

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

920B



FROM: General Manager-Chief Engineer

SUBMITTAL DATE:
June 5, 2012

SUBJECT: Project Award – Calimesa – Avenue L Storm Drain, Stage 2
Project No. 5-0-00165-02
District Five/District Five

RECOMMENDED MOTION:

The Board approve the second low bid submitted by the firm of Leatherwood Construction, Inc. for \$3,117,705.00, 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 2011-2012 Zone 5 budget for this project.

Steve Thomas
FOR **WARREN D. WILLIAMS**
General Manager-Chief Engineer

FINANCIAL DATA

Current F.Y. District Cost:	\$3,117,705.00	In Current Year Budget:	Yes
Current F.Y. County Cost:	N/A	Budget Adjustment:	No
Annual Net District Cost:	N/A	For Fiscal Year:	2011-2012

SOURCE OF FUNDS:

25150 947480 527980 Zone 5 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. Shetter*
Michael R. Shetter

County Executive Office Signature

MINUTES OF THE FLOOD CONTROL AND WATER CONSERVATION DISTRICT

On motion of Supervisor Tavaglione, seconded by Supervisor Stone and duly carried, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Buster, Tavaglione and Stone
Nays: None
Absent: Ashley and Benoit
Date: June 5, 2012
xc: Flood

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

Prev. Agn. Ref.: 11.5 of 03/13/12 | **District:** 5/5 | **Agenda Number:**

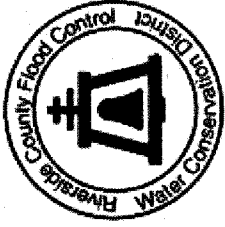
11.6

ATTACHMENTS FILED
WITH THE CLERK OF THE BOARD

FISCAL PROCEDURES APPROVED BY: *[Signature]* 5/23/2012
 FORM APPROVED COUNTY COUNSEL BY: *[Signature]* DATE: _____
 NEAL R. KIPNIS

Riverside County Flood Control & Water Conservation District

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



Bid Summary

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

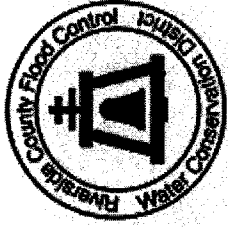
Bid Open Date: 04/12/2012

Total	Contractor Name	Address	Phone
Requested/Granted Relief of Bid \$2,543,407.50 MCC-EQUIPMENT-RENTALS, INC.		Post Office Box 1730 Yucaipa, CA 92399	909.795.9300
\$3,117,705.00	LEATHERWOOD CONSTRUCTION, INC.	18182 Bushard Street Fountain Valley, CA 92708-5756	714.593.6575
\$3,235,672.30	BELCZAK & SONS, INC.	3510 E. Enterprise Drive Anaheim, CA 92807	714.998-5920
\$3,297,556.00	MIKE BUBALO CONSTRUCTION CO., INC.	5102 Gayhurst Avenue Baldwin Park, CA 91706	626.960.7787
\$3,333,333.00	E.J. MEYER COMPANY	Post Office Box 277 Highland, CA 92346	909.425.4025
\$3,346,560.00	GARCIA JUAREZ CONSTRUCTION, INC.	Post Office Box 309 Brea, CA 92822-0309	951.657.3535
\$3,377,777.00	KIP, INCORPORATED	25740 Washington Avenue Murrieta, CA 92562	
\$3,410,297.70	BERT W. SALAS, INC.	10769 Woodside Avenue, Suite 201 SANTEE, CA 92071	619.562.7711
\$3,457,434.00	WEKA, INC.	27075 5th Street Highland, CA 92346	909.425.8700
\$3,478,172.50	KEC ENGINEERING	200 N. Sherman Avenue Corona, CA 92882	951-734-3010
\$3,665,087.00	H & H GENERAL CONTRACTORS, INC.	Post Office Box 536 Highland, CA 92346-0536	909.425.3907
\$3,789,446.00	DOWNING CONSTRUCTION, INC.	35018 Yucaipa Boulevard Yucaipa, CA 92399	909-797-7444
\$4,090,178.00	C. P. CONSTRUCTION CO., INC.	Post Office Box 1206 Ontario, CA 91762	909.981.1091
\$4,375,412.30	NORSTAR PLUMBING AND ENGINEERING, INC.	8780 19th Street #310 Alta Loma, CA 91701	909.481.9488
\$5,277,810.00	ARB, INC.	26000 Commercentre Drive Lake Forest, CA 92630	949.598.9242
\$3,926,212.00	RCFC Engineer's Estimate		

11 JUN - 5 2012

Riverside County Flood Control & Water Conservation District

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



Bid Abstract

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

Bid Open Date: 04/12/2012

ENGINEER'S ESTIMATE

MCC EQUIPMENT
RENTALS, INC.

LEATHERWOOD
CONSTRUCTION, INC.

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$120,000.00	\$120,000.00	\$130,000.00	\$130,000.00	\$50,000.00	\$50,000.00
2 WATER CONTROL	L.S.	1	\$25,000.00	\$25,000.00	\$671.00	\$671.00	\$1,500.00	\$1,500.00
3 TRAFFIC CONTROL	L.S.	1	\$50,000.00	\$50,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$15,000.00	\$15,000.00	\$13,500.00	\$13,500.00	\$33,000.00	\$33,000.00
5 EXCAVATION	C.Y.	31,539	\$12.00	\$378,468.00	\$3.00	\$94,617.00	\$10.00	\$315,390.00
6 ASPHALT CONCRETE EXCAVATION	S.F.	55,750	\$1.00	\$55,750.00	\$1.25	\$69,687.50	\$1.50	\$83,625.00
7 BACKFILL PREPARATION	C.Y.	5,000	\$25.00	\$125,000.00	\$0.59	\$2,950.00	\$0.05	\$250.00
8 BACKFILL	C.Y.	22,645	\$15.00	\$339,675.00	\$8.00	\$181,160.00	\$9.00	\$203,805.00
9 CONTROLLED LOW STRENGTH MATERIAL (CLSM) BACKFILL	C.Y.	20	\$130.00	\$2,600.00	\$93.00	\$1,860.00	\$77.00	\$1,540.00
10 FILTER MATERIAL	C.Y.	230	\$30.00	\$6,900.00	\$70.00	\$16,100.00	\$35.00	\$8,050.00
11 TRENCH SAFETY SYSTEM	L.S.	1	\$200,000.00	\$200,000.00	\$10,000.00	\$10,000.00	\$16,000.00	\$16,000.00
12 CLASS "A" CONCRETE, MINOR STRUCTURES	C.Y.	216	\$800.00	\$172,800.00	\$752.00	\$162,432.00	\$1,150.00	\$248,400.00
13 CLASS "B" CONCRETE, MISCELLANEOUS	C.Y.	124	\$350.00	\$43,400.00	\$505.00	\$62,620.00	\$740.00	\$91,760.00
14 TRANSITION STRUCTURE NO. 3	EACH	3	\$10,000.00	\$30,000.00	\$4,877.00	\$14,631.00	\$4,300.00	\$12,900.00
15 JUNCTION STRUCTURE NO. 2	EACH	8	\$2,500.00	\$20,000.00	\$2,900.00	\$23,200.00	\$3,900.00	\$31,200.00
16 MANHOLE NO. 2	EACH	13	\$5,600.00	\$72,800.00	\$4,900.00	\$63,700.00	\$6,100.00	\$79,300.00
17 MANHOLE NO. 4	EACH	4	\$10,000.00	\$40,000.00	\$6,777.00	\$27,108.00	\$7,700.00	\$30,800.00
18 66" RCP, 1750D	L.F.	2,011	\$262.00	\$526,882.00	\$180.00	\$361,980.00	\$200.00	\$402,200.00
19 54" RCP, 1750D	L.F.	1,743	\$205.00	\$357,315.00	\$140.00	\$244,020.00	\$160.00	\$278,880.00
20 48" RCP, 1750D	L.F.	1,367	\$182.00	\$248,794.00	\$132.00	\$180,444.00	\$130.00	\$177,710.00
21 36" RCP, 1750D	L.F.	1,932	\$137.00	\$264,684.00	\$100.00	\$193,200.00	\$95.00	\$183,540.00
22 30" RCP, 1750D	L.F.	65	\$119.00	\$7,735.00	\$113.00	\$7,345.00	\$90.00	\$5,850.00
23 24" RCP, CLASS IV	L.F.	66	\$103.00	\$6,798.00	\$104.00	\$6,864.00	\$80.00	\$5,280.00
24 18" RCP, CLASS IV	L.F.	700	\$90.00	\$63,000.00	\$107.00	\$74,900.00	\$70.00	\$49,000.00
25 AGGREGATE BASE, CLASS 2	C.Y.	1,055	\$70.00	\$73,850.00	\$51.00	\$53,805.00	\$85.00	\$89,675.00
26 ASPHALT CONCRETE TYPE "B"	TONS	4,094	\$95.00	\$388,930.00	\$88.00	\$360,272.00	\$123.00	\$503,562.00
27 TEMPORARY RESURFACING	TONS	410	\$100.00	\$41,000.00	\$80.00	\$32,800.00	\$80.00	\$32,800.00
28 PAVEMENT CRACK SEALING	S.F.	175,000	\$0.10	\$17,500.00	\$0.19	\$33,250.00	\$0.09	\$15,750.00
29 STRUCTURAL PAVEMENT REPLACEMENT	TONS	88	\$100.00	\$8,800.00	\$115.00	\$10,120.00	\$140.00	\$12,320.00

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

Bid Open Date: 04/12/2012

ENGINEER'S ESTIMATE
MCC EQUIPMENT RENTALS, INC.
LEATHERWOOD CONSTRUCTION, INC.

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
30 MISCELLANEOUS IRON AND STEEL	LBS.	23,254	\$1.50	\$34,881.00	\$1.00	\$23,254.00	\$2.00	\$46,508.00
31 REMODEL 4-INCH VITRIFIED CLAY PIPE (VCP) HOUSE CONNECTION	L.F.	72	\$150.00	\$10,800.00	\$56.00	\$4,032.00	\$80.00	\$5,760.00
32 ADJUST MANHOLE TO GRADE	EACH	25	\$400.00	\$10,000.00	\$343.00	\$8,575.00	\$500.00	\$12,500.00
33 ADJUST VALVE TO GRADE	EACH	51	\$350.00	\$17,850.00	\$246.00	\$12,546.00	\$350.00	\$17,850.00
34 DUST ABATEMENT	L.S.	1	\$20,000.00	\$20,000.00	\$2,739.00	\$2,739.00	\$2,000.00	\$2,000.00
35 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$40,000.00	\$40,000.00	\$9,800.00	\$9,800.00	\$10,000.00	\$10,000.00
36 NON-STORMWATER DISCHARGE OR DEWATERING	L.S.	1	\$10,000.00	\$10,000.00	\$925.00	\$925.00	\$2,000.00	\$2,000.00
37 VERIZON RELOCATION COORDINATION	L.S.	1	\$10,000.00	\$10,000.00	\$6,300.00	\$6,300.00	\$2,500.00	\$2,500.00
38 CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR) CROSSING	L.S.	1	\$70,000.00	\$70,000.00	\$32,000.00	\$32,000.00	\$44,500.00	\$44,500.00
				\$3,926,212.00				
					\$2,543,407.50			
					\$3,117,705.00			

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

Bid Open Date: 04/12/2012

BELCZAK & SONS, INC.

MIKE BUBALO
CONSTRUCTION CO., INC.

E.J. MEYER COMPANY

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$75,000.00	\$75,000.00	\$200,000.00	\$200,000.00	\$50,000.00	\$50,000.00
2 WATER CONTROL	L.S.	1	\$5,000.00	\$5,000.00	\$10,000.00	\$10,000.00	\$2,000.00	\$2,000.00
3 TRAFFIC CONTROL	L.S.	1	\$70,000.00	\$70,000.00	\$20,000.00	\$20,000.00	\$15,000.00	\$15,000.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$75,000.00	\$75,000.00	\$5,000.00	\$5,000.00	\$20,000.00	\$20,000.00
5 EXCAVATION	C.Y.	31,539	\$13.00	\$410,007.00	\$10.00	\$315,390.00	\$8.00	\$252,312.00
6 ASPHALT CONCRETE EXCAVATION	S.F.	55,750	\$0.35	\$19,512.50	\$5.00	\$278,750.00	\$0.15	\$8,362.50
7 BACKFILL PREPARATION	C.Y.	5,000	\$5.00	\$25,000.00	\$1.00	\$5,000.00	\$0.10	\$500.00
8 BACKFILL	C.Y.	22,645	\$20.00	\$452,900.00	\$15.00	\$339,675.00	\$10.00	\$226,450.00
9 CONTROLLED LOW STRENGTH MATERIAL (CLSM) BACKFILL	C.Y.	20	\$125.00	\$2,500.00	\$150.00	\$3,000.00	\$250.00	\$5,000.00
10 FILTER MATERIAL	C.Y.	230	\$60.00	\$13,800.00	\$100.00	\$23,000.00	\$35.00	\$8,050.00
11 TRENCH SAFETY SYSTEM	L.S.	1	\$166,000.00	\$166,000.00	\$25,000.00	\$25,000.00	\$35,000.00	\$35,000.00
12 CLASS "A" CONCRETE, MINOR STRUCTURES	C.Y.	216	\$715.00	\$154,440.00	\$750.00	\$162,000.00	\$820.00	\$177,120.00
13 CLASS "B" CONCRETE, MISCELLANEOUS	C.Y.	124	\$500.00	\$62,000.00	\$500.00	\$62,000.00	\$650.00	\$80,600.00
14 TRANSITION STRUCTURE NO. 3	EACH	3	\$1,400.00	\$4,200.00	\$8,000.00	\$24,000.00	\$4,500.00	\$13,500.00
15 JUNCTION STRUCTURE NO. 2	EACH	8	\$1,200.00	\$9,600.00	\$6,000.00	\$48,000.00	\$2,800.00	\$22,400.00
16 MANHOLE NO. 2	EACH	13	\$4,500.00	\$58,500.00	\$7,000.00	\$91,000.00	\$5,000.00	\$65,000.00
17 MANHOLE NO. 4	EACH	4	\$5,500.00	\$22,000.00	\$9,000.00	\$36,000.00	\$6,500.00	\$26,000.00
18 66" RCP, 1750D	L.F.	2,011	\$180.00	\$361,980.00	\$160.00	\$321,760.00	\$251.00	\$504,761.00
19 54" RCP, 1750D	L.F.	1,743	\$145.00	\$252,735.00	\$140.00	\$244,020.00	\$220.00	\$383,460.00
20 48" RCP, 1750D	L.F.	1,367	\$115.00	\$157,205.00	\$120.00	\$164,040.00	\$218.00	\$298,006.00
21 36" RCP, 1750D	L.F.	1,932	\$70.00	\$135,240.00	\$100.00	\$193,200.00	\$136.00	\$262,752.00
22 30" RCP, 1750D	L.F.	65	\$85.00	\$5,525.00	\$90.00	\$5,850.00	\$180.00	\$11,700.00
23 24" RCP, CLASS IV	L.F.	66	\$83.00	\$5,478.00	\$80.00	\$5,280.00	\$225.00	\$14,850.00
24 18" RCP, CLASS IV	L.F.	700	\$70.00	\$49,000.00	\$70.00	\$49,000.00	\$90.00	\$63,000.00
25 AGGREGATE BASE, CLASS 2	C.Y.	1,055	\$45.00	\$47,475.00	\$40.00	\$42,200.00	\$110.00	\$116,050.00
26 ASPHALT CONCRETE TYPE "B"	TONS	4,094	\$80.00	\$327,520.00	\$90.00	\$368,460.00	\$120.00	\$491,280.00
27 TEMPORARY RESURFACING	TONS	410	\$90.00	\$36,900.00	\$80.00	\$32,800.00	\$90.00	\$36,900.00
28 PAVEMENT CRACK SEALING	S.F.	175,000	\$0.18	\$31,500.00	\$0.25	\$43,750.00	\$0.20	\$35,000.00
29 STRUCTURAL PAVEMENT REPLACEMENT	TONS	88	\$120.00	\$10,560.00	\$125.00	\$11,000.00	\$200.00	\$17,600.00

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

Bid Open Date: 04/12/2012

BELCZAK & SONS, INC.

MIKE BUBALO
CONSTRUCTION CO., INC.

E.J. MEYER COMPANY

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
30 MISCELLANEOUS IRON AND STEEL	LBS.	23,254	\$1.20	\$27,904.80	\$1.50	\$34,881.00	\$1.00	\$23,254.00
31 REMODEL 4-INCH VITRIFIED CLAY PIPE (VCP) HOUSE CONNECTION	L.F.	72	\$45.00	\$3,240.00	\$250.00	\$18,000.00	\$100.00	\$7,200.00
32 ADJUST MANHOLE TO GRADE	EACH	25	\$750.00	\$18,750.00	\$1,000.00	\$25,000.00	\$350.00	\$8,750.00
33 ADJUST VALVE TO GRADE	EACH	51	\$200.00	\$10,200.00	\$500.00	\$25,500.00	\$225.00	\$11,475.00
34 DUST ABATEMENT	L.S.	1	\$60,000.00	\$60,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
35 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$15,000.00	\$15,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
36 NON-STORMWATER DISCHARGE OR DEWATERING	L.S.	1	\$6,000.00	\$6,000.00	\$5,000.00	\$5,000.00	\$100.00	\$100.00
37 VERIZON RELOCATION COORDINATION	L.S.	1	\$3,000.00	\$3,000.00	\$5,000.00	\$5,000.00	\$500.00	\$500.00
38 CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR) CROSSING	L.S.	1	\$45,000.00	\$45,000.00	\$35,000.00	\$35,000.00	\$19,400.50	\$19,400.50
				\$3,235,672.30		\$3,297,556.00		\$3,333,333.00

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

Bid Open Date: 04/12/2012

GARCIA JUAREZ
CONSTRUCTION, INC.

KIP, INCORPORATED

BERT W. SALAS, INC.

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$15,000.00	\$15,000.00	\$40,000.00	\$40,000.00	\$175,000.00	\$175,000.00
2 WATER CONTROL	L.S.	1	\$1,000.00	\$1,000.00	\$6,500.00	\$6,500.00	\$6,000.00	\$6,000.00
3 TRAFFIC CONTROL	L.S.	1	\$5,000.00	\$5,000.00	\$50,000.00	\$50,000.00	\$69,700.00	\$69,700.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$5,000.00	\$5,000.00	\$150,000.00	\$150,000.00	\$150,000.00	\$150,000.00
5 EXCAVATION	C.Y.	31,539	\$6.00	\$189,234.00	\$10.00	\$315,390.00	\$11.00	\$346,929.00
6 ASPHALT CONCRETE EXCAVATION	S.F.	55,750	\$1.00	\$55,750.00	\$0.50	\$27,875.00	\$0.25	\$13,937.50
7 BACKFILL PREPARATION	C.Y.	5,000	\$1.00	\$5,000.00	\$9.00	\$45,000.00	\$3.00	\$15,000.00
8 BACKFILL	C.Y.	22,645	\$7.00	\$158,515.00	\$7.00	\$158,515.00	\$20.00	\$452,900.00
9 CONTROLLED LOW STRENGTH MATERIAL (CLSM) BACKFILL	C.Y.	20	\$100.00	\$2,000.00	\$110.00	\$2,200.00	\$88.00	\$1,760.00
10 FILTER MATERIAL	C.Y.	230	\$40.00	\$9,200.00	\$50.00	\$11,500.00	\$50.00	\$11,500.00
11 TRENCH SAFETY SYSTEM	L.S.	1	\$400,000.00	\$400,000.00	\$10,000.00	\$10,000.00	\$90,000.00	\$90,000.00
12 CLASS "A" CONCRETE, MINOR STRUCTURES	C.Y.	216	\$800.00	\$172,800.00	\$1,125.00	\$243,000.00	\$563.00	\$121,608.00
13 CLASS "B" CONCRETE, MISCELLANEOUS	C.Y.	124	\$500.00	\$62,000.00	\$500.00	\$62,000.00	\$410.00	\$50,840.00
14 TRANSITION STRUCTURE NO. 3	EACH	3	\$2,000.00	\$6,000.00	\$2,700.00	\$8,100.00	\$3,100.00	\$9,300.00
15 JUNCTION STRUCTURE NO. 2	EACH	8	\$1,000.00	\$8,000.00	\$1,900.00	\$15,200.00	\$900.00	\$7,200.00
16 MANHOLE NO. 2	EACH	13	\$4,000.00	\$52,000.00	\$4,700.00	\$61,100.00	\$6,500.00	\$84,500.00
17 MANHOLE NO. 4	EACH	4	\$5,000.00	\$20,000.00	\$5,000.00	\$20,000.00	\$8,000.00	\$32,000.00
18 66" RCP, 1750D	L.F.	2,011	\$335.00	\$673,685.00	\$242.00	\$486,662.00	\$143.00	\$287,573.00
19 54" RCP, 1750D	L.F.	1,743	\$195.00	\$339,885.00	\$205.00	\$357,315.00	\$113.00	\$196,959.00
20 48" RCP, 1750D	L.F.	1,367	\$165.00	\$225,555.00	\$160.00	\$218,720.00	\$91.00	\$124,397.00
21 36" RCP, 1750D	L.F.	1,932	\$140.00	\$270,480.00	\$110.00	\$212,520.00	\$61.00	\$117,852.00
22 30" RCP, 1750D	L.F.	65	\$130.00	\$8,450.00	\$100.00	\$6,500.00	\$60.00	\$3,900.00
23 24" RCP, CLASS IV	L.F.	66	\$130.00	\$8,580.00	\$78.00	\$5,148.00	\$132.00	\$8,712.00
24 18" RCP, CLASS IV	L.F.	700	\$100.00	\$70,000.00	\$68.00	\$47,600.00	\$51.00	\$35,700.00
25 AGGREGATE BASE, CLASS 2	C.Y.	1,055	\$40.00	\$42,200.00	\$80.00	\$84,400.00	\$38.00	\$40,090.00
26 ASPHALT CONCRETE TYPE "B"	TONS	4,094	\$88.00	\$360,272.00	\$110.00	\$450,340.00	\$122.00	\$499,468.00
27 TEMPORARY RESURFACING	TONS	410	\$85.00	\$34,850.00	\$170.00	\$69,700.00	\$172.00	\$70,520.00
28 PAVEMENT CRACK SEALING	S.F.	175,000	\$0.25	\$43,750.00	\$0.15	\$26,250.00	\$0.90	\$157,500.00
29 STRUCTURAL PAVEMENT REPLACEMENT	TONS	88	\$200.00	\$17,600.00	\$250.00	\$22,000.00	\$220.00	\$19,360.00

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

Bid Open Date: 04/12/2012

**GARCIA JUAREZ
CONSTRUCTION, INC.**

KIP, INCORPORATED

BERT W. SALAS, INC.

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
30 MISCELLANEOUS IRON AND STEEL	LBS.	23,254	\$1.00	\$23,254.00	\$1.50	\$34,881.00	\$1.30	\$30,230.20
31 REMODEL 4-INCH VITRIFIED CLAY PIPE (VCP) HOUSE CONNECTION	L.F.	72	\$100.00	\$7,200.00	\$65.00	\$4,680.00	\$78.00	\$5,616.00
32 ADJUST MANHOLE TO GRADE	EACH	25	\$400.00	\$10,000.00	\$425.00	\$10,625.00	\$560.00	\$14,000.00
33 ADJUST VALVE TO GRADE	EACH	51	\$300.00	\$15,300.00	\$280.00	\$14,280.00	\$246.00	\$12,546.00
34 DUST ABATEMENT	L.S.	1	\$1,000.00	\$1,000.00	\$12,000.00	\$12,000.00	\$49,500.00	\$49,500.00
35 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$1,000.00	\$1,000.00	\$32,000.00	\$32,000.00	\$35,200.00	\$35,200.00
36 NON-STORMWATER DISCHARGE OR DEWATERING	L.S.	1	\$1,000.00	\$1,000.00	\$7,000.00	\$7,000.00	\$19,000.00	\$19,000.00
37 VERIZON RELOCATION COORDINATION	L.S.	1	\$1,000.00	\$1,000.00	\$3,776.00	\$3,776.00	\$16,000.00	\$16,000.00
38 CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR) CROSSING	L.S.	1	\$25,000.00	\$25,000.00	\$45,000.00	\$45,000.00	\$28,000.00	\$28,000.00
				\$3,346,560.00		\$3,377,777.00		\$3,410,297.70

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

Bid Open Date: 04/12/2012

WEKA, INC.

KEC ENGINEERING

**H & H GENERAL
CONTRACTORS, INC.**

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$100,000.00	\$100,000.00	\$100.00	\$100.00	\$135,000.00	\$135,000.00
2 WATER CONTROL	L.S.	1	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$8,625.00	\$8,625.00
3 TRAFFIC CONTROL	L.S.	1	\$19,944.00	\$19,944.00	\$47,000.00	\$47,000.00	\$39,500.00	\$39,500.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$25,000.00	\$25,000.00	\$290,000.00	\$290,000.00	\$79,300.00	\$79,300.00
5 EXCAVATION	C.Y.	31,539	\$5.00	\$157,695.00	\$7.00	\$220,773.00	\$11.00	\$346,929.00
6 ASPHALT CONCRETE EXCAVATION	S.F.	55,750	\$0.34	\$18,955.00	\$0.42	\$23,415.00	\$0.30	\$16,725.00
7 BACKFILL PREPARATION	C.Y.	5,000	\$20.00	\$100,000.00	\$1.10	\$5,500.00	\$20.20	\$101,000.00
8 BACKFILL	C.Y.	22,645	\$5.00	\$113,225.00	\$6.50	\$147,192.50	\$20.60	\$466,487.00
9 CONTROLLED LOW STRENGTH MATERIAL (CLSM) BACKFILL	C.Y.	20	\$85.00	\$1,700.00	\$106.00	\$2,120.00	\$138.00	\$2,760.00
10 FILTER MATERIAL	C.Y.	230	\$45.00	\$10,350.00	\$76.00	\$17,480.00	\$20.00	\$4,600.00
11 TRENCH SAFETY SYSTEM	L.S.	1	\$39,420.00	\$39,420.00	\$25,000.00	\$25,000.00	\$34,000.00	\$34,000.00
12 CLASS "A" CONCRETE, MINOR STRUCTURES	C.Y.	216	\$850.00	\$183,600.00	\$1,000.00	\$216,000.00	\$1,205.00	\$260,280.00
13 CLASS "B" CONCRETE, MISCELLANEOUS	C.Y.	124	\$575.00	\$71,300.00	\$640.00	\$79,360.00	\$617.00	\$76,508.00
14 TRANSITION STRUCTURE NO. 3	EACH	3	\$5,700.00	\$17,100.00	\$3,400.00	\$10,200.00	\$7,280.00	\$21,840.00
15 JUNCTION STRUCTURE NO. 2	EACH	8	\$1,700.00	\$13,600.00	\$1,600.00	\$12,800.00	\$1,667.00	\$13,336.00
16 MANHOLE NO. 2	EACH	13	\$7,700.00	\$100,100.00	\$6,000.00	\$78,000.00	\$4,800.00	\$62,400.00
17 MANHOLE NO. 4	EACH	4	\$8,000.00	\$32,000.00	\$7,000.00	\$28,000.00	\$6,038.00	\$24,152.00
18 66" RCP, 1750D	L.F.	2,011	\$320.00	\$643,520.00	\$254.00	\$510,794.00	\$193.00	\$388,123.00
19 54" RCP, 1750D	L.F.	1,743	\$263.00	\$458,409.00	\$190.00	\$331,170.00	\$168.00	\$292,824.00
20 48" RCP, 1750D	L.F.	1,367	\$205.00	\$280,235.00	\$155.00	\$211,885.00	\$161.00	\$220,087.00
21 36" RCP, 1750D	L.F.	1,932	\$165.00	\$318,780.00	\$113.00	\$218,316.00	\$113.00	\$218,316.00
22 30" RCP, 1750D	L.F.	65	\$200.00	\$13,000.00	\$110.00	\$7,150.00	\$150.00	\$9,750.00
23 24" RCP, CLASS IV	L.F.	66	\$160.00	\$10,560.00	\$77.00	\$5,082.00	\$127.00	\$8,382.00
24 18" RCP, CLASS IV	L.F.	700	\$150.00	\$105,000.00	\$77.00	\$53,900.00	\$230.00	\$161,000.00
25 AGGREGATE BASE, CLASS 2	C.Y.	1,055	\$45.00	\$47,475.00	\$180.00	\$189,900.00	\$65.00	\$68,575.00
26 ASPHALT CONCRETE TYPE "B"	TONS	4,094	\$100.00	\$409,400.00	\$107.00	\$438,058.00	\$100.00	\$409,400.00
27 TEMPORARY RESURFACING	TONS	410	\$110.00	\$45,100.00	\$170.00	\$69,700.00	\$115.00	\$47,150.00
28 PAVEMENT CRACK SEALING	S.F.	175,000	\$0.07	\$12,250.00	\$0.15	\$26,250.00	\$0.12	\$21,000.00
29 STRUCTURAL PAVEMENT REPLACEMENT	TONS	88	\$120.00	\$10,560.00	\$140.00	\$12,320.00	\$288.00	\$25,344.00

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

Bid Open Date: 04/12/2012

WEKA, INC.

KEC ENGINEERING

H & H GENERAL CONTRACTORS, INC.

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
30 MISCELLANEOUS IRON AND STEEL	LBS.	23,254	\$1.50	\$34,881.00	\$1.50	\$34,881.00	\$1.50	\$34,881.00
31 REMODEL 4-INCH VITRIFIED CLAY PIPE (VCP) HOUSE CONNECTION	L.F.	72	\$75.00	\$5,400.00	\$973.00	\$70,056.00	\$39.00	\$2,808.00
32 ADJUST MANHOLE TO GRADE	EACH	25	\$500.00	\$12,500.00	\$590.00	\$14,750.00	\$750.00	\$18,750.00
33 ADJUST VALVE TO GRADE	EACH	51	\$125.00	\$6,375.00	\$320.00	\$16,320.00	\$200.00	\$10,200.00
34 DUST ABATEMENT	L.S.	1	\$4,500.00	\$4,500.00	\$14,000.00	\$14,000.00	\$3,955.00	\$3,955.00
35 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$4,500.00	\$4,500.00	\$15,000.00	\$15,000.00	\$18,000.00	\$18,000.00
36 NON-STORMWATER DISCHARGE OR DEWATERING	L.S.	1	\$1,000.00	\$1,000.00	\$1,200.00	\$1,200.00	\$5,100.00	\$5,100.00
37 VERIZON RELOCATION COORDINATION	L.S.	1	\$1,000.00	\$1,000.00	\$2,500.00	\$2,500.00	\$3,200.00	\$3,200.00
38 CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR) CROSSING	L.S.	1	\$24,000.00	\$24,000.00	\$27,000.00	\$27,000.00	\$4,800.00	\$4,800.00
				\$3,457,434.00		\$3,478,172.50		\$3,665,087.00

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

Bid Open Date: 04/12/2012

Item No. & Description	Unit	Quantity	DOWNING CONSTRUCTION, INC.		C. P. CONSTRUCTION CO., INC.		NORSTAR PLUMBING AND ENGINEERING, INC.	
			Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$28,000.00	\$28,000.00	\$150,000.00	\$150,000.00	\$75,000.00	\$75,000.00
2 WATER CONTROL	L.S.	1	\$15,000.00	\$15,000.00	\$10,000.00	\$10,000.00	\$5,000.00	\$5,000.00
3 TRAFFIC CONTROL	L.S.	1	\$50,000.00	\$50,000.00	\$65,000.00	\$65,000.00	\$45,000.00	\$45,000.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$25,000.00	\$25,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
5 EXCAVATION	C.Y.	31,539	\$2.50	\$78,847.50	\$12.50	\$394,237.50	\$5.00	\$157,695.00
6 ASPHALT CONCRETE EXCAVATION	S.F.	55,750	\$0.64	\$35,680.00	\$1.75	\$97,562.50	\$1.25	\$69,687.50
7 BACKFILL PREPARATION	C.Y.	5,000	\$7.70	\$38,500.00	\$5.00	\$25,000.00	\$12.00	\$60,000.00
8 BACKFILL	C.Y.	22,645	\$3.00	\$67,935.00	\$27.00	\$611,415.00	\$12.00	\$271,740.00
9 CONTROLLED LOW STRENGTH MATERIAL (CLSM) BACKFILL	C.Y.	20	\$87.00	\$1,740.00	\$125.00	\$2,500.00	\$100.00	\$2,000.00
10 FILTER MATERIAL	C.Y.	230	\$26.00	\$5,980.00	\$50.00	\$11,500.00	\$55.00	\$12,650.00
11 TRENCH SAFETY SYSTEM	L.S.	1	\$40,000.00	\$40,000.00	\$35,000.00	\$35,000.00	\$150,000.00	\$150,000.00
12 CLASS "A" CONCRETE, MINOR STRUCTURES	C.Y.	216	\$825.00	\$178,200.00	\$950.00	\$205,200.00	\$813.00	\$175,608.00
13 CLASS "B" CONCRETE, MISCELLANEOUS	C.Y.	124	\$350.00	\$43,400.00	\$495.00	\$61,380.00	\$700.00	\$86,800.00
14 TRANSITION STRUCTURE NO. 3	EACH	3	\$5,000.00	\$15,000.00	\$5,000.00	\$15,000.00	\$5,000.00	\$15,000.00
15 JUNCTION STRUCTURE NO. 2	EACH	8	\$2,600.00	\$20,800.00	\$1,500.00	\$12,000.00	\$4,000.00	\$32,000.00
16 MANHOLE NO. 2	EACH	13	\$6,700.00	\$87,100.00	\$4,500.00	\$58,500.00	\$9,900.00	\$128,700.00
17 MANHOLE NO. 4	EACH	4	\$7,300.00	\$29,200.00	\$6,500.00	\$26,000.00	\$10,000.00	\$40,000.00
18 66" RCP, 1750D	L.F.	2,011	\$339.00	\$681,729.00	\$288.00	\$579,168.00	\$345.00	\$693,795.00
19 54" RCP, 1750D	L.F.	1,743	\$325.00	\$566,475.00	\$213.00	\$371,259.00	\$330.00	\$575,190.00
20 48" RCP, 1750D	L.F.	1,367	\$314.00	\$429,238.00	\$165.00	\$225,555.00	\$320.00	\$437,440.00
21 36" RCP, 1750D	L.F.	1,932	\$300.00	\$579,600.00	\$111.00	\$214,452.00	\$230.00	\$444,360.00
22 30" RCP, 1750D	L.F.	65	\$250.00	\$16,250.00	\$84.00	\$5,460.00	\$420.00	\$27,300.00
23 24" RCP, CLASS IV	L.F.	66	\$250.00	\$16,500.00	\$60.00	\$3,960.00	\$400.00	\$26,400.00
24 18" RCP, CLASS IV	L.F.	700	\$227.00	\$158,900.00	\$50.00	\$35,000.00	\$200.00	\$140,000.00
25 AGGREGATE BASE, CLASS 2	C.Y.	1,055	\$35.00	\$36,925.00	\$50.00	\$52,750.00	\$35.00	\$36,925.00
26 ASPHALT CONCRETE TYPE "B"	TONS	4,094	\$85.00	\$347,990.00	\$125.00	\$511,750.00	\$95.00	\$388,930.00
27 TEMPORARY RESURFACING	TONS	410	\$107.00	\$43,870.00	\$145.00	\$59,450.00	\$85.00	\$34,850.00
28 PAVEMENT CRACK SEALING	S.F.	175,000	\$0.08	\$14,000.00	\$0.33	\$57,750.00	\$0.12	\$21,000.00
29 STRUCTURAL PAVEMENT REPLACEMENT	TONS	88	\$122.00	\$10,736.00	\$150.00	\$13,200.00	\$145.00	\$12,760.00

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

Bid Open Date: 04/12/2012

**DOWNING
CONSTRUCTION, INC.**

**C. P. CONSTRUCTION CO.,
INC.**

**NORSTAR PLUMBING AND
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>
30 MISCELLANEOUS IRON AND STEEL	LBS.	23,254	\$1.25	\$29,067.50	\$2.00	\$46,508.00	\$1.70	\$39,531.80
31 REMODEL 4-INCH VITRIFIED CLAY PIPE (VCP) HOUSE CONNECTION	L.F.	72	\$64.00	\$4,608.00	\$85.00	\$6,120.00	\$450.00	\$32,400.00
32 ADJUST MANHOLE TO GRADE	EACH	25	\$475.00	\$11,875.00	\$450.00	\$11,250.00	\$800.00	\$20,000.00
33 ADJUST VALVE TO GRADE	EACH	51	\$300.00	\$15,300.00	\$250.00	\$12,750.00	\$150.00	\$7,650.00
34 DUST ABATEMENT	L.S.	1	\$7,500.00	\$7,500.00	\$15,000.00	\$15,000.00	\$10,000.00	\$10,000.00
35 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$11,000.00	\$11,000.00	\$25,000.00	\$25,000.00	\$40,000.00	\$40,000.00
36 NON-STORMWATER DISCHARGE OR DEWATERING	L.S.	1	\$30,000.00	\$30,000.00	\$1.00	\$1.00	\$15,000.00	\$15,000.00
37 VERIZON RELOCATION COORDINATION	L.S.	1	\$7,500.00	\$7,500.00	\$8,500.00	\$8,500.00	\$10,000.00	\$10,000.00
38 CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR) CROSSING	L.S.	1	\$10,000.00	\$10,000.00	\$45,000.00	\$45,000.00	\$25,000.00	\$25,000.00
				\$3,789,446.00	\$4,090,178.00		\$4,375,412.30	

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

Bid Open Date: 04/12/2012

ARB, INC.

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$121,350.00	\$121,350.00
2 WATER CONTROL	L.S.	1	\$4,000.00	\$4,000.00
3 TRAFFIC CONTROL	L.S.	1	\$185,000.00	\$185,000.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$35,000.00	\$35,000.00
5 EXCAVATION	C.Y.	31,539	\$41.00	\$1,293,099.00
6 ASPHALT CONCRETE EXCAVATION	S.F.	55,750	\$1.80	\$100,350.00
7 BACKFILL PREPARATION	C.Y.	5,000	\$9.25	\$46,250.00
8 BACKFILL	C.Y.	22,645	\$26.00	\$588,770.00
9 CONTROLLED LOW STRENGTH MATERIAL (CLSM) BACKFILL	C.Y.	20	\$107.00	\$2,140.00
10 FILTER MATERIAL	C.Y.	230	\$63.00	\$14,490.00
11 TRENCH SAFETY SYSTEM	L.S.	1	\$236,000.00	\$236,000.00
12 CLASS "A" CONCRETE, MINOR STRUCTURES	C.Y.	216	\$1,500.00	\$324,000.00
13 CLASS "B" CONCRETE, MISCELLANEOUS	C.Y.	124	\$500.00	\$62,000.00
14 TRANSITION STRUCTURE NO. 3	EACH	3	\$6,600.00	\$19,800.00
15 JUNCTION STRUCTURE NO. 2	EACH	8	\$4,300.00	\$34,400.00
16 MANHOLE NO. 2	EACH	13	\$11,000.00	\$143,000.00
17 MANHOLE NO. 4	EACH	4	\$13,500.00	\$54,000.00
18 66" RCP, 1750D	L.F.	2,011	\$258.00	\$518,838.00
19 54" RCP, 1750D	L.F.	1,743	\$230.00	\$400,890.00
20 48" RCP, 1750D	L.F.	1,367	\$180.00	\$246,060.00
21 36" RCP, 1750D	L.F.	1,932	\$100.00	\$193,200.00
22 30" RCP, 1750D	L.F.	65	\$100.00	\$6,500.00
23 24" RCP, CLASS IV	L.F.	66	\$95.00	\$6,270.00
24 18" RCP, CLASS IV	L.F.	700	\$74.00	\$51,800.00
25 AGGREGATE BASE, CLASS 2	C.Y.	1,055	\$39.00	\$41,145.00
26 ASPHALT CONCRETE TYPE "B"	TONS	4,094	\$63.00	\$257,922.00
27 TEMPORARY RESURFACING	TONS	410	\$106.00	\$43,460.00
28 PAVEMENT CRACK SEALING	S.F.	175,000	\$0.21	\$36,750.00
29 STRUCTURAL PAVEMENT REPLACEMENT	TONS	88	\$169.00	\$14,872.00

Project Name: CALIMESA - AVENUE L STORM DRAIN, STAGE 2

Project Number: 5-0-0165-02

Bid Open Date: 04/12/2012

ARB, INC.

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid
30 MISCELLANEOUS IRON AND STEEL	LBS.	23,254	\$1.50	\$34,881.00
31 REMODEL 4-INCH VITRIFIED CLAY PIPE (VCP) HOUSE CONNECTION	L.F.	72	\$56.00	\$4,032.00
32 ADJUST MANHOLE TO GRADE	EACH	25	\$667.00	\$16,675.00
33 ADJUST VALVE TO GRADE	EACH	51	\$366.00	\$18,666.00
34 DUST ABATEMENT	L.S.	1	\$64,500.00	\$64,500.00
35 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$16,500.00	\$16,500.00
36 NON-STORMWATER DISCHARGE OR DEWATERING	L.S.	1	\$3,200.00	\$3,200.00
37 VERIZON RELOCATION COORDINATION	L.S.	1	\$2,000.00	\$2,000.00
38 CALIFORNIA DEPARTMENT OF WATER RESOURCES (DWR) CROSSING	L.S.	1	\$36,000.00	\$36,000.00

\$5,277,810.00

**BOARD OF
SUPERVISORS**

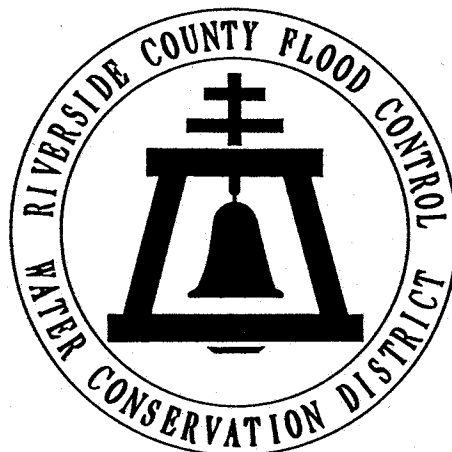
SPECIFICATIONS and CONTRACT DOCUMENTS

for the CONSTRUCTION of

**CALIMESA-AVENUE L
STORM DRAIN,
STAGE 2**

PROJECT NO. 5-0-0165

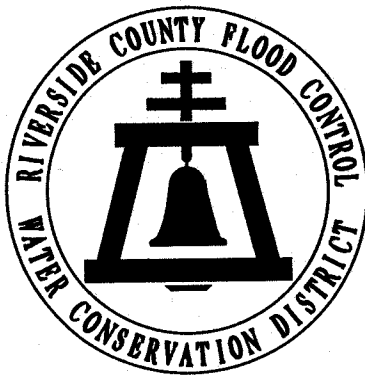
RIVERSIDE COUNTY, CALIFORNIA



FORM APPROVED COUNTY COUNSEL 2/16/12
BY *[Signature]* DATE
NEAL R. KIPNIS

JUN - 5 2012 11.6

MAR 13 2012 11.5 pss



SPECIFICATIONS and CONTRACT DOCUMENTS
for the CONSTRUCTION of

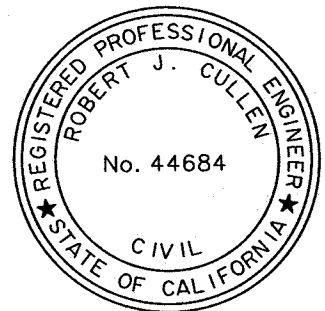
CALIMESA-AVENUE L
STORM DRAIN, STAGE 2

PROJECT NO. 5-0-0165

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

Recommended By:

[Signature] 7-Feb-2012
Design Engineer Date



Approved By:

[Signature] 2/7/12
Chief Engineer Date

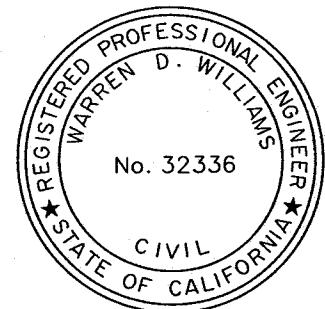


TABLE OF CONTENTS

<u>Title</u>	<u>Page</u>
Notice to Contractors	II-III
Instructions to Bidders	IV-VI
Contractor's Proposal	VII-VIII
List of Subcontractors	IX
Experience Statement	X
Statement of Licensure	XI
Affidavits	XII-XIV
Bid Bond	XV
Agreement	XVI-XVII
Exhibit	XVIII
Performance Bond	XIX
Payment Bond	XX

GENERAL PROVISIONS

Section I - Definition of Terms	1-2
Section II - Scope of Work	2-6
2.01 Work to be Done	
2.02 Construction Schedule	
2.03 Drawings and Specifications on the Work	
2.04 Estimate of Quantities	
2.05 Protests	
2.06 Alterations	
2.07 Extra Work	
2.08 Payment for Extra Work	
2.09 Rights of Way	
2.10 Cleaning Up	
Section III - Control of the Work	6-8
3.01 Authority of the Engineer	
3.02 Detail Drawings	
3.03 Conformity with Plans and Allowable Deviations	
3.04 Interpretations of Plans and Specifications	
3.05 Superintendence	
3.06 Lines and Grades	
3.07 Inspection of Work	
3.08 Removal of Defective and Unauthorized Work	
3.09 Equipment and Plant	
3.10 Final Inspection	
Section IV - Control of Material	8-10
4.01 District Furnished Materials	
4.02 Source of Supply and Quality of Materials	

TABLE OF CONTENTS - CONTD.

GENERAL PROVISIONS contd.

	<u>Page</u>
4.03 Samples and Tests	
4.04 Storage of Materials	
4.05 Defective Materials	
4.06 Assignment of Claim	
Section V - Legal Relations and Responsibility	10-16
5.01 Laws to be Observed	
5.02 Contractor's Responsibility	
5.03 Contractor's Responsibility for Work	
5.04 Property Rights in Materials	
5.05 Permits and Licenses	
5.06 Royalties and Patents	
5.07 Sanitary Provisions	
5.08 Public Safety	
5.09 Use of Explosives	
5.10 Provisions for Emergencies	
5.11 Unforeseen Difficulties	
5.12 Access to the Work	
5.13 Guarantee of Work	
5.14 Damages by Act of God	
Section VI -Prosecution and Progress	16-20
6.01 Progress of the Work	
6.02 Overtime Work and Work at Night	
6.03 Subcontracting	
6.04 Character of Workmen	
6.05 Temporary Suspension of the Work	
6.06 Time of Completion and Damages	
6.07 Delays and Extension of Time	
6.08 Assignment	
6.09 Termination of Contract	
Section VII -Payment	20-28
7.01 Scope of Payments	
7.01A Measurement and Computation of Quantities	
7.01B Payment at Contract Prices	
7.02 Payment and Compensation for Altered Quantities	
7.03 Force Account Payment	
7.04 Acceptance	
7.05 Deductions from Payments	
7.06 Partial Payments	
7.07 Delayed Payments	

TABLE OF CONTENTS - CONTD.

GENERAL PROVISIONS contd.

	<u>Page</u>
7.08 Final Payment	
7.09 Claims Resolution	
Section VIII - General	29-32
8.01 Cooperation Between Contractors	
8.02 Insurance - Hold Harmless	
8.03 Public Utilities	
8.04 Protection of Existing Street Facilities	
8.05 Diversion and Control of Water	
8.06 Dust Abatement	
8.07 Project Signs	
8.08 Examination of Plans, Specifications, Contract, and Site of Work	
Section IX - Watering	33
9.01 Description	
Section X - Public Convenience, Traffic Control and Detours	33-34
10.01 General	
10.02 Signs	
10.03 Materials Storage	
<u>SPECIAL PROVISIONS</u>	
Section 1 - General	35
1.1 Drawings and Specifications	
Section 2 - Time of Completion, Damages and Legal Holidays	36
2.1 General	
2.2 Damages	
2.3 Legal Holidays	
Section 3 - Force Account Payment	36
3.1 Labor Surcharge	
3.2 Equipment Rental	
Section 4 - Protection of Existing Utilities	36-37
4.1 General	
4.2 Cooperation with Utilities Relocated by Others	
Section 5 - Project Site Maintenance	37

TABLE OF CONTENTS - CONTD.

SPECIAL PROVISIONS contd.

	<u>Page</u>
Section 6 - Special Requirements	37-42
6.1 National Pollutant Discharge Elimination System (NPDES)	
6.2 Sanitation	
6.3 Confined Space Compliance	
6.4 Encroachment Permits	
6.5 Toxic Material Disposal	
6.6 Survey Crew	
6.7 Survey Monuments	
6.8 Job Trailer Site	
6.9 Construction Tolerances	
6.10 Surplus Excavated Material	
6.11 Sewer Line Inspection	
6.12 Pipe Order Notification	
6.13 Project Signs	
6.14 Liability Insurance	
6.15 Phasing of Work	

Section 7 - Soils Report	42
--------------------------	----

Section 8 - Not Used	42
----------------------	----

Section 9 - Payment	42
---------------------	----

DETAILED SPECIFICATIONS

Section 10 - Mobilization	43
10.1 Description	
10.2 Payment	

Section 11 - Water Control	43-44
11.1 Description	
11.2 Water Control	
11.3 Measurement and Payment	

Section 12 - Traffic Control	44-46
12.1 Description	
12.2 Notification of Agencies	
12.3 Public Convenience and Access	
12.4 Construction Signs and Traffic Control Plans	
12.5 Flaggers	
12.6 Striping and Pavement Marking	
12.7 Payment	

TABLE OF CONTENTS - CONTD.

DETAILED SPECIFICATIONS contd.

	<u>Page</u>
Section 13 - Clearing and Miscellaneous Work	46-47
13.1 Description	
13.2 Clearing and Miscellaneous Work	
13.3 Payment	
Section 14 - Earthwork	47-53
14.1 Description	
14.2 General Excavation Requirements	
14.3 Excavation	
14.4 Asphalt Concrete Excavation	
14.5 General Backfill Requirements	
14.6 Testing	
14.7 Backfill Preparation	
14.8 Backfill	
14.9 Controlled Low Strength Material (CLSM) Backfill	
14.10 Filter Material	
14.11 Measurement	
14.12 Payment	
Section 15 - Trench Safety System	53-54
15.1 Description	
15.2 Trench Safety System	
15.3 Measurement and Payment	
Section 16 - Concrete Construction	54-59
16.1 Description	
16.2 General Requirements	
16.3 Material and Methods	
16.4 General Reinforcing Steel Requirements	
16.5 Consistency	
16.6 Placing	
16.7 Form Removal and Finish	
16.8 Curing	
16.9 Joints	
16.10 Class "A" Concrete, Minor Structures	
16.11 Class "B" Concrete, Miscellaneous	
16.12 Transition Structures	
16.13 Junction Structure No. 2	
16.14 Manholes	
16.15 Measurement	
16.16 Payment	

TABLE OF CONTENTS - CONTD.

DETAILED SPECIFICATIONS contd.

	<u>Page</u>
Section 17 - Concrete Pipe	59-60
17.1 Description	
17.2 General Pipe Requirements	
17.3 Reinforced Concrete Pipe	
17.4 Pipe on Curves	
17.5 Video Inspection	
17.6 Measurement	
17.7 Payment	
Section 18 - Not Used	60
Section 19 - Asphalt Concrete Construction	60-65
19.1 Description	
19.2 General Asphalt Concrete Construction Requirements	
19.3 Aggregate Base, Class 2	
19.4 Asphalt Concrete, Type "B"	
19.5 Temporary Resurfacing	
19.6 Pavement Crack Sealing	
19.7 Structural Pavement Replacement	
19.8 Measurement	
19.9 Payment	
Section 20 - Not Used	65
Section 21 - Miscellaneous	65-66
21.1 Description	
21.2 Miscellaneous Iron and Steel	
21.3 Remodel 4-Inch Vitrified Clay Pipe (VCP) House Connection	
21.4 Adjust Manhole to Grade	
21.5 Adjust Valve to Grade	
21.6 Measurement	
21.7 Payment	
Section 22 through Section 26 - Not Used	67
Section 27 - Dust Abatement	67
27.1 Description	
27.2 Dust Abatement	
27.3 Payment	
Section 28 - Not Used	67

TABLE OF CONTENTS - CONTD.

DETAILED SPECIFICATIONS

	<u>Page</u>
Section 29 - Stormwater and Non-Stormwater Pollution Control	67-81
29.1 Description	
29.2 General Requirements	
29.3 PRDs Preparation and Approval	
29.4 PRD and Rain Event Action Plan (REAP) Amendments	
29.5 Non-Compliance Reporting	
29.6 SWPPP Implementation	
29.7 REAP	
29.8 Water Quality Monitoring, Sampling and Analysis	
29.9 NAL Exceedance Report	
29.10 Non-Stormwater Discharge or Dewatering	
29.11 Reports	
29.12 Payment	
Section 30 - Not Used	81
Section 31 - Utilities	81-82
31.1 Description	
31.2 Verizon Relocation Coordination	
31.3 California Department of Water Resources (DWR) Crossing	
31.4 Measurement and Payment	
Section 32 - Not Used	82
Section 33 - Environmental Regulatory	82-83
33.1 Description	
33.2 Heavy Equipment Working Hours	
33.3 Accidental Cultural Resource and Hazardous Materials Discovery	
Appendix "A" - South Coast Air Quality Management District Rule 403	84
Appendix "B" - Project Signs	85
Appendix "C" - Log of Soil Borings	86
Drawing No. 5-217	Sheets 1 through 46

NOTICE TO CONTRACTORS

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

Calimesa – Avenue L Storm Drain, Stage 2

Project No. 5-0-00165-02

located in the city of Calimesa,

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 **11:00 a.m. on Thursday, April 12, 2012** 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 13, 2012

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): LEATHERWOOD CONSTRUCTION, INC.

MICHAEL LEATHERWOOD - PRESIDENT/TREASURER

BOBBY KAWAI - VICE PRESIDENT/SECRETARY

(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 AMOUNT Dollars (\$ 10%)

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.

- VII -

RECEIVED
APR 12 2012
10:51am
RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT

PROPOSAL

For the Construction of **Calimesa - Avenue L Storm Drain, Stage 2**, located in the city of Calimesa, Riverside County, consisting of the following estimated quantities:

SECT. NO.	ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
10	1.	Mobilization	L.S.	---	---	\$ 50,000 ✓
11	2.	Water Control	L.S.	---	---	\$ 1,500 -
12	3.	Traffic Control	L.S.	---	---	\$ 10,000 -
13	4.	Clearing and Miscellaneous Work	L.S.	---	---	\$ 33,000 -
14	5.	Excavation	C.Y.	31,539	\$ 10. -	\$ 315,390 -
14	6.	Asphalt Concrete Excavation	S.F.	55,750	\$ 1.50	\$ 83,625 -
14	7.	Backfill Preparation	C.Y.	5,000	.05 +	\$ 250 -
14	8.	Backfill	C.Y.	22,645	\$ 9. -	\$ 203,805. -
14	9.	Controlled Low Strength Material (CLSM) Backfill	C.Y.	20	\$ 77 -	\$ 1,540 -
14	10.	Filter Material	C.Y.	230	\$ 35 -	\$ 8,050 -
15	11.	Trench Safety System	L.S.	---	---	\$ 16,000 -
16	12.	Class "A" Concrete, Minor Structures	C.Y.	216	\$ 1,150 -	\$ 248,400 -
16	13.	Class "B" Concrete, Miscellaneous	C.Y.	124	\$ 740 -	\$ 91,760 -
16	14.	Transition Structure No. 3	EACH	3	\$ 4,300 -	\$ 12,900 -
16	15.	Junction Structure No. 2	EACH	8	\$ 3,900 -	\$ 31,200 -
16	16.	Manhole No. 2	EACH	13	\$ 6,100 -	\$ 79,300 -
16	17.	Manhole No. 4	EACH	4	\$ 7,700 -	\$ 30,800 -
17	18.	66" RCP, 1750D	L.F.	2,011	\$ 200 -	\$ 402,200 -
17	19.	54" RCP, 1750D	L.F.	1,743	\$ 160 -	\$ 278,880 -
17	20.	48" RCP, 1750D	L.F.	1,367	\$ 130 -	\$ 177,710 -
17	21.	36" RCP, 1750D	L.F.	1,932	\$ 95 -	\$ 183,540 -
17	22.	30" RCP, 1750D	L.F.	65	\$ 90 -	\$ 5,850 -
17	23.	24" RCP, Class IV	L.F.	66	\$ 80 -	\$ 5,280 -

PROPOSAL contd.

SECT. NO.	ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
17	24.	18" RCP, Class IV	L.F.	700	#70-	#49,000-
19	25.	Aggregate Base, Class 2	C.Y.	1,055	#85-	#89,675-
19	26.	Asphalt Concrete Type "B"	TONS	4,094	#123.-	#503,562.-
19	27.	Temporary Resurfacing	TONS	410	#80-	#32,800-
19	28.	Pavement Crack Sealing	S.F.	175,000	.094	#15,750.-
19	29.	Structural Pavement Replacement	TONS	88	#140-	#12,320-
21	30.	Miscellaneous Iron and Steel	LBS.	23,254	#2-	#46,508-
21	31.	Remodel 4-Inch Vitrified Clay Pipe (VCP) House Connection	L.F.	72	#80-	#5,760-
21	32.	Adjust Manhole to Grade	EACH	25	#500-	#12,500-
21	33.	Adjust Valve to Grade	EACH	51	#350-	#17,850-
27	34.	Dust Abatement	L.S.	---	---	#2,000-
29	35.	Stormwater and Non-Stormwater Pollution Control	L.S.	---	---	#10,000-
29	36.	Non-Stormwater Discharge or Dewatering	L.S.	---	---	#2,000-
31	37.	Verizon Relocation Coordination	L.S.	---	---	#2,500-
31	38.	California Department of Water Resources (DWR) Crossing	L.S.	---	---	#44,500-

TOTAL 3,117,705.00

LEATHERWOOD CONSTRUCTION, INC.

Name of Company

17050 BUSHARD ST. SUITE 213

Address

FOUNTAIN VALLEY, CA., 92708

City, State, Zip

714-593-6575

Telephone Number

714-593-6576

Fax Number

Robby Kawan
Signature of Contractor

33-0838923

S.S.N. or E.I.N.

760851

Contractor's License No. and Classification

LIST OF SUBCONTRACTORS

Contractor LEATHERWOOD CONSTRUCTION, INC. Calimesa - Avenue L Storm Drain, Stage 2
Project No. 5-0-00165-02

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) 26 (PORTION)

Name of Subcontractor All American Asphalt

Address/City/Phone 400 E. 6th St. Corona, CA 92878 951-736-7625

License No. 267073-A

Item No. (s) ~~12, 13, 14, 15, 16, 17, 30, 38~~ (PORTION)

Name of Subcontractor ~~Concrete Structures, Inc.~~

Address/City/Phone ~~15455 Tenth St. Chino Hills, CA 91702~~ ^{(909) 393-1443}

License No. ~~611999~~

Item No. (s) 28

Name of Subcontractor Rubberized Crackfiller Sealant, Inc.

Address/City/Phone 800 E. Walnut Ave. Fullerton, CA 92831 (714) 843-5112

License No. 484758 C-32

Item No. (s) ~~12, 13, 14, 15, 16, 17, 30, 38~~ (PORTION)

Name of Subcontractor ~~Concrete Structures, Inc.~~ O'DUFFY

Address/City/Phone 24034 GUNTER RD ROMOLAND 92505 951

License No. 647025

Item No. (s) _____

Name of Subcontractor _____

Address/City/Phone _____

License No. _____

EXPERIENCE STATEMENT

Bidder submits, as part of his bid, the following statements as to his experience qualifications. Bidder certifies that all statements and information set forth below are true and accurate. Bidder hereby authorizes the District to make inquiry as appropriate regarding his experience.

Bidder has been engaged in the contracting business under this present business name for 13 years.

Bidder's experience in work of a nature similar in type and magnitude to that set forth in the Specification extends over a period of 16 years.

Within the last three years, Bidder has satisfactorily completed the following contracts covering work similar in type and magnitude to that set forth in these Specifications for the following owners (name person, firms, or authorities):

Name and Address of Owner/Agency	Representative and Telephone	Type of Work, Year Completed and Dollar Amount
Irvine Community Dev. Co., LLC. 550 Newport Center Dr.	Bill Martin 949-551-2300	8773' - 18" thru 96" RCP, 6427' - 8" & 10" Sewer, 2795 LF - 8" & 10" DWL, 374 LF - 4" RWL
Newport Beach, CA., 92658		JUNE 2010 \$6,331,406
Irvine Community Dev Co., LLC. 550 Newport Center Dr.	Bill Martin 949-551-2300	5680' - 36" CMLC Domestic Waterline, 270' - 20" CMLC Reclaimed Waterline 3550' - 16" CMLC Reclaimed Waterline, 7056 LF - 18" thru 72" RCP, 5322 LF
Newport Beach, CA., 92658		8" & 10" SEWER SEPTEMBER 2010 \$7,400,853
Irvine Community Dev. Co., LLC. 550 Newport Center Dr.	Bill Martin 949-551-2300	5285 LF of 36" CMLC Domestic Waterline, 5220' of 20" & 16" Reclaimed Waterline, 2911 LF of 8" PVC Sewer, 4800 LF of RCP, 2057 LF of Lateral
Newport Beach, CA., 92658		pipe Ranging from 60" to 18" RCP, 78" to 36" Catch Basins & Transition Structures, Extensive Traffic Control and Paving
		JUNE 2010 \$6,829,937

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. 760851; 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 9, 2012

Bobby Kawai
 Signature BOBBY KAWAI
VICE PRESIDENT/SECRETARY
 Title

STATE OF CALIFORNIA) §
 COUNTY OF ~~RIVERSIDE~~)
 Orange

On this the 9th day of APRIL, 2012, before me

MARIA J. CASTELLANOS, NOTARY PUBLIC

the undersigned Notary Public, personally appeared

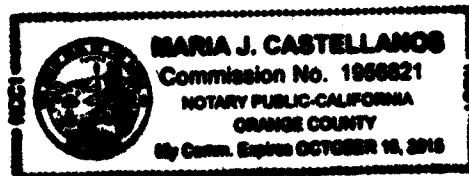
BOBBY KAWAI

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.

Maria J. Castellanos
 Notary's Signature





State Of California
CONTRACTORS STATE LICENSE BOARD
ACTIVE LICENSE



License Number **760851**

Entity **CORP**

Business Name **LEATHERWOOD CONSTRUCTION INC**

Classification(s) **A**

Expiration Date **03/31/2013**

www.cslb.ca.gov



Department of Consumer Affairs
Contractors State License Board

Contractor's License Detail - License # 760851

DISCLAIMER: A license status check provides information taken from the CSLB license database. Before relying on this information, you should be aware of the following limitations.

- CSLB complaint disclosure is restricted by law ([B&P 7124.6](#)) If this entity is subject to public complaint disclosure, a link for complaint disclosure will appear below. Click on the link or button to obtain complaint and/or legal action information.
- Per [B&P 7071.17](#) , only construction related civil judgments reported to the CSLB are disclosed.
- Arbitrations are not listed unless the contractor fails to comply with the terms of the arbitration.
- Due to workload, there may be relevant information that has not yet been entered onto the Board's license database.

License Number	760851	Extract Date	4/9/2012
Business Information	LEATHERWOOD CONSTRUCTION INC 17050 BUSHARD STREET #213 FOUNTAIN VALLEY, CA 92708		
Entity	Business Phone Number:(714) 593-6575 Corporation		
Issue Date	03/26/1999		
Expire Date	03/31/2013		
License Status	ACTIVE This license is current and active. All information below should be reviewed.		
Classifications	CLASS	DESCRIPTION	
	A	<u>GENERAL ENGINEERING CONTRACTOR</u>	
Bonding	CONTRACTOR'S BOND This license filed Contractor's Bond number 14546697 in the amount of \$12,500 with the bonding company <u>WESTERN SURETY COMPANY.</u> Effective Date: 01/01/2007 Contractor's Bonding History		
	BOND OF QUALIFYING INDIVIDUAL 1. The Responsible Managing Officer (RMO) LEATHERWOOD MICHAEL HARLEY certified that he/she owns 10 percent or more of the voting stock/equity of the corporation. A bond of qualifying individual is not required. Effective Date: 03/26/1999 BQI's Bonding History		
Workers' Compensation	This license has workers compensation insurance with the <u>STATE COMPENSATION INSURANCE FUND</u> Policy Number: 1966163 Effective Date: 02/08/2011 Expire Date: 02/08/2013 Workers' Compensation History		

Personnel listed on this license (current or disassociated) are listed on other licenses.

Personnel List	Other Licenses
----------------	----------------

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~~)
 ORANGE

BOBBY KAWAI, being first duly sworn, deposes and says:

That he ~~or she~~ is Vice President
of Leatherwood Construction, 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.

Bobby Kawai
His or Her signature

Subscribed and sworn to before me this _____ day of _____, 20_____.

Signature and stamp of Notary administering oath

Jurat

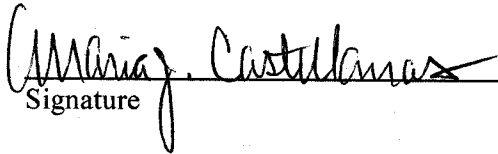
State of California

County of ORANGE

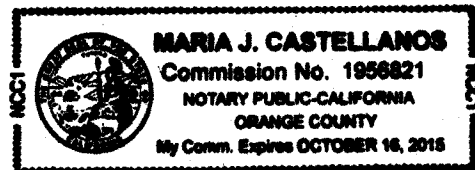
Subscribed and sworn to (or affirmed) before me on this 10TH day of APRIL,

20 12 by BOBBY KAWAI,

proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.


Signature

(Notary seal)



OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

Affidavit for Corporate Contractor

(Title or description of attached document)

Riverside Co. Flood Control - Calimesa

(Title or description of attached document continued)

Number of Pages 1 Document Date 4/10/2012

(Additional information)

Example of an oath or affirmation to be asked by the notary prior to signing: "Do you swear or affirm that the statements made in the attached document are true to the best of your knowledge?" (The affiant must reply affirmatively.)

INSTRUCTIONS FOR COMPLETING THIS FORM

The wording of all Jurats completed in California after January 1, 2008 must be in the form as set forth within this Jurat. There are no exceptions. If a Jurat to be completed does not follow this form, the notary must correct the verbiage by using a jurat stamp containing the correct wording or attaching a separate jurat form such as this one which does contain proper wording. In addition, the notary must require an oath or affirmation from the document signer regarding the truthfulness of the contents of the document. The document must be signed AFTER the oath or affirmation. If the document was previously signed, it must be re-signed in front of the notary public during the jurat process.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the jurat process is completed.
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Signature of the notary public must match the signature on file with the office of the county clerk.
- 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 jurat form.
 - ❖ Additional information is not required but could help to ensure this jurat is not misused or attached to a different document.
 - ❖ Indicate title or type of attached document, number of pages and date.
- Securely attach this document to the signed document

BID BOND

Recitals:

1. Leatherwood Construction, 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 Calimesa - Avenue L Storm Drain, Stage 2 in accordance with a Notice to Contractors dated March 13, 2012.

2. Travelers Casualty and Surety Company of America a Connecticut 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 5, 2012

Travelers Casualty and Surety Company of America

Leatherwood Construction, Inc.

By 

By 

Julia B. Gladding
(Printed Name)

BOBBY KAWAI
(Printed Name)

Title Attorney-In-Fact
(Surety)

Title VICE PRESIDENT/SECRETARY
(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 APRIL 10, 2012 before me, MARIA J. CASTELLANOS, NOTARY PUBLIC
(Here insert name and title of the officer)

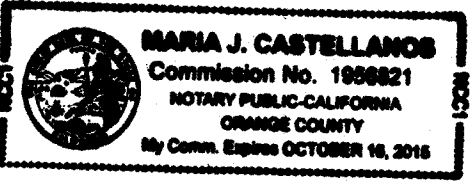
personally appeared BOBBY KAWAI

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.

Maria J. Castellanos
Signature of Notary Public



(Notary Seal)

ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

BID BOND - RIVERISDE CO. FLOOD
(Title or description of attached document)

CONTROL - CALIMESA - AVE. L SD
(Title or description of attached document continued)

Number of Pages 1 Document Date 4/5/2012

(Additional information)

CAPACITY CLAIMED BY THE SIGNER

Individual (s)

Corporate Officer
VICE PRESIDENT
(Title)

Partner(s)

Attorney-in-Fact

Trustee(s)

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



POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 219106

Certificate No. 003967781

KNOW ALL MEN BY THESE PRESENTS: That St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company and St. Paul Mercury Insurance Company are corporations duly organized under the laws of the State of Minnesota, that Farmington Casualty Company, Travelers Casualty and Surety Company, and Travelers Casualty and Surety Company of America are corporations duly organized under the laws of the State of Connecticut, that United States Fidelity and Guaranty Company is a corporation duly organized under the laws of the State of Maryland, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Kenneth A. Coate, and Julia B. Gladding

of the City of Riverside, State of California, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 10th day of November, 2010.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: [Signature]
George W. Thompson, Senior Vice President

On this the 10th day of November, 2010, before me personally appeared George W. Thompson, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2011.



[Signature]
Marie C. Tetreault, Notary Public

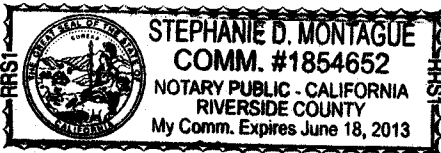
CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Riverside

On APR 05 2012 before me, Stephanie D. Montague, Notary Public
Date Here Insert Name and Title of the Officer

personally appeared Julia B. Gladding
Name(s) of Signer(s)



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 [Handwritten Signature]
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

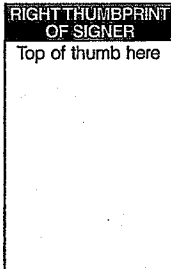
Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Julia B. Gladding

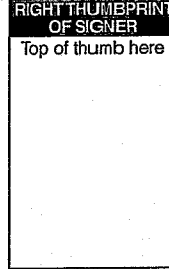
- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing: _____

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing: _____

AGREEMENT

THIS AGREEMENT is made as of June 5, 2012 and is between RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT (District) and LEATHERWOOD CONSTRUCTION, 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. 5-0-00165-02, Calimesa – Avenue L Storm Drain, 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. 5-0-00165-02, Calimesa – Avenue L Storm Drain, 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 *Marian Aslee*
Chairman of its Board of Supervisors

ATTEST:

KECIA HARPER-IHEM
Clerk of the Board

By *[Signature]*
Deputy

(Seal)

FOR APPROVED COUNTY COUNSEL
BY: *[Signature]*
NEAL R. KIPNIS DATE 5/24/12

LEATHERWOOD CONSTRUCTION, INC
Contractor

By *Bobby Kawai*

Title VICE PRESIDENT

(If corporation affix corporate seal)

EXHIBIT A

(To Agreement for Riverside County Flood Control and Water Conservation District's Project No. 5-0-00165-02, Calimesa – Avenue L Storm Drain, Stage 2, located in the city of Calimesa, 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.	---	---	\$50,000.00
2.	Water Control	L.S.	---	---	1,500.00
3.	Traffic Control	L.S.	---	---	10,000.00
4.	Clearing and Miscellaneous Work	L.S.	---	---	33,000.00
5.	Excavation	C.Y.	31,539	\$10.00	315,390.00
6.	Asphalt Concrete Excavation	S.F.	55,750	\$1.50	83,625.00
7.	Backfill Preparation	C.Y.	5,000	\$0.05	250.00
8.	Backfill	C.Y.	22,645	\$9.00	203,805.00
9.	Controlled Low Strength Material (CLSM) Backfill	C.Y.	20	\$77.00	1,540.00
10.	Filter Material	C.Y.	230	\$35.00	8,050.00
11.	Trench Safety System	L.S.	---	---	16,000.00
12.	Class "A" Concrete, Minor Structures	C.Y.	216	\$1,150.00	248,400.00
13.	Class "B" Concrete, Miscellaneous	C.Y.	124	\$740.00	91,760.00
14.	Transition Structure No. 3	EACH	3	\$4,300.00	12,900.00
15.	Junction Structure No. 2	EACH	8	\$3,900.00	31,200.00
16.	Manhole No. 2	EACH	13	\$6,100.00	79,300.00

EXHIBIT contd.

ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
17.	Manhole No. 4	EACH	4	\$7,700.00	30,800.00
18.	66" RCP, 1750D	L.F.	2,011	\$200.00	402,200.00
19.	54" RCP, 1750D	L.F.	1,743	\$160.00	278,880.00
20.	48" RCP, 1750D	L.F.	1,367	\$130.00	177,710.00
21.	36" RCP, 1750D	L.F.	1,932	\$95.00	183,540.00
22.	30" RCP, 1750D	L.F.	65	\$90.00	5,850.00
23.	24" RCP, Class IV	L.F.	66	\$80.00	5,280.00
24.	18" RCP, Class IV	L.F.	700	\$70.00	49,000.00
25.	Aggregate Base, Class 2	C.Y.	1,055	\$85.00	89,675.00
26.	Asphalt Concrete Type "B"	TONS	4,094	\$123.00	503,562.00
27.	Temporary Resurfacing	TONS	410	\$80.00	32,800.00
28.	Pavement Crack Sealing	S.F.	175,000	\$0.09	15,750.00
29.	Structural Pavement Replacement	TONS	88	\$140.00	12,320.00
30.	Miscellaneous Iron and Steel	LBS.	23,254	\$2.00	46,508.00
31.	Remodel 4-Inch Vitrified Clay Pipe (VCP) House Connection	L.F.	72	\$80.00	5,760.00
32.	Adjust Manhole to Grade	EACH	25	\$500.00	12,500.00
33.	Adjust Valve to Grade	EACH	51	\$350.00	17,850.00
34.	Dust Abatement	L.S.	---	---	2,000.00
35.	Stormwater and Non-Stormwater Pollution Control	L.S.	---	---	10,000.00
36.	Non-Stormwater Discharge or Dewatering	L.S.	---	---	2,000.00
37.	Verizon Relocation Coordination	L.S.	---	---	2,500.00
38.	California Department of Water Resources (DWR) Crossing	L.S.	---	---	44,500.00
				TOTAL	\$3,117,705.00

PERFORMANCE BOND

Recitals: **ORIGINAL**

THE PREMIUM IS PREDICATED ON
THE FINAL CONTRACT PRICE AND
IS SUBJECT TO ADJUSTMENT

1. Leatherwood Construction, Inc. (Contractor) has entered into an Agreement dated June 8, 2012 with the Riverside County Flood Control and Water Conservation District (District) for construction of public work known as **Project No. 5-0-00165-02, Calimesa - Avenue L Storm Drain, Stage 2.**

2. Travelers Casualty and Surety Company of America, a Connecticut 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 \$ (1) and inures to the benefit of District. (1) Three Million One Hundred Seventeen Thousand Seven Hundred Five and 00/100 (\$3,117,705.00)

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 May 3, 2012

Leatherwood Construction, Inc.

Travelers Casualty and Surety Company of America

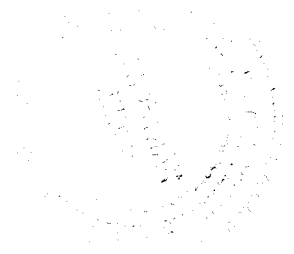
By Bobby Kawai
Bobby Kawai, Vice President/Secretary

By Julia B. Gladding
Type Name Julia B. Gladding

Its Attorney in Fact (Surety)

Title _____
(Contractor)

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



ACKNOWLEDGMENT

State of California
County of ORANGE)

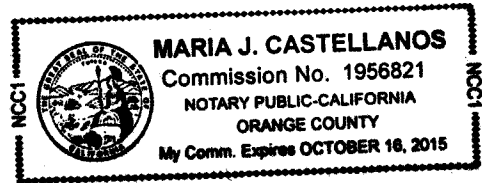
On 5/8/2012 before me, MARIA J. CASTELLANOS, NOTARY PUBLIC
(insert name and title of the officer)

personally appeared BOBBY KAWAI,
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 Maria J. Castellanos (Seal)



WARRIOR
My Down Expires OCTOBER 10 2019
10/10



POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

ISSUED IN FOUR ORIGINAL COUNTERPARTS
COUNTERPART NO. 1 OF 4

BOND NO. 105732341

Attorney-In Fact No. 219106

Certificate No. 003967816

KNOW ALL MEN BY THESE PRESENTS: That St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company and St. Paul Mercury Insurance Company are corporations duly organized under the laws of the State of Minnesota, that Farmington Casualty Company, Travelers Casualty and Surety Company, and Travelers Casualty and Surety Company of America are corporations duly organized under the laws of the State of Connecticut, that United States Fidelity and Guaranty Company is a corporation duly organized under the laws of the State of Maryland, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Kenneth A. Coate, and Julia B. Gladding

of the City of Riverside, State of California, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 10th day of November, 2010.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: [Signature]
George W. Thompson, Senior Vice President

On this the 10th day of November, 2010, before me personally appeared George W. Thompson, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2011.



[Signature]
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kori M. Johanson, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this _____ day of MAY 08 2012, 20____

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

Kori M. Johanson
Kori M. Johanson, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Riverside

On MAY 08 2012

Date

before me,

Stephanie D. Montague, Notary Public

Here Insert Name and Title of the Officer

personally appeared Julia B. Gladding

Name(s) of Signer(s)



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

Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

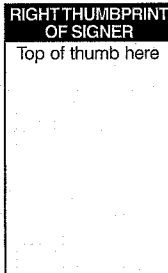
Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Julia B. Gladding

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

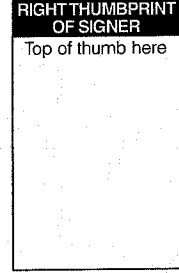
Signer Is Representing: _____

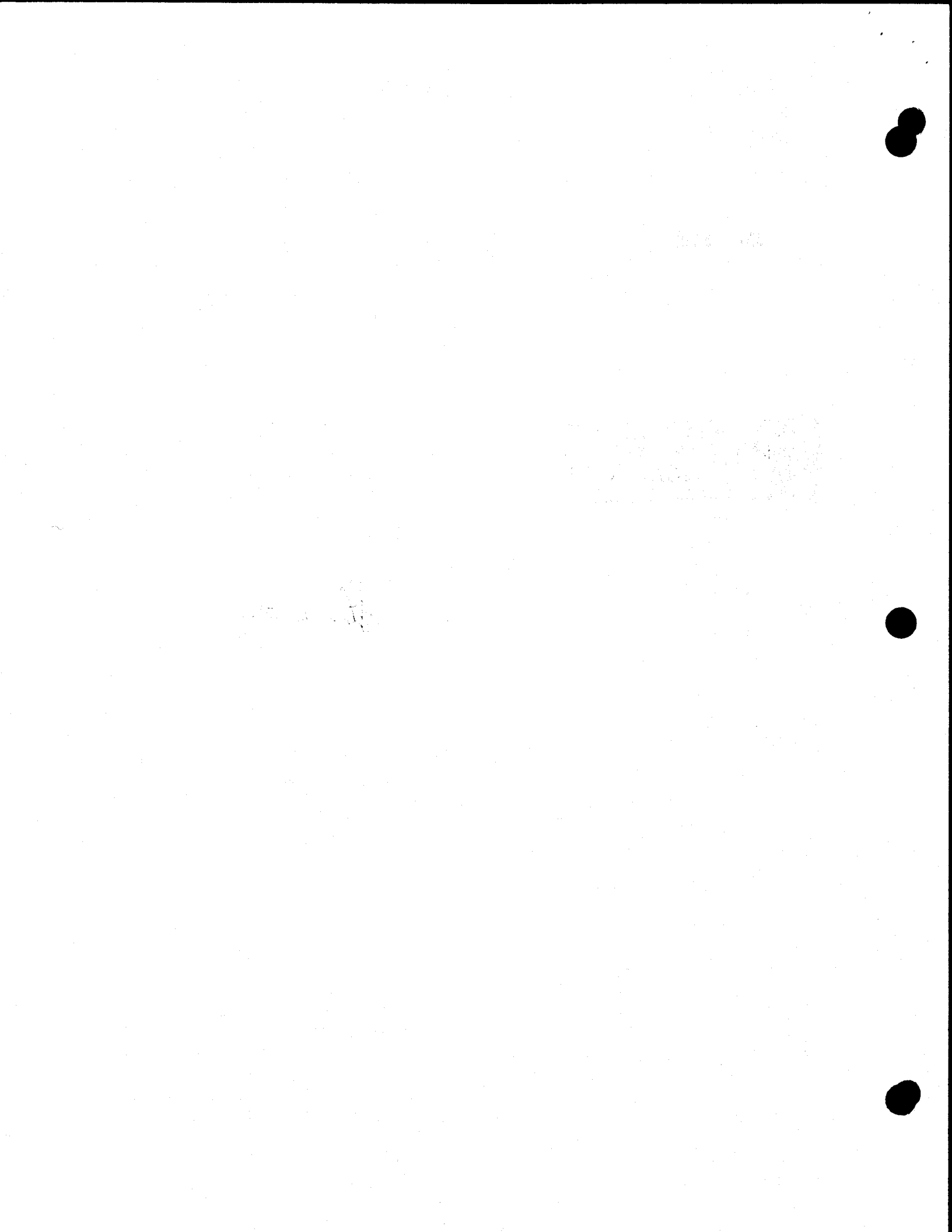


Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

Signer Is Representing: _____





PAYMENT BOND

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

THE PREMIUM IS PREDICATED ON
THE FINAL CONTRACT PRICE AND
IS SUBJECT TO ADJUSTMENT

The makers of this Bond are Leatherwood Construction, Inc. as Principal and Original Contractor and Travelers Casualty and Surety 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 June 8, 2012, between Principal and Riverside County Flood Control and Water Conservation District (District), a public entity, as Owner, for \$ (1), 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 Calimesa - Avenue L Storm Drain, 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. (1) Three Million One Hundred Seventeen Thousand Seven Hundred Five and 00/100 (\$3,117,705.00)

DATED: May 3, 2012

Leatherwood Construction, Inc.

Original Contractor - Principal

Travelers Casualty and Surety Company of America

Surety

By Bobby Kawai
Bobby Kawai

By [Signature]
Its Attorney in Fact Julia B. Gladding

Title Vice President/Secretary
(If corporation, affix seal)

(Corporate Seal)

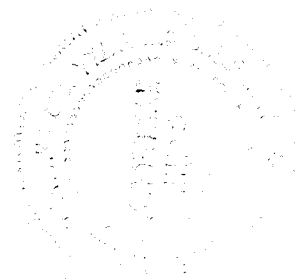
STATE OF CALIFORNIA §
COUNTY OF _____)

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)





POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

ISSUED IN FOUR ORIGINAL COUNTERPARTS
COUNTERPART NO. 1 OF 4

BOND NO. 105732341

Attorney-In Fact No. 219106

Certificate No. 003967817

KNOW ALL MEN BY THESE PRESENTS: That St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company and St. Paul Mercury Insurance Company are corporations duly organized under the laws of the State of Minnesota, that Farmington Casualty Company, Travelers Casualty and Surety Company, and Travelers Casualty and Surety Company of America are corporations duly organized under the laws of the State of Connecticut, that United States Fidelity and Guaranty Company is a corporation duly organized under the laws of the State of Maryland, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Kenneth A. Coate, and Julia B. Gladding

of the City of Riverside, State of California, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 10th day of November, 2010.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company

St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company



State of Connecticut
City of Hartford ss.

By: [Signature]
George W. Thompson, Senior Vice President

On this the 10th day of November, 2010, before me personally appeared George W. Thompson, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2011.



[Signature]
Marie C. Tetreault, Notary Public

This Power of Attorney is granted under and by the authority of the following resolutions adopted by the Boards of Directors of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, which resolutions are now in full force and effect, reading as follows:

RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President, any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary may appoint Attorneys-in-Fact and Agents to act for and on behalf of the Company and may give such appointee such authority as his or her certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors at any time may remove any such appointee and revoke the power given him or her; and it is

FURTHER RESOLVED, that the Chairman, the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President may delegate all or any part of the foregoing authority to one or more officers or employees of this Company, provided that each such delegation is in writing and a copy thereof is filed in the office of the Secretary; and it is

FURTHER RESOLVED, that any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President, any Vice Chairman, any Executive Vice President, any Senior Vice President or any Vice President, any Second Vice President, the Treasurer, any Assistant Treasurer, the Corporate Secretary or any Assistant Secretary and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact and Agents pursuant to the power prescribed in his or her certificate or their certificates of authority or by one or more Company officers pursuant to a written delegation of authority; and it is

FURTHER RESOLVED, that the signature of each of the following officers: President, any Executive Vice President, any Senior Vice President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary, and the seal of the Company may be affixed by facsimile to any Power of Attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding on the Company in the future with respect to any bond or understanding to which it is attached.

I, Kori M. Johanson, the undersigned, Assistant Secretary, of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this _____ day of _____, 20_____

MAY 03 2012

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

Kori M. Johanson
Kori M. Johanson, Assistant Secretary



To verify the authenticity of this Power of Attorney, call 1-800-421-3880 or contact us at www.travelersbond.com. Please refer to the Attorney-In-Fact number, the above-named individuals and the details of the bond to which the power is attached.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Riverside

On MAY 08 2012 before me, Stephanie D. Montague, Notary Public
Date Here Insert Name and Title of the Officer

personally appeared Julia B. Gladding
Name(s) of Signer(s)

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 [Handwritten Signature]
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

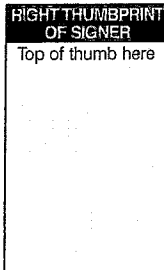
Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: Julia B. Gladding

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

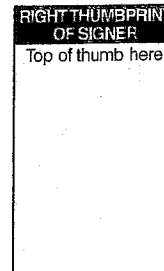
Signer Is Representing: _____

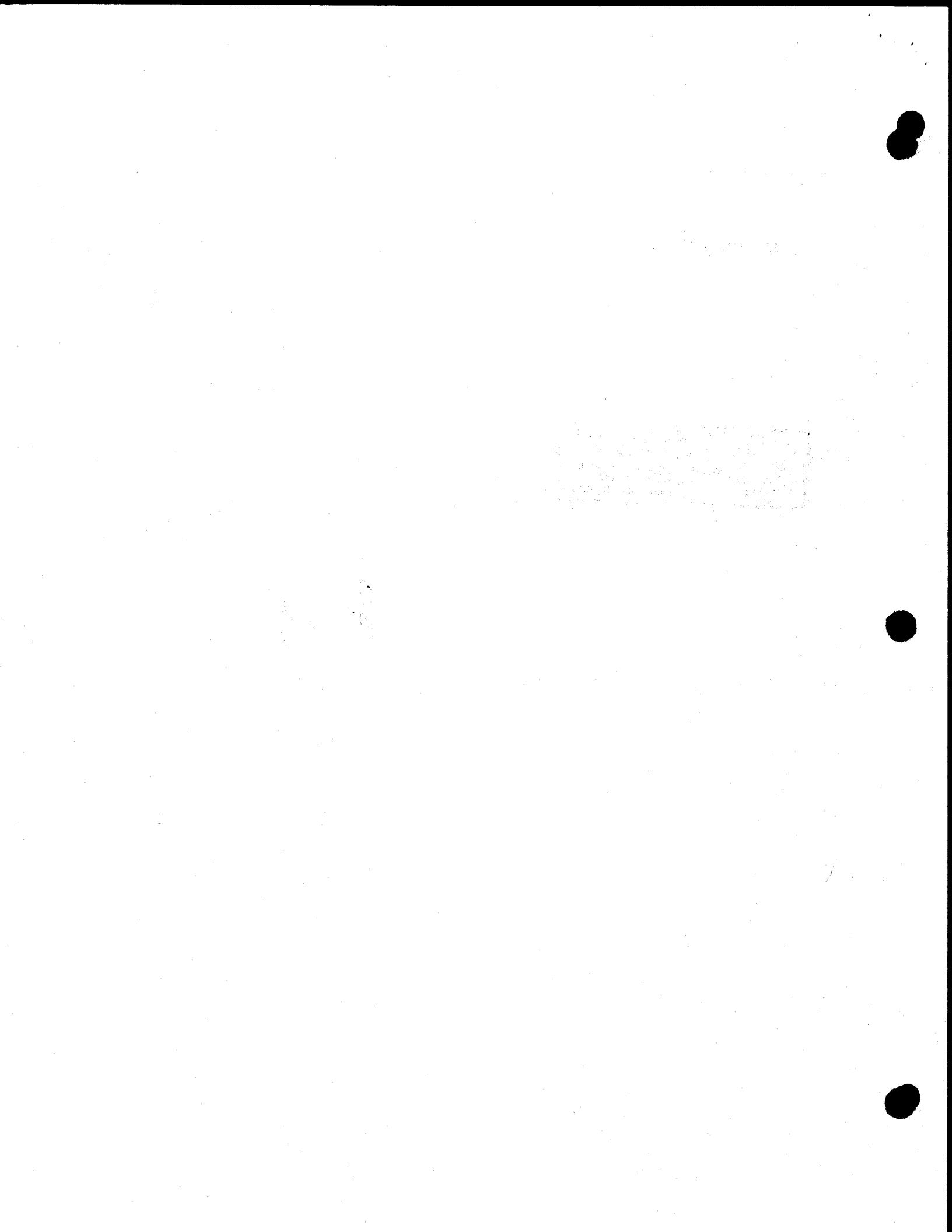


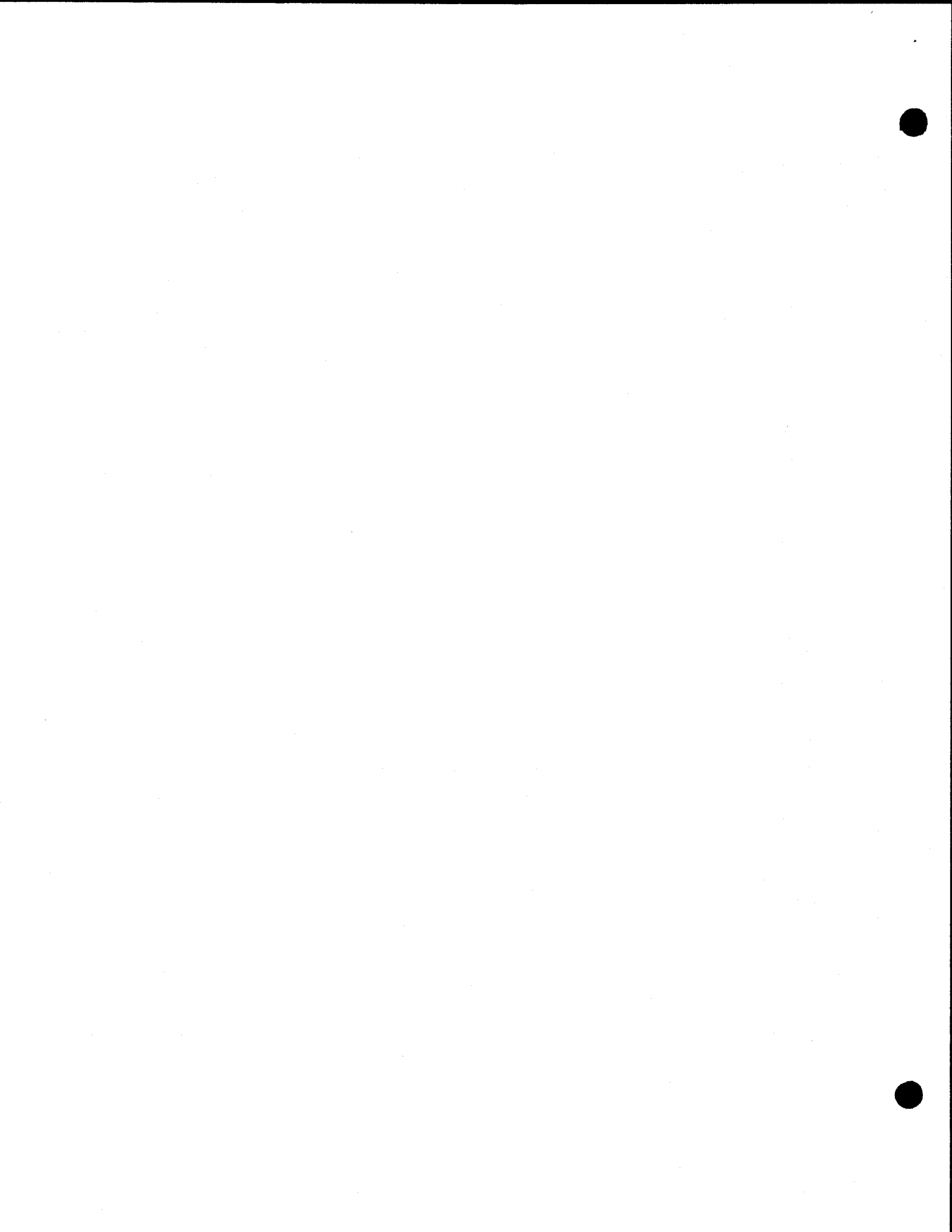
Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

Signer Is Representing: _____







Ratings & Analysis Center

Regional Centers: Asia-Pacific | Canada | Europe, Middle East and Africa

Home | About Us | Contact Us | Sitemap

For ratings and product access [Login](#) | [Sign-up](#)

Print this page

Ratings & Analysis ▾

- » Home
- » Methodology
- » Best's Credit Ratings +
 - » Credit Ratings
 - » Security Ratings
 - » Debt Ratings
- » Advanced Search
- » About Best's Credit Ratings +
- » Get a Credit Rating +
- » Best's Special Reports
- » Add Best's Credit Ratings Search To Your Site
- » BestMark for Secure-Rated Insurers
- » Contact an Analyst
- » Awards and Recognitions

News & Analysis

Products & Services

Industry Information ▾

Corporate ▾

Regulatory Affairs ▾

Support & Resources ▾

Conferences and Events ▾

Scottsdale Insurance Company

A.M. Best #: 003292 NAIC #: 41297 FEIN #: 311024976

Address: 8877 North Gainey Center Drive
Scottsdale, AZ 85258-2108
United States

Web: www.scottsdaleins.com

Phone: 480-365-4000

Fax: 480-483-6752

Assigned to companies that have, in our opinion, a superior ability to meet their ongoing insurance obligations.



Based on A.M. Best's analysis, 002358 - Nationwide Mutual Insurance Company is the AMB Ultimate Parent and identifies the topmost entity of the corporate structure. View a list of operating insurance entities in this structure.

Best's Credit Ratings

View all of the [related companies](#) assigned this rating as a single entity.

Financial Strength Rating	View Definition
Rating:	A+ (Superior)
Financial Size Category:	XV (\$2 Billion or greater)
Outlook:	Negative
Action:	Affirmed
Effective Date:	March 27, 2012
<small>u Denotes Under Review Best's Rating</small>	

Best's Credit Rating Analyst

Office: A.M. Best Company
Senior Financial Analyst: Raymond Thomson, ARM
Managing Senior Financial Analyst: Gregory T. Williams

Find a Best's Credit Rating

Enter a Company Name

» [Advanced Search](#)



View Rating Definitions

Select one...

Issuer Credit Rating View Definition

Long-Term:	aa-
Outlook:	Negative
Action:	Affirmed
Date:	March 27, 2012

Reports and News

Visit Best's News and Analysis site for the latest [news and press releases](#) for this company and its A.M. Best Group.

AMB Credit Report - Insurance Professional - includes Best's Financial Strength Rating and rationale along with comprehensive analytical commentary, detailed business overview and key financial data.
Report Revision Date: 5/16/2012 (represents the latest significant change).

Historical Reports are available in [AMB Credit Report - Insurance Professional Archive](#).

Best's Executive Summary Reports (Financial Overview) - available in three versions, these presentation style reports feature balance sheet, income statement, key financial performance tests including profitability, liquidity and reserve analysis.

Data Status: 2012 Best's Statement File - P/C, US Contains data compiled as of 5/18/2012 Quality Cross Checked.

- **Single Company** - five years of financial data specifically on this company.
- **Comparison** - side-by-side financial analysis of this company with a peer group of up to five other companies you select.
- **Composite** - evaluate this company's financials against a peer group composite. Report displays both the average and total composite of your selected peer group.

Best's Key Rating Guide Presentation Report - includes Best's Financial Strength Rating and financial data as provided in the most current edition of Best's Key Rating Guide products. (Quality Cross Checked).

AMB Credit Report - Business Professional - provides three years of key financial data presented with colorful charts and tables. Each report also features the latest Best's Ratings, Rating Rationale and an excerpt from our Business Review commentary.

Data Status: Contains data compiled as of 5/18/2012 Quality Cross Checked.

Financial and Analytical Products

[Best's Key Rating Guide - P/C, US & Canada](#)

[Best's Statement File - P/C, US](#)

[Best's Statement File - Global](#)

[Best's Insurance Reports - P/C, US & Canada](#)

[Best's State Line - P/C, US](#)

[Best's Insurance Expense Exhibit \(IEE\) - P/C, US](#)

[Best's Schedule F \(Reinsurance\) - P/C, US](#)

[Best's Schedule D \(Municipal Bonds\) - US](#)

[Best's Schedule D \(Common Stocks\) - US](#)



Ratings & Analysis Center

Regional Centers: Asia-Pacific | Canada | Europe, Middle East and Africa

[Home](#) | [About Us](#) | [Contact Us](#) | [Sitemap](#)

For ratings and product access [Login](#) | [Sign-up](#)

[Print this page](#)

Ratings & Analysis ▾

- » Home
- » Methodology
- » Best's Credit Ratings +
 - » Credit Ratings
 - » Security Ratings
 - » Debt Ratings
- » Advanced Search
- » About Best's Credit Ratings +
- » Get a Credit Rating +
- » Best's Special Reports
- » Add Best's Credit Ratings Search To Your Site
- » BestMark for Secure-Rated Insurers
- » Contact an Analyst
- » Awards and Recognitions

News & Analysis

Products & Services

Industry Information ▾

Corporate ▾

Regulatory Affairs ▾

Support & Resources ▾

Conferences and Events ▾


United Financial Casualty Company

A.M. Best #: 001900 NAIC #: 11770 FEIN #: 363298008

Address: P.O. Box 89490
Cleveland, OH 44101-6490
United States

Web: www.progressive.com
Phone: 440-461-5000
Fax: 440-446-7168

Assigned to companies that have, in our opinion, a superior ability to meet their ongoing insurance obligations.



Based on A.M. Best's analysis, [058454 - Progressive Corporation](#) is the **AMB Ultimate Parent** and identifies the topmost entity of the corporate structure. View a list of **operating insurance entities** in this structure.

Best's Credit Ratings

View all of the [related companies](#) assigned this rating as a single entity.

Financial Strength Rating	View Definition
Rating:	A+ (Superior)
Financial Size Category:	IX (\$250 Million to \$500 Million)
Outlook:	Stable
Action:	Affirmed
Effective Date:	February 01, 2012
<small>u Denotes Under Review Best's Rating</small>	

Best's Credit Rating Analyst

Office: A.M. Best Company
Senior Financial Analyst: Neil Das Gupta
Assistant Vice President: Joseph A. Burtone

Find a Best's Credit Rating

Enter a Company Name

» [Advanced Search](#)



View Rating Definitions

Select one...

Reports and News

Visit Best's News and Analysis site for the latest [news and press releases](#) for this company and its A.M. Best Group.

AMB Credit Report - Insurance Professional - includes Best's Financial Strength Rating and rationale along with comprehensive analytical commentary, detailed business overview and key financial data.
Report Revision Date: 5/7/2012 (represents the latest significant change).

Historical Reports are available in [AMB Credit Report - Insurance Professional Archive](#).

Best's Executive Summary Reports (Financial Overview) - available in three versions, these presentation style reports feature balance sheet, income statement, key financial performance tests including profitability, liquidity and reserve analysis.

Data Status: 2012 Best's Statement File - P/C, US Contains data compiled as of 5/18/2012 Quality Cross Checked.

- **Single Company** - five years of financial data specifically on this company.
- **Comparison** - side-by-side financial analysis of this company with a peer group of up to five other companies you select.
- **Composite** - evaluate this company's financials against a peer group composite. Report displays both the average and total composite of your selected peer group.

Best's Key Rating Guide Presentation Report - includes Best's Financial Strength Rating and financial data as provided in the most current edition of Best's Key Rating Guide products. (Quality Cross Checked).

AMB Credit Report - Business Professional - provides three years of key financial data presented with colorful charts and tables. Each report also features the latest Best's Ratings, Rating Rationale and an excerpt from our Business Review commentary.

Data Status: Contains data compiled as of 5/18/2012 Quality Cross Checked.

Financial and Analytical Products

- [Best's Key Rating Guide - P/C, US & Canada](#)
- [Best's Statement File - P/C, US](#)
- [Best's Statement File - Global](#)
- [Best's Insurance Reports - P/C, US & Canada](#)
- [Best's State Line - P/C, US](#)
- [Best's Insurance Expense Exhibit \(IEE\) - P/C, US](#)
- [Best's Schedule F \(Reinsurance\) - P/C, US](#)
- [Best's Schedule D \(Municipal Bonds\) - US](#)
- [Best's Schedule D \(Common Stocks\) - US](#)



Ratings & Analysis Center

Regional Centers: Asia-Pacific | Canada | Europe, Middle East and Africa

[Home](#) | [About Us](#) | [Contact Us](#) | [Sitemap](#)

For ratings and product access [Login](#) | [Sign-up](#)

[Print this page](#)

Ratings & Analysis

- » Home
- » Methodology
- » Best's Credit Ratings +
 - » Credit Ratings
 - » Security Ratings
 - » Debt Ratings
 - » Advanced Search
- » About Best's Credit Ratings +
- » Get a Credit Rating +
- » Best's Special Reports
- » Add Best's Credit Ratings Search To Your Site
- » BestMark for Secure-Rated Insurers
- » Contact an Analyst
- » Awards and Recognitions

News & Analysis

Products & Services

Industry Information

Corporate

Regulatory Affairs

Support & Resources

Conferences and Events

RSUI Indemnity Company

A.M. Best #: 012603 NAIC #: 22314 FEIN #: 160366830

Address: 945 East Paces Ferry Road Suite 1800

Atlanta, GA 30326-1160
United States

Web: www.rsui.com

Phone: 404-231-2366

Fax: 404-231-3755

Assigned to companies that have, in our opinion, an excellent ability to meet their ongoing insurance obligations.



Based on A.M. Best's analysis, 058309 - Alleghany Corporation is the AMB Ultimate Parent and identifies the topmost entity of the corporate structure. View a list of [operating insurance entities](#) in this structure.

Best's Credit Ratings

View all of the [related companies](#) assigned this rating as a single entity.

Financial Strength Rating	View Definition
Rating:	A (Excellent)
Financial Size Category:	XIII (\$1.25 Billion to \$1.5 Billion)
Outlook:	Stable
Action:	Affirmed
Effective Date:	June 10, 2011
u Denotes Under Review Best's Rating	

Best's Credit Rating Analyst

Office: A.M. Best Company
Assistant Vice President: Joseph M. Roethel
Vice President: Daniel J. Ryan

Find a Best's Credit Rating

Enter a Company Name

» [Advanced Search](#)

Get Rated By A.M. Best

View Rating Definitions

Select one...

Issuer Credit Rating	View Definition
Long-Term:	a+
Outlook:	Stable
Action:	Affirmed
Date:	June 10, 2011

Related Financial and Analytical Data

The following links provide access to related data records that A.M. Best utilizes to provide financial and analytical data on a consolidated or branch basis.

018621 RSUI Group	Represents the A.M. Best Consolidated financials for the Property/ Casualty business of this legal entity.
-----------------------------------	--

Reports and News

Visit Best's News and Analysis site for the latest [news and press releases](#) for this company and its A.M. Best Group.

AMB Credit Report - Insurance Professional - includes Best's Financial Strength Rating and rationale along with comprehensive analytical commentary, detailed business overview and key financial data.
Report Revision Date: 4/3/2012 (represents the latest significant change).

Historical Reports are available in [AMB Credit Report - Insurance Professional Archive](#).

Best's Executive Summary Reports (Financial Overview) - available in three versions, these presentation style reports feature balance sheet, income statement, key financial performance tests including profitability, liquidity and reserve analysis.

Data Status: 2012 Best's Statement File - P/C, US Contains data compiled as of 5/18/2012 Quality Cross Checked.

- **Single Company** - five years of financial data specifically on this company.
- **Comparison** - side-by-side financial analysis of this company with a peer group of up to five other companies you select.
- **Composite** - evaluate this company's financials against a peer group composite. Report displays both the average and total composite of your selected peer group.

Best's Key Rating Guide Presentation Report - includes Best's Financial Strength Rating and financial data as provided in the most current edition of Best's Key Rating Guide products. (Quality Cross Checked).

AMB Credit Report - Business Professional - provides three years of key financial data presented with colorful charts and tables. Each report also features the latest Best's Ratings, Rating Rationale and an excerpt from our Business Review commentary.

Data Status: Contains data compiled as of 5/18/2012 Quality Cross Checked.

Financial and Analytical Products

[Best's Key Rating Guide - P/C, US & Canada](#)

[Best's Statement File - P/C, US](#)

[Best's Statement File - Global](#)

[Best's Insurance Reports - P/C, US & Canada](#)



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:

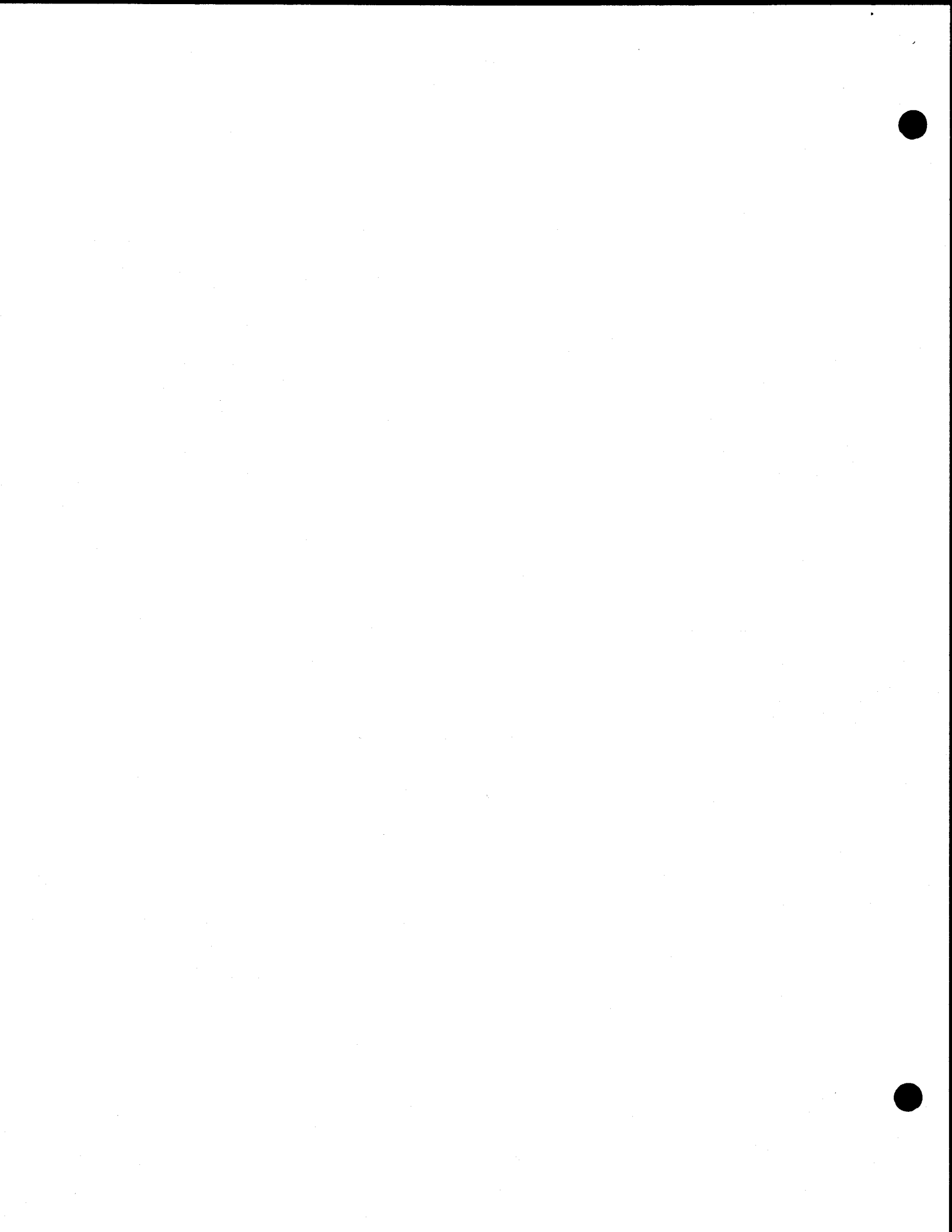
COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s):	Location And Description Of Completed Operations
<p>ANY PERSON OR ORGANIZATION WHEN YOU AND SUCH PESON OR ORGANIZATION HAVE AGREED IN WRITING IN A CONTRACT OR AGREEMENT, EXECUTED PRIOR TO THE "OCCURRENCE" TO WHICH THIS INSURANCE APPLIES, THAT SUCH PERSON OR ORGANIZATION BE ADDED AS AN ADDITIONAL INSURED ON YOUR POLICY. ** see below</p>	<p>ALL LOCATIONS to include Calimesa Avenue L Storm Drain, Stage 2</p>
<p>Information required to complete this Schedule, if not shown above, will be shown in the Declarations.</p>	

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".

** to include Riverside County Flood Control and Water Conservation District, County of Riverside and City of Calimesa





P.O. BOX 420807, SAN FRANCISCO, CA 94142-0807

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

ISSUE DATE: 05-03-2012

GROUP:
POLICY NUMBER: 1966163-2012
CERTIFICATE ID: 27
CERTIFICATE EXPIRES: 02-08-2013
02-08-2012/02-08-2013

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION
1995 MARKET ST
RIVERSIDE CA 92501-1719 SG

This is to certify that we have issued a valid Workers' Compensation insurance policy in a form approved by the California Insurance Commissioner to the employer named below for the policy period indicated.

This policy is not subject to cancellation by the Fund except upon 30 days advance written notice to the employer.

We will also give you 30 days advance notice should this policy be cancelled prior to its normal expiration.

This certificate of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policy listed herein. Notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate of insurance may be issued or to which it may pertain, the insurance afforded by the policy described herein is subject to all the terms, exclusions, and conditions, of such policy.

James Neary
Authorized Representative

Thomas Elone
President and CEO

EMPLOYER'S LIABILITY LIMIT INCLUDING DEFENSE COSTS: \$1,000,000 PER OCCURRENCE.

ENDORSEMENT #1600 - MICHAEL LEATHERWOOD PRESIDENT TREASURER - EXCLUDED.

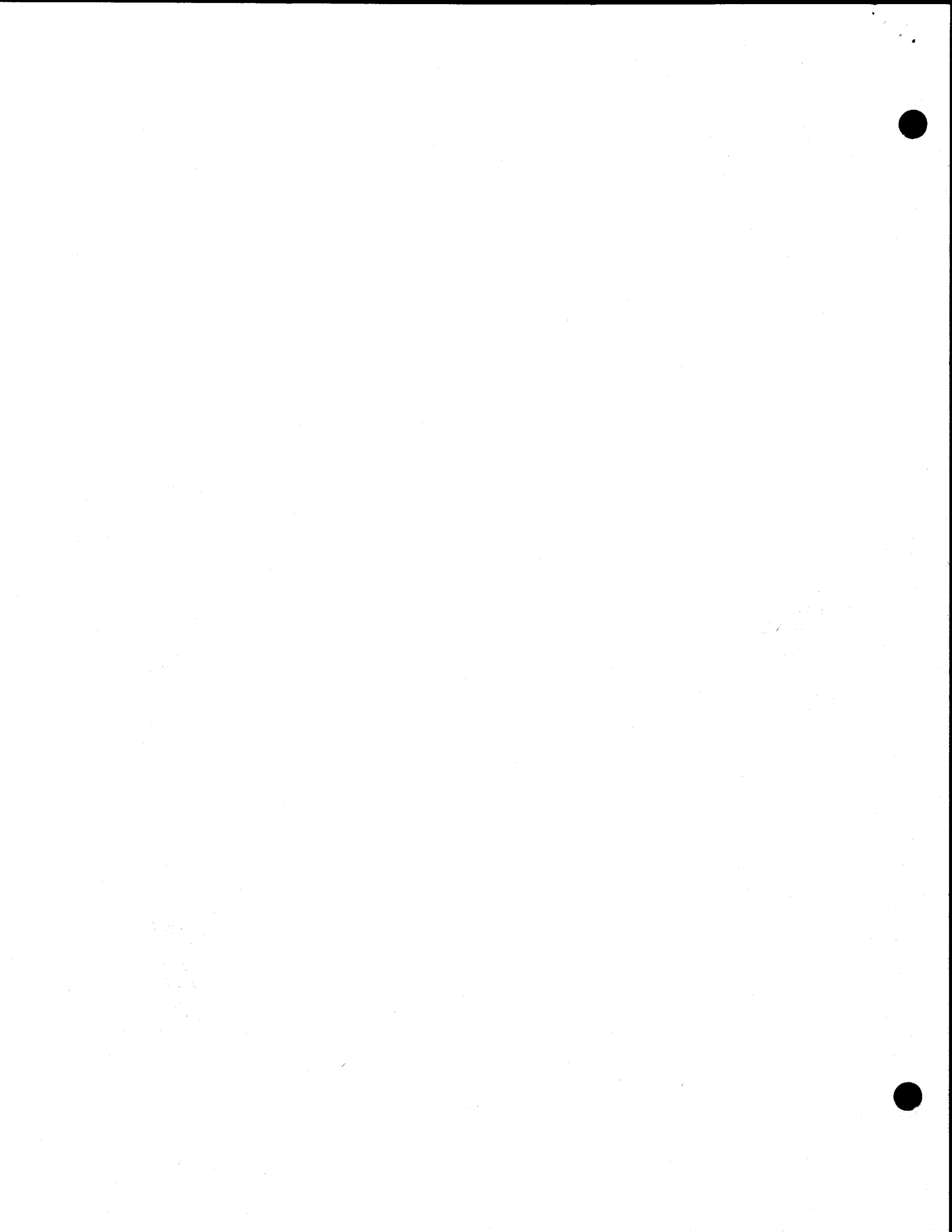
ENDORSEMENT #1600 - BOBBY KAWAI VICE PRESIDENT SECRETARY - EXCLUDED.

ENDORSEMENT #2065 ENTITLED CERTIFICATE HOLDERS' NOTICE EFFECTIVE 02-08-2011 IS ATTACHED TO AND FORMS A PART OF THIS POLICY.

EMPLOYER

LEATHERWOOD CONSTRUCTION, INC. SG
17050 BUSHARD ST STE 213
FOUNTAIN VALLEY CA 92708

[B10.SJ]



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 caused 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 1/2 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 5 percent (5%) of such estimated value of the work done as part security for the fulfillment of the contract by the Contractor. 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 **Calimesa – Avenue L Storm Drain, Stage 2**, located in the city of Calimesa, Riverside County, California. This work shall conform with the contract drawings indexed on the cover sheet 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, 2006 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 AND FIFTY (150) 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 - The following facilities will be relocated and abandoned in place by The Gas Company prior to or during construction:
1. Sheet Nos. 4 and 5, 4" gas line, from approximate storm drain Station 19+88 to Station 23+77
 2. Sheet No. 6, 4" gas line, from approximate storm drain Station 26+65 to Station 27+00
 3. Sheet Nos. 10 and 11, 3" gas line, from approximate storm drain Station 43+03 to Station 48+30
 4. Sheet No. 14, 6" gas line, from approximate storm drain Station 59+20 to Station 61+58
- (b) Verizon – The following facility must be relocated prior to or during construction (see Section 31.2):

Sheet No. 14, concrete encased fiber optic line, at approximate storm drain Station 60+85

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 "PRDs Preparation and Approval" which requires that the PRDs be prepared and approved prior to the Pre-Construction meeting; 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; and 4) Section 29.10 "Non-Stormwater Discharge or Dewatering", which allows the Engineer to suspend construction operations if the Contractor fails to comply with the requirements set forth in that section.

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 Encroachment Permits - The Contractor is required to obtain an encroachment permit from the City of Calimesa for work within City right of way. The City of Calimesa 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.

The Contractor shall comply with the California Department of Water Resources (DWR) Encroachment Permit No. 1545 to be issued to the District for the purpose of encroaching upon DWR right of way at the intersection of Avenue L and Bryant Street, at approximate storm drain Station 60+57 to Station 60+67. The permit is on file in the District office, 1995 Market Street, Riverside and is available for review upon request. Additionally, the Contractor shall comply with DWR provisions shown on Sheet Nos. 14 and 14A of the drawings.

6.5 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.

6.6 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.

6.7 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.

6.8 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 the trailer or office furnished and of sufficient size to accommodate two resident District personnel and have a conference area to accommodate ten (10) people. 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.

6.9 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.

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.

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

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

6.10 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.

6.11 Sewer Line Inspection - Prior to the commencement of construction, the Contractor is required to video record all sewer mains (8" diameter and larger) as shown on Sheet Nos. 2 through 19 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.

6.12 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.

6.13 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.

6.14 Liability Insurance - The Contractor's attention is directed to Section 8.02, Insurance Hold Harmless, of the General Provisions. The Department of Water Resources shall also be named as additional insured with the liability insurance coverage required to be maintained by the Contractor.

6.15 Phasing of Work - The Contractor shall complete all work specified in these specifications and shown on the project drawings from storm drain Station 33+50 through Station 34+50 (Sheet Nos. 7, 8 and 21) to the satisfaction of the Engineer by September 28, 2012 and prior to undertaking any work upstream of Station 34+50. Said work to be completed within the specified reach of Station 33+50 through Station 34+50 shall include, but is not limited to, the installation of mainline storm drain, Second Street laterals, catch basins, junction structures, reconstruction of cross gutters and spandrels, necessary appurtenances, and final paving.

Additional phasing requirements shall be in accordance with Section 19.2, "General Asphalt Concrete Construction Requirements".

SECTION 7 - SOILS REPORT

In conjunction with the soils investigation report prepared by Aragon Geotechnical, Inc., dated May 16, 2011, 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

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

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 investigation for this project. 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

12.1 Description - The contract item Traffic Control shall include labor, flagmen, lights, barricades, signs, 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:

Riverside County Sheriff's Department	951.922.7100
City of Calimesa Public Works (Bob French)	909.795.9801
Southern California Edison (Al Eshlemen)	909.307.6767
The Gas Company (Teresa Roblero)	909.335.7507
Verizon (Phil Brillinger)	951.929.9406
Time Warner Cable (Stuart King)	909.772.4178
United States Postal Service	909.795.8124
South Mesa Water Company (David Armstrong)	909.795.2401
Yucaipa Valley Water District (Brent Anton)	909.797.5118
California Department of Water Resources (Angelica Aguilar)	800.600.4397
California Department of Water Resources, Southern Field Division	661.944.8500
California Department of Water Resources, Lancaster Project Headquarters	661.945.9560
Underground Service Alert	800.227.2600

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.

The Contractor shall notify the California Department of Water Resources (DWR) offices listed above a minimum of ten (10) days prior to any work within DWR right of way.

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 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. **Contractor's attention is directed to The Church of Jesus Christ of Latter-Day Saints located at 298 W. Avenue L. The Contractor shall make provisions to allow safe passage through the construction zone to and from the church at all times.**

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 drawing.

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 City of Calimesa Public Works Department, Telephone: 909.795.7801 ext. 235 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.

All pavement markings such as arrows, "STOP", "ONLY", reflectors, etc., shall be replaced by the Contractor using thermoplastic, as shown on Sheet Nos. 42 through 46 of the drawings. 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

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, all abandoned utility lines and other facilities, culverts, rocks, structures, concrete and asphalt excluding those items defined specifically as excavation in the appropriate section.

Removal of pipes or other abandoned facilities shall be by first sawcutting abandoned pipes into lengths which do not cross under other facilities. Use of heavy equipment to pull abandoned facilities, without first sawcutting from the trench shall not be allowed unless directed by the Engineer.

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.

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

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

14.2 General Excavation Requirements - Pipe Excavation shall be in conformance with Section 306 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 24 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, manholes, transitions and pipe as shown on Sheet Nos. 27, 28, 30 and 33 of the drawings, and the disposal of all surplus material. All A.C. and P.C.C. shall be sawcut unless otherwise specified.

14.4 Asphalt Concrete Excavation - The contract item Asphalt Concrete Excavation covers the cold milling, removal and disposal of asphalt concrete pavement to the depths and dimensions as specified and as shown on Sheet Nos. 27 through 33 of the drawings and the disposal of all surplus material. Asphalt Concrete Excavation shall be in accordance with Section 302-1 of the Standard Specifications.

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 should the Aggregate Base be exposed.

The cold planing machine 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.

14.5 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 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 either mechanical methods or water densification methods as described in (1) and (2) 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.

- (1) 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.

- (2) Water Densification - Water Densification of bedding and backfill shall be by jetting and shall be used when approved by the Engineer. Jetting for bedding and backfill shall conform to Section 306-1.3.3 of the Standard Specifications except as modified as follows:

- a. Jetting may be allowed for bedding, when approved by the Engineer, in conditions where soils of the trench walls have a sand equivalent less than 15, provided the Contractor takes appropriate action to drain the water.
- b. Undensified lifts shall not exceed 4 feet.
- c. Suitable backfill material to be jetted shall have a sand equivalent of 30 or greater.
- d. If cast-in-place concrete pipe is used, jetting will not be permitted.
- e. Jetting of the top 4 feet of backfill measured from the subgrade plane will not be permitted in roadway areas.

The work shall be performed in such a manner that water will not be impounded. Backfill shall be brought up uniformly on each side of the structure.

Jetting methods shall be supplemented by the use of vibratory or other compaction equipment when necessary to obtain the required compaction.

Tongue and groove concrete pipe joints shall be mortared in conformance with Section 306-1.2.4 of the Standard Specifications prior to jetting.

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%) and shall be compacted by Method (1).

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

Pipe bedding shall consist of well graded granular material having a sand equivalent value of not less than 30 and be capable of being readily consolidated by jetting and vibrating. Jetting shall be as described by Method (2) Water Densification and jet pipe insertion intervals shall be of a frequency adequate to eliminate all voids from the pipe haunch zone, but no greater than 3 feet, contiguous along each side of the RCP. Gravel and/or crushed aggregate shall not be used for bedding materials. Pipe bedding shall be placed to one foot above the top of the reinforced concrete pipe as shown on the drawings.

The Contractor's attention is directed to Section 7 – Soil Report. The Contractor may use onsite material for pipe and box bedding subject to the approval of the Engineer and provided it meets the requirements as set forth above. The Contractor shall make his own determination as to the availability of suitable onsite material. Should onsite material be unsatisfactory, the Contractor will be required to import suitable material, the cost of which shall be included in the unit price for the contract item Backfill.

Based on the soils report, the majority of in-situ materials are not suitable for use as pipe bedding.

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

14.6 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 discretion.

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 at 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.

When water densification is requested, sand equivalent tests representing foundation soils and proposed backfill material shall be obtained at approximate maximum intervals of 1,000 feet. Additional tests may be necessary to define limits of suitable backfill material.

14.7 Backfill Preparation – The contract item Backfill Preparation includes all additional direct and indirect costs related to hauling, storage and drying of wet material excavated from the trench to achieve optimum moisture content or the import of suitable material to be used for contract item Backfill described in Section 14.8.

At the beginning of each day of trench excavation, the Engineer shall test the moisture content of the material excavated near the design storm drain flow line. The Contractor shall only be paid for Backfill Preparation on the days when the tested moisture content equals or exceeds fifteen percent (15%).

Measurement of the soil moisture content shall be performed by the nuclear gage test in accordance with ASTM D6938. The Contractor may request the Engineer to retest the moisture content by microwave oven heating in accordance with ASTM D4643 which shall be considered final.

14.8 Backfill - The contract item Backfill includes all backfill, pipe and box bedding material compacted as specified around the various concrete structures and pipe within the paylines as shown on Sheet Nos. 29, 30 and 33, but exclusive of the additional work described in the contract item Backfill Preparation in Section 14.7.

14.9 Controlled Low Strength Material (CLSM) Backfill – The contract item Controlled Low Strength Material (CLSM) Backfill shall include the placement of CLSM Backfill around the pipe, utility facilities, or other structures where a flowable fill is required to achieve necessary compaction, as directed by the Engineer.

CLSM Backfill shall be in conformance with Section 201-6 of the Standard Specifications and shall:

1. Be hand excavatable.
2. Contain a minimum of one-quarter (1/4) sack of cement per cubic yards.
3. Have a **MAXIMUM** 28-day compressive strength of 200-300 psi.

The Contractor should note that any placing of CLSM Backfill to be paid for under the contract will be determined from field conditions as directed by the Engineer.

14.10 Filter Material - The contract item Filter Material includes all filter material to be placed below the reinforced concrete pipe 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 Measurement - Excavation; Asphalt Concrete Excavation; Backfill Preparation; Backfill; and Controlled Low Strength Material (CLSM) Backfill 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 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 item Backfill Preparation shall be the same number of cubic yards of material placed and paid under the contract item Backfill for each day the above qualifying criterion is met.

Measurement for payment for the contract item 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, CLSM and other feature for which a separate payment is made will be deducted from the gross volume.

Measurement for payment for the contract item Controlled Low Strength Material (CLSM) Backfill will be the number of cubic yards of material placed in final position as directed by the Engineer measured at the mixer as provided in Section 90.11 of the Standard Specifications.

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.

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

SECTION 15 - TRENCH SAFETY SYSTEM

15.1 Description - This section covers the contract item Trench Safety System. 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 Measurement and Payment - The contract price paid for the item Trench Safety System 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

16.1 Description - This section includes the contract items for 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	6	Bridges, Walls, Boxes, Rectangular Channel and Transition Structure Nos. 1, 2, 3 and 4, Concrete Bulkhead and Cast-in-Place Concrete Pipe (CIPP)**	4000*
A	6	Slope Paving, Trapezoidal Channel, Catch Basins, Drop Inlets, Junction Structure Nos. 1, 2, 3, 4, 6 and 7, Manholes, Concrete Collars and Headwalls	3250*
B	5	Local Depressions, Cutoff Walls, Encasements, Curb	3000*

and Gutter, Cross Gutters,
 Driveways, Sidewalk and
 Miscellaneous Concrete
 not otherwise specified

E	2	Slurry Cement/Grout	2000
E	1/4	Controlled Low Strength Material (CLSM) Backfill	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.

**Note: See the appropriate section for specifications on cast-in-place concrete pipe. Engineer to adjust Concrete Strength Transition Structures to match Concrete Strength for CIPP mainline.

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>
Bridge Footings, and Cast-in-Place Concrete Pipe with diameters of 48" or greater. The inverts of: Spillways, Trapezoidal Channels, Reinforced Concrete Box, Rectangular Channels, Junction Structures, Transition Structures and Manholes.	1-1/2" Maximum
Bridges, Retaining Walls, Slope Paving, 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 Cast-in-Place Concrete Pipe with diameters of less than 48" and other Miscellaneous Concrete not otherwise specified. All other concrete structures	1" 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, except the concrete for the cast-in-place concrete pipe which shall have a slump of 2 inches plus or minus 1 inch.

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 Fahrenheit. 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>
All 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.

Construction joints, when required, shall be located between the transverse joints and, unless otherwise specified on the plans, shall utilize 1/2 inch diameter deformed bars 30 inches long, spaced at 18-inch centers as tie bars. The construction joints shall be straight and finished in a workmanlike manner.

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

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

16.11 Class "B" Concrete, Miscellaneous - The contract item Class "B" Concrete, Miscellaneous includes the complete construction of the curb and gutters, cross gutters, spandrels, sidewalks, driveways, 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.

16.12 Transition Structures - The contract item Transition Structure No. 3 covers the complete construction of these various structures, inclusive of reinforcing steel, but exclusive of earthwork.

16.13 Junction Structure No. 2 - The contract item Junction Structure No. 2 covers the complete construction of these structures, including reinforcing steel, exclusive of earthwork.

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

16.14 Manholes - The contract items Manhole Nos. 2 and 4 cover 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.

16.15 Measurement - Measurement for payment for the contract items Class "A" Concrete, Minor Structures; 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 items Transition Structure No. 3; Junction Structure No. 2; and Manhole Nos. 2 and 4 will be the number of each type constructed as specified.

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

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

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

SECTION 17 - CONCRETE PIPE

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 - NOT USED

SECTION 19 - ASPHALT CONCRETE CONSTRUCTION

19.1 Description - This section covers the contract items Aggregate Base, Class 2; Asphalt Concrete Type "B"; Temporary Resurfacing; Pavement Crack Sealing; and Structural Pavement Replacement.

19.2 General Asphalt Concrete Construction Requirements - In order to minimize damage to completed work by stormwater runoff, reduce inconvenience to local residents, prevent damage to existing pavement, and diminish or eliminate erosion from the construction zone, the Contractor shall stage construction as follows:

Within trench limits, the Contractor shall place Aggregate Base as shown on the Drawings and per Section 19.3 AND the base course of Asphalt Concrete as determined by the Engineer and per Section 19.4 immediately after 300 lineal feet of storm drain trench has been repaired following installation of pipe OR five (5) calendar days, whichever comes last. Should the fifth (5th) calendar day of unpaved trench be reached on a nonworking day, the trench shall be base paved prior to the close of work on the closest preceding working day or as directed by Engineer.

Additionally, the final course of asphalt and any other asphalt work, such as Asphalt Concrete Excavation, within paving limits as depicted on the drawings shall be completed in

three phases. Each phase, inclusive of all work required to be complete to perform final paving (such as, but not limited to, the installation of mainline storm drain, laterals, catch basins, junction structures, reconstruction of cross gutters and spandrels, and necessary appurtenances) shall be completed to the satisfaction of the Engineer prior to undertaking any work upstream of the following phasing stations:

- Phase One – Station 10+00 through Station 34+50;
- Phase Two – Station 34+50 through Station 61+00; and
- Phase Three – Station 61+00 through end of project.

The cost of the phasing work shall be included in the respective unit prices for the contract items referenced directly or indirectly in this section.

19.3 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.

19.4 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 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, except that such tolerances shall be in accordance with Section 302 of the 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/ofpm/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 Minimum G*/sin(Delta), kPa	T315	64 1.00	64 1.00	70 1.00

Rolling Thin Film Oven (RTFO) Test, or ASTM D2827 Mass Loss, Maximum, %	T240	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 State 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.

19.5 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.

19.6 Pavement Crack Sealing – The contract item Pavement Crack Sealing includes all labor, equipment, and materials required to clean and seal cracks in existing Asphalt Concrete Pavement as directed by the Engineer.

Pavement cracks 1/4" wide and larger shall be sealed. Pavement cracks 1/8" to 1" wide shall be cleared of all loose particles of dust, dirt and laitance with oil-free compressed air immediately preceding the sealing operation. Cracks shall be routed out as necessary to provide a reservoir for the sealer that will have a depth of 1" to 1-1/2".

The crack filling material shall be a cold-applied, polymer modified petroleum emulsion (Western Emulsion, Inc., "P.A.S.S." or approved equivalent) or a hot-applied rubberized asphalt (Crafco Polyflex or approved equivalent). The crack filling material must not be modified or diluted in any way.

A wand and nozzle type application shall be used to fill all cracks with crack filling material. Crack filling material shall be applied in two applications with the possibility of additional applications to fill the crack within the allowable tolerance. The cracks must be filled to the surface and not overfilled or applied to the top of adjoining pavement or concrete surfaces. The cracks shall be squeegeed immediately after the sealant has been applied to ensure conformity with the pavement surface. The crack filling material shall then be allowed to penetrate and sink into the crack area for a minimum of one hour. Each crack must then have a second application of crack filler material applied in the crack area only to within $\pm 0.01'$ of the adjoining pavement surface. If the material is a cold-applied, polymer modified petroleum emulsion, sand will be applied over the crack filling material after the second application, covering a minimum of 1-1/2" each side of the crack and not more than 3/4" higher than the top of the pavement. The Contractor shall be responsible for the removal of all excess sand which shall be removed within three hours after being applied.

19.7 Structural Pavement Replacement – The contract item Structural Pavement Replacement includes all labor, equipment, and materials required to construct structural pavement replacements as specified under this section. Structural Pavement Replacement shall consist of sawcutting the perimeter of the asphalt concrete pavement area designated by the Engineer; removal and disposal of all asphalt concrete inside the designated area; recompaction of existing aggregate base to 95% relative compaction; and installation of asphalt concrete pavement to match adjacent pavement sections in kind.

19.8 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 19.5 and as directed by the Engineer.

Measurement for payment of the contract item Pavement Crack Sealing will be the square feet of pavement crack sealed, regardless of the number and length of cracks, as specified in Section 19.6 and as directed by the Engineer.

Measurement for payment of the contract item Structural Pavement Replacement shall be by tons of new asphalt concrete placed in excavated designed areas.

19.9 Payment - The contract prices paid for Aggregate Base, Class 2; Asphalt Concrete, Type "B"; Temporary Resurfacing; Pavement Crack Sealing; and Structural Pavement Replacement shall include full compensation for all costs incurred under this section.

SECTION 20 – NOT USED

SECTION 21 - MISCELLANEOUS

21.1 Description - This section covers the contract items Miscellaneous Iron and Steel; Remodel 4-Inch Vitrified Clay Pipe (VCP) House Connection; Adjust Manhole to Grade; and Adjust Valve to Grade.

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 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 pipe conduit to be constructed will be measured for payment.

21.4 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.

21.5 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.

21.6 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 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.

21.7 Payment - The contract prices paid for Miscellaneous Iron and Steel; Remodel 4-Inch Vitrified Clay Pipe (VCP) House Connection; Adjust Manhole to Grade; and Adjust Valve to Grade shall include full compensation for all costs incurred under this section.

SECTION 22 THROUGH SECTION 26 – NOT USED

SECTION 27 - DUST ABATEMENT

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

29.1 Description – This section covers the contract items Stormwater and Non-Stormwater Pollution Control; and 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 Santa Ana Regional Water Quality Board Order No. R8-2009-0003.

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 as amended by Board Order No. 2010-0014-DWQ) 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. Notice of Intent
2. Risk Assessment (Section VIII of the General Permit)
3. Site Map
4. Stormwater Pollution Prevention Plan (SWPPP) (Section XIV of the General Permit)
5. Annual Fee
6. Signed Certification Statement

Notice of Intent - The District will complete and submit the Notice of Intent.

Risk Assessment - Using the methodology in Appendix 1 of the General Permit, the District has calculated the preliminary Risk Level to be 1 based on returning disturbed areas to pre-construction conditions at the end of the day.

Site Map - The Contractor shall revise District provided site map of the project area if Contractor's Qualified SWPPP Developer (QSD) deems necessary. Site Map shall conform to requirements of General Permit Attachment A, Section B.

SWPPP - For the convenience of the Contractor and to expedite the SWPPP preparation and approval, a "90%" SWPPP Template has been prepared by the District. This SWPPP Template has been tailored to the referenced project and can be downloaded from http://rcflood.org/Documents/SWPPPLUP_Template_5000165.pdf or obtained from the District in CD form. Winning bidder will be provided two (2) hard copies and a Word document of the "90%" SWPPP Template to amend. The Contractor shall review and amend this SWPPP Template based on the requirements of the General Permit and per the construction schedule and work plan proposed by the Contractor. The Contractor shall then submit a SWPPP certified by the Contractor's QSD which conforms to Section 29.3 for District review and approval.

The Contractor shall amend and finalize the complete "90%" SWPPP Template referenced above. The Contractor shall, at a minimum, provide and/or prepare the following:

1. Name and contact information for the Contractor's Qualified SWPPP Practitioner (QSP) and QSD
2. Contractor name and contact information
3. Contractor site contact person and emergency contact person information
4. Verification of disturbance area due to construction
5. Construction commencement date
6. Anticipated construction completion date
7. Construction Activity Schedule/Best Management Practices (BMPs) Installation Schedule
8. Name and contact information for personnel responsible for pre-storm, post-storm and storm event BMP inspections - this should be the project's QSP

9. Name of the lab responsible for testing any stormwater samples for non-visible pollutants
10. Verification of project risk level and permit type (Linear Underground/Overhead Project (LUP) or Traditional)
11. List of all subcontractors that will be working on the project
12. Review and finalize water pollution control drawings

The SWPPP shall be certified by the Contractor's QSD and implemented by the Contractor's QSP. The SWPPP shall be developed based on the format outlined in the CASQA SWPPP Template located in the California Stormwater Quality Association (CASQA) Construction BMP Handbook Portal and modified as required to meet the LUP specific requirements set forth in the General Permit Attachment A. The portal can be found on the CASQA Website: www.casqa.org. The SWPPP shall identify site specific 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 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.

Annual Fee – The District will pay any necessary fees.

Signed Certification Statement – The Contractor's QSD shall submit a signed certification certifying 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 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 CASQA Handbook can also be downloaded from the CASQA Construction BMP Handbook Portal.

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, during work hours, 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 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 Monitoring and Reporting Program (M&RP) as required by Section M, "Monitoring and Reporting Requirements" of Attachment A of the General Permit. A guidance document titled "Field Monitoring and Analysis Guidance" is available from the CASQA internet site in their Construction BMP Handbook Portal. The Contractor shall prepare and implement the SWPPP in accordance with the CASQA Handbook, 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) hard copies and one (1) pdf copy 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 and General Permit:

Section 1 - SWPPP Requirements:

- 1.1 Introduction
- 1.2 PRDs
- 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 Permits and Governing Documents
- 2.3 Stormwater Run-on from Offsite Areas
- 2.4 Findings of the Construction Site Sediment and Receiving Water Risk Determination
- 2.5 Construction Schedule
- 2.6 Potential Construction Site Pollutant Sources
- 2.7 Identification of Non-Stormwater Discharges
- 2.8 Required Site Map Information

Section 3 - Best Management Practices:

- 3.1 Schedule for BMP Implementation
- 3.2 Erosion Control and Sediment Control
- 3.3 Non-Stormwater Controls, Waste and Material Management
- 3.4 Post-Construction Stormwater Management Measures

Section 4 - BMP Inspection and Maintenance:

- 4.1 BMP Inspection and Maintenance

Section 5 - Training

Section 6 - Responsible Parties and Operators:

- 6.1 Responsible Parties
- 6.2 Contractor List

Section 7 - Monitoring and Reporting Program (M&RP):

- 7.1 Objectives
- 7.2 M&RP Implementation Schedule
- 7.3 LUP Monitoring and Reporting Requirements
- 7.4 Monitoring for Non-Visible Pollutants

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 BMPs 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 Stormwater 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 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, M&RP, 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 M&RP as included in the SWPPP and any amendments thereto, and for removing and disposing of temporary BMPs. All SWPPP implementation shall be performed or supervised by a QSP. 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 CASQA Construction BMP Handbook Portal 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 CASQA Construction BMP Handbook Portal, on all disturbed areas of the project site throughout the duration of the project.**

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 prior to soil disturbance. The General Permit requires BMPs to be deployed throughout the duration of the project.

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 duration of the project, soil-disturbed areas of the project site shall be considered to be inactive whenever soil disturbing activities are expected to be discontinued for a period of fourteen (14) calendar days or more. Areas that will become inactive 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 two (2) calendar days prior to the onset of precipitation, whichever is first to occur. Areas that will become inactive shall be fully protected with sediment control BMPs within ten (10) calendar days of the discontinuance of soil disturbing activities or two (2) calendar days prior to the onset of precipitation, whichever is first to occur.

Throughout the duration of the project, the project site shall be fully protected 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.

- (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 ensure that a QSP regularly inspects the construction site for BMPs identified in the SWPPP to ensure the proper implementation and functioning of BMPs. The QSP shall identify corrective actions and time frames to address any damaged BMPs or reinstate any BMPs that have been discontinued. All repairs and design changes shall begin to be implemented within 72 hours of identification.

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 week.

The construction site inspection checklist provided in the CASQA SWPPP Template 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's QSP shall maintain construction site BMPs identified in the SWPPP to ensure the proper implementation and functioning of BMPs. If the QSP or the Engineer identifies a deficiency in the deployment or functioning of an identified BMP, the QSP shall begin implementing repairs or design changes within 72 hours of identification and complete as soon as possible. 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. All training shall be documented and included in the SWPPP as an appendix.

The Contractor shall ensure that SWPPPs are written, amended and certified by a QSD. The Contractor shall also ensure that all inspection, maintenance, repair and sampling activities shall be performed or supervised by a QSP. A QSP is a person responsible for non-stormwater and stormwater visual observations, sampling and analysis.

29.7 **REAP** – **The REAP is applicable to LUP Risk Level 2 construction sites only.** The Contractor shall ensure a QSP develop a REAP 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 the 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's QSP shall ensure that the REAP include, at a minimum, the following site information:

- a. Site Address
- b. Calculated Risk Level
- c. Site Stormwater 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. Stormwater 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 LUP Risk Level 2 construction sites only.** The Contractor's QSD shall be responsible for preparing an M&RP and implementing the monitoring, sampling and analysis requirements as described in Attachment A 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 Attachment 3 of the CASQA Construction BMP Handbook Portal. 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 **NAL Exceedance Report** - **The NAL Exceedance Report is applicable to LUP 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 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 (3) years after the date the annual report is filed.
- d. The Contractor shall 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 from http://www.waterboards.ca.gov/santaana/board_decisions/adopted_orders/orders/2009_orders.shtm. Under the Monitoring and Reporting Program, the Contractor shall prepare the monitoring report in accordance with Attachment E of the Order. 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 CASQA Construction BMP Handbook Portal Section 1.7. 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; and
 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 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 Handbook, 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 USEPA 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

31.1 Description - This section covers the contract items Verizon Relocation Coordination; and California Department of Water Resources (DWR) Crossing.

31.2 Verizon Relocation Coordination – The contract item Verizon Relocation Coordination includes all labor, equipment, and materials required to safely install storm drain underneath the Verizon T/FO facility at approximate Station 60+85 to the lines and grades delineated on Sheet 14. Also included under this contract item is any special coordination required to allow Verizon and/or its agents to relocate this T/FO facility prior to, during, or after the storm drain is installed thereunder.

The Contractor is required to notify Tony Rider of Verizon at 909.455.4817 three (3) weeks prior to undertaking any work relating to this contract item.

The Contractor shall expose the Verizon T/FO facility at Station 60+85 in the presence of Verizon personnel. The T/FO relocation work, including any additional excavation, backfill, or paving required to do so, shall not be performed by the Contractor and will not be measured for payment.

Verizon intends to relocate the T/FO facility by removing the interfering portion of the encasement to allow the storm drain installation. Should the exposed T/FO conduits still be in conflict, Verizon may excavate beyond storm drain trench limits and lift the T/FO conduits temporarily to allow the Contractor to install the storm drain.

This relocation work to be performed by Verizon and/or its agents may cause substantial delays to the Contractor. Therefore, included in the contract unit price for this Section is any and all damages due to downtime and idled equipment the Contractor may or may not experience due to the work described herein, up to and including ten (10) full working days.

31.3 California Department of Water Resources (DWR) Crossing – This contract item includes all labor, equipment, and materials required to install the pipe and casing assembly, precast concrete footers, and SS8 slurry protection shown on Sheet Nos. 14 and 14A, approximately Station 60+49 through Station 60+72, to the lines and grades delineated on the drawings unless otherwise specified in this section. These materials shall include the precast concrete footers, steel casing pipe, steel straps, float blocks, detectable warning tape, elastomeric seal element, all gasket reinforced concrete pipe, and slurry cement shown on Sheet Nos. 14 and 14A.

The Contractor is required to submit shop drawings of the precast reinforced concrete footers to the Engineer for approval ten (10) days prior to the footers' final installation. The subgrade below the footers shall be compacted to 95% relative compaction prior to their installation.

The contract item California Department of Water Resources (DWR) Crossing is inclusive of footer compaction described above, but exclusive of all excavation, backfill, subgrade, and pavement, which are paid under contract items Earthwork and Pavement.

The Contractor is required to notify DWR's Southern Field Division at 661.944.8500 ten (10) days prior to undertaking any work relating to this contract item. DWR inspection staff must be present for any work occurring within DWR's right of way, shown on Sheet No. 14.

Contractor's attention is directed to Note 4 of Detail D on Sheet 14A, requiring the casing pipe assembly depicted thereon be assembled and leak tested prior to placement at final grade. The casing pipe assembly is estimated to be approximately 20 tons.

31.4 Measurement and Payment - The contract lump sum prices paid for Verizon Relocation Coordination; and California Department of Water Resources (DWR) Crossing shall include full compensation for all costs incurred under this section.

SECTION 32 – NOT USED

SECTION 33 – ENVIRONMENTAL REGULATORY

33.1 Description – This section covers Heavy Equipment Working Hours; and Accidental Cultural Resource and Hazardous Materials Discovery.

33.2 Heavy Equipment Working Hours – To minimize potential noise impacts near residences, heavy construction equipment use shall not occur beyond the hours of 7:00 a.m. - 5:00 p.m. on normal working days, unless otherwise approved by the Engineer.

33.3 Accidental Cultural Resource and Hazardous Materials Discovery – In the event that any hazardous materials, historical, archaeological, or paleontological resources are uncovered within project limits. The Contractor shall immediately cease all construction or ground disturbance activity in the vicinity of find and notify the Engineer. The District will provide the appropriate professional to assess the significance of the discovery, notify the necessary agencies and, if necessary, develop appropriate management and treatment measures. **The Contractor shall not resume construction in the affected area until the District has notified the necessary agencies and the Engineer has approved resumption of construction.**

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 downtime and idle equipment or additional payments over and above the agreed upon contract prices.



APPENDIX "A"

SOUTH COAST AIR QUALITY
MANAGEMENT DISTRICT

RULE 403



(Adopted May 7, 1976) (Amended November 6, 1992)
(Amended July 9, 1993) (Amended February 14, 1997)
(Amended December 11, 1998)(Amended April 2, 2004)
(Amended June 3, 2005)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

- (1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.
- (2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.
- (3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.
- (4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.
- (5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

- (6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.
- (7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.
- (8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.
- (9) COMMERCIAL POULTRY RANCH means any building, structure, enclosure, or premises where more than 100 fowl are kept or maintained for the primary purpose of producing eggs or meat for sale or other distribution.
- (10) CONFINED ANIMAL FACILITY means a source or group of sources of air pollution at an agricultural source for the raising of 3,360 or more fowl or 50 or more animals, including but not limited to, any structure, building, installation, farm, corral, coop, feed storage area, milking parlor, or system for the collection, storage, or distribution of solid and liquid manure; if domesticated animals, including horses, sheep, goats, swine, beef cattle, rabbits, chickens, turkeys, or ducks are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.
- (11) CONSTRUCTION/DEMOLITION ACTIVITIES means any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.
- (12) CONTRACTOR means any person who has a contractual arrangement to conduct an active operation for another person.
- (13) DAIRY FARM is an operation on a property, or set of properties that are contiguous or separated only by a public right-of-way, that raises cows or

produces milk from cows for the purpose of making a profit or for a livelihood. Heifer and calf farms are dairy farms.

- (14) **DISTURBED SURFACE AREA** means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:
 - (A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;
 - (B) been paved or otherwise covered by a permanent structure; or
 - (C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.
- (15) **DUST SUPPRESSANTS** are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.
- (16) **EARTH-MOVING ACTIVITIES** means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.
- (17) **DUST CONTROL SUPERVISOR** means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements at an active operation.
- (18) **FUGITIVE DUST** means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.
- (19) **HIGH WIND CONDITIONS** means that instantaneous wind speeds exceed 25 miles per hour.
- (20) **INACTIVE DISTURBED SURFACE AREA** means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.
- (21) **LARGE OPERATIONS** means any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic

- meters (5,000 cubic yards) or more three times during the most recent 365-day period.
- (22) OPEN STORAGE PILE is any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.
- (23) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.
- (24) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.
- (25) PM₁₀ means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.
- (26) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.
- (27) RULE 403 IMPLEMENTATION HANDBOOK means a guidance document that has been approved by the Governing Board on April 2, 2004 or hereafter approved by the Executive Officer and the U.S. EPA.
- (28) SERVICE ROADS are paved or unpaved roads that are used by one or more public agencies for inspection or maintenance of infrastructure and which are not typically used for construction-related activity.
- (29) SIMULTANEOUS SAMPLING means the operation of two PM₁₀ samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.
- (30) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange

County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.

- (31) **STABILIZED SURFACE** means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.
- (32) **TRACK-OUT** means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
- (33) **TYPICAL ROADWAY MATERIALS** means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer, and the U.S. EPA.
- (34) **UNPAVED ROADS** means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.
- (35) **VISIBLE ROADWAY DUST** means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
- (36) **WIND-DRIVEN FUGITIVE DUST** means visible emissions from any disturbed surface area which is generated by wind action alone.
- (37) **WIND GUST** is the maximum instantaneous wind speed as measured by an anemometer.

(d) Requirements

- (1) No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:

- (A) the dust remains visible in the atmosphere beyond the property line of the emission source; or
 - (B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.
- (2) No person shall conduct active operations without utilizing the applicable best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation.
- (3) No person shall cause or allow PM₁₀ levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent method for PM₁₀ monitoring. If sampling is conducted, samplers shall be:
- (A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM₁₀.
 - (B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.
- (4) No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift.
- (5) No person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without utilizing at least one of the measures listed in subparagraphs (d)(5)(A) through (d)(5)(E) at each vehicle egress from the site to a paved public road.
- (A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.

- (B) Pave the surface extending at least 100 feet and at least 20 feet wide.
 - (C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
 - (D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
 - (E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).
- (6) Beginning January 1, 2006, any person who operates or authorizes the operation of a confined animal facility subject to this Rule shall implement the applicable conservation management practices specified in Table 4 of this Rule.
- (e) Additional Requirements for Large Operations
- (1) Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards can not be met through use of Table 2 actions; and shall:
 - (A) submit a fully executed Large Operation Notification (Form 403 N) to the Executive Officer within 7 days of qualifying as a large operation;
 - (B) include, as part of the notification, the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;
 - (C) maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request;

- (D) install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;
 - (E) identify a dust control supervisor that:
 - (i) is employed by or contracted with the property owner or developer;
 - (ii) is on the site or available on-site within 30 minutes during working hours;
 - (iii) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;
 - (iv) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and
 - (F) notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation as defined by paragraph (c)(18).
- (2) Any Large Operation Notification submitted to the Executive Officer or AQMD-approved dust control plan shall be valid for a period of one year from the date of written acceptance by the Executive Officer. Any Large Operation Notification accepted pursuant to paragraph (e)(1), excluding those submitted by aggregate-related plants and cement manufacturing facilities must be resubmitted annually by the person who conducts or authorizes the conducting of a large operation, at least 30 days prior to the expiration date, or the submittal shall no longer be valid as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously accepted submittal or in an AQMD-approved dust control plan, the resubmittal may be a simple statement of no-change (Form 403NC).

(f) Compliance Schedule

The newly amended provisions of this Rule shall become effective upon adoption. Pursuant to subdivision (e), any existing site that qualifies as a large operation will have 60 days from the date of Rule adoption to comply with the notification and recordkeeping requirements for large operations. Any Large Operation

Notification or AQMD-approved dust control plan which has been accepted prior to the date of adoption of these amendments shall remain in effect and the Large Operation Notification or AQMD-approved dust control plan annual resubmittal date shall be one year from adoption of this Rule amendment.

(g) Exemptions

(1) The provisions of this Rule shall not apply to:

- (A) Dairy farms.
- (B) Confined animal facilities provided that the combined disturbed surface area within one continuous property line is one acre or less.
- (C) Agricultural vegetative crop operations provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.
- (D) Agricultural vegetative crop operations within the South Coast Air Basin, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:
 - (i) voluntarily implements the conservation management practices contained in the Rule 403 Agricultural Handbook;
 - (ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Agricultural Handbook; and
 - (iii) makes the completed self-monitoring form available to the Executive Officer upon request.
- (E) Agricultural vegetative crop operations outside the South Coast Air Basin whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:
 - (i) voluntarily implements the conservation management practices contained in the Rule 403 Coachella Valley Agricultural Handbook; and
 - (ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Coachella Valley Agricultural Handbook; and
 - (iii) makes the completed self-monitoring form available to the Executive Officer upon request.

- (F) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.
 - (G) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.
 - (H) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.
 - (I) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earth-moving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.
 - (J) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:
 - (i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and
 - (ii) any discing or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities, and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (g)(1)(H)(i). The provisions this clause shall not exempt the owner of any property from stabilizing, in accordance with paragraph (d)(2), disturbed surface areas which have been created as a result of the weed abatement actions.
 - (K) sandblasting operations.
- (2) The provisions of paragraphs (d)(1) and (d)(3) shall not apply:
- (A) When wind gusts exceed 25 miles per hour, provided that:

- (i) The required Table 3 contingency measures in this Rule are implemented for each applicable fugitive dust source type, and;
 - (ii) records are maintained in accordance with subparagraph (e)(1)(C).
 - (B) To unpaved roads, provided such roads:
 - (i) are used solely for the maintenance of wind-generating equipment; or
 - (ii) are unpaved public alleys as defined in Rule 1186; or
 - (iii) are service roads that meet all of the following criteria:
 - (a) are less than 50 feet in width at all points along the road;
 - (b) are within 25 feet of the property line; and
 - (c) have a traffic volume less than 20 vehicle-trips per day.
 - (C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.
- (3) The provisions of (d)(2) shall not apply to any aggregate-related plant or cement manufacturing facility that implements the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards of paragraphs (d)(1) and (d)(3) can not be met through use of Table 2 actions.
 - (4) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply to:
 - (A) Blasting operations which have been permitted by the California Division of Industrial Safety; and
 - (B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.
 - (5) The provisions of paragraph (d)(3) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for

each applicable fugitive dust source type. To qualify for this exemption, a person must maintain records in accordance with subparagraph (e)(1)(C).

- (6) The provisions of paragraph (d)(4) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles provided that such roadway is closed to through traffic and visible roadway dust is removed within one day following the cessation of activities.
- (7) The provisions of subdivision (e) shall not apply to:
 - (A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.
 - (B) any large operation which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance.
 - (C) any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.
- (8) The provisions of subparagraph (e)(1)(A) through (e)(1)(C) shall not apply to any large operation with an AQMD-approved fugitive dust control plan provided that there is no change to the sources and controls as identified in the AQMD-approved fugitive dust control plan.

(h) Fees

Any person conducting active operations for which the Executive Officer conducts upwind/downwind monitoring for PM₁₀ pursuant to paragraph (d)(3) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(3) or meets the requirements of paragraph (d)(3).

TABLE 1
BEST AVAILABLE CONTROL MEASURES
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	<ul style="list-style-type: none"> ✓ Mix backfill soil with water prior to moving ✓ Dedicate water truck or high capacity hose to backfilling equipment ✓ Empty loader bucket slowly so that no dust plumes are generated ✓ Minimize drop height from loader bucket
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	<ul style="list-style-type: none"> ✓ Maintain live perennial vegetation where possible ✓ Apply water in sufficient quantity to prevent generation of dust plumes
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	<ul style="list-style-type: none"> ✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	<ul style="list-style-type: none"> ✓ Follow permit conditions for crushing equipment ✓ Pre-water material prior to loading into crusher ✓ Monitor crusher emissions opacity ✓ Apply water to crushed material to prevent dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and	✓ For large sites, pre-water with sprinklers or water trucks and allow time for penetration
	05-2 Stabilize soil during and after cut and fill activities.	✓ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition – mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and	✓ Apply water in sufficient quantities to prevent the generation of visible dust plumes
	06-2 Stabilize surface soil where support equipment and vehicles will operate; and	
	06-3 Stabilize loose soil and demolition debris; and	
	06-4 Comply with AQMD Rule 1403.	
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and	✓ Limit vehicular traffic and disturbances on soils where possible
	07-2 Stabilize disturbed soil between structures	✓ If interior block walls are planned, install as early as possible ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and	✓ Grade each project phase separately, timed to coincide with construction phase
	08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and	✓ Upwind fencing can prevent material movement on site
	08-3 Stabilize soils once earth-moving activities are complete.	✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least six inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and 09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	<ul style="list-style-type: none"> ✓ Use tarps or other suitable enclosures on haul trucks ✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage ✓ Comply with track-out prevention/mitigation requirements ✓ Provide water while loading and unloading to reduce visible dust plumes
Landscaping	10-1 Stabilize soils, materials, slopes	<ul style="list-style-type: none"> ✓ Apply water to materials to stabilize ✓ Maintain materials in a crusted condition ✓ Maintain effective cover over materials ✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes ✓ Hydroseed prior to rain season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	<ul style="list-style-type: none"> ✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs ✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs

TABLE 1
BEST AVAILABLE CONTROL MEASURES
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	<ul style="list-style-type: none"> ✓ Dedicate water truck or high capacity hose to screening operation ✓ Drop material through the screen slowly and minimize drop height ✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	<ul style="list-style-type: none"> ✓ Limit size of staging area ✓ Limit vehicle speeds to 15 miles per hour ✓ Limit number and size of staging area entrances/exists
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	<ul style="list-style-type: none"> ✓ Add or remove material from the downwind portion of the storage pile ✓ Maintain storage piles to avoid steep sides or faces

TABLE 1
BEST AVAILABLE CONTROL MEASURES
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	<ul style="list-style-type: none"> ✓ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas ✓ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	<ul style="list-style-type: none"> ✓ Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching ✓ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds six inches (CVC 231114)	<ul style="list-style-type: none"> ✓ Empty loader bucket such that no visible dust plumes are created ✓ Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	<ul style="list-style-type: none"> ✓ Haul waste material immediately off-site

TABLE 1
BEST AVAILABLE CONTROL MEASURES
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Unpaved roads/parking lots	19-1 Stabilize soils to meet the applicable performance standards; and 19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	✓ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
Vacant land	20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Table 2
DUST CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Earth-moving (except construction cutting and filling areas, and mining operations)	<p>(1a) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR</p> <p>(1a-1) For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.</p>
Earth-moving: Construction fill areas:	<p>(1b) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.</p>

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Earth-moving: Construction cut areas and mining operations:	(1c) Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b) Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c) Apply chemical stabilizers within five working days of grading completion; OR (2d) Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a) Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR (3b) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (3c) Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR (3d) Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Unpaved Roads	<p>(4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR</p> <p>(4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR</p> <p>(4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.</p>
Open storage piles	<p>(5a) Apply chemical stabilizers; OR</p> <p>(5b) Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR</p> <p>(5c) Install temporary coverings; OR</p> <p>(5d) Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.</p>
All Categories	<p>(6a) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.</p>

TABLE 3
CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Table 4
(Conservation Management Practices for Confined Animal Facilities)

SOURCE CATEGORY	CONSERVATION MANAGEMENT PRACTICES
Manure Handling (Only applicable to Commercial Poultry Ranches)	(1a) Cover manure prior to removing material off-site; AND (1b) Spread the manure before 11:00 AM and when wind conditions are less than 25 miles per hour; AND (1c) Utilize coning and drying manure management by removing manure at laying hen houses at least twice per year and maintain a base of no less than 6 inches of dry manure after clean out; or in lieu of complying with conservation management practice (1c), comply with conservation management practice (1d). (1d) Utilize frequent manure removal by removing the manure from laying hen houses at least every seven days and immediately thin bed dry the material.
Feedstock Handling	(2a) Utilize a sock or boot on the feed truck auger when filling feed storage bins.
Disturbed Surfaces	(3a) Maintain at least 70 percent vegetative cover on vacant portions of the facility; OR (3b) Utilize conservation tillage practices to manage the amount, orientation and distribution of crop and other plant residues on the soil surface year-round, while growing crops (if applicable) in narrow slots or tilled strips; OR (3c) Apply dust suppressants in sufficient concentrations and frequencies to maintain a stabilized surface.
Unpaved Roads	(4a) Restrict access to private unpaved roads either through signage or physical access restrictions and control vehicular speeds to no more than 15 miles per hour through worker notifications, signage, or any other necessary means; OR (4b) Cover frequently traveled unpaved roads with low silt content material (i.e., asphalt, concrete, recycled road base, or gravel to a minimum depth of four inches); OR (4c) Treat unpaved roads with water, mulch, chemical dust suppressants or other cover to maintain a stabilized surface.
Equipment Parking Areas	(5a) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (5b) Apply material with low silt content (i.e., asphalt, concrete, recycled road base, or gravel to a depth of four inches).



APPENDIX "B"

PROJECT SIGNS



8'-0"

RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT ①

CALIMESA-AVENUE L
STORM DRAIN, STAGE 2 ②

TOTAL CONSTRUCTION COST: \$ * ③
FUNDED BY RIVERSIDE COUNTY FLOOD CONTROL AND
WATER CONSERVATION DISTRICT ④

START DATE: * ④ APPROX. COMPLETION DATE: *

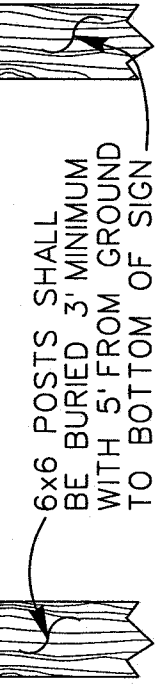
ENGINEER:
WARREN D. WILLIAMS
GENERAL MANAGER-CHIEF ENGINEER ⑤
RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT
RIVERSIDE, CALIFORNIA
(951) 955-1200

④ CONTRACTOR: *

3/4" CDX GRADE
PLYWOOD

LETTER SCHEDULE

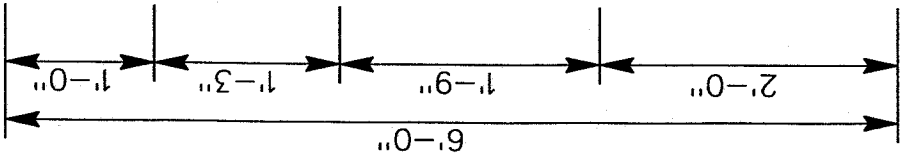
	<u>SIZE</u>	<u>COLOR</u>
①	2"	BLACK
②	4"	ROYAL
③	3"	ROYAL
④	2"	ROYAL
⑤	2"	BLACK



NOTES:

1. MINIMUM SPACING BETWEEN LINES 1".
2. * -INFO. FURNISHED BY ENGINEER
3. ALL LETTERS FILLED AND CENTERED
4. THE STRIPES ARE GOLD AND BLACK ON WHITE BACKGROUND.

APPENDIX "B" PROJECT SIGN





APPENDIX "C"

LOG OF SOIL BORINGS





FIELD LOG OF BORING B - 1

Sheet 1 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA** Project No. **4056-SF**

Dates(s) Drilled: 4/5/11	Logged By: M. Doerschlag
Drilled By: California-Pacific Drilling	Total Depth: 26.5 Ft.
Rig Make/Model: Mobile B-53	Hammer Type: Automatic trip
Drilling Method: Hollow-stem Auger	Hammer Weight/Drop: 140 Lb./30 in.
Hole Diameter: 7 in.	Surface Elevation: Approx. 2467.5 Ft. per plan

Comments: Pipe centerline, Sta. 12+15

DEPTH (Ft.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE, "N" or (Blows/ft.)								
0						Asphaltic Concrete Pavement: 4.0" thickness. Not original street pavement.				
					SM	Aggregate Base Material: 5.0" of modern crushed-rock product.				
	2465					Silty Sand: Dark brown; medium dense; moist; fine to medium-grained sand with rare coarse and trace of plastic clay fines; massive. [Younger slopewash & modern topsoils]				
5						Gradational contact				
			RING 5 9 14 (23)		SC	Clayey Sand with Silt: Dark yellowish brown; medium dense; moist; predominantly fine to medium grained with ~40% fines (subequal silt & clay proportions); non-plastic; moderately cohesive. Slowly grades less clayey with depth. [Older Alluvium]	122.0	12.6		SHEAR
	2460									BULK: MAX. SULFATE, CHLORIDE, pH, RESISTIVITY
10										
			RING 10 14 18 (32)		SC/SM	Clayey sand with silt, clay content decreasing, fine to coarse grained, massive, not visibly porous, mildly cohesive.	121.2	12.4		SHEAR
	2455									
15						Gradational transition				
					SM	Silty Sand: Yellowish brown; medium dense; moist; variably fine to coarse-grained proportions in indistinct thick beds; rare fine gravel. [Older Alluvium]				

Continued on following sheet.



FIELD LOG OF BORING B - 1

Sheet 2 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA** Project No. **4056-SF**

DEPTH (Ft.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE, "IN" or (Blows/ft.)								
15		RING 10-18 (30)			SM	Silty Sand; Yellowish brown; medium dense; moist. At 15' notably very fine to fine-grained, massive, uncemented, not mottled, and not visibly porous. [Older Alluvium]	119.4	13.1		SIEVE, SE
2450					SW-SM	Gravelly Sand with Silt; Light yellowish brown; dense; slightly moist; averages ~20% fine-grained subangular weathered gravel in fine-to-coarse sandy matrix with typical 10-15% silty fines; uncemented and low cohesion. Inferred crude thick stratification. [Older alluvium]	115.3	4.0		
20		RING 16-42 (68)			SW-SM					
2445					SP-SM, SM	Indistinct beds 8"-12" of sand w/ silt & silty sand, up to 25% fines; uncemented.	124.7	2.4		
25		RING 17-50 (85)								

*Bottom of boring at 26.5 ft.
 No groundwater encountered.
 Boring backfilled with tamped soil cuttings & patched.*



FIELD LOG OF BORING B - 2

Sheet 1 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

Dates(s) Drilled: **4/5/11**

Logged By: **M. Doerschlag**

Drilled By: **California-Pacific Drilling**

Total Depth: **31.5 Ft.**

Rig Make/Model: **Mobile B-53**

Hammer Type: **Automatic trip**

Drilling Method: **Hollow-stem Auger**

Hammer Weight/Drop: **140 Lb./30 In.**

Hole Diameter: **7 In.**

Surface Elevation: **Approx. 2484.5 Ft. per plan**

Comments: **Pipe centerline, Sta. 20+35**

DEPTH (FL.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE, "N" or (Blows/ft.)								
0						Asphaltic Concrete Pavement: 5.5" thickness.				
					SM	Gravelly Sand with Silt: 4.0' of select yellowish natural-soil subgrade fill.				
						Silty Sand: Dark brown, medium dense; moist; fine to medium-grained sand with trace of plastic clay fines; massive. [Younger slopewash & modern topsoils]				
5	2480		RING 8 12 15 (27)		SC	Clayey Sand with Silt: Dark brown grading to yellowish brown; medium dense, moist; fine to coarse grained with ~40% fines (subequal silt & clay proportions); slightly plastic; cohesive; not visibly porous. [Older Alluvium]	125.3	9.4		PP >4.60 tsf SHEAR
10	2475		RING 8 14 24 (38)		SC	Clayey fine to medium-grained sand with silt, ~35-40% fines decreasing slowly with depth, slightly cemented, common fine MnO spots, massive, not visibly porous, mildly cohesive. Firm drilling.	120.6	14.1		
15	2470					Gradational transition				

Continued on following sheet.



FIELD LOG OF BORING B - 2

Sheet 2 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

DEPTH (Ft.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE, "N" or (Blows/ft.)								
15		RING 8-14 (32)		[Graphic Log]	SM	Silty Sand: Yellowish brown; medium dense rapidly grading to dense; slightly moist to moist. At 15' shows fine to medium grained, massive, uncemented, not mottled, and not visibly porous. Slight coarsening w/ depth. [Older Alluvium]	118.8	8.4		
20	2465	RING 13-21 (73)		[Graphic Log]	SM	Silty sand, fine to medium grained with 5-10% angular quartz clasts, very silty, massive.	127.2	8.4		
				[Graphic Log]	SM	Gravelly Sand with Silt: Yellowish brown; dense; slightly moist. Interpreted 20-25% hard but fractured quartz gravel. Rig chatter & bounce. [Older Alluvium]				
25	2460	RING 16-25 (72)		[Graphic Log]	SM	Silty Sand: Yellowish brown; dense; slightly moist; mostly fine to medium grained and very silty, with no clay; massive, not visibly porous. [Older Alluvium]	112.5	9.7		PP >4.50 tsf
30	2455	RING 18-25 (69)		[Graphic Log]	SM	Silty sand with a trace of clay and slightly cemented. Common MnO spotting.	127.6	9.4		PP >4.50 tsf

Bottom of boring at 31.5 ft.
 No groundwater encountered.
 Boring backfilled with tamped soil cuttings & patched.



FIELD LOG OF BORING B - 3

Sheet 1 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA** Project No. **4056-SF**

Dates(s) Drilled: 4/6/11	Logged By: M. Doerschlag
Drilled By: California-Pacific Drilling	Total Depth: 28.5 Ft.
Rig Make/Model: Mobile B-53	Hammer Type: Automatic trip
Drilling Method: Hollow-stem Auger	Hammer Weight/Drop: 140 Lb./30 In.
Hole Diameter: 7 In.	Surface Elevation: Approx. 2502.0 Ft. per plan

Comments: Pipe centerline, Sta. 27+30

DEPTH (FT.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE	TYPE, "N" or (Blows/ft.)							
0						Asphaltic Concrete Pavement; 4.75" thickness.				
2500		RING 3-4-6	(12)		SM	Gravelly Sand with Silt: 4.0" of select yellowish natural-soil subgrade fill. Silty Sand: Dark brown; loose to medium dense; moist; fine-grained sand with avg. 40-45% silt and traces of gravel & clay; non-plastic; massive; some pinhole pores. [Younger slopewash & modern topsoils]	103.6	13.0		BULK: SE, SIEVE, HYDROMETER PP 2.50 tsf BULK: MAX
2495		RING 18-23-34	(57)		SM	Silty Sand: Yellowish brown; medium dense to dense; slightly moist; fine to coarse grained with traces of gravel and around 5-8% interstitial clay cement; massive, cemented and cohesive; not visibly porous. [Older Alluvium]				
					SM	Silty sand, as above.	123.5	10.9		PP >4.50 tsf
2490		RING 16-21-25	(46)		SM	Silty sand, fine to coarse grained, est. 25% silty fines, uncemented. Some medium-coarse gravel in tip (part of graded interval). Gradational transition	116.6	3.8		
15										

Continued on following sheet.



FIELD LOG OF BORING B - 3

Sheet 2 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

DEPTH (FL)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE, "N" or (Blows/ft.)								
15					SP-SM	Sand with Silt: Light yellowish brown; dense; slightly moist; decreasing fines & coarsening with depth. [Older Alluvium]				
	2485		RING 16 41 50/5"		SP-SM	Sand with silt, low cohesion, slightly moist. Sandy quartz gravel horizon (lag), heavy chatter.	119.9	3.4		SE
20					SM	Silty Sand: Yellowish brown; dense; slightly moist; variably fine to coarse grained. Typical ~5% hard but fractured quartz gravel. Unit crudely bedded 4"-6" thick. [Older Alluvium]				
	2480		RING 16 26 32 (58)		SM	Silty sand, fine-grained and very silty; massive, not visibly porous.	110.4	4.7		PP >4.50 tsf
25						Thin gravel horizon.				
	2475		RING 25 32 45 (77)		SM, SP-SM	Silty sand & sand with silt; crudely bedded 6"-10" thick, low cohesion.	111.7	3.0		

*Bottom of boring at 28.5 ft.
No groundwater encountered.
Boring backfilled with tamped soil cuttings & patched.*



FIELD LOG OF BORING B - 4

Sheet 1 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA** Project No. **4056-SF**

Dates(s) Drilled: 4/6/11	Logged By: M. Doerschlag
Drilled By: California-Pacific Drilling	Total Depth: 26.5 Ft.
Rig Make/Model: Mobile B-53	Hammer Type: Automatic trip
Drilling Method: Hollow-stem Auger	Hammer Weight/Drop: 140 Lb./30 In.
Hole Diameter: 7 In.	Surface Elevation: Approx. 2522.5 Ft. per plan

Comments: Pipe centerline, Sta. 34+80

DEPTH (Ft.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pct)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE	TYPE, "N" or (Blows/ft.)							
0						Asphaltic Concrete Pavement: 5.5" thickness.				
2520					SM	Gravelly Sand with Silt: 6.0' of select yellowish natural-soil subgrade fill.				
5		RING 6 14 (34) 20			SM/SC	Silty Sand: Dark brown; medium dense; moist; predominantly fine to medium-grained sand with trace of plastic clay fines; massive. [Younger slopewash & modern topsoils] Abrupt contact	114.5	10.6		SHEAR
2515					SM	Gradational transition Silty Sand: Yellowish brown; medium dense; slightly moist; fine to coarse grained; massive to indistinct thick layering. [Older Alluvium]				
10		RING 10 16 (34) 18			SM	Silty sand, variably f-m and f-c grained in indistinct beds 6"-10" thick, not visibly porous.	120.0	6.5		SHEAR
2510										
15										

Continued on following sheet.



FIELD LOG OF BORING B - 4

Sheet 2 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

DEPTH (Ft.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE	TYPE, "N" or (Blows/ft.)							
15		RING 4-7	8 (15)	[Hatched pattern]	SM	Silty Sand: Yellowish brown; generally dense; slightly moist. Indistinct stratification from inches to more than 1.5' thick. Low penetration @ 15' due to filled animal burrow. Slight coarsening w/ depth. [Older Alluvium]	109.0	3.9	[Hatched pattern]	
20	2505	RING 26-44	44 (88)	[Hatched pattern]	SM	Layered gravelly sand w/ silt & low-fines (15%) silty sand, neither cemented, gravel clasts weathered and friable.	118.0	5.0	[Hatched pattern]	
25	2500	RING 17-25	35 (60)	[Hatched pattern]	SM	Silty sand, fine to medium grained w/ ~20% fines, uncemented.	110.9	3.4	[Hatched pattern]	

Bottom of boring at 26.5 ft.
 No groundwater encountered.
 Boring backfilled with tamped soil cuttings & patched.



FIELD LOG OF BORING B - 5

Sheet 1 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

Dates(s) Drilled: 4/6/11	Logged By: M. Doerschlag
Drilled By: California-Pacific Drilling	Total Depth: 26.5 Ft.
Rig Make/Model: Mobile B-53	Hammer Type: Automatic trip
Drilling Method: Hollow-stem Auger	Hammer Weight/Drop: 140 Lb./30 In.
Hole Diameter: 7 In.	Surface Elevation: Approx. 2543.0 Ft. per plan

Comments: Pipe centerline, Sta. 41+40

DEPTH (Ft.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pct)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE	TYPE, "N" or (Blows/ft.)							
0						Asphaltic Concrete Pavement: 5.75" thickness.				
2540					ML	Gravelly Sand with Silt: 3.5" of select yellowish natural-soil subgrade fill.				BULK: LL/PL, R-VALUE
5		RING 31 15 (33) 18			SM	Sandy Silt with Clay: Dark brown; stiff; moist to very moist; fine to medium-grained sand; plastic @ field water content below 2' depth (grades to clayey silt). Sharp basal contact. [Younger slopewash & modern topsoils]	118.8	2.9		
2535					SM/SC	Silty Sand: Yellowish brown; medium dense; moist; fine to coarse weathered grains; with trace fine gravel and some clay near top of unit. Sample at 5' entirely in large highly weathered boulder. [Older Alluvium]				
10		RING 8 10 (21) 11				Silty sand with clay, variably f-m and f-c grained with some gravel to 3"+ diameter, not visibly porous.	116.2	10.1		
2530						Gravelly horizon.				
15										

Continued on following sheet.



FIELD LOG OF BORING B - 5

Sheet 2 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

DEPTH (FL)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE	TYPE, "N" or (Blows/ft.)							
15			RING 11 18 30 (48)		SP-SM, SM	Sand with Silt: Yellowish brown; medium dense; slightly moist; fine to coarse grained and mostly low silt content (~7-10%) with minor fine gravel; low cohesion. May be indistinctly layered 6"-10" thick. [Older Alluvium]	119.5	4.9		SIEVE, SE
20	2525		RING 11 14 21 (35)		SM	Silty sand, about 35% fines, moist, uncemented, massive, not visibly porous.	116.2	11.4		
	2520				GW-GM	Sandy Gravel: Yellowish brown; dense; slightly moist. Most clasts angular hard white quartz. Rig bounce. [Older Alluvium]				
25			RING 18 31 42 (73)		SP-SM	Sand with Silt: Yellowish brown; dense; slightly moist; fine to coarse grained with indistinct stratification 4"-6" thick. [Older Alluvium]	122.1	4.6		

Bottom of boring at 26.5 ft.
 No groundwater encountered.
 Boring backfilled with tamped soil cuttings & patched.



FIELD LOG OF BORING B - 6

Sheet 1 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

Dates(s) Drilled: **4/5/11**

Logged By: **M. Doerschlag**

Drilled By: **California-Pacific Drilling**

Total Depth: **26.5 Ft.**

Rig Make/Model: **Mobile B-53**

Hammer Type: **Automatic trip**

Drilling Method: **Hollow-stem Auger**

Hammer Weight/Drop: **140 Lb./30 In.**

Hole Diameter: **7 In.**

Surface Elevation: **Approx. 2564.0 Ft. per plan**

Comments: **Pipe centerline, Sta. 49+20**

DEPTH (FL.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE, "N" or (Blows/fl.)								
0						Asphaltic Concrete Pavement: 4.5" thickness.				
5	2560				ML	Gravelly Sand with Silt: 8" of select yellowish natural-soil subgrade fill.				BULK: MAX. SHEAR
					SC	Sandy Silt: Dark brown; stiff; moist; around 30% very fine sand with some plastic clay fines; massive. [Younger slopewash & modern topsoils]				
					SC	Approximate contact				
					SC	Clayey Sand: Dark yellowish brown; medium dense; moist; fine to coarse grained, silty, and with traces of highly weathered fine gravel. Non-plastic, not visibly porous, and massive. Grades less fines w/ depth. [Older Alluvium]	121.0	12.1		PP > 4.50 tsf
	2555					Gradational contact				
					SM	Silty Sand: Yellowish brown; dense; moist; fine to coarse weathered grains, with typical ~5% fine gravel and traces of clay grain films. Slightly cemented and massive; not visibly porous. Coarsens with depth. [Older Alluvium]	127.9	8.4		BULK: MAX. SIEVE, SULFATE, CHLORIDE, pH, RESISTIVITY
15	2550									

Continued on following sheet.



FIELD LOG OF BORING B - 6

Sheet 2 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

DEPTH (FL.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE "N" or (Blows/ft.)								
15		RING 14-28 (58)		[Graphic Log: Silty Sand]	SM	Silty Sand: Yellowish brown; dense; becomes slightly moist; fine to coarse grained sand and up to 20-25% weathered gravel; weakly stratified 6"-10" thick. Uncemented. [Older Alluvium]	122.8	3.8		SE
20	2545	RING 24-33 (85)		[Graphic Log: Sandy Gravel]	SM GW-GM	Gradational contact Sandy Gravel: Light yellowish brown; dense to very dense; slightly moist. Mixed angular weathered white quartz and schist clasts. Clay films on detrital particles. Basal part of thick fining-up sequence. [Older Alluvium]	125.8	5.2		
25	2540	RING 40-25 (55)		[Graphic Log: Sandy Silt]	GW ML	Abrupt erosional contact Sandy Silt: Yellowish brown; hard; slightly moist to moist; non-plastic. About 30-35% very fine sand; lacks pedogenic carbonate. [Older Alluvium]	116.4	16.2		PP > 4.50 tsf

Bottom of boring at 26.5 ft.
 No groundwater encountered.
 Boring backfilled with tamped soil cuttings & patched.



FIELD LOG OF BORING B - 7

Sheet 1 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

Dates(s) Drilled: 4/5/11	Logged By: M. Doerschlag
Drilled By: California-Pacific Drilling	Total Depth: 21.5 Ft.
Rig Make/Model: Mobile B-53	Hammer Type: Automatic trip
Drilling Method: Hollow-stem Auger	Hammer Weight/Drop: 140 Lb./30 In.
Hole Diameter: 7 In.	Surface Elevation: Approx. 2597.5 Ft. per plan

Comments: Pipe centerline, Sta. 60+30, ~32' from C/L DWR aqueduct.

DEPTH (ft.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE "N" or (Blows/ft.)								
0					ML	Asphaltic Concrete Pavement: 4.5" thickness, appears original.				
2595					ML	Gravelly Sand with Silt: Spotty inch or so of select yellowish natural-soil subgrade fill.				BULK: R-VALUE
5					ML/SM	Sandy Silt: Very dark grayish brown, becoming dark brown; very stiff; moist; around 20% very fine sand; massive; non-plastic but trace of clay. Organic aroma near top. [Younger slopewash & modern topsoils]				
			RING 6 8 8 (16)		ML/SM	Very sandy silt, dark brown; faint mottles of FeO/MnO, slightly clayey, non-plastic.	113.0	16.5		PP 4.60 tsf SHEAR
2590					SM	Silty Sand with Clay: Dark yellowish brown; medium dense; moist; fine to coarse grained, massive. Grades less clayey fines w/ depth. [Older Alluvium]				BULK: MAX
10					GW-GM	Sandy Gravel with Silt: Yellowish brown; medium dense; moist. Comprises angular weathered gneissic schist and white quartz fragments in coarse sandy matrix, max rock size >3" across. Abrupt lower contact. [Older Alluvium]	124.3	7.4		
2585			RING 14 20 21 (41)		SM	Silty Sand: Yellowish brown; medium dense; moist; fine to coarse weathered grains, with typical ~5% gravel up to 3" across and traces of clay grain films. Faintly layered 1"-3" thick (gravel trains); not visibly porous. [Older Alluvium]				
15										

Continued on following sheet.



FIELD LOG OF BORING B - 7

Sheet 2 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

DEPTH (Ft.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE, "IN" or (Blows/ft.)								
15	2580	RING 7-9 (21)			SM	Silty Sand: Yellowish brown, medium dense; moist; fine to coarse grained sand plus typical 5% weathered gravel up to 3" across; continued interpreted crude thin layering. Uncemented. [Older Alluvium]	114.8	8.1		SHEAR
20		RING 16-18 (39)			SM	Silty sand, low 15-20% silty fines, trace gravel, massive, uncemented.	121.0	9.0		

Bottom of boring at 21.5 ft.
 No groundwater encountered.
 Boring backfilled with tamped soil cuttings & patched.



FIELD LOG OF BORING B - 8

Sheet 1 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA** Project No. **4056-SF**

Dates(s) Drilled: 4/5/11	Logged By: M. Doerschlag
Drilled By: California-Pacific Drilling	Total Depth: 23.0 Ft.
Rig Make/Model: Mobile B-53	Hammer Type: Automatic trip
Drilling Method: Hollow-stem Auger	Hammer Weight/Drop: 140 Lb./30 in.
Hole Diameter: 7 in.	Surface Elevation: Approx. 2621.5 Ft. per plan

Comments: 3' N of pipe centerline, Sta. 66+80

DEPTH (Ft.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE	TYPE, "N" or (Blows/ft.)							
0						Asphaltic Concrete Pavement: 5.75" thickness on native subgrade.				
5	2620	RING 5-8	10 (18)		ML	Sandy Silt: Dark brown grading to dark yellowish brown; very stiff to hard; moist; around 20-25% very fine-grained sand; non-plastic; massive; some pinhole pores noted in ring sample. [Younger slopewash & modern topsoils]	108.8	6.1		PP >4.50 tsf
10	2615	RING 13-22	34 (66)		SM	Approximate contact Silty Sand: Yellowish brown; dense; slightly moist; fine to medium grained with rare subangular gravel and trace of clay; massive, slightly cemented; not visibly porous. [Older Alluvium]	113.7	10.6		PP >4.50 tsf
15	2610	RING 17-27	40 (67)		SM	Silty sand, grades brown, fine to medium grained, est. 40% silty fines and rare quartz gravel, not visibly porous. Slightly cemented.	124.1	7.7		PP >4.50 tsf SE

Continued on following sheet.



FIELD LOG OF BORING B - 8

Sheet 2 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

DEPTH (FL.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE, "N" or (Blows/ft.)								
15	2605	RING 18		[Pattern]	SM	Silty Sand: Yellowish brown; grades medium dense; slightly moist; decreasing fines & coarsening with depth. [Older Alluvium]				
		20 (42)		[Pattern]	SM	Silty sand, yellowish brown; traces of clayey grain films but low fines (~20%), faint carbonate filaments.	113.5	5.1		
20	2600	RING 21		[Pattern]	SC	Clayey Sand: Dark yellowish brown; very dense; slightly moist; fine to coarse grained with est. 35% clay; massive. Notably cohesive, some pedogenic carbonate. Sample with charcoal bits and part of filled animal burrow. Interpreted paleosol. [Older Alluvium]	125.5	10.4		
		50/5"		[Pattern]		Becomes slow drilling progress				

*Bottom of boring at 23.0 ft.
 No groundwater encountered.
 Boring backfilled with tamped soil cuttings & patched.*



FIELD LOG OF BORING B - 9

Sheet 1 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA** Project No. **4056-SF**

Dates(s) Drilled: 4/5/11	Logged By: M. Doerschlag
Drilled By: California-Pacific Drilling	Total Depth: 26.5 Ft.
Rig Make/Model: Mobile B-53	Hammer Type: Automatic trip
Drilling Method: Hollow-stem Auger	Hammer Weight/Drop: 140 Lb./30 In.
Hole Diameter: 7 In.	Surface Elevation: Approx. 2636.0 Ft. per plan

Comments: Pipe centerline, Sta. 71+00 close to DWR aqueduct.

DEPTH (FL)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE "N" or (Blows/ft.)								
0	2635				ML	Asphaltic Concrete Pavement: 4.75" thickness, on native subgrade.				BULK: LL/PL
5	2630	RING 5-8-11 (19)			ML/SM	Sharply grades over 2"-3" interval.	109.6	7.2		PP 3.00 tsf
					SM	Silty Sand: Yellowish brown; medium dense; moist becoming slightly moist; fine to medium grained, with estimated ~40% silty fines that decrease very slowly with depth; massive; not visibly porous. [Older Alluvium]				BULK: MAX
10	2625	RING 10-14-16 (30)			SM	Silty sand, as above, ~30-35% fines, not visibly porous.	116.0	8.3		PP >4.50 tsf
15										

Continued on following sheet.



FIELD LOG OF BORING B - 9

Sheet 2 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

DEPTH (FL)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE	TYPE "N" or (Blows/ft.)							
15	2620	RING 11-19	33 (52)	[Pattern]	SM	Silty Sand: Yellowish brown to brown; dense; slightly moist; becomes fine to coarse grained sand plus typical trace of weathered subangular gravel, with measured 36% fines at 15'; slightly cemented. [Older Alluvium]	122.8	7.0		SIEVE
20	2615	RING 18-22	30 (52)	[Pattern]	SM	Silty sand, brown, some carbonate veils.	122.4	7.0		PP >4.50 tsf
				[Pattern]	SC/CL	Clayey Sand: Dark yellowish brown; very dense; slightly moist. Cemented and strongly cohesive (slow drilling). Interpreted paleosol. [Older Alluvium]				
				[Pattern]	SM					
25	2610	RING 15-24	26 (60)	[Pattern]	SM	Silty Sand: Yellowish brown; dense; slightly moist; fine to coarse grained with occasional coarse gravel or small cobble; usually low 20-25% silty fines; uncemented. [Older Alluvium]	121.6	4.0		
				[Pattern]	SM	Silty sand, as above.				

Bottom of boring at 26.5 ft.
 No groundwater encountered.
 Boring backfilled with tamped soil cuttings & patched.



FIELD LOG OF BORING B - 10

Sheet 1 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA**

Project No. **4056-SF**

Dates(s) Drilled: **4/5/11**

Logged By: **M. Doerschlag**

Drilled By: **California-Pacific Drilling**

Total Depth: **26.5 Ft.**

Rig Make/Model: **Mobile B-53**

Hammer Type: **Automatic trip**

Drilling Method: **Hollow-stem Auger**

Hammer Weight/Drop: **140 Lb./30 in.**

Hole Diameter: **7 in.**

Surface Elevation: **Approx. 2646.0 Ft. per plan**

Comments: Pipe centerline, Sta. 78+30 (Douglas Street).

DEPTH (Ft.)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE, "IN" or (Blows/ft.)								
2645					ML	Asphaltic Concrete Pavement: 5.25" thickness, on native subgrade.				BULK: LL/PL, SHEAR
5	2640	RING 4 14 18 (32)			ML/SM	Sandy Silt: Yellowish brown; hard; slightly moist; around 40% very fine sand, and traces of rounded gravel; massive and featureless; non-plastic; cohesive. Increasingly sandy with depth. [Older Alluvium] Sandy silt, with rare fine gravel, slightly moist, massive, not visibly porous.	116.5	8.1		PP >4.50 tsf BULK: MAX. SULFATE, CHLORIDE, pH, RESISTIVITY
10	2635	RING 14 35 34 (69)			SM	Approximate gradational transition Silty Sand: Yellowish brown; dense; slightly moist; mostly fine to medium grained, with traces of coarse sand and fine subangular quartz gravel; estimated ~40% silty fines that decrease very slowly with depth; massive; not visibly porous. [Older Alluvium]	120.9	7.1		PP >4.50 tsf
15										

Continued on following sheet.



FIELD LOG OF BORING B - 10

Sheet 1 of 2

Project: **CALIMESA AVENUE L STAGE 2 STORM DRAIN**

Location: **CALIMESA, CALIFORNIA** Project No. **4056-SF**

Dates(s) Drilled: 4/5/11	Logged By: M. Doerschlag
Drilled By: California-Pacific Drilling	Total Depth: 26.5 Ft.
Rig Make/Model: Mobile B-53	Hammer Type: Automatic trip
Drilling Method: Hollow-stem Auger	Hammer Weight/Drop: 140 Lb./30 in.
Hole Diameter: 7 in.	Surface Elevation: Approx. 2646.0 Ft. per plan

Comments: Pipe centerline, Sta. 78+30 (Douglas Street).

DEPTH (FL)	ELEVATION (MSL DATUM)	SAMPLE INTERVALS		GRAPHIC LOG	USCS	GEOTECHNICAL DESCRIPTION	DRY DENSITY (Pcf)	MOISTURE CONTENT (%)	WELL COMPLETION	OTHER TESTS
		BULK DRIVE TYPE, "N" or (Blows/ft.)								
0	2646				ML	Asphaltic Concrete Pavement: 5.26" thickness, on native subgrade.				BULK: LL/PL, SHEAR
5	2640	RING 4 14 18 (32)			ML ML/SM	Sandy Silt: Yellowish brown; hard, slightly moist; around 40% very fine sand, and traces of rounded gravel, massive and featureless; non-plastic, cohesive, increasing sandy with depth. [Older Alluvium] Very sandy silt, with rare fine gravel, slightly moist, massive, not visibly porous.	116.5	8.1		PP >4.50 tsf BULK: MAX, SULFATE, CHLORIDE, pH, RESISTIVITY
10	2635	RING 14 35 34 (69)			SM	Approximate gradational transition Silty Sand: Yellowish brown; dense, slightly moist; mostly fine to medium grained, with traces of coarse sand and fine subangular quartz gravel; estimated ~40% silty fines that decrease very slowly with depth; massive; not visibly porous. [Older Alluvium]	120.9	7.1		PP >4.50 tsf
15										

Continued on following sheet.