

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

403B



**FROM:** General Manager-Chief Engineer

**SUBMITTAL DATE:**  
July 3, 2012

**SUBJECT:** Project Award – Lakeland Village – Orange Street Storm Drain Lateral, Stage 1  
Project No. 3-0-00012-01  
District One/District One

**RECOMMENDED MOTION:**

The Board approve the low bid submitted by the firm of Mike Bubalo Construction Co., Inc. for \$187,744.00, 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 2012-2013 Zone 3 budget for this project.

**WARREN D. WILLIAMS**  
General Manager-Chief Engineer

**FINANCIAL DATA**

Current F.Y. District Cost:	\$187,744.00	In Current Year Budget:	Yes
Current F.Y. County Cost:	N/A	Budget Adjustment:	No
Annual Net District Cost:	N/A	For Fiscal Year:	2012-2013

**SOURCE OF FUNDS:**

25130 947440 527980 Zone 3 Const/Maint/Misc-Contracts

Positions To Be Deleted Per A-30	<input type="checkbox"/>
Requires 4/5 Vote	<input type="checkbox"/>

**C.E.O. RECOMMENDATION:**

APPROVE

BY: Michael R. Shetler

County Executive Office Signature

**MINUTES OF THE FLOOD CONTROL AND WATER CONSERVATION DISTRICT**

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

Ayes: Buster, Tavaglione, Stone and Benoit  
Nays: None  
Absent: Ashley  
Date: July 3, 2012  
xc: Flood

Kecia Harper-Ihem  
Clerk of the Board  
By:   
Deputy

Prev. Agn. Ref.: 11.1 of 04/17/12 District: 1/1 Agenda Number:

11.4

ATTACHMENTS FILED  
WITH THE CLERK OF THE BOARD

FORM APPROVED COUNTY COUNSEL  
BY: DATE

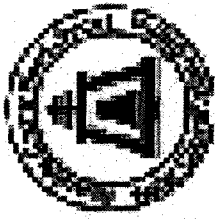
FISCAL PROCEDURES APPROVED  
BY: IVAN M. CHAND, FINANCE DIRECTOR

JEANINE J. REY

Policy  Consent

Policy  Consent

Dept't Recomm: Per Exec. Ofc.:



# 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:** LAKELAND VILLAGE - ORANGE STREET STORM DRAIN LATERAL STAGE 1

**Project Number:** 3-0-00012-01

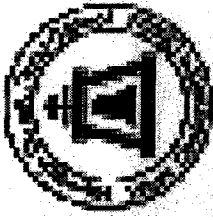
**Bid Open Date:** 05/17/2012

<b>Total</b>	<b>Contractor Name</b>	<b>Address</b>	<b>Phone</b>
\$187,744.00	MIKE BUBALO CONSTRUCTION CO., INC.	5102 Gayhurst Avenue Baldwin Park, CA 91706	626.960.7787
\$229,661.50	O'DUFFY BROS., INC.	29254 Duffy Street Romoland, CA 92585	951.928.0992
\$235,876.30	BERT W. SALAS, INC.	10769 Woodside Avenue, Suite 201 SANTEE, CA 92071	619.562.7711
\$263,475.12	SRD ENGINEERING, INC.	18200 Yorba Linda Blvd., Suite 100 Yorba Linda, CA 92886	714.572.3660
\$264,398.00	AToM ENGINEERING CONSTRUCTION, INC.	40410 Vista Road Hemet, CA 92544	951.766.2806
\$282,720.00	GARCIA JUAREZ CONSTRUCTION, INC.	Post Office Box 309 Brea, CA 92822-0309	951.657.3535
\$285,000.00	PK MECHANICAL SYSTEMS, INC.	21335 Bundy Canyon Road Wildomar, CA 92595	951.245.5537
\$319,130.00	MODE ENGINEERING	29703 #B Niguel Road Laguna Niguel, CA 92677	949.313.6067
\$322,827.00	EXCAVATING ENGINEERS, INC.	5256 S. Mission Road #703-002 Bonsall, CA 92003	760.451.8600
\$469,338.78	JPI DEVELOPMENT GROUP, INC.	41205 Golden Gate Circle Murrieta, CA 92562	951.973.7680
\$266,103.00	RCFC Engineer's Estimate		

**Bid Abstract**

**Riverside County Flood Control & Water Conservation District**

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



**Project Name:** LAKELAND VILLAGE - ORANGE STREET STORM DRAIN LATERAL STAGE 1

**Project Number:** 3-0-00012-01

**Bid Open Date:** 05/17/2012

**ENGINEER'S ESTIMATE**

**MIKE BUBALO  
CONSTRUCTION CO., INC.**

**O'DUFFY BROS., INC.**

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$20,000.00	\$20,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
2 WATER CONTROL	L.S.	1	\$10,000.00	\$10,000.00	\$2,000.00	\$2,000.00	\$2,500.00	\$2,500.00
3 TRAFFIC CONTROL	L.S.	1	\$10,000.00	\$10,000.00	\$1,000.00	\$1,000.00	\$1,500.00	\$1,500.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$7,500.00	\$7,500.00
5 EXCAVATION	C.Y.	1,000	\$15.00	\$15,000.00	\$15.00	\$15,000.00	\$15.00	\$15,000.00
6 ROCK EXCAVATION	C.Y.	150	\$70.00	\$10,500.00	\$35.00	\$5,250.00	\$150.00	\$22,500.00
7 BACKFILL	C.Y.	824	\$13.00	\$10,712.00	\$12.00	\$9,888.00	\$25.00	\$20,600.00
8 FILTER MATERIAL	C.Y.	27	\$62.00	\$1,674.00	\$100.00	\$2,700.00	\$175.00	\$4,725.00
9 TRENCH SAFETY SYSTEM	L.S.	1	\$20,000.00	\$20,000.00	\$5,000.00	\$5,000.00	\$3,500.00	\$3,500.00
10 CLASS "A" CONCRETE	C.Y.	49	\$600.00	\$29,400.00	\$600.00	\$29,400.00	\$850.00	\$41,650.00
11 CLASS "B" CONCRETE	C.Y.	43	\$450.00	\$19,350.00	\$300.00	\$12,900.00	\$500.00	\$21,500.00
12 JUNCTION STRUCTURE NO. 6	EACH	1	\$5,000.00	\$5,000.00	\$4,000.00	\$4,000.00	\$7,500.00	\$7,500.00
13 MANHOLE NO. 1	EACH	3	\$2,600.00	\$7,800.00	\$5,000.00	\$15,000.00	\$3,500.00	\$10,500.00
14 30" RCP	L.F.	630	\$119.00	\$74,970.00	\$98.00	\$61,740.00	\$79.00	\$49,770.00
15 18" RCP	L.F.	3	\$90.00	\$270.00	\$60.00	\$180.00	\$150.00	\$450.00
16 ASPHALT CONCRETE TYPE "B"	S.F.	135	\$3.00	\$405.00	\$15.00	\$2,025.00	\$20.00	\$2,700.00
17 MISCELLANEOUS IRON AND STEEL	LBS.	2,361	\$2.00	\$4,722.00	\$1.00	\$2,361.00	\$1.50	\$3,541.50
18 DELINEATORS	EACH	3	\$100.00	\$300.00	\$100.00	\$300.00	\$75.00	\$225.00
19 CONCRETE FLARED END SECTION	EACH	1	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
20 DUST ABATEMENT	L.S.	1	\$10,000.00	\$10,000.00	\$1,000.00	\$1,000.00	\$1,500.00	\$1,500.00
21 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$10,000.00	\$10,000.00	\$2,000.00	\$2,000.00	\$1,500.00	\$1,500.00

\$266,103.00

\$187,744.00

\$229,661.50

**Project Name:** LAKELAND VILLAGE - ORANGE STREET STORM DRAIN LATERAL STAGE 1

**Project Number:** 3-0-00012-01  
**Bid Open Date:** 05/17/2012

BERT W. SALAS, INC.

SRD ENGINEERING, INC.

ATOM ENGINEERING  
CONSTRUCTION, INC.

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$21,000.00	\$21,000.00	\$12,500.00	\$12,500.00	\$5,900.00	\$5,900.00
2 WATER CONTROL	L.S.	1	\$1,500.00	\$1,500.00	\$1,380.00	\$1,380.00	\$3,900.00	\$3,900.00
3 TRAFFIC CONTROL	L.S.	1	\$9,000.00	\$9,000.00	\$5,800.00	\$5,800.00	\$7,870.00	\$7,870.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$7,000.00	\$7,000.00	\$5,900.00	\$5,900.00	\$14,750.00	\$14,750.00
5 EXCAVATION	C.Y.	1,000	\$22.00	\$22,000.00	\$24.00	\$24,000.00	\$15.00	\$15,000.00
6 ROCK EXCAVATION	C.Y.	150	\$88.00	\$13,200.00	\$202.00	\$30,300.00	\$100.00	\$15,000.00
7 BACKFILL	C.Y.	824	\$25.00	\$20,600.00	\$17.00	\$14,008.00	\$18.00	\$14,832.00
8 FILTER MATERIAL	C.Y.	27	\$80.00	\$2,160.00	\$116.00	\$3,132.00	\$160.00	\$4,320.00
9 TRENCH SAFETY SYSTEM	L.S.	1	\$6,500.00	\$6,500.00	\$3,140.00	\$3,140.00	\$13,000.00	\$13,000.00
10 CLASS "A" CONCRETE	C.Y.	49	\$950.00	\$46,550.00	\$990.00	\$48,510.00	\$525.00	\$25,725.00
11 CLASS "B" CONCRETE	C.Y.	43	\$525.00	\$22,575.00	\$540.00	\$23,220.00	\$435.00	\$18,705.00
12 JUNCTION STRUCTURE NO. 6	EACH	1	\$5,200.00	\$5,200.00	\$5,100.00	\$5,100.00	\$17,250.00	\$17,250.00
13 MANHOLE NO. 1	EACH	3	\$3,500.00	\$10,500.00	\$3,900.00	\$11,700.00	\$4,900.00	\$14,700.00
14 30" RCP	L.F.	630	\$50.00	\$31,500.00	\$96.00	\$60,480.00	\$99.00	\$62,370.00
15 18" RCP	L.F.	3	\$60.00	\$180.00	\$214.00	\$642.00	\$1,100.00	\$3,300.00
16 ASPHALT CONCRETE TYPE "B"	S.F.	135	\$12.00	\$1,620.00	\$18.30	\$2,470.50	\$21.00	\$2,835.00
17 MISCELLANEOUS IRON AND STEEL	LBS.	2,361	\$1.30	\$3,069.30	\$1.42	\$3,352.62	\$6.00	\$14,166.00
18 DELINEATORS	EACH	3	\$74.00	\$222.00	\$240.00	\$720.00	\$725.00	\$2,175.00
19 CONCRETE FLARED END SECTION	EACH	1	\$1,500.00	\$1,500.00	\$1,230.00	\$1,230.00	\$1,700.00	\$1,700.00
20 DUST ABATEMENT	L.S.	1	\$4,500.00	\$4,500.00	\$1,740.00	\$1,740.00	\$3,500.00	\$3,500.00
21 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$5,500.00	\$5,500.00	\$4,150.00	\$4,150.00	\$3,400.00	\$3,400.00
				\$235,876.30		\$263,475.12		\$264,398.00



**Project Name:** LAKELAND VILLAGE - ORANGE STREET STORM DRAIN LATERAL STAGE 1

**Project Number:** 3-0-00012-01  
**Bid Open Date:** 05/17/2012

**GARCIA JUAREZ  
CONSTRUCTION, INC.**

**PK MECHANICAL  
SYSTEMS, INC.**

**MODE ENGINEERING**

Item No. & Description	Unit	Quantity	Unit Bid	Total Bid	Unit Bid	Total Bid	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$35,000.00	\$35,000.00	\$3,979.00	\$3,979.00	\$10,000.00	\$10,000.00
2 WATER CONTROL	L.S.	1	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$2,000.00	\$2,000.00
3 TRAFFIC CONTROL	L.S.	1	\$2,000.00	\$2,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$3,000.00	\$3,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
5 EXCAVATION	C.Y.	1,000	\$5.00	\$5,000.00	\$65.00	\$65,000.00	\$40.00	\$40,000.00
6 ROCK EXCAVATION	C.Y.	150	\$25.00	\$3,750.00	\$100.00	\$15,000.00	\$100.00	\$15,000.00
7 BACKFILL	C.Y.	824	\$16.00	\$13,184.00	\$30.00	\$24,720.00	\$30.00	\$24,720.00
8 FILTER MATERIAL	C.Y.	27	\$50.00	\$1,350.00	\$50.00	\$1,350.00	\$50.00	\$1,350.00
9 TRENCH SAFETY SYSTEM	L.S.	1	\$40,000.00	\$40,000.00	\$10,000.00	\$10,000.00	\$14,000.00	\$14,000.00
10 CLASS "A" CONCRETE	C.Y.	49	\$700.00	\$34,300.00	\$430.00	\$21,070.00	\$500.00	\$24,500.00
11 CLASS "B" CONCRETE	C.Y.	43	\$400.00	\$17,200.00	\$430.00	\$18,490.00	\$500.00	\$21,500.00
12 JUNCTION STRUCTURE NO. 6	EACH	1	\$10,000.00	\$10,000.00	\$8,000.00	\$8,000.00	\$8,000.00	\$8,000.00
13 MANHOLE NO. 1	EACH	3	\$5,000.00	\$15,000.00	\$5,000.00	\$15,000.00	\$10,000.00	\$30,000.00
14 30" RCP	L.F.	630	\$145.00	\$91,350.00	\$80.00	\$50,400.00	\$100.00	\$63,000.00
15 18" RCP	L.F.	3	\$600.00	\$1,800.00	\$100.00	\$300.00	\$200.00	\$600.00
16 ASPHALT CONCRETE TYPE "B"	S.F.	135	\$10.00	\$1,350.00	\$75.00	\$10,125.00	\$30.00	\$4,050.00
17 MISCELLANEOUS IRON AND STEEL	LBS.	2,361	\$1.00	\$2,361.00	\$6.00	\$14,166.00	\$10.00	\$23,610.00
18 DELINEATORS	EACH	3	\$25.00	\$75.00	\$300.00	\$900.00	\$100.00	\$300.00
19 CONCRETE FLARED END SECTION	EACH	1	\$2,000.00	\$2,000.00	\$3,000.00	\$3,000.00	\$10,000.00	\$10,000.00
20 DUST ABATEMENT	L.S.	1	\$1,000.00	\$1,000.00	\$2,500.00	\$2,500.00	\$6,500.00	\$6,500.00
21 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$2,000.00	\$2,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
				<b>\$282,720.00</b>		<b>\$285,000.00</b>		<b>\$319,130.00</b>

**Project Name:** LAKELAND VILLAGE - ORANGE STREET STORM DRAIN LATERAL STAGE 1

**Project Number:** 3-0-00012-01

**Bid Open Date:** 05/17/2012

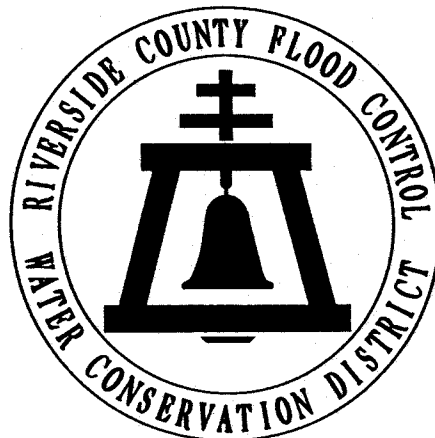
Item No. & Description	Unit	Quantity	EXCAVATING ENGINEERS, INC.		JPI DEVELOPMENT GROUP, INC.	
			Unit Bid	Total Bid	Unit Bid	Total Bid
1 MOBILIZATION	L.S.	1	\$40,000.00	\$40,000.00	\$8,905.00	\$8,905.00
2 WATER CONTROL	L.S.	1	\$6,000.00	\$6,000.00	\$5,330.00	\$5,330.00
3 TRAFFIC CONTROL	L.S.	1	\$7,000.00	\$7,000.00	\$16,133.00	\$16,133.00
4 CLEARING AND MISCELLANEOUS WORK	L.S.	1	\$3,500.00	\$3,500.00	\$13,234.00	\$13,234.00
5 EXCAVATION	C.Y.	1,000	\$40.00	\$40,000.00	\$17.63	\$17,630.00
6 ROCK EXCAVATION	C.Y.	150	\$150.00	\$22,500.00	\$392.60	\$58,890.00
7 BACKFILL	C.Y.	824	\$30.00	\$24,720.00	\$60.58	\$49,917.92
8 FILTER MATERIAL	C.Y.	27	\$40.00	\$1,080.00	\$98.78	\$2,667.06
9 TRENCH SAFETY SYSTEM	L.S.	1	\$6,000.00	\$6,000.00	\$11,050.00	\$11,050.00
10 CLASS "A" CONCRETE	C.Y.	49	\$1,000.00	\$49,000.00	\$1,084.10	\$53,120.90
11 CLASS "B" CONCRETE	C.Y.	43	\$600.00	\$25,800.00	\$1,023.88	\$44,026.84
12 JUNCTION STRUCTURE NO. 6	EACH	1	\$1,200.00	\$1,200.00	\$24,375.00	\$24,375.00
13 MANHOLE NO. 1	EACH	3	\$3,000.00	\$9,000.00	\$5,505.33	\$16,515.99
14 30" RCP	L.F.	630	\$90.00	\$56,700.00	\$181.94	\$114,622.20
15 18" RCP	L.F.	3	\$150.00	\$450.00	\$148.00	\$444.00
16 ASPHALT CONCRETE TYPE "B"	S.F.	135	\$20.00	\$2,700.00	\$41.91	\$5,657.85
17 MISCELLANEOUS IRON AND STEEL	LBS.	2,361	\$7.00	\$16,527.00	\$1.82	\$4,297.02
18 DELINEATORS	EACH	3	\$50.00	\$150.00	\$260.00	\$780.00
19 CONCRETE FLARED END SECTION	EACH	1	\$3,500.00	\$3,500.00	\$8,742.00	\$8,742.00
20 DUST ABATEMENT	L.S.	1	\$2,000.00	\$2,000.00	\$6,630.00	\$6,630.00
21 STORMWATER AND NON-STORMWATER POLLUTION CONTROL	L.S.	1	\$5,000.00	\$5,000.00	\$6,370.00	\$6,370.00
			<b>\$322,827.00</b>		<b>\$469,338.78</b>	

SPECIFICATIONS and CONTRACT DOCUMENTS  
for the CONSTRUCTION of

LAKELAND VILLAGE ORANGE STREET  
STORM DRAIN LATERAL  
STAGE 1

PROJECT NO. 3-0-0012

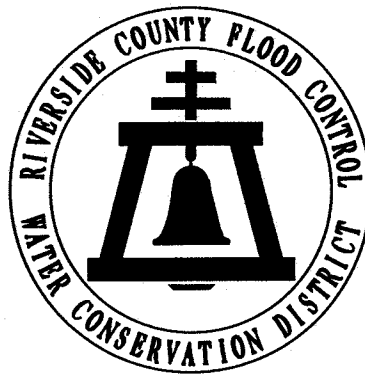
RIVERSIDE COUNTY, CALIFORNIA



FORM APPROVED COUNTY COUNSEL 13/12  
DATE  
BY: NEAL R. KIPNIS

JUL 03 2012 11.4  
amt.

APR 17 2012 PFS  
11.1



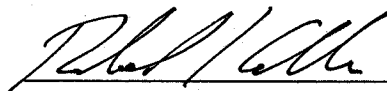
SPECIFICATIONS and CONTRACT DOCUMENTS  
for the CONSTRUCTION of

LAKELAND VILLAGE ORANGE STREET  
STORM DRAIN LATERAL  
STAGE 1

PROJECT NO. 3-0-0012

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

Recommended By:



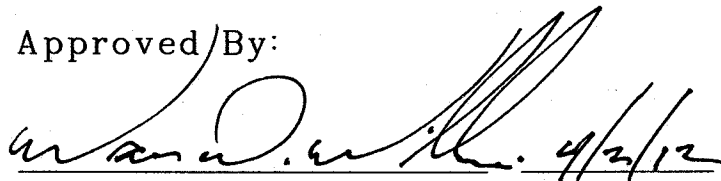
Design Engineer

*2-14-2012*

Date



Approved By:



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	

SPECIAL PROVISIONS

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	37-41
6.1 National Pollutant Discharge Elimination System (NPDES)	
6.2 Sanitation	
6.3 Confined Space Compliance	
6.4 Heavy Equipment Working Hours	
6.5 Encroachment Permits	
6.6 Toxic Material Disposal	
6.7 Survey Crew	
6.8 Survey Monuments	
6.9 Job Trailer Site	
6.10 Construction Tolerances	
6.11 Surplus Excavated Material	
6.12 Pipe Order Notification	
6.13 Project Signs	
6.14 Liability Insurance	
6.15 Accidental Discovery	

Section 7 - Soils Report	41-42
--------------------------	-------

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	44-45
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 Payment	



TABLE OF CONTENTS - CONTD.

DETAILED SPECIFICATIONS contd.

	<u>Page</u>
Section 13 - Clearing and Miscellaneous Work	45-46
13.1 Description	
13.2 Clearing and Miscellaneous Work	
13.3 Payment	
Section 14 - Earthwork	46-51
14.1 Description	
14.2 General Excavation Requirements	
14.3 Excavation	
14.4 Rock Excavation	
14.5 General Backfill Requirements	
14.6 Testing	
14.7 Backfill	
14.8 Filter Material	
14.9 Measurement	
14.10 Payment	
Section 15 - Trench Safety System	51-52
15.1 Description	
15.2 Trench Safety System	
15.3 Measurement and Payment	
Section 16 - Concrete Construction	52-57
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	
16.11 Class "B" Concrete	
16.12 Junction Structure No. 6	
16.13 Manholes	
16.14 Measurement	
16.15 Payment	
Section 17 - Concrete Pipe	57-58
17.1 Description	
17.2 General Pipe Requirement	

TABLE OF CONTENTS - CONTD.

DETAILED SPECIFICATIONS contd.

	<u>Page</u>
17.3 Reinforced Concrete Pipe	
17.4 Pipe on Curves	
17.5 Video Inspection	
17.6 Measurement	
17.7 Payment	
Section 18 - Not Used	58
Section 19 - Asphalt Concrete Construction	58-61
19.1 Description	
19.2 Asphalt Concrete, Type "B"	
19.3 Measurement	
19.4 Payment	
Section 20 - Not Used	61
Section 21 - Miscellaneous	61-62
21.1 Description	
21.2 Miscellaneous Iron and Steel	
21.3 Delineators	
21.4 Concrete Flared End Section	
21.5 Measurement	
21.6 Payment	
Section 22 through Section 26 -- Not Used	62
Section 27 - Dust Abatement	62-63
27.1 Description	
27.2 Dust Abatement	
27.3 Payment	
Section 28 - Not Used	63
Section 29 - Stormwater and Non-Stormwater Pollution Control	63-70
29.1 Description	
29.2 General Requirements	
29.3 PPP Preparation and Approval	
29.4 PPP Amendments	
29.5 PPP Implementation	
29.6 Non-Stormwater Discharge or Dewatering	
29.7 Payment	

TABLE OF CONTENTS - CONTD.

DETAILED SPECIFICATIONS

	<u>Page</u>
Section 30 through Section 32 – Not Used	70
Section 33 - Environmental and Regulatory Requirements	70-71
33.1 Accidental Paleontological Resource and Hazardous Materials Discovery	
33.2 Archaeological Monitoring	
33.3 Nesting Bird Pre-Construction Survey	
33.4 Fire Hazard	
33.5 Emergency Access	
Appendix "A" - South Coast Air Quality Management District Rule 403	72
Appendix "B" - Project Signs	73
Appendix "C" - Log of Soil Borings	74
Drawing No. 3-0201	Sheets 1 through 13

NOTICE TO CONTRACTORS

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

**Lakeland Village – Orange Street Storm Drain Lateral, Stage 1**

**Project No. 3-0-00012**

**located near the city of Lake Elsinore**

**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 2:30 p.m. on Thursday, May 17, 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: April 17, 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): MIKE BUBALO CONSTRUCTION CO., INC.

MIKE BUBALO, President

DAVE SOLEM, SECRETARY, TREASURER  
MANAGER

(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~~ ~~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 ten percent of the total amount of bid Dollars (\$ 10% of bid)

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

- VII -

RECEIVED  
MAY 17 2012

RIVERSIDE COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

1:28 p.m.

PROPOSAL

For the Construction of **Lakeland Village – Orange Street Storm Drain Lateral, Stage 1**, located near the city of Lake Elsinore, Riverside County, consisting of the following estimated quantities:

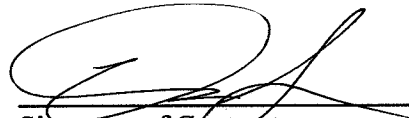
SECT. NO.	ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
10	1.	Mobilization	L.S.	---	---	10,000. <sup>00</sup>
11	2.	Water Control	L.S.	---	---	2,000. <sup>00</sup>
12	3.	Traffic Control	L.S.	---	---	1,000. <sup>00</sup>
13	4.	Clearing and Miscellaneous Work	L.S.	---	---	5,000. <sup>00</sup>
14	5.	Excavation	C.Y.	1,000	15. <sup>00</sup>	15,000. <sup>00</sup>
14	6.	Rock Excavation	C.Y.	150	35. <sup>00</sup>	5,250. <sup>00</sup>
14	7.	Backfill	C.Y.	824	12. <sup>00</sup>	9,888. <sup>00</sup>
14	8.	Filter Material	C.Y.	27	100. <sup>00</sup>	2,700. <sup>00</sup>
15	9.	Trench Safety System	L.S.	---	---	5,000. <sup>00</sup>
16	10.	Class "A" Concrete	C.Y.	49	600. <sup>00</sup>	29,400. <sup>00</sup>
16	11.	Class "B" Concrete	C.Y.	43	300. <sup>00</sup>	12,900. <sup>00</sup>
16	12.	Junction Structure No. 6	EACH	1	4,000. <sup>00</sup>	4,000. <sup>00</sup>
16	13.	Manhole No. 1	EACH	3	5,000. <sup>00</sup>	15,000. <sup>00</sup>
17	14.	30" RCP	L.F.	630	98. <sup>00</sup>	61,740. <sup>00</sup>
17	15.	18" RCP	L.F.	3	60. <sup>00</sup>	180. <sup>00</sup>
19	16.	Asphalt Concrete Type "B"	S.F.	135	15. <sup>00</sup>	2,025. <sup>00</sup>
21	17.	Miscellaneous Iron and Steel	LBS.	2,361	1. <sup>00</sup>	2,361. <sup>00</sup>
21	18.	Delineators	EACH	3	100. <sup>00</sup>	300. <sup>00</sup>
21	19.	Concrete Flared End Section	EACH	1	1,000. <sup>00</sup>	1,000. <sup>00</sup>
27	20.	Dust Abatement	L.S.	---	---	1,000. <sup>00</sup>

**Mike Bubalo Construction Co., Inc.**  
**Lic.# 771279 Class A**

PROPOSAL contd.

SECT. NO.	ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
29	21.	Stormwater and Non-Stormwater Pollution Control	L.S.	---	---	2,000. <sup>00</sup>
<u>TOTAL</u>						<u>187744.00</u>

MIKE DUBALO CONSTRUCTION CO., INC.  
Name of Company

  
Signature of Contractor

5102 GAYHURST AVENUE  
Address

95.4745950  
S.S.N. or E.I.N.

BALDWIN PARK, CA 91706  
City, State, Zip

771279 A  
Contractor's License No. and Classification

626 960 7787      626 960 7897  
Telephone Number      Fax Number

LIST OF SUBCONTRACTORS

Contractor MIKE BUSALO CONSTRUCTION CO INC Lakeland Village – Orange Street  
Storm Drain Lateral, Stage 1  
Project No. 3-0-00012

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) \_\_\_\_\_

Name of Subcontractor \_\_\_\_\_

Address/City/Phone \_\_\_\_\_

License No. \_\_\_\_\_

Item No. (s) \_\_\_\_\_

Name of Subcontractor \_\_\_\_\_

Address/City/Phone \_\_\_\_\_

License No. \_\_\_\_\_

Item No. (s) \_\_\_\_\_

Name of Subcontractor \_\_\_\_\_

Address/City/Phone \_\_\_\_\_

License No. \_\_\_\_\_

Item No. (s) \_\_\_\_\_

Name of Subcontractor \_\_\_\_\_

Address/City/Phone \_\_\_\_\_

License No. \_\_\_\_\_

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 37 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 12 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
<i>See attached</i>		


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. 771279, 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: MAY 17, 2012

  
\_\_\_\_\_  
Signature

SECRETARY  
\_\_\_\_\_  
Title

STATE OF CALIFORNIA ) §  
COUNTY OF RIVERSIDE )

On this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me

\_\_\_\_\_  
the undersigned Notary Public, personally appeared

personally known to me

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

WITNESS my hand and official seal.

\_\_\_\_\_  
Notary's Signature

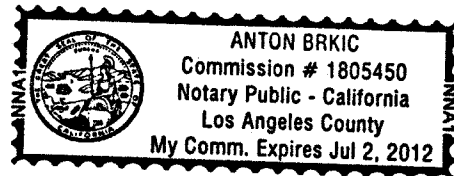
CALIFORNIA JURAT

State of California }  
County of Los Angeles } ss.

Subscribed and sworn to (or affirmed) before me  
on this 17<sup>th</sup> , day of May 2012 ,  
by Dave Sorem, proved to me on the basis of  
satisfactory evidence to be the person(s) who  
appeared before me.



Anton Brkic, Notary Public



(Notary Seal)

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 )


*Los Angeles*

DAVE SOREM, being first duly sworn, deposes and says:

That he or she is SECRETARY

of MIKE BUBALO CONSTRUCTION CO., 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.

  
\_\_\_\_\_  
His or Her signature


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

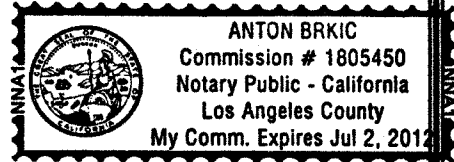
\_\_\_\_\_  
Signature and stamp of Notary administering oath

CALIFORNIA JURAT

State of California }  
County of Los Angeles } ss.

Subscribed and sworn to (or affirmed) before me  
on this 17<sup>th</sup> , day of May 2012 ,  
by Dave Sorem, proved to me on the basis of  
satisfactory evidence to be the person(s) who  
appeared before me.

  
\_\_\_\_\_  
Anton Brkic, Notary Public



(Notary Seal)

BID BOND

Recitals:

1. Mike Bubalo Construction Co., 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 **Lakeland Village – Orange Street Storm Drain Lateral, Stage 1** in accordance with a Notice to Contractors dated April 17, 2012.

2. Fidelity and Deposit Company of Maryland a Maryland 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: 5/15/12

Fidelity and Deposit Company of Maryland  
By Emily Preciado

Emily Preciado  
(Printed Name)

Title Attorney-In-Fact  
(Surety)

Mike Bubalo Construction Co., Inc.  
By [Signature]

Dave Sorem  
(Printed Name)

Title 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 ACKNOWLEDGMENT

State of California }  
County of Los Angeles } ss.

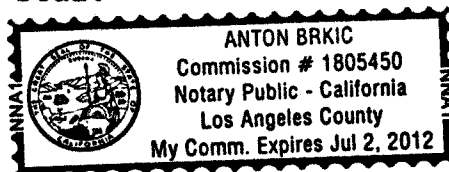
On May 17, 2012 , before me, Anton Brkic, Notary Public, personally appeared Dave Sorem, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity and that by his signature on the instrument the person, or the entity upon behalf of which the person 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.



Anton Brkic, Notary Public



(Notary Seal)

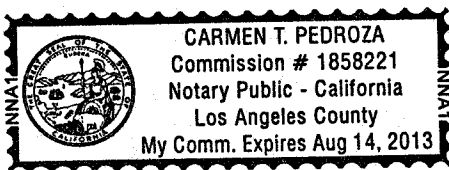
**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

State of California

County of Los Angeles

On 5/15/12 before me, Carmen T. Pedroza, Notary Public

personally appeared Emily Preciado, Attorney In Fact



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 Carmen Pedroza  
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: \_\_\_\_\_

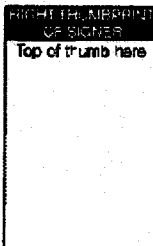
Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

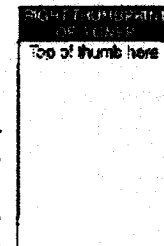
- Individual
- Corporate Officer — Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_



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: \_\_\_\_\_

**Power of Attorney  
FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

KNOW ALL MEN BY THESE PRESENTS: That the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation of the State of Maryland, by THEODORE G. MARTINEZ, Vice President, and GREGORY E. MURRAY, Assistant Secretary, in pursuance of authority granted by Article VI, Section 2, of the By-Laws of said Company, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, does hereby nominate, constitute and appoint **Emily PRECIADO and Carmen PEDROZA, both of Arcadia, California, EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in Baltimore, Md., in their own proper persons.

The said Assistant Secretary does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article VI, Section 2, of the By-Laws of said Company, and is now in force.

IN WITNESS WHEREOF, the said Vice-President and Assistant Secretary have hereunto subscribed their names and affixed the Corporate Seal of the said FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 15th day of June, A.D. 2010.

ATTEST:

**FIDELITY AND DEPOSIT COMPANY OF MARYLAND**



*Gregory E. Murray*

*Theodore G. Martinez*

Gregory E. Murray Assistant Secretary

By:

Theodore G. Martinez

State of Maryland } ss:  
City of Baltimore }

On this 15th day of June, A.D. 2010, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, came THEODORE G. MARTINEZ, Vice President, and GREGORY E. MURRAY, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and they each acknowledged the execution of the same, and being by me duly sworn, severally and each for himself depose and saith, that they are the said officers of the Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and that the said Corporate Seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



*Maria D. Adamski*

Maria D. Adamski

Notary Public

My Commission Expires: July 8, 2011

**EXTRACT FROM BY-LAWS OF FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

"Article VI, Section 2. The Chairman of the Board, or the President, or any Executive Vice-President, or any of the Senior Vice-Presidents or Vice-Presidents specially authorized so to do by the Board of Directors or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Resident Vice-Presidents, Assistant Vice-Presidents and Attorneys-in-Fact as the business of the Company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertakings, recognizances, stipulations, policies, contracts, agreements, deeds, and releases and assignments of judgements, decrees, mortgages and instruments in the nature of mortgages,...and to affix the seal of the Company thereto."

**CERTIFICATE**

I, the undersigned, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that the Vice-President who executed the said Power of Attorney was one of the additional Vice-Presidents specially authorized by the Board of Directors to appoint any Attorney-in-Fact as provided in Article VI, Section 2, of the By-Laws of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed."

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the said Company,

this 15th day of May, 2012.

*Ronald F. Haley*  
Assistant Secretary



# Storm Drain Construction Contracts

## Open Public Bid Contracts

### 10-12 Halls, Pickens Dunsmuir and Shields Canyons Emergency Repair of Crib Structures and Slope Protection

Award Value: \$ 750,000.00                      Final Contract: \$856,255.15  
Orig. Duration: 6 Months                      Total Duration: 5 Months  
Progress: 100 %                      Completion Date: 04/15/2011  
Scope: Consulting Services for the Halls, Pickens, Dunsmuir and Shields Canyon  
Emergency Repair of crib structures and Slope Protection  
Owner: Los Angeles County Dept of Public Works  
Contact: Ruben Amezcua  
900 So. Fremont Ave., Alhambra, CA 91803-1331  
Phone: 626-458-4942                      Fax:  
E Mail:

### 10-11 Eaton Canyon Golf Course Storm Drain

Award Value: \$ 57,500.00                      Final Contract: \$ 57,000  
Orig. Duration: 3 Months                      Total Duration: 1.5 Months  
Progress: 100 %                      Completion Date: 2012  
Scope: Remove 30" CMP and Replace it with 30" RCP and Replace Manhole at Riviera Dr  
Owner: Los Angeles County Dept of Parks and Recreation  
DC Golf, Doug Colliflower, 1456 E. Mendocino St., Altadena, CA 91001  
Contact: David Mesa  
433 So. Vermont Ave., Los Angeles, CA 90020 (213)738-2951/fax 213-738-6444  
Phone: 626-821-4647                      Fax:  
E Mail: [dmesa@parks.lacounty.gov](mailto:dmesa@parks.lacounty.gov)

### 10-05 Thompson Creek RCB

Award Value: \$ 995,000.00                      Final Contract: \$ 1,028,000.00  
Orig. Duration: 6 Months                      Total Duration: 4 Months  
Progress: 100 %                      Completion Date: September 30, 2010  
Scope: Design and Build Conversion of Open Channel to Reinforced Concrete Box  
Owner: Fairplex  
Contact: Bill Shacklett  
1101 W. McKinley, Pomona, CA 91768  
Phone: 909-865-4150                      Fax: 909-865-6707

### **09-06 Magnolia Channel Restoration**

Award Value: \$ 1,030,000.00      Final Contract: In Progress  
Orig. Duration: 9 Months      Total Duration: In Progress  
Progress: 90 %      Completion Date:  
Scope: Detention ponds and stream and channel restoration

Owner: Inland Empire Utilities District  
Contact: Matt Poeske, P.E.,  
6075 Kimball Avenue, Chino, CA 91710  
Phone: (909) 993-1600      Fax: (909) 923-0468

### **09-01 Project 1225 Unit 2, Storm Drain Ext**

Award Value: \$ 298,659.00      Final Contract: \$318,658.75  
Orig. Duration: 4 Months      Total Duration: 2 Months  
Progress: 100%      Completion Date: December 2009  
Scope: Replace 12" Water main and Pressure Regulating Station

Owner: L.A. County Dept of Public Works  
Contact: Johnny Oghorian  
900 S. Fremont Ave. Alhambra, CA 91803  
Phone: (626) 458-3122      Fax: (626) 458-2197

### **08-13 Seven Facilities Storm Drain**

Award Value: \$ 588,339.76      Final Contract: \$696,221.33  
Orig. Duration: 12 Months      Total Duration: 8 months  
Progress: 100%      Completion Date: May 2009  
Scope: 2350 cubic yards of debris clean-out in storm drain facilities including the installation of access manholes.

Owner: L.A. County Dept of Public Works  
Contact: Daryl Hamilton  
900 S. Fremont Ave. Alhambra, CA 91803  
Phone: (626) 458-3122      Fax: (626) 458-2197

### **08-06 Beryl Street Storm Drain Improvements**

Award Value: \$ 3,135,950.00                      Final Contract: \$ 3,318,379.22  
Orig. Duration: 175 Cal Days.                      Total Duration: 175  
Progress: 100 %                      Completion Date: October 2008

Scope: Construct new storm drain consisting of 90", 72" reinforced concrete pipes, catch basins, manholes, and appurtenant structures. Work included installation within paved traffic lanes, storm water pollution control, water and sewer relocations and landscape and hardscape restorations.

Owner: City of Rancho Cucamonga, California

Contact: Romeo M. David, Associate Engineer  
10500 Civic Center Drive, Rancho Cucamonga, CA 91729-0807

Phone: (909) 477-2740 ext. 4070                      Fax: (909) 477-2849

### **08-04 Storm Drain Modifications at Pomona Water Reclamation Plant**

Award Value: \$ 103,000.00                      Final Contract: \$ 103,000.00  
Orig. Duration: n/a                      Total Duration: 1 Month  
Progress: 100 %                      Completion Date: July 2008

Scope: Reconstruction of an open grate storm drain trough and modification of an existing manhole.

Owner: Sanitation Districts of Los Angeles County

Contact: Tommy Sung,  
1955 Workman Mill Road, Whittier CA 90607

Phone: (562) 699-7411                      Fax: (562) 695-2897

### **08-02 11<sup>th</sup> Street Reconstruction**

Award Value: \$ 3,541,345.00                      Final Contract: \$ 3,910,111.89  
Progress: 100%                      Completion Date: 12/31/2008

Scope: Furnish and install storm drain facilities within street right-of-way. RCP from 90" to 18" and appurtenant structures.

Owner: City of Upland

Contact: Bob Critchfield, Senior Engineer  
460 North Euclid Ave., Upland, CA 91786-4732

Phone: (909) 291-2946                      Fax: (909) 291-2946

### **07-05 San Antonio Spreading Grounds**

Award Value: \$ 2,131,500.00                      Final Contract: \$ 2,169,617.00  
Progress: 100 %                      Completion Date: February 2008  
Scope: Construct diversion and inlet structures at various basin locations.  
Owner: Three Valley Municipal Water District  
Contact: Mario C. Garcia, e mail: [mgarcia@tvmwd.com](mailto:mgarcia@tvmwd.com)  
1021 E. Miramar Ave., Claremont, CA 91711-2052  
Phone: (909) 621-5568

### **07-04 San Antonio Ave Sewer & Storm Drain**

Award Value: \$ 4,889,250.00                      Final Contract: \$ 5,184,213.24  
Progress: 100 %                      Completion Date: April 2008  
Scope: Furnish and install storm drain facilities within street right-of-way. RCP from 90" to 18" and appurtenant structures.  
Owner: City of Upland  
Contact: Bob Critchfield, Senior Engineer  
460 North Euclid Ave., Upland, CA 91786-4732  
Phone: (909) 291-2946

### **07-01 Kraemer/Miller Recharge Basin**

Award Value: \$ 773,260.00                      Final Contract: \$ 797,604.00  
Progress: 100 %                      Completion Date: October 2007  
Scope: Improvements to retention basins and construction new 48" inlet piping.  
Owner: Orange County Water District  
Contact: Chris Olson  
10500 Ellis Ave., Fountain Valley, CA 92708  
Phone: (714) 378-3200                      Phone:

### **06-12 Marina Beach Water Quality Imp.**

Award Value: \$ 2,399,375.00                      Final Contract: \$ 2,134,640.02  
Progress: 100 %                      Completion Date: October 2007  
Scope: Install new HDPE storm drain to redirect drainage away from public beach.  
Owner: Los Angeles County Dept. of Public Works  
Contact: Ali Zadeh,  
900 So. Fremont Ave, Alhambra, CA 91803-1331  
Phone: (626) 458-3144                      Phone:

**06-07 Sun Valley/Tuxford Drain**

Award Value: \$ 3,497,690.00                      Final Contract: \$ 3,725,036.73  
Progress: 100%                      Completion Date: Completed 3/2006  
Scope: Storm Drain  
Owner: Los Angeles County Dept of Public Works  
Contact: Los Angeles County Dept. of Public Works  
          900 South Fremont Avenue, Alhambra, CA            91803-1331  
Phone: (626) 458-3144                      Phone:

**06-05 Mary Ellen Storm Drain**

Award Value: \$ 385,125.00                      Final Contract: \$ 435,774.99  
Progress: 100%                      Completion Date: Completed 8/2006  
Scope: Storm Drain Repair  
Owner: Los Angeles County Dept of Public Works  
Contact: 900 South Fremont Avenue, Alhambra, CA            91803-1331  
Phone: (626) 458-3144                      Phone:

**06-04 16<sup>th</sup> Street Drain**

Award Value: \$491,840.00                      Final Contract: \$ 509,029.25  
Progress: 100%                      Completion Date: Completed 9/2006  
Scope: Storm Drain Repair  
Owner: Los Angeles County Dept of Public Works  
Contact: 900 South Fremont Avenue, Alhambra, CA            91803-1331  
Phone: (626) 458-3144                      Phone:

**05-08 Peck Road Channel**

Award Value: \$165,000.00                      Final Contract: \$ 143,045.80  
Progress: 100%                      Completion Date: Completed 10/2005  
Scope: Repairs & Maintenance to Peck Road Channel  
Owner: City of Industry  
Contact: Richard Walker  
          15651 East Strafford Street, City of Industry, CA 91744  
Phone: 626-333-0336                      Phone:

**05-07 San Dimas Repairs**

Award Value:	\$713,250.00	Final Contract:	\$851,718.01
Progress:	100%	Completion Date:	Completed 9/2006
Scope:	Repairs To San Dimas Dam		
Owner:	Fidelity and Deposit of Maryland/Zurich Surety		
Contact:	801 No. Brand Blvd, Glendale, CA 91203		
Phone:	818-621-1477	Phone:	

## AGREEMENT

THIS AGREEMENT is made as of June 26, 2012 and is between RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT (District) and MIKE BUBALO CONSTRUCTION CO., 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. 3-0-00012, Lakeland Village – Orange Street Storm Drain Lateral, Stage 1** 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. 3-0-00012, Lakeland Village – Orange Street Storm Drain Lateral, Stage 1** of District are: (a) Notice to Contractors; (b) Instructions To Bidders; (c) Contractor's Proposal; (d) Agreement; (e) General Provisions; (f) Special Provisions; (g) Detailed Specifications; (h) Plans; (i) Bid Bond; (j) Performance Bond; (k) Payment Bond; (l) Appendices and any other documents included in or incorporated into the contract documents; (m) Orders, Instructions, Drawings and Plans issued by District during the course of the work in accordance with the provisions of the Contract Documents.

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

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

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

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

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

RIVERSIDE COUNTY FLOOD CONTROL  
AND WATER CONSERVATION DISTRICT

By Marion Ashley  
Chairman of its Board of Supervisors  
**MARION ASHLEY**

ATTEST:

KECIA HARPER-IHEM  
Clerk of the Board

By Kecia Harper-Ihem  
Deputy

FORM APPROVED COUNTY COUNSEL  
BY: Neal R. Kipnis 6/21/12  
NEAL R. KIPNIS DATE

(Seal)

MIKE BUBALO CONST. CO., INC.  
Contractor

By Mike Bubalo

Title VP/SEC./TRES.

(If corporation affix corporate seal)



EXHIBIT A

(To Agreement for Riverside County Flood Control and Water Conservation District's **Project No. 3-0-00012, Lakeland Village – Orange Street Storm Drain Lateral, Stage 1**, located near the city of Lake Elsinore, 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.	---	---	\$10,000.00
2.	Water Control	L.S.	---	---	2,000.00
3.	Traffic Control	L.S.	---	---	1,000.00
4.	Clearing and Miscellaneous Work	L.S.	---	---	5,000.00
5.	Excavation	C.Y.	1,000	\$15.00	15,000.00
6.	Rock Excavation	C.Y.	150	\$35.00	5,250.00
7.	Backfill	C.Y.	824	\$12.00	9,888.00
8.	Filter Material	C.Y.	27	\$100.00	2,700.00
9.	Trench Safety System	L.S.	---	---	5,000.00
10.	Class "A" Concrete	C.Y.	49	\$600.00	29,400.00
11.	Class "B" Concrete	C.Y.	43	\$300.00	12,900.00
12.	Junction Structure No. 6	EACH	1	\$4,000.00	4,000.00
13.	Manhole No. 1	EACH	3	\$5,000.00	15,000.00
14.	30" RCP	L.F.	630	\$98.00	61,740.00
15.	18" RCP	L.F.	3	\$60.00	180.00
16.	Asphalt Concrete Type "B"	S.F.	135	\$15.00	2,025.00
17.	Miscellaneous Iron and Steel	LBS.	2,361	\$1.00	2,361.00

EXHIBIT contd.

ITEM NO.	ITEM OF WORK	UNIT	QUANTITY	UNIT COST	TOTAL COST
18.	Delineators	EACH	3	\$100.00	300.00
19.	Concrete Flared End Section	EACH	1	\$1,000.00	1,000.00
20.	Dust Abatement	L.S.	---	---	1,000.00
21.	Stormwater and Non-Stormwater Pollution	L.S.	---	---	2,000.00
				TOTAL	\$187,744.00

PERFORMANCE BOND

Recitals:

1. Mike Bubalo Construction Co., Inc. (Contractor) has entered into an Agreement dated June 26, 2012 with the Riverside County Flood Control and Water Conservation District (District) for construction of public work known as Project No. 3-0-00012, Lakeland Village - Orange Street Storm Drain Lateral, Stage 1.
2. Fidelity and Deposit Company of Maryland, a Maryland 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:

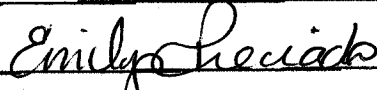
1. The amount of the obligation of this Bond is 100% of the estimated contract price for the Project of \$ 187,744.00 and inures to the benefit of District.
2. This Bond is exonerated by Contractor doing all things to be kept and performed by it in strict conformance with the Contract Documents for the Project, otherwise it remains in full force and effect for the recovery of loss, damage and expense of District resulting from failure of Contractor to so act. All of said Contract Documents are incorporated herein.
3. This obligation is binding on our successors and assigns.
4. For value received, Surety stipulates and agrees that no change, time extension, prepayment to Contractor, alteration or addition to the terms and requirements of the Contract Documents or the work to be performed thereunder shall affect its obligations hereunder and waives notice as to such matters, except the total contract price cannot be increased by more than 25% without approval of Surety.

THIS BOND is executed as of June 1, 2012

Mike Bubalo Construction Co., Inc.

Fidelity and Deposit Company of Maryland

By 



By Dave Sorem

Type Name Emily Preciado  
Its Attorney in Fact (Surety)

Title Secretary  
(Contractor)

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

HEIDI S. GRANIC  
Commissioner # 180398  
Notary Public - California  
Los Angeles County  
My Comm. Expires May 5, 2014



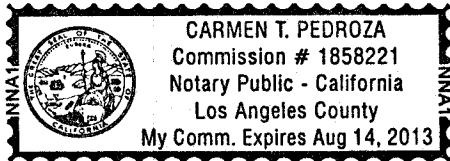
**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

State of California

County of Los Angeles

On 6/1/12 before me, Carmen T. Pedroza, Notary Public

personally appeared Emily Preciado, Attorney In Fact



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 Carmen T. Pedroza  
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: \_\_\_\_\_

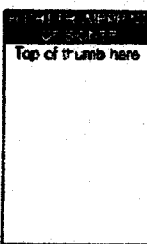
Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

- 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

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

The makers of this Bond are Mike Bubalo Construction Co., Inc. as Principal and Original Contractor and Fidelity and Deposit Company of Maryland 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 26, 2012, between Principal and Riverside County Flood Control and Water Conservation District (District), a public entity, as Owner, for \$ 187,744.00, 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 Lakeland Village - Orange Street Storm Drain Lateral, Stage 1 project. The beneficiaries of this Bond are as is stated in Section 3248 of the Civil Code and the requirements and conditions of this Bond are as is set forth in Sections 3248, 3249, 3250 and 3252 of said Code. Without notice, Surety consents to extension of time for performance, change in requirements, amount of compensation, or prepayment under said contract.

DATED: June 1, 2012

Mike Bubalo Construction Co., Inc.  
Original Contractor - Principal

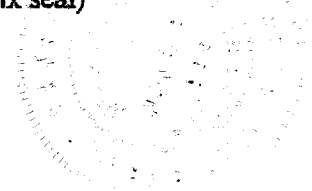


Fidelity and Deposit Company of Maryland  
Surety

By Emily Preciado  
Its Attorney in Fact Emily Preciado

Title Dave Sorem, 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)

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California }  
County of Los Angeles } ss.

On June 1, 2012 before me, **Heidi S. Granic, Notary Public**, personally appeared **Dave Sorem**, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity and that by his signature on the instrument the person, or the entity upon behalf of which the person 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.

*Heidi S. Granic*

Heidi S. Granic, Notary Public

(Notary Seal)



Type of Document:

**Payment & Performance Bonds Job # 12-03**

Capacity Claimed By Signer: Individual  Corporate Officer(s) V.P./Sec.  
Treasurer

Partner(s) Limited Trustee(s) Attorney-in-Fact Other:  
General

Signer is representing: Mike Bubalo Construction Company, Inc.

SECRET & CONFIDENTIAL  
NO FOREIGN DISSEM  
NO UNCLASSIFIED  
NO UNCLASSIFIED





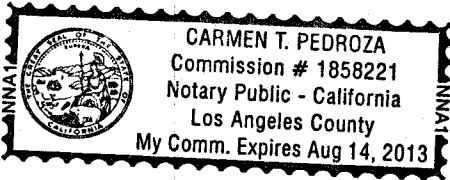
**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

State of California

County of Los Angeles

On 6/1/12 before me, Carmen T. Pedroza, Notary Public

personally appeared Emily Preciado, Attorney In Fact



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 Carmen T. Pedroza  
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: \_\_\_\_\_

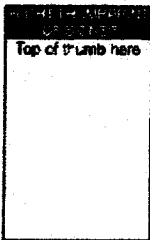
Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_

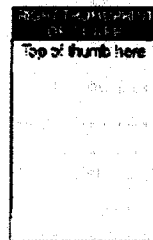
- Individual
- Corporate Officer — Title(s): \_\_\_\_\_
- Partner —  Limited  General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: \_\_\_\_\_



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: \_\_\_\_\_

**Power of Attorney**  
**FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

KNOW ALL MEN BY THESE PRESENTS: That the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation of the State of Maryland, by THEODORE G. MARTINEZ, Vice President, and GREGORY E. MURRAY, Assistant Secretary, in pursuance of authority granted by Article VI, Section 2, of the By-Laws of said Company, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, does hereby nominate, constitute and appoint **Emily PRECIADO and Carmen PEDROZA, both of Arcadia, California, EACH** its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed: **any and all bonds and undertakings, and the execution of such bonds or undertakings** in pursuance of these presents, shall be as binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in Baltimore, Md., in their own proper persons.

The said Assistant Secretary does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article VI, Section 2, of the By-Laws of said Company, and is now in force.

IN WITNESS WHEREOF, the said Vice-President and Assistant Secretary have hereunto subscribed their names and affixed the Corporate Seal of the said FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 15th day of June, A.D. 2010.

ATTEST:

**FIDELITY AND DEPOSIT COMPANY OF MARYLAND**



*Gregory E. Murray*

*Theodore G. Martinez*

Gregory E. Murray Assistant Secretary

By:

Theodore G. Martinez

State of Maryland } ss:  
City of Baltimore }

On this 15th day of June, A.D. 2010, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, came THEODORE G. MARTINEZ, Vice President, and GREGORY E. MURRAY, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and they each acknowledged the execution of the same, and being by me duly sworn, severally and each for himself depose and saith, that they are the said officers of the Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and that the said Corporate Seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



*Maria D. Adamski*

Maria D. Adamski

Notary Public

My Commission Expires: July 8, 2011

**EXTRACT FROM BY-LAWS OF FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

"Article VI, Section 2. The Chairman of the Board, or the President, or any Executive Vice-President, or any of the Senior Vice-Presidents or Vice-Presidents specially authorized so to do by the Board of Directors or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Resident Vice-Presidents, Assistant Vice-Presidents and Attorneys-in-Fact as the business of the Company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertakings, recognizances, stipulations, policies, contracts, agreements, deeds, and releases and assignments of judgements, decrees, mortgages and instruments in the nature of mortgages,...and to affix the seal of the Company thereto."

**CERTIFICATE**

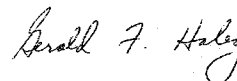
I, the undersigned, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that the Vice-President who executed the said Power of Attorney was one of the additional Vice-Presidents specially authorized by the Board of Directors to appoint any Attorney-in-Fact as provided in Article VI, Section 2, of the By-Laws of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed."

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the said Company,

this 1st day of June, 2012.



*Assistant Secretary*



MIKEBUB-01 JCASTLE

**CERTIFICATE OF LIABILITY INSURANCE**DATE (MM/DD/YYYY)  
6/19/2012

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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

PRODUCER License # 0B93657 MWR Insurance Services P.O. Box 11 Sierra Madre, CA 91025	CONTACT NAME: <b>Joe Castle</b>	FAX (A/C, No): <b>(626) 445-4521</b>	
	PHONE (A/C, No, Ext): <b>(626) 294-1009</b>	E-MAIL ADDRESS:	
INSURED  <b>Mike Bubalo Construction Co., Inc.</b> <b>5102 Gayhurst Ave.</b> <b>Baldwin Park, CA 91706</b>	INSURER(S) AFFORDING COVERAGE		NAIC #
	INSURER A: <b>Liberty Surplus Insurance Corporation</b>		<b>10725</b>
	INSURER B: <b>Firemans Fund Insurance Company</b>		<b>21873</b>
	INSURER C: <b>Navigators Insurance Company</b>		<b>42307</b>
	INSURER D:		
	INSURER E:		
INSURER F:			

COVERAGES CERTIFICATE NUMBER: 1072 REVISION NUMBER:

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

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY	X	DGLLA093154102	11/11/2011	11/11/2012	EACH OCCURRENCE \$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY					DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 50,000
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR					MED EXP (Any one person) \$ 5,000
	<input checked="" type="checkbox"/> XCU Excluded					PERSONAL & ADV INJURY \$ 1,000,000
GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE \$ 2,000,000
<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						PRODUCTS - COM/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY		MXA80287539	11/11/2011	11/11/2012	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO					BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS					BODILY INJURY (Per accident) \$
	<input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS					PROPERTY DAMAGE (Per accident) \$
						\$
C	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR		SE11EXC741160IV	11/11/2011	11/11/2012	EACH OCCURRENCE \$ 5,000,000
	<input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE					AGGREGATE \$ 5,000,000
	DED RETENTION \$					\$
WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						WC STATUTORY LIMITS OTH-ER
ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y/N N/A						E.L. EACH ACCIDENT \$
If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$
						E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Re: Lakeland Village - Orange Street Storm Drain Lateral, Stage 1; Project No. 3-0-00012-01. Riverside County Flood Control and Water Conservation District, County of Riverside, and any municipal corporation in which the work is to be accomplished are named as additional insured as respects to liability arising out of the named insured's operations per the attached CGL 2010 1185. XCU Exclusions do not exist in this policy.

\*30 day notice of cancellation for non-payment\*

This certificate cancels and supercedes prior certificate #1071 issued on 6/1/2012.

## CERTIFICATE HOLDER

## CANCELLATION

Riverside County Flood Control and  
Water Conservation District  
Attn: Henry Olive - Contact Administration  
1995 Market Street  
Riverside, CA 92501

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

*Joe Castle*

© 1988-2010 ACORD CORPORATION. All rights reserved.



**ENDORSEMENT**

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

Endorsement Effective Date: 11/11/11 Policy No.: DGLLA093154102

Insured: Mike Bubalo Construction Co., Inc.

**ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS -**

**SCHEDULE**

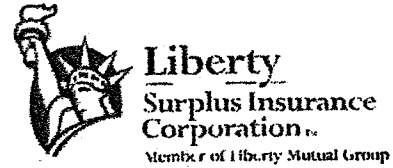
**Name of Person or Organization:**

**Riverside County Flood Control and Water Conservation District & The County of Riverside.**

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

**WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" for that insured by or for you.**

**Re: Location - Lakeland Village; Orange Street Storm Drain Lateral; Stage 1; Project No. 3-0-00012-01.**



## Commercial General Liability

### LIBERTY SURPLUS INSURANCE CORPORATION

(A New Hampshire Stock Insurance Company, hereinafter the "Company")

#### COMMON POLICY CONDITIONS

All Coverage Parts included in this policy are subject to the following conditions.

##### A. Cancellation

- a. The first Named Insured shown in the Declarations may cancel this policy by mailing or delivering to us advance written notice of cancellation.
- b. We may cancel this policy by mailing or delivering to the first Named Insured written notice of cancellation at least:
  - i. 10 days before the effective date of cancellation if we cancel for nonpayment of premium; or
  - ii. 30 days before the effective date of cancellation if we cancel for any other reason.
- c. We will mail or deliver our notice to the first Named Insured's last mailing address known to us.
- d. Notice of cancellation will state the effective date of cancellation. The policy period will end on that date.
- e. If this policy is cancelled, we will send the first Named Insured any premium refund due. If we cancel, the refund will be pro rata. If the first Named Insured cancels, the refund may be less than pro rata. The cancellation will be effective even if we have not made or offered a refund.
- f. If notice is mailed, proof of mailing will be sufficient proof of notice.

##### B. Changes

This policy contains all the agreements between you and us concerning the insurance afforded. The first Named Insured shown in the Declarations is authorized to make changes in the terms of this policy with our consent. This policy's terms can be amended or waived only by endorsement issued by us and made a part of this policy.

##### C. Examination of Your Books and Records

We may examine and audit your books and records as they relate to this policy at any time during the policy period and up to three years afterward.

##### D. Inspections and Surveys

- a. We have the right to:
  - i. Make inspections and surveys at any time;
  - ii. Give you reports on the conditions we find; and
  - iii. Recommend changes.
- b. We are not obligated to make any inspections, surveys, reports or recommendations and any such actions we do undertake relate only to insurability and the premiums to be charged. We do not make safety inspections. We do not undertake to perform the duty of any person or organization to provide for the health or safety of workers or the public. And we do not warrant that conditions:

May 30, 2012



MIKE BUBALO CONSTRUCTION CO. INC.  
5102 GAYHURST AVE

BALDWIN PARK, CA 91706-1814

Re: Barrett Business Services, Inc. ("BBSI")  
Letter of Self-Insurance for Workers' Compensation Coverage

As the named addressee of this Letter, your company's required workers' compensation coverage is provided through BBSI's state approved Self-Insured Workers' Compensation Plan by way of your co-employment contract with BBSI. BBSI's California customers can also verify BBSI's state certification at <http://www.dir.ca.gov/SIP/sip.html>; next, click on "Self Insured Employers"; then "Rosters"; then scroll down to Barrett (the list is alphabetical by company name). Additional information is as follows:

Self Insurance Certification Number:

California:	2246
Oregon:	1068
Washington:	706, 116
Delaware:	152
Maryland:	11365
Colorado:	463

Other Comments (place an "X" if applicable):

Waiver of Subrogation: BBSI and MIKE BUBALO CONSTRUCTION CO. INC. agree to waive their right of subrogation for the benefit of:  
DISTRICT AND COUNTY OF RIVERSIDE at 1995 MARKET STREET, RIVERSIDE, CA 92501

Named "Letter Holder": DISTRICT AND COUNTY OF RIVERSIDE 1995 MARKET STREET RIVERSIDE, CA 92501

Other: EVIDENCE OF WORKERS' COMPENSATION COVERAGE FOR MIKE BUBALO CONSTRUCTION EFFECTIVE 01/01/12 THRU CANCELLATION. PROJECT NAME & NUMBER: LAKELAND VILLAGE ORANGE ST. S.D. LATERAL STAGE##3-0-0012

Additionally, BBSI's self-insured program is further supported by an excess workers' compensation insurance policy with National Union Fire Insurance Company of Pittsburgh, PA. Copy of certificate is available upon request.

For additional information, please contact your local BBSI office at: (909) 605-6862 .

Very truly yours,

Michael L. Elich  
President and Chief Executive Officer

BBSI Office: ONTARIO

doc: LOSI-2

# GENERAL PROVISIONS



## GENERAL PROVISIONS

### SECTION I - DEFINITION OF TERMS

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

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

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

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

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

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

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

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

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

(i) SPECIFICATIONS: The directions, provisions, and requirements contained herein as supplemented by such special provisions, as may be necessary, pertaining to the method and manner of performing the work or to the quantities and qualities of materials to be furnished under the contract. The Special Provisions are specific clauses setting forth conditions or requirements peculiar to the project under consideration and covering work or materials involved in the proposal and estimate but not satisfactorily covered by these General Provisions. Supplemental agreements or contract change orders are written agreements executed by the

Contractor and by the District, covering alterations, amendments or extensions to the project, as hereinafter provided.

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

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

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

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

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

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

## SECTION II - SCOPE OF WORK

### 2.01 WORK TO BE DONE

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

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

## 2.02 CONSTRUCTION SCHEDULE

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

## 2.03 DRAWINGS AND SPECIFICATIONS ON THE WORK

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

## 2.04 ESTIMATE OF QUANTITIES

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

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

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

## 2.05 PROTESTS

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

## 2.06 ALTERATIONS

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

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

## 2.07 EXTRA WORK

### A. General

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

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

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

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

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

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

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

## B. Procedure for Extra Work

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

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

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

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

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

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

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

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

### 2.08 PAYMENT FOR EXTRA WORK

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

## 2.09 RIGHTS OF WAY

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

## 2.10 CLEANING UP

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

### SECTION III - CONTROL OF THE WORK

#### 3.01 AUTHORITY OF THE ENGINEER

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

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

#### 3.02 DETAIL DRAWINGS

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

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

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

### 3.03 CONFORMITY WITH PLANS AND ALLOWABLE DEVIATIONS

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

### 3.04 INTERPRETATION OF PLANS AND SPECIFICATIONS

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

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

### 3.05 SUPERINTENDENCE

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

### 3.06 LINES AND GRADES

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

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

### 3.07 INSPECTION OF WORK

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

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

### 3.08 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

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

### 3.09 EQUIPMENT AND PLANT

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

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

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

### 3.10 FINAL INSPECTION

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

## SECTION IV - CONTROL OF MATERIAL

### 4.01 DISTRICT FURNISHED MATERIALS

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

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



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

#### 4.02 SOURCE OF SUPPLY AND QUALITY OF MATERIALS

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

#### 4.03 SAMPLES AND TESTS

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

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

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

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

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

#### 4.04 STORAGE OF MATERIALS

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

#### 4.05 DEFECTIVE MATERIALS

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

#### 4.06 ASSIGNMENT OF CLAIMS

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

### SECTION V - LEGAL RELATIONS AND RESPONSIBILITY

#### 5.01 LAWS TO BE OBSERVED

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

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

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

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

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

(c) Equal Employment Opportunity

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

#### 5.02 CONTRACTOR'S RESPONSIBILITY

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

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

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

#### 5.03 CONTRACTOR'S RESPONSIBILITY FOR WORK

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

#### 5.04 PROPERTY RIGHTS IN MATERIALS

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

#### 5.05 PERMITS AND LICENSES

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

#### 5.06 ROYALTIES AND PATENTS

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

#### 5.07 SANITARY PROVISIONS

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

#### 5.08 PUBLIC SAFETY

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

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

#### 5.09 USE OF EXPLOSIVES

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

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

#### 5.10 PROVISIONS FOR EMERGENCIES

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

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

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

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

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

#### 5.11 UNFORESEEN DIFFICULTIES

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

#### 5.12 ACCESS TO THE WORK

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

### 5.13 GUARANTEE OF WORK

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

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

### 5.14 DAMAGES BY ACT OF GOD

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

## SECTION VI - PROSECUTION AND PROGRESS

### 6.01 PROGRESS OF THE WORK

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

### 6.02 OVERTIME WORK AND WORK AT NIGHT

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

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



### 6.03 SUBCONTRACTING

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

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

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

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

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

### 6.04 CHARACTER OF WORKMEN

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

### 6.05 TEMPORARY SUSPENSION OF THE WORK

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

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

#### 6.06 TIME OF COMPLETION AND DAMAGES

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

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

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

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

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

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

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

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

#### 6.07 DELAYS AND EXTENSION OF TIME

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

#### 6.08 ASSIGNMENT

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

#### 6.09 TERMINATION OF CONTRACT

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

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

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

## SECTION VII - PAYMENT

### 7.01 SCOPE OF PAYMENTS

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

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

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

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

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

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

7.02 PAYMENT AND COMPENSATION FOR ALTERED QUANTITIES

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

7.03 FORCE ACCOUNT PAYMENT

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (1) The original location of the equipment to be hauled to the location of the work shall be agreed to by the Engineer in advance.
- (2) The District will pay the costs of loading and unloading such equipment.
- (3) The cost of transporting equipment on low bed trailers shall not exceed the hourly rates charged by established haulers.
- (4) The cost of transporting equipment shall not exceed the applicable minimum established rates of the Public Utilities Commission.
- (5) The rental period shall begin at the time the equipment is unloaded at the site of the extra work, shall include each day that the equipment is at the site of the extra work, excluding Saturdays, Sundays, and legal holidays unless the extra work is performed on such days, and shall terminate at the end of the day on which the Engineer directs the Contractor to discontinue the use of such equipment. The rental time to be paid per day will be in accordance with the following:

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

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

When daily rates are listed, payment for 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 **Lakeland Village – Orange Street Storm Drain Lateral, Stage 1**, located near the city of Lake Elsinore, 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, current edition. Whenever the words "Caltrans Standards" are used they shall mean the Standard Plans of the State of California, Department of Transportation, 2006 edition.

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

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

Class "A" shall mean Class "2"

Class "B" shall mean Class "3"

Class "C" shall mean Class "4"

Class "D" shall mean Class "1"

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

SECTION 2 - TIME OF COMPLETION, DAMAGES AND  
LEGAL HOLIDAYS

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

FORTY (40) 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.

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 stormwater discharges associated with construction activities performed under the direction of a municipal stormwater permittee. The Contractor shall prepare and implement a Pollution Prevention Plan (PPP) 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 "Pollution Prevention Plan Preparation and Approval" which requires that a PPP be prepared and approved prior to the Pre-Construction meeting; and 3) Section 29.5 "Pollution Prevention Plan Implementation" which allows the Engineer to suspend construction operations if the Contractor fails to implement the approved PPP and any amendments thereto.**

Throughout the term of this contract, the total soil-disturbed area of the project site shall be less than one (1) acre.

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

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

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

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

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

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

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

6.4 Heavy Equipment Working Hours - 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.

6.5 Encroachment Permits - The Contractor is required to obtain an encroachment permit from the Riverside County Transportation Department for work within County right of way. In addition, the Contractor shall obtain a separate road closure permit from the Riverside County

Transportation Department for the pre-approved planned road closures as shown in the traffic control drawings. The Riverside County Transportation Department will not require the Contractor to pay a fee for the encroachment permit nor the road closure permit. A copy of the encroachment permit and the road closure permit shall be provided to the Engineer prior to commencement of work.

If the Contractor desires to implement any road closures beyond the pre-approved closures shown in the contract drawings, the Contractor shall be solely responsible for obtaining the additional road closure permit. As a part of the road closure permit application, the Contractor must submit a letter of justification and traffic control plans prepared and signed by a registered Traffic Engineer or a registered Civil Engineer for the unplanned road closure(s).

6.6 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.

6.7 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.

6.8 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.

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

6.10 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	¼ inch in 10 feet
	Sideslopes	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	½ inch
	Backfilled, in 10 feet	1 inch
Variation in cross-sectional dimensions		Minus ¼ inch Plus ½ inch
Variation in surfaces (gradual)	Invert	¼ inch in 10 feet
	Soffits, Walls, Sideslopes	½ inch in 10 feet
Variation in surfaces (abrupt)		¼ inch

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

6.11 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.

6.12 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.

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

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

#### SECTION 7 - SOILS REPORT

In conjunction with the soils investigation report prepared by Leighton Consulting, Inc., dated August 30, 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:

Southern California Edison	951.249.8360
Lake Elsinore Unified School District	951.253.7000
United States Postal Service	951.674.9726
Eastern Municipal Water District (Severino Mendoza)	951.928.3777 ext. 4480
CR&R Waste & Recycling Services	951.943.1991
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.

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.

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

Included in this item are the following:

1. The temporary relocation of signs and mailboxes, and their reinstallation. Work involving mailboxes shall be coordinated with the Postal Service.
2. 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; Rock Excavation; 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 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 reinforced concrete pipe, and manholes as shown on M815 of the standard drawings, and the disposal of all surplus material. All A.C. and P.C.C. shall be sawcut unless otherwise specified.

14.4 Rock Excavation - The contract item Rock Excavation shall include any material which in the opinion of the Engineer cannot be excavated with conventional excavating equipment, such as a 235C Caterpillar excavator with a medium stick and rock ripping bucket, or equivalent equipment and is removed by drilling and blasting, or mechanically fracturing by means other than conventional excavating equipment and occupies an original volume of at least one half cubic yard. When rock is encountered, it shall be stripped of earth and Engineer's representative notified and given proper time to observe the rock before removal. Any rock removed which has not been measured by the Engineer's representative will not be classified as rock excavation. Excavation in excess of the depth required for the structures shall be corrected by placing filter material, at no additional expense to the Engineer. Should the Contractor exhaust conventional equipment and methods for rock excavation and removal and desires to use explosives it shall comply with Section 14.2 and the following:

1. Blasting, storage and handling of explosives shall be in accordance with the Construction Safety Orders of the Division of Industrial Safety of the California Department of Industrial Relations, Federal Safety Requirement and other authorities which have jurisdiction.
2. Blasting shall be done only by skilled operators under the direction of a licensed foreman.
3. The Contractor shall identify all property and structures which may be affected by blasting and shall take all safety precautions and protective measures to prevent damage or injury. All personal injury or damage to persons or property of any nature shall be the responsibility of the Contractor.



4. The Contractor agrees to indemnify and hold the Engineer, its officers, agents, and employees harmless from any and all liability claims, costs and expenses.

For project site subsurface conditions please refer to the attached soils report.

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 and box shall conform to Section 306-1.3 of the Standard Specifications.

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

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

Densification of backfill will be accomplished by 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 the jet pipe shall be inserted at intervals of three (3) feet maximum continuous along each side of the pipe. Gravel of 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 may use onsite material for pipe bedding subject to the approval of the Engineer and provided it meets the requirements as set forth above.

The Contractor's attention is directed to Section 7 – Soil Report. The Contractor may use onsite material for pipe 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.

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 - The contract item Backfill includes all backfill, and pipe bedding material compacted as specified around the various concrete structures and pipe within the paylines as shown on M815 of the standard drawings.

14.8 Filter Material - The contract item Filter Material includes all filter material to be placed inside the 3-foot trench along the back of the sedimentation basin as shown on the plans and below the reinforced concrete pipe, box and various other structures but exclusive of connector pipes and catch basins.

The Contractor should note that the placing of filter material beneath the pipe 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 AASHTO No. 2 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.

14.9 Measurement - Excavation; Rock Excavation; and 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 Rock Excavation will be made only if the Engineer has determined that it qualifies as Rock Excavation per the guidelines set forth in Section 14.4. Areas deemed such shall be cleaned of all loose material and the surface cross sectioned based on survey data to create an upper limit. After excavation, the area will again be cross sectioned based on survey data to form the lower limit. The cubic yard volume will be determined by the average end area method. Large boulders declared as Rock Excavation may be measured by taking the average circumference and using the formula for a sphere.

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 and other feature for which a separate payment is made will be deducted from the gross volume.

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

14.10 Payment - The contract prices paid for Excavation; Rock Excavation; 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 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	Drop Inlets, Junction Structure No. 6, Manholes,	3250*
B	5	Local Depressions, Cutoff Walls, Driveways, and Miscellaneous Concrete not otherwise specified	3000*

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

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

<u>TYPE OF WORK</u>	<u>COMBINED AGGREGATE GRADING</u>
The inverts of: Junction Structures, Concrete Pad, and Manholes.	1-1/2" Maximum
Retaining Walls, Trapezoidal Channel, Catch Basins, Drop Inlets, Local Depressions, Driveways, Sidewalk, Cutoff Walls, 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.

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>
Retaining walls - supporting forms and shoring	3000 psi or 7 days
All other structures	16 hours

The finish on all exposed formed surfaces shall conform to Section 51-1.18B Class 1 Surface Finish of the State Standard Specifications. 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 catch basins 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.

All construction joints having a keyed, stepped, or roughened surface shall be cleaned by sandblasting prior to placement of the adjacent concrete, unless otherwise directed by the Engineer.

The sandblasting operations shall be continued until all unsatisfactory concrete, laitance, coatings, stains, debris, and other foreign materials are removed. The surface of the concrete shall be washed thoroughly to remove all loose material.

Transverse weakened plane joints shall be required in the trapezoidal channel at 10-foot spacing or as directed by the Engineer. The joints may be formed by placing a continuous strip of plastic or other material which will not react adversely with the chemical constituents of the concrete or bond with the concrete. The strip shall have a minimum thickness of 0.013 foot, a width of not less than 0.12 foot nor more than 0.13 foot for the six-inch thick channel slope and invert. After placement, the vertical axis of the joint material shall be within 10 degrees of a plane normal to the surface of the concrete. The tops of the strip shall not be above nor more than 0.02 foot below the finished concrete. Final alignment of the strip for the transverse weakened plane joints shall not vary more than 0.04 foot from the edge of a 12-foot straight edge. After installation of a joint material the concrete shall be free of segregation, rock pockets or voids and the finished concrete surface on each side of the joint shall be in the same plane.

The Contractor may elect to form the weakened plane joints in the channel surface by cutting a groove in the surface with a power driven saw. The grooves shall be cut to a minimum depth of 0.17 foot and the width shall be the minimum width possible with the type of saw being used, but in no case shall the width exceed 0.02 foot. The weakened plane joints shall be sawed within 12 hours after the concrete has been 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 – The contract item Class "A" Concrete includes the complete construction of the drop inlets, manholes, trapezoidal channel wall and retaining wall. Included in the pay item is all earthwork and reinforcing steel required for these structures, but exclusive of the required miscellaneous iron and steel.

Finish surface of the channel shall be true to line and grade and concrete shall be not less than the minimum thickness indicated on the drawings and as specified in Section 6.10 Construction Tolerances of these Special Provisions.

16.11 Class "B" Concrete - The contract item Class "B" Concrete includes 2' and 3' cutoff walls, concrete apron and driveway, various concrete pads, forebay, concrete collars, and any other concrete not specified. Included in the pay item is all earthwork and reinforcing steel required.

The subgrade for all driveways, local depressions, concrete pads, forebay and sedimentation basin shall be recompacted to ninety-five percent (95%) relative compaction prior to the placement of concrete.

16.12 Junction Structure No. 6 - The contract item Junction Structure No. 6 covers the complete construction of these structures, including reinforcing steel and all required earthwork.

16.13 Manholes - The contract item Manhole No. 1 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.

16.14 Measurement - Measurement for payment for the contract items Class "A" Concrete; and Class "B" Concrete 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 Junction Structure No. 6; and Manhole No. 1, will be the number of each type constructed as specified.

Reinforcing Steel required for the construction of the reinforced concrete structures described in the appropriate sections will be in conformance with Section 52-1.10 of the State Standard Specifications.

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

16.15 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.

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 item Asphalt Concrete Type "B".

19.2 Asphalt Concrete, Type "B" - The contract item Asphalt Concrete, Type "B" covers the asphalt concrete necessary for the replacement of the driveway damaged within storm drain paylines.

The Contractor shall not pave any or start paving asphalt concrete until all compaction on the subgrade are tested and approved by the Engineer.

The Asphalt Concrete shall be Type "B" and shall be proportioned, mixed, spread and compacted in accordance with the applicable provisions in Section 39 of the State Standard Specifications and these Detailed Specifications. The gradation of the mineral aggregate shall be one-half inch (1/2-inch) maximum, medium for final course and three-quarter inch (3/4-inch) maximum, coarse for base course.

The Contractor shall furnish and place the asphalt concrete with all asphaltic emulsions required. The asphalt binder to be mixed with aggregate shall conform to these Detailed Specifications and shall be of the Performance Grade (PG) designated below or as determined by the Engineer:

- Grade PG 64-10 (Inland Valleys)

The amount of asphalt binder to be mixed with the mineral aggregate shall be between three percent (3%) and seven percent (7%) by weight, of the dry mineral aggregate. The exact amount of asphalt binder to be mixed with the mineral aggregate will be determined by a special mix design.

Liquid asphalt for prime coat shall conform to the provisions in Section 93, "Liquid Asphalts", of the State Standard Specifications and shall be Grade PG 64-10.

Asphalt emulsion for paint binder (tack coat) shall conform to the provisions in Section 94, "Asphaltic Emulsions", of the State Standard Specifications for the rapid-setting or slow-setting type and shall be grade PG 64-10.

Asphalt shall consist of refined petroleum or a mixture of refined liquid asphalt and refined solid asphalt, prepared from crude petroleum. Asphalt shall be:

- A. Free from residues caused by the artificial distillation of coal, coal tar or paraffin.
- B. Free from water.
- C. Homogeneous.

The Contractor shall furnish asphalt in conformance with the State of California Department of Transportation's "Certification Program for Suppliers of Asphalt". The Department maintains the program requirements, procedures, and a list of approved suppliers at: <http://www.dot.ca.gov/hq/esc/Translab/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
<b>Original Binder</b>				
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
<b>RTFO Test Aged Binder</b>				
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
<b>RTFO Test and PAV Aged Binder</b>				
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.

19.3 Measurement - Measurement for payment of the contract item Asphalt Concrete, Type "B" will be the number of square feet for all asphalt concrete placed within standard paylines as indicated on the drawings. 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.**

19.4 Payment - The contract price paid for Asphalt Concrete, Type "B" 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; Delineators; and Concrete Flared End Section.

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 Delineators - The contract item Delineators includes the material, equipment and labor necessary to install each delineator as shown on the drawings.

The delineators shall be in accordance with State of California, Department of Transportation Standard Plan A73-A, Class 1, Type L-2 and shall conform to Section 82 of the State Standard Specifications.

21.4 Concrete Flared End Section - The contract item Concrete Flared End Section includes the material, equipment, and labor necessary to install the Concrete Flared End Section as shown on the drawings.

The Concrete Flared End Section shall be in accordance with the State of California, Department of Transportation Standard Plan D94A, Type A, and shall conform to Section 70 of the State Standard Specifications.

21.5 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 Delineators will be for each installation.

Measurement for payment for the contract item Concrete Flared End Section will be for each installation.

21.6 Payment - The contract prices paid for Miscellaneous Iron and Steel; Delineators; and Concrete Flared End Section 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 item Stormwater and Non-Stormwater Pollution Control. The contract item Stormwater and Non-Stormwater Pollution Control shall include preparing, obtaining approval of, amending and implementing Contractor's Pollution Prevention Plan (PPP).

29.2 General Requirements – Stormwater and Non-Stormwater Pollution Control work shall conform to the requirements in the latest version of Caltrans Storm Water Quality Handbooks, entitled "**Construction Site Best Management Practices (BMPs) Manual**" and "**Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual**". Copies of the "Construction Site BMPs Manual" and "SWPPP and WPCP Preparation Manual", hereafter referred to collectively as the "Caltrans Handbooks", may be obtained from the California Department of Transportation Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, California, 95815-3800. Telephone: 916.445.3520. Copies of the Caltrans Handbooks can also be downloaded from the Caltrans internet site at <http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>. In addition, copies of the Caltrans Handbooks are available for review at the District's office.

The PPP shall identify site specific BMPs to be implemented during and after construction to minimize the potential pollution of stormwater runoff and 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 PPP shall also stipulate an ongoing program for monitoring and maintenance of all BMPs.



PPP – For the convenience of the Contractor and to expedite the PPP preparation and approval, a "90%" PPP Template has been prepared by the District. This PPP Template has been tailored to the referenced project and can be downloaded from [http://rcflood.org/Documents/PPP\\_Template\\_3000012.pdf](http://rcflood.org/Documents/PPP_Template_3000012.pdf) or obtained from the District in CD form. The awarded Contractor will be provided two (2) hard copies and a Word document of the "90%" PPP Template to amend. The Contractor shall review and amend this PPP 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 PPP certified by the Contractor's Qualified SWPPP Developer (QSD) for District review and approval.

The Contractor shall amend and finalize the complete "90%" PPP 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/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. List of all subcontractors that will be working on the project
10. Review and finalize water pollution control drawings

**In the event the District incurs any Administrative Civil Liability or Mandatory Minimum Penalty (fine) imposed by the California Regional Water Quality Control Board, 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.**

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 Caltrans Handbooks, and 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 Caltrans Handbooks, 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 approved PPP and all amendments at the project site. The PPP 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 the limits of the designated rights-of-way and temporary construction easements as shown on the project drawings.

**29.3 PPP Preparation and Approval** - The Contractor shall prepare and obtain approval of the PPP as part of the Stormwater and Non-Stormwater Pollution Control work for this contract. The Contractor shall prepare the PPP in accordance with Section 3, "Preparing a Water Pollution Control Program (WPCP)", of the Caltrans Storm Water Quality Handbooks, entitled "**Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual**" and these Detailed Specifications.

**In case of conflict between the Caltrans Handbooks and these Detailed Specifications, the Detailed Specifications shall govern.**

Within five (5) working days after the award of the contract, the Contractor shall submit two (2) copies of the PPP to the Engineer for review and approval. The Contractor shall allow ten (10) working days for the Engineer to review the PPP. If revisions are required as determined by the Engineer, the Contractor shall revise and resubmit the PPP 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 PPP to the Engineer prior to the pre-construction meeting. **The Contractor must have an approved PPP prior to the pre-construction meeting.**

The objectives of the PPP shall be to identify all pollution sources associated with Contractor's construction activities that may adversely affect the quality of stormwater discharges and receiving waters; to identify all non-stormwater discharges; to identify, construct, implement and maintain water pollution control best management practices, hereafter referred to as "BMPs"; to reduce to the maximum extent practicable pollutants in both stormwater and authorized non-stormwater discharges from the construction site during construction; and to develop a maintenance schedule for BMPs after construction is completed under this contract.

The PPP 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
5. Non-stormwater management, and waste management and disposal control practices

Specific objectives and minimum requirements for each category of BMPs are contained in the Caltrans Handbooks. The Contractor shall consider the objectives and minimum requirements presented in the Caltrans Handbooks 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 PPP 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 Caltrans Handbooks to supplement the minimum BMPs required when necessary to meet the objectives of the PPP. The Contractor shall document the selection process in accordance with the procedure specified in the Caltrans Handbooks.

The Contractor shall not assume that the minimum BMPs required for each category presented in the Caltrans Handbooks 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 BMPs required in the Caltrans Handbooks to achieve the pollution control objectives.

The PPP shall include all of the following items in the order given below:

1. Title Page
2. Table of Contents
3. Project Description and Contractor's Certification
4. Project Information
5. Pollution Sources and BMPs
6. Water Pollution Control Drawings
7. A copy of the Amendments, if any
8. Amendment Log
9. Maintenance, Inspection, and Repair Program
10. Inspection Log
11. Construction Site Inspection Checklist
12. Current Inventory of BMP related materials, and
13. Mobilization Plan for BMP deployment.

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 the storm drain system.
- ◆ All construction contractor and subcontractor personnel are to be made aware of the required best management practices and good housekeeping measures for the project site and any associated construction staging areas.
- ◆ At the end of each day of construction activity all construction debris and waste materials shall be collected and properly disposed in trash or recycle bins.
- ◆ Construction sites shall be maintained in such a condition that a storm does not carry wastes or pollutants off the site. Discharges other than stormwater (non-stormwater discharges) are prohibited, except as authorized by an individual NPDES permit or the State-wide General Permit for Storm Water Discharges Associated with Construction Activity. Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, solvents, detergents, glues, lime, pesticides, herbicides, fertilizers, wood preservatives and asbestos fibers; paint flakes or stucco fragments; fuels, oils, lubricants and hydraulic, radiator or battery fluids; concrete and related cutting or curing residues; floatable wastes; wastes from engine/equipment steam cleaning or chemical degreasing; wastes from street cleaning; and super-chlorinated potable water from line flushing and testing. During construction, disposal of such materials should occur in a specified and controlled temporary area onsite physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, State and Federal requirements.
- ◆ Discharging contaminated groundwater produced by dewatering groundwater that has infiltrated into the construction site is prohibited. Discharging of contaminated soils via surface erosion is also prohibited.
- ◆ The Contractor is required to notify and obtain approval from the District ten (10) days prior to any non-stormwater discharge or dewatering associated with Contractor's construction activities.
- ◆ Construction sites shall be managed to minimize the exposure time of disturbed soil areas through phasing and scheduling of grading to the extent feasible and the use of temporary and permanent soil stabilization.
- ◆ BMPs shall be maintained at all times. In addition, BMPs shall be inspected prior to predicted storm events and following storm events.

29.4 PPP Amendments - The Contractor shall prepare amendments to the PPP, 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 when deemed necessary by the Engineer. The Contractor shall also amend the PPP if it is not effectively achieving the objectives of reducing

pollutants in stormwater discharges. Amendments shall show additional BMPs or revisions to Contractor's construction activities or operations (including any construction activities in areas not included in the initially approved PPP) which are required on the project to effectively control water pollution.

Amendments to the PPP shall be submitted for review and approval by the Engineer in the same manner specified for the initial approval of the PPP. The Contractor shall date and attach all approved amendments to the PPP. Upon approval of the amendment, the Contractor shall implement the additional BMPs, revised construction activities or operations as described therein.

29.5 PPP Implementation - Upon approval of the PPP, the Contractor shall be responsible throughout the duration of the project for installing, constructing, inspecting and maintaining the BMPs included in the PPP and any amendments thereto and for removing and disposing of temporary BMPs. Unless otherwise directed by the Engineer or specified in these Detailed Specifications, the Contractor's responsibility for PPP implementation and maintenance shall continue throughout any temporary suspension of work ordered in accordance with Section 6.05, TEMPORARY SUSPENSION OF THE WORK, of the General Provisions. Requirements for installation, construction, inspection, maintenance, removal and disposal of BMPs are specified in the Caltrans Handbooks and these Detailed Specifications. The Contractor shall implement the PPP in accordance with the Caltrans Handbooks and these Detailed Specifications.

**The Engineer may order the suspension of construction operations if the Contractor fails to comply with the requirements of this section, "Stormwater and Non-Stormwater Pollution Control", as determined by the Engineer.**

- (a) Stormwater Pollution Control - **The Contractor shall implement soil stabilization practices and sediment control BMPs, including minimum requirements as presented in the Caltrans Handbooks, on all disturbed areas of the project site throughout the rainy season, defined as between August 1<sup>st</sup> - October 1<sup>st</sup> and November 1<sup>st</sup> - May 1<sup>st</sup>, which is consistent with Caltrans definition of rainy season for the eastern desert region.**

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 site shall be completed no later than ten (10) calendar days prior to the start of the winter season or upon start of applicable Contractor's construction activities for projects which begin either during or within ten (10) calendar days of the winter season.

Throughout the term of this contract, the total soil-disturbed area of the project site shall be less than one (1) acre. 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 winter season, active soil-disturbed areas of the project site shall be fully protected at the end of each day with soil stabilization practices and sediment control BMPs. The Contractor shall monitor the weather forecast on a daily basis. The National Weather Service forecast shall be used or an alternative weather forecast proposed by the Contractor may be used if approved by the Engineer. If precipitation is predicted prior to the end of the following workday, construction scheduling shall be modified, as required, and the Contractor shall deploy functioning control measures prior to the onset of the precipitation.

Throughout the winter season, soil-disturbed areas of the project site shall be considered to be non-active whenever soil disturbing activities are expected to be discontinued for a period of fifteen (15) calendar days or more. Areas that will become non-active either during the winter season or within ten (10) calendar days thereof shall be fully protected with soil stabilization practices such as covering with mulch, temporary seeding, fiber rolls, blankets, etc. within ten (10) calendar days of the discontinuance of soil disturbing activities or prior to the onset of precipitation, whichever is first to occur. Areas that will become non-active either during the winter season or within ten (10) calendar days thereof shall be fully protected with sediment control BMPs within ten (10) calendar days of the discontinuance of soil disturbing activities or prior to the onset of precipitation, whichever is first to occur.

- (b) **Non-Stormwater Pollution Control** - The Contractor shall implement, year-round and throughout the duration of the project, BMPs included in the PPP for sediment tracking, wind erosion, non-stormwater management, and waste management and disposal.
- (c) **Inspections and Reporting** - The QSP shall regularly inspect the construction site for BMPs identified in the PPP to ensure the proper implementation and functioning of BMPs. The QSP shall identify corrective actions and time frames to address any deficient BMPs or reinstate any BMPs that have been discontinued.

At a minimum, the QSP shall inspect the construction site as follows:

1. Prior to a forecast storm of 50% or greater possibility;
2. After any precipitation which causes 1/2 inch or more of runoff;
3. At 24 hour intervals during extended precipitation events; and
4. At a regular interval of once every 2 weeks.

The construction site inspection checklist provided in the Caltrans Handbooks shall be used to ensure that the necessary BMPs are being properly implemented

and are functioning adequately. The Contractor shall submit one copy of each site inspection record to the Engineer.

- (d) Maintenance – The Contractor shall maintain construction site BMPs identified in the PPP to ensure the proper implementation and functioning of BMPs. If the Contractor or the Engineer identifies a deficiency in the deployment or functioning of an identified BMP, the deficiency shall be corrected by the Contractor immediately, or by a later date and time if requested by the Contractor and approved by the Engineer in writing, but not later than the onset of subsequent precipitation events. The correction of deficiencies shall be at no additional cost to the District.
- (e) Training – The Contractor shall describe the types of training that the Contractor's BMP inspection, maintenance and repair personnel have received or will receive that is directly related to stormwater pollution prevention.

29.7 Payment - The contract lump sum price paid for contract item Stormwater and Non-Stormwater Pollution Control shall include full compensation for all direct and indirect costs incurred under this section.

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

#### SECTION 30 THROUGH SECTION 32 – NOT USED

#### SECTION 33 – ENVIRONMENTAL AND REGULATORY REQUIREMENTS

33.1 Accidental Paleontological Resource and Hazardous Materials Discovery – In the event that any hazardous materials 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 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 down-time and idle equipment or additional payments over and above the agreed upon contract prices.

33.2 Archaeological Monitoring – Given the culturally sensitive nature of the project area, the District will retain an archaeological monitor and the Pechanga Tribe may designate representatives to be retained by District as Tribal monitors during all project related ground disturbance activities within soils other than bedrock.

Prior to commencement of any earthwork operations a pre-grading meeting at the jobsite shall be held by the District to clarify monitoring protocols with the archaeological monitor and Pechanga Tribe's designated representative, Contractor's superintendent and all equipment operators.

In the event that Native American human remains, grave goods, funerary objects, ceremonial and cultural items are found during construction of the project the Contractor shall immediately cease all construction activity in the affected area. **The Contractor shall not resume construction in the affected area until the Engineer has approved resumption of construction.**

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

33.3 Nesting Bird Pre-Construction Survey – The removal of potential nesting vegetation shall be conducted outside of the nesting season (March 15 to September 15) to the extent that this is feasible. If vegetation must be removed during the nesting season, a nesting bird survey of potentially suitable nesting vegetation shall be conducted by the District prior to removal. Surveys will be conducted no more than three (3) days prior to scheduled removals. If active nests are identified, the District will establish a 100-foot buffer around the vegetation containing the active nest. The vegetation containing the active nest will not be removed, and no grading will occur within the established buffer until it has been determined that the nest is no longer active (i.e., the juveniles are surviving independent from the nest). If clearing is not conducted within three (3) days of a negative survey, the nesting survey must be repeated to confirm the absence of nesting birds.

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

33.4 Fire Hazard – The Contractor shall minimize the potential of human-caused wild fires. If any work is conducted adjacent to flammable vegetation appropriate fire-fighting equipment (e.g., extinguishers, shovels, water trucks) shall be available onsite. Shields, protective mats, and/or other fire preventative measures shall be used during grinding, welding, and other spark-inducing activities.

33.5 Emergency Access - The Contractor shall maintain access for emergency fire or medical vehicles at all times during construction.



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) PM<sub>10</sub> 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 PM<sub>10</sub> 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 PM<sub>10</sub> 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 PM<sub>10</sub> 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 PM<sub>10</sub>.
  - (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 PM<sub>10</sub> 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	✓ Mix backfill soil with water prior to moving
	01-2 Stabilize backfill material during handling; and	✓ Dedicate water truck or high capacity hose to backfilling equipment
	01-3 Stabilize soil at completion of activity.	✓ 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	✓ Maintain live perennial vegetation where possible
	02-2 Stabilize soil during clearing and grubbing activities; and	✓ Apply water in sufficient quantity to prevent generation of dust plumes
	02-3 Stabilize soil immediately after clearing and grubbing activities.	
Clearing forms	03-1 Use water spray to clear forms; or	✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements
	03-2 Use sweeping and water spray to clear forms; or	
	03-3 Use vacuum system to clear forms.	
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and	✓ Follow permit conditions for crushing equipment
	04-2 Stabilize material after crushing.	✓ 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"> <li>✓ Use tarps or other suitable enclosures on haul trucks</li> <li>✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage</li> <li>✓ Comply with track-out prevention/mitigation requirements</li> <li>✓ Provide water while loading and unloading to reduce visible dust plumes</li> </ul>
Landscaping	10-1 Stabilize soils, materials, slopes	<ul style="list-style-type: none"> <li>✓ Apply water to materials to stabilize</li> <li>✓ Maintain materials in a crusted condition</li> <li>✓ Maintain effective cover over materials</li> <li>✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes</li> <li>✓ Hydroseed prior to rain season</li> </ul>
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"> <li>✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs</li> <li>✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs</li> </ul>



**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"> <li>✓ Dedicate water truck or high capacity hose to screening operation</li> <li>✓ Drop material through the screen slowly and minimize drop height</li> <li>✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point</li> </ul>
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"> <li>✓ Limit size of staging area</li> <li>✓ Limit vehicle speeds to 15 miles per hour</li> <li>✓ Limit number and size of staging area entrances/exists</li> </ul>
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"> <li>✓ Add or remove material from the downwind portion of the storage pile</li> <li>✓ Maintain storage piles to avoid steep sides or faces</li> </ul>

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

<b>FUGITIVE DUST SOURCE CATEGORY</b>	<b>CONTROL ACTIONS</b>
<b>Earth-moving (except construction cutting and filling areas, and mining operations)</b>	<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;</p> <p>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>
<b>Earth-moving: Construction fill areas:</b>	<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
<b>Earth-moving: Construction cut areas and mining operations:</b>	(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.
<b>Disturbed surface areas (except completed grading areas)</b>	(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.
<b>Disturbed surface areas: Completed grading areas</b>	(2c) Apply chemical stabilizers within five working days of grading completion; OR  (2d) Take actions (3a) or (3c) specified for inactive disturbed surface areas.
<b>Inactive disturbed surface areas</b>	(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	(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 (4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR (4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open storage piles	(5a) Apply chemical stabilizers; OR (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 (5c) Install temporary coverings; OR (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.
All Categories	(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.

**TABLE 3  
CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS**

<b>FUGITIVE DUST SOURCE CATEGORY</b>	<b>CONTROL MEASURES</b>
<b>Earth-moving</b>	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
<b>Disturbed surface areas</b>	(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.
<b>Unpaved roads</b>	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
<b>Open storage piles</b>	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
<b>Paved road track-out</b>	(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.
<b>All Categories</b>	(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)**

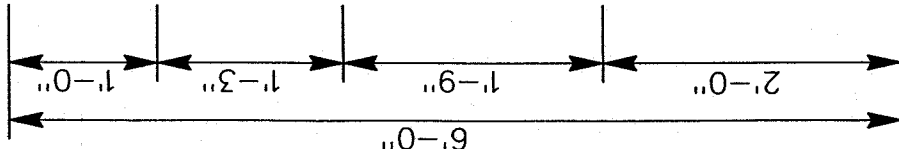
<b>SOURCE CATEGORY</b>	<b>CONSERVATION MANAGEMENT PRACTICES</b>
<b>Manure Handling</b>  (Only applicable to Commercial Poultry Ranches)	(1a) Cover manure prior to removing material off-site; AND (1b) Spread the manure before 11:00 AM and when wind conditions are less than 25 miles per hour; AND (1c) 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.
<b>Feedstock Handling</b>	(2a) Utilize a sock or boot on the feed truck auger when filling feed storage bins.
<b>Disturbed Surfaces</b>	(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.
<b>Unpaved Roads</b>	(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.
<b>Equipment Parking Areas</b>	(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** ①  
**AND**  
**WATER CONSERVATION DISTRICT**

---

**LAKELAND VILLAGE ORANGE STREET**  
**STORM DRAIN LATERAL** ②  
**STAGE 1**

---

**TOTAL CONSTRUCTION COST: \$** \* ③

FUNDED BY RIVERSIDE COUNTY FLOOD CONTROL AND  
 WATER CONSERVATION DISTRICT ④

**START DATE:** \* ④ **APPROX. COMPLETION DATE:** \*

---

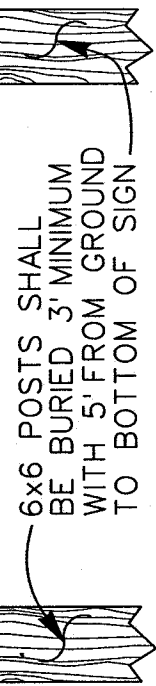
**ENGINEER:** \* ④ **CONTRACTOR:** \*

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

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

GEOTECHNICAL EXPLORATION  
ORANGE STREET STORM DRAIN LATERAL, STAGE 1  
LAKE ELSINORE AREA, RIVERSIDE COUNTY,  
CALIFORNIA

Prepared for

**RCFC & WCD**  
1995 Market Street  
Riverside, California 92501

Project No. 603223-001

August 30, 2011  
*Revised September 27, 2011*



**Leighton Consulting, Inc.**

A LEIGHTON GROUP COMPANY



Leighton Consulting, Inc.  
A LEIGHTON GROUP COMPANY

August 30, 2011  
Revised September 27, 2011

Project No. 603223-001

RCFC & WCD  
1995 Market Street  
Riverside, California 92501

Attention: Ms. Cassandra S. Sanchez, PE

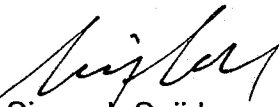
**Subject: Geotechnical Exploration, Orange Street Storm Drain Lateral, Stage 1, Lake Elsinore Area, Riverside County, California (RCFC&WCD PN 3-0-00012).**

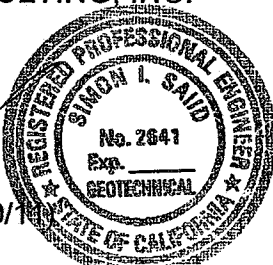
In accordance with your authorization and our proposal dated April 8, 2011, we performed a geotechnical exploration for the subject project located in the Lake Elsinore area of Riverside County, California. This report presents our findings and provides geotechnical recommendations for the design and construction of the proposed storm drain.

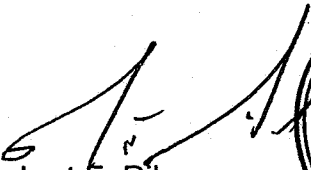
Based on the results of our geotechnical exploration, the soils conditions along the alignment of the proposed storm drain consist of alluvial deposits and granitic bedrock to the maximum depth explored of 30 feet. The encountered alluvium generally consists of loose to medium dense silty sand. The granitic rock encountered is highly weathered and considered rippable within the depth explored. Sloped excavations will be required to protect workers in the excavation, if shoring and/or shields are not used during trench excavation. The proposed alignment is not located within any currently designated Alquist-Priolo Earthquake Fault Zone.

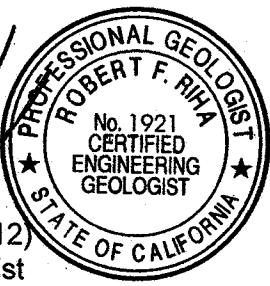
The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to call our office.

Respectfully submitted,  
LEIGHTON CONSULTING, INC.

  
Simon I. Saïid  
GE 2641 (Exp. 09/30/11)  
Principal Engineer



  
Robert F. Riha  
CEG 1921 (Exp. 02/29/12)  
Senior Principal Geologist



Distribution: (6) Addressee (plus one electronic copy/CD)

## TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
<b>1.0 INTRODUCTION .....</b>	<b>1</b>
1.1 SITE AND PROPOSED DESCRIPTION .....	1
1.2 PURPOSE AND SCOPE OF EVALUATION .....	1
1.3 FIELD EXPLORATION.....	2
1.4 LABORATORY TESTING.....	2
<b>2.0 SUMMARY OF GEOTECHNICAL FINDINGS .....</b>	<b>4</b>
2.1 OVERALL SITE GEOLOGY .....	4
2.2 SUBSURFACE CONDITIONS .....	4
2.3 RIPPABILITY / EXCAVATION CHARACTERISTICS.....	5
2.4 SURFACE AND GROUNDWATER .....	5
2.5 FAULTING AND SEISMICITY.....	5
2.6 LIQUEFACTION POTENTIAL.....	6
<b>3.0 CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>7</b>
3.1 GENERAL.....	7
3.2 EARTHWORK CONSIDERATIONS.....	7
3.2.1 Trench Excavation.....	7
3.2.2 Subgrade Preparation.....	7
3.2.3 Backfill.....	8
3.3 BEARING CAPACITY AND LATERAL PRESSURE.....	8
3.3.1 Bearing Capacity .....	8
3.3.2 Lateral Pressure .....	8
3.3.3 Soils Parameters for Pipe Design .....	9
3.4 ASPHALT PAVING .....	9
3.5 CORROSIVITY EVALUATION .....	10
3.6 TEMPORARY CUT SLOPES .....	11
3.7 TEMPORARY SHORING .....	12
3.8 DEWATERING DURING TRENCHING AND PIPELINE CONSTRUCTION.....	13
3.9 ADDITIONAL GEOTECHNICAL SERVICES .....	13
<b>4.0 LIMITATIONS .....</b>	<b>15</b>
<b>REFERENCES .....</b>	<b>16</b>



### LIST OF TABLES

TABLE 1. CBC SITE CATEGORIZATION AND SEISMIC COEFFICIENTS .....	6
TABLE 2. SOIL PARAMETERS FOR PIPE DESIGN .....	9
TABLE 3. SULFATE CONCENTRATION AND SULFATE EXPOSURE.....	10
TABLE 4. RELATIONSHIP BETWEEN SOIL RESISTIVITY AND SOIL CORROSIVITY .....	10
TABLE 5. STATIC LATERAL EARTH PRESSURES.....	13

### LIST OF FIGURES AND PLATES

Figure 1 – Site Location Map
Figure 2 – Regional Geology Map
Figures 3 and 4 – Boring Location Plans

### LIST OF APPENDICES

Appendix A – Field Exploration / Logs of Exploratory Borings
Appendix B – Results of Laboratory Testing
Appendix C – Results of Seismic Refraction Survey by Southwest Geophysics
Appendix D – ASFE Important Information About Your Geotechnical Report

## 1.0 INTRODUCTION

### 1.1 Site and Proposed Description

As depicted on Figures 1, 3 and 4, the proposed 30-inch Reinforced Concrete Pipe (RCP) will be installed within the existing unimproved Orange Street and Fairview Street in the Lake Elsinore area of Riverside County, California. These roadways are located along the eastern toe of the Santa Ana Mountains. The surrounding areas along the proposed alignment are generally developed with single family homes. The overall terrain within the proposed alignment gently slopes in an easterly direction.

Based on the information provided, we understand that the project entails the construction of approximately 700 lineal feet (LF) of a 30-inch RCP storm drain along Orange Street from the end of the project (Station 17+00), to Fairview Street and then on to the existing storm drain channel located east of Rose Street. Per the preliminary site plans provided, the storm drain will have approximately 3 to 21 feet of cover where constructed within existing public right-of-ways or streets. Maximum cover will be approximately 21 feet at the intersection of Fairview Street and Orange Street (Station 13+28).

### 1.2 Purpose and Scope of Evaluation

The purpose of our evaluation is to (1) evaluate geotechnical engineering characteristics of the earth materials along the proposed alignment, and (2) provide geotechnical recommendations for design and construction of the proposed storm drain. As described in our proposal, the scope of our evaluation included the following tasks:

- Background Review: We reviewed readily available, relevant, geotechnical/geologic reports and maps pertinent to the project.
- Field Exploration: Our field exploration consisted of four borings drilled along the proposed alignment and three seismic refraction lines performed approximately between Stations 12+00 and 14+00 where the deepest excavation is anticipated.
- Geotechnical Laboratory Tests: Geotechnical laboratory tests were performed on selected soil samples collected during our field exploration. This laboratory testing program was designed to evaluate general physical and engineering characteristics of soil along the proposed alignment.





- **Engineering Analysis:** Data obtained from our background review, field exploration, and geotechnical laboratory testing program was evaluated to develop geotechnical conclusions and recommendations for the proposed storm drain design and construction.
- **Report Preparation:** Results of this evaluation have been summarized in this report, presenting our findings, conclusions and geotechnical recommendations for the proposed storm drain.

This report does not address the potential for encountering hazardous materials along this alignment. Important information about limitations of geotechnical reports, in general, is presented in Appendix D, *ASFE Important Information About Your Geotechnical Report*.

### 1.3 Field Exploration

- **Geotechnical Borings:** Our field exploration consisted of the excavation of four borings in accessible areas within the right-of-ways of proposed storm drain. Prior to drilling, we located and marked boring locations for coordination with Underground Service Alert (USA). Our field exploration was performed on August 12, 2011. Approximate locations of the borings are depicted on the Boring Location Plan (Figures 3 & 4). The exploratory borings were excavated utilizing a truck-mounted, CME 75 drill rig using 8-inch hollow-stem flight augers. During the drilling operation, bulk and relatively undisturbed samples were obtained from the borings for laboratory testing and evaluation. Sampling of the borings was conducted by a staff geologist from our office and they were then transported to our laboratory for testing. Borings were backfilled with native soils. The logs of borings are presented in Appendix A of this report.
- **Seismic Refraction Survey:** Three seismic refraction traverses were conducted in order to assess rock rippability characteristics. The location of these traverses was selected to best evaluate the bedrock rippability. The seismic refraction survey and data processing/analysis were conducted by geophysicists from Southwest Geophysics, Inc. (San Diego, California). The seismic refraction survey report is presented in Appendix C. The approximate locations of the survey lines are shown therein.

### 1.4 Laboratory Testing

Laboratory tests were performed on representative samples to provide a basis for development of geotechnical design parameters. Selected samples were tested to determine the following parameters: insitu moisture and density, direct shear test, maximum dry density and optimum moisture content, sieve analysis



(gradation), sand equivalent, direct shear, collapse potential, soluble sulfate content and chloride, pH and resistivity. The results of our laboratory testing and summaries of the testing procedures are presented in Appendix B.



## 2.0 SUMMARY OF GEOTECHNICAL FINDINGS

A summary of our findings from research of pertinent literature, site-specific field exploration, geotechnical laboratory testing and engineering analysis, is discussed in this section.

### 2.1 Overall Site Geology

As shown on *Geologic Map* (Figure 2), the subject site is primarily located within Quaternary-age younger alluvial fan deposits (Qya) underlain and partially within granitic rock (gr). A relatively thin veneer of artificial fill was encountered at the surface along the alignment. The site-specific geology/subsurface conditions are provided in Section 2.2 below. Detailed descriptions of the earth materials encountered in each excavation are provided in Appendix A.

### 2.2 Subsurface Conditions

Based on the results of our geotechnical exploration, the alignment of the proposed storm drain is underlain by younger alluvial deposits and weathered granitic bedrock. A relatively thin layer of artificial fill materials (up to 2.5 feet in thickness) associated with previous roadway construction is expected to cover the alluvium and bedrock materials. Further descriptions of these units are described below:

- **Artificial Fill:** These materials consisting of existing street fill soils are expected in the upper 2.5 feet below existing surface elevations. The artificial fill / subgrade soils consist primarily of silty sand soils with trace gravel.
- **Quaternary Younger Alluvium (Qay):** These alluvial soils were encountered in boring B-1 to the total depth explored of 16.5 feet and in boring B-4 to a depth of 10 feet. The sampled alluvium consisted generally of moist, loose to medium dense silty sand (SM). In-situ density and moisture contents of the alluvium encountered in our soil borings are presented on the soil boring logs, in Appendix A. This alluvium is expected to generally possess very low expansion ( $EI < 21$ ) due to its granular nature. Based on the results of our laboratory testing (grain size analysis), the Soil Erodibility Factor (k) is expected to range from 0.15 to 0.20 per the Erickson/USDA nomograph.
- **Granitic Bedrock:** Highly weathered granitic bedrock was encountered in three of our borings below the artificial fill/alluvium. The granitic rock was encountered at a depth of approximately one foot below existing ground



surface at Borings B-2 and B-3 and at a depth of 10 feet in B-4. As observed during drilling, the rock is highly weathered and recovered as fine to coarse sand with angular gravel fragments and trace silt.

### 2.3 Rippability / Excavation Characteristics

Based on the seismic refraction survey data performed by Southwest Geophysics, Inc. (Appendix C), relatively easy to moderate ripping using Caterpillar D-9 dozer with a single shank is expected within the proposed depth of excavation. Grading and/or trench excavation characteristics using conventional excavators or earthmoving equipment may vary based on the specific equipment used. It is important that a contractor with excavation experience in similar conditions should be consulted for the proper excavation methodology, equipment, and production rate based on the findings of this report. In addition, we anticipate that zones of very difficult excavation (corestones, boulders) may be encountered along the alignment. Further discussion regarding methodology used to evaluate onsite rock rippability is included in Appendix C.

### 2.4 Surface and Groundwater

No surface or groundwater was observed at the time of our field exploration.

### 2.5 Faulting and Seismicity

The subject site, like the rest of Southern California, is located within a seismically active region as a result of being located near the active margin between the North American and Pacific tectonic plates. The principal source of seismic activity on this site is movement along the northwest-trending regional fault systems such as the San Andreas and San Jacinto. Based on our review of published geologic map (Hart, 2007), the subject site is not included within an Earthquake Fault Zone as created by the Alquist-Priolo Earthquake Fault Zoning Act.

For the purpose of structural design, seismic coefficients based on the 2010 California Building Code (CBC) are provided below. These seismic coefficients were calculated based on a software program, published by the United States Geological Survey (USGS, 2011), which follows the procedures, included in American Society of Civil Engineers (ASCE) Publication ASCE 7-10 and Chapter 16 of 2010 CBC.



**Table 1. CBC Site Categorization and Seismic Coefficients**

Design Parameters	Reference - CBC 2010	Design Value
Site Class	Table 1613.5.2	D
Mapped Spectral Acceleration at Short Period ( $S_S$ ) for Site Class B	Figure 1613.5(3)	1.94 g
Mapped Spectral Acceleration at 1 Second ( $S_1$ )	Figure 1613.5(4)	0.72 g
Design Spectral Acceleration at Short Period ( $S_{DS}$ ) for Site Class D	Equation 16-39	1.30 g
Design Spectral Acceleration at 1 Second ( $S_{D1}$ ) for Site Class D	Equation 16-40	0.72 g

**2.6 Liquefaction Potential**

Liquefaction is the loss of soil strength due to a buildup of pore-water pressure during severe ground shaking. Liquefaction is associated primarily with loose (low density), saturated, fine- to medium-grained, cohesionless soils. Due to relatively dense nature of the soils encountered, the potential for liquefaction is considered low within the proposed alignment.



## 3.0 CONCLUSIONS AND RECOMMENDATIONS

### 3.1 General

The proposed storm drain appears feasible from a geotechnical viewpoint provided that the following recommendations are incorporated into the design and construction phases of development. The encountered alluvium and granitic rock along the alignment may be considered CalOSHA Type C and A soils, respectively, and sloped excavations will be required to protect workers in the excavation, if shoring and/or shields are not used. Geotechnical recommendations for design and construction of the proposed 30-inch RCP storm drain and associated appurtenances are presented below.

### 3.2 Earthwork Considerations

Earthwork associated with the proposed storm drain should be performed in accordance with applicable RCFC&WCD/District Specifications, "Standard Specifications for Public Works Construction" (Green Book, latest edition) and the recommendations included in the text of this report.

#### 3.2.1. Trench Excavation

Based on the results of our exploratory borings, the onsite alluvium should generally be easy to excavate with conventional earthmoving equipment. However, the granitic rock may locally require extra efforts and specialized equipment for excavation.

Excavation should be performed in accordance with the project plans, specifications, and all applicable OSHA requirements. The contractor should be responsible for providing the "competent person" required by OSHA standards. Contractors should be advised that sandy soils (such as existing, onsite alluvium) could make excavations particularly unsafe, and hence necessary safety precautions should be taken at all times.

#### 3.2.2. Subgrade Preparation

Medium dense to dense silty sand alluvium and/or weathered granitic bedrock are expected below the bottom of the proposed storm drain. These materials are considered suitable for foundation support of the proposed storm drain. However, depending on actual field conditions encountered during construction, localized over-excavation may be necessary to remove unsuitable materials or provide level subgrade in rock formation. The resulting voids or over-excavations should be properly backfilled with suitable materials.



### 3.2.3. Backfill

The onsite alluvium soils within the proposed excavation depth are generally suitable as backfill materials provided they are free of rocks over 6 inches in diameter and free of organic matter. The excavated granitic rock may require crushing and screening so the gradational requirements are in compliance with Section 306-1.3 of the *Standard Specifications for Public Works Construction*, ("Greenbook"), 2009 Edition. Oversized rock (cobbles and/or boulders) should either be removed from any backfill, or pulverized for use in backfill only above the pipe zone. Gravel larger than ¾-inch in diameter should be mixed with at least 80-percent soil by weight passing the No. 4 sieve. Native soil backfill over the pipe bedding zone should be placed in thin lifts, moisture conditioned, as necessary, and mechanically compacted using a minimum standard of 90 percent relative compaction, relative to the ASTM D 1557-09 laboratory maximum dry density or as required per District standard specifications. Based on our laboratory test results (SE ranging from 23 to 44), the contractor may use jetting to compact trench backfill if approved by the District and the jetting procedures and soils requirements comply with Section 306-1.3 of the "Greenbook".

## 3.3 Bearing Capacity and Lateral Pressure

### 3.3.1. Bearing Capacity

A net allowable bearing capacity of 2,000 psf, or a modulus of subgrade reaction of 175 pci may be used for design of storm drain or any appurtenant structures founded into dense alluvium or granitic rock. A minimum base width of 18 inches for continuous footings and a minimum bearing area of 3 square feet (1.75 ft by 1.75 ft) for pad foundations should be used. Additionally, an increase of one-third may be applied when considering short-term live loads (e.g. seismic and wind). Based on known conditions, differential settlement is expected to be less than ½ inch across a lateral distance of 30 feet.

### 3.3.2. Lateral Pressure

Soil's resistance ability to withstand lateral loads on a shallow foundation is a function of the frictional resistance along the base of the footing and the passive resistance that may develop as the face of the structure tends to move into the soil. The frictional resistance between the base of the foundation/concrete and the subgrade soil may be computed using a coefficient of friction of 0.35. The passive resistance may be computed using an equivalent fluid pressure of 300 pounds-per-cubic-foot (pcf), assuming there is constant contact between concrete and undisturbed soil. These friction and passive values have already been reduced by a factor-of-safety of 1.5, and can be increased by one-third when considering short-duration wind or seismic loads.



### 3.3.3. Soils Parameters for Pipe Design

Structural design of pipes requires proper evaluation of possible loads acting on the pipe, including dead and live or transient loads. Stresses and strains induced in a buried pipe depend on many factors, including the type of pipe, depth and width of trench, bedding and embedment conditions, soil density, angle of internal friction, coefficient of passive earth pressure, and coefficient of friction at the interface between the backfill and in-situ soils. We recommend the following soil parameters for the proposed pipe design:

**Table 2. Soil Parameters for Pipe Design**

Soil Parameters	Recommended Values
Average Compacted fill moist unit weight, (pcf)	125
Angle of internal friction of soils (degrees)	33
Soil cohesion, c (psf)	0
Sliding friction between pipe and native soils	0.35
Coefficient of active earth pressure/Rankine, $K_a$	0.35
Coefficient of earth pressure at rest, $K_o$	0.55

### 3.4 Asphalt Paving

If applicable, pavement reconstruction associated with the proposed structure should be placed in accordance with Riverside County Transportation Department requirements.

For planning purposes, an R-value of 45 may be assumed for design of pavement sections. Based on Caltrans Highway Design Manual, and an assumed Traffic Index (TI) of 5, a pavement section of 3-inch AC over 6-inch AB may be considered.

Representative samples of the actual subgrade materials for R-value testing during subgrade preparation or prior to pavement construction should be performed and appropriate Traffic Index (TI) data should be selected or verified by the project civil engineer or District prior to finalizing the pavement section design.

Prior to placing aggregate base or asphalt, the upper 6 inches of subgrade in pavement areas should be compacted to a minimum of 95 percent relative compaction. Aggregate Base (AB) should also be compacted to at least 95-percent of the ASTM D 1557.





### 3.5 Corrosivity Evaluation

Sulfate ions in the soil can lower soil resistivity and can be highly aggressive to portland cement concrete by combining chemically with certain constituents of the concrete, principally tricalcium aluminate. This reaction is accompanied by expansion and eventual disruption of the concrete matrix. Potentially high sulfate content could also cause corrosion of the reinforcing steel in concrete. Table below summarizes current standards for concrete exposed to sulfate-containing solutions.

**Table 3. Sulfate Concentration and Sulfate Exposure**

Sulfate In Water (parts-per-million)	Water-Soluble Sulfate (SO <sub>4</sub> ) in soil (percentage by weight)	Sulfate Exposure
0-150	0.00 - 0.10	Negligible
150-1,500	0.10 - 0.20	Moderate (Seawater)
1,500-10,000	0.20 - 2.00	Severe
>10,000	Over 2.00	Very Severe

The sulfate content was determined in the laboratory for representative onsite soil sample. The results indicate that the water soluble sulfate range is less than 0.2 percent by weight, which is considered moderate as per Table above. Based upon the test results, Type II cement or an equivalent may be used.

Many factors can affect corrosion potential of soil including soil moisture content, resistivity, permeability and pH, as well as chloride and sulfate concentration. In general, soil resistivity, which is a measure of how easily electrical current flows through soils, is the most influential factor. Based on the findings of studies presented in ASTM STP 1013 titled "Effects of Soil Characteristics on Corrosion" (February, 1989), the approximate relationship between soil resistivity and soil corrosiveness was developed as shown in Table below.

**Table 4. Relationship between Soil Resistivity and Soil Corrosivity**

Soil Resistivity (ohm-cm)	Classification of Soil Corrosiveness
0 to 900	Very Severely Corrosive
900 to 2,300	Severely Corrosive
2,300 to 5,000	Moderately Corrosive
5,000 to 10,000	Mildly Corrosive
10,000 to >100,000	Very Mildly Corrosive



Acidity is an important factor of soil corrosivity. The lower the pH (the more acidic the environment), the higher the soil corrosivity will be with respect to buried metallic structures and utilities. As soil pH increases above 7 (the neutral value), the soil is increasingly more alkaline and less corrosive to buried steel structures, due to protective surface films, which form on steel in high pH environments. The pH of site soils on one representative sample is 6.7 which is generally considered more active from a corrosion standpoint. Chloride and sulfate ion concentrations, and pH appear to play secondary roles in affecting corrosion potential. High chloride levels tend to reduce soil resistivity and break down otherwise protective surface deposits, which can result in corrosion of buried steel or reinforced concrete structures.

Based on minimum resistivity laboratory test results from a representative sample, the onsite soil for the three locations is considered very mildly corrosive. Ferrous pipe can be protected by polyethylene bags, tape or coatings, di-electric fittings, concrete encasement or other means to separate the pipe from wet onsite soils. Further testing of import and possibly site soil corrosivity could be performed and specific recommendations for corrosion protection may need to be provided by a qualified corrosion engineer.

### 3.6 Temporary Cut Slopes

The contractor is responsible for all temporary slopes and trenches excavated at the site and the design of any required temporary shoring. Shoring, bracing and benching should be performed by the contractor in accordance with the current edition of the *California Construction Safety Orders*, see:

<http://www.dir.ca.gov/title8/sb4a6.html>

During construction, exposed earth material conditions should be regularly evaluated to verify that conditions are as anticipated. The contractor is responsible for providing the "competent person" required by OSHA standards to evaluate soil conditions. Close coordination between the competent person and geotechnical consultant should be maintained to facilitate construction while providing safe excavations. Existing alluvial soils encountered are classified as OSHA soil Type C. Therefore, unshored temporary cut slopes should be no steeper than 1½:1 (horizontal:vertical), for a height no-greater-than ( $\leq$ ) 20 feet (*California Construction Safety Orders*, Appendix B to Section 1541.1, Table B-1). For excavation within the weathered granitic rock, unshored temporary cut



slopes should be no steeper than  $\frac{3}{4}$ :1 for a height no-greater-than ( $\leq$ ) 25 feet. These recommended temporary cut slopes assume a level ground surface for a distance equal to one-and-a-half (x1.5) the depth of excavation. For steeper temporary slopes, deeper excavations, and/or where slopes terrain exists within close proximity to excavation ( $<1.5 \times \text{depth}$ ), appropriate shoring methods or flatter slopes may be required to protect the workers in the excavation and adjacent improvements. Such methods should be implemented by the contractor and approved by the geotechnical consultant.

### 3.7 Temporary Shoring

If the sloped open cut excavation is not feasible based on requirements above and due to existing structures, excavations for the proposed storm drain should be supported by a temporary shoring system such as cross-braced hydraulic shoring, conventional shields, sheet piles, soldier piles and wood lagging. The choice should be left to the contractor's judgment since economic considerations and/or the individual contractor's construction experience may determine which method is more economical and/or appropriate. The contractor and shoring designer should also perform additional geotechnical studies as necessary to refine the means-and-methods of shoring construction.

The support of all adjacent existing structures during excavation and construction (including pavements) without distress is the contractor's responsibility. In addition, it should be the contractor's responsibility to undertake a pre-construction survey with benchmarks and photographs of the adjacent properties. Shoring systems should be designed by a California licensed civil or structural engineer. As preliminary design guidelines, we present the following geotechnical parameters for shoring design. The following lateral earth pressures are recommended for temporary shoring supporting encountered alignment soils with level ground behind the shoring. Passive pressure also may be used to compute lateral soil resistance, if necessary, for sheet piles. Earth pressures provided are ultimate values and a safety factor should be applied as appropriate.



**Table 5. Static Lateral Earth Pressures**

Conditions <sup>1</sup>	Static Equivalent Fluid Weight (pcf)
Active (cantilever)	35
At-Rest (braced)	55
Passive <sup>2</sup>	350

1. For temporary excavations only, with level backfill, not including surcharges
2. Passive equivalent fluid pressure may be doubled for isolated soldier piles spaced at least 2½ diameters on-center. Passive resistance should not exceed 3,500 pounds-per-square-foot (psf)

Determination of appropriate design conditions (active or at-rest) depends on shoring flexibility. If a rotation of more than 0.001 radian (0.06 degrees) is allowed, active pressure conditions apply; otherwise, at-rest condition governs.

Surcharge loads (dead or live) should be added to the indicated lateral earth pressures and should be applied uniformly, if such loads are within a horizontal distance that is less-than the exposed shoring height. The corresponding lateral earth pressure will approximately be 33-percent of the vertical surcharge for active conditions, and 50-percent for at-rest conditions. Surcharge pressures from concentrated loads should be evaluated after geometric constraints and loading conditions are determined on individual basis.

### 3.8 Dewatering during Trenching and Pipeline Construction

Based on the results of our exploration, groundwater was not encountered and thus not expected to be a geotechnical concern during construction. However, if encountered during excavations, groundwater control, such as dewatering, will be required to limit instability of the excavation bottom, side and face, and aid foundation construction and soil backfill. Groundwater due to perched saturated conditions can be dewatered utilizing sump-pumps. Dewatering or any other suitable method for stabilizing excavation bottom may be selected by the contractor based on actual groundwater conditions encountered and based on the contractor's chosen means-and-methods of construction. The selected method by the contractor should be able to effectively mitigate for bottom heave or stabilize subgrade soils during construction/ backfilling.

### 3.9 Additional Geotechnical Services

This report was based in part on data obtained from a limited number of observations, site visits, soil excavations, samples and tests. Such information



is, by necessity, incomplete. The nature of many pipe alignments is such that differing soil or geologic conditions can be present within relatively small distances between borings and under varying climatic conditions. Changes in subsurface conditions can and do occur over time. Therefore, our findings, conclusions and recommendations presented in this report are only valid if Leighton Consulting, Inc. has the opportunity to observe subsurface conditions during construction, to confirm that our preliminary data are representative for the alignment. Geotechnical observation and testing should be provided by Leighton Consulting, Inc. during storm drain backfill and when any unusual conditions are encountered.



#### 4.0 LIMITATIONS

This report was necessarily based in part upon data obtained from a limited number of observances, site visits, soil samples, tests, analyses, histories of occurrences, spaced subsurface explorations and limited information on historical events and observations. Such information is necessarily incomplete. The nature of many sites is such that differing characteristics can be experienced within small distances and under various climatic conditions. Changes in subsurface conditions can and do occur over time. This investigation was performed with the understanding that the subject site is proposed for development as described in Section 1.3 of this report. The client is referred to Appendix D regarding important information provided by the Associated Soil and Foundation Engineers (ASFE) on geotechnical engineering studies and reports and their applicability.

This report was prepared for RCFC & WCD based on RCFC & WCD needs, directions, and requirements at the time of our investigation. This report is not authorized for use by, and is not to be relied upon by any party except RCFC & WCD, and its successors and assigns as owner of the property, with whom Leighton Consulting, Inc. has contracted for the work. Use of or reliance on this report by any other party is at that party's risk. Unauthorized use of or reliance on this report constitutes an agreement to defend and indemnify Leighton Consulting, Inc. from and against any liability which may arise as a result of such use or reliance, regardless of any fault, negligence, or strict liability of Leighton Consulting, Inc.

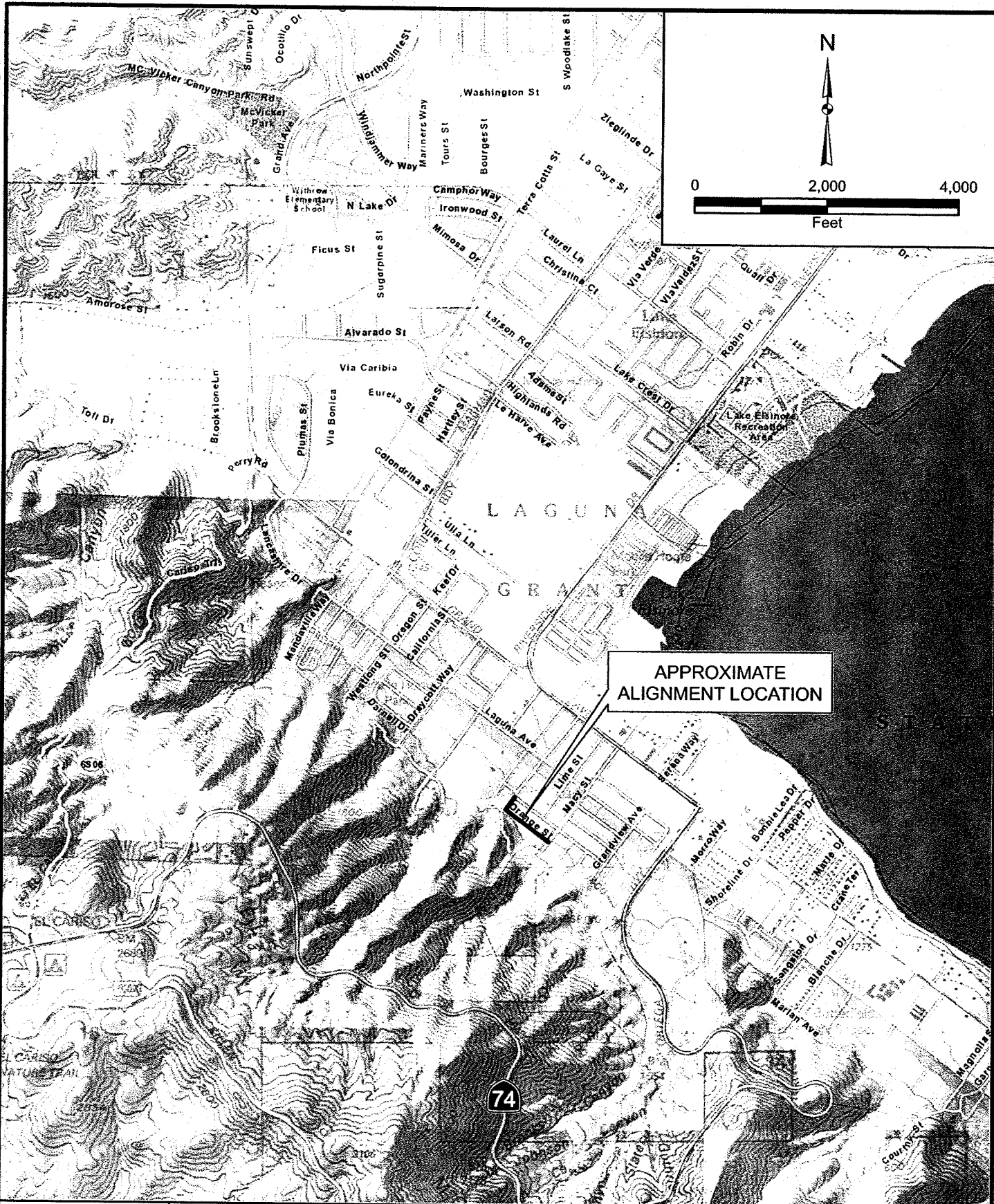
The client is referred to Appendix D regarding important information provided by the Associated Soil and Foundation Engineers (ASFE) on geotechnical engineering studies and report and their applicability.



## REFERENCES

- Blake, T. F., 2000a, EQFAULT, Version 3.00a, A Computer Program, for the Deterministic Prediction of Peak Horizontal Acceleration from Digitized California Faults, with 2003 updated fault model database.
- California Building Code (CBC), 2010, "California Code of Regulations," Title 24, Part 2, Vol. 2.
- California Geologic Survey (CGS), 2006 Geologic Map of California, of the San Bernardino and Santa Ana 30' X 60' Quadrangles, Southern California, Version 1.0.
- Dibble, Thomas, Jr., 2003, Geologic Map of the Winchester Quadrangle, Riverside County, California, Winchester Map DF-117.
- Hart, E.W., Bryant, W.A., 2007, Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Zones Maps, Department of Conservation, California Geological Survey, Special Publication 42, 2007 Interim Revision.
- National Center for Earthquake Engineering Research, (NCEER), 1997, Proceedings of the NCEER Workshop of Liquefaction Resistance of Soils, Technical Report NCEER-97-0022, dated December 31.
- Public Works Standard, Inc., 2009, Greenbook, *Standard Specifications for Public Works Construction*: BNI Building News, Anaheim, California.
- Riverside County, 2004, General Plan Safety Element and Appendix H - Geotechnical Report (Technical Background Document), Adopted October 7, 2003, Geologic Hazards Map of Riverside County, printed May 17.
- Riverside County Flood Control And Water Conservation District, Orange Street Lateral, Stage 1, Sheet 2 and 3, Plans and Profiles, Preliminary, undated.
- USDA, 2010, United States Department of Agriculture Notional Resources Conservation Services Web Site Viewed on December 13, 2010.
- United States Geological Survey, (USGS), 2011, A Computer Program Published by USGS to Calculate Seismic Hazard Curves and Response and Design Parameters based on ASCE 7-05 Seismic Procedures, Version 5.1.0, Revision ed. February 2011.






Project: 603223-001	Eng/Geol: SIS/RFR
Scale: 1"=2,000'	Date: August 2011
Base Map: USGS Topographic Map 7.5' Series from Esri Resource Center 2011 Thematic Info: Leighton Author: BQT	

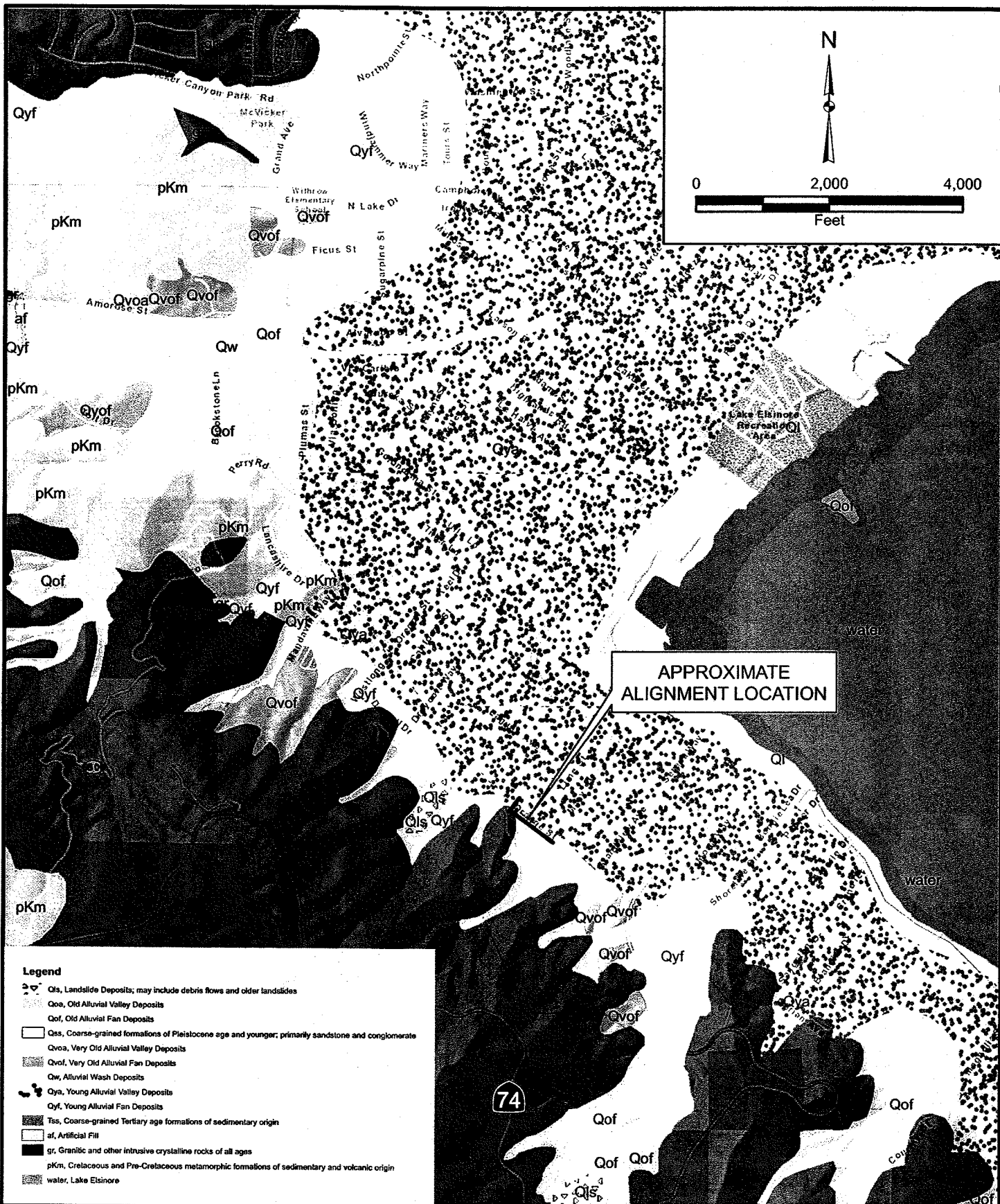
**SITE LOCATION MAP**  
 RIVERSIDE COUNTY FLOOD CONTROL AND WATER  
 CONSERVATION DISTRICT ORANGE STREET LATERAL  
 RIVERSIDE, CALIFORNIA

Figure 1



Leighton






Project: 603223-001	Eng/Geol: SIS/RFR
Scale: 1"=2,000'	Date: August 2011
Base Map: USGS Topographic Map 7.5' Series from Esri Resource Center 2011 Thematic Info: Leighton Author: BQT	

**REGIONAL GEOLOGIC MAP**  
 RIVERSIDE COUNTY FLOOD CONTROL AND WATER  
 CONSERVATION DISTRICT ORANGE STREET LATERAL  
 RIVERSIDE, CALIFORNIA

Figure 2



Leighton