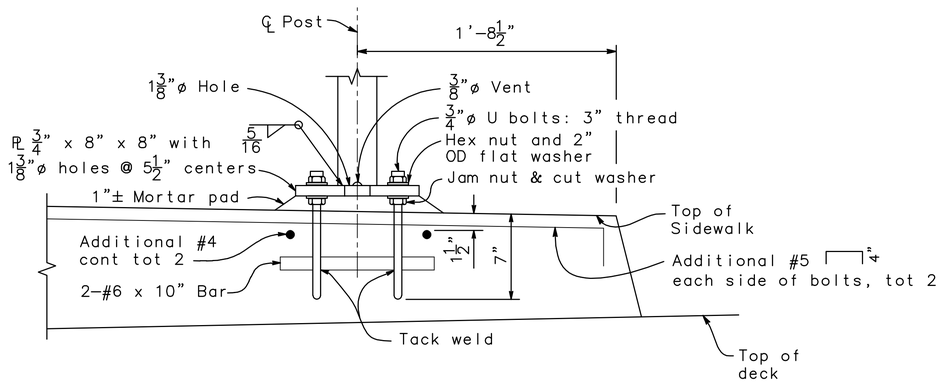
SECTION

Note: Horizontal rail splices shall be located at deck joints and at a maximum spacing of 32'–0" spacing unless otherwise noted.

TUBE SPLICE DETAILS
NO SCALE



TAB DETAILS
NO SCALE



Note: For sidewalk details not shown, see "Typical Section" sheet.

SIDEWALK POST ANCHORAGE
NO SCALE

NOTES:

1. 3/8" Nut tack welded for sleeve may be replaced by drilled & tapped hole in sleeve.
2. For location of Tube Splice Details and Tab Details, see "Sidewalk Railing Details No. 1" sheet.

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
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06/29/10 | MTCO JOB NUMBER: 57–0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

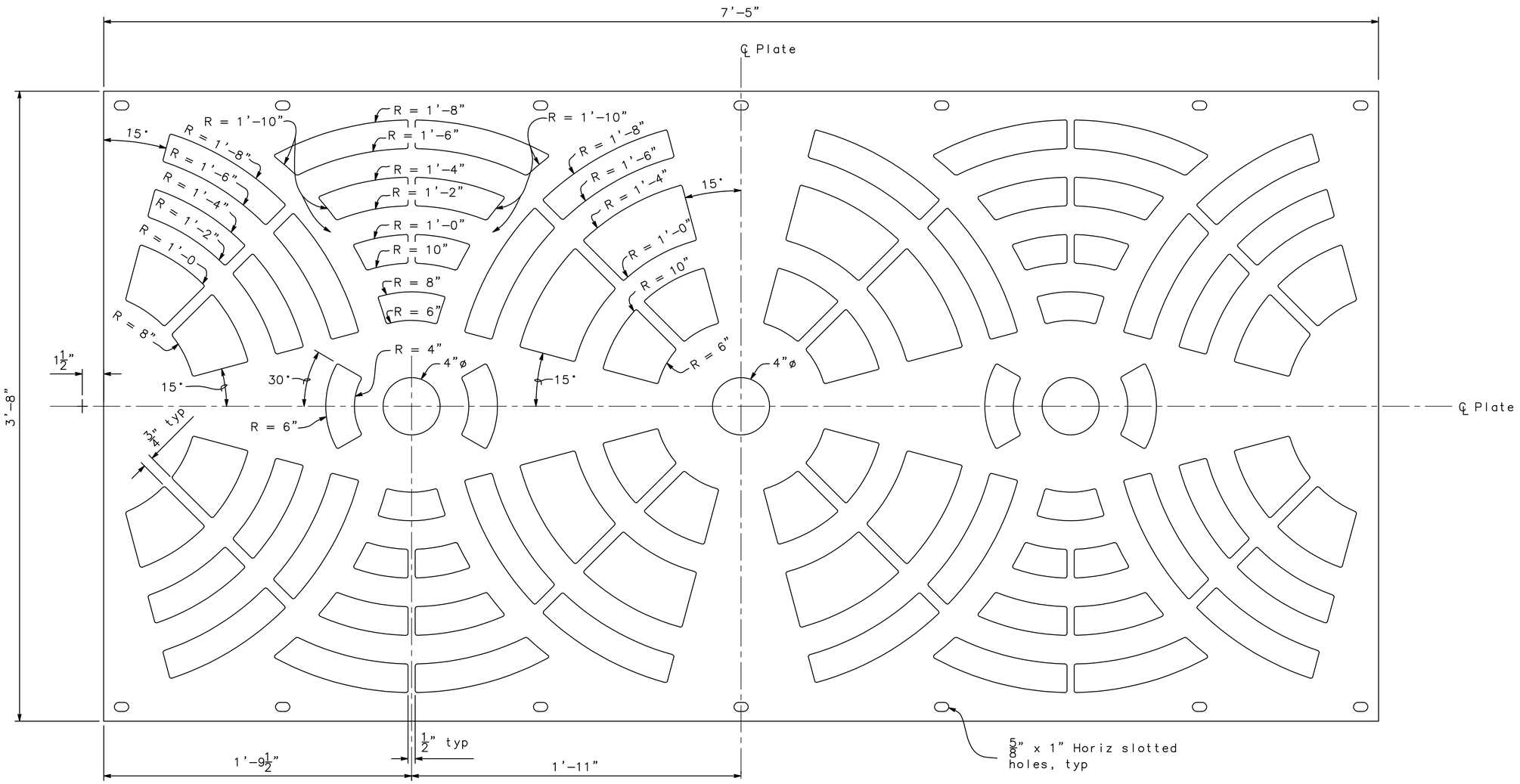
LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

SIDEWALK RAILING DETAILS NO. 2

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: JP	CITY ENGINEER
DRAWN BY: CB	STOCKTON, CALIFORNIA
CHECKED BY: HM	
RECORD DWG:	

SHEET NO. 111
S17 of S30
OF 124 SHEETS
PROJECT NO.
05–17



SIDEWALK RAILING PLATE

3" = 1'-0"

NOTES:

1. Dimensions & radiuses are mirrored about C Plate
2. All corners of cut-outs shall have a ⅛" radius.
3. Architectural plates shall be stress relieved before cutting. All patterns in the metal shall be cut using laser cutting or water-jet cutting.
4. Metal shall be profiled without adding heat in order to avoid warping.
5. Centerline of slotted holes shall match centerline of holes in tab plates. For location of bolt holes, see "Sidewalk Railing Details No. 1" sheet.

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

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08/03/09 | 04/26/10 | 05/06/10 | 06/28/10 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

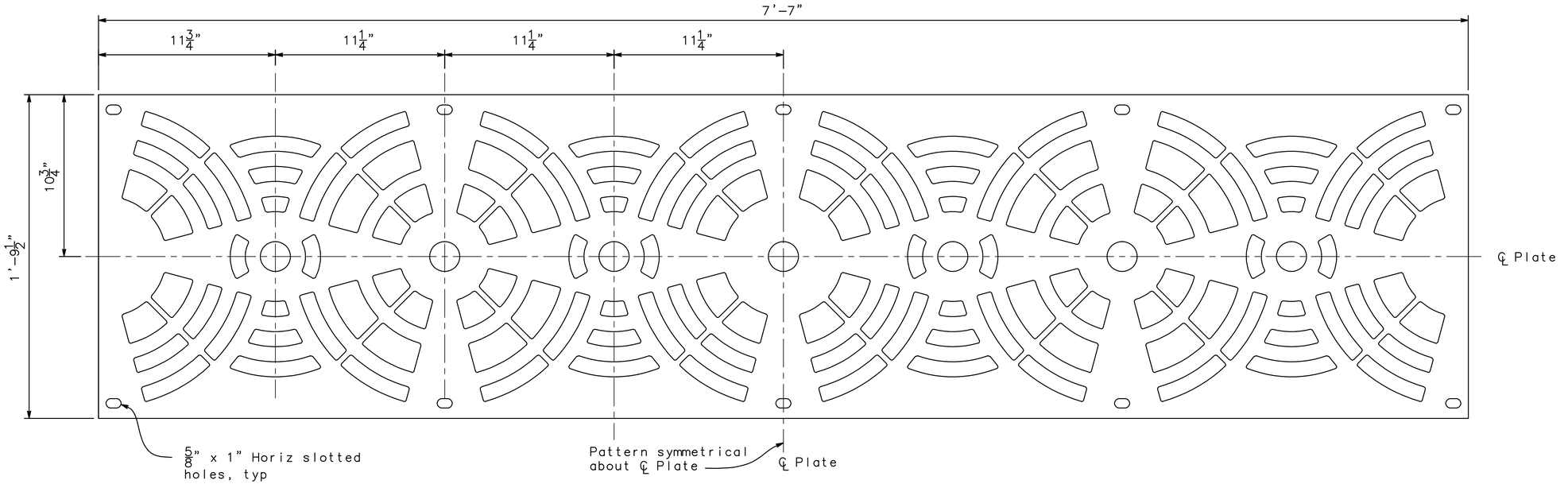
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

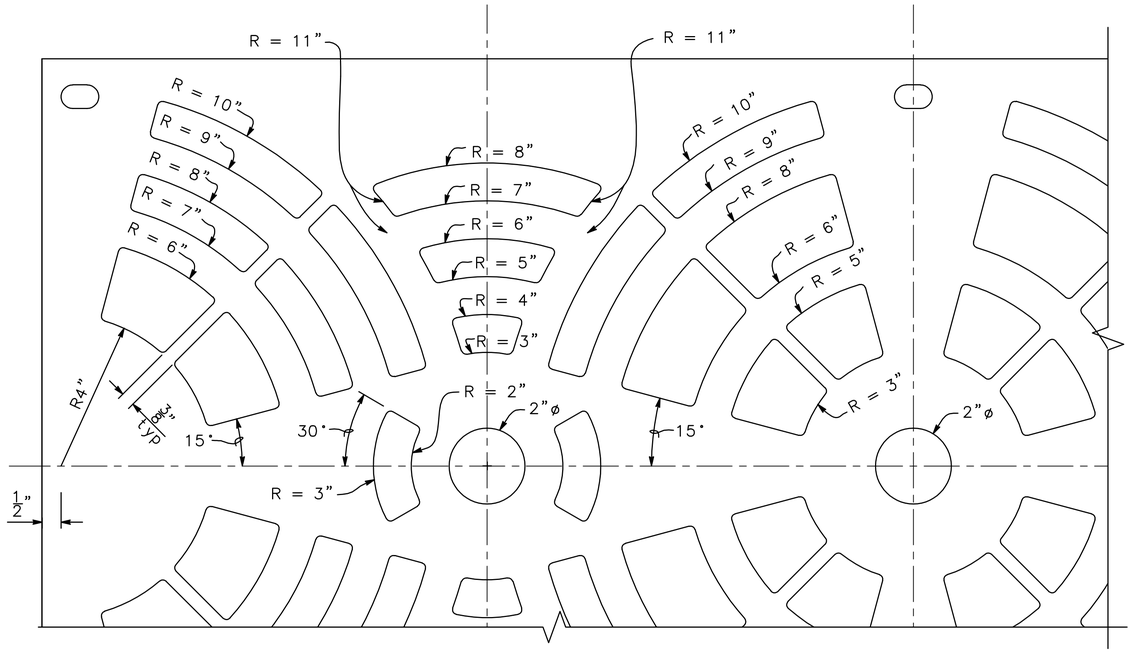
ARCHITECTURAL PLATE DETAILS NO. 1

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 112
DESIGNED BY: JP	CITY ENGINEER	S18 of S30
DRAWN BY: CB	STOCKTON, CALIFORNIA	OF 124 SHEETS
CHECKED BY: TP		PROJECT NO. 05-17
RECORD DWG:		



HAND RAILING PLATE
3" = 1'-0"



PATTERN DETAIL
6" = 1'-0"

NOTES:

1. Dimensions & radiuses are mirrored about ℄ Plate
2. All corners of cut-outs shall have a ⅛" radius.
3. Architectural plates shall be stress relieved before cutting. All patterns in the metal shall be cut using laser cutting or water-jet cutting.
4. Metal shall be profiled without adding heat in order to avoid warping.
5. Centerline of slotted holes shall match centerline of holes in tab plates. For location of bolt holes, see "Hand Railing Details No. 1" sheet.

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

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06/29/10 | ~~08/31/09~~ | ~~04/26/10~~ | ~~05/06/10~~ | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

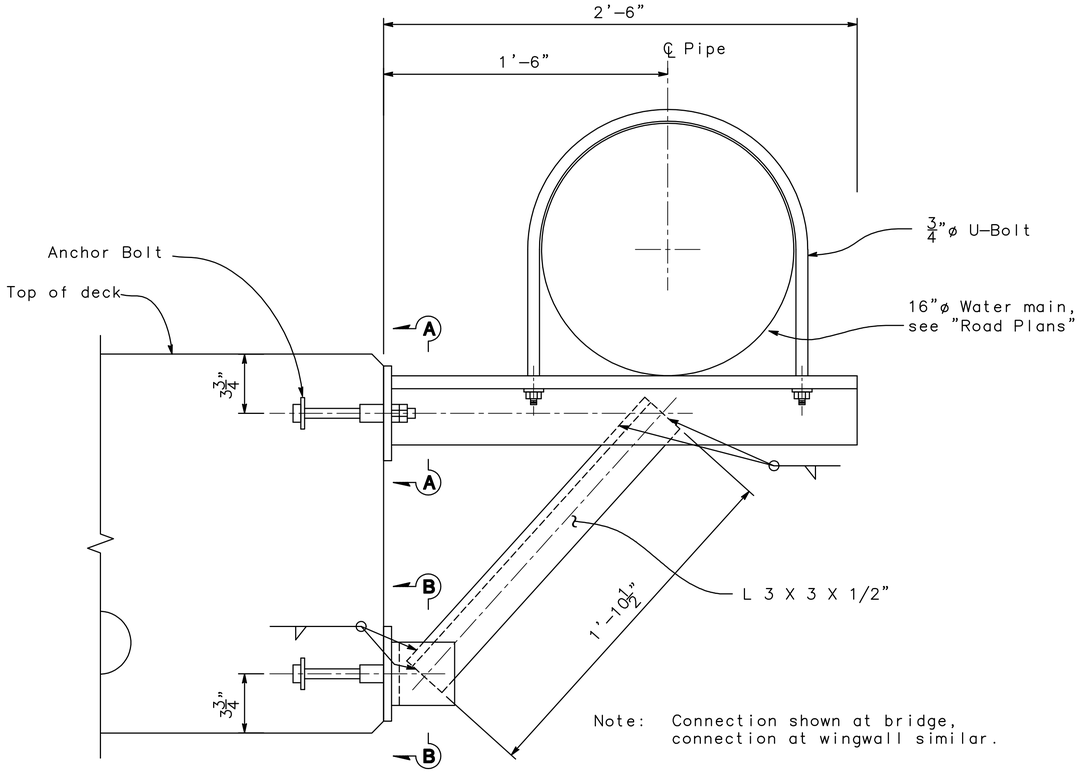
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

ARCHITECTURAL PLATE DETAILS NO. 2

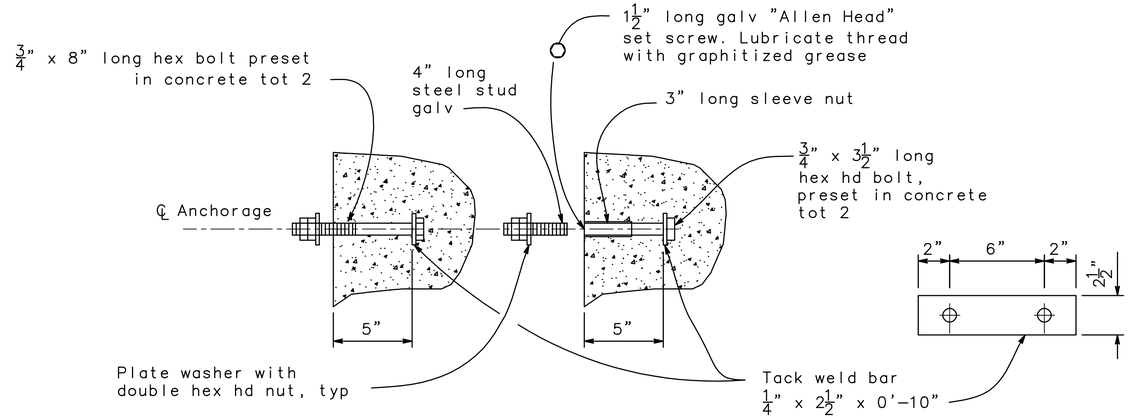
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 113
DESIGNED BY: JP	CITY ENGINEER	S19 of S30
DRAWN BY: GB	STOCKTON, CALIFORNIA	OF 124 SHEETS
CHECKED BY: TP		PROJECT NO. 05-17
RECORD DWG:		

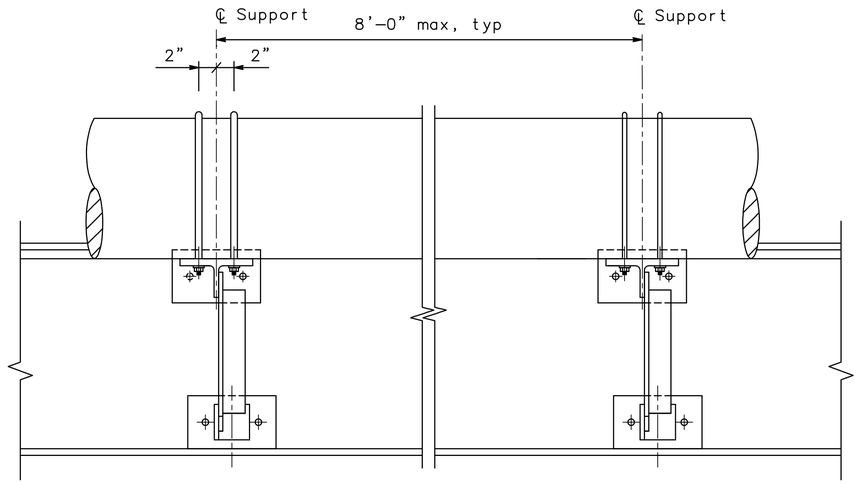


Note: Connection shown at bridge, connection at wingwall similar.

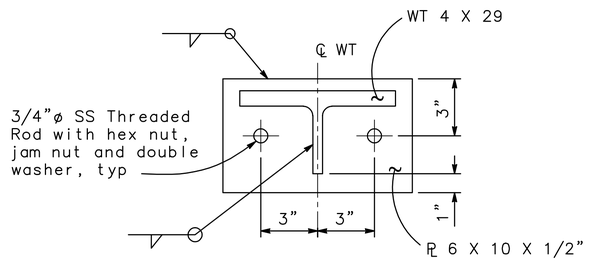
PIPE SUPPORT
NO SCALE



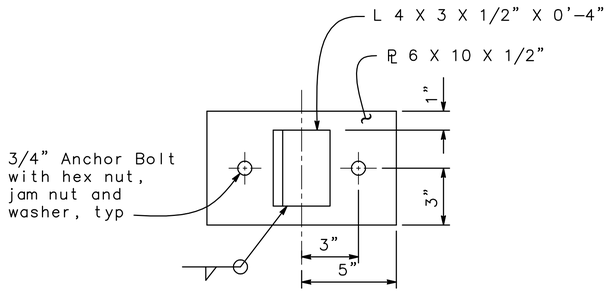
ANCHOR BOLT ALTERNATIVES
NO SCALE



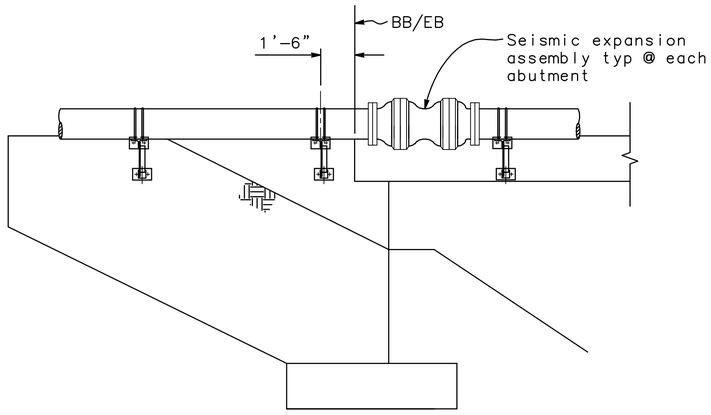
PIPE BRACKET LAYOUT
NO SCALE



SECTION A-A
NO SCALE



SECTION B-B
NO SCALE



DRAINAGE DETAIL
NO SCALE

NOTES:

1. Bars, plates and shapes shall be structural steel conforming to the requirements of ASTM A36, Fy = 36 ksi.
2. All bolts shall conform to the requirements of ASTM A325.
3. All steel shall be galvanized after fabrications.
4. Where dissimilar metals such as galvanized steel and ductile iron are to be placed against each other, provide separating medium of polyethylene tape 1/8" thick to prevent corrosion.

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
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01/16/09 | 04/20/09 | 07/17/09 | 05/07/10 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
Po-Kang Chen
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

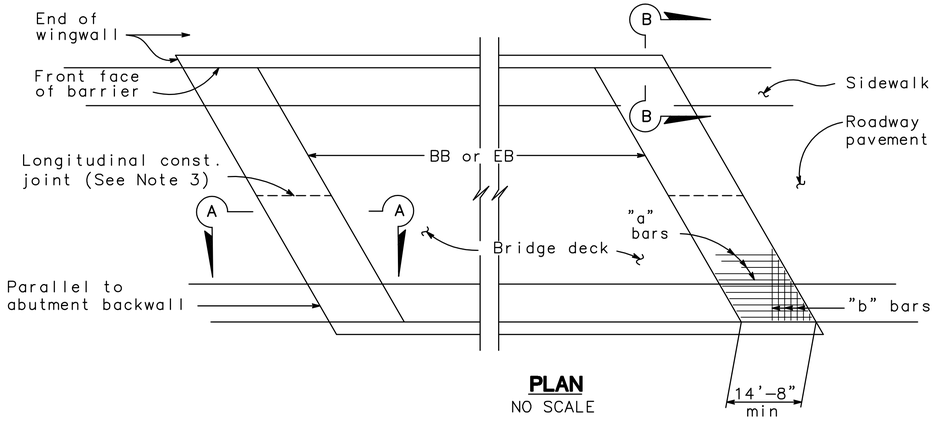
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

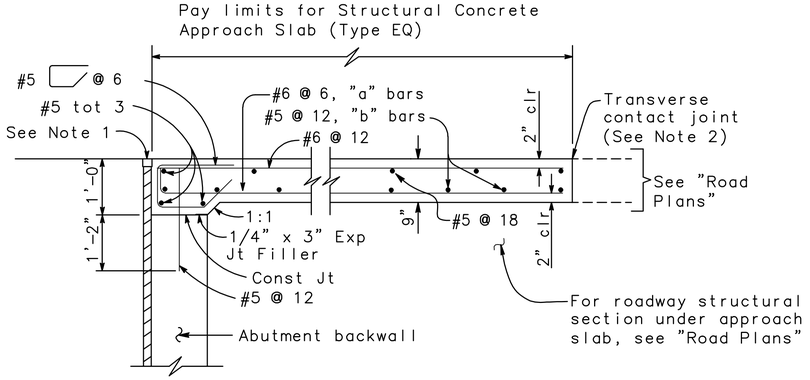
WATER LINE DETAILS

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

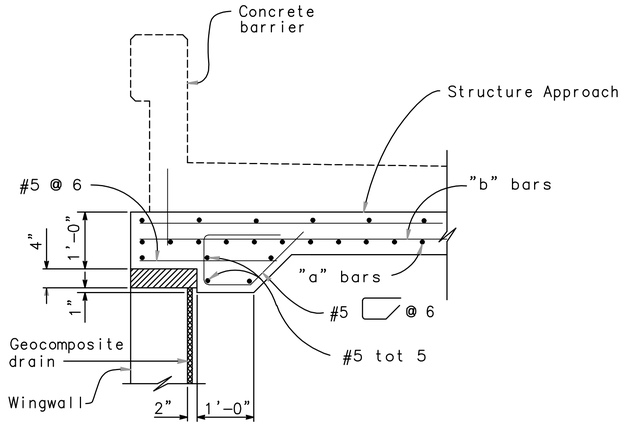
BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 114
DESIGNED BY: JP		S20 of S30
DRAWN BY: CB		OF 124 SHEETS
CHECKED BY: TP	CITY ENGINEER	PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA	05-17



PLAN
NO SCALE



SECTION A-A
NO SCALE



SECTION B-B
3/4" = 1'-0"

NOTES:

1. For details not noted or shown, see other sheets. Adjust bar reinforcement to clear a sawcut for sealed joint, when required.
2. For transverse contact joint with new PCC pavings, refer to Standard Plan P10.
3. Longitudinal construction joints, when permitted by the Engineer, shall be located on lane lines.
4. At the Contractor's option, approach slab transverse reinforcement may be placed parallel to abutment backwall. Spacing of transverse reinforcement is measured along ℄ roadway.
5. For drainage details, see "Structure Approach Drainage Details" sheet.
6. Details shown are not to scale.

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

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(916) 381-9100 FAX: (916) 381-9180

07/01/10 | ~~07/17/09~~ | ~~04/30/10~~ | ~~05/26/10~~ | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

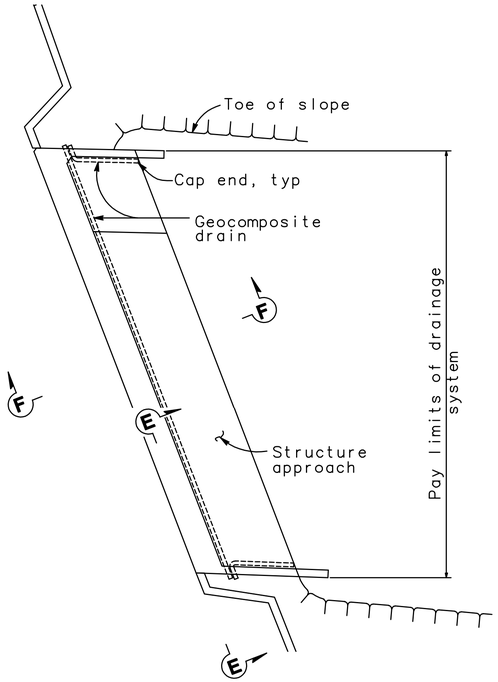
STRUCTURE APPROACH SLAB

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

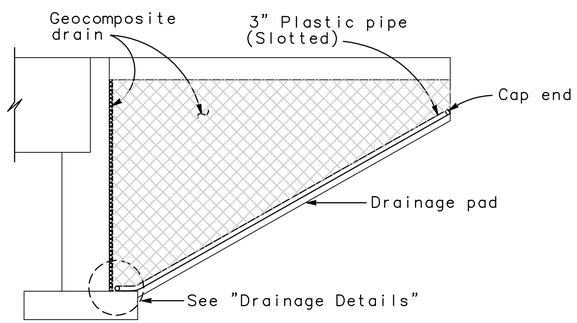
BRIDGE NO.: 29C0443
DESIGNED BY: JP
DRAWN BY: CB
CHECKED BY: TP
RECORD DWG:

APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

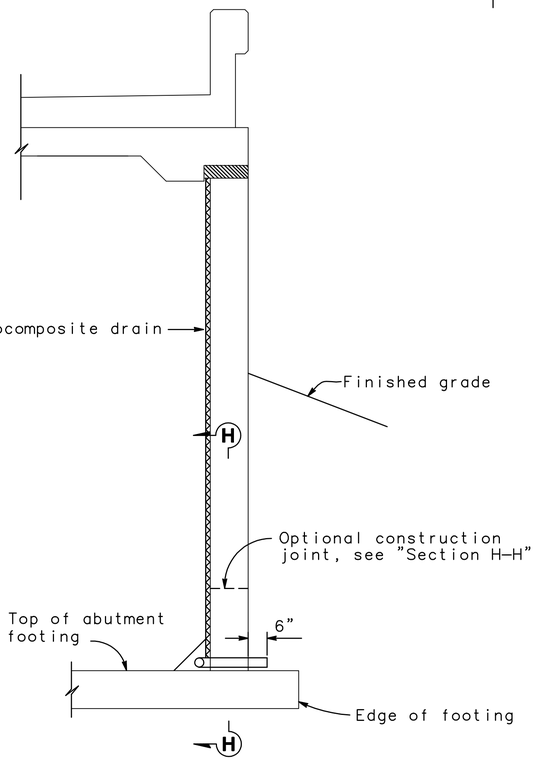
SHEET NO.115
S21 of S30
OF 124 SHEETS
PROJECT NO.
05-17



TYPICAL PLAN
NO SCALE

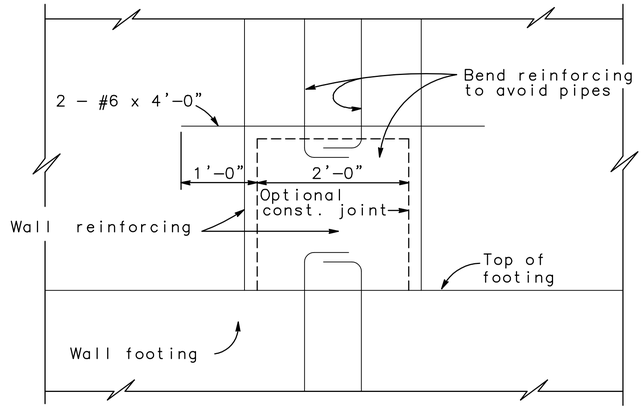


CANTILEVER WINGWALL SECTION F-F
NO SCALE

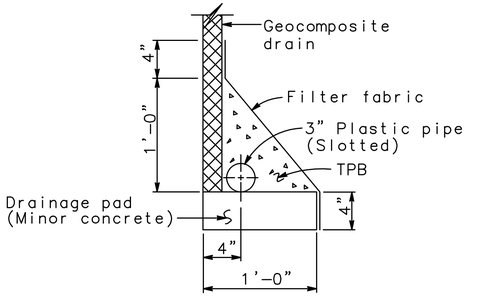


Note: Bends and junctions in 3" plastic pipe are 30" radius min.

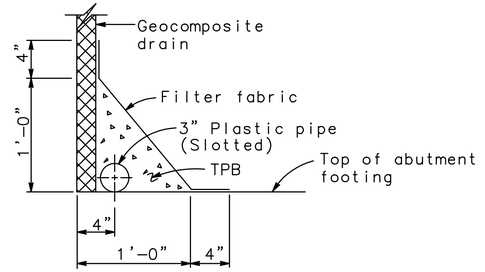
SECTION E-E
1/2" = 1'-0"



SECTION H-H
1" = 1'-0"



WITHOUT FOOTING



WITH FOOTING

DRAINAGE DETAILS
1 1/2" = 1'-0"

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

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06/30/10 | 07/17/09 | 05/07/10 | 05/26/10 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

STRUCTURE APPROACH DRAINAGE DETAILS

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

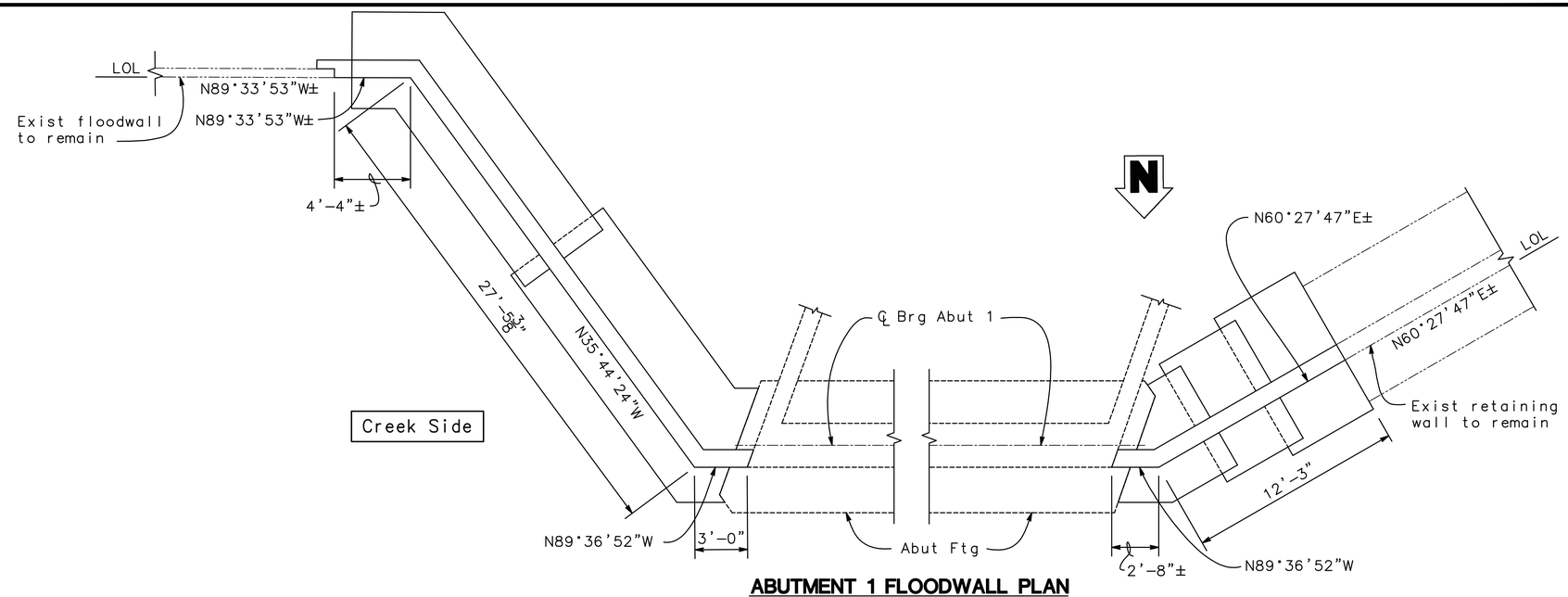
BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 116
DESIGNED BY: JP		S22 of S30
DRAWN BY: GB		OF 124 SHEETS
CHECKED BY: TP	CITY ENGINEER	PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA	05-17

DESIGN NOTES

DESIGN:
US Army Corps Engineers ENGINEERING AND DESIGN OF RETAINING AND FLOOD WALLS (EM 1110-2-2502, 29 SEPT 1989)
200 year WSE = 21.78

SOIL PARAMETERS:
(For determination of design lateral earth pressure on wall).
γ = 130 pcf
ϕ = 33°

CONCRETE:
f'c = 4 ksi
fy = 60 ksi

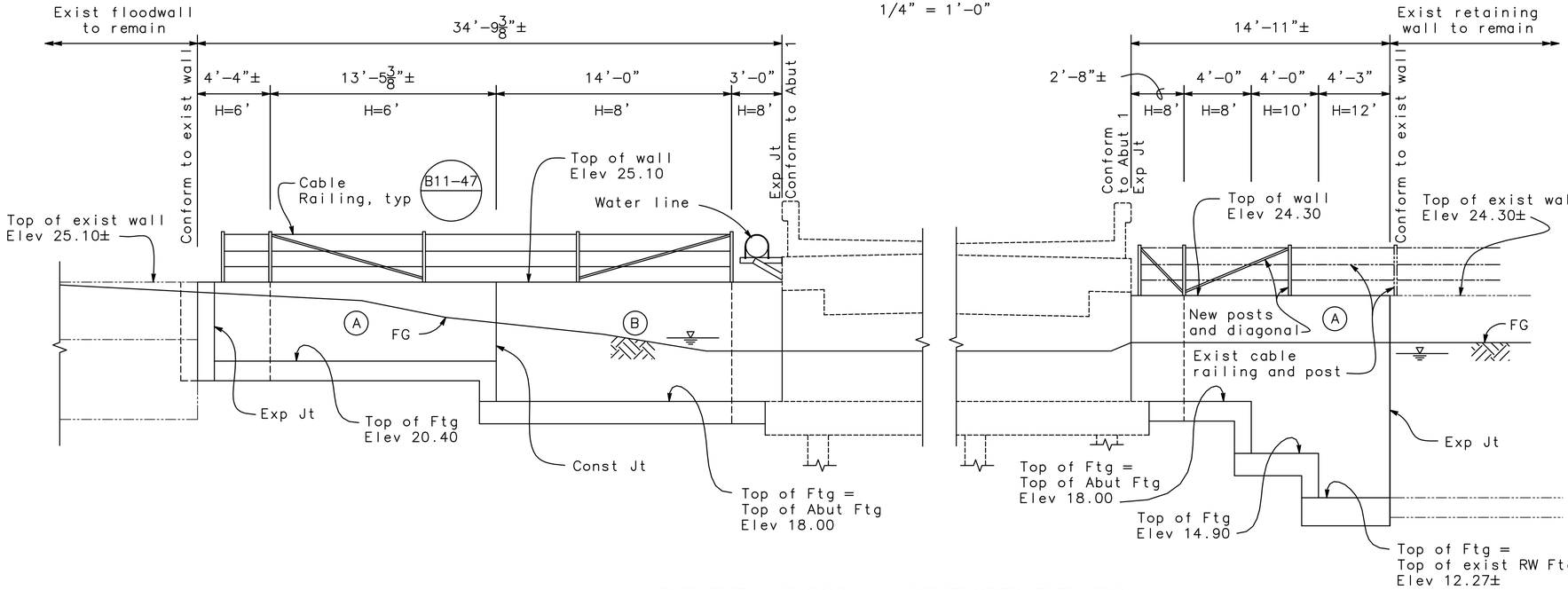


ABUTMENT 1 FLOODWALL PLAN
1/4" = 1'-0"

ABBREVIATIONS:
FW Floodwall

NOTES:

1. The Contractor shall verify all controlling field dimensions and field conditions, and coordinate all plans and details before ordering or fabricating any material.
2. The Contractor shall coordinate all inspections, including inspection by the Geotechnical Engineer and inspection of reinforcing bar placement and waterstop placement by the Engineer with minimum 48 hours advance notices to all parties.
3. Joints shall not be permitted at any angle point. All joints shown are mandatory and shall be perpendicular to the face of wall.
4. For expansion joint and construction joint details, see "Floodwall Details No. 1", "Floodwall Details No. 2" and "Floodwall Details No. 3" sheets.
5. Floodwall design height shown is intended to specify dimensions and reinforcing shown in the table on "Floodwall Details No. 1" sheet. Design height shown is irrespective of actual floodwall height.
6. For reinforcement details at angle points and footing steps, see "Floodwall Details No. 1" sheet.
7. Ⓐ and Ⓑ designate the schedule of concrete pours for the stem wall. The order may be interchaged with the Engineer's approval.
8. The later stem wall pour shall be after 20 days of curing of the earlier stem wall pour.
9. The Contractor may use Simpson "Set 22" or "Covert operations CIA Gel 7000" adhesive for drill and epoxy bond dowels. All epoxy bond dowels shall be installed per the manufacturer's recommendation.



ABUTMENT 1 FLOODWALL DEVELOPED ELEVATION
1/4" = 1'-0"

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

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05/07/10 | 06/09/10 | 06/18/10 | 06/30/10 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
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Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

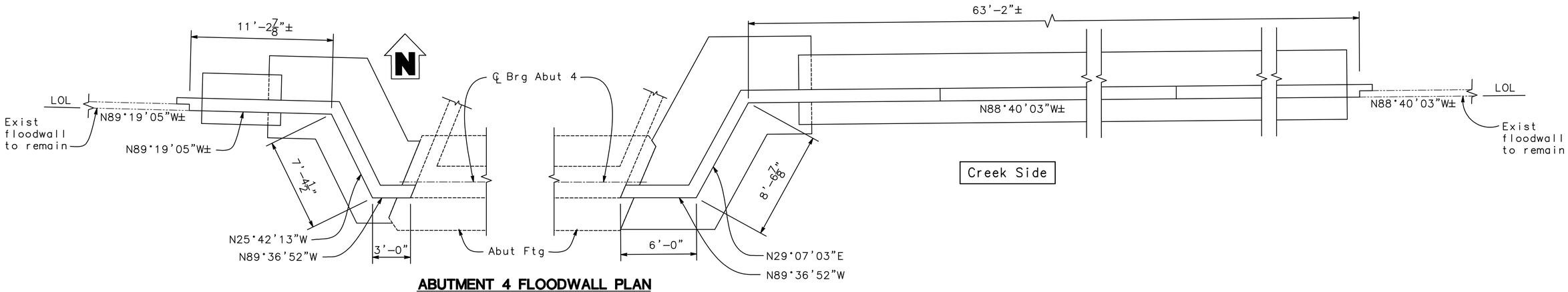
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

FLOODWALL LAYOUT NO. 1

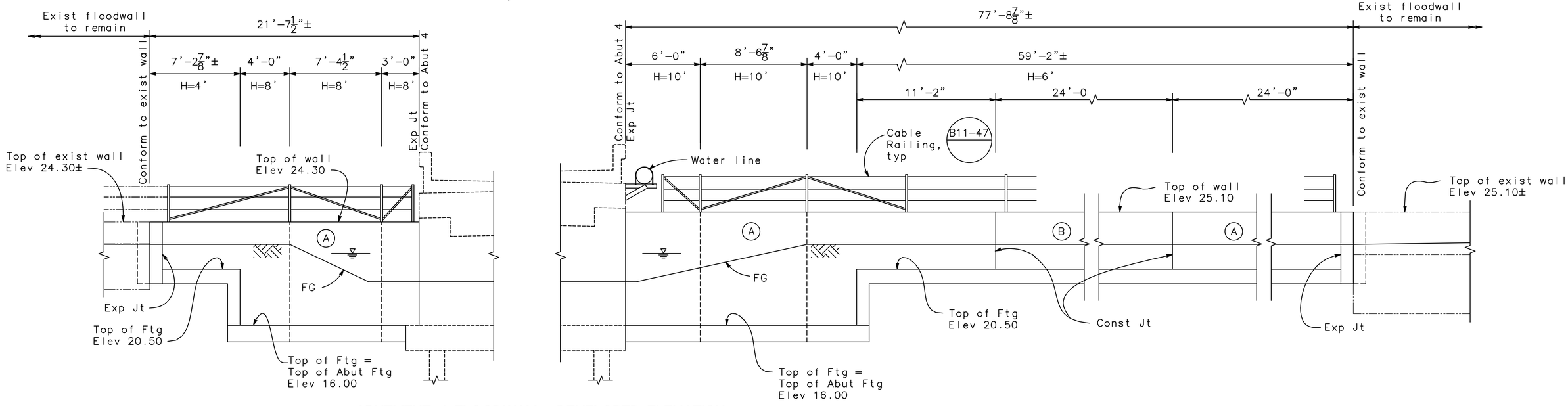
CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 117
DESIGNED BY: HM		S23 of S30
DRAWN BY: CB		OF 124 SHEETS
CHECKED BY: JP	CITY ENGINEER STOCKTON, CALIFORNIA	PROJECT NO. 05-17
RECORD DWG:		



ABUTMENT 4 FLOODWALL PLAN

1/4" = 1'-0"



ABUTMENT 4 FLOODWALL DEVELOPED ELEVATION

1/4" = 1'-0"

NOTES:

1. The Contractor shall verify all controlling field dimensions and field conditions, and coordinate all plans and details before ordering or fabricating any material.
2. The Contractor shall coordinate all inspections, including inspection by the Geotechnical Engineer and inspection of reinforcing bar placement and waterstop placement by the Engineer with minimum 48 hours advance notices to all parties.
3. Joints shall not be permitted at any angle point. All joints shown are mandatory and shall be perpendicular to the face of wall.
4. For expansion joint and construction jonts details, see "Floodwall Details No. 1", "Floodwall Details No. 2" and "Floodwall Details No. 3" sheets.
5. Floodwall design height shown is intended to specify dimensions and reinforcing shown in the table on "Floodwall Details No. 1" sheet. Design height shown is irrespective of actual floodwall height.
6. For reinforcement details at angle points and footing steps, see "Floodwall Details No. 1" sheet.
7. (A) and (B) designate the schedule of concrete pours for the stem wall. The order may be interchaged with the Engineer's approval.
8. The later stem wall pour shall be after 20 days of curing of the earlier stem wall pour.
9. The Contractor may use Simpson "Set 22" or "Covert operations CIA Gel 7000" adhesive for drill and epoxy bond dowels. All epoxy bond dowels shall be installed per the manufacturer's recommendation.

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

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05/07/10 | 06/09/10 | 06/18/10 | 06/30/10 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

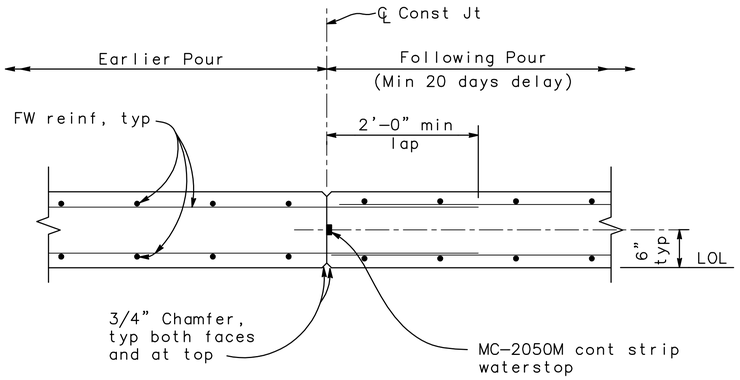
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

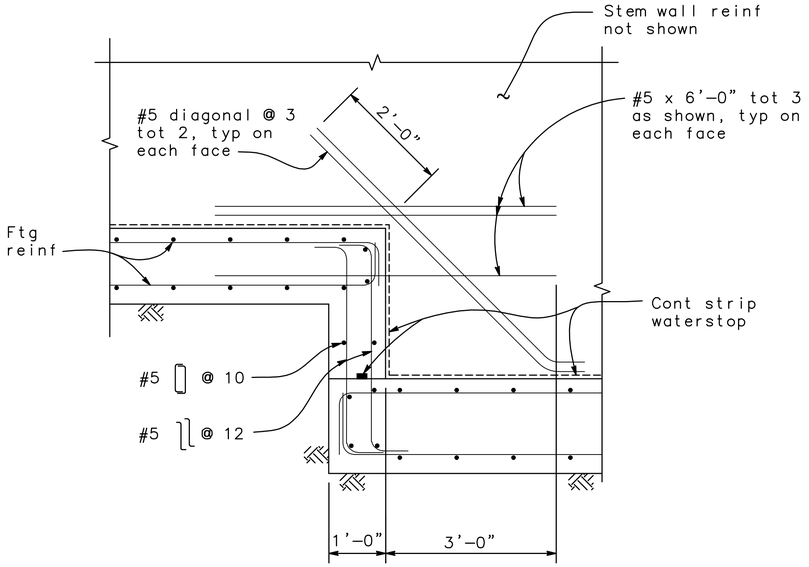
FLOODWALL LAYOUT NO. 2

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 (DATE)
DESIGNED BY: HM	CITY ENGINEER, STOCKTON, CALIFORNIA
DRAWN BY: CB	SHEET NO. 118
CHECKED BY: JP	S24 of S30
RECORD DWG:	OF 124 SHEETS
	PROJECT NO. 05-17

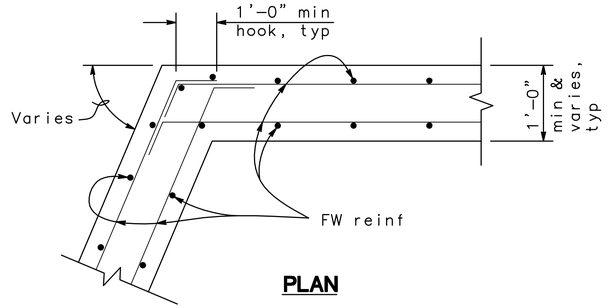


CONSTRUCTION JOINT
NO SCALE



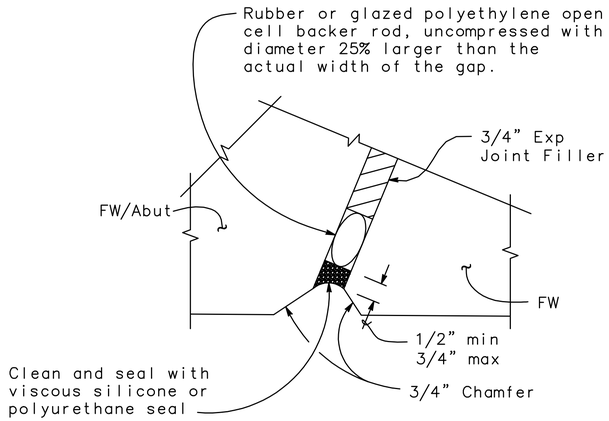
Note: This detail is only applicable at step locations not associated with a construction joint in the stem wall.

STEPPED FOOTING DETAIL
NO SCALE



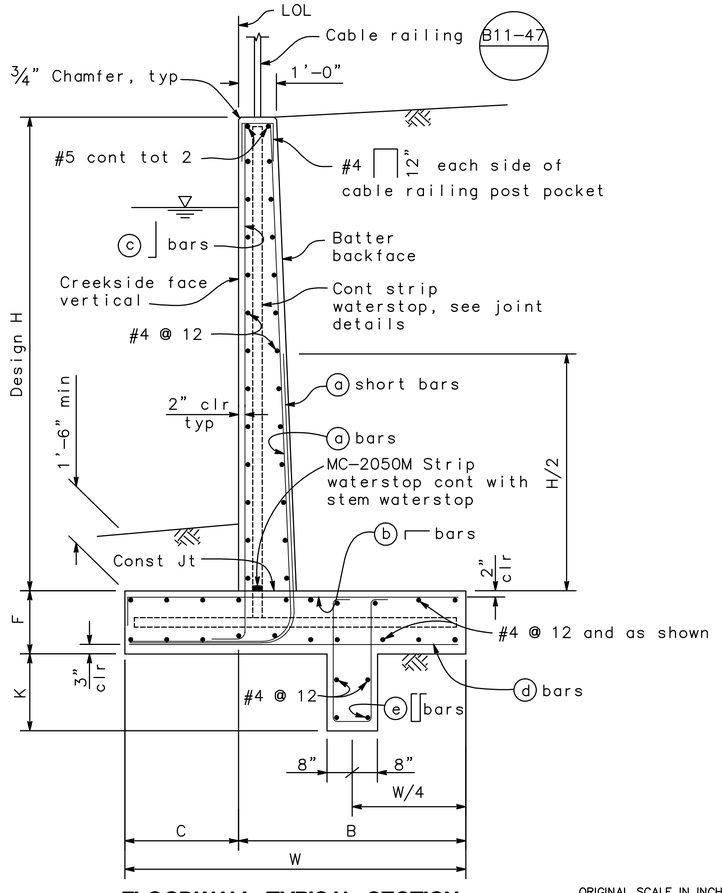
PLAN

CORNER REINFORCEMENT
NO SCALE



NOTE: This caulking detail shall be continuous full height on both faces and on top of stem walls.

CAULKING DETAIL
NO SCALE



FLOODWALL TYPICAL SECTION
1/2" = 1'-0"

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

TABLE OF REINFORCING STEEL DIMENSIONS AND DATA

Design H	14'	12'	10'	8'	6'	4'
W	10'-6"	9'-0"	7'-9"	6'-6"	5'-6"	4'-0"
C	3'-6"	3'-0"	2'-6"	2'-0"	1'-9"	1'-0"
B	7'-0"	6'-0"	5'-3"	4'-6"	3'-9"	3'-0"
F	1'-8"	1'-8"	1'-4"	1'-4"	1'-2"	1'-2"
K	3'-10"	3'-0"	2'-6"	1'-8"	1'-0"	1'-0"
Batter	1/2:12	1/2:12	1/2:12	1/2:12	–	–
ⓐ bars	#7 @ 10	#7 @ 12	#6 @ 12	#5 @ 12	#5 @ 10	#5 @ 12
* ⓐ short bars	#7 @ 10	#7 @ 12	#6 @ 12	#5 @ 12	–	–
ⓑ bars	#7 @ 5	#7 @ 6	#6 @ 6	#5 @ 6	#5 @ 10	#5 @ 12
ⓒ bars	#6 @ 10	#6 @ 12	#5 @ 12	#5 @ 12	#5 @ 12	#5 @ 12
ⓓ bars	#6 @ 10	#6 @ 12	#5 @ 12	#5 @ 12	#5 @ 12	#5 @ 12
ⓔ bars	#5 @ 10	#5 @ 12	#4 @ 12	#4 @ 12	#4 @ 12	–

* ⓐ short bars shall be installed in between ⓐ bars

NOTES:

1. Floodwall footing and footing key shall be poured monolithic against compacted sub-base.
2. No splices allowed in floodwall ⓐ, ⓑ, ⓒ or ⓓ bars.
3. For additional joint details and strip waterstop related notes, see "Floodwall Details No. 2" and "Floodwall Details No. 3" sheets.

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05/07/10 | ~~06/09/10~~ | ~~06/16/10~~ | 06/30/10 | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

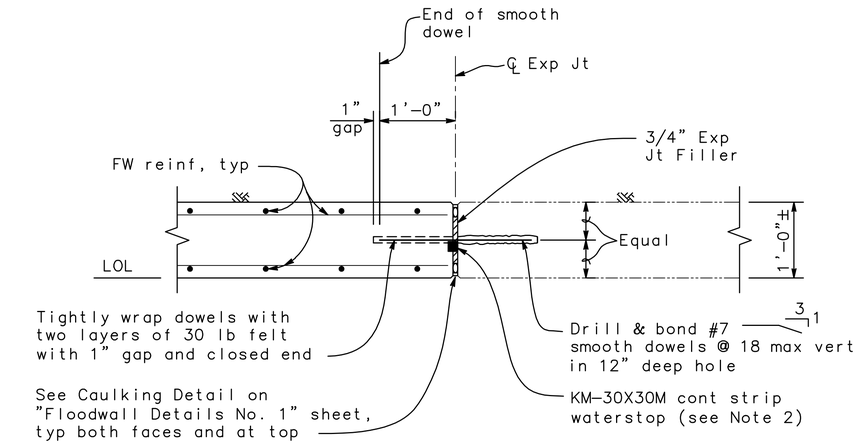
FLOODWALL DETAILS NO. 1

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443
DESIGNED BY: HM
DRAWN BY: CB
CHECKED BY: JP
RECORD DWG:

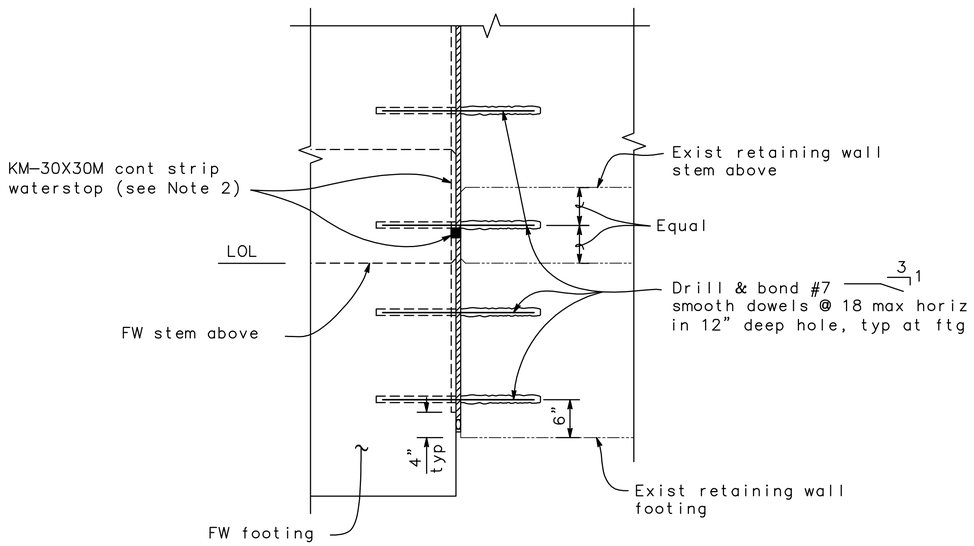
APPROVED BY: JULY 12, 2010
DATE
CITY ENGINEER
STOCKTON, CALIFORNIA

SHEET NO. 119
S25 of S30
OF 124 SHEETS
PROJECT NO.
05-17



SECTION G-G (PLAN VIEW)

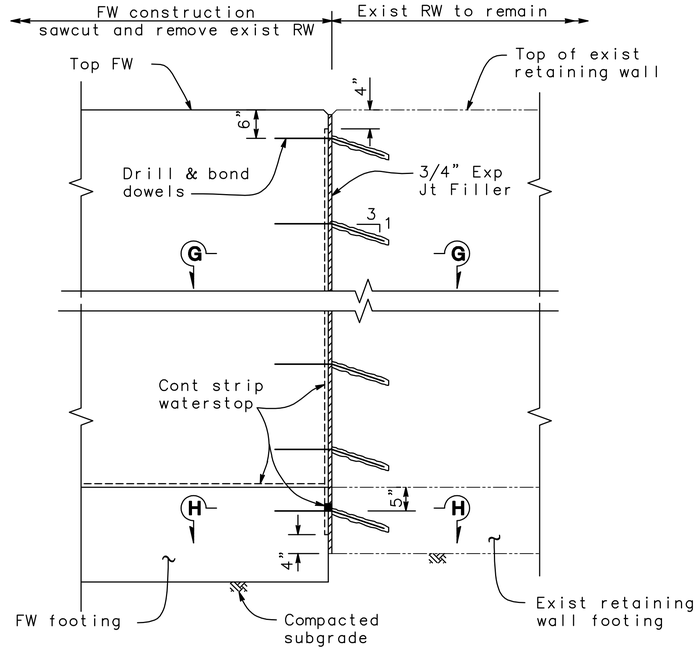
NO SCALE



Note: For details not shown, see Section G-G

SECTION H-H (PLAN VIEW)

NO SCALE



FLOODWALL CONNECTION TO EXISTING RETAINING WALL (ELEVATION VIEW)

NO SCALE

NOTES:

1. The Contractor shall verify all controlling field dimensions and field conditions, and coordinate all plans and details before ordering or fabricating any material.
2. Strip waterstop shall be hydrophilic material as manufactured by ADEKA ULTRA SEAL of type and sizes shown or approved equal, installed per manufacturer's recommendations to ensure full watertightness. For substitute items, the Contractor shall submit catalog cuts, manufacturer's specifications, installation procedures and guaranty statement to the City for written approvals prior to purchase. Strip waterstops shall be continuous, except they shall be cut 4" short of the open ends.
3. Unless otherwise noted, all expansion joint fillers shall be pre-molded asphalt impregnated fibrous filler material, bonded to concrete.
4. At all construction joints, entire concrete contact surface (except widths equal to strip waterstops) shall be roughened to ¼" amplitude and cleaned prior to next concrete pour, unless otherwise noted.
5. Through removable form-ties shall not be acceptable. Only snap-off type metal or plastic form-ties shall be used and the holes (from snapped ends) shall be repaired with non-shrink, nonmetallic grout of the same color as concrete.
6. Smooth dowels shall be ASTM 307 Grade 60 or Grade 40 bars galvanized after fabrication. Contractor may substituted galvanized smooth dowels with smooth stainless steel (AISI type 300/304) or equivalent at no additional cost.

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

MARK THOMAS & COMPANY, INC.
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(916) 381-9100 FAX: (916) 381-9180

06/09/10 | 06/15/10 | 06/30/10 | | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

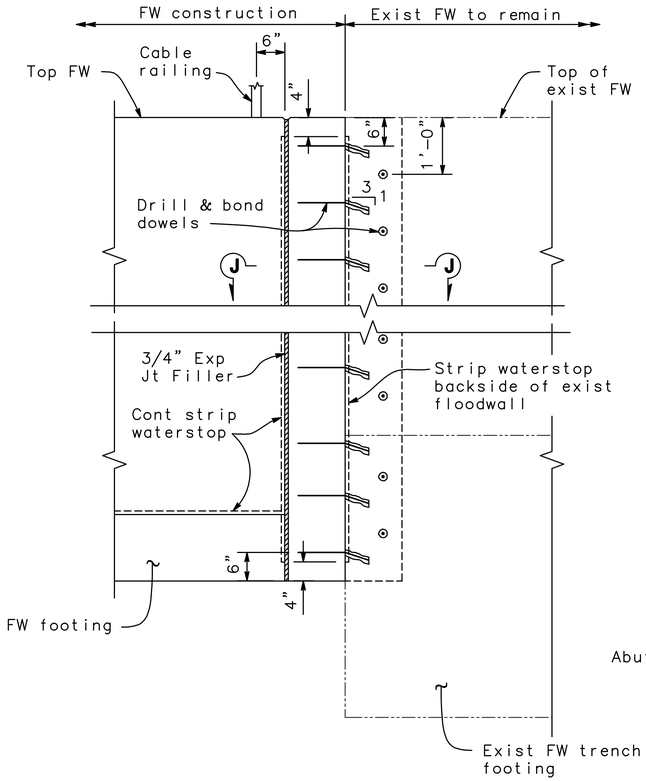
Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

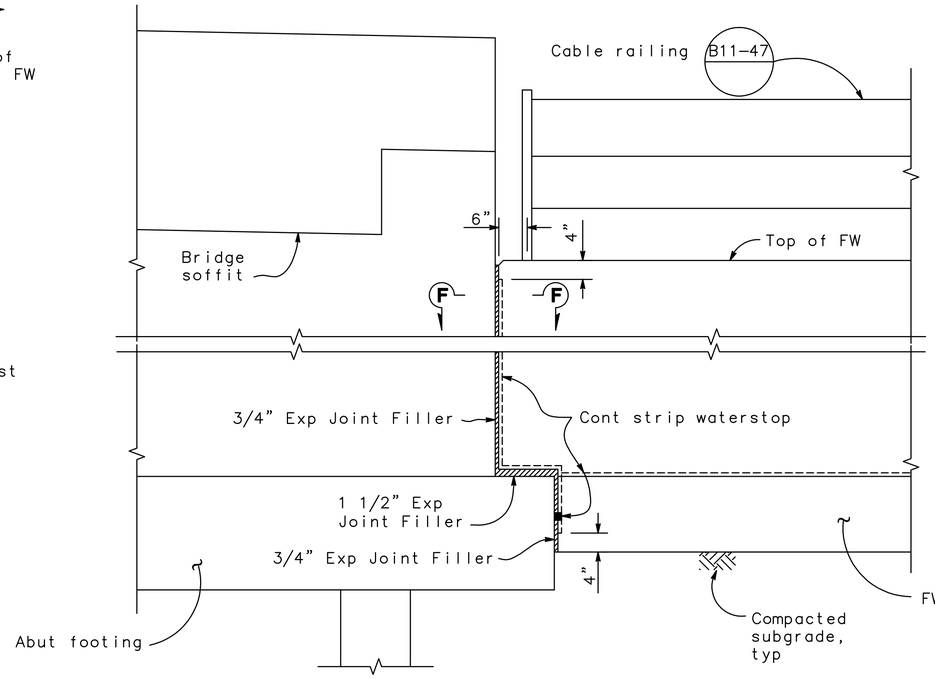
FLOODWALL DETAILS NO. 2

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

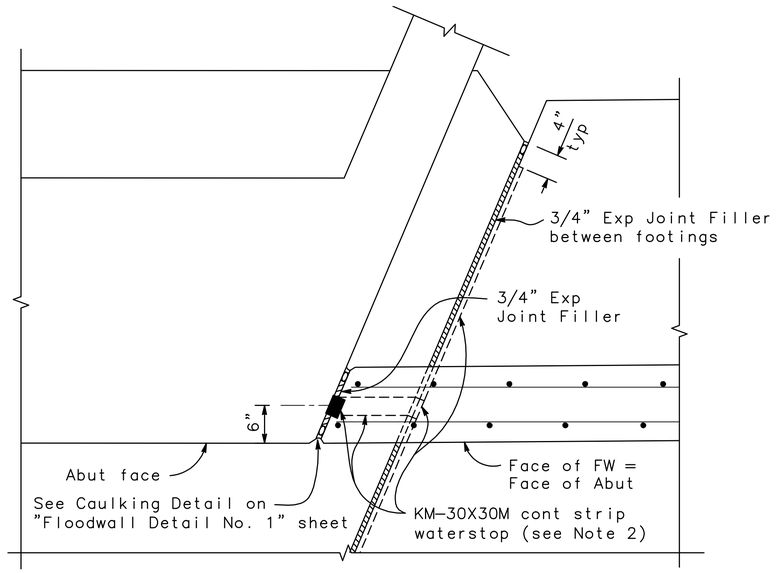
BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 120
DESIGNED BY: HM	CITY ENGINEER	S26 of S30
DRAWN BY: GB	STOCKTON, CALIFORNIA	OF 124 SHEETS
CHECKED BY: JP		PROJECT NO. 05-17
RECORD DWG:		



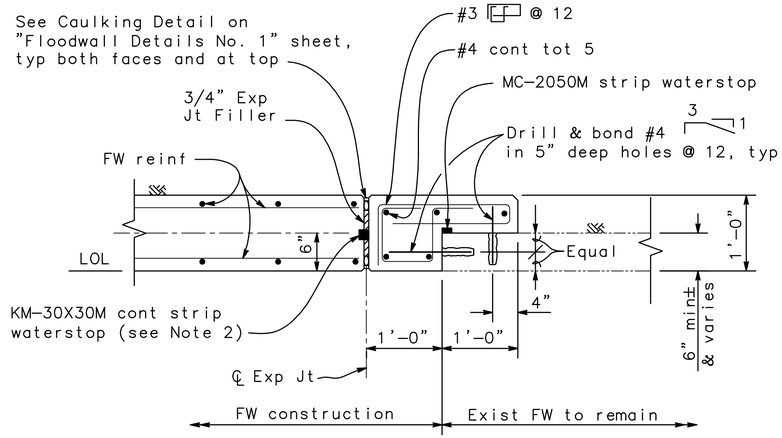
FLOODWALL CONNECTION TO EXISTING FLOODWALL (ELEVATION VIEW)
NO SCALE



FLOODWALL CONNECTION TO ABUTMENT (ELEVATION VIEW)
NO SCALE



SECTION F-F (PLAN VIEW)
NO SCALE



SECTION J-J (PLAN VIEW)
NO SCALE

NOTES:

1. The Contractor shall verify all controlling field dimensions and field conditions, and coordinate all plans and details before ordering or fabricating any material.
2. Strip waterstop shall be hydrophilic material as manufactured by ADEKA ULTRA SEAL of type and sizes shown or approved equal, installed per manufacturer's recommendations to ensure full watertightness. For substitute items, the Contractor shall submit catalog cuts, manufacturer's specifications, installation procedures and guaranty statement to the City for written approvals prior to purchase. Strip waterstops shall be continuous, except they shall be cut 4" short of the open ends.
3. Unless otherwise noted, all expansion joint fillers shall be pre-molded asphalt impregnated fibrous filler material, bonded to concrete.
4. At all construction joints, entire concrete contact surface (except widths equal to strip waterstops) shall be roughened to ¼"amplitude and cleaned prior to next concrete pour, unless otherwise noted.
5. Through removable form-ties shall not be acceptable. Only snap-off type metal or plastic form-ties shall be used and the holes (from snapped ends) shall be repaired with non-shrink, nonmetallic grout of the same color as concrete.
6. Smooth dowels shall be ASTM 307 Grade 60 or Grade 40 bars galvanized after fabrication. Contractor may substituted galvanized smooth dowels with smooth stainless steel (AISI type 300/304) or equivalent at no additional cost.

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

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06/08/10 | ~~06/17/10~~ | 06/30/10 | | MTCO JOB NUMBER: 57-0221B

REGISTERED PROFESSIONAL ENGINEER
PO-KANG CHEN
No. S3112
Exp. 9/30/11
STRUCTURAL
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

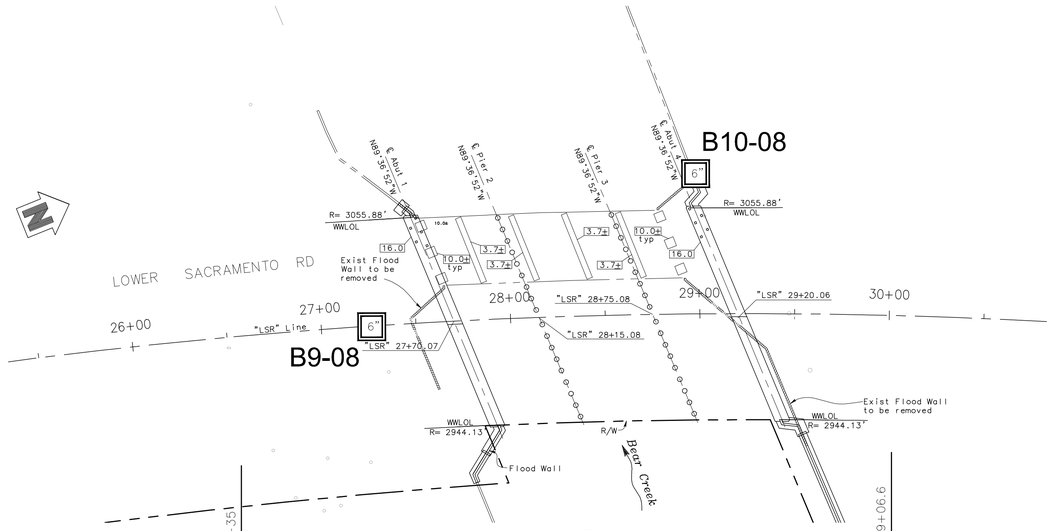
FLOODWALL DETAILS NO. 3

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO. 121
DESIGNED BY: HM		S27 of S30
DRAWN BY: CB		OF 124 SHEETS
CHECKED BY: JP	CITY ENGINEER	PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA	05-17

BENCHMARK

City of Stockton BM #4 Monument #IN-10, a Brass Disk in monument well located at the intersection of Davis Road and Eight Mile Road. Elevation 17.53 feet (NGVD 29 Datum)

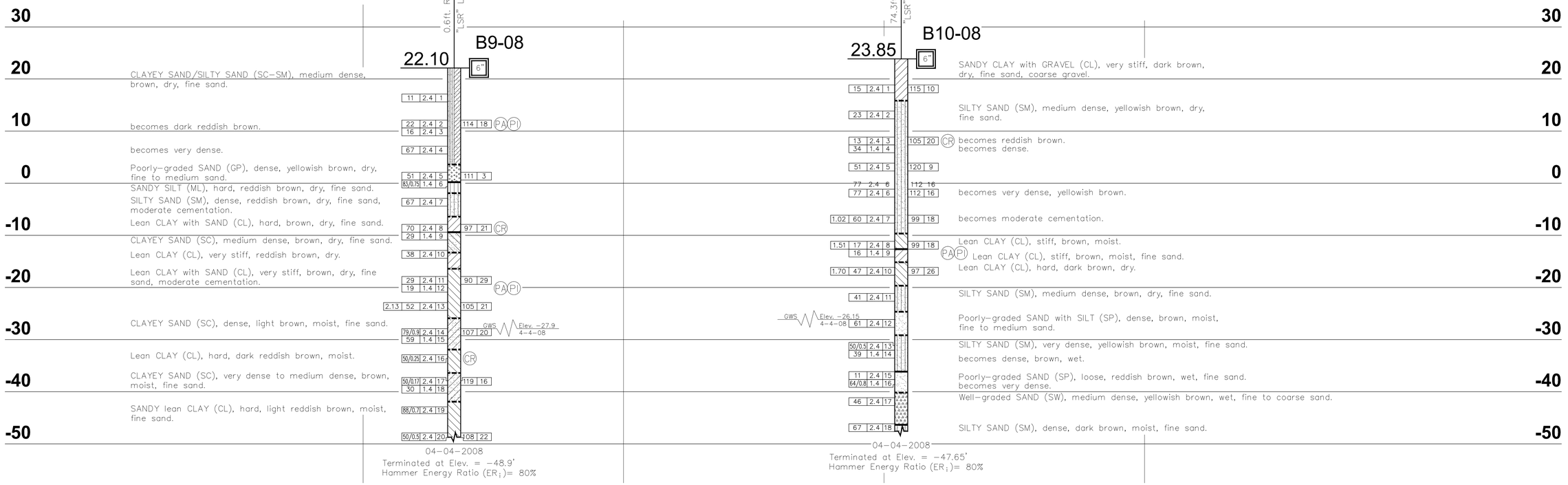


PLAN
1" = 40'

LEGEND

- Indicates Bottom of Footing Elevation
- Indicates Precast Prestressed Concrete Pile (All Piles Not Shown)
- Indicates CIDH Pile
- Indicates Existing Structure

NOTES:
1. Field classification of soils was in accordance with ASTM D 2488-00 "Description and Identification of Soils (Visual-Manual Procedure)".
2. Standard Penetration tests were performed in accordance with ASTM D 1586-99 using a hammer operated with an automated drop system. Drill rods were 1 5/8-inch diameter "A"-rods; sampler was driven without brass liners.
3. "2.5 inch sampler": ID=2.5 inch, OD=2.9 inch. Driven in same manner as SPT ("1.4 inch") sampler.
4. The length of each sampled interval is shown graphically on the boring log. Whole number blow counts ("N") represent the "standard penetration resistance" interval in accordance with ASTM D1586-99. Where less than 1 foot of penetration is achieved, the blow count shown is for that fraction of the "standard penetration resistance" interval actually penetrated.
5. Consistency of soils shown in ( ) where estimated.
6. Ground water surface elevations in the borings indicated on the Log of Test Boring Sheets reflect the fluid level in the borings on the specified date.
7. Ground water surface elevations are subject to seasonal fluctuations and may occur at higher or lower elevations depending on the conditions at any particular time.
8. Electronic media for plan view provided by Mark Thomas & Company, December 2008.
9. The "Log of Test Borings" drawing is included with plans in accordance with Section 2-1.03 of Caltrans "Standard Specifications".



PROFILE
VERT. 1" = 10'
HOR. 1" = 20'

ORIGINAL SCALE IN INCHES
FOR REDUCED PLAN
0 1 2 3

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

LOG OF TEST BORINGS 1 OF 3

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CALIFORNIA 95691
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01/13/09 | 08/31/09 | 05/07/10 | 06/30/10 | BCI JOB NUMBER: 879.5

REGISTERED PROFESSIONAL GEOLOGIST
WILLIAM E. NICHOLS
No. CEG 2229
01/31/12
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE
DESIGNED BY: WEN	CITY ENGINEER STOCKTON, CALIFORNIA
DRAWN BY: MDR	SHEET NO.122
CHECKED BY: WEN	S28 of S30
RECORD DWG:	OF 124 SHEETS
	PROJECT NO. 05-17

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL, (JUNE, 2007)

GROUP SYMBOLS AND NAMES

Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
GW	Well-graded GRAVEL Well-graded GRAVEL with SAND	CL	Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
GP	Poorly-graded GRAVEL Poorly-graded GRAVEL with SAND		
GW-GM	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND	CL-ML	SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
GW-GC	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GP-GM	Poorly-graded GRAVEL with SILT Poorly-graded GRAVEL with SILT and SAND	ML	SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
GP-GC	Poorly-graded GRAVEL with CLAY (or SILTY CLAY) Poorly-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
GM	SILTY GRAVEL SILTY GRAVEL with SAND	OL	ORGANIC lean Clay ORGANIC lean Clay with SAND ORGANIC lean Clay with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
GC	CLAYEY GRAVEL CLAYEY GRAVEL with SAND		
GC-GM	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND	OL	ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
SW	Well-graded SAND Well-graded SAND with GRAVEL		
SP	Poorly-graded SAND Poorly-graded SAND with GRAVEL	CH	Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
SW-SM	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		
SW-SC	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	MH	Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
SP-SM	Poorly-graded SAND with SILT Poorly-graded SAND with SILT and GRAVEL		
SP-SC	Poorly-graded SAND with CLAY (or SILTY CLAY) Poorly-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)	OH	ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
SM	SILTY SAND SILTY SAND with GRAVEL		
SC	CLAYEY SAND CLAYEY SAND with GRAVEL	OH	ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
SC-SM	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL		
PT	PEAT	OH	ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	COBBLES COBBLES and BOULDERS BOULDERS		

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435-04)
- (CL) Collapse Potential (ASTM D 5333-03)
- (CP) Compaction Curve (CTM 216-06)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767-04)
- (DS) Direct Shear (ASTM D 3080-04)
- (EI) Expansion Index (ASTM D 4829-03)
- (M) Moisture Content (ASTM D 2216-05)
- (OC) Organic Content-% (ASTM D 2974-07)
- (P) Permeability (CTM 220-05)
- (PA) Particle Size Analysis (ASTM D 422-63) (2002)
- (PI) Plasticity Index (AASHTO T 90-00) Liquid Limit (AASHTO T 89-02)
- (PL) Point Load Index (ASTM D 5731-05)
- (PM) Pressure Meter
- (PP) Pocket Penetrometer
- (R) R-Value (CTM 301-00)
- (SE) Sand Equivalent (CTM 217-99)
- (SG) Specific Gravity (AASHTO T 100-06)
- (SL) Shrinkage Limit (ASTM D 427-04)
- (SW) Swell Potential (ASTM D 4546-03)
- (TV) Pocket Torvane
- (UC) Unconfined Compression-Soil (ASTM D 2166-06) Unconfined Compression-Rock (ASTM D 2938-95) (2002)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850-03)
- (UW) Unit Weight (ASTM D 2937-04)
- (VS) Vane Shear (AASHTO T 223-96) (2004)
- (LT) Unconfined Compressive Strength of Lime Treated Soil/Aggregates (CTM 373-00)

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N_{60} -Value (Blows / 12 in.)
Very Loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

PARTICLE SIZE

Description		Size
Boulder		>12 in.
Cobble		3 to 12 in.
Gravel	Coarse	3/4 to 3 in.
	Fine	No. 4 to 3/4 in.
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

CEMENTATION

Description	Criteria
Weak	Crumbles or breaks with handling or little finger pressure
Moderate	Crumbles or breaks with considerable finger pressure
Strong	Will not crumble or break with finger pressure

CONSISTENCY OF COHESIVE SOILS

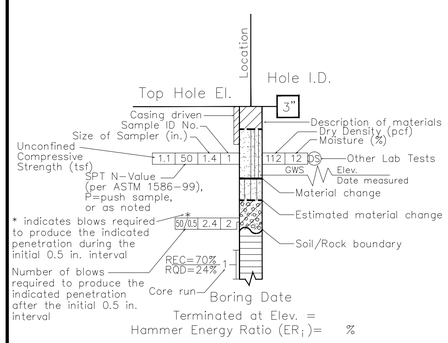
Description	Unconfined Compressive Strength (tsf)	Pocket Penetrometer Measurement (tsf)	Torvane Measurement (tsf)	Field Approximation
Very Soft	<0.25	<0.25	<0.12	Easily penetrated several inches by fist
Soft	0.25 to 0.50	0.25 to 0.50	0.12 to 0.25	Easily penetrated several inches by thumb
Medium Stiff	0.50 to 1.0	0.50 to 1.0	0.25 to 0.50	Penetrated several inches by thumb with moderate effort
Stiff	1 to 2	1 to 2	0.50 to 1.0	Readily indented by thumb but penetrated only with great effort
Very Stiff	2 to 4	2 to 4	1.0 to 2.0	Readily indented by thumbnail
Hard	> 4.0	> 4.0	> 2.0	Indented by thumbnail with difficulty

PLASTICITY OF FINE-GRAINED SOILS

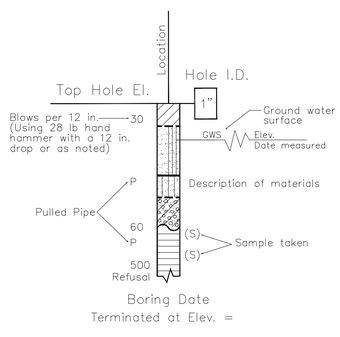
Description	Criteria
Nonplastic	A 1/8-in. thread cannot be rolled at any water content.
Low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be rerolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.

BOREHOLE IDENTIFICATION

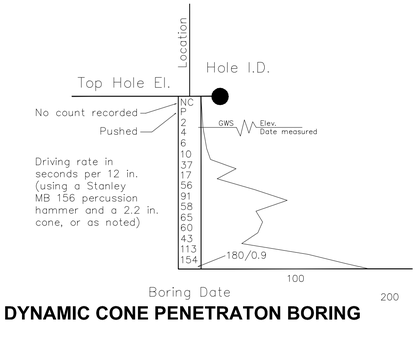
Symbol	Hole Type	Description
Size	A	Auger Boring
Size	R P	Rotary drilled boring Rotary percussion boring (air)
Size	R	Rotary drilled diamond core
Size	HD HA	Hand driven (1-inch soil tube) Hand Auger
	D	Dynamic Cone Penetration Boring
	CPT	Cone Penetration Test (ASTM D 5778-95)
Size	T	Backhoe Test Pit



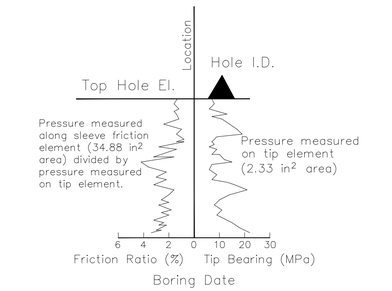
ROTARY BORING



HAND BORING



DYNAMIC CONE PENETRATON BORING



CONE PENETRATON TEST (CPT) SOUNDING

SOIL LEGEND

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

LOG OF TEST BORINGS 2 OF 3

ORIGINAL SCALE IN INCHES FOR REDUCED PLAN

0 1 2 3

blackburn consulting

BLACKBURN CONSULTING
2491 BOATMAN AVENUE
WEST SACRAMENTO, CALIFORNIA 95691
(916) 375-8706 FAX: (916) 375-8709

01/13/09 | 08/31/09 | 05/07/10 | 06/30/10 | BCI JOB NUMBER: 879.5

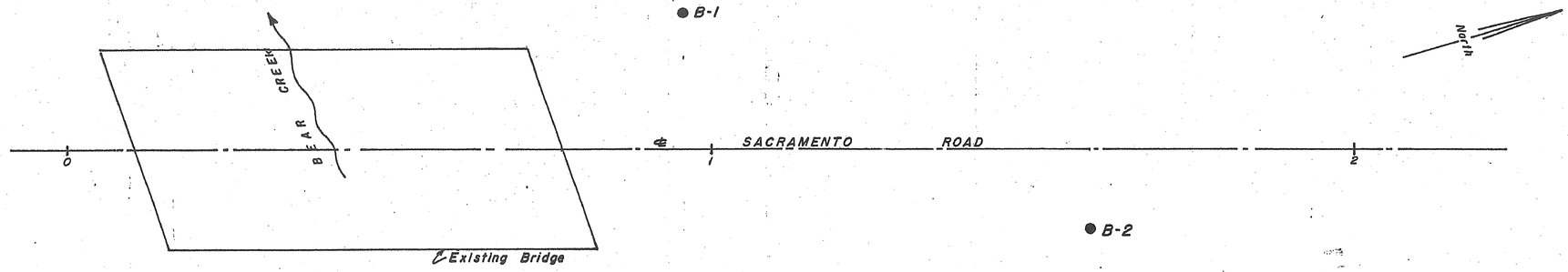
REGISTERED PROFESSIONAL GEOLOGIST
WILLIAM E. NICHOLS
No. CEG 2229
Exp. 01/31/12
STATE OF CALIFORNIA

Revision No.	Description	Date	By	Aprvd. By

CITY OF STOCKTON
PUBLIC WORKS DEPARTMENT

BRIDGE NO.: 29C0443	APPROVED BY: JULY 12, 2010 DATE	SHEET NO.123
DESIGNED BY: WEN		S29 of S30
DRAWN BY: MDR		OF 124 SHEETS
CHECKED BY: WEN	CITY ENGINEER	PROJECT NO.
RECORD DWG:	STOCKTON, CALIFORNIA	05-17

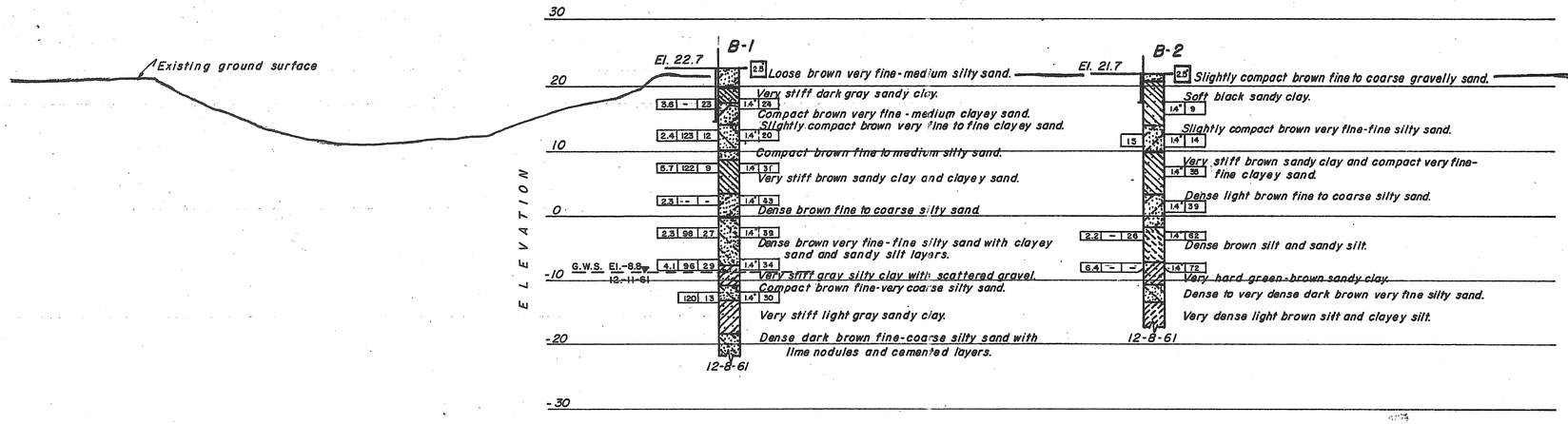
PLOT DATE: Jul 13, 2010-05:34:53pm
FILE NAME: 03 NSGS_LSBC LOTB
PATH: Z:\Active Projects\879.X - Stockton Bridges\879.5 - Lower Sacramento Road_UPRR\CAD Drawings\



PLAN

NOTE

B.M. North end of bridge at ℄ of road.
El. 22.7



PROFILE

As-Built Log of Test Borings sheet is considered an informational document only. As such, the State of California registration seal with signature, license number and registration certificate expiration date confirm that this is a true and accurate copy of the original document. It does not attest to the accuracy or validity of the information contained in the original document. This drawing is available and presented only for the convenience of any bidder, contractor or other interested party.

DIST.	COUNTY	ROUTE	MILEPOST–PROJECT	SHEET NO.	TOTAL SHEETS
10	SJ	C.R.	101.32		

W. Ervin Nichols
REGISTERED ENGINEERING GEOLOGIST

LOWER SACRAMENTO RD BRIDGE AT BEAR CREEK (REPLACE)

LOG OF TEST BORINGS 3 OF 3

NOTE: A COPY OF THIS LOG OF TEST BORINGS IS AVAILABLE AT OFFICE OF STRUCTURE MAINTENANCE AND INVESTIGATIONS, SACRAMENTO, CALIFORNIA.

CU:
EA:

BRIDGE NO. 29C0443

SHEET NO. 124
S30 of S30
OF 124 SHEETS
PROJECT NO. 05-17

PROFESSIONAL GEOLOGIST
William E. Nichols
No. 2229
Exp. 1-31-12
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

a.l.s.

LEGEND OF EARTH MATERIALS

SIZE CLASSIFICATION

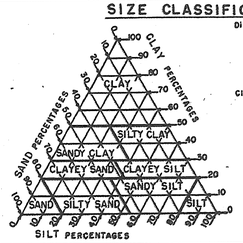


Diagram showing the basis of grainsize distribution used in determination of class names. Size classification is based on the Wentworth grade scale in field classification or the A.S.T.M. grade scale in the laboratory sieve analysis.

Classification of earth material shown on this sheet is based on field inspection and should not be construed to imply mechanical analysis unless so stated.

MATERIAL SYMBOLS

- Gravel
- Sand
- Silt
- Clay
- Sandy clay or clayey sand
- Sandy silt or silty sand
- Silty clay or clayey silt
- Peat or organic matter
- Fill material
- Shale
- Sandstone
- Limestone
- Metamorphic rock
- Igneous rock

CONSISTENCY CLASSIFICATION

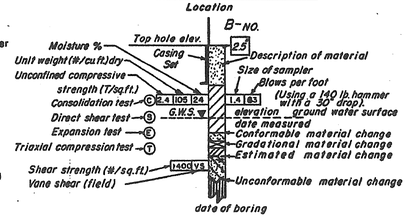
According to the Standard Penetration Test.

No. of blows	Granular	Cohesive
0-5	very loose	very soft
6-10	loose	soft
11-20	slightly compact	stiff
21-35	compact	very stiff
36-70	dense	hard
70+	very dense	very hard

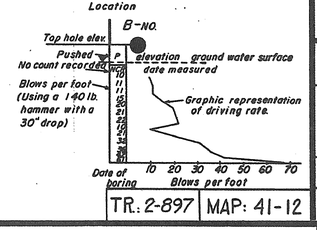
LEGEND OF BORING OPERATIONS

- Plan of any boring
- Flush penetrometer
- 2.5" Cone penetrometer
- Rotary boring
- Auger boring
- Sample boring
- Jet boring
- Diamond core boring
- Test pit

ROTARY BORING



PENETRATION TEST



MOORE and TABER
Engineers — Geologists

Job No. 3164F-3

APPROVED H. R. Taber 12-26-61
LICENSED CIVIL ENGINEER No. 9165

THE RECLAMATION BOARD
STATE OF CALIFORNIA

BEAR CREEK BRIDGE AT SACRAMENTO ROAD

LOG OF TEST BORINGS

TR: 2-897 | MAP: 41-12 | Scale 1" = 10' | Date Dec. 20, 1961 | File | Drawing 9 of 24

VERNLITE CLEARPRINT 1000H