



SUBMITTAL TO THE FLOOD CONTROL AND WATER CONSERVATION DISTRICT BOARD COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

107B

FISCAL PROCEDURES APPROVED
WARREN M. CHAND, FINANCE DIRECTOR
5/5/11
WARREN M. CHAND

FORM APPROVED COUNTY COUNSEL
NEAL R. KIPNIS
DATE 5/4/11
R/K

Departmental Concurrence

FROM: General Manager-Chief Engineer

SUBMITTAL DATE:
May 24, 2011

SUBJECT: Project Award – Corona Drains – East Ontario Avenue Storm Drain, Stages 1 and 2
Corona Drains Line 1G, Stage 2
Project No. 2-0-00351-01

RECOMMENDED MOTION:

The Board approve the low bid submitted by the firm of Belczak & Sons, Inc. for \$3,580,074.05, for the construction of the above referenced project.

Authorize the Chairman to execute the contract on behalf of the District.

BACKGROUND:

The bid documents have been reviewed and approved for award by County Counsel.

FINANCIAL:

Funds are included in the District's FY 2010-2011 Zone 2 budget for this project.

Warren D. Williams
WARREN D. WILLIAMS
General Manager-Chief Engineer

FINANCIAL DATA	Current F.Y. District Cost:	\$3,580,074.05	In Current Year Budget:	Yes
	Current F.Y. County Cost:	N/A	Budget Adjustment:	No
	Annual Net District Cost:	N/A	For Fiscal Year:	2010-2011

SOURCE OF FUNDS: 25120 947420 527980 Zone 2 Const/Maint/Misc-Contracts	Positions To Be Deleted Per A-30	<input type="checkbox"/>
	Requires 4/5 Vote	<input type="checkbox"/>

C.E.O. RECOMMENDATION:

APPROVE

BY: *Michael R. Shetler*
Michael R. Shetler

County Executive Office Signature

Dep't Recomm.: Consent Policy
Per Exec. Ofc.: Consent Policy

MINUTES OF THE FLOOD CONTROL AND WATER CONSERVATION DISTRICT

On motion of Supervisor Ashley, seconded by Supervisor Benoit and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Buster, Tavaglione, Stone, Benoit and Ashley
Nays: None
Absent: None
Date: May 24, 2011
xc: Flood

Kecia Harper-Ihem
Clerk of the Board
By: *Kecia Harper-Ihem*
Deputy

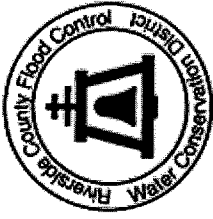
Prev. Agn. Ref.:

ATTACHMENTS FILED WITH THE CLERK OF THE BOARD
District 2nd Agenda Number:

11.2

Riverside County Flood Control & Water Conservation District

1995 Market St. Riverside, CA 92501 Phone: 951.955.1200 Fax: 951.788.9965



Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

Project Number: 2-0-0351-01

Bid Open Date: 04/19/2011

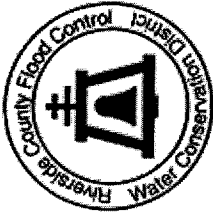
Bid Summary

<i>Total</i>	<i>Contractor Name</i>	<i>Address</i>	<i>Phone</i>
\$3,580,074.05	BELCZAK AND SONS	Post Office Box 3196 Orange, CA 92665	714-998-5920
\$3,605,348.83	ALCON COLORADO ENGINEERING, INC.	Post Office Box 892305 Temecula, CA 92589	951.461.3302
\$3,816,491.50	MIKE BUBALO CONSTRUCTION	12 So. Old Ranch Road Arcadia, CA 91007	
\$3,886,930.70	RIVERSIDE CONSTRUCTION	Post Office Box 1146 Riverside, CA 92502	951-682-8308
\$3,951,858.00	GARCIA JUAREZ CONSTRUCTION, INC.	Post Office Box 309 Brea, CA 92822	562.984.7340
\$3,989,226.50	KEC ENGINEERING	200 N. Sherman Avenue Corona, CA 92882	951-734-3010
\$4,149,011.00	BRH-GARVER WEST, INC.	6910 Mission Gorge San Diego, CA 92120	619.265.0537
\$4,502,809.00	TL PAVICH CONSTRUCTION, INC.	7256 Weaver Street Highland, CA 92346	909.425.8680
\$4,627,748.00	SPINIELLO COMPANIES	1441 E. Ninth Street Pomona, CA 91766	909.629.1000
\$4,953,460.50	SANDOVAL PIPELINE ENG.	13052 Whittram Avenue Rancho Cucamonga, CA 91739	909.463.4882
\$4,187,614.00	RCFC Engineer's Estimate		

Bid Abstract

Riverside County Flood Control & Water Conservation District

1995 Market St. Riverside, CA 92501 Phone: 951.955.1200 Fax: 951.788.9965



Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

Project Number: 2-0-0351-01

Bid Open Date: 04/19/2011

ALCON COLORADO ENGINEERING, INC.

BELCZAK AND SONS

ENGINEER'S ESTIMATE

Item No. & Description	Unit	Quantity	ENGINEER'S ESTIMATE		BELCZAK AND SONS		ALCON COLORADO ENGINEERING, INC.	
			Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$100,000.00	\$100,000.00	\$70,000.00	\$70,000.00	\$32,040.00	\$32,040.00
2 WATER CONTROL	L.S.	1	\$15,000.00	\$15,000.00	\$5,000.00	\$5,000.00	\$13,322.00	\$13,322.00
3 TRAFFIC CONTROL	L.S.	1	\$30,000.00	\$30,000.00	\$80,000.00	\$80,000.00	\$56,149.00	\$56,149.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$60,000.00	\$60,000.00	\$115,000.00	\$115,000.00	\$61,853.00	\$61,853.00
5 EXCAVATION	C.Y.	27,554	\$20.00	\$551,080.00	\$11.00	\$303,094.00	\$8.35	\$230,075.90
6 STRUCTURE EXCAVATION	C.Y.	1,351	\$10.00	\$13,510.00	\$21.00	\$28,371.00	\$23.71	\$32,032.21
7 ASPHALT CONCRETE EXCAVATION	S.F.	61,249	\$1.00	\$61,249.00	\$0.35	\$21,437.15	\$1.14	\$69,823.86
8 BACKFILL	C.Y.	14,252	\$12.00	\$171,024.00	\$15.00	\$213,780.00	\$9.60	\$136,819.20
9 STRUCTURE BACKFILL	C.Y.	472	\$15.00	\$7,080.00	\$40.00	\$18,880.00	\$13.71	\$6,471.12
10 FILTER MATERIAL	C.Y.	462	\$25.00	\$11,550.00	\$26.00	\$12,012.00	\$29.48	\$13,619.76
11 CONTROLLED LOW STRENGTH MATERIAL (CLSM)	C.Y.	6,712	\$70.00	\$469,840.00	\$70.00	\$469,840.00	\$80.28	\$538,839.36
12 TRENCH SAFETY SYSTEM AND FALSEWORK	L.S.	1	\$100,000.00	\$100,000.00	\$290,000.00	\$290,000.00	\$59,702.00	\$59,702.00
13 CLASS "A" CONCRETE, REINFORCED CONCRETE BOX	C.Y.	30	\$800.00	\$24,000.00	\$300.00	\$9,000.00	\$462.00	\$13,860.00
14 CLASS "A" CONCRETE, RECTANGULAR CHANNEL	C.Y.	306	\$575.00	\$175,950.00	\$350.00	\$107,100.00	\$454.00	\$138,924.00
15 CLASS "A" CONCRETE, MINOR STRUCTURES	C.Y.	130	\$850.00	\$110,500.00	\$800.00	\$104,000.00	\$630.00	\$81,900.00
16 CLASS "A" CONCRETE, CHANNEL PAVING	C.Y.	42	\$500.00	\$21,000.00	\$160.00	\$6,720.00	\$478.00	\$20,076.00
17 CLASS "B" CONCRETE, 2' CUTOFF WALL	L.F.	125	\$50.00	\$6,250.00	\$15.00	\$1,875.00	\$230.00	\$28,750.00
18 CLASS "B" CONCRETE, MISCELLANEOUS	C.Y.	53	\$500.00	\$26,500.00	\$260.00	\$13,780.00	\$450.00	\$23,850.00
19 TRANSITION STRUCTURE NO. 2	EACH	1	\$10,000.00	\$10,000.00	\$3,500.00	\$3,500.00	\$9,024.00	\$9,024.00
20 TRANSITION STRUCTURE NO. 3	EACH	1	\$10,000.00	\$10,000.00	\$6,000.00	\$6,000.00	\$74,940.00	\$74,940.00
21 JUNCTION STRUCTURE NO. 1 (MODIFIED 84" RCP)	EACH	1	\$40,000.00	\$40,000.00	\$30,000.00	\$30,000.00	\$75,863.00	\$75,863.00
22 MODIFIED CB 300	EACH	1	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$15,300.00	\$15,300.00
23 MANHOLE NO. 1	EACH	2	\$4,500.00	\$9,000.00	\$4,000.00	\$8,000.00	\$3,468.00	\$6,936.00
24 MANHOLE NO. 2	EACH	2	\$5,600.00	\$11,200.00	\$7,500.00	\$15,000.00	\$6,238.00	\$12,476.00
25 MANHOLE NO. 4	EACH	7	\$10,000.00	\$70,000.00	\$6,500.00	\$45,500.00	\$6,320.00	\$44,240.00

Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

Project Number: 2-0-0351-01
Bid Open Date: 04/19/2011

		ENGINEER'S ESTIMATE			BELCZAK AND SONS			ALCON COLORADO ENGINEERING, INC.		
<i>Item No. & Description</i>	<i>Unit</i>	<i>Quantity</i>	<i>Unit Bid</i>	<i>Total Bid</i>	<i>Unit Bid</i>	<i>Total Bid</i>	<i>Unit Bid</i>	<i>Total Bid</i>	<i>Unit Bid</i>	<i>Total Bid</i>
26 MANHOLE NO. 2, WITH SAFETY LEDGE	EACH	2	\$9,000.00	\$18,000.00	\$10,000.00	\$20,000.00	\$16,734.00	\$33,468.00		
27 MANHOLE NO. 4, WITH SAFETY LEDGE	EACH	2	\$15,000.00	\$30,000.00	\$20,000.00	\$40,000.00	\$18,795.00	\$37,590.00		
28 REINFORCING STEEL, GRADE 60	LBS.	34,030	\$1.00	\$34,030.00	\$1.50	\$51,045.00	\$2.06	\$70,101.80		
29 84" RCP, 1350D	L.F.	512	\$362.00	\$185,344.00	\$295.00	\$151,040.00	\$321.00	\$164,352.00		
30 72" RCP, 2000D	L.F.	136	\$310.00	\$42,160.00	\$300.00	\$40,800.00	\$263.00	\$35,768.00		
31 72" RCP, 1750D	L.F.	960	\$292.00	\$280,320.00	\$235.00	\$225,600.00	\$258.00	\$247,680.00		
32 60" RCP, 2250D	L.F.	456	\$234.00	\$106,704.00	\$150.00	\$68,400.00	\$222.00	\$101,232.00		
33 54" RCP, 2250D	L.F.	702	\$205.00	\$143,910.00	\$180.00	\$126,360.00	\$188.00	\$131,976.00		
34 48" RCP, 2500D, WITH EXTRA COVER	L.F.	432	\$195.00	\$84,240.00	\$125.00	\$54,000.00	\$163.00	\$70,416.00		
35 48" RCP, 2500D	L.F.	1,416	\$182.00	\$257,712.00	\$125.00	\$177,000.00	\$162.00	\$229,392.00		
36 36" RCP, 2000D	L.F.	464	\$137.00	\$63,568.00	\$65.00	\$30,160.00	\$100.00	\$46,400.00		
37 30" RCP, 2000D	L.F.	144	\$119.00	\$17,136.00	\$70.00	\$10,080.00	\$72.00	\$10,368.00		
38 24" RCP, CLASS IV	L.F.	538	\$103.00	\$55,414.00	\$72.00	\$38,736.00	\$56.00	\$30,128.00		
39 18" RCP, CLASS IV	L.F.	280	\$90.00	\$25,200.00	\$60.00	\$16,800.00	\$45.00	\$12,600.00		
40 AGGREGATE BASE, CLASS 2	C.Y.	760	\$70.00	\$53,200.00	\$40.00	\$30,400.00	\$60.00	\$45,600.00		
41 ASPHALT CONCRETE, TYPE "B"	TONS	3,032	\$112.00	\$339,584.00	\$75.00	\$227,400.00	\$90.59	\$274,668.88		
42 TEMPORARY RESURFACING	TONS	300	\$100.00	\$30,000.00	\$75.00	\$22,500.00	\$107.00	\$32,100.00		
43 6-FOOT CHAIN LINK FENCE	L.F.	48	\$25.00	\$1,200.00	\$75.00	\$3,600.00	\$36.00	\$1,728.00		
44 3-FOOT CABLE RAILING	L.F.	712	\$10.00	\$7,120.00	\$15.00	\$10,680.00	\$13.00	\$9,256.00		
45 14-FOOT DOUBLE DRIVE GATES	EACH	2	\$1,200.00	\$2,400.00	\$1,000.00	\$2,000.00	\$1,164.00	\$2,328.00		
46 MISCELLANEOUS IRON AND STEEL	LBS.	14,399	\$1.00	\$14,399.00	\$1.10	\$15,838.90	\$1.70	\$24,478.30		
47 SUBDRAIN	L.F.	345	\$12.00	\$4,140.00	\$22.00	\$7,590.00	\$11.00	\$3,795.00		
48 OBJECT MARKERS	EACH	6	\$100.00	\$600.00	\$200.00	\$1,200.00	\$70.74	\$424.44		
49 STREET LIGHT CONDUIT RELOCATION	L.F.	160	\$10.00	\$1,600.00	\$75.00	\$12,000.00	\$90.00	\$14,400.00		
50 TRAFFIC LOOP DETECTOR REPLACEMENT	L.F.	165	\$10.00	\$1,650.00	\$25.00	\$4,125.00	\$30.00	\$4,950.00		
51 TRAFFIC SIGNAL CONDUIT RELOCATION	L.F.	590	\$10.00	\$5,900.00	\$52.00	\$30,680.00	\$62.40	\$36,816.00		
52 REMODEL 4-INCH VITRIFIED CLAY PIPE (VCP) HOUSE CONNECTION	L.F.	10	\$150.00	\$1,500.00	\$100.00	\$1,000.00	\$87.00	\$870.00		
53 ADJUST MANHOLE TO GRADE	EACH	1	\$550.00	\$550.00	\$800.00	\$800.00	\$441.00	\$441.00		
54 ADJUST VALVE TO GRADE	EACH	21	\$300.00	\$6,300.00	\$350.00	\$7,350.00	\$256.00	\$5,376.00		

Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

Project Number: 2-0-0351-01
Bid Open Date: 04/19/2011

Item No. & Description	Unit	Quantity	ENGINEER'S ESTIMATE		BELCZAK AND SONS		ALCON COLORADO ENGINEERING, INC.	
			Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
55 REPAIR EXISTING JUNCTION STRUCTURE	EACH	1	\$2,000.00	\$2,000.00	\$750.00	\$750.00	\$2,880.00	\$2,880.00
56 REPAIR JUNCTION STRUCTURE NO. 4	EACH	4	\$1,500.00	\$6,000.00	\$900.00	\$3,600.00	\$1,920.00	\$7,680.00
57 REPAIR EXISTING MANHOLE	EACH	7	\$3,000.00	\$21,000.00	\$700.00	\$4,900.00	\$2,160.00	\$15,120.00
58 REPAIR EXISTING LINE 1G MANHOLE AT STATION 10+00	L.S.	1	\$5,000.00	\$5,000.00	\$750.00	\$750.00	\$3,000.00	\$3,000.00
59 PIPE DEBRIS REMOVAL	C.Y.	40	\$1,000.00	\$40,000.00	\$100.00	\$4,000.00	\$360.00	\$14,400.00
60 DUST ABATEMENT	L.S.	1	\$10,000.00	\$10,000.00	\$60,000.00	\$60,000.00	\$18,119.00	\$18,119.00
61 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$20,000.00	\$20,000.00	\$10,000.00	\$10,000.00	\$13,102.00	\$13,102.00
62 NON-STORMWATER DISCHARGE OR DEWATERING	L.S.	1	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$13,322.00	\$13,322.00
63 HOT TAP EXISTING 10-INCH CML&C WATERLINE	L.S.	1	\$5,000.00	\$5,000.00	\$3,000.00	\$3,000.00	\$1,141.00	\$1,141.00
64 RELOCATE 10-INCH WATERLINE	L.S.	1	\$30,000.00	\$30,000.00	\$30,000.00	\$30,000.00	\$25,103.00	\$25,103.00
65 PROTECT EXISTING 42-INCH WATERLINE	L.S.	1	\$20,000.00	\$20,000.00	\$6,000.00	\$6,000.00	\$7,046.00	\$7,046.00
66 PROTECT EXISTING 30-INCH SEWER LINE	L.S.	1	\$45,000.00	\$45,000.00	\$7,000.00	\$7,000.00	\$7,046.00	\$7,046.00
67 REMOVE AND REPLACE EXISTING 30-INCH IRRIGATION LINES	L.S.	1	\$45,000.00	\$45,000.00	\$25,000.00	\$25,000.00	\$1,800.00	\$1,800.00
				\$4,187,614.00		\$3,580,074.05		\$3,605,348.83

Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

Project Number: 2-0-0351-01
Bid Open Date: 04/19/2011

Item No. & Description	Unit	Quantity	MIKE BUBALO CONSTRUCTION		RIVERSIDE CONSTRUCTION		GARCIA JUAREZ CONSTRUCTION, INC.	
			Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$100,000.00	\$100,000.00	\$365,000.00	\$365,000.00	\$25,000.00	\$25,000.00
2 WATER CONTROL	L.S.	1	\$10,000.00	\$10,000.00	\$14,000.00	\$14,000.00	\$2,000.00	\$2,000.00
3 TRAFFIC CONTROL	L.S.	1	\$30,000.00	\$30,000.00	\$85,000.00	\$85,000.00	\$5,000.00	\$5,000.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$10,000.00	\$10,000.00	\$190,000.00	\$190,000.00	\$15,000.00	\$15,000.00
5 EXCAVATION	C.Y.	27,554	\$26.00	\$716,404.00	\$1.00	\$27,554.00	\$6.00	\$165,324.00
6 STRUCTURE EXCAVATION	C.Y.	1,351	\$30.00	\$40,530.00	\$2.75	\$3,715.25	\$6.00	\$8,106.00
7 ASPHALT CONCRETE EXCAVATION	S.F.	61,249	\$5.00	\$306,245.00	\$0.30	\$18,374.70	\$1.00	\$61,249.00
8 BACKFILL	C.Y.	14,252	\$12.00	\$171,024.00	\$6.50	\$92,638.00	\$12.00	\$171,024.00
9 STRUCTURE BACKFILL	C.Y.	472	\$25.00	\$11,800.00	\$15.00	\$7,080.00	\$14.00	\$6,608.00
10 FILTER MATERIAL	C.Y.	462	\$30.00	\$13,860.00	\$48.00	\$22,176.00	\$32.00	\$14,784.00
11 CONTROLLED LOW STRENGTH MATERIAL (CLSM)	C.Y.	6,712	\$50.00	\$335,600.00	\$60.00	\$402,720.00	\$40.00	\$268,480.00
12 TRENCH SAFETY SYSTEM AND FALSEWORK	L.S.	1	\$60,000.00	\$60,000.00	\$245,000.00	\$245,000.00	\$700,000.00	\$700,000.00
13 CLASS "A" CONCRETE, REINFORCED CONCRETE BOX	C.Y.	30	\$2,000.00	\$60,000.00	\$900.00	\$27,000.00	\$500.00	\$15,000.00
14 CLASS "A" CONCRETE, RECTANGULAR CHANNEL	C.Y.	306	\$400.00	\$122,400.00	\$350.00	\$107,100.00	\$525.00	\$160,650.00
15 CLASS "A" CONCRETE, MINOR STRUCTURES	C.Y.	130	\$100.00	\$13,000.00	\$950.00	\$123,500.00	\$650.00	\$84,500.00
16 CLASS "A" CONCRETE, CHANNEL PAVING	C.Y.	42	\$400.00	\$16,800.00	\$325.00	\$13,650.00	\$525.00	\$22,050.00
17 CLASS "B" CONCRETE, 2' CUTOFF WALL	L.F.	125	\$50.00	\$6,250.00	\$34.00	\$4,250.00	\$40.00	\$5,000.00
18 CLASS "B" CONCRETE, MISCELLANEOUS	C.Y.	53	\$500.00	\$26,500.00	\$415.00	\$21,995.00	\$500.00	\$26,500.00
19 TRANSITION STRUCTURE NO. 2	EACH	1	\$6,000.00	\$6,000.00	\$5,200.00	\$5,200.00	\$4,500.00	\$4,500.00
20 TRANSITION STRUCTURE NO. 3	EACH	1	\$5,000.00	\$5,000.00	\$10,500.00	\$10,500.00	\$4,000.00	\$4,000.00
21 JUNCTION STRUCTURE NO. 1 (MODIFIED 84" RCP)	EACH	1	\$15,000.00	\$15,000.00	\$29,000.00	\$29,000.00	\$12,000.00	\$12,000.00
22 MODIFIED CB 300	EACH	1	\$15,000.00	\$15,000.00	\$26,000.00	\$26,000.00	\$10,000.00	\$10,000.00
23 MANHOLE NO. 1	EACH	2	\$5,000.00	\$10,000.00	\$5,000.00	\$10,000.00	\$3,500.00	\$7,000.00
24 MANHOLE NO. 2	EACH	2	\$6,000.00	\$12,000.00	\$6,000.00	\$12,000.00	\$4,000.00	\$8,000.00
25 MANHOLE NO. 4	EACH	7	\$7,000.00	\$49,000.00	\$10,000.00	\$70,000.00	\$5,000.00	\$35,000.00

Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

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Item No. & Description	Unit	Quantity	MIKE BUBALO CONSTRUCTION		RIVERSIDE CONSTRUCTION		GARCIA JUAREZ CONSTRUCTION, INC.	
			Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
26 MANHOLE NO. 2, WITH SAFETY LEDGE	EACH	2	\$15,000.00	\$30,000.00	\$10,500.00	\$21,000.00	\$11,000.00	\$22,000.00
27 MANHOLE NO. 4, WITH SAFETY LEDGE	EACH	2	\$20,000.00	\$40,000.00	\$18,500.00	\$37,000.00	\$14,000.00	\$28,000.00
28 REINFORCING STEEL, GRADE 60	LBS.	34,030	\$3.00	\$102,090.00	\$1.80	\$61,254.00	\$2.00	\$68,060.00
29 84" RCP, 1350D	L.F.	512	\$190.00	\$97,280.00	\$260.00	\$133,120.00	\$375.00	\$192,000.00
30 72" RCP, 2000D	L.F.	136	\$185.00	\$25,160.00	\$340.00	\$46,240.00	\$325.00	\$44,200.00
31 72" RCP, 1750D	L.F.	960	\$180.00	\$172,800.00	\$245.00	\$235,200.00	\$300.00	\$288,000.00
32 60" RCP, 2250D	L.F.	456	\$170.00	\$77,520.00	\$225.00	\$102,600.00	\$275.00	\$125,400.00
33 54" RCP, 2250D	L.F.	702	\$160.00	\$112,320.00	\$215.00	\$150,930.00	\$250.00	\$175,500.00
34 48" RCP, 2500D, WITH EXTRA COVER	L.F.	432	\$150.00	\$64,800.00	\$155.00	\$66,960.00	\$240.00	\$103,680.00
35 48" RCP, 2500D	L.F.	1,416	\$100.00	\$141,600.00	\$155.00	\$219,480.00	\$240.00	\$339,840.00
36 36" RCP, 2000D	L.F.	464	\$90.00	\$41,760.00	\$100.00	\$46,400.00	\$175.00	\$81,200.00
37 30" RCP, 2000D	L.F.	144	\$80.00	\$11,520.00	\$100.00	\$14,400.00	\$165.00	\$23,760.00
38 24" RCP, CLASS IV	L.F.	538	\$70.00	\$37,660.00	\$90.00	\$48,420.00	\$150.00	\$80,700.00
39 18" RCP, CLASS IV	L.F.	280	\$60.00	\$16,800.00	\$115.00	\$32,200.00	\$140.00	\$39,200.00
40 AGGREGATE BASE, CLASS 2	C.Y.	760	\$40.00	\$30,400.00	\$140.00	\$106,400.00	\$28.00	\$21,280.00
41 ASPHALT CONCRETE, TYPE "B"	TONS	3,032	\$95.00	\$288,040.00	\$100.00	\$303,200.00	\$85.00	\$257,720.00
42 TEMPORARY RESURFACING	TONS	300	\$100.00	\$30,000.00	\$110.00	\$33,000.00	\$85.00	\$25,500.00
43 6-FOOT CHAIN LINK FENCE	L.F.	48	\$50.00	\$2,400.00	\$75.00	\$3,600.00	\$45.00	\$2,160.00
44 3-FOOT CABLE RAILING	L.F.	712	\$15.00	\$10,680.00	\$10.00	\$7,120.00	\$5.00	\$3,560.00
45 14-FOOT DOUBLE DRIVE GATES	EACH	2	\$3,000.00	\$6,000.00	\$950.00	\$1,900.00	\$2,000.00	\$4,000.00
46 MISCELLANEOUS IRON AND STEEL	LBS.	14,399	\$1.50	\$21,598.50	\$1.25	\$17,998.75	\$2.00	\$28,798.00
47 SUBDRAIN	L.F.	345	\$50.00	\$17,250.00	\$18.00	\$6,210.00	\$30.00	\$10,350.00
48 OBJECT MARKERS	EACH	6	\$150.00	\$900.00	\$50.00	\$300.00	\$200.00	\$1,200.00
49 STREET LIGHT CONDUIT RELOCATION	L.F.	160	\$100.00	\$16,000.00	\$11.00	\$1,760.00	\$40.00	\$6,400.00
50 TRAFFIC LOOP DETECTOR REPLACEMENT	L.F.	165	\$50.00	\$8,250.00	\$11.00	\$1,815.00	\$30.00	\$4,950.00
51 TRAFFIC SIGNAL CONDUIT RELOCATION	L.F.	590	\$75.00	\$44,250.00	\$16.00	\$9,440.00	\$60.00	\$35,400.00
52 REMODEL 4-INCH VITRIFIED CLAY PIPE (VCP) HOUSE CONNECTION	L.F.	10	\$200.00	\$2,000.00	\$350.00	\$3,500.00	\$200.00	\$2,000.00
53 ADJUST MANHOLE TO GRADE	EACH	1	\$1,200.00	\$1,200.00	\$600.00	\$600.00	\$400.00	\$400.00
54 ADJUST VALVE TO GRADE	EACH	21	\$800.00	\$16,800.00	\$400.00	\$8,400.00	\$325.00	\$6,825.00

Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

Project Number: 2-0-0351-01
Bid Open Date: 04/19/2011

Item No. & Description	Unit	Quantity	MIKE BUBALO CONSTRUCTION		RIVERSIDE CONSTRUCTION		GARCIA JUAREZ CONSTRUCTION, INC.	
			Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
55 REPAIR EXISTING JUNCTION STRUCTURE	EACH	1	\$5,000.00	\$5,000.00	\$1,250.00	\$1,250.00	\$2,000.00	\$2,000.00
56 REPAIR JUNCTION STRUCTURE NO. 4	EACH	4	\$3,750.00	\$15,000.00	\$1,250.00	\$5,000.00	\$2,000.00	\$8,000.00
57 REPAIR EXISTING MANHOLE	EACH	7	\$3,500.00	\$24,500.00	\$1,250.00	\$8,750.00	\$2,000.00	\$14,000.00
58 REPAIR EXISTING LINE 1G MANHOLE AT STATION 10+00	L.S.	1	\$15,000.00	\$15,000.00	\$1,250.00	\$1,250.00	\$3,000.00	\$3,000.00
59 PIPE DEBRIS REMOVAL	C.Y.	40	\$750.00	\$30,000.00	\$282.00	\$11,280.00	\$100.00	\$4,000.00
60 DUST ABATEMENT	L.S.	1	\$15,000.00	\$15,000.00	\$70,000.00	\$70,000.00	\$1,000.00	\$1,000.00
61 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$20,000.00	\$20,000.00	\$30,000.00	\$30,000.00	\$1,000.00	\$1,000.00
62 NON-STORMWATER DISCHARGE OR DEWATERING	L.S.	1	\$7,500.00	\$7,500.00	\$5,000.00	\$5,000.00	\$1,000.00	\$1,000.00
63 HOT TAP EXISTING 10-INCH CML&C WATERLINE	L.S.	1	\$8,000.00	\$8,000.00	\$3,500.00	\$3,500.00	\$8,000.00	\$8,000.00
64 RELOCATE 10-INCH WATERLINE	L.S.	1	\$12,000.00	\$12,000.00	\$29,000.00	\$29,000.00	\$45,000.00	\$45,000.00
65 PROTECT EXISTING 42-INCH WATERLINE	L.S.	1	\$10,000.00	\$10,000.00	\$8,000.00	\$8,000.00	\$1,000.00	\$1,000.00
66 PROTECT EXISTING 30-INCH SEWER LINE	L.S.	1	\$10,000.00	\$10,000.00	\$40,000.00	\$40,000.00	\$2,000.00	\$2,000.00
67 REMOVE AND REPLACE EXISTING 30-INCH IRRIGATION LINES	L.S.	1	\$15,000.00	\$15,000.00	\$20,000.00	\$20,000.00	\$3,000.00	\$3,000.00
			\$3,816,491.50		\$3,886,930.70		\$3,951,858.00	

Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

Project Number: 2-0-0351-01

Bid Open Date: 04/19/2011

KEC ENGINEERING

BRH-GARVER WEST, INC.

**TL PAVICH
CONSTRUCTION, INC.**

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$1,500.00	\$1,500.00	\$150,000.00	\$150,000.00	\$150,000.00	\$150,000.00
2 WATER CONTROL	L.S.	1	\$18,000.00	\$18,000.00	\$20,000.00	\$20,000.00	\$20,000.00	\$20,000.00
3 TRAFFIC CONTROL	L.S.	1	\$100,000.00	\$100,000.00	\$75,000.00	\$75,000.00	\$100,000.00	\$100,000.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$67,000.00	\$67,000.00	\$50,000.00	\$50,000.00	\$250,000.00	\$250,000.00
5 EXCAVATION	C.Y.	27,554	\$14.00	\$385,756.00	\$15.00	\$413,310.00	\$20.00	\$551,080.00
6 STRUCTURE EXCAVATION	C.Y.	1,351	\$10.00	\$13,510.00	\$20.00	\$27,020.00	\$50.00	\$67,550.00
7 ASPHALT CONCRETE EXCAVATION	S.F.	61,249	\$1.00	\$61,249.00	\$1.50	\$91,873.50	\$2.00	\$122,498.00
8 BACKFILL	C.Y.	14,252	\$14.00	\$199,528.00	\$10.00	\$142,520.00	\$21.00	\$299,292.00
9 STRUCTURE BACKFILL	C.Y.	472	\$42.00	\$19,824.00	\$25.00	\$11,800.00	\$50.00	\$23,600.00
10 FILTER MATERIAL	C.Y.	462	\$34.00	\$15,708.00	\$50.00	\$23,100.00	\$30.00	\$13,860.00
11 CONTROLLED LOW STRENGTH MATERIAL (CLSM)	C.Y.	6,712	\$68.00	\$456,416.00	\$50.00	\$335,600.00	\$20.00	\$134,240.00
12 TRENCH SAFETY SYSTEM AND FALSEWORK	L.S.	1	\$680,000.00	\$680,000.00	\$125,000.00	\$125,000.00	\$200,000.00	\$200,000.00
13 CLASS "A" CONCRETE, REINFORCED CONCRETE BOX	C.Y.	30	\$200.00	\$6,000.00	\$1,500.00	\$45,000.00	\$825.00	\$24,750.00
14 CLASS "A" CONCRETE, RECTANGULAR CHANNEL	C.Y.	306	\$150.00	\$45,900.00	\$710.00	\$217,260.00	\$460.00	\$140,760.00
15 CLASS "A" CONCRETE, MINOR STRUCTURES	C.Y.	130	\$800.00	\$104,000.00	\$700.00	\$91,000.00	\$1,000.00	\$130,000.00
16 CLASS "A" CONCRETE, CHANNEL PAVING	C.Y.	42	\$1,500.00	\$63,000.00	\$700.00	\$29,400.00	\$525.00	\$22,050.00
17 CLASS "B" CONCRETE, 2' CUTOFF WALL	L.F.	125	\$35.00	\$4,375.00	\$100.00	\$12,500.00	\$50.00	\$6,250.00
18 CLASS "B" CONCRETE, MISCELLANEOUS	C.Y.	53	\$230.00	\$12,190.00	\$650.00	\$34,450.00	\$600.00	\$31,800.00
19 TRANSITION STRUCTURE NO. 2	EACH	1	\$8,000.00	\$8,000.00	\$27,900.50	\$27,900.50	\$5,000.00	\$5,000.00
20 TRANSITION STRUCTURE NO. 3	EACH	1	\$4,000.00	\$4,000.00	\$25,800.00	\$25,800.00	\$4,000.00	\$4,000.00
21 JUNCTION STRUCTURE NO. 1 (MODIFIED 84" RCP)	EACH	1	\$20,000.00	\$20,000.00	\$23,500.00	\$23,500.00	\$15,000.00	\$15,000.00
22 MODIFIED CB 300	EACH	1	\$13,000.00	\$13,000.00	\$7,300.00	\$7,300.00	\$11,000.00	\$11,000.00
23 MANHOLE NO. 1	EACH	2	\$4,000.00	\$8,000.00	\$12,500.00	\$25,000.00	\$4,500.00	\$9,000.00
24 MANHOLE NO. 2	EACH	2	\$6,000.00	\$12,000.00	\$14,250.00	\$28,500.00	\$6,000.00	\$12,000.00
25 MANHOLE NO. 4	EACH	7	\$6,000.00	\$42,000.00	\$10,500.00	\$73,500.00	\$9,000.00	\$63,000.00

Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

Project Number: 2-0-0351-01
Bid Open Date: 04/19/2011

BRH-GARVER WEST, INC.
CONSTRUCTION, INC.

KEC ENGINEERING

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
26 MANHOLE NO. 2, WITH SAFETY LEDGE	EACH	2	\$11,000.00	\$22,000.00	\$15,550.00	\$31,100.00	\$17,000.00	\$34,000.00
27 MANHOLE NO. 4, WITH SAFETY LEDGE	EACH	2	\$17,000.00	\$34,000.00	\$15,100.00	\$30,200.00	\$20,000.00	\$40,000.00
28 REINFORCING STEEL, GRADE 60	LBS.	34,030	\$2.00	\$68,060.00	\$2.50	\$85,075.00	\$2.50	\$85,075.00
29 84" RCP, 1350D	L.F.	512	\$240.00	\$122,880.00	\$300.00	\$153,600.00	\$351.00	\$179,712.00
30 72" RCP, 2000D	L.F.	136	\$230.00	\$31,280.00	\$290.00	\$39,440.00	\$311.00	\$42,296.00
31 72" RCP, 1750D	L.F.	960	\$200.00	\$192,000.00	\$275.00	\$264,000.00	\$311.00	\$298,560.00
32 60" RCP, 2250D	L.F.	456	\$200.00	\$91,200.00	\$230.00	\$104,880.00	\$270.00	\$123,120.00
33 54" RCP, 2250D	L.F.	702	\$170.00	\$119,340.00	\$210.00	\$147,420.00	\$243.00	\$170,586.00
34 48" RCP, 2500D, WITH EXTRA COVER	L.F.	432	\$140.00	\$60,480.00	\$245.00	\$105,840.00	\$218.00	\$94,176.00
35 48" RCP, 2500D	L.F.	1,416	\$120.00	\$169,920.00	\$200.00	\$283,200.00	\$218.00	\$308,688.00
36 36" RCP, 2000D	L.F.	464	\$85.00	\$39,440.00	\$155.00	\$71,920.00	\$170.00	\$78,880.00
37 30" RCP, 2000D	L.F.	144	\$90.00	\$12,960.00	\$150.00	\$21,600.00	\$155.00	\$22,320.00
38 24" RCP, CLASS IV	L.F.	538	\$50.00	\$26,900.00	\$135.00	\$72,630.00	\$144.00	\$77,472.00
39 18" RCP, CLASS IV	L.F.	280	\$60.00	\$16,800.00	\$125.00	\$35,000.00	\$131.00	\$36,680.00
40 AGGREGATE BASE, CLASS 2	C.Y.	760	\$100.00	\$76,000.00	\$55.00	\$41,800.00	\$40.00	\$30,400.00
41 ASPHALT CONCRETE, TYPE "B"	TONS	3,032	\$100.00	\$303,200.00	\$80.00	\$242,560.00	\$80.00	\$242,560.00
42 TEMPORARY RESURFACING	TONS	300	\$100.00	\$30,000.00	\$100.00	\$30,000.00	\$100.00	\$30,000.00
43 6-FOOT CHAIN LINK FENCE	L.F.	48	\$80.00	\$3,840.00	\$80.00	\$3,840.00	\$50.00	\$2,400.00
44 3-FOOT CABLE RAILING	L.F.	712	\$11.00	\$7,832.00	\$12.00	\$8,544.00	\$13.00	\$9,256.00
45 14-FOOT DOUBLE DRIVE GATES	EACH	2	\$1,000.00	\$2,000.00	\$1,165.00	\$2,330.00	\$2,500.00	\$5,000.00
46 MISCELLANEOUS IRON AND STEEL	LBS.	14,399	\$1.50	\$21,598.50	\$2.00	\$28,798.00	\$2.00	\$28,798.00
47 SUBDRAIN	L.F.	345	\$20.00	\$6,900.00	\$50.00	\$17,250.00	\$25.00	\$8,625.00
48 OBJECT MARKERS	EACH	6	\$140.00	\$840.00	\$250.00	\$1,500.00	\$100.00	\$600.00
49 STREET LIGHT CONDUIT RELOCATION	L.F.	160	\$40.00	\$6,400.00	\$80.00	\$12,800.00	\$50.00	\$8,000.00
50 TRAFFIC LOOP DETECTOR REPLACEMENT	L.F.	165	\$40.00	\$6,600.00	\$30.00	\$4,950.00	\$75.00	\$12,375.00
51 TRAFFIC SIGNAL CONDUIT RELOCATION	L.F.	590	\$50.00	\$29,500.00	\$60.00	\$35,400.00	\$50.00	\$29,500.00
52 REMODEL 4-INCH VITRIFIED CLAY PIPE (VCP) HOUSE CONNECTION	L.F.	10	\$100.00	\$1,000.00	\$250.00	\$2,500.00	\$100.00	\$1,000.00
53 ADJUST MANHOLE TO GRADE	EACH	1	\$800.00	\$800.00	\$1,500.00	\$1,500.00	\$500.00	\$500.00
54 ADJUST VALVE TO GRADE	EACH	21	\$200.00	\$4,200.00	\$500.00	\$10,500.00	\$500.00	\$10,500.00

Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

Project Number: 2-0-0351-01
Bid Open Date: 04/19/2011

Item No. & Description	Unit	Quantity	KEC ENGINEERING		BRH-GARVER WEST, INC.		TL PAVICH CONSTRUCTION, INC.	
			Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
55 REPAIR EXISTING JUNCTION STRUCTURE	EACH	1	\$1,300.00	\$1,300.00	\$5,000.00	\$5,000.00	\$2,500.00	\$2,500.00
56 REPAIR JUNCTION STRUCTURE NO. 4	EACH	4	\$1,000.00	\$4,000.00	\$2,500.00	\$10,000.00	\$1,000.00	\$4,000.00
57 REPAIR EXISTING MANHOLE	EACH	7	\$2,000.00	\$14,000.00	\$2,500.00	\$17,500.00	\$2,000.00	\$14,000.00
58 REPAIR EXISTING LINE 1G MANHOLE AT STATION 10+00	L.S.	1	\$2,000.00	\$2,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
59 PIPE DEBRIS REMOVAL	C.Y.	40	\$500.00	\$20,000.00	\$250.00	\$10,000.00	\$100.00	\$4,000.00
60 DUST ABATEMENT	L.S.	1	\$8,000.00	\$8,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
61 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$9,000.00	\$9,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
62 NON-STORMWATER DISCHARGE OR DEWATERING	L.S.	1	\$19,000.00	\$19,000.00	\$10,000.00	\$10,000.00	\$1,000.00	\$1,000.00
63 HOT TAP EXISTING 10-INCH CML&C WATERLINE	L.S.	1	\$5,000.00	\$5,000.00	\$10,000.00	\$10,000.00	\$2,500.00	\$2,500.00
64 RELOCATE 10-INCH WATERLINE	L.S.	1	\$31,000.00	\$31,000.00	\$20,000.00	\$20,000.00	\$10,000.00	\$10,000.00
65 PROTECT EXISTING 42-INCH WATERLINE	L.S.	1	\$2,000.00	\$2,000.00	\$10,000.00	\$10,000.00	\$2,000.00	\$2,000.00
66 PROTECT EXISTING 30-INCH SEWER LINE	L.S.	1	\$2,000.00	\$2,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
67 REMOVE AND REPLACE EXISTING 30-INCH IRRIGATION LINES	L.S.	1	\$3,000.00	\$3,000.00	\$25,000.00	\$25,000.00	\$10,000.00	\$10,000.00
			\$3,989,226.50		\$4,149,011.00		\$4,502,809.00	

Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

Project Number: 2-0-0351-01

Bid Open Date: 04/19/2011

SPINIELLO COMPANIES SANDOVAL PIPELINE ENG.

<i>Item No. & Description</i>	<i>Unit</i>	<i>Quantity</i>	<i>Unit Bid</i>	<i>Total Bid</i>	<i>Unit Bid</i>	<i>Total Bid</i>
1 MOBILIZATION	L.S.	1	\$180,000.00	\$180,000.00	\$300,000.00	\$300,000.00
2 WATER CONTROL	L.S.	1	\$3,000.00	\$3,000.00	\$40,000.00	\$40,000.00
3 TRAFFIC CONTROL	L.S.	1	\$70,000.00	\$70,000.00	\$80,000.00	\$80,000.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$13,000.00	\$13,000.00	\$117,000.00	\$117,000.00
5 EXCAVATION	C.Y.	27,554	\$11.00	\$303,094.00	\$38.00	\$1,047,052.00
6 STRUCTURE EXCAVATION	C.Y.	1,351	\$3.00	\$4,053.00	\$30.00	\$40,530.00
7 ASPHALT CONCRETE EXCAVATION	S.F.	61,249	\$1.00	\$61,249.00	\$0.50	\$30,624.50
8 BACKFILL	C.Y.	14,252	\$17.00	\$242,284.00	\$22.00	\$313,544.00
9 STRUCTURE BACKFILL	C.Y.	472	\$20.00	\$9,440.00	\$45.00	\$21,240.00
10 FILTER MATERIAL	C.Y.	462	\$60.00	\$27,720.00	\$40.00	\$18,480.00
11 CONTROLLED LOW STRENGTH MATERIAL (CLSM)	C.Y.	6,712	\$60.00	\$402,720.00	\$60.00	\$402,720.00
12 TRENCH SAFETY SYSTEM AND FALSEWORK	L.S.	1	\$320,000.00	\$320,000.00	\$120,000.00	\$120,000.00
13 CLASS "A" CONCRETE, REINFORCED CONCRETE BOX	C.Y.	30	\$978.00	\$29,340.00	\$1,000.00	\$30,000.00
14 CLASS "A" CONCRETE, RECTANGULAR CHANNEL	C.Y.	306	\$620.00	\$189,720.00	\$1,000.00	\$306,000.00
15 CLASS "A" CONCRETE, MINOR STRUCTURES	C.Y.	130	\$1,300.00	\$169,000.00	\$1,130.00	\$146,900.00
16 CLASS "A" CONCRETE, CHANNEL PAVING	C.Y.	42	\$1,384.00	\$58,128.00	\$900.00	\$37,800.00
17 CLASS "B" CONCRETE, 2' CUTOFF WALL	L.F.	125	\$50.00	\$6,250.00	\$280.00	\$35,000.00
18 CLASS "B" CONCRETE, MISCELLANEOUS	C.Y.	53	\$822.00	\$43,566.00	\$510.00	\$27,030.00
19 TRANSITION STRUCTURE NO. 2	EACH	1	\$7,500.00	\$7,500.00	\$16,000.00	\$16,000.00
20 TRANSITION STRUCTURE NO. 3	EACH	1	\$4,000.00	\$4,000.00	\$20,000.00	\$20,000.00
21 JUNCTION STRUCTURE NO. 1 (MODIFIED 84" RCP)	EACH	1	\$50,000.00	\$50,000.00	\$36,000.00	\$36,000.00
22 MODIFIED CB 300	EACH	1	\$21,000.00	\$21,000.00	\$18,000.00	\$18,000.00
23 MANHOLE NO. 1	EACH	2	\$4,800.00	\$9,600.00	\$8,000.00	\$16,000.00
24 MANHOLE NO. 2	EACH	2	\$5,200.00	\$10,400.00	\$8,500.00	\$17,000.00
25 MANHOLE NO. 4	EACH	7	\$8,400.00	\$58,800.00	\$9,000.00	\$63,000.00

Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

Project Number: 2-0-0351-01
Bid Open Date: 04/19/2011

SPINIELLO COMPANIES **SANDOVAL PIPELINE**
ENG.

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid
26 MANHOLE NO. 2, WITH SAFETY LEDGE	EACH	2	\$13,000.00	\$26,000.00	\$15,000.00	\$30,000.00
27 MANHOLE NO. 4, WITH SAFETY LEDGE	EACH	2	\$25,000.00	\$50,000.00	\$16,000.00	\$32,000.00
28 REINFORCING STEEL, GRADE 60	LBS.	34,030	\$2.00	\$68,060.00	\$2.80	\$95,284.00
29 84" RCP, 1350D	L.F.	512	\$445.00	\$227,840.00	\$260.00	\$133,120.00
30 72" RCP, 2000D	L.F.	136	\$400.00	\$54,400.00	\$210.00	\$28,560.00
31 72" RCP, 1750D	L.F.	960	\$376.00	\$360,960.00	\$210.00	\$201,600.00
32 60" RCP, 2250D	L.F.	456	\$335.00	\$152,760.00	\$168.00	\$76,608.00
33 54" RCP, 2250D	L.F.	702	\$283.00	\$198,666.00	\$155.00	\$108,810.00
34 48" RCP, 2500D, WITH EXTRA COVER	L.F.	432	\$226.00	\$97,632.00	\$100.00	\$43,200.00
35 48" RCP, 2500D	L.F.	1,416	\$222.00	\$314,352.00	\$100.00	\$141,600.00
36 36" RCP, 2000D	L.F.	464	\$122.00	\$56,608.00	\$74.00	\$34,336.00
37 30" RCP, 2000D	L.F.	144	\$119.00	\$17,136.00	\$64.00	\$9,216.00
38 24" RCP, CLASS IV	L.F.	538	\$96.00	\$51,648.00	\$56.00	\$30,128.00
39 18" RCP, CLASS IV	L.F.	280	\$85.00	\$23,800.00	\$44.00	\$12,320.00
40 AGGREGATE BASE, CLASS 2	C.Y.	760	\$80.00	\$60,800.00	\$30.00	\$22,800.00
41 ASPHALT CONCRETE, TYPE "B"	TONS	3,032	\$100.00	\$303,200.00	\$120.00	\$363,840.00
42 TEMPORARY RESURFACING	TONS	300	\$180.00	\$54,000.00	\$110.00	\$33,000.00
43 6-FOOT CHAIN LINK FENCE	L.F.	48	\$85.00	\$4,080.00	\$100.00	\$4,800.00
44 3-FOOT CABLE RAILING	L.F.	712	\$12.00	\$8,544.00	\$10.00	\$7,120.00
45 14-FOOT DOUBLE DRIVE GATES	EACH	2	\$1,000.00	\$2,000.00	\$800.00	\$1,600.00
46 MISCELLANEOUS IRON AND STEEL	LBS.	14,399	\$2.00	\$28,798.00	\$2.00	\$28,798.00
47 SUBDRAIN	L.F.	345	\$3.00	\$1,035.00	\$10.00	\$3,450.00
48 OBJECT MARKERS	EACH	6	\$150.00	\$900.00	\$400.00	\$2,400.00
49 STREET LIGHT CONDUIT RELOCATION	L.F.	160	\$70.00	\$11,200.00	\$80.00	\$12,800.00
50 TRAFFIC LOOP DETECTOR REPLACEMENT	L.F.	165	\$15.00	\$2,475.00	\$30.00	\$4,950.00
51 TRAFFIC SIGNAL CONDUIT RELOCATION	L.F.	590	\$72.00	\$42,480.00	\$60.00	\$35,400.00
52 REMODEL 4-INCH VITRIFIED CLAY PIPE (VCP) HOUSE CONNECTION	L.F.	10	\$100.00	\$1,000.00	\$500.00	\$5,000.00
53 ADJUST MANHOLE TO GRADE	EACH	1	\$400.00	\$400.00	\$1,600.00	\$1,600.00
54 ADJUST VALVE TO GRADE	EACH	21	\$300.00	\$6,300.00	\$600.00	\$12,600.00

Project Name: CORONA DRAINS - EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 AND 2 and CORONA DRAINS LINE 1G, STAGE 2

Project Number: 2-0-0351-01

Bid Open Date: 04/19/2011

SPINIELLO COMPANIES SANDOVAL PIPELINE
ENG.

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid
55 REPAIR EXISTING JUNCTION STRUCTURE	EACH	1	\$900.00	\$900.00	\$1,200.00	\$1,200.00
56 REPAIR JUNCTION STRUCTURE NO. 4	EACH	4	\$1,100.00	\$4,400.00	\$1,600.00	\$6,400.00
57 REPAIR EXISTING MANHOLE	EACH	7	\$1,000.00	\$7,000.00	\$2,000.00	\$14,000.00
58 REPAIR EXISTING LINE 1G MANHOLE AT STATION 10+00	L.S.	1	\$2,500.00	\$2,500.00	\$6,000.00	\$6,000.00
59 PIPE DEBRIS REMOVAL	C.Y.	40	\$350.00	\$14,000.00	\$1,000.00	\$40,000.00
60 DUST ABATEMENT	L.S.	1	\$15,000.00	\$15,000.00	\$10,000.00	\$10,000.00
61 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$2,500.00	\$2,500.00	\$10,000.00	\$10,000.00
62 NON-STORMWATER DISCHARGE OR DEWATERING	L.S.	1	\$10.00	\$10.00	\$10,000.00	\$10,000.00
63 HOT TAP EXISTING 10-INCH CML&C WATERLINE	L.S.	1	\$4,500.00	\$4,500.00	\$6,000.00	\$6,000.00
64 RELOCATE 10-INCH WATERLINE	L.S.	1	\$5,000.00	\$5,000.00	\$20,000.00	\$20,000.00
65 PROTECT EXISTING 42-INCH WATERLINE	L.S.	1	\$20,000.00	\$20,000.00	\$3,000.00	\$3,000.00
66 PROTECT EXISTING 30-INCH SEWER LINE	L.S.	1	\$20,000.00	\$20,000.00	\$5,000.00	\$5,000.00
67 REMOVE AND REPLACE EXISTING 30-INCH IRRIGATION LINES	L.S.	1	\$11,000.00	\$11,000.00	\$5,000.00	\$5,000.00
			\$4,627,748.00	\$4,627,748.00	\$4,953,460.50	\$4,953,460.50

SPECIFICATIONS and CONTRACT DOCUMENTS

for the CONSTRUCTION of
CORONA DRAINS—EAST
ONTARIO AVE.
STORM DRAIN
STAGES 1 AND 2

PROJECT NO. 2-0-0351

CORONA DRAINS
LINE 1G
STAGE 2

PROJECT NO. 2-0-0223

RIVERSIDE COUNTY, CALIFORNIA



FOR APPROVED COUNTY COUNSEL
BY: *Neal R. Kipnis* DATE: 11/2/11
NEAL R. KIPNIS

MAY 24 2011 11.2
(cont.)

~~MAR 15 2011 11.3~~ *RS*

WARREN D. WILLIAMS
General Manager-Chief Engineer



1995 MARKET STREET
RIVERSIDE, CA 92501
951.955.1200
FAX 951.788.9965
www.rcflood.org

**RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT**

March 30, 2011

**ADDENDUM NO. 1
TO
CORONA DRAINS – EAST ONTARIO AVENUE STORM DRAIN, STAGES 1 & 2
CORONA DRAINS LINE 1G, STAGE 2**

RIVERSIDE COUNTY, CALIFORNIA

Bid Opening Date: Tuesday, April 19, 2011 at 8:00 a.m.

PROPOSAL

REPLACE PROPOSAL in its entirety (Pages VIII, VIIIa, VIIIb and VIIIc) to accommodate:

- Addition of Item No. 20 Transition Structure No. 3; and
- Renumbering the remainder of the items accordingly and to accommodate the addition of the signature line on the bottom of Page VIIIc for acknowledgment of the addendum.

EXHIBIT

REPLACE EXHIBIT Pages XVIIIa, XVIIIb and XVIIIc to accommodate:

- Addition of Item No. 20 Transition Structure No. 3; and
- Renumbering the remainder of the items accordingly.

DETAILED SPECIFICATIONS

REPLACE Section 16.17 in its entirety with the following: 16.17 Transition Structures - The contract items Transition Structure No. 2 and Transition Structure No. 3 cover the complete construction of these various structures, exclusive of earthwork and reinforcing steel.

REPLACE second paragraph of Section 16.18 Junction Structure No. 1 (Modified 84" RCP) with the following: No separate payment will be made for Junction Structure Nos. 3 or 4.

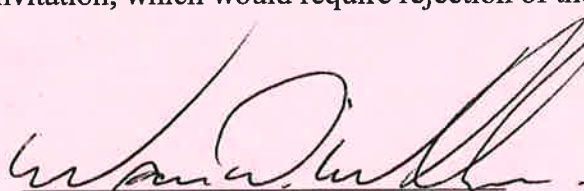
Corona Drains – East Ontario Avenue Storm Drain, Stages 1 & 2
Corona Drains Line 1G, Stage 2

REPLACE third and fourth paragraph of Section 16.22 Measurement with the following:

Measurement for payment for the contract items Transition Structure No. 2; Transition Structure No. 3; Junction Structure No. 1 (Modified 84" RCP); Modified CB 300; Manhole No. 1, Manhole No. 2, Manhole No. 4, Manhole No. 2 with Safety Ledge, and Manhole No. 4 with Safety Ledge will be the number of each type constructed as specified.

No measurement or payment will be made for Junction Structure Nos. 3 and 4.

NOTE: Bidders are required to acknowledge receipt of all addenda at the bottom of **Sheet VIIIc** of the PROPOSAL. Failure to acknowledge all addenda on the bid form may cause the bid to be considered not responsive to the invitation, which would require rejection of the bid.



WARREN D. WILLIAMS
General Manager-Chief Engineer



SPECIFICATIONS and CONTRACT DOCUMENTS

for the CONSTRUCTION of
CORONA DRAINS – EAST
ONTARIO AVE.
STORM DRAIN

STAGES 1 AND 2

PROJECT NO. 2-0-0351

CORONA DRAINS

LINE 1G

STAGE 2

PROJECT NO. 2-0-0223

These specifications and contract documents have been prepared under the direction of the following Registered Civil Engineers:

Recommended By:

Design Engineer

17-July-2011

Date



Approved By:

Chief Engineer

2/17/11

Date



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NOTICE TO CONTRACTORS

Riverside County Flood Control and Water Conservation District hereinafter called "District", invites sealed proposals for construction of:

Corona Drains – East Ontario Avenue Storm Drain, Stages 1 and 2

and Corona Drains Line 1G, Stage 2

Project No. 2-0-00351-01

located in the city of Corona

and Riverside County, California

Specifications and Contract Documents may be examined at the District's office at 1995 Market Street, Riverside, California, and may be obtained upon payment to District of **\$60.00** per set, received at the District's office and **\$65.00** per set if mailed. The Specifications and Contract Documents are also offered on CD-ROM for \$10.00 received at the District's office and \$15.00 if mailed. No refund.

Each proposal must be accompanied by a certified or cashier's check or bid bond equal to ten percent (10%) of the amount bid, payable to the Riverside County Flood Control and Water Conservation District as a guarantee that the Contractor will, if awarded the contract, execute a satisfactory contract and furnish the required bonds and proof of insurance.

Proposals must be in accordance with the instructions and filed with District by **8:00 a.m. on Tuesday, April 19, 2011** at the District office at the above address which time and place are fixed for the public opening of bids.

General prevailing rate per diem wages and general prevailing rate of per diem wages for holiday and overtime work, including employer payments for health and welfare, pension, vacation, apprentices and similar purposes for each craft, classification or type of workman needed for execution of contracts under the jurisdiction of District have been obtained by the Board of Supervisors of the District from the

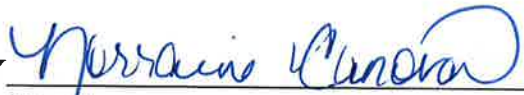
Director of Industrial Relations of the State of California for the area where the work is to be done. The said determinations are on file in the principal office of the District, and will be made available to any interested person upon request.

Contractors submitting proposals for this project shall have an "A" Contractors license from the State of California in order to be considered eligible for the contract award.

Dated: March 15, 2011

RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

KECIA HARPER-IHEM
Clerk of the Board

BY 
Deputy

INSTRUCTIONS TO BIDDERS

QUANTITIES: The amount of work to be done or materials to be furnished under the Contract as noted in the proposal, are but estimates and are not to be taken as an expressed or implied statement that the actual amount of work or materials will correspond to the estimate.

The right is reserved to increase or decrease or to entirely eliminate certain items from the work or materials if found desirable or expedient.

The Contractor will be allowed no claims for anticipated profits, loss of profits or for any damages of any sort because of any difference between the estimated and the actual amounts of work done, or materials furnished or used in the completed project.

The Contractor is cautioned against unbalancing of his bid by prorating his overhead into one or two items only when there are a number of items on the schedule. The overhead and indirect charges should be prorated on all items in schedule.

DISCREPANCIES AND OMISSIONS: Discrepancies, omissions, ambiguities, or requirements likely to cause disputes between trades and similar matters shall be promptly brought to the attention of the Engineer. When appropriate, Addenda will be issued by District. No communication by anyone as to such matters except by an Addendum affects the meaning or requirements of the Contract Documents.

WITHDRAWAL OF PROPOSALS: Any proposal may be withdrawn at any time prior to the hour fixed in the Notice to Contractors for the opening of proposals, provided that a request in writing, executed by the bidder or his duly authorized representative, for the withdrawal of such proposal, is filed with the Chief Engineer. The withdrawal of a proposal shall not prejudice the right of a bidder to file a new proposal.

AGREEMENT OF FIGURES: If the unit prices and the total amounts named by the bidder in the proposal do not agree, the unit prices alone will be considered as representing the bidder's intention.

INVALID PROPOSALS: Proposal submitted by telegraph or fax transmission and those which fail to reach the place fixed for opening of proposals prior to the date and hour set for opening same, will not be considered.

INSPECTION OF SITE: Bidders must examine the site and acquaint themselves with all conditions affecting the work.

Information derived from maps, plans or specifications, or from the Chief Engineer or his assistants, will not relieve the successful bidder from properly carrying out all the terms of the written contract.

By the submitting of a proposal, the bidder will be held to have personally examined the site and the drawings, to have carefully read the specifications and to have satisfied himself as to his ability to meet all the difficulties attending the execution of the proposed contract before the delivery of his proposal and agrees that if he is awarded the contract, he will make no claim against the Board of Supervisors based on ignorance or misunderstanding of the contract provisions.

QUALIFICATIONS OF BIDDERS: No proposal will be accepted from a contractor who is not licensed under laws of California, as evidenced by the submittal of the Statement of Licensure. No award will be made to any bidder who cannot give satisfactory assurance to the Board of Supervisors as to his own ability to carry out the contract, both from his financial standing and by reason of his previous experience as a contractor on work of the nature contemplated in the contract. The bidder is required to submit his record of work of similar nature to that proposed under these specifications, and unfamiliarity with the type of work may be sufficient cause for rejection of a proposal.

A bid shall be rejected and a bidder shall be disqualified to bid on a District project if the bidder or any officer, manager, partner or shareholder of the bidder within the eighteen month period prior to the bid date shall have been an officer or employee of the District.

PROPOSAL FORMS: Attention of all bidders is called to the proposal affidavit forms attached hereto and bidders are cautioned that all proposals submitted must be accompanied by the proper affidavit, properly executed. Proposals will be made on forms furnished by District.

REJECTION OF PROPOSALS CONTAINING ALTERATIONS, ERASURES OR IRREGULARITIES: Proposals may be rejected if they show any alterations of form, additions not called for, conditional proposals, incomplete proposals, erasures or irregularities of any kind. Erasures or interlineations in the proposal must be explained or noted over the signature of the bidder.

PUBLIC OPENING OF PROPOSALS: Proposals will be opened and read publicly at the time and place indicated in the Notice to Contractors. Bidders or their authorized agents are invited to be present.

DISQUALIFICATION OF BIDDERS: More than one proposal from an individual, a firm or partnership, a corporation or an association under the same or different names will not be considered. Reasonable ground for believing that any bidder is interested in more than one proposal for the work contemplated will cause the rejection of all proposals in which such bidder is interested. If there is any reason for believing that collusion exists among the bidders, none of the participants in such collusion will be considered in awarding the contract. Proposals in which the prices obviously are unbalanced may be rejected.

ADDENDA: District reserves the right to issue Addenda to the Contract Documents at any time prior to the time set to open bids. Each potential bidder shall leave with the District its name and address for the purpose of receiving Addenda. District will cause copies of Addenda to be mailed or delivered to such names at such addresses. To be considered, a Contractor's proposal must list and take into account all issued Addenda.

AWARD OF CONTRACT: The right is reserved to reject any and all proposals and to waive technical defects as the best interests of the District may require.

The award of the Contract, if it be awarded, will be to the lowest responsible bidder whose proposal complies with the requirements prescribed. The award, if made, will be made within sixty (60) days after the opening of the proposals.

All proposals will be compared on the basis of the Engineer's estimate of the quantities of work to be done.

RETURN OF PROPOSAL GUARANTEES: Within ten (10) days after the award of the contract, the Clerk will return the proposal guarantees accompanying such of the proposals as are not considered in making the award. All other proposal guarantees will be held until the contract has been fully executed, after which they will be returned to the respective bidders whose proposal they accompany.

CONTRACT BONDS: The Contractor shall furnish two (2) surety bonds in duplicate, one as a security for the faithful performance of the contract in the amount equal to one hundred percent (100%) of the contract price, and one as security for the payment of all persons performing labor and furnishing materials in connection with the contract in an amount equal to one hundred percent (100%) of the contract price. All bonds must be submitted on forms provided by the District. Bonds submitted in any other form will not be accepted.

SUBLETTING AND SUBCONTRACTING: Bidders are required, pursuant to the Subletting and Subcontracting Fair Practices Act (commencing with Section 4100 of the Public Contract Code) to list in their proposal the name and location of place of business of each subcontractor who will perform work or labor or render services in or about the construction of the work or improvement or a subcontractor who specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Plans and Specifications, in excess of one-half ($\frac{1}{2}$) of one percent (1%) of the prime Contractor's total bid. Failure to list a subcontractor for a portion of the work means that the prime contractor will do that portion of the work.

CONTRACTOR'S PROPOSAL

TO THE BOARD OF SUPERVISORS OF THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT:

The undersigned hereby declare:

(a) That the only persons or parties interested in this proposal as principals are the following:

Name of Company (and dba if applicable): <u>Belczak & Sons, Inc.</u>	
<u>Tim S. Belczak</u>	<u>President, Sec./Treas.</u>
<u>John J. Belczak</u>	<u>Vice President, Asst. Sec.</u>

(If the Contractor is a corporation, give the name of the corporation and the name of its president, secretary, treasurer, and manager. If a copartnership, give the name under which the copartnership does business, and the names and addresses of all copartners. If an individual, state the name and address under which the contract is to be drawn.)

(b) That this proposal is made without collusion with any other person, firm or corporation.

(c) That he has carefully examined the location of the proposed work, and has familiarized himself with all of the physical and climatic conditions, and makes his proposal solely upon his own knowledge.

(d) That he has carefully examined the attached specifications as referred to, and the plans, and makes this proposal in accordance therewith.

(e) That, if this proposal is accepted, he will enter into a written contract with the Riverside County Flood Control and Water Conservation District, Riverside, State of California.

(f) That he proposes to enter into such contract and to accept in full payment for the work actually done thereunder the prices shown in the attached schedule. It is understood and agreed that the quantities set forth are but estimates, and that the unit prices will apply to the actual quantities whatever they may be.

Accompanying this proposal is a certified or cashier's check or bid bond payable to the order of the Riverside County Flood Control and Water Conservation District, Riverside, California, in the sum of 10% of Bid Dollars (\$ 10% of Bid)

It is understood and agreed that should the Contractor within ten (10) days after the prescribed forms are presented to him for signature fail to return the contract and furnish acceptable surety bond and insurance, then, at the discretion of the District, the proceeds of said check shall become the property of the District, the Contractor shall be found in default and the project may be awarded to another contractor. The bid bond or check shall be held subject to payment to the District of the difference in money between the amount of the contract with another party to perform the work, together with the cost to the District of redrafting, redrawing and publishing documents and papers necessary to obtain new bids on said work. The bid bond or check shall, in addition, be held subject to all other actual damages suffered by the District. But if the contract is entered into and said bonds and insurance are furnished, or if the proposal is not accepted, then the said check shall be returned to the undersigned.

RECEIVED
APR 19 2011

RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

7:56

PROPOSAL

For the Construction of **Corona Drains – East Ontario Avenue Storm Drain, Stages 1 and 2 and Corona Drains Line 1G, Stage 2**, located in the city of Corona and Riverside County, consisting of the following estimated quantities:

ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
1.	Mobilization	L.S.	---	---	\$ 70,000.-
2.	Water Control	L.S.	---	---	\$ 5,000.-
3.	Traffic Control	L.S.	---	---	\$ 80,000.-
4.	Clearing and Miscellaneous Work	L.S.	---	---	\$ 115,000.-
5.	Excavation	C.Y.	27,554	\$ 11.-	\$ 303,094.-
6.	Structure Excavation	C.Y.	1,351	\$ 21.-	\$ 28,371.-
7.	Asphalt Concrete Excavation	S.F.	61,249	\$ 0.35	\$ 21,437.15
8.	Backfill	C.Y.	14,252	\$ 15.-	\$ 213,780.-
9.	Structure Backfill	C.Y.	472	\$ 40.-	\$ 18,880.-
10.	Filter Material	C.Y.	462	\$ 26.-	\$ 12,012.-
11.	Controlled Low Strength Material (CLSM)	C.Y.	6,712	\$ 70.-	\$ 469,840.-
12.	Trench Safety System and Falsework	L.S.	---	---	\$ 290,000.-
13.	Class "A" Concrete, Reinforced Concrete Box	C.Y.	30	\$ 300.-	\$ 9,000.-
14.	Class "A" Concrete, Rectangular Channel	C.Y.	306	\$ 350.-	\$ 107,100.-
15.	Class "A" Concrete, Minor Structures	C.Y.	130	\$ 800.-	\$ 104,000.-
16.	Class "A" Concrete, Channel Paving	C.Y.	42	\$ 160.-	\$ 6,720.-
17.	Class "B" Concrete, 2' Cutoff Wall	L.F.	125	\$ 15.-	\$ 1,875.-
18.	Class "B" Concrete, Miscellaneous	C.Y.	53	\$ 260.-	\$ 13,780.-
19.	Transition Structure No. 2	EACH	1	\$ 3,500.-	\$ 3,500.-

PROPOSAL contd.

ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
20.	Transition Structure No. 3	EACH	1	\$ 6,000.-	\$ 6,000.-
21.	Junction Structure No. 1 (Modified 84" RCP)	EACH	1	\$ 30,000.-	\$ 30,000.-
22.	Modified CB 300	EACH	1	\$ 15,000.-	\$ 15,000.-
23.	Manhole No. 1	EACH	2	\$ 4,000.-	\$ 8,000.-
24.	Manhole No. 2	EACH	2	\$ 7,500.-	\$ 15,000.-
25.	Manhole No. 4	EACH	7	\$ 6,500.-	\$ 45,500.-
26.	Manhole No. 2, with Safety Ledge	EACH	2	\$ 10,000.-	\$ 20,000.-
27.	Manhole No. 4, with Safety Ledge	EACH	2	\$ 20,000.-	\$ 40,000.-
28.	Reinforcing Steel, Grade 60	LBS.	34,030	\$ 1.50	\$ 51,045.-
29.	84" RCP, 1350D	L.F.	512	\$ 295.-	\$ 151,040.-
30.	72" RCP, 2000D	L.F.	136	\$ 300.-	\$ 40,800.-
31.	72" RCP, 1750D	L.F.	960	\$ 235.-	\$ 225,600.-
32.	60" RCP, 2250D	L.F.	456	\$ 150.-	\$ 68,400.-
33.	54" RCP, 2250D	L.F.	702	\$ 180.-	\$ 126,360.-
34.	48" RCP, 2500D, with Extra Cover	L.F.	432	\$ 125.-	\$ 54,000.-
35.	48" RCP, 2500D	L.F.	1,416	\$ 125.-	\$ 177,000.-
36.	36" RCP, 2000D	L.F.	464	\$ 65.-	\$ 30,160.-
37.	30" RCP, 2000D	L.F.	144	\$ 70.-	\$ 10,080.-
38.	24" RCP, Class IV	L.F.	538	\$ 72.-	\$ 38,736.-
39.	18" RCP, Class IV	L.F.	280	\$ 60.-	\$ 16,800.-
40.	Aggregate Base, Class 2	C.Y.	760	\$ 40.-	\$ 30,400.-
41.	Asphalt Concrete, Type "B"	TONS	3,032	\$ 75.-	\$ 227,400.-
42.	Temporary Resurfacing	TONS	300	\$ 75.-	\$ 22,500.-
43.	6-Foot Chain Link Fence	L.F.	48	\$ 75.-	\$ 3,600.-


PROPOSAL contd.


ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
44.	3-Foot Cable Railing	L.F.	712	\$ 15.-	\$ 10,680.-
45.	14-Foot Double Drive Gates	EACH	2	\$ 1,000.-	\$ 2,000.-
46.	Miscellaneous Iron and Steel	LBS.	14,399	\$ 1.10	\$ 15,838.90
47.	Subdrain	L.F.	345	\$ 22.-	\$ 7,590.-
48.	Object Markers	EACH	6	\$ 200.-	\$ 1,200.-
49.	Street Light Conduit Relocation	L.F.	160	\$ 75.-	\$ 12,000.-
50.	Traffic Loop Detector Replacement	L.F.	165	\$ 25.-	\$ 4,125.-
51.	Traffic Signal Conduit Relocation	L.F.	590	\$ 52.-	\$ 30,680.-
52.	Remodel 4-Inch Vitrified Clay Pipe (VCP) House Connection	L.F.	10	\$ 100.-	\$ 1,000.-
53.	Adjust Manhole to Grade	EACH	1	\$ 800.-	\$ 800.-
54.	Adjust Valve to Grade	EACH	21	\$ 350.-	\$ 7,350.-
55.	Repair Existing Junction Structure	EACH	1	\$ 750.-	\$ 750.-
56.	Repair Junction Structure No. 4	EACH	4	\$ 900.-	\$ 3,600.-
57.	Repair Existing Manhole	EACH	7	\$ 700.-	\$ 4,900.-
58.	Repair Existing Line 1G Manhole at Station 10+00	L.S.	---	---	\$ 750.-
59.	Pipe Debris Removal	C.Y.	40	\$ 100.-	\$ 4,000.-
60.	Dust Abatement	L.S.	---	---	\$ 60,000.-
61.	Stormwater and Non-Stormwater Pollution Control	L.S.	---	---	\$ 10,000.-
62.	Non-Stormwater Discharge or Dewatering	L.S.	---	---	\$ 5,000.-
63.	Hot Tap Existing 10-Inch CML&C Waterline	L.S.	---	---	\$ 3,000.-
64.	Relocate 10-Inch Waterline	L.S.	---	---	\$ 30,000.-
65.	Protect Existing 42-Inch Waterline	L.S.	---	---	\$ 6,000.-

PROPOSAL contd.

ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
66.	Protect Existing 30-Inch Sewer Line	L.S.	---	---	\$ 7,000.-
67.	Remove and Replace Existing 30-Inch Irrigation Lines	L.S.	---	---	\$ 25,000.-
<u>TOTAL</u>					<u>\$ 3,580,074.05</u>

Belczak & Sons, Inc.
Name of Company
3510 E. Enterprise Drive
Address
Anaheim, CA 92807
City, State, Zip
714-998-5920 714-632-6643
Telephone Number Fax Number


Signature of Contractor
95-2890098
S.S.N. or E.I.N.
291101 A
Contractor's License No. and Classification

ADDENDUM NO. 1 ACKNOWLEDGED 

LIST OF SUBCONTRACTORS

Contractor Belczak & Sons, Inc.

Corona Drains – East Ontario Avenue Storm Drain,
Stages 1 and 2 and Corona Drains Line 1G, Stage 2
Project No. 2-0-00351-01

Give the name and the location of the place of business of each Subcontractor who will perform work or labor or render service to the General Contractor in or about the construction of the work or improvement, or a Subcontractor who specially fabricates and installs a portion of the work or improvement, in an amount in excess of one-half (1/2) of one percent (1%) of the General Contractor's total bid. List the bid item numbers of the work each subcontractor will do. If a portion of an item is to be subcontracted, show what percentage of that item is to be subcontracted.

Item No. (s) 49, 50, 51 (Electrical)
Name of Subcontractor High Light electric inc
Address/City/Phone PO Box 7339 Riverside 92513 951 352 9646
License No. 806335

Item No. (s) 43, 44, 45 (Fencing)
Name of Subcontractor Alcon Fence Co
Address/City/Phone PO Box 3279 Riverside 92519 951 685 5871
License No. 122954

Item No. (s) 20 (REBAR)
Name of Subcontractor Ambar steel co.
Address/City/Phone PO Box 900 Rialto 92377 909 874 2213
License No. 268566

Item No. (s) 63, 64 (Waterline)
Name of Subcontractor Can-Lee equipment rental inc
Address/City/Phone 620 S. Cypress ST La Habra 90631 562 905 1844
License No. 786547

Item No. (s) 7, 41 (Asphalt)
Name of Subcontractor All American Asphalt
Address/City/Phone 400 ± 6th Street Corona 92878 951 736 7625
License No. 267073A

STATEMENT OF LICENSURE

Pursuant to California Public Contract Code §3300, the undersigned does certify as follows:

1. That the pocket license/certificate of licensure I have presented to owner as of this date is my own license, being State of California, Contractors License No. 291101; and
2. That said Contractors License is current and valid; and
3. That said Contractors License is of a classification appropriate to the work to be undertaken for owner, a Class A license.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

DATED: April 18, 2011


Signature

President
Title

STATE OF CALIFORNIA) §
COUNTY OF RIVERSIDE)

On this the 18th day of April, 2011, before me

Patti Kae Barglowski

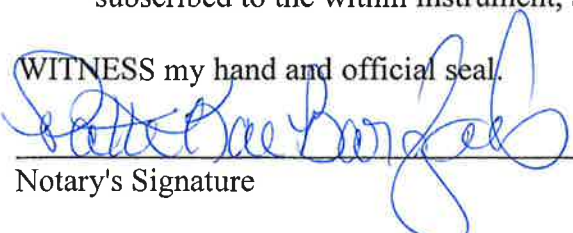
the undersigned Notary Public, personally appeared

Tim S. Belczak

personally known to me

proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument, and acknowledged that he/she executed it.

WITNESS my hand and official seal.


Notary's Signature



CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

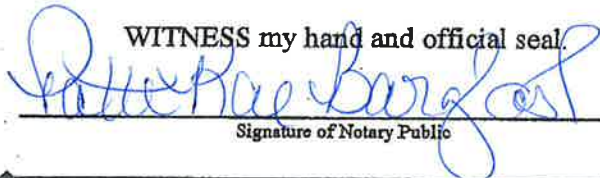
County of Orange

On April 18, 2011 before me, Patti Kae Barglowski, Notary Public
(Here insert name and title of the officer)

personally appeared Tim S. Belczak

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal

 Signature of Notary Public

(Notary Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT	
_____ (Title or description of attached document)	
_____ (Title or description of attached document continued)	
Number of Pages _____	Document Date _____
_____ (Additional information)	

CAPACITY CLAIMED BY THE SIGNER	
<input type="checkbox"/> Individual (s)	
<input type="checkbox"/> Corporate Officer	
	_____ (Title)
<input type="checkbox"/> Partner(s)	
<input type="checkbox"/> Attorney-in-Fact	
<input type="checkbox"/> Trustee(s)	
<input type="checkbox"/> Other	_____

INSTRUCTIONS FOR COMPLETING THIS FORM

Any acknowledgment completed in California must contain verbiage exactly as appears above in the notary section or a separate acknowledgment form must be properly completed and attached to that document. The only exception is if a document is to be recorded outside of California. In such instances, any alternative acknowledgment verbiage as may be printed on such a document so long as the verbiage does not require the notary to do something that is illegal for a notary in California (i.e. certifying the authorized capacity of the signer). Please check the document carefully for proper notarial wording and attach this form if required.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~ is /are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
 - ❖ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
 - ❖ Indicate title or type of attached document, number of pages and date.
 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document.

AFFIDAVIT FOR INDIVIDUAL CONTRACTORS

STATE OF CALIFORNIA) §
COUNTY OF RIVERSIDE)

_____, being first duly sworn, deposes and says:

That he or she is the party making the foregoing proposal or bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the Riverside County Flood Control and Water Conservation District or anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

His or Her signature

Subscribed and sworn to before me

this _____ day of _____, 20_____.

Signature and stamp of Notary
administering oath

AFFIDAVIT FOR JOINT VENTURE OR COPARTNERSHIP CONTRACTOR

STATE OF CALIFORNIA) §
COUNTY OF RIVERSIDE)

_____, being first duly sworn, deposes and says:

That he or she is a member of the joint venture or copartnership firm designated as

which is the party making the foregoing proposal or bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the Riverside County Flood Control and Water Conservation District or anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

That he has been and is duly vested with authority to make and sign instruments for the joint venture or copartnership by

_____ who constitute the other members of the joint venture or copartnership.

His or Her signature

Subscribed and sworn to before me

this _____ day of _____, 20____

Signature and stamp of Notary
administering oath

AFFIDAVIT FOR CORPORATE CONTRACTOR

STATE OF CALIFORNIA) §
COUNTY OF RIVERSIDE)

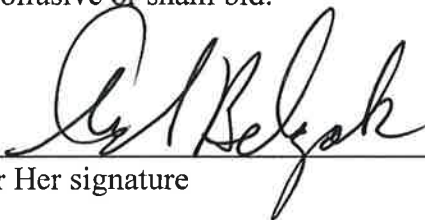
Tim S. Belczak

_____, being first duly sworn, deposes and says:

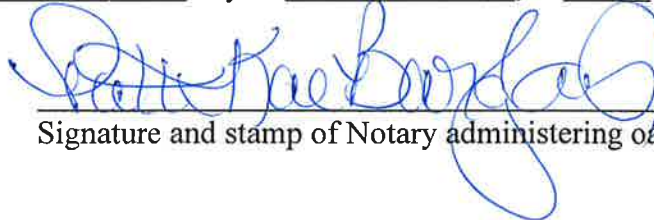
That he or she is President

of Belczak & Sons, Inc.

a corporation which is the party making the foregoing proposal or bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the Riverside County Flood Control and Water Conservation District or anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.


X _____
His or Her signature

Subscribed and sworn to before me this 18th day of April, 2011.



Signature and stamp of Notary administering oath



CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of Orange

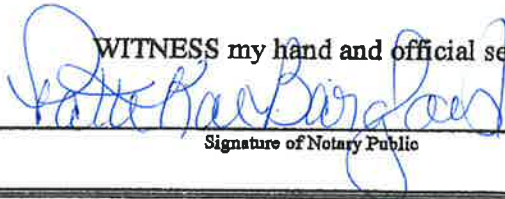
On April 18, 2011 before me, Patti Kae Barglowski, Notary Public
(Here insert name and title of the officer)

personally appeared Tim S. Belczak

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.


Signature of Notary Public

(Notary Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages _____ Document Date _____

(Additional information)

CAPACITY CLAIMED BY THE SIGNER

- Individual (s)
 Corporate Officer

(Title)

- Partner(s)
 Attorney-in-Fact
 Trustee(s)
 Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

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 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document

BID BOND

Recitals:

1. Belczak & Sons, Inc. (Contractor), has submitted its Contractor's Proposal to the Riverside County Flood Control and Water Conservation District, (District), for the construction of public work for **Corona Drains – East Ontario Avenue Storm Drain, Stages 1 and 2 and Corona Drains Line 1G, Stage 2** in accordance with a Notice to Contractors dated March 15, 2011.

2. Safeco Insurance Company of America a Washington corporation, hereafter called (Surety), is the surety on this Bond.

Agreement: We, Contractor as principal and Surety as surety, jointly and severally agree and state as follows:

1. The amount of the obligation of this Bond is 10% of the amount of the Contractor's Proposal and inures to the benefit of District.

2. This Bond is exonerated by (1) District rejecting said Proposal or, in the alternate, (2) if said Proposal is accepted, Contractor executes the Agreement and furnishes the Bonds and Insurance as agreed to in its Proposal, otherwise it remains in full force and effect for the recovery of loss, damage and expense of District resulting from failure of Contractor to act as agreed to in its Proposal. Some types of possible loss, damage and expense are specified in the Contractor's Proposal.

3. Surety for value received, stipulates and agrees that its obligations hereunder shall in no way be impaired or affected by any extension of time within which District may accept the Proposal and waives notice of any such extension.

4. This Bond is binding on our heirs, executors, administrators, successors and assigns.

Dated: April 15, 2011

Safeco Insurance Company of America
By Jane Kepner
Jane Kepner
(Printed Name)

Title Attorney-in-Fact
(Surety)

Belczak & Sons, Inc.
By Tim S. Belczak
Tim S. Belczak
(Printed Name)

Title President
(Contractor)

**NOTARY ACKNOWLEDGEMENT REQUIRED
FOR EACH SIGNATURE PLEASE ATTACH
SEPARATE FORM**

**NOTARY ACKNOWLEDGEMENT REQUIRED
FOR EACH SIGNATURE PLEASE ATTACH
SEPARATE FORM**

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of Orange

On APR 15 2011 before me, K. Luu, Notary Public
(Here insert name and title of the officer)

personally appeared Jane Kepner

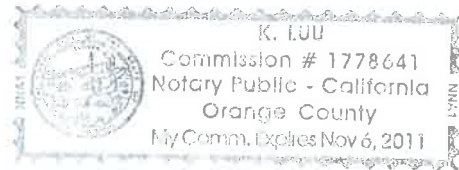
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

(Notary Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages _____ Document Date _____

(Additional information)

CAPACITY CLAIMED BY THE SIGNER

- Individual (s)
 Corporate Officer

 (Title)
 Partner(s)
 Attorney-in-Fact
 Trustee(s)
 Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

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- notarization.
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- Securely attach this document to the signed document



POWER OF ATTORNEY

Safeco Insurance Company of America
General Insurance Company of America
1001 4th Avenue
Suite 1700
Seattle, WA 98154

No. 9675

KNOW ALL BY THESE PRESENTS:

That SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA, each a Washington corporation, does each hereby appoint

RHONDA C. ABEL; JERI APODACA; LISA K. CRAIL; LINDA ENRIGHT; JANE KEPNER; NANETTE MARIELLA-MYERS; MIKE PARIZINO; RACHELLE RHEAULT; JAMES A. SCHALLER; Irvine, California***

its true and lawful attorney(s)-in-fact, with full authority to execute on its behalf fidelity and surety bonds or undertakings and other documents of a similar character issued in the course of its business, and to bind the respective company thereby.

IN WITNESS WHEREOF, SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA have each executed and attested these presents

this 21st day of March 2009

Dexter R. Legg

TAMIKOLAJEWSKI

Dexter R. Legg, Secretary

Timothy A. Mikolajewski, Vice President

CERTIFICATE

Extract from the By-Laws of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA:

"Article V, Section 13. - FIDELITY AND SURETY BONDS ... the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business... On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA adopted July 28, 1970.

- "On any certificate executed by the Secretary or an assistant secretary of the Company setting out, (i) The provisions of Article V, Section 13 of the By-Laws, and (ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and (iii) Certifying that said power-of-attorney appointment is in full force and effect, the signature of the certifying officer may be by facsimile, and the seal of the Company may be a facsimile thereof."

I, Dexter R. Legg, Secretary of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of these corporations, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this APR 15 2011 day of



Dexter R. Legg

Dexter R. Legg, Secretary

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

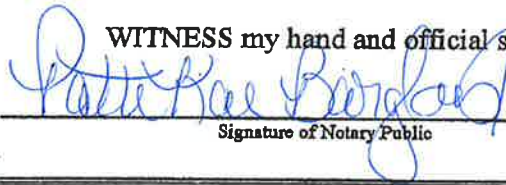
County of Orange

On April 18, 2011 before me, Patti Kae Barglowski, Notary Public
(Here insert name and title of the officer)

personally appeared Tim S. Belczak

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(~~ies~~), and that by his/~~her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

 Signature of Notary Public



(Notary Seal)

ADDITIONAL OPTIONAL INFORMATION

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(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages _____ Document Date _____

(Additional information)

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 Corporate Officer

(Title)

Partner(s)
 Attorney-in-Fact
 Trustee(s)
 Other _____

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- Securely attach this document to the signed document

AGREEMENT

THIS AGREEMENT is made as of May 24, 2011 and is between RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT (District) and BELCZAK & SONS, INC. (Contractor).

IT IS AGREED BY THE PARTIES AS FOLLOWS:

1. The Work. Contractor shall furnish all tools, equipment, apparatus, facilities, labor and material necessary to perform the work for **Project No. 2-0-00351-01, Corona Drains – East Ontario Avenue Storm Drain, Stages 1 and 2 and Corona Drains Line 1G, Stage 2** of District, in exact conformity with the Contract Documents (identified below) for the Project, subject to such inspection as District deems appropriate and pursuant to orders and instructions, drawings, etc., issued by District in accordance with the Contract Documents.

2. Contract Documents. The Contract Documents for **Project No. 2-0-00351-01, Corona Drains – East Ontario Avenue Storm Drain, Stages 1 and 2 and Corona Drains Line 1G, Stage 2** of District are: (a) Notice to Contractors; (b) Instructions To Bidders; (c) Contractor's Proposal; (d) Agreement; (e) General Provisions; (f) Special Provisions; (g) Detailed Specifications; (h) Plans; (i) Bid Bond; (j) Performance Bond; (k) Payment Bond; (l) Appendices and any other documents included in or incorporated into the contract documents; (m) Orders, Instructions, Drawings and Plans issued by District during the course of the work in accordance with the provisions of the Contract Documents.

Each of the above-mentioned documents presently in existence are by this reference incorporated herein and each of said documents not now in existence are incorporated herein as of the time of their issuance.

The Bid Bond is exonerated upon execution and delivery to District in a form satisfactory to District, of the following, duly executed by Contractor and also by its Surety as to the Bonds, Agreement, Certificate of Insurance, Payment Bond, and Performance Bond.

3. Bonds - Insurance. Prior to commencement of the work, Contractor must deliver to District and District must approve, a fully executed Performance Bond in the amount of 100% of the estimated contract price, a fully executed Payment Bond in the amount of 100% of the estimated contract price, and fully executed certificates of insurance evidencing the existence of the insurance required by Subsection 8.02 of the General Provisions. The Payment Bond and Performance Bond must be on forms furnished by District.

Should any surety on the Payment Bond or Performance Bond be deemed unsatisfactory by the Board of Supervisors of District, Contractor shall upon notice promptly substitute new Bonds in form satisfactory to District.

4. Contract Price - Payment. Attached hereto, marked Exhibit A and by this reference made a part hereof, is provision for the Contract Price and its payment.

RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

By Marion Ashley
Chairman of its Board of Supervisors
MARION ASHLEY

ATTEST:

KECIA HARPER-IHEM
Clerk of the Board

By Kuenzyten
Deputy

(Seal)

FORM APPROVED COUNTY COUNSEL
BY: Neal R. Kipnis 5/4/11
NEAL R. KIPNIS DATE

Belczak & Sons, Inc.
Contractor

By Tim S. Belczak
Tim S. Belczak

Title President

(If corporation affix corporate seal)

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

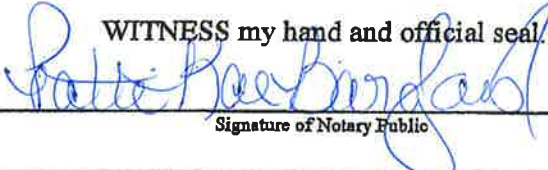
County of Orange

On April 28, 2011 before me, Patti Kae Barglowski, Notary Public
(Here insert name and title of the officer)

personally appeared Tim S. Belczak

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I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature of Notary Public

(Notary Seal)



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(Title or description of attached document continued)

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 Corporate Officer

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EXHIBIT A

(To Agreement for Riverside County Flood Control and Water Conservation District's Project No. 2-0-00351-01, Corona Drains – East Ontario Avenue Storm Drain, Stages 1 and 2 and Corona Drains Line 1G, Stage 2, located in the city of Corona and Riverside County, California.)

Contract Price - Payment - District shall pay Contractor the following sums for the items set forth below in accordance with Contractor's Proposal as accepted by District, which sums shall be paid as provided in the General Provisions and subject to additions and deductions as provided in the Contract Documents.

It is understood that the quantities listed, except for those shown as "Final" or "Lump Sum" are but estimates only and final payment will be based on actual work performed, subject to such adjustments and alterations as elsewhere provided.

ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
1.	Mobilization	L.S.	---	---	\$70,000.00
2.	Water Control	L.S.	---	---	5,000.00
3.	Traffic Control	L.S.	---	---	80,000.00
4.	Clearing and Miscellaneous Work	L.S.	---	---	115,000.00
5.	Excavation	C.Y.	27,554	\$11.00	303,094.00
6.	Structure Excavation	C.Y.	1,351	\$21.00	28,371.00
7.	Asphalt Concrete Excavation	S.F.	61,249	\$0.35	21,437.15
8.	Backfill	C.Y.	14,252	\$15.00	213,780.00
9.	Structure Backfill	C.Y.	472	\$40.00	18,880.00
10.	Filter Material	C.Y.	462	\$26.00	12,012.00
11.	Controlled Low Strength Material (CLSM)	C.Y.	6,712	\$70.00	469,840.00
12.	Trench Safety System and Falsework	L.S.	---	---	290,000
13.	Class "A" Concrete, Reinforced Concrete Box	C.Y.	30	\$300.00	9,000.00
14.	Class "A" Concrete, Rectangular Channel	C.Y.	306	\$350.00	107,100.00

EXHIBIT contd.

ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
15.	Class "A" Concrete, Minor Structures	C.Y.	130	\$800.00	104,000.00
16.	Class "A" Concrete, Channel Paving	C.Y.	42	\$160.00	6,720.00
17.	Class "B" Concrete, 2' Cutoff Wall	L.F.	125	\$15.00	1,875.00
18.	Class "B" Concrete, Miscellaneous	C.Y.	53	\$260.00	13,780.00
19.	Transition Structure No. 2	EACH	1	\$3,500.00	3,500.00
20.	Transition Structure No. 3	EACH	1	\$6,000.00	6,000.00
21.	Junction Structure No. 1 (Modified 84" RCP)	EACH	1	\$30,000.00	30,000.00
22.	Modified CB 300	EACH	1	\$15,000.00	15,000.00
23.	Manhole No. 1	EACH	2	\$4,000.00	8,000.00
24.	Manhole No. 2	EACH	2	\$7,500.00	15,000.00
25.	Manhole No. 4	EACH	7	\$6,500.00	45,500.00
26.	Manhole No. 2, with Safety Ledge	EACH	2	\$10,000.00	20,000.00
27.	Manhole No. 4, with Safety Ledge	EACH	2	\$20,000.00	40,000.00
28.	Reinforcing Steel, Grade 60	LBS.	34,030	\$1.50	51,045.00
29.	84" RCP, 1350D	L.F.	512	\$295.00	151,040.00
30.	72" RCP, 2000D	L.F.	136	\$300.00	40,800.00
31.	72" RCP, 1750D	L.F.	960	\$235.00	225,600.00
32.	60" RCP, 2250D	L.F.	456	\$150.00	68,400.00
33.	54" RCP, 2250D	L.F.	702	\$180.00	126,360.00
34.	48" RCP, 2500D, with Extra Cover	L.F.	432	\$125.00	54,000.00
35.	48" RCP, 2500D	L.F.	1,416	\$125.00	177,000.00
36.	36" RCP, 2000D	L.F.	464	\$65.00	30,160.00

EXHIBIT contd.

ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
37.	30" RCP, 2000D	L.F.	144	\$70.00	10,080.00
38.	24" RCP, Class IV	L.F.	538	\$72.00	38,736.00
39.	18" RCP, Class IV	L.F.	280	\$60.00	16,800.00
40.	Aggregate Base, Class 2	C.Y.	760	\$40.00	30,400.00
41.	Asphalt Concrete, Type "B"	TONS	3,032	\$75.00	227,400.00
42.	Temporary Resurfacing	TONS	300	\$75.00	22,500.00
43.	6-Foot Chain Link Fence	L.F.	48	\$75.00	3,600.00
44.	3-Foot Cable Railing	L.F.	712	\$15.00	10,680.00
45.	14-Foot Double Drive Gates	EACH	2	\$1,000.00	2,000.00
46.	Miscellaneous Iron and Steel	LBS.	14,399	\$1.10	15,838.90
47.	Subdrain	L.F.	345	\$22.00	7,590.00
48.	Object Markers	EACH	6	\$200.00	1,200.00
49.	Street Light Conduit Relocation	L.F.	160	\$75.00	12,000.00
50.	Traffic Loop Detector Replacement	L.F.	165	\$25.00	4,125.00
51.	Traffic Signal Conduit Relocation	L.F.	590	\$52.00	30,680.00
52.	Remodel 4-Inch Vitrified Clay Pipe (VCP) House Connection	L.F.	10	\$100.00	1,000.00
53.	Adjust Manhole to Grade	EACH	1	\$800.00	800.00
54.	Adjust Valve to Grade	EACH	21	\$350.00	7,350.00
55.	Repair Existing Junction Structure	EACH	1	\$750.00	750.00
56.	Repair Junction Structure No. 4	EACH	4	\$900.00	3,600.00
57.	Repair Existing Manhole	EACH	7	\$700.00	\$4,900.00
58.	Repair Existing Line 1G Manhole at Station 10+00	L.S.	---	---	750.00
59.	Pipe Debris Removal	C.Y.	40	\$100.00	4,000.00

EXHIBIT contd.

ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
60.	Dust Abatement	L.S.	---	---	60,000.00
61.	Stormwater and Non-Stormwater Pollution Control	L.S.	---	---	10,000.00
62.	Non-Stormwater Discharge or Dewatering	L.S.	---	---	5,000.00
63.	Hot Tap Existing 10-Inch CML&C Waterline	L.S.	---	---	3,000.00
64.	Relocate 10-Inch Waterline	L.S.	---	---	30,000.00
65.	Protect Existing 42-Inch Waterline	L.S.	---	---	6,000.00
66.	Protect Existing 30-Inch Sewer Line	L.S.	---	---	7,000.00
67.	Remove and Replace Existing 30-Inch Irrigation Lines	L.S.	---	---	25,000.00
				TOTAL	\$3,580,074.05

PERFORMANCE BOND

Recitals:

1. Belczak & Sons, Inc. (Contractor) has entered into an Agreement dated _____ with the Riverside County Flood Control and Water Conservation District (District) for construction of public work known as Project No. 2-0-00351-01, Corona Drains – East Ontario Avenue Storm Drain, Stages 1 and 2 and Corona Drains Line 1G, Stage 2.

2. Safeco Insurance Company of America, a Washington corporation (Surety), is the surety under this Bond.

Agreement: We, Contractor as principal, and Surety as surety, jointly and severally agree, state, and are bound unto District, as obligee, as follows:

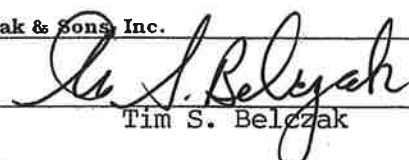
1. The amount of the obligation of this Bond is 100% of the estimated contract price for the Project of \$ 3,580,074.05 and inures to the benefit of District.

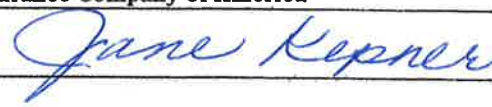
2. This Bond is exonerated by Contractor doing all things to be kept and performed by it in strict conformance with the Contract Documents for the Project, otherwise it remains in full force and effect for the recovery of loss, damage and expense of District resulting from failure of Contractor to so act. All of said Contract Documents are incorporated herein.

3. This obligation is binding on our successors and assigns.

4. For value received, Surety stipulates and agrees that no change, time extension, prepayment to Contractor, alteration or addition to the terms and requirements of the Contract Documents or the work to be performed thereunder shall affect its obligations hereunder and waives notice as to such matters, except the total contract price cannot be increased by more than 25% without approval of Surety.

THIS BOND is executed as of April 27, 2011

Belczak & Sons, Inc.
By 
Tim S. Belczak

Safeco Insurance Company of America
By 
Type Name Jane Kepner
Its Attorney in Fact (Surety)

Title President
(Contractor)

NOTE: This Bond must be executed by both parties with corporate seal affixed. All signatures must be acknowledged (attach acknowledgments).

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of Orange

On APR 27 2011 before me, K. Luu, Notary Public
(Here insert name and title of the officer)

personally appeared Jane Kepner

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature of Notary Public

(Notary Seal)

ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages _____ Document Date _____

(Additional information)

CAPACITY CLAIMED BY THE SIGNER

Individual (s)

Corporate Officer

(Title)

Partner(s)

Attorney-in-Fact

Trustee(s)

Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

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- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- _____
notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~, is /are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
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 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document



POWER OF ATTORNEY

Safeco Insurance Company of America
General Insurance Company of America
1001 4th Avenue
Suite 1700
Seattle, WA 98154

No. 9675

KNOW ALL BY THESE PRESENTS:

That SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA, each a Washington corporation, does each hereby appoint

RHONDA C. ABEL; JERI APODACA; LISA K. CRAIL; LINDA ENRIGHT; JANE KEPNER; NANETTE MARIELLA-MYERS; MIKE PARIZINO; RACHELLE RHEAULT; JAMES A. SCHALLER; Irvine, California***

its true and lawful attorney(s)-in-fact, with full authority to execute on its behalf fidelity and surety bonds or undertakings and other documents of a similar character issued in the course of its business, and to bind the respective company thereby.

IN WITNESS WHEREOF, SAFECO INSURANCE COMPANY OF AMERICA and GENERAL INSURANCE COMPANY OF AMERICA have each executed and attested these presents

this 21st day of March 2009

Dexter R. Legg (handwritten signature)

TAMIKOLAJEWSKI (handwritten signature)

Dexter R. Legg, Secretary

Timothy A. Mikolajewski, Vice President

CERTIFICATE

Extract from the By-Laws of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA:

*Article V, Section 13. - FIDELITY AND SURETY BONDS ... the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business...

Extract from a Resolution of the Board of Directors of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA adopted July 28, 1970.

"On any certificate executed by the Secretary or an assistant secretary of the Company setting out,

- (i) The provisions of Article V, Section 13 of the By-Laws, and
(ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and
(iii) Certifying that said power-of-attorney appointment is in full force and effect,

the signature of the certifying officer may be by facsimile, and the seal of the Company may be a facsimile thereof."

I, Dexter R. Legg, Secretary of SAFECO INSURANCE COMPANY OF AMERICA and of GENERAL INSURANCE COMPANY OF AMERICA, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of these corporations, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this APR 27 2011 day of



Dexter R. Legg (handwritten signature)

Dexter R. Legg, Secretary

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

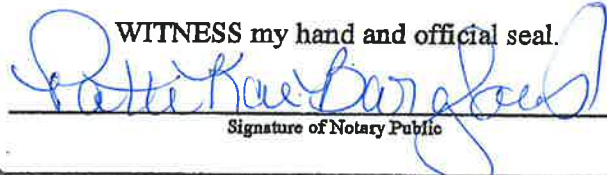
County of Orange

On April 28, 2011 before me, Patti Kae Barglowski, Notary Public
(Here insert name and title of the officer)

personally appeared Tim S. Belczak

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she~~/they executed the same in his/~~her~~/~~their~~ authorized capacity(~~ies~~), and that by his/~~her~~/~~their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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WITNESS my hand and official seal.

 Signature of Notary Public

(Notary Seal)



ADDITIONAL OPTIONAL INFORMATION

<p>DESCRIPTION OF THE ATTACHED DOCUMENT</p> <p>_____</p> <p style="text-align: center;"><small>(Title or description of attached document)</small></p> <p>_____</p> <p style="text-align: center;"><small>(Title or description of attached document continued)</small></p> <p>Number of Pages _____ Document Date _____</p> <p>_____</p> <p style="text-align: center;"><small>(Additional information)</small></p>

<p>CAPACITY CLAIMED BY THE SIGNER</p> <p><input type="checkbox"/> Individual (s)</p> <p><input type="checkbox"/> Corporate Officer</p> <p style="text-align: center;">_____</p> <p style="text-align: center;"><small>(Title)</small></p> <p><input type="checkbox"/> Partner(s)</p> <p><input type="checkbox"/> Attorney-in-Fact</p> <p><input type="checkbox"/> Trustee(s)</p> <p><input type="checkbox"/> Other _____</p>

INSTRUCTIONS FOR COMPLETING THIS FORM

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PAYMENT BOND

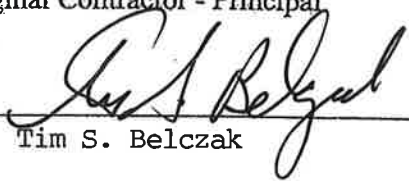
(Public Work - Civil Code, Section 3247 et seq.)

The makers of this Bond are Belczak & Sons, Inc. as Principal and Original Contractor and Safeco Insurance Company of America a corporation, authorized to issue Surety Bonds in California, as Surety, and this Bond is issued in conjunction with that certain public works contract dated _____, between Principal and Riverside County Flood Control and Water Conservation District (District), a public entity, as Owner, for \$ 3,580,074.05, the total amount payable. THE AMOUNT OF THIS BOND IS 100 PERCENT OF SAID SUM. Said contract is for public work generally consisting of the construction of Corona Drains - East Ontario Avenue Storm Drain, Stages 1 and 2 and Corona Drains Line 1G, Stage 2 project. The beneficiaries of this Bond are as is stated in Section 3248 of the Civil Code and the requirements and conditions of this Bond are as is set forth in Sections 3248, 3249, 3250 and 3252 of said Code. Without notice, Surety consents to extension of time for performance, change in requirements, amount of compensation, or prepayment under said contract.

DATED: April 27, 2011

Belczak & Sons, Inc.
Original Contractor - Principal

Safeco Insurance Company of America
Surety


Tim S. Belczak

By Jane Kepner
Its Attorney in Fact Jane Kepner

Title President
(If corporation, affix seal)

(Corporate Seal)

SEE NOTARY ACKNOWLEDGEMENT ATTACHED

STATE OF CALIFORNIA §
COUNTY OF _____)

SURETY'S ACKNOWLEDGMENT

On _____ before me personally appeared _____ known to me to be the person whose name is subscribed to the within instrument as attorney in fact of, _____ a corporation, and acknowledged that he subscribed the name of said corporation thereto, and his own name as its attorney in fact.

Notary Public (Seal)

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of Orange

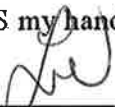
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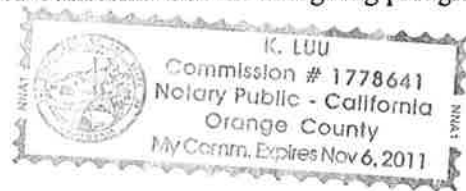
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WITNESS my hand and official seal.



Signature of Notary Public

(Notary Seal)



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Number of Pages _____ Document Date _____

(Additional information)

CAPACITY CLAIMED BY THE SIGNER

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- Corporate Officer

(Title)

- Partner(s)
- Attorney-in-Fact
- Trustee(s)
- Other _____

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Safeco Insurance Company of America
General Insurance Company of America
1001 4th Avenue
Suite 1700
Seattle, WA 98154

No. 9675

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(ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and
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State of California

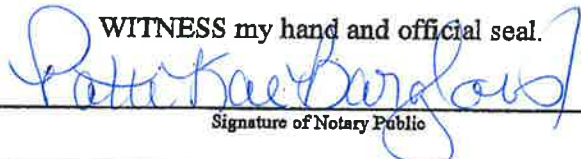
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<input type="checkbox"/> Corporate Officer

(Title)
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<input type="checkbox"/> Attorney-in-Fact
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- Securely attach this document to the signed document.



CERTIFICATE OF LIABILITY INSURANCE

OPID RR
BELCZ-KDATE (MM/DD/YYYY)
04/27/11

PRODUCER Crosby Insurance, Inc -181 E. Kaiser Blvd Anaheim CA 92808 Phone: 714-221-5200 Fax: 714-221-5210	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW	
	INSURERS AFFORDING COVERAGE	NAIC #
INSURED Belczak & Sons, Inc. PO Box 3196 Orange CA 92857	INSURER A: Great American Assurance Co	26344
	INSURER B: Amerc.Economy Ins. Company	
	INSURER C: RSUI Indemnity Company	
	INSURER D: State Compensation Ins Fund	
	INSURER E:	

COVERAGES


THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR ADD'L LTR INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> XCU Included GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC	GLP2100788	04/01/11	04/01/12	EACH OCCURRENCE \$ 1,000,000
	DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000 MED EXP (Any one person) \$ Excluded PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 Emp Ben. 1,000,000				
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	02CE16126850	04/01/11	04/01/12	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN AUTO ONLY: EA ACC \$ AGG \$
C	EXCESS / UMBRELLA LIABILITY <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input checked="" type="checkbox"/> RETENTION \$ 10,000	NHA227907	04/01/11	04/01/12	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$ \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory In NH) If yes, describe under SPECIAL PROVISIONS below				7663070-11
	OTHER				

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

***Ten Days notice of cancellation will be given for non-payment of premium.**
 Re: Corona Drains-East Ontario Avenue Storm Drain, Stages 1 and 2/Corona Drains Line 1 G, Stage 2/Project Nos.2-0-00351-01 and 02, and 2-0-00223-02
 The District, the County of Riverside and the City of Corona are named as additional insured per the attached endt. (X)

CERTIFICATE HOLDER**CANCELLATION**

RIVERS2 Riverside County Flood Control & Water Conservation District 1995 Market Street Riverside CA 92501	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL EMAIL <input checked="" type="checkbox"/> MAIL *30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BY SIGNATURE TO BE OBTAINED FROM THE INSURER, TO BE SENT TO
	AUTHORIZED REPRESENTATIVE 

ACORD 25 (2009/01)

© 1988-2009 ACORD CORPORATION. All rights reserved.

The ACORD name and logo are registered marks of ACORD

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR
CONTRACTORS – AUTOMATIC STATUS WHEN
REQUIRED IN CONSTRUCTION AGREEMENT WITH YOU**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

A. Section II – Who Is An Insured is amended to include as an additional insured any person or organization for whom you are performing operations when you and such person or organization have agreed in writing in a contract or agreement that such person or organization be added as an additional insured on your policy. Such person or organization is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:

1. Your acts or omissions; or
2. The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured.

A person's or organization's status as an additional insured under this endorsement ends when your operations for that additional insured are completed.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusions apply:

This insurance does not apply to:

1. "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:
 - a. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
 - b. Supervisory, inspection, architectural or engineering activities.
2. "Bodily injury" or "property damage" occurring after:
 - a. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
 - b. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location And Description Of Completed Operations
As required by written contract or agreement for non-residential work performed by insured during this policy period. Additional Premium: Included	Location: As per Certificate of Insurance Your work is defined as: Non-residential work performed by the Insured during this policy period when required by written contract or agreement
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

POLICY NUMBER: GLP2100788

Belczak & Sons, Inc.

GAC 3649 CG (Ed. 11/06)

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

PRIMARY NON-CONTRIBUTORY INSURANCE ENDORSEMENT

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE FORM

OWNERS AND CONTRACTORS PROTECTIVE LIABILITY COVERAGE FORM

This insurance is primary to any other insurance held by third parties with respect to work performed by you under written contractual agreements with such third parties and any other insurance which may be available to such third parties shall be non-contributory.

IMPORTANT

If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

GENERAL PROVISIONS

GENERAL PROVISIONS

SECTION I - DEFINITION OF TERMS

1.01 Whenever in these specifications, or in any documents or instruments where these specifications govern, the following terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:

(a) DISTRICT: The Riverside County Flood Control and Water Conservation District of the State of California, as created by law, also sometimes referred to as the Flood Control District, or party of the first part.

(b) BOARD OF SUPERVISORS: The Board of Supervisors of the Riverside County Flood Control and Water Conservation District as created by law, also sometimes referred to as the Board.

(c) ENGINEER: The Chief Engineer of the Riverside County Flood Control and Water Conservation District, also sometimes referred to as the Flood Control Engineer, the Chief Engineer, or the General Manager-Chief Engineer, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

(d) LABORATORY: The established laboratory of the Riverside County Road Department or laboratories authorized by the District to test materials and work involved in the contract.

(e) BIDDER: Any individual, firm or corporation submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.

(f) CONTRACTOR: The person or persons, copartnership or corporation, private or municipal, who have entered into a contract with the District, as party or parties of the second part or his or their legal representatives.

(g) SUPERINTENDENT: The Executive representative of the Contractor, present on the work at all times during progress, authorized to receive and execute instruction from the Engineer.

(h) PLANS: The official plans, profiles, typical cross sections, general cross sections, working drawings, and supplemental drawings, or exact reproductions thereof, approved by the Engineer, which show the location, character, dimensions and details of the work to be done, and which are to be considered as a part of the contract supplementary to these specifications.

(i) SPECIFICATIONS: The directions, provisions, and requirements contained herein as supplemented by such special provisions, as may be necessary, pertaining to the method and manner of performing the work or to the quantities and qualities of materials to be furnished under the contract. The Special Provisions are specific clauses setting forth conditions

or requirements peculiar to the project under consideration and covering work or materials involved in the proposal and estimate but not satisfactorily covered by these General Provisions. Supplemental agreements or contract change orders are written agreements executed by the Contractor and by the District, covering alterations, amendments or extensions to the project, as hereinafter provided.

(j) CONTRACT: The written agreement covering the performance of the work and the furnishing of labor and materials in the construction of the work. The contract shall include the Notice to Contractors, the Proposal, Plans, Specifications, Special Provisions, and Contract Bonds, also, any and all supplemental agreements or contract change orders amending or extending the work contemplated and which may be required to complete the work in a substantial and acceptable manner.

(k) CONTRACT PRICE: Shall mean either the lump sum, unit price, or unit prices to be named in the contract, or the total of all payments under the contract at the lump sum, unit price, or unit prices, as the case may be.

(l) SURETY OR SURETIES: The bondsmen or party or parties, approved by the Engineer, who may guarantee the fulfillment of the contract by bond, and whose signatures are attached to said bond.

(m) RIGHT OF WAY: The whole right of way which is reserved for and secured for use in constructing the improvement.

(n) THE WORK: All the work specified in the Special Provisions, proposal and contract, or indicated on the plans as the contemplated complete improvement covered by the contract.

1.02 Wherever in the specifications or upon the plans the words directed, required, permitted, ordered, designated, prescribed, or words of like import are used, it will be understood that the direction, requirements, permission, order, designation, or prescription of the Flood Control Engineer is intended, and similarly the words approved, acceptable, satisfactory, or words of like import, shall mean approved by, or acceptable to, or satisfactory to, the Flood Control Engineer, unless otherwise expressly stated.

SECTION II - SCOPE OF WORK

2.01 WORK TO BE DONE

It is the intent of these General Provisions, Special Provisions, Detailed Specifications, and the plans herein referred to, to provide for and include all labor, power, light, water, materials, tools, scaffolding, machinery, plant transportation, insurance, permits, bonds, temporary protection, watchmen, and superintendence necessary to construct and complete all work, and to furnish all materials included in the contract, except those furnished by the District and as specifically mentioned in these specifications.

The contract documents are complementary, and the work called for by any one shall be as binding as if called for by all.

2.02 CONSTRUCTION SCHEDULE

The Contractor shall submit at such times as may be requested by the Engineer, a schedule which shall show the order and dates in which the Contractor proposes to carry on the various parts of the work; including estimated completion dates.

2.03 DRAWINGS AND SPECIFICATIONS ON THE WORK

The Contractor shall keep one copy of all drawings and specifications on the work, in good order, available to the Engineer and his representatives.

2.04 ESTIMATE OF QUANTITIES

The quantities of work to be done and the materials to be furnished under this contract are approximate only. The District is not to be held responsible for the accuracy of the estimate of quantities.

The Contractor shall judge for himself, after considering all circumstances and conditions, the costs and quantities of materials involved in the contract. The Contractor shall not at any time assert that there was any misunderstanding in regard to the depth or class of the excavations to be made, or the nature or kind or amount of materials to be furnished for the work.

The Contractor herewith agrees that he will not ask, demand, sue for, or seek to recover, for compensation in excess of the amounts payable for the various unit costs or lump sum charges for the work, as stipulated in the proposal, which he actually performs as specified.

2.05 PROTESTS

If the Contractor considers any work demanded of him to be outside of the requirements of the contract, or considers any record or ruling of the Engineer to be unfair, he shall immediately, upon such work being demanded or such record or ruling being made, ask, in writing, for written instructions covering protested items of work. Immediately on receipt of written instructions from the Engineer he shall proceed without delay to diligently perform the work in conformance with the written record or ruling. Within ten (10) calendar days after date of receipt of the written instructions or ruling, the Contractor shall file a written protest with the Engineer stating clearly and in detail the basis of his protest. Except for such protests as are made of record in the manner herein specified and within the time limit stated, the records, rulings, instructions, or decisions of the Engineer shall be final and conclusive.

2.06 ALTERATIONS

It must be distinctly understood that such reasonable alterations and modifications may be made by the Chief Engineer, as may be deemed desirable, and that this may be done without notices to the Sureties on the Contractor's bonds. If such changes result in increased or decreased quantities under the items specified in the proposal, the Contractor will be paid on the basis of actual quantities as measured by the Engineer, and such changes shall not affect the unit prices bid by the Contractor. If, however, such changes result in delay to the work, the

Contractor will be given such extension of time on the completion of his contract as the Chief Engineer may deem equitable.

2.07 EXTRA WORK

A. General

The District reserves and shall have the right, when confronted with unpredicted conditions, unforeseen events, or emergencies, to revise the details of the contemplated work, or to add work of a different character or function and have the Contractor perform such revised or added work as "Extra Work", when such extra work is considered by the Chief Engineer to be virtually appurtenant to the satisfactory completion of the project.

"Extra Work" is defined as added work of a different character or function and for which no basis for payment is prescribed; or that involving revisions of the details of the work in such manner as to render inequitable payment under items upon which the Contractor bid; or that work which is indeterminate at the time of advertising and is specifically designated as extra work in the plans and Special Provisions.

The signing of the contract by the Contractor will be deemed to be an agreement on his part to perform extra work, as and when ordered by the Chief Engineer. Notice to the Sureties on the Contractor's bonds will not be given unless the estimated total value of the contract, as changed or supplemented, shall exceed the original total bid price by more than 25 percent.

If required extra work results in delay to the work, the Contractor will be given an equivalent extension of time.

Approval of extra work shall be obtained from the Board of Supervisors before such work is authorized to be done, if:

- a. For contracts with a total contract price of \$250,000 or less, a change due to extra work exceeds ten percent (10%) of the original contract amount; or
- b. For contracts with a total contract price of more than \$250,000, a change due to extra work exceeds \$25,000 plus one percent (1%) of the original contract amount in excess of \$250,000; or
- c. An individual change exceeds \$100,000; or
- d. Cumulative contract changes exceed ten percent (10%) of the original contract amount.

Extra work specially authorized by the Board of Supervisors shall not be included in the cost limitations above stated.

B. Procedure for Extra Work

1. Upon decision of the District to have extra work performed, the Chief Engineer will so inform the Contractor, acquainting him with the essential details of the new work. The Contractor shall thereupon prepare a price for said work based upon his estimate of cost and submit said price and estimate to the Chief Engineer whose approval shall be secured before work is started; excepting that the Chief Engineer may, when in the best interest of the District, order the Contractor to proceed with the extra work in advance of the submission of such prices, provided that preliminary estimates, as made by the District, show that the cost will not exceed \$1,000.

2. Prices for extra work shall be prepared by the Contractor on one or both of the following methods, as requested by the District, and submitted to the Chief Engineer for approval:

a. For a stated unit price or lump sum amount based upon current prevailing fair prices for materials, labor, plant, overhead and profit.

b. On a cost basis (force account by the Contractor). The cost of all work done by the Contractor will be computed in the manner described in Section 7.03, and the compensation thus provided shall be accepted as payment in full by the Contractor, and no additional payment will be allowed for the use of small tools, superintendent's services, timekeeper's services, pickup or yard trucks, except as specifically essential to the work, nor any other overhead expenses incurred in the prosecution of the force account work.

3. Upon receipt of the Contractor's price, the Chief Engineer will make an analysis thereof and adopt one of the following procedures:

a. Accept the Contractor's price for lump sum or unit price amount in the original or amended form and direct him to proceed with the work; or direct him to perform the work on a cost plus basis.

b. Have the work performed by District's forces or separate contract, without undue interference or hindrance to the Contractor and without claim or suit by the Contractor for damages on account thereof.

c. Direct the Contractor to proceed with the work and accept payment therefor in the amount as adjudicated later in a court of law.

2.08 PAYMENT FOR EXTRA WORK

At the end of each month the Contractor shall make and deliver to the Chief Engineer a statement of the cost of the extra work completed during the current month, itemized and in a form satisfactory to the Chief Engineer. Upon verification of said statement by the Chief Engineer, the Contractor's claim for the full amount, as shown on said statement, will be added to the monthly partial payment made in accordance with Paragraph 7.06 of the General Provisions.

2.09 RIGHTS OF WAY

The District shall provide the rights of way upon which the work under this contract is to be done, except that the Contractor shall provide land required for the erection of temporary construction facilities and storage of his material, together with right of access to same. The District will not be responsible for any delay in furnishing the rights of way and such delay shall not be made the basis for a claim for additional compensation by the Contractor. However, in case the failure of the District to furnish the required rights of way delays the prosecution of the work, the time allowed for completion will be extended by a period of time equal to that lost by the Contractor due to such delay.

2.10 CLEANING UP

The Contractor shall, as directed by the Engineer, remove from the District's right of way and from all public and private property, at his own expense, all temporary structures, rubbish and waste materials resulting from his operations.

SECTION III - CONTROL OF THE WORK

3.01 AUTHORITY OF THE ENGINEER

The Engineer shall have general supervision and direction of the contract under authority of the Board of Supervisors. He has the authority to stop the work whenever such stoppage may be necessary to ensure the proper execution of the contract. The Engineer shall decide all questions which may arise as to the quality or acceptability of materials furnished, work performed, and rate or progress of the work; all questions which may arise as to the interpretation of the plans and specifications; all questions as to the acceptable fulfillment of the contract on the part of the Contractor; and all questions as to compensation.

His determination and decision thereon shall be final and conclusive; and such determination and decision, in case any question shall arise, shall be a condition precedent to the right of the Contractor to receive any money hereunder.

3.02 DETAIL DRAWINGS

The approved plans shall be supplemented by such working drawings as are necessary to control the work adequately. All authorized alterations affecting the requirements and information given on the approved plans shall be in writing. No changes shall be made of any plan or drawing after the same has been approved by the Engineer, except by his direction.

It is expressly understood, however, that approval by the Engineer of the Contractor's working drawings does not relieve the Contractor of any responsibility for accuracy of dimensions and details. It is mutually agreed that the Contractor shall be responsible for agreement and conformity of his working drawings with the approved plans and specifications.

Full compensation for furnishing all working drawings shall be considered as included in the prices paid for the various contract items of work, and no additional allowance will be made therefor.

3.03 CONFORMITY WITH PLANS AND ALLOWABLE DEVIATIONS

Finished surfaces in all cases shall conform with the lines, grades, cross-sections, and dimensions shown on the approved plans. Deviations from the approved plans and working drawings, as may be required by the exigencies of construction, will in all cases be determined by the Engineer and authorized in writing.

3.04 INTERPRETATION OF PLANS AND SPECIFICATIONS

Should it appear that the work to be done or any of the matters relative thereto are not sufficiently detailed or explained in these specifications and the Special Provisions, the Contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform to the same part of the contract, so far as may be consistent with the original specifications; and in the event of any doubt or questions arising respecting the true meaning of the specifications; reference shall be made to the Engineer, whose decision thereon shall be final.

In the event of any discrepancy between any drawings and the figures written thereon, the figures shall be taken as correct. The Contractor will not be allowed to take advantage of errors and omissions in the drawings and specifications. When errors or omissions are found, they will be corrected or supplied by the Engineer.

3.05 SUPERINTENDENCE

The Contractor shall keep on his work, continually during its progress, a competent Superintendent responsible for the construction of the work, and any necessary assistants; all satisfactory to the Engineer. The Superintendent shall represent the Contractor in his absence and all directions given to him shall be as binding as if given to the Contractor. Important directions shall be confirmed in writing to the Contractor. Other directions shall be so confirmed on written request in each case.

3.06 LINES AND GRADES

The Contractor shall provide reasonable and necessary opportunities and facilities for setting points and making measurements. He shall not proceed until he has made timely demand upon the Engineer for, and has received from him, such lines and grades as may be necessary as the work progresses. The work shall be done in strict conformity with such lines and grades.

The Contractor shall carefully preserve benchmarks, reference points and stakes, and in case of willful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

3.07 INSPECTION OF WORK

The Engineer and his representatives shall at all times have access to the work during its construction, and shall be furnished with every reasonable facility for ascertaining that the stock and materials used and employed, and the workmanship, are in accordance with the requirements and intentions of these specifications. All work done and all materials furnished shall be subject to the Engineer's inspection and approval to ensure design objectives.

The inspection of the work shall not relieve the Contractor of any of his obligations to fulfill his contracts as prescribed, and defective work shall be made good and unsuitable materials may be rejected, notwithstanding that such defective work and materials have been previously overlooked by the Engineer and accepted or estimated for payment.

3.08 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

All work which has been rejected shall be remedied, or removed and replaced by the Contractor in an acceptable manner and no compensation will be allowed him for such removal or replacement. Any work done beyond the lines and grades shown on the plans or established by the Engineer, or any extra work done without written authority, will be considered as unauthorized and will not be paid for. Work so done may be ordered removed at the Contractor's expense. Upon failure on the part of the Contractor to comply forthwith with any order of the Engineer made under the provisions of this article, the Engineer shall have authority to cause defective work to be remedied, or removed and replaced, and unauthorized work to be removed and to deduct the costs for this work from any monies due or to become due the Contractor.

3.09 EQUIPMENT AND PLANT

Equipment not suitable to produce the quality of work required will not be permitted to operate on the project. Plants shall be designed and constructed in accordance with general practice for such equipment and shall be of sufficient capacity and of such character to ensure the production of sufficient material to carry the work to completion within the time limit.

The Contractor shall provide adequate and suitable equipment and plants to meet the above requirements and, when ordered by the Engineer, shall remove unsuitable equipment from the work and discontinue the operation of unsatisfactory plants. No worn or obsolete equipment shall be used, and in no case shall the maker's rating of the capacity for any equipment be exceeded.

All vehicles used to haul materials over existing highways shall be equipped with pneumatic tires.

3.10 FINAL INSPECTION

The Engineer will not make the final inspection until the work provided for and contemplated by the contract has been completed and the final cleaning up performed.

SECTION IV - CONTROL OF MATERIAL

4.01 DISTRICT FURNISHED MATERIALS

The Contractor shall furnish all materials required to complete the work, except those specified in the Special Provisions to be furnished by the District. Materials furnished by the District will be delivered to the Contractor at the points specified in the Special Provisions.

The Contractor will be held responsible for all materials so delivered to him, and deductions will be made from any monies due him to make good any shortages and deficiencies,

from any cause whatsoever, which may occur after such delivery, or for any demurrage charges due to delinquency in unloading.

4.02 SOURCE OF SUPPLY AND QUALITY OF MATERIALS

At the option of the Engineer the source of supply of each of the materials shall be approved by him before the delivery is started. Only materials conforming to the requirements of these specifications and approved by the Engineer shall be used in the work. All materials proposed for use may be inspected or tested at any time during their preparation and use. If, after trial, it is found that sources of supply which have been approved do not furnish a uniform product, or if the product from any source proves unacceptable at any time, the Contractor shall furnish approved material from other approved sources. No material which, after approval, subsequently becomes unfit for use shall be used in the work.

4.03 SAMPLES AND TESTS

All tests of materials furnished by the Contractor shall be made by the District in accordance with commonly recognized standards of national organizations, and such special methods and tests as are in use at the District's approved laboratory and described in the Detailed Specifications.

Field tests of materials will also be made by the Engineer when deemed necessary and these tests shall be made in accordance with standard practices of the District.

The Contractor shall furnish such samples of all materials as are requested by the Engineer without charge. No material shall be used until it has been approved by the Engineer. Samples will be secured and tested whenever necessary to determine the quality of the material.

Promptly after the approval of the contract, the Contractor shall notify the Engineer of the proposed sources of supply of all materials to be furnished by him, using a form which will be supplied by the Engineer upon request.

Whenever reference is made in these specifications to standard tests or requirements of the laboratory of the District, the American Society for Testing Materials, the American Railway Engineering Association, or the American Association of State Highway Officials, the reference shall be construed to mean the standards that are in effect at the date of these specifications with subsequent amendments, changes, or additions as thereafter adopted and published by the organization referred to.

4.04 STORAGE OF MATERIALS

Materials shall be so stored as to ensure the preservation of their quality and fitness for the work. When considered necessary by the Engineer, they shall be placed on wooden platforms or other hard, clean surfaces and not on the ground. They shall be placed under cover when so directed. Stored materials shall be so located as to facilitate prompt inspection.

4.05 DEFECTIVE MATERIALS

All materials not conforming to the requirements of these specifications shall be considered as defective and all such materials, whether in place or not, shall be rejected and shall be removed immediately from the site of the work unless otherwise permitted by the Engineer. No rejected materials, the defects of which have been subsequently corrected, shall be used until approval in writing has been given by the Engineer. Upon failure on the part of the Contractor to comply forthwith with any order of the Engineer made under the provisions of this article, the Engineer shall have authority to remove and replace defective material and to deduct the cost of removal and replacement from any monies due or to become due the Contractor.

4.06 ASSIGNMENT OF CLAIMS

In submitting a bid on this public works project, or any subcontractor agreeing to supply goods, services, or materials, and entering a contract pursuant thereto, the Contractor and/or subcontractor do offer and agree to assign to the District all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

SECTION V - LEGAL RELATIONS AND RESPONSIBILITY

5.01 LAWS TO BE OBSERVED

(a) Compliance with Applicable Law. Reference to and/or incorporation into the Contract Documents of a particular law, statute, ordinance, rule or regulation is not, nor is it intended to be, a definitive statement of the law applicable to the Contract Documents and the accomplishment of the work. Contractor must keep informed as to all such applicable law - Federal, State, County, Municipal, District - as it affects the conduct of the work and comply with such law, including, but not limited to, having requisite licenses, obtaining necessary permits, paying necessary fees and taxes, posting notices and installing, operating and maintaining safety precautions and facilities. It is likewise Contractor's responsibility to see to it that his subcontractors also fully comply with such applicable law.

If at any time Contractor is of the opinion that there is a discrepancy or inconsistency in the plans, drawings, specifications or other Contract Documents, he shall immediately cease work involving such alleged discrepancies or inconsistencies and report the same in writing to the Chief Engineer and shall not proceed with such work until ordered so to do, and in the manner instructed by the Chief Engineer.

Contractor shall protect and defend District, its officers, agents and employees against any claim or liability arising from or based upon any alleged violation of such applicable law. See also Subsection 8.02.

(b) Labor Code - Reference is made to Chapter 1, Part 7, Division 2 of the California Labor Code (commencing with Section 1720). By this reference said Chapter 1 is incorporated herein with like effect as if it were here set forth in full. The parties recognize that said Chapter 1 deals with, among other things, discrimination, penalties and forfeitures, their disposition and enforcement, wages, working hours and securing workers' compensation insurance and directly affect the method of prosecution of the work by Contractor and subject it under certain conditions to penalties and forfeitures. Execution of the Agreement by the parties constitutes their agreement to abide by said Chapter 1. Their stipulation as to all matters which they are required to stipulate as to by the provisions of said Chapter 1, constitutes Contractor's certification that it is aware of the provisions of said Chapter 1 and will comply with them and further constitutes Contractor's certification as follows: "I am aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this contract." Contractor and its subcontractors shall comply with the provisions of S1777.5 of the Labor Code regarding apprentices.

Contractor shall post at each job site during the course of the work a copy of County's "Determination of Prevailing Wage Rates", copies of said Determination are available from County for this purpose.

(c) Equal Employment Opportunity

General - Contractor shall not discriminate in its recruiting, hiring, promotion, demotion or termination practices on the basis of race, religious creed, color, national origin, ancestry, sex, age or physical handicap in the performance of this Contract and shall comply with the provisions of the Government Code Section (commencing with §12900 et seq.), the Federal Civil Rights Act of 1964 (P.L. 88-352) and all amendments thereto, Executive Order No. 11246 (30 Federal Register 12319), as amended, and all administrative rules and regulations issued pursuant to said Acts and Order. See particularly 41 Code of Federal Regulation (CFR) Chapter 60.

Contractor shall require each of its subcontractors to comply with the preceding paragraph and shall include in each subcontract language similar to the preceding paragraph.

Contractor shall permit access to its records of employment, employment advertisement, application forms and other pertinent data and records by Owner and any state or federal agency having jurisdiction for the purpose of investigation to ascertain compliance with this Section.

Owner may assign an affirmative action representative to monitor Contractor and its subcontractor(s) conduct required by this Section, including the right of entry to the construction site for the purpose of obtaining information from persons performing work on the project providing such inspection does not interfere with the progress of the work.

Elsewhere in the Contract Documents specific requirements may be contained covering the same subject matter of this Section. If so, such specific requirements prevail over this Section in case of conflict.

Transactions of \$10,000 or under - Contracts and subcontracts not exceeding \$10,000 are exempt from the requirements of this Section. No Contractor or subcontractor shall procure supplies and/or services in less than usual quantities to avoid applicability of this Section. With respect to contracts and subcontracts for indefinite quantities, this Section applies unless the amount required in any one year under such contract will reasonably be expected not to exceed \$10,000.

Transactions in Excess of \$10,000 but less than \$50,000 - At Owner's request, Contractor shall certify that it has in effect an affirmative action plan and agrees to comply with all state and federal laws and regulations regarding Fair Employment Practices. Contractor shall maintain a written copy of its affirmative action plan and furnish Owner a copy of the plan upon request. Owner may require Contractor to complete an Affirmative Action Compliance Report, on a form furnished by Owner, setting forth definite goals during the term of this contract.

Transactions of \$50,000 or more - If Contractor has 50 or more employees and a contract for \$50,000 or more, it shall develop and submit to Owner, within 30 days after award, a written affirmative action compliance program providing in detail specific steps to guarantee equal employment opportunity. Contractor shall include in its affirmative action program a table of job classifications, which table shall include but need not be limited to job titles, duties and rates of pay.

Contractor shall in each subcontract let to do a portion of the work covered hereunder, where the subcontractor involved has 50 or more employees and the subcontract is for \$50,000 or more, impose in the subcontract the above requirements.

For the purpose of determining the number of employees, the average of the Contractor's or its subcontractor's employees for the 12 month period immediately prior to award, or the total number of employees Contractor or its subcontractor will have when performing this contract, whichever is higher, shall be used.

Federally Assisted Construction - If this project is a Federally assisted construction project, then the contract provisions contained 41 CFR S60-1.4(b) are incorporated herein and Contractor shall likewise incorporate said provisions in each subcontract entered into by Contractor to perform the work. Federally assisted construction is identified as such in the Notice Inviting Bids.

(d) Registration of Contractors - In order to be considered a prospective bidder must be licensed in accordance with Division 3, Chapter 9 (commencing with Section 7000) of the Business and Professions Code.

(e) Accident Prevention - Particular attention shall be given to relevant Division of Industrial Safety Construction and Electrical Safety Orders. Said Orders are contained in Title 8 of the California Administrative Code, Chapter 4, Subchapters 4 and 5. Specific attention shall be taken of the California Occupational Safety and Health Act of 1973 (commencing with Section 6300 of the Labor Code) and the Federal Occupational Safety and Health Act of 1970 (P.L. 91-596) and rules and regulations issued pursuant to said Acts. Specific reference is made to Article 6 of said Construction Safety Orders. Contractor shall submit to Engineer, who will

accept in advance of excavation, a detailed plan showing the design of shoring, bracing, sloping of the sides of trenches, or other provisions to be made for protection of personnel during earthwork operations. In event the Contractor's plan does not conform with the shoring system requirements of Article 6, the Contractor's proposed shoring design shall be prepared and signed by a civil or structural engineer registered in the State of California.

The Contractor shall also impose the foregoing requirements on all subcontractors involved and enforce compliance therewith.

The duties here set forth are nondelegable by Contractor who shall protect and defend District, its officers, agents and employees in connection therewith. See Subsection 8.02.

5.02 CONTRACTOR'S RESPONSIBILITY

Contractor is under the absolute duty in fulfilling its contractual obligations hereunder to proceed, and cause its subcontractors to proceed, in a safe, workmanlike manner, with adequate safeguards for the protection of the public, the workmen and persons from time to time inspecting the work. If at any time Contractor finds any of its subcontractors are allowing work to proceed in an unsafe manner and contrary to the intent of these Contract Documents, Contractor shall immediately cause such action to stop and immediately take all action necessary to protect workmen, inspectors and the general public and cause the work to proceed in a safe manner.

Contractor shall protect and defend District, its officers, agents and employees in reference to acts or omissions contrary to the above. See particularly Subsection 8.02.

District may withhold funds otherwise due Contractor whenever, in its judgment, this subsection is not being complied with.

5.03 CONTRACTOR'S RESPONSIBILITY FOR WORK

Until the formal acceptance of the work by the District, the Contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the nonexecution of the work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before its completion and acceptance and shall bear the expense thereof, except for such injuries or damages as are occasioned by acts of the Federal Government and the public enemy. In case of suspension of work from any cause whatever, the Contractor shall be responsible for all materials and shall properly store them if necessary and shall erect temporary structures where necessary.

5.04 PROPERTY RIGHTS IN MATERIALS

Nothing in the contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the work or the soil. All such materials shall become the property of the District upon being so attached or affixed.

5.05 PERMITS AND LICENSES

The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work.

5.06 ROYALTIES AND PATENTS

The Contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated on the work, and agrees to indemnify and save harmless the Riverside County Flood Control District, the Board of Supervisors, the Flood Control Engineer, and their duly authorized representatives, from all suits at law, or actions of every nature for, or on account of, the use of any patented materials, equipment, devices, or processes.

5.07 SANITARY PROVISIONS

Necessary conveniences, properly secluded from public observation shall be provided by the Contractor where needed for the use of laborers on the work. Their location, construction and maintenance shall be subject to the approval of the Engineer, and their use shall be strictly enforced. The Contractor shall obey and enforce such sanitary regulations as may be prescribed by the State Department of Health or other authorities having jurisdiction.

5.08 PUBLIC SAFETY

The Contractor at his own expense shall furnish, erect, and maintain such fences, barriers, lights, and signs as are necessary to give adequate warning to the public at all times that the bridges, culverts, and work along public highways are under construction; and of any dangerous conditions to be encountered as a result thereof; and he shall erect such warning and directional signs and employ such flagmen as are required and maintain same throughout the construction period.

Full compensation for the work involved in carrying out the precautionary measures above specified shall be considered as included in the prices paid for the various contract items of work and no additional allowance will be made therefor.

5.09 USE OF EXPLOSIVES

When the use of explosives is necessary for the prosecution of the work, the Contractor shall use the utmost care not to endanger life or property.

All explosives shall be stored in accordance with the provisions of Division II, Part I, Chapter 3, of the Health and Safety Code of the State of California.

5.10 PROVISIONS FOR EMERGENCIES

Unusual conditions may arise on the work which will require that immediate and unusual provisions be made to protect the public from danger or loss or damage to life and property, due directly or indirectly to the prosecution of the work, and it is part of the service required of the Contractor to make such provisions and to furnish such protection.

The Contractor shall use such foresight and shall take such steps and precautions as his operations make necessary to protect the public from danger or damage, or loss of life or property, which would result from the interruption or contamination of public water supply, irrigation or other public service, or from the failure of partly completed work.

Whenever work is undertaken pursuant to the above provisions, Contractor shall promptly file with District a verified report setting forth the nature of the emergency and the action taken by the Contractor by reason of the emergency.

Whenever, in the opinion of the Engineer, an emergency exists against which the Contractor has not taken sufficient precaution for the safety of the public or the protection of utilities or of adjacent structures or property which may be injured by process of construction on account of such neglect; and whenever, in the opinion of the Engineer, immediate action shall be considered necessary in order to protect public or private, personal or real property interests, or prevent likely loss of human life or damage on account of the operations under the contract, then and in that event the Engineer may provide suitable protection to said interests by causing such work to be done and material to be furnished as, in the opinion of the Engineer, may seem reasonable and necessary.

The cost and expense of all such emergency work shall be borne by the Contractor, and if he shall not pay said cost and expense upon presentation of the bills therefor, duly certified by the Engineer, then said cost and expense will be paid by the District and shall thereafter be deducted from any amounts due, or which may become due said Contractor. Failure of the District, however, to take such precautionary measures, shall not relieve the Contractor of his full responsibility for public safety.

5.11 UNFORESEEN DIFFICULTIES

All loss or damages, except as noted in Section 8.03, arising out of the nature of the work to be done under the contract, or from any unforeseen obstructions or difficulties which may be encountered during the progress of the work and in the prosecution of the same, or from the action of the elements, or from encumbrances in the line of work, shall be sustained by the Contractor.

5.12 ACCESS TO THE WORK

Access to the work from existing roads shall be provided by the Contractor at his expense and maintained in a manner so as not to create a public nuisance. The Board of Supervisors, Flood Control District and Engineer assume no responsibility for the condition or maintenance of any existing road or structure thereon that may be used by the Contractor for performing the work under these specifications and for traveling to and from the site of the work. No direct payment will be made to the Contractor for constructing temporary roads used for construction operations or for improving, repairing, or maintaining any existing road or structure thereon that may be used by the Contractor for performance of the work under these specifications. The cost of all work described in this paragraph shall be included in the prices bid in the schedule for other items of construction work.

5.13 GUARANTEE OF WORK

All work is guaranteed by Contractor for a period of one year from the recordation of the Notice of Completion against defects resulting from the use of inferior materials, equipment, or workmanship. Upon notice from District, Contractor shall promptly remedy such defects at his expense, including payment to District of its expenses in connection with remedying such defects, otherwise District shall proceed to remedy such defects and Contractor shall upon demand reimburse District for its expenses in connection therewith.

The above one year guarantee is in addition to any specific guarantee(s) provided for elsewhere in the Contract Documents.

5.14 DAMAGES BY ACT OF GOD

If the construction of the project herein is damaged, which damage is determined to have been proximately cause by an act of God, in excess of 5% of the contract amount, provided that the work damaged is built in accordance with applicable building standards and the plans and specifications, then the District, may, without prejudice to any other right or remedy, terminate the contract.

SECTION VI - PROSECUTION AND PROGRESS

6.01 PROGRESS OF THE WORK

The Contractor shall begin the work within ten (10) calendar days after the date of the receipt by him of notice to proceed from the Chief Engineer and shall diligently prosecute the same to completion within the time limit provided in the Special Provisions.

6.02 OVERTIME WORK AND WORK AT NIGHT

It is intended that the Contractor prosecute the work on a five (5) day, forty (40) hour work week with no work on legal holidays. If the Contractor feels it is necessary to work more than the normal 40 hour work week, he will make a written request for permission from the Engineer, outlining the reasons for such request. The decision of granting permission for overtime work shall be made by the Engineer and shall be final. A condition will be imposed on the granting of a request to work overtime, requiring the Contractor to pay the District the cost incurred at overtime rates for additional inspection and engineering time required in connection with the overtime work.

When any work is performed at night, only such classes of work shall be done as can be properly inspected. Adequate light must be provided for the safety of the men and for proper inspection.

6.03 SUBCONTRACTING

Reference is made to the Subletting and Subcontracting Fair Practice Act contained in the Public Contract Code (commencing §4100). By this reference, said Act is incorporated herein with like effect as if it were here set forth in full and the parties shall abide by its terms and substitution shall be only as allowed by that Act.

Contractor shall be responsible for the acts and omissions of its subcontractors and shall make certain that at all times its subcontractors comply with the terms of the Contract Documents and applicable law insofar as such compliance relates to the work.

District reserves the right to approve all subcontractors whether or not they are required to be listed in the Contractor's Proposal. As used in this Section "subcontractor" includes any person who fabricates or manufactures any article for incorporation into the work whether or not they install or test after installation or contract to install or test after installation, but does not include suppliers of fungible goods for incorporation into the work unless such supplier also installs or tests or contracts to install or test.

The Contractor shall give his personal attention to the fulfillment of the contract and shall keep the work under his control. The Contractor shall perform with his own organization work of a value amounting to not less than 60 percent of the remainder obtained by subtracting from the total original contract value the sum of any item designated herein or in the Special Provisions as Specialty Items. The furnishing and placing of reinforcing steel, when placing is performed by the supplier, will be considered as a Specialty Item for this purpose; however, he shall be designated in the list of subcontractors. The value of the work subcontracted will be based on the contract item bid price. When a portion of an item is subcontracted, the value of work subcontracted will be based on the estimated percentage of the Contract Unit Price. This will be determined from information submitted by the Contractor, and subject to approval by the Engineer.

Where a portion of the work which has been subcontracted by the Contractor is not being prosecuted in a manner satisfactory to the District, the subcontractor shall be removed immediately on the requisition of the Engineer and shall not again be employed on the work.

6.04 CHARACTER OF WORKMEN

If any subcontractor or person employed by the Contractor shall fail or refuse to carry out the directions of the Engineer or shall appear to the Engineer to be incompetent or to act in a disorderly or improper manner, he shall be discharged immediately on the requisition of the Engineer, and such person shall not again be employed on this work.

6.05 TEMPORARY SUSPENSION OF THE WORK

The Engineer shall have the authority to suspend the work wholly or in part, for such period as he may deem necessary, due to unsuitable weather, or to such other conditions as are

considered unfavorable for the suitable prosecution of the work, or for such time as he may deem necessary due to the failure on the part of the Contractor to carry out orders given, or to perform any provision of the contract. The Contractor shall immediately comply with the written order of the Engineer to suspend the work wholly or in part. The work shall be resumed when conditions are favorable and methods are corrected, as ordered or approved in writing by the Engineer.

6.06 TIME OF COMPLETION AND DAMAGES

The Contractor shall complete the work called for under the contract in all parts and requirements within the number of working days specified in the Special Provisions.

A working day is hereby defined as any day; except Saturdays, Sundays, and legal holidays and days on which the Contractor is specifically required by the Special Provisions to suspend construction operations; on which the Contractor is not prevented by inclement weather or conditions resulting immediately therefrom adverse to the current controlling operation or operations, as determined by the Engineer, from proceeding with at least 60 percent of the normal labor and equipment force engaged in such operation or operations for at least five hours toward completion of such operation or operations.

The Engineer will furnish the Contractor a weekly statement showing the number of working days charged to the contract for the preceding week, the number of working days specified for completion of the contract, and the number of working days remaining to complete the contract. The Contractor will be allowed one week in which to file a written protest setting forth in what respects said weekly statement is incorrect, otherwise the statement shall be deemed to have been accepted by the Contractor as correct.

The following holidays will be considered as legal holidays: New Year's Day; Martin Luther King Jr.'s Birthday, Lincoln's Birthday; Washington's Birthday; Memorial Day; Independence Day; Labor Day; Columbus Day; Veteran's Day; Thanksgiving Day; Christmas; and such other days as are declared holidays by ordinance passed by the Board of Supervisors of Riverside County.

Contractor acknowledges that failure to perform in strict accordance with the Contract Documents and within the time limit specified in the Special Provisions will cause District to suffer special damages in addition to cost of completion of the work in accordance with the provisions of the Contract Documents. Such special damage could include, but is not limited to, lease and rental cost, additional salaries and overhead, interest during construction, attorney expense, additional engineering, inspection expense, cost of maintaining or constructing alternate facilities and injury to the property of the District or others. The daily cost to the District for inspection and superintendence by the District shall be the amount specified in the Special Provisions. The District may withhold from any money due or that may become due the Contractor under the contract, such amount as the District may elect to offset the damages incurred and any withholding or failure to withhold shall not in any way limit recovery for damages actually incurred.

It is further agreed that in case the work called for under the contract is not finished and completed in all parts and requirements within the time specified, the Board of Supervisors shall have the right to extend the time for completion or not, as may seem best to serve the interest of the District, and if it decides to extend the time limit for the completion of the contract, it shall further have the right to charge to the Contractor, his heirs, assigns or sureties and to deduct from the final payment for the work all or any part, as it may deem proper, of the actual cost of engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to the contract, and which accrue during the period of such extension, except that cost of final surveys and preparation of final estimate shall not be included in such charges.

The Contractor shall not be assessed damages nor the cost of engineering and inspection during any delay in the completion of the work caused by acts of God or of the public enemy, acts of the District, encountering unknown utility facilities, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and severe weather or delays of subcontractors due to such causes, provided that the Contractor shall notify the Engineer in writing of the causes of delay within ten (10) days from the beginning of any such delay, and his findings of the facts thereon shall be final and conclusive. Contractor shall not be assessed damages for delay in the completion of the project, when such delay was caused by the failure of the District or the owner of the utility facilities.

The term "severe weather" shall be construed to mean only such weather as is unreasonable or extraordinary and in the opinion of the Engineer, the work could not be prosecuted by the Contractor during the period throughout which such weather prevailed.

6.07 DELAYS AND EXTENSION OF TIME

If delays are caused by unforeseen causes beyond the control of either the Contractor or the District, such as war, strikes, fire, floods, or other action of the elements, such delays will entitle the Contractor to an equivalent extension of time for the completion of the contract, but the Contractor shall not be entitled to damages or additional payments over and above the contract price due to delay caused by any of the above-mentioned causes. Furthermore, if the Contractor suffers any delay caused by the failure of the District to furnish the necessary right of way or materials agreed to be furnished by it, or by failure to supply necessary plans or instructions concerning the work to be done after written request therefor has been made, the Contractor shall be entitled to an extension of time equivalent to the time lost for any of the above-mentioned reasons, but shall not be entitled to any damages for such delay.

6.08 ASSIGNMENT

The contract may be assigned only upon written consent of the District. Such written consent to sublet, assign or otherwise dispose of any portion of the contract, shall not be construed to relieve the Contractor of any responsibility for the fulfillment of the contract.

6.09 TERMINATION OF CONTRACT

Subject to all applicable provisions of these specifications and/or the contract to be entered into hereunder, the Engineer is hereby empowered to direct the time and rate of delivery of materials at the site of work and to direct the time, rate and sequence of work. If the Contractor fails to begin delivery of material and equipment or to commence work within the

time specified herein, and/or in the contract, or to maintain the rates of delivery of materials, or to execute the work in the manner and at such locations as directed by the Engineer, or fails to maintain a program of work in such a manner as will, in the judgment of the Engineer inure to interests of the District, or, if in the judgment of the Engineer, the Contractor is not carrying out the provisions of the contract in their true intent and meaning, written notice by the Chief Engineer may be served upon him and the Surety on his faithful performance bond demanding a satisfactory compliance with the contract, and with these specifications. If the Contractor and/or his Surety refuses or neglects to comply with such notice within five (5) days after receiving same, or after commencing so to do, fails to continue so to do, or has assigned or sublet the contract without the consent of the District, then the District may exclude him from the premises and take possession thereof, together with all material and equipment thereon, and may complete the work itself, either by force account or by letting the unfinished portion of the work to another Contractor or by a combination of such methods. In any event, the cost of the completion of said work shall be a charge against the Contractor and his Surety and may be deducted from any money due or becoming due from the District, and if the sums due under the contract are insufficient, said Contractor and/or his Surety shall pay to the District within five (5) days after the completion of the work all of such cost in excess of the contract price.

The Surety, in the event that it assumes part of the work, shall take the Contractor's place in this contract in all respects for that part and shall be paid by the District for all work performed by it in accordance with the terms of this contract. If the Surety assumes the entire contract, all monies remaining due the Contractor at the time of his default shall be made payable to the Surety as the work progresses, subject to the terms of the contract.

SECTION VII - PAYMENT

7.01 SCOPE OF PAYMENTS

The Contractor shall accept compensation, as herein provided, in full payment for furnishing all materials, labor, tools, and equipment necessary to the completed work and for performing all work contemplated and embraced under the contract; also for loss or damage arising from the nature of the work, or from the action of the elements, except as hereinbefore provided, or from any unforeseen difficulties which may be encountered during the prosecution of the work until the final acceptance by the Board of Supervisors; and for all risks of description connected with the prosecution of the work, also for all expenses incurred in consequence of the suspension or discontinuance of the work as herein specified; and for completing the work according to the plans and specifications. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective work or material.

7.01A Measurement and Computation of Quantities - All items of the work to be paid for at a contract price per unit of measurement will be measured by the Engineer in accordance with United States Standard Measures. A ton shall mean 2,000 pounds, avoirdupois. Except as otherwise expressly provided in the specifications, the methods of measurement and computation of quantities of such items will be determined by the Engineer, taking into account the price of the item relative to its quantity and the costs of measurement.

The weights of metalwork, pipe, and other metal parts to be paid for by weight will be determined by the Engineer on the basis of handbook weights, scale weights, or manufacturer's

catalog weights, or in the absence of any of the foregoing, on the basis of estimated weights; provided, that weights of nonmetallic coatings will be excluded.

7.01B Payment at Contract Prices - The contract price for an item of the work shall include full compensation for all costs of that item, including the costs of any work, materials and equipment incidental to the item but not specifically shown or described in the drawings and specifications, subject only to such express limitations as may be stated in the specifications defining the item or prescribing payment therefor.

The contract prices shall include full compensation for all costs of any work, materials, and equipment required by the drawings and specifications at the time of contract award, but not covered by a contract price or otherwise expressly made the subject of direct payment.

7.02 PAYMENT AND COMPENSATION FOR ALTERED QUANTITIES

When alterations in plans or quantities of work are ordered and performed, the Contractor shall accept payment in full at the contract unit price for the actual quantities of work done and no allowance will be made for anticipated profits. Increased or decreased work involving supplemental agreements will be paid for as stipulated in such agreements.

7.03 FORCE ACCOUNT PAYMENT

When extra work is to be paid for on a force account basis, compensation will be determined as follows:

7.03A Work Performed by Contractor - The Contractor will be paid for labor, materials, and equipment rental as hereinafter provided, except where agreement has been reached to pay in accordance with Section 7.03B. Only materials incorporated in the work will be paid for.

To the total computed as provided in Sections 7.03A(1), 7.03A(2) and 7.03A(3) will be added the following percentages:

Labor	-	24 percent
Materials	-	15 percent
Equipment Rental	-	15 percent

It is understood labor, materials, and equipment may be furnished by the Contractor or by the subcontractor or by others on behalf of the Contractor.

When extra work paid for on a force account basis is performed by forces other than the Contractor's organization, the Contractor shall reach agreement with such other forces as to the distribution of the payment made by the District for such work and no additional payment therefor will be made by the District.

7.03A(1) Labor - The Contractor will be paid the cost of labor for the workmen (including foremen when authorized by the Engineer), used in the actual and direct performance of the work. The cost of labor, whether the employer is the Contractor, subcontractor, or other forces, will be the sum of the following:

7.03A(1a) Actual Wages - The actual wages paid will be as published by the Director of Industrial Relations of the State of California for the region where work is performed and that are in effect at the time of award of the contract. The classification of workmen used shall not be in excess of the industry standard for the region where work is performed. Copies of the published labor rates are on file at the District office.

7.03A(1b) Labor Surcharge - To the actual wages as defined in Section 7.03A(1a), will be added a labor surcharge set forth in the Special Provisions, which labor surcharge shall constitute full compensation for all payments imposed by State and Federal laws and for all other payments made to, or on behalf of, the workmen, other than actual wages as defined in Section 7.03A(1a) and subsistence and travel allowance as specified in Section 7.03A(1c).

7.03A(1c) Subsistence and travel allowance paid to such workmen as required by collective bargaining agreements.

7.03A(2) Materials - The cost of materials incorporated in the work will be the cost to the purchaser, whether Contractor, subcontractor or other forces, from the supplier thereof, except as the following are applicable:

7.03A(2a) If a cash or trade discount by the actual supplier is offered or available to the purchaser, it shall be credited to the District notwithstanding the fact that such discount may not have been taken.

7.03A(2b) If the materials are procured by the purchaser by any method which is not a direct purchase from and a direct billing by the actual supplier to such purchaser, the cost of such materials shall be deemed to be the price paid to the actual supplier as determined by the Engineer. No markup except for actual costs incurred in the handling of such materials will be permitted.

7.03A(2c) If the materials are obtained from a supply or source owned wholly or in part by the purchaser, payment therefor will not exceed the price paid by the purchaser for similar materials furnished from said source on contract items or on the current wholesale price for such materials delivered to the job site whichever price is lower.

7.03A(2d) If the cost of such materials is, in the opinion of the Engineer, excessive, then the cost of such materials shall be deemed to be the lowest current wholesale price at which such materials are available in the quantities concerned delivered to the job site, less any discounts as provided in Section 7.03(2a).

7.03A(2e) If the Contractor does not furnish satisfactory evidence of the cost of such materials from the actual supplier thereof, the cost shall then be determined in accordance with Section 7.03A(2d).

The District reserves the right to furnish such materials as it deems advisable, and the Contractor shall have no claims for costs and profit on such materials.

7.03A(3) Equipment Rental - The Contractor will be paid for the use of equipment at the rental rates listed for such equipment in the Special Provisions, regardless of ownership and any rental or other agreement, if such may exist, for the use of such equipment entered into by the Contractor. If it is deemed necessary by the Engineer to use equipment not listed in the Special Provisions, a suitable rental rate for such equipment will be established by the Engineer. The Contractor may furnish any cost data which might assist the Engineer in the establishment of such rental rate.

The rental rates paid as above provided shall include the cost of fuel, oil, lubrication, supplies, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals.

Operators of rented equipment will be paid for as provided under Section 7.03A(1).

All equipment shall, in the opinion of the Engineer, be in good working condition and suitable for the purpose for which the equipment is to be used.

Unless otherwise specified, manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

Individual pieces of equipment or tools having a replacement value of \$25.00 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefor.

Rental time will not be allowed while equipment is inoperative due to breakdowns.

In computing the rental time of equipment, less than 30 minutes shall be considered ½ hour.

7.03A(3a) Equipment on the Work - The rental time to be paid for equipment on the work shall be the time the equipment is in operation on the extra work being performed, and in addition, shall include the time required to move the equipment to location of the extra work and return it to the original location or to another location requiring no more time than that required to return it to its original location, except that moving time will not be paid for if the equipment is used at the site of the extra work on other than such extra work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made if the equipment is used at the site of the extra work on other than such extra work.

7.03A(3b) Equipment not on the Work - For the use of equipment moved in on the work and used exclusively for extra work paid for on a force account basis, the Contractor will be paid the rental rates listed in the Special Provisions or as agreed to as provided

in Section 7.03A(3) and for the cost of transporting the equipment to the location of the work and its return to its original location, all in accordance with the following provisions:

(1) The original location of the equipment to be hauled to the location of the work shall be agreed to by the Engineer in advance.

(2) The District will pay the costs of loading and unloading such equipment.

(3) The cost of transporting equipment on low bed trailers shall not exceed the hourly rates charged by established haulers.

(4) The cost of transporting equipment shall not exceed the applicable minimum established rates of the Public Utilities Commission.

(5) The rental period shall begin at the time the equipment is unloaded at the site of the extra work, shall include each day that the equipment is at the site of the extra work, excluding Saturdays, Sundays, and legal holidays unless the extra work is performed on such days, and shall terminate at the end of the day on which the Engineer directs the Contractor to discontinue the use of such equipment. The rental time to be paid per day will be in accordance with the following:

<u>Hours Equipment is in Operation</u>	<u>Hours to be Paid</u>
0.....	4
0.5.....	4.25
1.....	4.5
1.5.....	4.75
2.....	5
2.5.....	5.25
3.....	5.5
3.5.....	5.75
4.....	6
4.5.....	6.25
5.....	6.5
5.5.....	6.75
6.....	7
6.5.....	7.25
7.....	7.5
7.5.....	7.75
8.....	8
Over 8.....	hours in operation

When hourly rates are listed, less than 30 minutes of operation shall be considered to be 1/2 hour of operation.

When daily rates are listed, payment for ½ day will be made if the equipment is not used. If the equipment is used, payment will be made for one day.

The minimum rental time to be paid for the entire rental period on an hourly basis shall not be less than 8 hours or if on a daily basis shall not be less than one day.

(6) Should the Contractor desire the return of the equipment to a location other than its original location, the District will pay the cost of transportation in accordance with the above provisions, provided such payment shall not exceed the cost of moving the equipment to the work.

(7) Payment for transporting, loading and unloading equipment, as above provided, will not be made if the equipment is used on the work in any other way than upon extra work paid for on a force account basis.

7.03B Work Performed by Special Forces or Other Special Services - When the Engineer and the Contractor, by agreement, determine that a special service or an item of extra work cannot be performed by the forces of the Contractor or those of any of his subcontractors, such service or extra work item may be performed by a specialist. Invoices for such service or item of extra work on the basis of the current market price thereof may be accepted without complete itemization of labor, material, and equipment rental costs when it is impracticable and not in accordance with the established practice of the special service industry to provide such complete itemization. In those instances wherein a Contractor is required to perform extra work necessitating a fabrication or machining process in a fabrication or machine shop facility away from the job site, the charges for that portion of the extra work performed in such facility may, by agreement, be accepted as a specialist billing.

To the specialist invoice price, less a credit to the District for any cash or trade discount offered or available, whether or not such discount may have been taken, will be added 15 percent in lieu of the percentages provided in Section 7.03A.

7.03C Records - The Contractor shall maintain his records in such a manner as to provide a clear distinction between the direct costs of extra work paid for on a force account basis and the costs of other operations.

The Contractor shall furnish the Engineer report sheets in duplicate of each day's extra work paid for on a force account basis no later than the working day following the performance of said work. The daily report sheets shall itemize the materials used, and shall cover the direct cost of labor and the charges for equipment rental, whether furnished by the Contractor, subcontractor, or other forces, except for charges described in Section 7.03B. The daily report sheets shall provide names or identifications and classifications of workmen, the hourly rate of pay and hours worked, and also the size, type and identification number of equipment, and hours operated.

Material charges shall be substantiated by valid copies of vendor's invoices. Such invoices shall be submitted with the daily report sheets, or if not available, they shall be submitted with subsequent daily report sheets. Should said vendor's invoices not be submitted within 15 days after acceptance of the work, the District reserves the right to establish the cost of such materials at the lowest current wholesale prices at which said materials are available in the quantities concerned delivered to the location of the work, less any discounts provided in Section 7.03A(2a).

Said daily report sheets shall be signed by the Contractor or his authorized agent.

The Engineer will compare his records with the daily report sheets furnished by the Contractor, make any necessary adjustments, and compile the costs of work paid for on a force account basis on daily extra work report forms furnished by the District. When these daily extra work reports are agreed upon and signed by both parties, they shall become the basis of payment for the work performed, but shall not preclude subsequent adjustment based on a later audit.

The Contractor's cost records pertaining to work paid for on a force account basis shall be open to inspection or audit by representatives of the District, during the life of the contract and for a period of not less than 18 months after the date of acceptance thereof, and the Contractor shall retain such records for that period. Where payment for materials or labor is based on the cost thereof to forces other than the Contractor, the Contractor expressly guarantees that the cost records of such other forces shall be open to inspection and audit by representatives of the District on the same terms and conditions as the cost records of the Contractor. If an audit is to be commenced more than 60 days after the acceptance date of the contract, the Contractor will be given a reasonable notice of the time when such audit is to begin.

7.03D - Payment as provided above in Sections 7.03A and 7.03B shall constitute full compensation to the Contractor for performance of work paid for on a force account basis and no additional compensation will be allowed therefor.

7.04 ACCEPTANCE

The work shall be inspected for acceptance by the Engineer promptly upon receipt of notice in writing from the Contractor that the work is ready for such inspection.

The structures will not be finally accepted until the completion of the entire work under the contract.

7.05 DEDUCTIONS FROM PAYMENTS

The Riverside County Flood Control and Water Conservation District, by and through the Board of Supervisors or other appropriate District officer or officers, may at its option and at any time retain out of any amounts due the Contractor sums sufficient to cover any unpaid claims, provided that sworn statements of said claims shall have been filed in the office of the District or in the office of any other District officer or officers having jurisdiction thereover.

7.06 PARTIAL PAYMENTS

On or about the last day of each month, the Engineer shall make an estimate in writing of the total amount of work done by the Contractor to the time of such estimate and the value thereof. The District shall retain 10 percent (10%) of such estimated value of the work done as part security for the fulfillment of the contract by the Contractor, except that at any time after 50 percent (50%) of the work has been completed, if the District finds that satisfactory progress is being made, the District may make any of the remaining progress payments in full for actual work completed during such estimate period or may withhold any amount up to 10 percent (10%) thereof as the District may find appropriate based on the Contractor's progress. At no

time shall the amount retained by the District be less than 5 percent (5%) of the total value of the work completed at the time such payments are made.

After deducting all previous payments and all sums to be kept or retained under the provisions of the contract, the District shall make monthly progress payments to the Contractor. No such estimate or payment shall be required to be made when, in the judgment of the Chief Engineer, the work is not proceeding in accordance with the provisions of the contract.

In accordance with Public Contract Code Section 22300 and other applicable law, the Contractor may substitute securities for any monies withheld to ensure performance under the contract. Such substitution shall be made only upon a separate agreement between the District and the Contractor which contains terms and conditions in compliance with all laws applicable to monies withheld under the contract.

7.07 DELAYED PAYMENTS

All the monies due the Contractor under the contract will be paid by demand on the Treasurer of the District, prepared and approved as required by law, and it is understood that any delay in the preparation, approval and payment of these demands will not constitute a breach of contract on the part of the District.

7.08 FINAL PAYMENT

The Engineer, after the completion of the contract, shall make a final estimate in writing to the Board of Supervisors of the amount of work done thereunder, and the value of such work, and the District shall pay the entire sum so found to be due after deducting therefrom all previous payments and all amounts to be kept and all amounts to be retained under the provisions of the contract. All prior partial estimates and payment shall be subject to correction in the final estimate and payment. The final payment shall not be due and payable until the expiration of forty-five (45) days from the date of acceptance of the work by the Board of Supervisors.

It is mutually agreed between the parties to the contract that no certificate given or payments made under the contract, except the final payment, shall be conclusive evidence of the performance of the contract, either wholly or in part against any claim of the party of the first part, and no payment shall be construed to be an acceptance of any defective work or improper materials.

And the Contractor further agrees that the payment of the final amount due under the contract, and the adjustment and payment for any work done in accordance with any alterations of the same, shall release the Riverside County Flood Control and Water Conservation District, the Board of Supervisors, and the Engineer from any and all claims or liability on account of work performed under the contract or any alteration thereof.

7.09 CLAIMS RESOLUTION

In accordance with Public Contract Code Section 20104 - 20104.6 and other applicable law, public works claims of \$375,000 or less which arise between the Contractor and the District shall be resolved following the statutory procedure unless the District has elected to resolve the dispute pursuant to Public Contract Code § 10240 et seq.

1. All claims shall be submitted in writing and accompanied by substantiating documentation. Claims must be filed on or before the date of final payment unless other notice requirements are provided in the contract. "Claim" means a separate demand by the claimant for (1) a time extension, (2) payment of money or damages arising from work done by or on behalf of the claimant and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled, or (3) an amount the payment of which is disputed by the District.

- (a) Claims under \$50,000. The District shall respond in writing to the claim within 45 days of receipt of the claim, or, the District may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the District may have. If additional information is needed thereafter, it shall be provided upon mutual agreement of the District and the claimant. The District's written response shall be submitted 15 days after receiving the additional documentation, or within the same period of time taken by the claimant to produce the additional information, whichever is greater.
- (b) Claims over \$50,000 but less than or equal to \$375,000. The District shall respond in writing within 60 days of receipt, or, may request in writing within 30 days of receipt of the claim, any additional documents supporting the claim or relating to defenses or claims the District may have against the claimant. If additional information is needed thereafter, it shall be provided pursuant to mutual agreement between the District and the claimant. The District's response shall be submitted within 30 days after receipt of the further documents, or within the same period of time taken by the claimant to produce the additional information or documents, whichever is greater.

2. If the claimant disputes the District's response, or if the District fails to respond within the statutory time period, the claimant may so notify the District within 15 days of the receipt of the response or the failure to respond, and demand an informal conference to meet and confer for settlement. Upon such demand, the District shall schedule a meet and confer conference within 30 days.

3. If following the meet and confer conference, the claim or any portion thereof remains in dispute, the claimant may file a claim pursuant to Government Code § 900 et seq. and Government Code § 910 et seq. For purposes of those provisions, the time within which a claim must be filed shall be tolled from the time the claimant submits the written claim until the time the claim is denied, including any time utilized for the meet and confer conference.

4. If a civil action is filed to resolve any claim, the provisions of Public Contract Code § 20104.4 shall be followed, providing for nonbinding mediation and judicial arbitration.

SECTION VIII - GENERAL

8.01 COOPERATION BETWEEN CONTRACTORS

The Contractor shall be required to cooperate fully with all utility and public agency representatives engaged in construction, relocation, altering or otherwise rearranging any facilities interfering with the progress of the work.

Full compensation for any delay or inconvenience to the Contractor's operation due to such operations as described above shall be considered included in the unit price paid for other items of work and no additional allowance will be made therefor.

8.02 INSURANCE - HOLD HARMLESS

Contractor shall not commence work under this contract until he has obtained the insurance required hereunder and satisfactory proof of said insurance has been submitted to District and has been approved as to form by Riverside County Counsel.

Compensation Insurance - Contractor shall procure and maintain during the life of the contract Workers' Compensation Insurance as required by the State of California. Contractor shall further require each of its subcontractors to procure Workers' Compensation Insurance as required by the State while working on the project.

Liability Insurance - Contractor shall take out and maintain during the course of the work combined single limit liability insurance covering bodily injury and property damage insurance and blanket contractual coverage as to the work and obligations covered hereunder in an amount not less than \$2,000,000, or the equivalent thereof. Said insurance must contain an endorsement that District, County of Riverside, and any municipal corporation in which the work is to be accomplished, are named as an additional insured as respects the work covered hereunder. Said insurance must not contain, as respects the work covered hereunder, any exclusions as to bodily injury or death or property damage arising out of blasting, explosion, or underground damage to wire, pipes, conduits, mains, sewers, tank tunnels or any similar property, i.e., the so-called "x c u" exclusions. The insurance certificate evidencing such insurance must affirmatively state that the insurance carrier(s) will give Owner thirty (30) days written notice prior to cancellation of the insurance or a reduction in coverage; must state that the "x c u" exclusions are waived or do not exist in the policy(s); and that District, County of Riverside, and any municipal corporation in which the work is to be accomplished, are named as an additional insured as respects the work covered hereunder.

In the alternate to naming Owner and County of Riverside, and any municipal corporation in which the work is to be accomplished, as additional insured, Contractor may take out and maintain during the course of the work and until acceptance by Owner, Owner's Protective Liability Insurance amount not less than \$2,000,000 covering District, County of Riverside, and any municipal corporation in which the work is to be accomplished.

The cost of this insurance shall be included in the prices bid for the various items of work and no additional compensation will be made therefor.

Hold Harmless - Contractor shall hold District, County of Riverside and any municipal corporation in which the work is to be accomplished, together with the officers, agents and employees of each, free and harmless from any liability whatsoever, including wrongful death, based or asserted upon any act or omission of Contractor, its officers, agents, employees or subcontractors, relating to or in any way connected with or arising from the accomplishment of the work, whether or not in furtherance of the work; and Contractor agrees to protect and defend, including all attorney fees and other expenses, each of the foregoing bodies and persons in any legal action based or asserted upon any such acts or omissions.

Obligations - The obligations assumed by Contractor cover all obligations set forth in this Subsection and elsewhere in the Contract Documents, such as Subsections 5.01, 5.02, 5.05, 5.06, 5.08, 5.09, 5.10, 10.01, and 10.02.

8.03 PUBLIC UTILITIES

The locations of all pipelines, power lines, communication lines and other utility components known to District to exist within the limits of the work, are indicated on the drawings and may be the subject of a specific Special Provision(s). Size, location and characteristics of such utilities is based upon information made available to District - primarily from the owner of the utility in question. The exactness of such information is not guaranteed but may be assumed to have been accomplished with reasonable accuracy.

In addition to the drawings and any such provision regarding utilities, Contractor is under a duty to take into account the location of service laterals or other appurtenances which can be inferred from the presence of facilities such as buildings, meters and junction boxes in or about the limits of the work.

Unless otherwise directed by the Contract Documents, all existing utilities - where shown or described or not - shall be left in place and Contractor must conduct its operations so that such utilities are protected from damage at all times during the course of the work and the work must be accomplished so as to give such utilities proper protection and support upon completion of the work by Contractor.

If during the course of the work, Contractor discovers underground utility components not indicated in the drawings, the Special Provisions or elsewhere in the Contract Documents, Contractor must immediately notify, in writing, the Engineer and the utility company (public or private) involved, stating with exactness the condition found.

When Contractor encounters a utility not shown or described in the Contract Documents, Contractor shall cease all work which would disturb such utility and its support until given specific instructions as to how to proceed regarding such utility by Engineer. All work done by Contractor to protect existing utilities shown or described in the Contract Documents, or which can be reasonably inferred from the presence of other visible facilities, is at Contractor's expense, the cost of which is deemed included in Contractor's Proposal to do the work.

Contractor's cost of locating, repairing damage not due to the failure of Contractor to exercise reasonable care, and removing or relocating utility components and facilities not indicated in the drawings, specifications or elsewhere in the Contract Documents with reasonable accuracy, shall be paid Contractor as Extra Work as provided in Subsection 2.07 and Subsection 7.03 of the General Provisions. Compensation for idle time of equipment shall be paid as provided in Section 8-1.09, "Right of Way Delays", of the State Standard Specifications. No surcharge rates for equipment will be applied for idled equipment.

District may direct the Contractor to do such repair or relocation work as required. When such repair or relocation work is not elsewhere provided for in these Contract Documents, or reasonably inferred therefrom, a requirement of District that Contractor perform such work shall be compensated for as Extra Work pursuant to Subsections 2.07 and 7.03 of these General Provisions.

Contractor shall not be assessed liquidated damages for delay in completion of the project, if such delay is caused by failure of District, or the owner of the utility in question, to provide for removal or relocation of the utility involved.

8.04 PROTECTION OF EXISTING STREET FACILITIES

The Contractor shall be responsible for the protection of existing signs, fences, concrete curbs, gutters and other facilities which may be encountered. The replacement or repair of any facilities which the District deems necessary as a result of the Contractor's operations shall be done by the Contractor at his own expense and to the satisfaction of the Engineer.

Excavation within the street right of way shall be conducted in a manner to cause the least interruption to traffic. Where traffic must cross open trenches, the Contractor shall provide suitable bridges at street intersections and driveways. Hydrants under pressure, valve pipe covers, valve boxes, curb stop boxes, fire or police call boxes, or other utility controls shall be left unobstructed and accessible during construction.

8.05 DIVERSION AND CONTROL OF WATER

Unless otherwise provided in the Proposal, no separate payment will be made for diversion and control of surface or groundwater. All costs incidental to maintaining dry working areas shall be included in the unit prices paid for other items of work in the schedule.

8.06 DUST ABATEMENT

During the performance of all work included in the contract, the Contractor shall take the necessary precautions to save the District free and harmless from any loss or damage resulting from his operations that raise or produce dust in such amounts that will be objectionable, and/or cause damage to adjacent property or property owners.

The Contractor will be required to have a positive and continuous method of dust control which is satisfactory to the Engineer. The methods to be used for controlling dust in the

construction area and along haul roads shall be approved by the Engineer prior to starting any of the work included in the contract. All costs incidental to dust control shall be included in the unit prices paid for other items of work in the schedule.

8.07 PROJECT SIGNS

The Contractor shall erect project signs at the locations designated by the Engineer.

No separate payment will be made for erecting the project signs and all costs in connection therewith will be considered a subsidiary obligation of the Contractor.

8.08 EXAMINATION OF PLANS, SPECIFICATIONS, CONTRACT, AND SITE OF WORK

The bidder shall examine carefully the site of the work contemplated, the plans and specifications, and the proposal and contract forms therefor. The submission of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of work to be performed, the quantities of materials to be furnished, and as to the requirements of the proposal, plans, specifications, and the contract.

Where the District has made investigations of subsurface conditions in areas where work is to be performed under the contract, or in other areas, some of which may constitute possible local material sources, such investigations are made only for the purpose of study and design. Where such investigations have been made, bidders or Contractors may, upon request, inspect the records of the District as to such investigations subject to and upon the conditions hereinafter set forth. Such inspection of records may be made at the office of the District.

The records of such investigations are not a part of the contract and are shown solely for the convenience of the bidder or Contractor. It is expressly understood and agreed that the District assumes no responsibility whatsoever in respect to the sufficiency or accuracy of the investigations thus made, the records thereof, or of the interpretations set forth therein or made by the District in its use thereof and there is no warranty or guarantee, either expressed or implied, that the conditions indicated by such investigations or records thereof are representative of those existing throughout such areas, or any part thereof, or that unlooked-for developments may not occur, or that materials other than, or in proportions different from those indicated, may not be encountered.

When a log of test borings showing a record of the data obtained by the District's investigation or subsurface conditions is included with the contract plans, it is expressly understood and agreed that said log of test borings does not constitute a part of the contract, represents only the opinion of the District as to the character of the materials encountered by it in its test borings, is included in the plans only for the convenience of bidders and its use is subject to all of the conditions and limitations set forth in this Section 8.08.

No information derived from such inspection of records of investigations or compilation thereof made by the District or from the Engineer, or his assistants, will in any way relieve the bidder or Contractor from any risk or from properly fulfilling the terms of the contract.

SECTION IX - WATERING

9.01 DESCRIPTION

This work shall consist of developing a water supply for all water required for the work. The application of the water shall be under the control of the Engineer at all times and shall be applied in the amounts and at the locations approved by the Engineer.

At least one mobile unit of at least 1,000-gallon capacity for applying water shall be available on the project at all times.

Water for compacting embankment material and for laying dust shall be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses with nozzles that will ensure a uniform application of water.

No separate payment or additional allowances will be made for this work and all costs in connection therewith will be considered as included in other items in the schedule.

SECTION X - PUBLIC CONVENIENCE, TRAFFIC CONTROL AND DETOURS

10.01 GENERAL

The Contractor shall so conduct his operations as to offer the least possible obstruction and inconvenience to the public and he shall have under construction no greater length or amount of work than he can prosecute properly with due regard to the rights of the public.

Unless otherwise provided in the Special Provisions, all public traffic shall be permitted to pass through the work with as little inconvenience and delay as possible.

Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately at the Contractor's expense.

Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners.

Convenient access to driveways, houses and buildings along the line of work shall be maintained and temporary approaches to crossings or intersecting highways shall be provided and kept in good condition.

10.02 SIGNS

It shall be the responsibility of the Contractor to provide and maintain all lights, barricades and signs, both on and off the site of work, as required by the Engineer, and all such devices shall be of a type approved by him.

If, in any case, the Engineer finds it necessary to replace, add to or erect said barricades, signs, or lights, when the Contractor fails to do so when informed, the Contractor shall be billed for all costs thereof including a daily rental fee for signs.

No separate payment, unless otherwise provided for under the Special Provisions, will be made for traffic control and detour signing and all costs incidental to these items shall be included in the unit prices paid for other items of work.

10.03 MATERIALS STORAGE

Storing or stockpiling of excavated material, imported backfill material or construction materials on any street or highway will not be permitted except as approved in writing by the Engineer.

SPECIAL PROVISIONS
AND
DETAILED SPECIFICATIONS

SPECIAL PROVISIONS

SECTION 1 - GENERAL

1.1 Drawings and Specifications - These documents are for the construction of **Corona Drains – East Ontario Avenue Storm Drain, Stages 1 and 2 and Corona Drains Line 1G, Stage 2**, located in the city of Corona and Riverside County, California. This work shall conform with the contract drawings indexed on the cover sheets of the drawings included herewith.

Referenced standard drawings are available on the District web site.

The Contractor shall copy any of the referenced District standard drawings from <http://www.rcflood.org>.

The Contractor shall be responsible to obtain referenced standard plans/drawings of various agencies from their respective office or web site.

References made in these Special Provisions or Detailed Specifications to the "Standard Specifications" refer to the "Greenbook" Standard Specifications for Public Works Construction, current edition, including supplements. Standard Specifications of the American Society for Testing and Materials shall be designated by ASTM and the appropriate number of the standard. Unless otherwise specified, wherever the words "State Standard Specifications" are used in these Special Provisions or Detailed Specifications they shall mean the Standard Specifications of the State of California, Department of Transportation, current edition. Whenever the words "Caltrans Standards" are used they shall mean the Standard Plans of the State of California, Department of Transportation, 2006 edition.

In the event that discrepancies are encountered, the option that provides the method, item or material with the greatest strength or utility shall be chosen, as directed by the Engineer.

Requirements on the construction plans for Portland Cement Concrete are modified to the PCC Class designations, as described in Section 90-1.01 of the 2006 State Standard Specifications, as follows:

Class "A" shall mean Class "2"

Class "B" shall mean Class "3"

Class "C" shall mean Class "4"

Class "D" shall mean Class "1"

In case of conflict between the drawings and the specifications, the drawings shall govern; in case of conflict between the referenced specifications and these specifications, the latter shall govern.

SECTION 2 - TIME OF COMPLETION, DAMAGES AND
LEGAL HOLIDAYS

2.1 General - The Contractor shall begin work within ten (10) calendar days after the date of receipt of Notice to Proceed from the Engineer and shall diligently prosecute the same to completion before the expiration of

ONE HUNDRED SEVENTY-FIVE (175) WORKING DAYS

from the date of receipt of Notice to Proceed.

2.2 Damages - The Contractor and the District expressly agree that the cost to the District for inspection and superintendence of the work for this contract is \$800.00 per working day.

2.3 Legal Holidays - The Contractor will not be permitted to work on Legal Holidays (Reference Sections 6.02 and 6.06 of the General Provisions), except in cases of emergency as directed by the Engineer.

SECTION 3 - FORCE ACCOUNT PAYMENT

3.1 Labor Surcharge - Attention is directed to the provisions of Section VII, Article 7.03A (1b) of the General Provisions. The labor surcharge percentage to be applied to the actual wages paid as defined in Paragraph 7.03A (1a) will be twenty-four percent (24%).

3.2 Equipment Rental - Attention is directed to the provisions of Section VII, Article 7.03A (3) of the General Provisions. The equipment rental rates to be applied will be the rates published by the California Department of Transportation and in effect at the time of the award of the contract. A copy of said Equipment Rental Rates is on file at the District Office.

SECTION 4 - PROTECTION OF EXISTING UTILITIES

4.1 General - All existing underground utility lines, power poles and overhead wiring shall be protected in place at all times, except as noted otherwise on the plans. Any damage to utilities caused by the Contractor's operation shall be repaired or replaced at the Contractor's expense.

Prior to the commencement of any construction activities, the Contractor shall contact all utility companies and local municipalities servicing the project area to review as-built utility drawings and determine appropriate means of protecting utilities.

At the discretion of the Engineer, the Contractor may be required to verify, by potholing, the location of potentially affected utilities.

4.2 Cooperation with Utilities Relocated by Others - Some utilities will require relocation by others prior to or during construction as shown on the drawings and as specified in these specifications and Special Provisions.

Supplement to Section 8.01 of the General Provisions. The Contractor shall coordinate and cooperate with the various utilities or their contractors to ensure the work proceeds in an orderly manner.

The Contractor shall stage his work as required to accommodate the following utility construction or relocations:

- (a) The Gas Company – Approximately 780 lineal feet of 8-inch gas line from approximate Station 9+70 to Station 17+50, Sheet Nos. 3 through 5.

The Contractor shall notify The Gas Company in writing at least one month prior to construction reaching their facility. The Gas Company will work ahead of the Contractor's trenching operations to relocate the gas lines to allow the construction of the storm drain. Once the construction of the storm drain is complete, the Contractor shall reconstruct/replace the damaged/removed AC berm and repair/repave all driveways.

Contact Person: Ms. Teresa Roblero
The Gas Company
1981 W. Lugonia Avenue
Redlands, CA 92374-9796
909.335.7527

- (b) Santa Ana Watershed Project Authority (SAWPA) – The isolation valve located at approximate Station 15+30, crossing the storm drain. The Contractor shall notify SAWPA in writing at least one month prior to construction reaching their facility. The Contractor shall allow SAWPA ten (10) working days to complete relocation of the isolation valve.

Contact Person: Carlos Quintero or David Ruhl
Santa Ana Watershed Project Authority
11615 Sterling Avenue
Riverside, CA 92503
951.354.4220

Should any utility relocation result in delays to the Contractor's work schedule, the Contractor shall be entitled only to an equivalent extension of time for the completion of the contract, and shall not be entitled to damages due to downtime and idled equipment or additional payment over and above the agreed upon contract unit prices.

SECTION 5 - PROJECT SITE MAINTENANCE

Through all phases of construction, the Contractor shall comply with the provisions of Section 7-8 of the Standard Specifications. Before final acceptance of the work, the Contractor shall clean the work and the site of the work of all falsework, temporary structures, other

construction materials and equipment, excess materials and rubbish, and shall leave the work and the site in a neat and presentable condition. Such final cleanup work shall be performed within the time specified for completion of all of the work.

SECTION 6 - SPECIAL REQUIREMENTS

6.1 National Pollutant Discharge Elimination System (NPDES) – The Contractor shall comply with the requirements of Board Order No. R8-2010-0033 (NPDES No. CAS618033), NPDES Area-Wide Municipal Stormwater Permit, hereafter referred to in this Section as the "Permit", issued by the California Regional Water Quality Control Board (CRWQCB) – Santa Ana Region. This Permit regulates both stormwater and non-stormwater discharges associated with Contractor's construction activities. The Contractor shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) in accordance with Section 29 "Stormwater and Non-Stormwater Pollution Control" of the Detailed Specifications.

The Contractor's attention is directed to: 1) Section 29.2 "General Requirements" which allows the Engineer to withhold progress payments if the Contractor fails to fully implement Section 29 "Stormwater and Non-Stormwater Pollution Control" or is deemed to be in non-compliance with the provisions of the Permit; 2) Section 29.3 "Permit Registration Documents (PRDs) Preparation and Approval" which requires that the PRDs be prepared and approved prior to the Pre-Construction meeting; and 3) Section 29.6 "SWPPP Implementation" which allows the Engineer to suspend construction operations if the Contractor fails to implement the approved SWPPP and any amendments thereto.

6.2 Sanitation - Sewage flows shall not be interrupted. Should the Contractor disrupt existing sewer facilities, sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system. If pumping is required it shall be done at the expense of the Contractor. A backup pumping system with equal capacity shall be provided at all times. Sewage shall not be permitted to flow in trenches or be covered by backfill.

6.3 Confined Space Compliance - The Contractor shall comply with all Cal/OSHA safety regulations including regulations concerning confined space and for maintaining a safe working environment for Contractor and District employees on the site. The Contractor shall develop and maintain a confined space procedure specific to this contract that complies with the requirements contained in California Code of Regulations, Title 8, Section 5158, Other Confined Space Operations and the District Confined Space Procedure, SOM-18. A copy of SOM-18 can be obtained from the District office, 1995 Market Street, Riverside upon request.

Within five (5) days after the award of the contract, the Contractor shall submit three (3) copies of the procedure to the Engineer for review and approval. The Contractor shall allow five (5) working days for the Engineer to review the procedure. If revisions are required as determined by the Engineer, the Contractor shall revise and resubmit the procedure within three (3) working days of receipt of the Engineer's comments and shall allow four (4) working days for the Engineer to review the revisions. The Contractor must submit three (3) copies of the approved procedure to the Engineer prior to the pre-construction meeting.

The procedure shall provide for recording of data to develop a history of acceptable atmosphere within the confined space. That history will include:

1. Daily calibration of a direct reading confined space meter by trained personnel.
2. Daily monitoring and recording of the confined space atmosphere with a calibrated direct reading confined space meter.
3. Records of Items 1 and 2 shall be maintained onsite and copies given to the Engineer.
4. The records shall indicate if readings are of natural or mechanically enhanced ventilation.

In addition, the procedure shall include daily tours of the job site with the Engineer to ensure inlets to the confined space are free of obstruction or substances that might affect the atmosphere of the confined space.

The Contractor will be required to keep a direct reading confined space meter onsite for the duration of the contract. The meter shall be calibrated daily and shall be made available for the Engineer's use upon request.

6.4 Heavy Equipment Working Hours - Heavy construction equipment working hours for the construction of Corona Drains – East Ontario Avenue Storm Drain, Stages 1 and 2 shall be between 7:00 a.m. and 7:00 p.m. each normal working day, unless otherwise approved by the Engineer.

6.5 Corona Drains Line 1G, Stage 2 – The construction of Corona Drains Line 1G, Stage 2 must begin no sooner than July 5, 2011 and be completed by August 15, 2011.

6.6 Encroachment Permits –

- (a) Riverside County Transportation Department - The Contractor is required to obtain an encroachment permit and/or road closure permit from the Riverside County Transportation Department for work within County right of way. The Riverside County Transportation Department will not require the Contractor to pay a fee for the encroachment permit. A copy of the encroachment permit shall be provided to the Engineer prior to commencement of work.
- (b) City of Corona - The Contractor is required to obtain an encroachment permit from the City of Corona for work within City right of way. The City of Corona will not require the Contractor to pay a fee for the encroachment permit. A copy of the encroachment permit shall be provided to the Engineer prior to commencement of work.

6.7 Toxic Material Disposal - Toxic materials including oil, fuel oil, gasoline, coolant, fluid filters and other contaminants shall not be discharged within the project site. All such materials shall be transported offsite and disposed of at a County approved facility.

6.8 Survey Crew - The Contractor shall notify the Engineer in writing at least 48 hours prior to new construction staking.

Survey Crews will be available Monday through Thursday from 7:00 a.m. to 3:30 p.m., with a half-hour off for lunch. If the Contractor requires the Survey Crew to work beyond the specified time mentioned above, it shall be considered as overtime and shall be paid by the Contractor at 1.5 times the Survey Crew's hourly rates.

6.9 Survey Monuments - The Contractor shall salvage and give to the District all survey monuments and wells removed during construction. The District will reset monuments after construction.

6.10 Job Trailer Site - The Contractor is required to provide a site and install an office trailer for District personnel. This trailer shall be in good condition and located in a place acceptable to the District. The trailer shall be for the sole use of the District and shall not be used by the Contractor for any activity, including storage. The Contractor shall make provisions for the privacy and security of the office, and provide air conditioning, drinking water and electrical service. The Contractor shall also provide two office chairs and a desk suitable for reviewing plans. The Contractor shall pay the monthly billings for these services. The trailer shall be fully operational and available to District personnel on the first day of work. Should the trailer or office not be available and in working condition, it is agreed by both parties at the time of entering this contract that damages in the amount of \$3,000 per month shall be assessed. It is agreed that this amount may be prorated and shall be deducted from the first contract payment and any successive payments covering any period that the facilities are unavailable.

6.11 Construction Tolerances – Variation in alignment, grade and dimensions of the structures and structural components from the established alignment, grade and dimensions shown on the drawings shall be within the tolerances specified in the following:

Departure from established alignment		2 inches on tangents 4 inches on curves
Departure from established profile grade	Channel bottoms, channel sideslopes in cut and fill, levee and access road sideslopes in cut	Zero <u>above</u> and 3 inches <u>below</u> the specified grade
	Top surfaces of levees and access roads in both cut and fill, levee and access road sideslopes in fill	Zero <u>below</u> and 3 inches <u>above</u> the specified grade

Regardless of the construction tolerances specified, the excavation and grading shall be performed so that the finished surfaces are in uniform planes with no abrupt breaks in the surface.

Table B - Tolerances for Trapezoidal Concrete Lined Channels and Levees		
Departure from established alignment		2 inches on tangents 4 inches on curves
Departure from established profile grade		1 inch
Variation in thickness of lining, sideslopes and invert		5 percent of specified thickness provided average thickness is maintained
Variation from specified width of section at any height		0.0025 times specified width W plus 1 inch. 0.0025W + 1 inch
Variation from specified height of lining		0.005 times specified height H plus 1 inch. 0.005H + 1 inch
Variation in surfaces (gradual)	Invert Sideslopes	¼ inch in 10 feet ½ inch in 10 feet
Variation in surfaces (abrupt)		¼ inch

Gradual Variation tolerance shall be measured by placing a 10-foot straightedge anywhere on the finished concrete structure within 72 hours after concrete placement. The gap at any point between the straightedge and the concrete shall not exceed the specified amount.

Table C - Tolerances for Formed, Cast-in-Place Concrete Structures		
Departure from established alignment		1 inch on tangents 2 inches on curves
Departure from established profile grade		1 inch
Inside dimensions		0.005 times specified dimension
Variation from the plumb or the specified batter in the lines and surfaces of walls, piers and in arises	Exposed, in 10 feet Backfilled, in 10 feet	½ inch 1 inch
Variation in cross-sectional dimensions		Minus ¼ inch Plus ½ inch
Variation in surfaces (gradual)	Invert Soffits, Walls, Sideslopes	¼ inch in 10 feet ½ inch in 10 feet
Variation in surfaces (abrupt)		¼ inch

Table D - Tolerances for Reinforcing Steel Placement		
Variance from indicated position	Spacing between adjacent bars and the distance between layers of bars	one bar diameter nor more than one inch
Concrete cover measured perpendicular to steel in the direction of tolerance		¼ inch

6.12 Surplus Excavated Material - Any stockpiling, grading or disposal of material outside of the project limits is not covered under the District's permits and is the sole responsibility of the Contractor. Regulatory permits that may be required include, but are not limited to, Federal Clean Water Act (Sections 401 and 404), California Fish and Game Code (Section 1602) and Federal/State Endangered Species Acts. All costs to obtain these Regulatory Permits shall be borne by the Contractor.

6.13 Sewer and Water Emergency Spill Plan – Supplementing Sections 4.1 and 6.2 of these Special Provisions, prior to construction the Contractor is required to prepare and submit an emergency spill plan to the City of Corona Department of Water and Power, Matt Bates, Telephone: 951.279.3692, for review and approval. The plan will describe how the Contractor will handle potential sewage spills or waterline breaks. The plan shall include equipment requirements such as back-up pumps and vacuum trucks as well as general procedures such as covering catch basins and clean up. No separate payment will be made for the preparation or implementation of the plan. All costs shall be included in the contract bid for Clearing and Miscellaneous Work.

6.14 Brine Emergency Spill Plan – Supplementing Sections 4.1 and 6.2 of these Special Provisions, prior to construction the Contractor is required to prepare and submit a Brine Emergency Spill Plan to the District and the Santa Ana Watershed Project Authority (SAWPA), Attention: David Ruhl, Phone Number 951.354.4223, for review and approval. The plan will describe how the Contractor will handle any brine spills. No separate payment will be made for preparation or implementation of the plan. All costs shall be included in the contract bid item Protect Existing 30" Sewer Line.

6.15 Sewer Line Inspection - Prior to the commencement of construction, the Contractor is required to video record all sewer mains (8" diameter and larger) within the project limits. Additionally, the Contractor shall video record the sewer mains after the backfilling of the storm drain has been completed. All costs associated with this requirement shall be included in the contract price bid for Clearing and Miscellaneous Work. The Contractor is required to replace and/or repair at his own expense, any sewers damaged or misaligned as a result of his construction activities.

6.16 Pipe Order Notification - The Contractor shall submit to the District the invoice from the pipe company stating, (1) pipe order date, (2) pipe quantity, and (3) estimated date of pipe delivery within five (5) calendar days of the award of the contract.

6.17 Project Signs - Supplementing Section 8.07 of the General Provisions, the Contractor shall be required to provide two new project signs. The Contractor shall install and maintain the project signs at locations specified by the Engineer, with painting and lettering as shown in Appendix "B" of these Special Provisions. The signs shall be installed as directed by the Engineer within five (5) days after District issuance of the Notice to Proceed. Upon completion of construction, the signs shall be removed.

6.18 Liability Insurance – The Contractor's attention is directed to Section 8.02, Insurance Hold Harmless, of the General Provisions. The City of Corona and County of Riverside shall also be named as additional insured with the liability insurance coverage required to be maintained by the Contractor. In addition to the insurance requirements of Section 8.02, the Contractor shall take out and maintain during the life of the contract, pollution liability and remediation insurance, in the amount of not less than \$2,000,000 per occurrence or the equivalent thereof.

6.19 Accidental Discovery – In the event that any hazardous materials, historical, archaeological, or paleontological resources are accidentally discovered within project limits, the Contractor shall immediately cease all construction or ground disturbance activity in the vicinity of find and notify the Engineer. District will provide the appropriate professional to assess the significance of the discovery and, if necessary, develop appropriate management and treatment measures. **The Contractor shall not resume construction in the affected area without Engineer's approval.**

Should any of the above mentioned discoveries result in delays to the Contractor's work schedule, the Contractor shall be entitled only to an equivalent extension of time for the completion of the contract, and shall not be entitled to damages due to down-time and idle equipment or additional payments over and above the agreed upon contract prices.

6.20 Staging or Stock Piling – The Contractor shall not stage any vehicles or stock pile materials beneath the canopy of any tree.

SECTION 7 - SOILS REPORT

In conjunction with the Corona Drains – East Ontario Avenue Storm Drain, Stages 1 and 2 soils investigation report prepared by Inland Foundation Engineering, Inc., dated July 6, 2009, the Contractor's attention is directed to Article 8.08 of the General Provisions. The logs of the soil borings for this report are included for the convenience of the bidders, in conformance with Section 8.08 of the General Provisions, as Appendix "C" of these specifications. The soils report is on file in the District office, 1995 Market Street, Riverside and is available for review upon request.

In conjunction with the Corona Drains Line 1G, Stage 2 soils investigation report prepared by LOR Geotechnical Group, Inc., dated June 15, 2006, the Contractor's attention is directed to Article 8.08 of the General Provisions. The logs of the soil borings for this report are included for the convenience of the bidders, in conformance with Section 8.08 of the General Provisions, as Appendix "C" of these specifications. The soils report is on file in the District office, 1995 Market Street, Riverside and is available for review upon request.

SECTION 8 - NOT USED

SECTION 9 - PAYMENT

The contract prices shall include full compensation for all costs incurred under these Special Provisions and Detailed Specifications.

DETAILED SPECIFICATIONS

SECTION 10 – MOBILIZATION (BID ITEM NO. 1)

10.1 Description - The contract item Mobilization shall consist of expenditures for all preparatory work and operations, including but not limited to, those costs necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of all offices, buildings, construction yards and other facilities necessary for work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site as well as the related demobilization costs anticipated at the completion of the project.

10.2 Payment - The amount credited for Mobilization on each monthly progress payment shall be equal to the total of the amounts credited for work on all the other contract items for that monthly progress payment, up to a cumulative limit of eighty percent (80%) of the lump sum price bid for Mobilization. The remaining twenty percent (20%) of the lump sum price bid for Mobilization will be paid with the final payment.

Payment of the lump sum contract price for Mobilization shall constitute full compensation for all labor, materials, equipment, and all other items necessary and incidental to completion of this item of work.

The deletion of work or the addition of extra work as provided for herein shall not affect the price paid for Mobilization.

SECTION 11 - WATER CONTROL (BID ITEM NO. 2)

11.1 Description - This section covers the contract item Water Control. Watersheds and/or urban runoff areas are tributary to the project site at various locations, but do not necessarily follow the alignment of the project under current conditions. Surface water in varying quantities can be expected at any time of the year, and substantial runoff can be expected during periods of rainfall. Groundwater was not indicated at the time of the soils investigations for these projects. All bidders shall make their own determination regarding what the surface and/or groundwater conditions will be at the time of construction, and their impact on the bidder's operations and construction phasing.

11.2 Water Control - The contract item Water Control includes the control and/or diversion of surface runoff as well as groundwater within the work area as required to complete the work. All work shall be carried on in areas free of water. Care should be exercised so that runoff or diversion flows do not erode, undermine or otherwise damage either facilities which have been constructed or adjacent private properties. The responsibility for the protection of all existing and proposed improvements lies with the Contractor.

11.3 Measurement and Payment - The methods of controlling both surface and groundwater will be the responsibility of the Contractor. The contract lump sum price paid for Water Control shall include full compensation for all direct and indirect costs incurred under this section, and for doing all the work involved in controlling surface runoff and groundwater within the construction area, as specified in these Detailed Specifications, and as directed by the Engineer.

Payment will be made on a basis of the percentage of the work completed on the entire project.

SECTION 12 - TRAFFIC CONTROL
(BID ITEM NO. 3)

12.1 Description - The contract item Traffic Control shall include labor, flagmen, lights, barricades, temporary fencing, signs, sign relocations, materials, temporary bridges and equipment necessary to ensure that the vehicular and pedestrian traffic conforms to requirements as set forth in this section and as shown on the drawings.

12.2 Notification of Agencies - The Contractor shall notify the following agencies a minimum of 48 hours in advance of start of any street work and inform them of the proposed construction schedule and provide any additional pertinent information they may request:

City of Corona Fire Department	951.736.2220
City of Corona Police Department	951.736.2330
City of Corona Public Works	951.736.2266
City of Corona Water Utilities Department	951.736.2263
Corona Fundamental Intermediate School	951.736.3321
Corona-Norco Unified School District	951.736-5000
Elsinore Valley Municipal Water District (Imad Baiyasi)	951.674.3146, ext. 8786
Riverside County Fire Department, Station 15 (Temescal)	951.737.8109
Riverside County Sheriff's Department	951.955.2400
Riverside County Transportation Department	951.955.6880
Santa Ana Watershed Project Authority (Carlos Quintero)	951.354.4220
SBC (David Bell)	714.606.5423
Southern California Edison (Michelle Bray)	909.930.8436
The Gas Company (Teresa Roblero)	909.335.7776
Time Warner Cable (Cozette Miles)	909.975.3398
TW Telecom (Mike Long)	925.953.7093
Underground Service Alert	800.227.2600
United States Postal Service	800.275.8777

The Contractor is not relieved of his responsibility of notifying the various departments and agencies mentioned above, even if their telephone numbers may have changed without notice.

The above agencies shall also be advised by the Contractor of any major change in the construction schedule that could restrict pedestrian or vehicular traffic.

12.3 Public Convenience and Access - The Contractor shall comply with the requirements of Section X of the General Provisions and shall provide continuous access to all private property. Additional provisions shall be made as necessary to protect the public and accommodate traffic with a minimum of inconvenience.

Closures or partial closures of the traveled way implemented by the Contractor shall be related to actual work being performed at the time. Closures shall not be maintained if work is not being performed. If the existing closure is not essential to the type of work being performed at the time, the traveled way shall immediately be restored to a safe condition for public use.

The Contractor shall provide temporary bridge crossings for all driveway entrances to be closed to vehicular access for any period exceeding 4 hours.

Temporary bridges shall have a minimum width of 12 feet for residential driveways and 24 feet for business driveways, and shall be designed for an AASHTO H20 truck loading. Steel plates placed over the trench shall have a minimum thickness of 1.25" and the surface shall be roughened or coated to provide a non-skid surface. For spans greater than 4 feet, a structural design shall be prepared by a Registered Civil Engineer and submitted to the District for review and approval.

The Contractor shall notify each resident/business in writing 3 days in advance of excavating past the affected driveway entrance. Such notice shall contain the expected day and period of time (not to exceed 4 hours) that the driveway is to be out of service. A copy of each letter shall be submitted to the Engineer.

12.4 Construction Signs and Traffic Control Plans - All construction signs, barricades, delineators, etc., shall conform with the U.S. Department of Transportation, Federal Highway Administration, "Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), Part 6, latest edition", and the MUTCD California Supplement, Part 6 along with the Uniform Sign Chart as shown on the drawings.

12.5 Flaggers - All personnel utilized as flaggers must be trained in the proper fundamentals of flagging and signaling.

12.6 Striping and Pavement Marking - Temporary and permanent striping shall be performed by the Contractor at his expense as directed by the Engineer. The Contractor shall restore the permanent striping immediately after resurfacing of the streets is completed. The Contractor shall notify the Riverside County Transportation Department, Telephone: 951.955.6880 and City of Corona Public Works Department, Telephone: 951.736.2266 at least 48 hours prior to restriping.

All temporary traffic striping and pavement markings shall conform to Section 84 of the State Standard Specifications and shall be acceptable to the Riverside County Transportation Department, or the City of Corona Public Works Department.

All pavement markings such as arrows, "STOP", "ONLY", reflectors, etc., shall be replaced by the Contractor using thermoplastic. Thermoplastic crosswalk, traffic stripes and pavement markings shall conform to the provisions in Section 84-1, "General" and 84-2, "Thermoplastic Traffic Stripes and Pavement Markings" of the State Standard Specifications and these Detailed Specifications.

12.7 Payment - The contract prices paid for Traffic Control shall include full compensation for all material and labor costs incurred under this section. Contractor is advised that traffic plans as shown on the drawings may be modified as field conditions require. No additional payment shall be made for modifications to the traffic plan.

This payment will be made on a basis of the percentage of work completed on the entire project.

SECTION 13 - CLEARING AND MISCELLANEOUS WORK
(BID ITEM NO. 4)

13.1 Description - This section covers the contract item Clearing and Miscellaneous Work as required for construction of the work. All objectionable materials shall be removed and disposed of outside of the limits of the construction easements and permanent rights of way.

13.2 Clearing and Miscellaneous Work - The contract item Clearing and Miscellaneous Work includes the removal and disposal of all vegetation, trees, roots, stumps, fences, pipes, culverts, rocks, structures, concrete and asphalt excluding those items defined specifically as excavation in the appropriate section.

Included in this item are the following:

1. The Contractor shall leave all improved parkways undisturbed where possible. When this is impractical he shall return in kind, areas disturbed in the parkways including removing and replacing interfering portions of sprinkler systems. Sod shall be used to restore disturbed grass. All work is to be done to the satisfaction of the Engineer.
2. The temporary relocation of signs and mailboxes, and their reinstallation. Work involving mailboxes shall be coordinated with the Postal Service.
3. The stenciling and signage on top of all catch basins and drop inlets. Stenciling and signage will be provided by the District.
4. The removal and disposal of existing concrete trapezoidal channel from approximate Station 10+00 to Station 13+50 (Sheet No. 2).
5. The removal and disposal of existing reinforced concrete box from approximate Station 13+58.50 to Station 13+66.50 (Sheet No. 2).

6. The removal and disposal of existing concrete headwall (Sheet No. 2).
7. The removal and disposal of existing 48-inch reinforced concrete pipe from approximate Station 10+00 to Station 14+50 (Sheet Nos. 2 through 4).
8. The removal and disposal of existing 48-inch storm drain manhole (Sheet No. 4).
9. The removal and disposal of an existing catch basin (Sheet 10).
10. The removal and disposal of an existing catch basin (Sheet 11).
11. The removal and disposal of interfering portion of 18-inch corrugated metal pipe and drop inlet (Sheet 15).
12. The removal and disposal of an existing catch basin (Sheet 15).
13. The preparation of a sewer and water emergency spill plan as directed in Section 6.13 of these Special Provisions.

Finally, included in this item are those types of work as shown on the drawings not specified for pay under any other individual contract item.

13.3 Payment - The contract price paid for Clearing and Miscellaneous Work shall be full compensation for all costs incurred under this section.

This payment will be made on a basis of the percentage of work completed on the entire project.

SECTION 14 - EARTHWORK
(BID ITEM NO. 5 THROUGH BID ITEM NO. 11)

14.1 Description - This section covers the contract items Excavation; Structure Excavation; Asphalt Concrete Excavation; Backfill; Structure Backfill; Filter Material; and Controlled Low Strength Material (CLSM).

14.2 General Excavation Requirements - Pipe Excavation shall be in conformance with Section 306 of the Standard Specifications. Structure Excavation shall be in conformance with Section 300-3 of the Standard Specifications. Access to trenches shall be in conformance with Section 306-1.1.4 and the manner of bracing excavations shall be in conformance with Section 306-1.1.6 of the Standard Specifications.

Excavation shall be kept to the minimum widths required for efficient placing of the pipe or structure and the construction of the various other concrete structures. However, for pipe placement the minimum width of trench shall be 12 inches greater than the outside diameter of the pipe. The maximum length of open trench shall be in conformance with Section 306-1.1.2 of the Standard Specifications.

In excavating for surfaces against which concrete is to be placed, care shall be exercised in removing the final lift. Upon completion of excavation for structures and pipe, surfaces against which concrete is to be placed shall be free of debris, mud or ponded water.

The foundation for all concrete structures including concrete channels and sideslopes will be inspected and tested after excavation. The subgrade shall be compacted to ninety percent (90%) relative compaction prior to the placement of concrete.

Material which will not provide a suitable foundation shall be removed and replaced with compacted select material as directed by the Engineer.

Any overexcavation shall be filled with select material compacted to ninety percent (90%) relative compaction and meeting the material requirements for backfill.

The Contractor shall remove slides and materials eroding into the work, and the slopes and grades refinished to original grades as specified.

The Contractor shall dispose of all surplus excavated material outside of the limits of the construction easements and permanent rights of way.

The removal of rock material from within the excavation paylines which requires the use of blasting or equipment beyond that normally necessary to accomplish the excavation (as determined by the Engineer) shall be paid for in accordance with Section VII, Article 7.03 of the General Provisions. The cost of removal and disposal (including trucking) of rock away from the jobsite will be paid for under the contract item Excavation and no additional compensation will be allowed.

Blasting, when necessary, as approved by the Engineer shall be in accordance with Section 19-2.03 of the State Standard Specifications.

The Contractor's attention is directed to the General Provisions, Section V, Article 5.09 on the use of explosives and Article 5.11 in regard to unforeseen difficulties.

14.3 Excavation - The contract item Excavation covers the removal of all material including asphalt, aggregate base, abandoned pipelines and concrete from within the excavation paylines as specified and as required for the construction and installation of the junction structures, headwalls, manholes, transitions and pipe as shown on M815 of the standard drawings, and the disposal of all surplus material. All A.C. and P.C.C. shall be sawcut unless otherwise specified.

14.4 Structure Excavation - The contract item Structure Excavation covers all excavation required to obtain the channel, reinforced concrete box and access road cross sections as shown on the drawings. Also included in the contract item Structure Excavation is the removal of all material including asphalt, aggregate base, abandoned pipelines and concrete within the excavation paylines as specified and required for the construction and installation of reinforced concrete box and Transition Structure No. 2 as shown on Sheets 20 and 24 and the disposal of all

surplus material. All AC and PCC shall be sawcut unless otherwise specified. All excess material shall be disposed of away from the site of the work.

Before placing any fill the subgrade shall be cleared of all vegetation and debris. All fill material placed shall be moistened and shall be free from sod, roots, brush, debris, trash and other objectionable material and shall be placed in horizontal layers not over 8 inches in depth before being compacted to ninety percent (90%) relative density. Additionally, if required, the Contractor shall obtain a grading permit for mandatory fill areas shown on the plans.

14.5 Asphalt Concrete Excavation – The contract item Asphalt Concrete Excavation covers the header cut, areas to be ground/planed and removal of asphalt concrete pavement to the depths and dimensions as specified and as shown on the drawings and the disposal of all surplus material.

Exclusive of this contract item is the asphalt concrete excavation within the trench excavation limits which will be measured and paid by the contract item Excavation.

Included in this contract item is the recompaction of the existing Aggregate Base to 95% relative compaction after removal of existing asphalt concrete.

The cold planing machine shall have a cutter head at least 72 inches wide and shall be operated so as not to produce fumes or smoke.

The final cut shall result in a uniform surface conforming to the typical cross sections. The outside lines of the planed area shall be neat and uniform. The road surfacing to remain in place shall not be damaged in any way.

The material planed from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way, shall be immediately removed from the work site and disposed of outside the right of way. The removal crew shall follow within 50 feet of the planer unless otherwise directed by the Engineer.

14.6 General Backfill Requirements - Whenever fill is specified or required (except for pipe backfill) the work shall be performed as set forth in Sections 300-4.1 to 300-4.8 of the Standard Specifications. Backfill for pipe and box shall conform to Section 306-1.3 of the Standard Specifications.

No backfill materials shall be placed against the outside walls of cast-in-place concrete structures until the concrete has developed eighty percent (80%) of its design strength. No fill or traffic will be permitted on the top of any cast-in-place concrete structure until the concrete in the structure has attained its design strength. Compressive strength will be determined by test cylinders taken by the Engineer.

Regardless of the method of densification, backfill material shall not be placed against any reinforced concrete structure until the structure has been inspected and approved for backfilling by the Engineer.

Densification of backfill will be accomplished by mechanical methods as described below. All relative compaction tests will be made by the Engineer in conformance with California Test 216. Whenever relative compaction is specified to be determined by California Test 216, the in-place density may be determined by California Test 231. The wet weight or dry weight basis and English units of measurement may be used at the option of the Engineer.

Mechanical Compaction - Backfill shall be mechanically compacted by means of tamping rollers or other mechanical tampers. Impact-type pavement breakers (stompers) will not be permitted unless otherwise approved by the Engineer.

All backfill material for structures shall be placed in uniform layers and shall be brought up uniformly on each side of the structure. The thickness of each layer of backfill shall not exceed 8 inches before compaction unless otherwise approved by the Engineer. For hand directed mechanical compactors, the thickness of each layer shall not exceed 4 inches before compaction.

Water densification by jetting will not be allowed.

Approval to use specific methods and compaction equipment shall not be construed as guaranteeing or implying that the use of such methods and equipment will not result in damage to adjacent ground, existing improvements or improvements installed under the contract, nor shall it be construed as guaranteeing proper compaction. The Contractor shall make his own determination in this regard.

All backfill and bedding around structures and pipe shall be compacted to not less than ninety percent (90%) relative compaction. Where such material is placed under existing or proposed paved roadways, the top 3 feet, measured from the subgrade plane, shall be compacted to ninety-five percent (95%).

Trench bottoms for structures and pipe shall be graded to provide firm and uniform bearing throughout the entire length of the structures and pipe.

Controlled Low Strength Material (CLSM) shall be used for pipe bedding and shall consist of Portland Cement, Aggregate, Water and Fly Ash. CLSM shall be placed to one foot above the top of the reinforced concrete pipe as shown on the drawings.

Backfill material placed above the CLSM shall consist of either select material from the excavation or imported material, as approved by the Engineer.

14.7 **Testing** – District personnel shall perform compaction tests as described below. These tests represent the minimum required. Additional tests may be taken at the Engineer's direction.

1. **Mainline Trenches** – A complete series of compaction tests will be taken for each 4-foot thickness of backfill placed. Each series will consist of tests taken at

approximate maximum intervals of 300 feet. Each series will begin one foot above the top of the bedding zone.

2. Connector Pipe Trenches – Compaction tests will be taken on 50% of the laterals, one test for each 4-foot of depth.
3. Any failed test will result in a retest.

14.8 Backfill - The contract item Backfill includes all backfill, compacted as specified around the various concrete structures and pipe within the paylines as shown on the drawings.

14.9 Structure Backfill – The contract item Structure Backfill includes all backfill compacted as specified around the reinforced concrete box, rectangular channel, and the transition structures from Station 10+00 to Station 13+63 (El Cerrito Channel) from within the paylines as shown on the drawings.

14.10 Filter Material - The contract item Filter Material includes all filter material to be placed below the reinforced concrete pipe, box and various other structures but exclusive of connector pipes and catch basins.

The Contractor should note that the placing of filter material will be determined from field conditions as directed by the Engineer.

The materials for filter material shall conform to Sections 90-2.02 and 90-3.01 of the State Standard Specifications. Grading shall meet the requirements for 1" x No. 4 coarse aggregate as per Section 90-3.02 of the State Standard Specifications. The filter material shall be consolidated and the surface trimmed to final grade as directed by the Engineer.

14.11 Controlled Low Strength Material (CLSM) – The contract item Controlled Low Strength Material (CLSM) covers the placement of Controlled Low Strength Material (CLSM) backfill around the pipe or structure as directed by the Engineer.

CLSM shall be in conformance with Section 201-6 of the Standard Specifications.

CLSM shall be hand excavatable, a minimum of two (2) sacks of cement shall be used for each cubic yard of CLSM produced.

CLSM shall have a 28-day compressive strength between 200 to 300 psi.

14.12 Measurement - Excavation; Structure Excavation; Asphalt Concrete Excavation; Backfill; Structure Backfill; Filter Material; and Controlled Low Strength Material (CLSM) beyond the limits established by the drawings, unless ordered in writing by the Engineer, will not be measured for payment.

The excavated material shall be measured from the ground surface existing at the start of excavation, as determined from surveyed cross sections taken by the District, to the lines, grades

and dimensions shown on the drawings. Longitudinal limits of the excavations as shown on the profile drawings terminate at a vertical plane at the limits of the structure, measured along the longitudinal axis of the various structures.

Measurement for payment for the contract item Excavation will be the number of cubic yards of material excavated as shown on the drawings. Longitudinal limits of the excavations terminate at a vertical plane at the limits of pipe or structures, measured along the longitudinal axis of the pipe or structure.

Measurement for payment for the contract item Structure Excavation will be the number of cubic yards excavated as shown on the drawings or as directed by the Engineer. No measurement or payment of the fill required to obtain the channel and road cross section and the placement and compaction of material in the mandatory fill areas will be made.

Measurement for payment for the contract item Asphalt Concrete Excavation will be the number of square feet of material excavated as shown on the drawings or as directed by the Engineer.

Measurement for payment for the contract items Backfill; and Structure Backfill will be the number of cubic yards of material placed in final position as specified and within the limits of the payment lines shown on the drawings. The longitudinal limits shall terminate at a vertical plane at the limits of the pipe or structure, measured along the longitudinal axis of the various pipe or structures. Volumes occupied by structures, aggregate base, asphalt concrete and other features for which a separate payment is made will be deducted from the gross volume.

Measurement for payment for the contract item Filter Material will be the number of cubic yards of material placed in final position as specified to the lines, grades and dimensions as shown on the drawings or as directed by the Engineer.

Measurement for payment for the contract item Controlled Low Strength Material (CLSM) will be the number of cubic yards of material placed in final position as specified and within limits of the payment lines as shown on the drawings. The longitudinal limits for CLSM shall terminate at a vertical plane at the limits of the pipe or structure, measured along the longitudinal axis of the various pipe or structures. Volume occupied by structures, aggregate base, asphalt concrete and other feature for which a separate payment is made will be deducted from the gross volume.

14.13 Payment - The contract prices paid for Excavation; Structure Excavation; Asphalt Concrete Excavation; Backfill; Structure Backfill; Filter Material; and Controlled Low Strength Material (CLSM) shall include full compensation for all costs incurred under this section.

SECTION 15 - TRENCH SAFETY SYSTEM AND FALSEWORK (BID ITEM NO. 12)

15.1 Description - This section covers the contract item Trench Safety System and Falsework. This item is defined as a method of protecting employees from cave-ins, from material that could

fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Trench safety systems include support systems, sloping and benching systems, shield systems and other systems that will provide necessary protection. The item includes the furnishing and implementation of the safety system as required by Section 306-1.1.6 of the Standard Specifications or as directed by the Engineer.

15.2 Trench Safety System - Excavation for any trench five (5) feet or more in depth shall not begin until the Contractor has provided to the Engineer, a detailed plan for worker protection from the hazards of caving ground during the excavation of the trench. The plan shall show the details of the design of shoring, bracing, sloping or other provisions to be made for worker protection including any design calculations done in the preparation of the plan. No such plan shall allow the use of shoring, sloping or a protective system less effective than that required by the Construction Safety Orders of the California Department of Industrial Relations, Division of Occupational Safety and Health Administration (Cal-OSHA). The plan shall be prepared and signed by an engineer who is registered as a civil engineer in the State of California, and the plan and design calculations shall be submitted for review at least two (2) weeks before the Contractor intends to begin trenching operations.

All safety plans shall reflect surcharge loadings imparted to the side of the trench by equipment and stored materials. Surcharge loads shall be monitored to verify that such loads do not exceed the design assumptions for the system.

The Contractor should not assume that only one type of trench safety system such as a shield or "trench box" will be adequate for all trenching situations encountered on a given project. The Contractor should be prepared with alternative safety system designs (such as solid sheeting) should construction circumstances dictate the use of such.

Trench safety system designs for support systems, shield systems or other protective systems whether drawn from manufacturers' data, other tabulated data or designed for this particular project must be signed by a civil engineer registered in the State of California prior to submittal to the District for review. A shoring plan for the specific use of a shield shall be prepared. Catalogs or engineering data for a product should be identified in the plan as supporting data. All specific items or applicable conditions must be outlined on the submittal.

The State of California Department of Transportation "Trenching and Shoring Manual" will be used as a guide for plan review and approval.

Also included in this item is the fencing and barricading of the open trench as required for the safety of pedestrians and vehicular traffic as directed by the Engineer.

15.3 Falsework – Falsework for the construction of reinforced concrete boxes shall conform with Section 51-1.06 Falsework of the State Standard Specifications.

The Falsework plan shall be prepared and signed by an engineer who is registered as a civil engineer in the State of California, and the plan and design calculations shall be submitted for review at least 4 weeks before the Contractor intends to begin Falsework construction.

The State of California Department of Transportation "Falsework Manual" will be used as a guide for plan preparation and review.

15.4 Measurement and Payment - The contract price paid for the item Trench Safety System and Falsework shall include full compensation for all costs incurred under this section.

This payment will be made on a basis of the percentage of the work completed on the items related to trenching operations.

SECTION 16 - CONCRETE CONSTRUCTION
(BID ITEM NO. 13 THROUGH BID ITEM NO. 27)

16.1 Description - This section includes the contract items Reinforcing Steel and the various classes of Concrete.

16.2 General Requirements - Concrete for all purposes shall be composed of Portland Cement, aggregates and water of the quantities and qualities herein specified, and in the required proportions. The ingredients are to be well mixed and brought to the proper consistency and to have a compressive strength at the age of 28 days of not less than the amount shown in the following tabulation for each type of work listed:

<u>CONCRETE CLASS</u>	<u>MINIMUM SACKS CEMENT/C.Y.</u>	<u>TYPE OF WORK</u>	<u>POUNDS PER SQUARE INCH</u>
A	7	Junction Structure No. 1 (Modified 84" RCP)	5000
A	6	Boxes, Rectangular Channel and Transition Structure No. 2, Modified CB 300 and Concrete Bulkhead	4000*
A	6	Trapezoidal Channel, Catch Basins, Drop Inlets, Junction Structure No. 4, Manholes, Concrete Collars and Headwalls	3250*
B	5	Local Depressions, Cutoff Walls, Encasements, Curb and Gutter, Cross Gutters, Driveways, Sidewalk, Spandrels and Miscellaneous Concrete not otherwise specified	3000*
E	2	Controlled Low Strength Material	200-300 Max.

*Note: Concrete for use in structures constructed from State of California, Department of Transportation Standard Plans shall have compressive strengths as called for on those plans.

16.3 Material and Methods - All concrete materials, methods, forms and proportioning shall conform to Sections 51 and 90, and additionally, curb construction shall conform to Section 73 of the State Standard Specifications. Concrete test specimens will be made in accordance with ASTM Designation C-31 and C172. Test for concrete compressive strengths will be performed in accordance with ASTM Designation C-39. Combined aggregate grading for all concrete shall be in conformance with Section 90-3.04 of the State Standard Specifications and the following tabulation for each type of work listed:

<u>TYPE OF WORK</u>	<u>COMBINED AGGREGATE GRADING</u>
The inverts of: Trapezoidal Channels, Reinforced Concrete Box, Rectangular Channels, Junction Structures, Transition Structures and Manholes.	1-1/2" Maximum
Trapezoidal Channel, Box Deck and Walls, Rectangular Channel Walls, Headwalls, Catch Basins, Drop Inlets, Local Depressions, Curb and Gutter, Driveways, Sidewalk, Cutoff Walls, Bulkheads, Collars, Encasements and other Miscellaneous Concrete not otherwise specified. All other concrete structures	1" Maximum
Junction Structure No. 1 (Modified 84" RCP)	3/4" Maximum
Controlled Low Strength Material (CLSM)	3/8" Maximum

Fly Ash, Class F may be substituted for cement, up to a maximum of 15 percent by weight for all concrete. Fly Ash shall meet the standards of ASTM Designation: C-618. Water reducing agents meeting ASTM Designation: C-494 will be permitted in amounts recommended by the supplier and approved by the Engineer in writing.

No other admixture shall be used in any class of concrete without written permission from the Engineer.

Supplementing Section 90-1.01 of the State Standard Specifications, prior to placement of any concrete the Contractor shall submit mix designs, for all types of concrete to be placed, to the Engineer for approval. Supplementing Section 90-6.03 of the State Standard Specifications, concrete delivered to the job site shall be accompanied by a ticket containing the weight of each of the individual ingredients in the mix.

16.4 General Reinforcing Steel Requirements - Reinforcing steel for all reinforced concrete structures shall be Grade 60 Low-Alloy or Grade 60 Billet-Steel. The reinforcing steel for use in structures constructed from State of California, Department of Transportation Standard Plans shall be of Grade 60 or as called for on those plans. Cleaning, bending, placing and spacing of reinforcement shall conform to the applicable provisions of Section 52 of the State Standard Specifications and to the drawings. The Contractor shall furnish a "Certificate of Compliance" with the specification of ASTM Designation: A-706/A or A-615/A. All splices shall conform to the requirements of A.C.I. Manual, Standard 318, latest edition. Splices requested by the Contractor for his convenience shall be subject to approval by the Engineer. Longitudinal lap shall be 16 inches minimum for #4 bars and 19 inches minimum for #5 bars.

16.5 Consistency - The consistency of the concrete shall be such as to allow it to be worked into place without segregation. Unless otherwise specified, the slump shall be 3 inches plus or minus 1 inch for all concrete.

CLSM flow characteristics shall be determined by the producer to meet job site conditions and shall be approved by the Engineer.

The slump test shall be performed in accordance with the requirements of ASTM Designation: C-143. Slumps greater than those specified may be cause for rejection of the concrete by the Engineer.

16.6 Placing - Supplementing Section 51-1.09 of the State Standard Specifications, concrete shall not be placed except in the presence of the Engineer. The Contractor shall give reasonable notice to the Engineer each time he intends to place concrete. Such notice shall be far enough in advance to give the Engineer adequate time to inspect the subgrade, forms, steel reinforcement and other preparations for compliance with the specifications before concrete is delivered for placing.

Formed concrete shall be placed in horizontal layers in lifts of not more than 20 inches. Hoppers and chutes, pipes and "elephant trunks" shall be used as necessary to prevent segregation of the concrete.

16.7 Form Removal and Finish - Forms shall be removed only when the Engineer has given his approval. Forms shall be removed in such a way as to prevent damage to the concrete. Supports shall be removed in a manner that will permit the concrete to take stresses due to its own weight uniformly.

Forms shall not be removed sooner than the following minimum time or strength after the concrete is placed. These times represent cumulative number of days and fractions of days, not necessarily consecutive, during which the temperature of the air adjacent to the concrete is above 50 degrees F. If the temperature falls below 50 degrees Fahrenheit at any time after the concrete is placed in the forms, the Engineer will advise the Contractor of additional time required before forms can be removed.

<u>Element</u>	<u>Strength or Time</u>
Reinforced Concrete Boxes with spans less than 14 feet, and not at pavement grade, Transition Structure No. 2	1600 psi
All other structures	16 hours

The finish on all exposed formed surfaces shall conform to Section 51-1.18B Class 1 Surface Finish of the State Standard Specifications. A tight wood float finish will be required on the surface of trapezoidal channels and bridge decks and excessive surface working will not be permitted. The exposed concrete surfaces shall be broomed in a transverse direction with a fine textured hair push broom to produce a uniform surface and eliminate float marks. Brooming shall be done when the surface is sufficiently set to prevent deep scarring. If directed by the Engineer, a fine spray of water shall be applied to the surface immediately in advance of brooming.

Exposed corners of all concrete structures shall be finished with a 3/4" chamfer.

Concrete flatwork shall match adjacent surfaces. The concrete shall be struck off and tamped or vibrated until a layer of mortar has been brought to the surface. The top surface and face of curbs, gutters, catch basins and sidewalks shall be finished to match adjacent surfaces.

16.8 Curing - All concrete shall be prevented from drying for a curing period of at least seven (7) days after it is placed. Surfaces exposed to air during the curing process shall be kept continuously moist for the entire period or until curing compound is applied.

Formed surfaces shall be thoroughly wetted immediately after forms are removed and shall be kept wet until patching and repairs are completed. Water or covering shall be applied in such a way that the concrete surface is not eroded or otherwise damaged. Water for curing shall be clean and free from any substances that will cause discoloration of the concrete.

Concrete may be coated with curing compound in lieu of the continued application of moisture. The curing compound shall comply with the requirements of Section 90-7.01B of the State Standard Specifications. The curing compound shall be No. 5 White Pigmented Curing Compound conforming to the requirements of ASTM Designation: C-309, Type 2, Class B for all concrete surfaces other than for flatwork which shall be coated with a clear or translucent curing compound containing a red fugitive dye.

The curing compound shall be sprayed on the moist concrete surfaces as soon as free water has disappeared, but shall not be applied to any surface until patching, repairs and finishing of that surface are completed. The curing compound shall be thoroughly mixed immediately before applying, and shall be applied at a uniform rate of not less than one gallon per 150 square feet of surface. No separate payment will be made for the curing compound or its application.

16.9 Joints - Joints shall be made at the locations shown on the drawings, or as approved by the Engineer.

The Contractor shall construct, in one continuous concrete placing operation, all work comprised between such joints. Joints shall be kept moist until adjacent concrete is placed.

Transverse weakened plane joints shall be required in the trapezoidal channel at 10-foot spacing or as directed by the Engineer. The joints may be formed by placing a continuous strip of plastic or other material which will not react adversely with the chemical constituents of the concrete or bond with the concrete. The strip shall have a minimum thickness of 0.013 foot, a width of not less than 0.12 foot nor more than 0.12 foot for the six-inch thick channel slope and invert. After placement, the vertical axis of the joint material shall be within 10 degrees of a plane normal to the surface of the concrete. Final alignment of the strip for the transverse weakened plane joints shall not vary more than 0.04 foot from the edge of a 12-foot straight edge. After the installation of the joint material the concrete shall be free of segregation, rock pockets or voids and the finished concrete surface on each side of the joint shall be in the same plane.

The Contractor may elect to form the weakened plane joints in the channel surface by cutting a groove in the surface with a power driven saw. The grooves shall be cut to a minimum depth of 0.17 foot and the width shall be the minimum width possible with the type of saw being used, but in no case shall the width exceed 0.02 foot. The weakened plane joints must be sawed within the same working day the concrete has been placed.

Construction joints for trapezoidal channels when required, shall utilize 1/2 inch diameter deformed bars 30 inches long, spaced at 18-inches on center as tie bars, unless otherwise shown on the drawings. The construction joints shall be straight and finished in a workmanlike manner.

Transverse construction joints for Reinforced Concrete Boxes, Rectangular Channels and L-Wall Channels shall be keyed construction joints. Joints shall be in a vertical plane and not exceed 50 feet or be less than 10 feet in the invert, walls and deck. Transverse construction joints shall be constructed per the Standard Drawings unless otherwise shown on the drawings.

Surfaces of construction joints shall be cleaned prior to the placement of the adjacent concrete as set forth in Section 51-1.13 of the State Standard Specifications.

16.10 Weepholes - Weepholes shall be constructed in accordance with the drawings and at locations directed by the Engineer. All weepholes shall be 2-1/2 inches in diameter unless noted otherwise on the drawings.

Weepholes may be formed by removable round wooden dowels, Schedule 40 PVC Pipe or greater, or by other methods acceptable to the Engineer.

All weepholes shall have a rodent screen consisting of 1/4-inch mesh, 16-gauge galvanized hardware cloth securely and permanently attached over the drain opening in a manner approved by the Engineer.

Filter material for the weepholes shall be one inch (1") nominal size crushed rock conforming to the gradation of Section 200-1.2 of the Standard Specifications. Filter material shall also meet the quality requirements of Sections 200-1.1 and 200-1.2 of the Standard Specifications.

Filter material shall be wrapped in a single layer of filter fabric as shown on the drawings or approved by the Engineer. Filter fabric shall conform to that specified for underdrains per Section 88-1.03 of the State Standard Specifications.

Filter fabric shall be furnished in protective wrapping which shall protect the fabric from ultraviolet radiation and from abrasion due to shipping and handling. The fabric shall also be ultraviolet stabilized.

The fabric shall be placed in the manner and at the locations shown on the drawings. The surface to receive the fabric shall be prepared to a smooth condition free of obstructions and debris.

The fabric shall be covered within 72 hours of its placement. Should the fabric be damaged during construction, the torn or punctured section shall be repaired or replaced as directed by the Engineer.

No separate payment will be made for the installation of the weephole, hardware cloth, filter material or filter fabric.

16.11 Class "A" Concrete, Reinforced Concrete Box - The contract item Class "A" Concrete, Reinforced Concrete Box covers the concrete incorporated in the construction of all reinforced concrete boxes and parapet walls.

Reinforced concrete box walls shall be constructed by placing the concrete directly against timber or steel sheeting used as the outside form and shoring. Sheeting shall be closely fitted and extend a minimum of 12 inches above the ground surface. Unless otherwise directed, all sheeting shall be removed and the void created shall be immediately backfilled with Controlled Low Strength Material (CLSM).

The Contractor has an option of forming both sides of the reinforced concrete box walls, however, due to additional loads on the box structure resulting from this trench condition, the Contractor will be required to submit an alternate box design prepared by a civil engineer registered in the State of California. All alternate box designs are subject to the approval of the Engineer and no additional payment will be made for the alternate box if approved.

If the box is constructed from State of California, Department of Transportation Standard Plans, either method of forming noted in the above paragraphs may be used without an alternate box design being submitted.

Loading and vehicular use of box deck slab shall comply with the requirements of Section 51-1.11 of the State Standard Specifications.

Also included in this item of work will be the construction of the weepholes if required in the invert slab or sides of the reinforced concrete box.

16.12 Class "A" Concrete, Rectangular Channel - The contract item Class "A" Concrete, Rectangular Channel covers the concrete used in the construction of the walls, invert, and footings for the rectangular channel and channel transitions.

16.13 Class "A" Concrete, Minor Structures - The contract item Class "A" Concrete, Minor Structures includes the complete construction of the catch basins, collars, concrete bulkhead, and drop inlets. Included in the pay item is all earthwork and reinforcing steel required for these structures, but exclusive of the required miscellaneous iron and steel.

16.14 Class "A" Concrete, Channel Paving - The contract item Class "A" Concrete, Channel Paving includes the portions of the channel transitions from Station 10+00 to Station 10+50 and 3' Cutoff Wall. Included in the pay item is all reinforcing steel required, but exclusive of earthwork.

Finish surface of the channel shall be true to line and grade and concrete shall be not less than the minimum thickness indicated on the drawings, and as specified in Section 6.11 Construction Tolerances of these Special Provisions.

16.15 Class "B" Concrete, 2' Cutoff Wall - The contract item Class "B" Concrete, 2' Cutoff Wall covers the construction of the continuous cutoff walls on each side of the channel prism. Included in the pay item is all earthwork and reinforcing steel.

16.16 Class "B" Concrete, Miscellaneous - The contract item Class "B" Concrete, Miscellaneous includes the complete construction of the curb and gutters, cross gutters, sidewalks, driveways, spandrels, local depressions, pipe plugs, sewer encasements, and any other concrete not specified. Included in the pay item is all earthwork and reinforcing steel required. The subgrade for cross gutters and driveways shall be recompact to ninety-five percent (95%) relative compaction prior to the placement of concrete.

16.17 Transition Structures - The contract item Transition Structure No. 2 covers the complete construction of these various structures, exclusive of earthwork and reinforcing steel.

16.18 Junction Structure No. 1 (Modified 84" RCP) - The contract item Junction Structure No. 1 (Modified 84" RCP) covers the complete construction of this structure, including reinforcing steel, concrete, and earthwork.

No separate payment will be made for Junction Structure No. 4.

16.19 Modified CB 300 - The contract item Modified CB 300 covers the complete construction including reinforcing steel, concrete, earthwork, excluding miscellaneous iron and steel. Also

Loading and vehicular use of box deck slab shall comply with the requirements of Section 51-1.11 of the State Standard Specifications.

Also included in this item of work will be the construction of the weepholes if required in the invert slab or sides of the reinforced concrete box.

16.12 Class "A" Concrete, Rectangular Channel - The contract item Class "A" Concrete, Rectangular Channel covers the concrete used in the construction of the walls, invert, and footings for the rectangular channel and channel transitions.

16.13 Class "A" Concrete, Minor Structures - The contract item Class "A" Concrete, Minor Structures includes the complete construction of the catch basins, collars, concrete bulkhead, and drop inlets. Included in the pay item is all earthwork and reinforcing steel required for these structures, but exclusive of the required miscellaneous iron and steel.

16.14 Class "A" Concrete, Channel Paving - The contract item Class "A" Concrete, Channel Paving includes the portions of the channel transitions from Station 10+00 to Station 10+50 and 3' Cutoff Wall. Included in the pay item is all reinforcing steel required, but exclusive of earthwork.

Finish surface of the channel shall be true to line and grade and concrete shall be not less than the minimum thickness indicated on the drawings, and as specified in Section 6.11 Construction Tolerances of these Special Provisions.

16.15 Class "B" Concrete, 2' Cutoff Wall - The contract item Class "B" Concrete, 2' Cutoff Wall covers the construction of the continuous cutoff walls on each side of the channel prism. Included in the pay item is all earthwork and reinforcing steel.

16.16 Class "B" Concrete, Miscellaneous - The contract item Class "B" Concrete, Miscellaneous includes the complete construction of the curb and gutters, cross gutters, sidewalks, driveways, spandrels, local depressions, pipe plugs, sewer encasements, and any other concrete not specified. Included in the pay item is all earthwork and reinforcing steel required. The subgrade for cross gutters and driveways shall be recompacted to ninety-five percent (95%) relative compaction prior to the placement of concrete.

16.17 Transition Structures - The contract items Transition Structure No. 2 and Transition Structure No. 3 cover the complete construction of these various structures, exclusive of earthwork and reinforcing steel.

16.18 Junction Structure No. 1 (Modified 84" RCP) - The contract item Junction Structure No. 1 (Modified 84" RCP) covers the complete construction of this structure, including reinforcing steel, concrete, and earthwork.

No separate payment will be made for Junction Structure Nos. 3 or 4.

16.19 Modified CB 300 - The contract item Modified CB 300 covers the complete construction including reinforcing steel, concrete, earthwork, excluding miscellaneous iron and steel. Also

included in this item are labor and materials necessary to connect the three (3) corrugated metal pipes and the reinforced concrete pipe into the Modified CB 300.

16.20 Manholes - The contract items Manhole Nos. 1, 2 and 4, and Manhole Nos. 2 and 4 with Safety Ledge covers the complete construction of these various structures, including reinforcing steel, exclusive of earthwork and the miscellaneous iron and steel.

The manhole rings are required and shall conform to ASTM Designation: C-478, and the drawings. The rings shall be laid up, using Type II modified cement with a 1:2 mix mortar and with 1/2-inch minimum thickness pointed joints. On completion, vertical wall section shall not be out of plumb by more than 1/2-inch in 10 feet of vertical height. The manhole rings shall also be accurately aligned. The cast iron manhole frame and cover shall be installed, with frame accurately set to finished grade of pavement, in mortar well tamped around the perimeter of frame to ensure full bearing.

16.21 Reinforcing Steel, Grade 60 - The contract item Reinforcing Steel, Grade 60 includes all reinforcing steel, with accessories, required for the construction of the reinforced concrete structures described in Sections 16.12 and 16.13.

16.22 Measurement - Measurement for payment for the contract items Class "A" Concrete, Reinforced Concrete Box; Class "A" Concrete, Rectangular Channel; Class "A" Concrete, Minor Structures; Class "A" Concrete, Channel Paving; and Class "B" Concrete, Miscellaneous will be the number of cubic yards placed as specified, measured to the neat lines as shown on the drawings.

Measurement for payment for the contract item Class "B" Concrete, 2' Cutoff Wall will be the number of lineal feet placed, measured parallel to the top of the wall.

Measurement for payment for the contract items Transition Structure No. 2; Transition Structure No. 3; Junction Structure No. 1 (Modified 84" RCP); Modified CB 300; Manhole No. 1, Manhole No. 2, Manhole No. 4, Manhole No. 2 with Safety Ledge, and Manhole No. 4 with Safety Ledge will be the number of each type constructed as specified.

No measurement or payment will be made for Junction Structure Nos. 3 and 4.

Measurement for payment for the contract item Reinforcing Steel required for the construction of the reinforced concrete structures described in the appropriate sections will be in conformance with Section 52-1.10 of the State Standard Specifications. Steel used for longitudinal laps or splices will not be measured for payment. Transverse laps or splices shown on the plans but not used, and laps or splices used for the convenience of the Contractor will not be measured for payment.

No measurement or payment will be made for dowels, tie bars, tie wires, blocks, chairs and other accessories.

included in this item are labor and materials necessary to connect the three (3) corrugated metal pipes and the reinforced concrete pipe into the Modified CB 300.

16.20 Manholes - The contract items Manhole Nos. 1, 2 and 4, and Manhole Nos. 2 and 4 with Safety Ledge covers the complete construction of these various structures, including reinforcing steel, exclusive of earthwork and the miscellaneous iron and steel.

The manhole rings are required and shall conform to ASTM Designation: C-478, and the drawings. The rings shall be laid up, using Type II modified cement with a 1:2 mix mortar and with 1/2-inch minimum thickness pointed joints. On completion, vertical wall section shall not be out of plumb by more than 1/2-inch in 10 feet of vertical height. The manhole rings shall also be accurately aligned. The cast iron manhole frame and cover shall be installed, with frame accurately set to finished grade of pavement, in mortar well tamped around the perimeter of frame to ensure full bearing.

16.21 Reinforcing Steel, Grade 60 - The contract item Reinforcing Steel, Grade 60 includes all reinforcing steel, with accessories, required for the construction of the reinforced concrete structures described in Sections 16.12 and 16.13.

16.22 Measurement - Measurement for payment for the contract items Class "A" Concrete, Reinforced Concrete Box; Class "A" Concrete, Rectangular Channel; Class "A" Concrete, Minor Structures; Class "A" Concrete, Channel Paving; and Class "B" Concrete, Miscellaneous will be the number of cubic yards placed as specified, measured to the neat lines as shown on the drawings.

Measurement for payment for the contract item Class "B" Concrete, 2' Cutoff Wall will be the number of lineal feet placed, measured parallel to the top of the wall.

Measurement for payment for the contract items Transition Structure No. 2, Junction Structure No. 1 (Modified 84" RCP), Modified CB 300; Manhole No. 1, Manhole No. 2, Manhole No. 4, Manhole No. 2 with Safety Ledge, and Manhole No. 4 with Safety Ledge will be the number of each type constructed as specified.

No measurement or payment will be made for Junction Structure No. 4.

Measurement for payment for the contract item Reinforcing Steel required for the construction of the reinforced concrete structures described in the appropriate sections will be in conformance with Section 52-1.10 of the State Standard Specifications. Steel used for longitudinal laps or splices will not be measured for payment. Transverse laps or splices shown on the plans but not used, and laps or splices used for the convenience of the Contractor will not be measured for payment.

No measurement or payment will be made for dowels, tie bars, tie wires, blocks, chairs and other accessories.

16.23 Payment - The contract prices paid for the various Concrete items and reinforcing steel items shall include full compensation for all costs incurred under this section.

SECTION 17 - CONCRETE PIPE
(BID ITEM NO. 28 THROUGH BID ITEM NO. 38)

17.1 Description - This section covers the contract item Reinforced Concrete Pipe of the various sizes as required for the work.

17.2 General Pipe Requirement - Pipe materials, manufacture and quality, shall conform to ASTM Designation: C-76 or C-655. The Engineer shall be furnished a "Certificate of Compliance" signed by the manufacturer of the pipe certifying that the pipe conforms to the ASTM requirements. All pipe and pipe material supplied by the Contractor shall be new.

The District will also require the D-load bearing strength test conforming to ASTM C497 for new pipe 48" or greater, in conformance with Sections 207-2.9.1(1) and 207-2.9.2 of the Standard Specifications as a basis for acceptance of the pipe. The test shall be performed in the presence of the Engineer.

Pipe shall be laid in a trench free of ponded water in conformance with Section 306-1.2.2, with joints in conformance with Section 306-1.2.4 of the Standard Specifications.

Pipe ends shall be cleaned and moistened prior to making up joint.

17.3 Reinforced Concrete Pipe - The contract items for the various Reinforced Concrete Pipe include the furnishing and installing of the various pipe as specified, exclusive of earthwork.

17.4 Pipe on Curves - Unsymmetrical closure of pipe joints shall not exceed 1 inch pull on the outside of the curve when pull is measured at the springline on the inside of the pipe. Mortar joints on curves shall conform in strength, texture of mortar finish and tightness to the joints for straight ended pipe.

When beveled pipe is used the maximum deflection angle shall not exceed 6 degrees unless shown on the plans or approved by the Engineer.

17.5 Video Inspection - All concrete pipe (cast-in-place and reinforced) with inside diameters of 30 inches or less shall be videotaped prior to final inspection. Copies of the videotapes shall be provided to the Engineer. For pipe placed within roadway area, video inspection shall be performed and the results approved by the Engineer prior to paving.

17.6 Measurement - Measurement for payment of the contract items Reinforced Concrete Pipe of the various sizes and classes will be the number of lineal feet of each class installed as specified measured along the centerline of the pipe in place including curves.

17.7 Payment - The contract prices paid for the Reinforced Concrete Pipe shall include full compensation for all costs incurred under this section.

SECTION 18 - AIR-PLACED CONCRETE

18.1 Air-Placed Concrete – Air-placed concrete may be used for construction of channel transition walls only when specifically allowed elsewhere in these Detailed Specifications or on the drawings. At the Contractor's expense, one inch of concrete shall be added to the channel transition walls to obtain three inches of clear cover for steel reinforcement on the dirt side.

Air-placed concrete shall be installed only by subcontractors with a minimum of 5 years experience specializing in construction of reinforced concrete structures by air-placed methods. Only personnel skilled in the techniques of air placement of concrete shall be utilized for air-placed concrete construction, nozzle operators shall have a minimum of 3 years experience in air placement of concrete in reinforced concrete structures and have a certification as an "ACI Shotcrete Nozzleman".

Air-placed concrete shall be applied only by Method B (shotcrete) in conformance with Section 303-2.1.3 of the Standard Specifications.

Equipment used for air placement of concrete shall be in conformance with Section 303-2.2 of the Standard Specifications for "Method B", except that only "positive displacement piston" type pumps shall be allowed to convey the premixed concrete. So called "rotating roller squeeze" pumps or "ball valve" pumps will not be allowed. In addition, two air compressors shall be provided. The air compressors shall have a minimum capacity of 250 cubic feet per minute for each operating nozzle.

Concrete for air-placed concrete shall conform to the material, proportioning and mixing requirements of these Detailed Specifications, except that materials shall conform to specifications applicable to the "wet-mix process" in Section 53-1.02 of the State Standard Specifications. The use of 3/8" pea gravel described therein will be required. The use of admixtures will be subject to the approval of the Engineer.

Strength of air-placed concrete shall be determined from cores taken from vertical test panels in accordance with Section 303-2.4 of the Standard Specifications. Supplementing Section 303-2.4 of the Standard Specifications, the test panels shall have the same thickness as the maximum wall thickness of the transition section being constructed. A minimum of three cores shall be taken for each 250 cubic yards or fraction thereof of air-placed concrete deposited each day. One core test specimen shall be obtained and tested at 14 days, and the remaining two obtained and tested at 28 days. The tests shall be conducted in the presence of the Engineer and by a qualified laboratory acceptable to the District. All coring and testing required shall be at the Contractor's expense. The minimum compressive strength of air-placed concrete shall be in accordance with the requirements of these Detailed Specifications. A final report documenting all testing shall be given to the Engineer prior to acceptance of the project.

Preparation of surfaces to receive air-placed concrete shall be in accordance with Section 303-2.5 of the Standard Specifications.

Forms and ground wires shall be in conformance with Section 303-2.7 of the Standard Specifications.

Placement of air-placed concrete shall be in accordance with Section 303-2.6 of the Standard Specifications and these Detailed Specifications. Prior to placing any concrete, sufficient scaffolding or other means of access shall be provided to allow adequate access to the work area for proper placement and finishing of the air-placed concrete. Scaffolding shall not be supported by the reinforcing steel or forms. After placement of concrete has started, workmen shall not walk on reinforcing steel or graded slopes. No concrete shall be placed until all scaffolding, forms, reinforcement, ground wires and joints have been inspected and approved by the Engineer. Air-placed concrete shall be applied only in the presence of the Engineer. Whenever possible, except when enclosing reinforcing steel, the nozzle shall be held at right angles to the air-placed concrete surface at a distance of 2-1/2 to 3-1/2 feet. When enclosing steel, the nozzle shall be held at an angle so as to direct the material around the bars. A nozzleman's helper equipped with an air jet shall attend the nozzleman and blow out all rebound, sand, etc., which may have lodged on the forms, steel or air-placed concrete. Concrete material shall emerge from the nozzle in a steady, uninterrupted flow. When flow becomes intermittent for any cause, the nozzle shall be diverted from the work until the flow again becomes constant. In shooting walls or slopes, application shall begin at the bottom and shall completely embed the reinforcement for the full thickness of the structural section less an allowance of one inch for the finish coat. The limit of lift height (when the in place material begins to sag) shall not be exceeded. Immediately after the lift has been allowed to take its initial set, all surfaces shall be cleaned of rebound and other loose material by rodding or brooming.

Construction joints shall be in conformance with Section 303-2.8 of the Standard Specifications and these Detailed Specifications. Before applying air-placed concrete, construction joints and adjacent steel and forms shall be cleaned by sand, air and water blast of all laitance, overspray and rebound materials, and the surface of the joint thoroughly wetted.

Finishing shall be in accordance with Section 303-2.9 of the Standard Specifications and these Detailed Specifications. The finished surface on exposed portions of transition walls with side slopes steeper than 1:1 (run to rise) shall have a Class 1 surface finish in conformance with Section 51-1.18B of the State Standard Specifications. Remaining portions of the transition shall have a broomed finish to match the adjacent trapezoidal channel surface. Prior to placing the finish coat, all laitance shall be removed from the existing surface, and the surface thoroughly cleaned and wetted by air and water blast. The finished coat shall be applied no more than 8 hours after the placement of the structural section, and the surface of the structural section shall be kept continuously moist until the finished coat is placed.

Curing of air-placed concrete shall be in accordance with the requirements of these Detailed Specifications.

SECTION 19 - ASPHALT CONCRETE CONSTRUCTION
(BID ITEM NO. 39 THROUGH BID ITEM NO. 41)

19.1 Description - This section covers the contract items Aggregate Base, Class 2; Asphalt Concrete Type "B"; and Temporary Resurfacing.

19.2 Aggregate Base, Class 2 - The contract item Aggregate Base, Class 2 includes furnishing and placing such material as indicated on the drawings. Aggregate Base, Class 2 shall be clean and free from roots, vegetable matter and other deleterious substances, and be of such character that when wet it will compact to form a firm stable base. Material and placing shall be in accordance with Section 26 of the State Standard Specifications using 3/4-inch maximum size.

The aggregate base shall also have a sand equivalent value of not less than 35 when tested in conformance with California Test Method 217.

The aggregate base material shall be spread as specified in Sections 26-1.035 and 26-1.04 of the State Standard Specifications. The aggregate base material shall be compacted as specified in Section 26-1.05 of the State Standard Specifications.

19.3 Asphalt Concrete, Type "B" - The contract item Asphalt Concrete, Type "B" covers the asphalt concrete necessary for the repair and resurfacing of streets damaged or removed due to construction operations.

The Contractor shall not pave any or start paving asphalt concrete until all compaction on the aggregate base are tested and approved by the Engineer.

The Asphalt Concrete shall be Type "B" and shall be proportioned, mixed, spread and compacted in accordance with the applicable provisions in Section 39 of the State Standard Specifications and these Detailed Specifications. The gradation of the mineral aggregate shall be one-half inch (1/2-inch) maximum, medium for final course and three-quarter inch (3/4-inch) maximum, coarse for base course.

The Contractor shall furnish and place the asphalt concrete with all asphaltic emulsions required. The asphalt binder to be mixed with aggregate shall conform to these Detailed Specifications and shall be of the Performance Grade (PG) designated below or as determined by the Engineer:

- Grade PG 64-10 (Inland Valleys)

The amount of asphalt binder to be mixed with the mineral aggregate shall be between three percent (3%) and seven percent (7%) by weight, of the dry mineral aggregate. The exact amount of asphalt binder to be mixed with the mineral aggregate will be determined by a special mix design.

Liquid asphalt for prime coat shall conform to the provisions in Section 93, "Liquid Asphalts", of the State Standard Specifications and shall be Grade PG 64-10.

Asphalt emulsion for paint binder (tack coat) shall conform to the provisions in Section 94, "Asphaltic Emulsions", of the State Standard Specifications for the rapid-setting or slow-setting type and shall be grade PG 64-10.

Asphalt shall consist of refined petroleum or a mixture of refined liquid asphalt and refined solid asphalt, prepared from crude petroleum. Asphalt shall be:

- A. Free from residues caused by the artificial distillation of coal, coal tar or paraffin.
- B. Free from water.
- C. Homogeneous.

The Contractor shall furnish asphalt in conformance with the State of California Department of Transportation's "Certification Program for Suppliers of Asphalt". The Department maintains the program requirements, procedures, and a list of approved suppliers at: <http://www.dot.ca.gov/hq/esc/Translab/fpmcoc.htm>.

The Contractor shall ensure the safe transportation, storage, use and disposal of asphalt.

The Contractor shall prevent the formation of carbonized particles caused by overheating asphalt during manufacturing or construction.

Performance grade paving asphalt shall conform to the testing requirements in the table below:

Performance Graded Asphalt Binder

Property	AASHTO Test Method	Specification Grade		
		PG 64-10	PG 64-16	PG 70-10
Original Binder				
Flash Point, Minimum °C	T48	230	230	230
Solubility, Minimum %	T44	99	99	99
Viscosity at 135°C, Maximum, Pa's	T316	3.0	3.0	3.0
Dynamic Shear, Test Temp. at 10 rad/s, °C	T315	64	64	70
Minimum G*/sin(Delta), kPa		1.00	1.00	1.00
Rolling Thin Film Oven (RTFO) Test, or ASTM D2827	T240			
Mass Loss, Maximum, %		1.00	1.00	1.00

RTFO Test Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T315	64 2.20	64 2.20	70 2.20
Ductility at 25°C Minimum, cm	T51	75	75	75
Pressurized Aging Vessel (PAV) Aging, Temperature, °C	R28	100	100	110
RTFO Test and PAV Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T315	31 5000	28 5000	34 5000
Creep Stiffness, Test Temperature, °C Maximum S-value, MPa Minimum M-value	T313	0 300 0.300	-6 300 0.300	0 300 0.300

Certificates of compliance shall be furnished to the Engineer certifying that the asphaltic emulsions and paving asphalts conform to the referenced standard specifications.

In lieu of the table of Section 39-6.01, asphalt concrete shall be spread and compacted in the number of layers as outlined in the table below:

Total Thickness Shown on Plans	Minimum No. of Layers	Top Layer Thickness		Next Lower Layer Thickness		All Other Lower Layer Thickness	
		Min.	Max.	Min.	Max.	Min.	Max.
0.23' or less	1	-	-	-	-	-	-
0.24' through 0.44'	2	0.10'	0.21'	0.14'	0.23'	-	-
0.45' or more	3 or more	0.10'	0.20'	0.15'	0.23'	0.20'	0.23'

Finished surfaces shall conform to the straightedge provisions in Section 39-6.03, "Compacting", of the Standard Specifications.

Areas of the top surface of the uppermost layer of asphalt concrete pavement that do not meet the specified surface tolerances shall be brought within tolerance by abrasive grinding. Areas which have been subjected to abrasive grinding shall receive a seal coat. Areas which cannot be brought into specified tolerance by abrasive grinding shall be corrected by removal and replacement.

19.4 Temporary Resurfacing - The contract item Temporary Resurfacing is required for short reaches of the mainline and connector pipe trenches whenever excavation is made through pavement on which traffic must be allowed immediately after backfilling, only as directed by the Engineer. Otherwise the leveling course of the asphalt concrete paving may be used to open the

work area to traffic until the final paving is completed. Measurement and payment of the leveling course will be made as an Asphalt Concrete item, not Temporary Resurfacing.

Temporary resurfacing shall be 2" (0.17') and in conformance with Section 306-1.5 of the Standard Specifications.

19.5 Measurement - Measurement for payment of the contract item Aggregate Base, Class 2 will be the number of cubic yards placed to the lines, grades and dimensions shown on the drawings. **No allowance will be made for aggregate base placed outside said dimensions unless otherwise ordered by the Engineer.**

Measurement for payment of the contract item Asphalt Concrete, Type "B" will be the number of tons placed to the lines, grades and dimensions shown on the drawings. The Asphalt Concrete pay quantity shall be determined by using a conversion factor of 144 pounds per cubic foot for all asphalt concrete placed within standard paylines. No measurement will be made for paint binder required for this portion of the work. All charges for asphalt emulsions are included in the price paid for Asphalt Concrete. **No allowance will be made for asphalt concrete placed outside said dimensions unless otherwise ordered by the Engineer.**

Measurement for payment of the contract item Temporary Resurfacing will be the number of tons placed as specified in Section 19.4 and as directed by the Engineer.

19.6 Payment - The contract prices paid for Aggregate Base, Class 2; Asphalt Concrete, Type "B"; and Temporary Resurfacing shall include full compensation for all costs incurred under this section.

SECTION 20 - FENCES AND GATES
(BID ITEM NO. 42 THROUGH BID ITEM NO. 44)

20.1 Description - This section covers the contract items 6-Foot Chain Link Fence; 3-Foot Cable Railing; and 14-Foot Double Drive Gates.

20.2 6-Foot Chain Link Fence - The contract item 6-Foot Chain Link Fence includes furnishing and installing the material required for this portion of the work as shown on the drawings and as directed by the Engineer. Included in this item are all hardware parts, posts and fittings. Also included in this item of work will be the removal and relocation, if required, of chain link fence as noted on the drawings and as directed by the Engineer.

All materials shall be new except that specified for removal and relocation and shall conform to Section 206-6 of the Standard Specifications and the drawings, with installation in conformance with Section 304-3.2. Materials salvaged shall be subject to the Engineer's approval prior to reinstallation. All posts shall be set in commercial plant quality, 4 sack per cubic yard concrete.

20.3 3-Foot Cable Railing - The contract item 3-Foot Cable Railing includes furnishing and installing the material required for this portion of the work. Included in this item is all hardware,

parts, posts and fitting in conformance with Section 83-1.02E of the State Standard Specifications.

20.4 14-Foot Double Drive Gates - The contract item 14-Foot Double Drive Gates includes furnishing and installing the various gates as shown on the drawings, complete with all gate posts set in concrete and in conformance with Section 304-3.3 of the Standard Specifications. Padlocks are not included in this item. On completion, gates shall operate freely without wedging or binding.

20.5 Measurement - Measurement for payment for the contract item 6-Foot Chain Link Fence will be the number of lineal feet of new fence installed measured along the top of the fence parallel to the ground.

Measurement for payment for the contract item 3-Foot Cable Railing will be the number of lineal feet of new cable railing installed along the top of the railing parallel to the ground.

Measurement for payment for the contract item 14-Foot Double Drive Gate will be the number of pairs installed. Excavation and concrete required for fence or gate posts will not be measured for payment.

20.6 Payment - The contract price paid for 6-Foot Chain Link Fence; 3-Foot Cable Railing; and 14-Foot Double Drive Gates shall include full compensation for all costs incurred under this section.

SECTION 21 - MISCELLANEOUS
(BID ITEM NO. 45 THROUGH BID ITEM NO. 58)

21.1 Description - This section covers the contract items Miscellaneous Iron and Steel; Subdrain; Object Markers; Street Light Conduit Relocation; Traffic Loop Detector Replacement; Traffic Signal Conduit Relocation; Remodel 4-Inch Vitrified Clay Pipe (VCP) House Connection; Adjust Manhole to Grade; Adjust Valve to Grade; Repair Existing Junction Structure; Repair Junction Structure No. 4; Repair Existing Manhole; Repair Existing Line 1G Manhole at Station 10+00; and Pipe Debris Removal.

21.2 Miscellaneous Iron and Steel - The contract item Miscellaneous Iron and Steel covers all ferrous metal used in the various hydraulic structures. Materials, parts and fittings shall conform with the following:

- (a) Manhole Frames and Covers - Per ASTM Designation: A-48, Class 35B. Manhole frames and covers shall be minimum weight as shown on the plans, and the weight of each frame and cover shall be indicated thereon in white paint. Style and markings shall be approved by the Engineer. The castings shall be free from cracks, blowholes or other imperfections, straight, true to pattern and have a uniform finish. The castings for manholes in streets shall be thoroughly cleaned and coated with asphaltum paint of approved composition; all other castings for frames and covers shall be cleaned and galvanized. The cover shall fit firmly into

the frame without rocking, with the frame accurately placed so that cover is flush with finish paving.

- (b) All other Miscellaneous Metal - Per ASTM Designation: A-36.
- (c) Galvanizing – Except for manhole frames and covers described above, all exposed ferrous metal shall be galvanized per Section 210.3 of the Standard Specifications.

21.3 Subdrain - The contract item Subdrain covers trenching and the furnishing of the subdrain pipe, all fittings, galvanized screen, filter material and filter fabric.

The filter material shall be wrapped in filter fabric as shown on the drawings. Filter material and filter fabric shall conform to the material specifications as specified in Section 16.10, Weepholes, of these Detailed Specifications.

Filter Fabric shall be furnished in a protective wrapping which shall protect the fabric from ultraviolet radiation and from abrasion due to shipping and handling. The fabric shall also be ultraviolet stabilized.

The fabric shall be placed in the manner and at the locations shown on the drawings. The surface to receive the fabric shall be prepared to a smooth condition free of obstructions and debris.

The fabric shall be covered within 72 hours of its placement. Should the fabric be damaged during construction, the torn or punctured section shall be repaired by placing a piece of fabric that is large enough to cover the damaged area and to meet the overlap requirement. Adjacent borders of the fabric shall be overlapped a minimum of twelve (12) inches or sewn. Upstream sections of fabric shall overlap downstream sections.

Perforated subdrain pipe shall be vitrified clay pipe, concrete pipe, ABS Pipe or PVC Pipe, at the option of the Contractor. Vitrified clay pipe shall meet the requirements of ASTM Designation: C-700, for extra strength pipe. Concrete pipe shall meet the requirements of ASTM Designation: C-14 Class 3 and C-444 Type I. ABS pipe shall meet the requirements of ASTM Designation: D-2751, SDR 23.5, and PVC pipe shall meet the requirements of ASTM Designation: D2665, and perforations shall be that as described in ASTM Designation: C-700.

21.4 Object Markers - The contract item Object Markers includes the material, equipment and labor necessary to install each Object Markers, as shown on the drawings.

The Object Markers shall be in accordance with State of California, Department of Transportation Standard Plan A73-A, Class 1, Type L-1 and shall conform to Section 82 of the State Standard Specifications.

21.5 Street Light Conduit Relocation - The contract item Street Light Conduit Relocation includes all equipment, material and labor required to relocate the street light conduit around the

catch basins or connector pipe. The City of Corona Public Utilities Department, Telephone: 951.279.3511, shall be contacted prior to working on any existing street light system. Relocating or replacement shall conform to Section 86 of the State Standard Specifications and the requirements of the City of Corona Electrical Department. No splicing of conductors will be allowed unless a pull box is installed at the splice location. Service shall be restored each day before nightfall.

21.6 Traffic Loop Detector Replacement - Traffic Loop Detector Replacement shall be required whenever a detector separation occurs due to the Contractor's work or when new loops are required. Loop installation shall be in accordance with State of California, Department of Transportation Standard Plan ES-5A and shall conform to Section 86 of the State Standard Specifications.

Detector loops shall be installed without splices and shall terminate in the nearest pull box. The City of Corona, Public Works Department, Telephone: 951.279.3511, shall be contacted prior to working on any existing traffic loop detector.

21.7 Traffic Signal Conduit Relocation - The contract item Traffic Signal Conduit Relocation includes all equipment, material and labor required to relocate the traffic signal conduit around the catch basins or connector pipe. Relocating or replacement shall conform to Section 86 of the State Standard Specifications. No splicing of conductors will be allowed. The City of Corona, Public Works Department, Telephone: 951.279.3511, shall be contacted prior to working on any existing traffic signal conduit.

21.8 Remodel 4-Inch Vitrified Clay Pipe (VCP) House Connection - The contract item Remodel 4-Inch Vitrified Clay Pipe (VCP) House Connection pertains to the removing of interfering portions of house connections and replacing with new pipe and any mainline modification required. The remodeling shall be done in accordance with the drawings, including excavation, backfill and any concrete encasement but excluding asphalt concrete or aggregate base in this item of work. Only the VCP house connections interfering with the RCB or pipe conduit to be constructed will be measured for payment.

21.9 Adjust Manhole to Grade - The contract item Adjust Manhole to Grade covers all labor, equipment, materials and incidentals required for the complete adjustment of all manholes within the limits of the street improvements to meet the finished street grade. Adjustments shall be performed in accordance with Section 301.1.6 of the Standard Specifications or as shown on the drawings.

21.10 Adjust Valve to Grade - The contract item Adjust Valve to Grade covers all labor, equipment, materials and incidentals required for the complete adjustment of all valves within the limits of the street improvements to meet the finished street grade.

21.11 Repair Existing Junction Structure - The contract item Repair Existing Junction Structure includes all labor, equipment and materials necessary to finish the existing junction structure at Station 18+41.41 for Corona Drains Line 1G, Stage 1. This includes but is not limited to all grinding, chipping required to remove excess or loose concrete to shape the junction structure, all

cleaning of any exposed reinforcing steel and all patching or finishing, that is required to complete the junction structures.

21.12 Repair Junction Structure No. 4 – The contract item Repair Junction Structure No. 4 includes all the labor, equipment and materials necessary to repair the Junction Structure No. 4. Located at Station 10+64.24 and Station 17+24.71 for Corona Drains Line 1G, Stage 1 and at Station 43+35.26 and Station 47+22.58 for Corona Drains Line 1H. This item includes but is not limited to removing the reinforced concrete pipe projection into the mainline reinforced concrete pipe, all grinding or chipping required to remove excess or loose concrete in order to shape the junction structure, all cleaning of any exposed reinforcing steel and all patching or finishing that is required to complete the junction structure.

21.13 Repair Existing Manhole – The contract item Repair Existing Manhole includes all labor, equipment and materials necessary to finish the existing manhole. This includes all chipping required to remove excess or loose concrete, all grinding that may be required to shape the manhole including the connector pipes, all cleaning of any exposed reinforcing steel, all patching or finishing that is required for the entire structures, all miscellaneous iron and steel and all grouting that is necessary for the manhole, and the manhole shafts. The manholes are located at Station 14+47.33, Station 17+82.04 and Station 21+89.05 for Corona Drains Line 1G, Stage 1, Station 40+00, Station 44+81.48 and Station 49+50.32 for Corona Drains Line 1H, and at Station 61+00 for Corona Drains Line 1J.

21.14 Repair Existing Line 1G Manhole at Station 10+00 - The contract item Repair Existing Line 1G Manhole at Station 10+00 includes all labor, equipment and materials necessary to finish the existing manhole. This includes but is not limited to all chipping, grinding and jack-hammering to remove excess or loose concrete or construction materials, wood form removal, invert repair, all cleaning of existing exposed reinforcing steel, all patching or finishing that is required. All miscellaneous iron and steel, and all grouting that is necessary for this manhole and the manhole shaft.

21.15 Pipe Debris Removal – The contract item Pipe Debris Removal includes all labor, equipment and material necessary to clean the existing storm drains shown on the drawings. This includes but is not limited to removing the existing sand, dirt, miscellaneous construction debris and grouting pipe joints as directed by the Engineer.

21.16 Remove and Replace Backfill and Pavement – The removal and replacement of the backfill and pavement is to repair the existing sink holes of Corona Drains Line 1G, Stage 1 in Olive Avenue. The work consists of sawcutting and removal of the existing AC paving, excavating the backfill over the RCP and replacing the backfill over the RCP with controlled low strength material (CLSM) and replacing the AC paving.

A sink hole is located between Station 10+90 and Station 12+63 and is approximately 12' wide with a depth of approximately 15.5' to the top of the RCP. These repair limits are based on surface observations. The ultimate limits of the work will be determined by the compaction testing and as directed by the Engineer.

A sink hole is located between Station 14+75 and Station 15+25 and is approximately 12' wide with a depth of approximately 10' to the top of the RCP. These repair limits are based on surface observations. The ultimate limits of the work will be determined by the compaction testing and as directed by the Engineer.

Payment for this work will be based on the individual pay items for the work performed, including all shoring and traffic control measures required for this work.

21.17 Measurement - Measurement for payment for the contract item Miscellaneous Iron and Steel will be the number of pounds used in the work as specified. Should manhole frames and covers exceed the minimum weights as shown on the drawings by more than two percent (2%) that weight in excess of the allowable two percent (2%) increase will not be measured for payment. Manhole frames and covers to be salvaged and reused will not be measured for payment.

Measurement for payment for the contract item Subdrain will be the number of lineal feet installed as specified. No measurement will be made of the gravel filter material required for this portion of the work.

Measurement for payment for the contract item Object Markers will be for each installation.

Measurement for payment for Street Light Conduit Relocation will be the number of lineal feet installed as specified.

Measurement for payment for the contract item Traffic Loop Detector Replacement will be the lineal feet of sawcut necessary for the traffic loops. Conductors and pullboxes will not be measured for payment and shall be included in the bid items.

Measurement for payment for Traffic Signal Conduit Relocation will be the number of lineal feet installed as specified.

Measurement for payment for the contract item Remodel 4-Inch Vitrified Clay Pipe (VCP) House Connection will be the number of lineal feet of 4-inch vitrified clay pipe installed. There will be no separate payment for special fittings or joint materials and modification to the main line.

Measurement for payment for the contract item Adjust Manhole to Grade shall be the number of manholes that are adjusted to meet the finished street grade.

Measurement for payment for the contract item Adjust Valve to Grade shall be the number of valves that are adjusted to meet the finished street grade.

Measurement for payment for the contract item Repair Existing Junction Structure shall be the number of Junction Structures repaired.

Measurement for payment for the contract item Repair Junction Structure No. 4 shall be the number of Junction Structure No. 4 repaired.

Measurement for payment for the contract item Repair Existing Manholes shall be the number of manholes repaired.

Measurement for payment for the contract item Repair Existing Line 1G Manhole at Station 10+00 shall be lump sum.

Measurement for payment for the contract item Pipe Debris Removal shall be the number of cubic yards removed.

21.18 Payment - The contract prices paid for Miscellaneous Iron and Steel; Subdrain; Object Markers; Street Light Conduit Relocation; Traffic Loop Detector Replacement; Traffic Signal Conduit Relocation; Remodel 4-Inch Vitrified Clay Pipe (VCP) House Connection; Adjust Manhole to Grade; Adjust Valve to Grade; Repair Existing Junction Structure; Repair Junction Structure No. 4; Repair Existing Manhole; Repair Existing Line 1G Manhole at Station 10+00; and Pipe Debris Removal shall include full compensation for all costs incurred under this section.

SECTION 22 THROUGH SECTION 26 – NOT USED

SECTION 27 - DUST ABATEMENT (BID ITEM NO. 59)

27.1 Description - This section covers the implementation of dust control measures necessary to prevent harm and nuisance from dust. Supplementing Section 8.06 of the General Provisions, the Contractor shall comply with all the provisions of the South Coast Air Quality Management District (SCAQMD) Rule 403 as described in Appendix "A".

27.2 Dust Abatement - The contract item Dust Abatement includes the action necessary to prevent, reduce or control dust within the work area as required to complete the work. The Contractor shall carry out proper and efficient measures to prevent his operations from producing dust in amounts damaging to property or causing a nuisance, or harm to persons living nearby or occupying buildings in the vicinity of the work. The methods to be used for controlling dust in the construction area and along haul roads shall be approved by the Engineer prior to starting any work included in this contract. The Rule 403 Implementation Handbook published by the SCAQMD contains a detailed listing of reasonably available dust control measures and is available for inspection at the District office.

27.3 Payment - The contract lump sum price paid for Dust Abatement shall include full compensation for all direct and indirect costs incurred under this section.

This payment will be made on a basis of the percentage of work completed on the entire project.

SECTION 28 – NOT USED

SECTION 29 – STORMWATER AND NON-STORMWATER POLLUTION CONTROL (BID ITEM NO. 60 AND BID ITEM NO. 61)

29.1 Description – This section covers the contract items Stormwater and Non-Stormwater Pollution Control; and the Non-Stormwater Discharge or Dewatering. The contract item Stormwater and Non-Stormwater Pollution Control shall include preparing, obtaining approval of, amending and implementing the Permit Registration Documents (PRDs) as required by the State Water Resources Control Board (SWRCB) and the California Regional Water Quality Control Board (CRWQCB) - Santa Ana Region. The contract item Non-Stormwater Discharge or Dewatering shall include compliance with the Santa Ana Regional Water Quality Board Order No. R8-2009-2003.

29.2 General Requirements – All activities performed by the Contractor for this project shall conform to the requirements of the State-wide National Pollutant Discharge Elimination System (NPDES) General Permit (Board Order No. 2009-0009-DWQ, NPDES No. CAS000002) for Stormwater Discharges Associated with Construction and Land Disturbance Activities, hereafter referred to as the "General Permit", issued by the SWRCB. This General Permit regulates both stormwater and non-stormwater discharges associated with Contractor's construction activities. This General Permit can be downloaded at http://www.swrcb.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

The PRDs mentioned above consist of:

1. Risk Assessment (Section VIII of the General Permit)
2. Site Map
3. Stormwater Pollution Prevention Plan (Section XIV of General Permit)
4. Signed Certification Statement

Risk Assessment – The Contractor shall calculate the project site's sediment risk and receiving water risk during periods of soil exposure (i.e. grading and site stabilization) and use the calculated risks to determine a Risk Level(s) using the methodology in Appendix 1 of the General Permit.

Site Map – The Contractor shall provide a site map of the project area.

Stormwater Pollution Prevention Plan (SWPPP) – The SWPPP shall identify site specific Best Management Practices (BMPs) to be implemented during and after construction to minimize the potential pollution of stormwater runoff and downstream receiving waters. The identified BMPs shall be practices designed to minimize or eliminate the discharge of pollutants from the construction site and Contractor's construction activities, including, but not limited to:

1. Good housekeeping practices for solid and sanitary/septic waste management, vehicle and equipment cleaning/maintenance, and material handling and storage.

2. Construction procedures such as stabilized construction access points, scheduling/phasing to minimize areas of soil disturbance, soil stabilization and erosion/sediment control.

The SWPPP shall also stipulate an ongoing program for monitoring and maintenance of all BMPs.

The SWPPP shall be designed to address the following objectives:

1. All pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled;
2. Where not otherwise required to be under a Regional Water Board permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;
3. Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology/Best Conventional Technology (BAT/BCT) standard;
4. Calculations and design details as well as BMP controls for site run-on are complete and correct; and
5. Stabilization BMPs, installed to reduce or eliminate pollutants after construction, are completed.

To demonstrate compliance with requirements of the General Permit, the Qualified SWPPP Developer (QSD) shall include information in the SWPPP that supports the conclusions, selections, use, and maintenance of BMPs.

The Contractor shall make the SWPPP available at the construction site during working hours while construction is occurring and shall be made available upon request by a State or Regional Board inspector. When the original SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, current copies of the BMPs and map/drawing will be left with the field crew and the original SWPPP shall be made available via a request by radio/telephone.

Signed Certification Statement – The Contractor shall submit a signed certification (see Appendix "D") certifying the SWPPP was prepared under their direction and that the SWPPP is a true, accurate and complete representation of the proposed project and mitigation measures.

In the event the District incurs any Administrative Civil Liability or Mandatory Minimum (fine) imposed by the CRWQCB - Santa Ana Region, as a result of Contractor's failure to fully implement the provisions of this section and permit requirements, "Stormwater and Non-Stormwater Pollution Control", the Engineer may, in the exercise of his sole judgment and discretion, withhold from payments otherwise due Contractor a sufficient amount to cover the Civil Liability. Liability for "Negligent Violations" may be

in an amount up to \$50,000 per day per deemed occurrence while "Knowing Violations" can result in fines as high as \$250,000 and imprisonment.

Stormwater and Non-Stormwater Pollution Control work shall conform to the requirements in the latest version of the California Stormwater Quality Association (CASQA) Handbook, entitled "**California Stormwater BMP Handbook – Construction**" updated **November 2009**. A copy of the "California Stormwater BMP Handbook – Construction", updated November 2009, hereafter referred to as the "CASQA Handbook", may be obtained from CASQA, Post Office Box 2105, Menlo Park, California 94026-2105. Telephone: 650.366.1042. Copies of the handbook can also be downloaded from the CASQA Internet site at <http://www.cabmphandbooks.com/construction.asp>.

The Contractor shall be responsible for all costs and for any liability imposed by law as a result of the Contractor's failure to comply with the requirements set forth in this section, "Stormwater and Non-Stormwater Pollution Control", including but not limited to, compliance with the applicable provisions of the CASQA Handbook, General Permit, General De Minimus Permit, Federal, State and local regulations. For the purpose of this paragraph, costs and liabilities include, but are not limited to, fines, penalties and damages whether assessed against the District or the Contractor, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Act.

The Contractor shall become fully informed of and comply with the applicable provisions of the CASQA Handbook, General Permit, General De Minimus Permit, and Federal, State and local regulations that govern the Contractor's activities and operation pertaining to both stormwater and non-stormwater discharges from both the project site and areas of disturbance outside the project limits during construction. The Contractor shall, at all times, keep copies of the General Permit, General De Minimus Permit, approved SWPPP and all amendments at the project site. The SWPPP shall be made available upon request of a representative of the SWRCB, CRWQCB, United States Environmental Protection Agency (USEPA) or local stormwater management agency. Requests by the public shall be directed to the Engineer.

The Contractor is solely and exclusively responsible for any arrangements made between the Contractor and other property owners or entities that result in disturbance of areas or construction activities being conducted outside limits of the designated rights-of-way and temporary construction easements as shown on the project drawings.

The Contractor shall, at reasonable times, allow authorized agents of the CRWQCB, SWRCB, USEPA or local stormwater management agency, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the construction site and the Contractor's facilities pertinent to the work;
2. Have access to and copy any records required to be kept as specified in the General Permit;

3. Inspect the construction site, including any offsite staging areas or material storage areas, and related soil stabilization practices and sediment control BMPs; and
4. Sample or monitor for the purpose of ensuring compliance with the General Permit.

The Contractor shall notify the Engineer immediately upon request from regulatory agencies to enter, inspect, sample, monitor or otherwise access the project site or the Contractor's records.

29.3 Permit Registration Documents (PRDs) Preparation and Approval - The Contractor shall prepare and obtain approval of the PRDs as part of the Stormwater and Non-Stormwater Pollution Control work for this contract. The SWPPP shall include an appropriate Construction Site Monitoring Program (CSMP) as required by Section I, "Monitoring and Reporting Requirements" of Attachment C of the General Permit. A guidance document titled "Field Monitoring and Analysis Guidance Document" is available from the California Stormwater Quality Association internet site at <http://www.casqa.org/LeftNavigation/BMPHandbooksPortal/tabid/200/Default.aspx>. The Contractor shall prepare and implement the SWPPP in accordance with the CASQA Handbook and CSMP, the General Permit and these Detailed Specifications.

In case of conflict between the CASQA Handbook and these Detailed Specifications, the Detailed Specifications shall govern; in case of conflict between these Detailed Specifications and the General Permit, the latter shall govern.

Within five (5) working days after the award of the contract, the Contractor shall submit two (2) copies of the PRDs to the Engineer for review and approval. The Contractor shall allow ten (10) working days for the Engineer to review the PRDs. If revisions are required as determined by the Engineer, the Contractor shall revise and resubmit the PRDs within three (3) working days of receipt of the Engineer's comments and shall allow ten (10) working days for the Engineer to review the revisions. The Contractor shall submit four (4) copies of the approved SWPPP to the Engineer prior to the pre-construction meeting. **The Contractor must have approved PRDs prior to the pre-construction meeting.**

The SWPPP shall incorporate BMPs in each of the following categories:

1. Soil stabilization practices;
2. Sediment control practices;
3. Sediment tracking control practices;
4. Wind erosion control practices; and
5. Non-stormwater management, and waste management and disposal control practices.

Specific objectives and minimum requirements for each category of BMPs are described in the CASQA Handbook. The Contractor shall consider the objectives and minimum requirements presented in the CASQA Handbook for each of the above categories. When minimum requirements are listed for any category, the Contractor shall incorporate one or more

of the listed minimum BMPs required into the SWPPP and implement them on the project to meet the pollution control objectives for the category. In addition, the Contractor shall consider other BMPs presented in the CASQA Handbook to supplement the minimum BMPs required when necessary to meet the objectives of the SWPPP and maintain compliance with the General Permit. The Contractor shall document the selection process in accordance with the procedure specified in the CASQA Handbook.

The Contractor should not assume that the minimum BMPs required for each category presented in the CASQA Handbook are adequate to meet the pollution control objectives. The Contractor may use other effective BMPs, as approved by the Engineer, in addition to the minimum as required in the CASQA Handbook to achieve the pollution control objectives.

The SWPPP shall include the following items as described in the CASQA Handbook, CSMP and General Permit:

Section 1 - SWPPP Requirements:

- 1.1 Introduction
- 1.2 Permit Registration Documents
- 1.3 SWPPP Availability and Implementation
- 1.4 SWPPP Amendments
- 1.5 Retention of Records
- 1.6 Required Non-Compliance Reporting
- 1.7 Annual Report
- 1.8 Changes to Permit Coverage
- 1.9 Notice of Termination

Section 2 - Project Information:

- 2.1 Project and Site Description
- 2.2 Stormwater Run-On From Offsite Areas
- 2.3 Findings of the Construction Site Sediment and Receiving Water Risk Determination
- 2.4 Construction Schedule
- 2.5 Potential Construction Site Pollutant Sources
- 2.6 Identification of Non-Stormwater Discharges

Section 3 - Best Management Practices:

- 3.1 Schedule for BMP Implementation
- 3.2 Erosion Control and Sediment Control
- 3.3 Non-Stormwater and Material Management
- 3.4 Post-Construction Stormwater Management Measures

Section 4 - BMP Inspection, Maintenance, and Rain Event Action Plans:

- 4.1 BMP Inspection and Maintenance
- 4.2 Rain Event Action Plans

Section 5 – Training

Section 6 - Responsible Parties and Operators:

- 6.1 Responsible Parties
- 6.2 Contractor List

Section 7 - Construction Site Monitoring Program:

- 7.1 Purpose
- 7.2 Applicability of Permit Requirements
- 7.3 Monitoring Locations
- 7.4 Safety
- 7.5 Visual Monitoring (Inspections)
- 7.6 Water Quality Sampling and Analysis
- 7.7 Watershed Monitoring Option
- 7.8 Quality Assurance and Quality Control
- 7.9 Reporting Requirements and Records Retention

To ensure that the preparation, implementation, and oversight of the SWPPP is sufficient for effective pollution prevention, individuals responsible for creating, revising, overseeing, and implementing the SWPPP should participate in applicable training programs and document such training in the SWPPP. A copy of the SWPPP should be located at the construction site.

The following notes (or notes of substantially similar intent) that address pollution prevention to the Maximum Extent Practicable during the construction phase of a project on a year-round basis need to be placed on the Stormwater and Non-Stormwater Pollution Control Drawings:

- ◆ Erosion control BMPs shall be implemented and maintained to minimize and/or prevent the entrainment of soil in runoff from disturbed soil areas on construction sites.
- ◆ Sediment control BMPs shall be implemented and maintained to prevent and/or minimize the transport of soil from the construction site.
- ◆ Stockpiles of soil shall be properly contained to eliminate or reduce sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tracking or wind.
- ◆ Appropriate BMPs for construction-related materials, wastes, spills or residues shall be implemented to eliminate or reduce transport from the site to streets, drainage facilities or adjoining properties by wind or runoff.
- ◆ Runoff from equipment and vehicle washing shall be contained at construction sites and must not be discharged to receiving waters or the local storm drain system. Washwaters or rinsate from ready mix, concrete, or cement vehicles must

be handled appropriately and may not be discharged to receiving waters or any storm drain system.

- ◆ All construction contractor and subcontractor personnel are to be made aware of the required best management practices and good housekeeping measures for the project site and any associated construction staging areas.
- ◆ At the end of each day of construction activity all construction debris and waste materials shall be collected and properly disposed in trash or recycle bins.
- ◆ Construction sites shall be maintained in such a condition that a storm does not carry wastes or pollutants off the site. Discharges other than stormwater (non-stormwater discharges) are prohibited, except as authorized by an individual NPDES permit or the State-wide General Permit for Storm Water Discharges Associated with Construction Activity. Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, solvents, detergents, glues, lime, pesticides, herbicides, fertilizers, wood preservatives and asbestos fibers; paint flakes or stucco fragments; fuels, oils, lubricants and hydraulic, radiator or battery fluids; concrete and related cutting or curing residues; floatable wastes; wastes from engine/equipment steam cleaning or chemical degreasing; wastes from street cleaning; and super-chlorinated potable water from line flushing and testing. During construction, disposal of such materials should occur in a specified and controlled temporary area onsite physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, State and Federal requirements.
- ◆ Discharging contaminated groundwater produced by dewatering groundwater that has infiltrated into the construction site is prohibited. Discharging of contaminated soils via surface erosion is also prohibited.
- ◆ The Contractor is required to notify and obtain approval from the District ten (10) days prior to any non-stormwater discharge or dewatering associated with Contractor's construction activities.
- ◆ Construction sites shall be managed to minimize the exposure time of disturbed soil areas through phasing and scheduling of grading to the extent feasible and the use of temporary and permanent soil stabilization.
- ◆ BMPs shall be maintained at all times. In addition, BMPs shall be inspected prior to predicted storm events and following storm events.

29.4 Permit Registration Document (PRD) and Rain Event Action Plan (REAP) Amendments

- If the scope or schedule of the project changes, the Contractor shall immediately notify the Engineer. The Engineer will determine if the Contractor will be required to recalculate the Risk Assessment. If it is determined by the Engineer that a new Risk Assessment is required, the Engineer will notify the Contractor to resubmit amended PRDs and in the case that the risk level increases, the Contractor shall comply with additional applicable requirements of the General Permit, including preparation and implementation of REAPs, Construction Site Monitoring Program (CSMP), Numeric Action Level (NAL) Exceedance Reports, and annual reporting requirements. The Contractor shall also prepare amendments to the PRDs, both graphically and in narrative form, whenever there is a change in Contractor's construction activities or operations which may result in the discharge of pollutants to surface waters, groundwaters, municipal storm

drain systems, or as deemed necessary by the Engineer. The Contractor shall also amend the PRDs if they are in violation of any condition of the General Permit, or has not effectively achieved the objective of reducing pollutants in stormwater discharges. Amendments shall show additional BMPs, revised Contractor's construction activities or operations, including those in areas not shown in the initially approved SWPPP, which are required on the project to effectively control water pollution.

Amendments to the PRDs shall be submitted for review and approval by the Engineer in the same manner specified for the initial approval of the PRDs. The Contractor shall date and attach all approved amendments to any of the PRDs. Upon approval of the amendment, the Contractor shall implement the approved changes, revised construction activities or operations.

29.5 Non-Compliance Reporting - If the project is in non-compliance at any time, the Contractor shall make a written report to the Engineer within two (2) calendar days of identification of non-compliance activities.

29.6 SWPPP Implementation - Upon approval of the SWPPP, the Contractor shall be responsible throughout the duration of the project for placing, installing, constructing, inspecting and maintaining the BMPs as well as conducting the Construction Site Monitoring Program as included in the SWPPP and any amendments thereto, and for removing and disposing of temporary BMPs. Unless otherwise directed by the Engineer or specified in these Detailed Specifications, the Contractor's responsibility for SWPPP implementation shall continue throughout any temporary suspension of work ordered in accordance with Section 6.05, "TEMPORARY SUSPENSION OF THE WORK", of the General Provisions. Requirements for installation, construction, inspection, maintenance, removal and disposal of BMPs are specified in the Caltrans Handbooks and these Detailed Specifications.

The Engineer may order the suspension of construction operations if the Contractor fails to comply with the requirements of this section, "Stormwater and Non-Stormwater Pollution Control", as determined by the Engineer.

The Contractor will not be compensated for sampling and analysis work because of the Contractor's failure to properly implement, inspect, maintain and repair BMPs in the approved SWPPP and any amendments thereto, or for failing to store construction materials or wastes in watertight containers.

- (a) Stormwater Pollution Control - **The Contractor shall implement soil stabilization practices and sediment control BMPs, including minimum requirements as presented in the Caltrans Handbooks, on all disturbed areas of the project site during the rainy season, defined as between October 1st and May 31st.**

Implementation of soil stabilization practices and sediment control BMPs for soil-disturbed areas, including but not limited to, rough graded access roads, slopes, channel inverts, operational inlets and outlets of the project shall be completed no later than ten (10) calendar days prior to the start of the rainy season

or upon start of applicable Contractor's construction activities for projects which begin either during or within ten (10) calendar days of the rainy season.

The Engineer may require the Contractor, on a case-by-case basis, to reduce the active, soil-disturbed area limit of the project. The Contractor shall demonstrate the ability and preparedness to fully deploy soil stabilization practices and sediment control BMPs to protect soil-disturbed areas of the project site by maintaining an adequate quantity of soil stabilization and sediment control materials onsite to protect exposed, soil-disturbed areas and a detailed plan for the mobilization of sufficient labor and equipment to fully deploy the required BMPs prior to the onset of precipitation and for the duration of the project.

Throughout the rainy season, soil-disturbed areas of the project site shall be considered to be nonactive whenever soil disturbing activities are expected to be discontinued for a period of fifteen (15) calendar days or more. Areas that will become nonactive either during the rainy season or within ten (10) calendar days thereof shall be fully protected with soil stabilization practices such as covering with mulch, temporary seeding, fiber rolls, blankets, etc., within ten (10) calendar days of the discontinuance of soil disturbing activities or prior to the onset of precipitation, whichever is first to occur. Areas that will become nonactive either during the rainy season or within ten (10) calendar days thereof shall be fully protected with sediment control BMPs within ten (10) calendar days of the discontinuance of soil disturbing activities or prior to the onset of precipitation, whichever is first to occur.

Throughout the rainy season, active soil-disturbed areas of the project site shall be fully protected at the end of each day with soil stabilization practices and sediment control BMPs. The Contractor shall monitor the weather forecast on a daily basis. The National Weather Service forecast shall be used, or an alternative weather forecast proposed by the Contractor may be used if approved by the Engineer. If precipitation is predicted prior to the end of the following workday, construction scheduling shall be modified, as required, and the Contractor shall deploy functioning BMPs prior to the onset of the precipitation.

- (b) **Non-Stormwater Pollution Control - The Contractor shall implement, year-round and throughout the duration of the project, BMPs included in the SWPPP for sediment tracking, wind erosion, non-stormwater management, and waste management and disposal.**
- (c) **Inspections and Reporting - The Contractor shall regularly inspect the construction site for BMPs identified in the SWPPP to ensure the proper implementation and functioning of BMPs. The Contractor shall identify corrective actions and time frames to address any damaged BMPs or reinstate any BMPs that have been discontinued.**

At a minimum, the Contractor shall inspect the construction site as follows:

1. Prior to a forecast storm;
2. After any precipitation which causes runoff capable of carrying sediment from the construction site;
3. At 24 hour intervals during extended precipitation events; and
4. At a regular interval of once every 2 weeks.

The construction site inspection checklist provided in the Caltrans Handbooks shall be used to ensure that the necessary BMPs are being properly implemented and are functioning adequately. The Contractor shall submit one copy of each site inspection record to the Engineer.

- (d) Maintenance - The Contractor shall maintain construction site BMPs identified in the SWPPP to ensure the proper implementation and functioning of BMPs. If the Contractor or the Engineer identifies a deficiency in the deployment or functioning of an identified BMP, the deficiency shall be corrected by the Contractor immediately, or by a later date and time if requested by the Contractor and approved by the Engineer in writing, but not later than the onset of subsequent precipitation events. The correction of deficiencies shall be at no additional cost to the District.
- (e) Training - The Contractor shall ensure that all persons responsible for implementing requirements of the General Permit shall be appropriately trained in accordance with Section VII "Training Qualifications and Certification Requirements" of the General Permit. Training should be both formal and informal, occur on an ongoing basis, and should include training offered by recognized governmental agencies or professional organizations.

The Contractor shall ensure that SWPPPs are written, amended and certified by a Qualified SWPPP Developer (QSD). The Contractor shall also ensure that all inspection, maintenance, repair and sampling activities shall be performed or supervised by a Qualified SWPPP Practitioner (QSP). A QSP is a person responsible for non-stormwater and stormwater visual observations, sampling and analysis.

29.7 Rain Event Action Plan (REAP) - The REAP is applicable to Risk Level 2 construction sites only. The Contractor shall ensure a QSP develop a REAP (see Appendix "E") and submit a copy to the Engineer for review 48 hours prior to any likely precipitation event. The Contractor shall amend and implement the REAP as directed by the Engineer. If no comments are received prior to the precipitation event, the REAP shall be implemented as proposed. A likely precipitation event is any weather pattern that is forecast to have a 50% or greater probability of producing precipitation in the project area. The discharger shall ensure a QSP obtain a printed copy of precipitation forecast information from the National Weather Service Forecast Office (e.g., enter the zip code of the project's location at <http://www.srh.noaa.gov/forecast>).

The Contractor shall ensure a QSP ensure that the REAP include, at a minimum, the following site information:

- a. Site Address
- b. Calculated Risk Level
- c. Site Storm Water Manager Information including the name, company and 24-hour emergency telephone number
- d. Erosion and Sediment Control Provider information including the name, company and 24-hour emergency telephone number
- e. Storm Water Sampling Agent information including the name, company and 24-hour emergency telephone number

29.8 Water Quality Monitoring, Sampling and Analysis – The Water Quality Monitoring, Sampling and Analysis is applicable to Risk Level 2 construction sites only. The Contractor shall be responsible for preparing a Construction Site Monitoring Program (CSMP) and implementing the monitoring, sampling and analysis requirements as described in Attachment D of the General Permit. Records of all visual observations and sampling results required by the General Permit shall be kept using the forms contained in Appendix "F" and Appendix "G", respectively. Copies of the forms shall be maintained in the SWPPP and submitted to the Engineer within 24 hours of the visual observation or sampling event.

29.9 Numeric Action Level (NAL) Exceedance Report - The NAL Exceedance Report is applicable to Risk Level 2 construction sites only. The Contractor shall be responsible for submitting a NAL Exceedance Report to the Engineer in the event that any effluent sample exceeds an applicable NAL.

- a. The Contractor shall submit all storm event sampling results using the form in Appendix "G" for each discharge point to the Engineer no later than 24 hours after the conclusion of the storm event.
- b. The Contractor shall certify each NAL Exceedance Report in accordance with the Special Provisions for Construction Activity.
- c. The Contractor shall retain an electronic or paper copy of each NAL Exceedance Report for a minimum of three years after the date the annual report is filed.
- d. The Contractor shall use the reporting form contained in Appendix "G" and include in the NAL Exceedance Report:
 - i. The analytical method(s), method reporting unit(s) and method detection limit(s) of each analytical parameter (analytical results that are less than

the method detection limit shall be reported as "less than the method detection limit").

- ii. The date, place, time of sampling, visual observation (inspections) and/or measurements, including precipitation.
- iii. A description of the current BMPs associated with the effluent sample that exceeded the NAL and the proposed corrective actions taken.

29.10 Non-Stormwater Discharge or Dewatering - Dewatering activity should only be considered after other methods have been determined to be inadequate for storm drain construction by the Engineer. If groundwater will be encountered during the project activities, the dewatering activity must be covered by the General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant Threat to Water Quality (De Minimus Permit), Santa Ana Regional Water Quality Control Board Order No. R8-2009-0003. The Contractor shall comply with this Order, and notify and obtain approval from the Engineer fifteen (15) days prior to any non-stormwater discharging of groundwater dewatering. If an emergency or unforeseen dewatering activity that will discharge to Waters of the United States occurs, the Contractor shall contact the Engineer immediately.

When discharging groundwater from dewatering activities to surface waters, the Contractor shall comply with and implement the Monitoring and Reporting Program required under Order No. R8-2009-0003. This Order can be downloaded at http://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009_orders.shtml. Under the Monitoring and Reporting Program, the Contractor shall prepare the monitoring report in accordance with the template included in Appendix "H". The Contractor must submit the Monitoring Reports to the Engineer by the 15th day of each month following the monitoring period. The District will submit the Monitoring Reports to the Santa Ana Regional Water Quality Control Board. The Monitoring Reports shall cover the previous month's monitoring activities.

If there is any other form of non-stormwater discharge from the project to surface waters, the Contractor shall immediately contact the Engineer to determine appropriate actions required for coverage under the De Minimus Permit.

Failure of the Contractor to fully comply with this requirement may result in the suspension of construction operations and liability for any associated monitoring, fines, penalties and remediation activities related to the discharge.

29.11 Reports –

- (a) Annual Report - The Contractor shall be responsible for preparing an Annual Report to meet the requirements of Section XVI of the General Permit covering the preceding period of construction from July 1st to June 30th. The Annual Report shall be structured in accordance with the template included in Appendix "I". The Contractor shall submit two (2) copies of the Annual Report to the

Engineer by July 15th of each year for review and approval. The Contractor shall allow ten (10) working days for the Engineer to review the Annual Report. If revisions are required as determined by the Engineer, the Contractor shall revise and resubmit the Annual Report within three (3) working days of receipt of the Engineer's comments. The Contractor shall submit four (4) copies of the approved Annual Report to the Engineer prior to August 15th of each year. **The Contractor shall be responsible for providing an Annual Report to the Engineer for any construction occurring for part of the year after July 1st prior to receiving final payment on the project.**

(b) Monthly Report – The Contractor shall prepare and submit to the Engineer a Monthly Report within five (5) working days of the end of the month including:

1. All visual observation reports;
2. All sampling and analysis reports;
3. All NAL Exceedance Reports;
4. Summary of changes to the SWPPP and or REAP based on inspection results for the preceding month.

29.12 Payment - The contract lump sum price paid for the Stormwater and Non-Stormwater Pollution Control work shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all the work involved in developing, preparing, obtaining approval of, revising and amending the PRDs, and installing, constructing, maintaining, removing and disposing of BMPs as shown in the SWPPP, as specified in the CASQA Handbooks and Sample Contractor's Water Quality CSMP, General Permit and these Detailed Specifications, and as directed by the Engineer.

The contract lump sum price paid for Non-Stormwater Discharge or Dewatering shall include full compensation for compliance of Section 29.10 "Non-Stormwater Discharge or Dewatering". **Contractor shall not be paid any portion of the contract lump sum if discharge of groundwater from dewatering activities to surface waters is avoided.**

Monthly payment will be made on a basis of the percentage of work completed on the entire project and subject to the submittal of a complete Monthly Report as specified in Section 29.11(b). Failure to complete or report required visual inspections, monitoring, sampling and analysis requirements, NAL Exceedance Reports, and/or other necessary follow-up actions to ensure that the project stays in compliance with the General Permit can be the basis for reducing monthly progress payments for the project. Monthly progress payments will be reduced by the amount of direct costs, overhead costs and engineering costs incurred by the Engineer to address compliance deficiencies, including costs to conduct inspections, monitoring, reporting and supplemental BMP implementation necessary to comply with the General Permit and costs incurred by the Engineer to address complaints, additional State inspections and violations and/or fines issued by the State or US EPA associated with failure to properly comply with the General Permit. Progress Payment reductions can exceed the monthly percentage or total contract lump sum price for Stormwater and Non-Stormwater Pollution Control work.

Payment will be made on a basis of the percentage of work completed on the entire project.

SECTION 30 – NOT USED

SECTION 31 - UTILITIES
(BID ITEM NO. 62 THROUGH BID ITEM NO. 66)

31.1 Description - This section covers the contract items Hot Tap Existing 10-Inch CML&C Waterline; Relocate 10-Inch Waterline; Protect Existing 42-Inch Waterline; Protect Existing 30-Inch Sewer Line; and Remove and Replace Existing 30-Inch Irrigation Lines.

31.2 General Material and Installation Requirements - Steel Pipe shall conform to Section 207-10 of the Standard Specifications. The Contractor shall furnish the Engineer a "Certificate of Compliance" certifying the pipe meets the required ASTM specifications.

Construction shall conform to Section 306 and related sections of the Standard Specifications.

31.3 Earthwork – Earthwork shall be carried out in accordance with Section 14 except as modified as follows:

- a. Pipe Bedding and Pipe Zone – Pipe bedding shall be defined as a layer of material immediately below the bottom of the pipe and extending over the full trench width in which the pipe is bedded. Thickness of the pipe base shall be a minimum of 6 inches.

Pipe zone shall include the full width of the trench from the bottom of the pipe to a horizontal level 12 inches above top of pipe and shall be backfilled with controlled low strength material (CLSM).

Imported sand used in the pipe bedding shall consist of natural or manufactured granular material, or a combination thereof, free of deleterious amounts of organic material, mica, loam, clay and other substances. Under no circumstances will decomposed granite or native earth backfill be allowed or used in the pipe base or pipe zone areas. Imported sand shall have the following gradation or similar:

<u>Sieve Size</u>	<u>Percent Passing by Weight</u>
3/8-inch	100
No. 4	75 - 100
No. 30	12 - 50
No. 100	5 - 20
No. 200	0 - 15

Imported sand shall have a sand equivalent (S.E.) of 60 or greater.

- b. Trench Zone – The trench zone includes the portion of the trench from the top of the pipe zone to the existing surface in unpaved areas.

Native earth backfill used above the pipe zone shall be excavated fine grained materials or loose soil free of asbestos, organic matter, roots, debris, rocks larger than 3 inches in diameter, clods, clay balls, broken pavement, and other deleterious materials. S.E. for said material shall be 20 or better. Backfill material shall be so graded that at least 40% of the material passes a No. 4 sieve.

All backfill in the pipe bedding and trench zone shall be compacted to ninety percent (90%) relative compaction.

31.4 General Material and Installation Requirements – Pipe lining and coating shall be the product of one company in the business of designing and manufacturing cement-mortar lined and coated steel pipe. Use of subcontractors or subcontracts to apply the lining and coating of the steel pipe is not allowed.

The pipe shall consist of the following components:

A welded steel cylinder with joints formed integrally with the steel cylinder or with steel joint rings welded to the ends; a centrifugally-cast cement-mortar lining; and a dense, concentric, steel reinforced exterior cement-mortar coating.

The drawings indicate the elevations and alignment of the pipeline, the nominal inside diameter of the lined pipe, and the minimum steel cylinder thickness or design pressure (adjusted to satisfy transient conditions). Design soil cover shall be scaled from the drawings.

The steel pipe sizes shown on the drawings or otherwise referred to shall be the nominal inside diameter. Unless otherwise specified, the nominal diameter shown on the drawings shall be considered to be the inside diameter after lining.

Minimum thickness of the steel cylinder shall be as shown on the drawings.

31.5 Steel Cylinders – Materials used in fabricating steel cylinders shall be hot rolled carbon steel sheets conforming to the requirements of ASTM A53, Grade B, ASTM A570 Grade 36 or Grade 33, or steel plates conforming to the requirements of ASTM A36. The method of testing shall conform to the requirements of ASTM A570.

Full penetration welds will be required. Welds may be straight or spiral seam. The circumferential stress in the steel shall not exceed 16,500 psi at the design pressure.

31.6 Cement – Cement for mortar lining and coating shall be Portland Cement Type II and conform to ASTM C150, unless otherwise specified. Admixtures containing chlorides shall not be used.

31.7 Steel Bar or Wire Reinforcement – Circumferential steel bar or wire reinforcement shall conform to ASTM A615, Grade 40, "Specifications for Billet-Steel Bars for Concrete Reinforcement". Wire fabric reinforcing for cement-mortar coatings and linings of fittings shall conform to ASTM A185, "Specifications for Welded Steel Wire Fabric", or ASTM A497, "Specifications for Welded Deformed Steel Wire Fabric". Spiral-wire reinforcement for cement-mortar coatings shall conform to ASTM A82.

31.8 Manufacturer's Tests – Each steel cylinder with joint rings attached and cylinders for specials shall be hydrostatically tested to a circumferential stress of at least 22,000 psi, but not more than 25,000 psi. If leaks develop during testing, the cylinder shall be repaired by welding and retested until all leaks are eliminated.

The seams in short radius bends and special fittings shall be tested by the air-soap method using air at a pressure of 5 psi or by the dye-check method. However, if the fitting is fabricated from cylinders which have been previously hydrostatically tested, no further test will be required on seams so tested.

Hydrostatic testing of fittings to 150% of the design pressure may replace the tests described above. Any defects revealed by any of the alternate test methods shall be repaired by welding and the fitting retested until all defects have been eliminated.

31.9 Fabrication Details – Each special and each length of straight pipe shall be plainly marked to identify the design pressure and the proper location of the pipe or special by reference to layout schedule.

31.10 Protective Coatings and Linings - All steel pipe and fittings shall be cement-mortar lined in accordance with AWWA C205 and C602. Linings shall have a minimum thickness of 1/4-inch.

All steel pipe and fittings for underground service shall be cement-mortar lined and cement-mortar coated in accordance with AWWA C205 and C602 unless otherwise specified on the drawings.

For the following nominal inside diameters, the lining thickness and minimum cement-mortar coating thickness shall be as follows:

Nominal Pipe Size (inches)	LINING		COATING	
	Thickness (inches)	Tolerance (inches)	Thickness (inches)	Tolerance (inches)
4 – 10	1/4	-1/32+1/32	1/2	+1/8

31.11 Cement-Mortar Curing – The pipe shall be cured by water curing, steam curing or a combination of both. Water curing and steam curing may be used interchangeably on a time ratio basis of four hours water curing to one hour of steam curing. Where steam curing is used,

the pipe shall be kept in steam maintained at a temperature of 100 F to 150 F for the specified period and, where water curing is used, the pipe shall be kept continually moist by spraying or other means for the specified periods. The pipe shall not be allowed to dry either on the inside or outside surfaces during the curing period.

Where water curing is used, the pipe shall be kept continuously moist for seven days at a temperature of not less than 40 F before being moved to the trench site.

Cement-mortar lining and coating of special pipe and fittings may be cured in accordance with the above provisions or by prompt application of a white-pigmented sealing compound conforming to ASTM C309. Sealing compound shall not be applied at joint ends where compound will interfere with the bond of joint mortar.

31.12 Special Pipe and Fittings – The manufacturer shall furnish all fittings and special pieces required for closures, curves, bends, branches, manholes, outlets, connections for mainline valves, and other appurtenances required by the drawings.

Special fittings shall be fabricated of welded steel sheet or plate, lined and coated with cement-mortar of the same type as the adjoining pipe and applied as specified for lining and coating of specials in AWWA C205 ad as modified herein. Butt welding shall be used, unless otherwise indicated on the drawings.

The circumferential stress in the sheet or plate shall not exceed 13,500 psi at the design pressure. The minimum thickness of sheet or plate shall be as follows:

Fitting Diameter Range (Inches)	Minimum Thickness of Sheet or Plate
18 and under	10 gauge

Outlets at special fittings shall be reinforced with collars or crotch plates. If collar reinforcement is used, the outlet diameter shall not exceed 69% of the ID of the fitting. The diameter of outlets reinforced with crotch plates may equal the fitting diameter.

The effective shoulder width "W" of collars from the inside surface of the steel outlet to the outside edge of the collar measured on the surface of the cylinder shall be not less than one-third or more than one-half the ID of steel outlet. The thickness of the collar shall be not less than "T" as determined by:

$$T = \frac{PW \times ID \text{ cyl.} \times ID \text{ outlet}}{36,000 \times W}$$

Where PW is the design pressure in pounds per square inch, and all other dimensions are in inches. Collars may be oval in shape or rectangular with well-rounded corners. Outlets 3 inches in diameter and smaller may be installed without collars.

The design of crotch plates shall be based upon the paper by Swanson, Chapton, Wilkinson, King, and Nelson, originally published in June 1955 issue of the Journal of the American Water Works Association.

31.13 Handling and Shipment – Pipe and special fittings shall be handled carefully, and blocking and hold-downs used during shipment shall prevent movement or shifting. Both ends of pipe and fittings on trucks or rail cars shall be bulkheaded or covered in order to prevent excessive drying of the interior lining.

31.14 Installation –

- A. Trench Preparation: Earthwork shall be carried out in accordance with Section 14, Earthwork. Prior to laying the pipe, the bottom of the trench shall be graded and prepared to provide uniform bearing throughout the entire length of each joint of pipe. Suitable bell holes shall be excavated at each joint and a shallow lateral depression shall be scooped out half a pipe length from the last pipe laid to allow for easy removal of the belt pipe sling and thus avoid any movement of the pipe after it is placed on proper line and grade.
- B. Butt-Strap Closure Joints: Butt-strap closure joints shall be completed in the trench after the pipe has been laid to the alignment and grade shown on the drawings. They should be field welded by full-circumferential fillet welds or one of the edges may be shop welded and the other field welded. Welding shall be done in the same manner as specified for welded joints.

The interior of the joints shall be filled with stiff plastic mortar and finished off smoothly with the inside of the pipe. Wire mesh, 2" x 4" x No. 13 gauge, clean, and free from rust, shall be applied to the interior of the joints so that the wires on the 2-inch spacing run circumferentially around the pipe. The wires on the 4-inch spacing shall be crimped in such a manner that the mesh will be held 3/8-inch from the metal joint surface. The mesh shall be lapped a minimum of 8 inches and shall be securely wired in position.

The joint exterior shall be coated with mortar to a minimum thickness of 1-1/2 inches. Immediately prior to applying mortar to the interior or exterior of the joints, a cement wash shall be applied to the metal to be coated.

- C. Welded Joints: Welded joints shall be completed after the pipe is in final position. Welded joints shall be either a welded Carnegie joint or a lap-welded slip joint as shown on the drawings. Any recess between the bell and spigot shall be caulked with a rod to facilitate the welding. Pipe of 30 inches in diameter or more may be welded from the inside. Welders assigned to the work shall be qualified under the AWS standard qualification procedure.

Joints to be welded shall be cleaned, preferably prior to placing the pipe in the trench, of all loose scale, heavy rust, paint, cement, and grease. At least a 1/2-

inch recess shall be provided between adjacent mortar-covered surfaces to place the weld. In all hand welding, the metal shall be deposited in successive layers and the minimum number of passes or beads in the completed weld shall be as follows:

Steel Cylinder Thickness (Inches)	Fillet Weld Minimum Number of Passes
Smaller than 3/16	1
3/16 and 1/4	2
5/16	3
3/8	3

After the joints have been welded, the joint shall be grouted with cement mortar.

31.15 Preventing Foreign Matter from Entering the Pipe – At all times when pipe laying is not in progress, the open end of the pipe shall be closed with a tight-fitting cap or plug to prevent the entrance of foreign matter into the pipe. These provisions shall apply during the lunch break as well as overnight. In no event shall the pipeline be used as a drain for removing water which has infiltrated into the trench. The Contractor shall maintain the inside of the pipe free from foreign materials and in a clean and sanitary condition until its acceptance by the Owner's Representative.

31.16 Hot Tap Existing 10-Inch CML&C Waterline – The contract item Hot Tap Existing 10-Inch CML&C Waterline includes all parts, materials, labor, equipment, excavation, backfill and shoring required to hot tap the waterline to determine if it is in use.

31.17 Relocate 10-Inch Waterline - The contract item Relocate 10-Inch Waterline covers all labor, equipment, materials, testing, earthwork, removal of existing waterline and incidentals required for the construction and installation of the 10-inch cement mortar lined and cement mortar coated steel waterline.

The Contractor shall perform the required pressure test and chlorination required by Section 02718.

It should be noted that after the contract item Hot Tap Existing 10-Inch CML&C Waterline is complete, the Engineer may determine that the contract item Relocate 10-Inch Waterline may be deleted from the contract.

31.18 Protect Existing 42-Inch Waterline – The contract item Protect Existing 42-Inch Waterline shall consist of all work required to protect in-place the existing Elsinore Valley Municipal Water District (EVMWD) 42-Inch welded steel pipe waterline.

Included in this item is all engineering labor, equipment, shoring, materials excavation, backfill, compaction, potholing and incidentals that are required to project the existing 42" waterline in-place.

31.19 Protect Existing 30-Inch Sewer Line – The contract item Protect Existing 30-Inch Sewer Line shall consist of all work required to protect in-place the existing Santa Ana Watershed Project Authority (SAWPA) 30-Inch PVC Sewer Line (brine).

Included in this item is all engineering, plan preparation, additional insurance, potholing, labor, equipment, shoring, materials, excavation, backfill, compaction and incidentals that are required to protect the existing 30-inch sewer line.

The Contractor shall prepare a detailed plan to show the details of shoring, bracing or other methods that may be employed to protect the existing 30-inch sewer line. The plan shall be prepared and signed by an engineer who is registered as a civil engineer in the State of California.

The Contractor should not assume that only one type of protection system will be adequate for all situations. The protection plan should indicate the options which could be used at specific locations. All design calculations and loading cases should be evaluated for the appropriate construction loads or surcharges. The detailed plan shall be submitted for review at least two (2) weeks before the Contractor intends to begin trenching.

The required Control Low Strength Material (CLSM) as backfill between the existing 30-inch sewer line and the storm drain as shown on the drawings will be included in the contract bid item CLSM.

31.20 Remove and Replace Existing 30-Inch Irrigation Lines – The contract item Remove and Replace Existing 30-Inch Irrigation Lines at Stations 35+60, 45+00, 45+56 and 0+45 as shown on Sheets 11, 13 and 15, covers the complete removal and disposal of the 30-inch pipe within the trench area necessary to construct the storm drain. Also included in this item is the 30" RCP Class IV Pipe, concrete collars, excavation, backfill, asphalt concrete, and Class II Aggregate Base required outside of the storm drain pay limits.

31.21 Measurement and Payment - The contract lump sum prices paid for each of the following: Hot Tap Existing 10-Inch CML&C Waterline; Relocate 10-Inch Waterline; Protect Existing 42-Inch Waterline; Protect Existing 30-Inch Sewer Line; and Remove and Replace Existing 30-Inch Irrigation Lines shall include full compensation for all costs incurred under this section.