

IMPORTANT

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

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

DISCLAIMER

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

POLICY NUMBER: PNG001300-06
ASR CONSTRUCTORS, INC.

COMMERCIAL GENERAL LIABILITY

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – (FORM B)

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART.

SCHEDULE

✓ **Name of Person or Organization:**

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, COUNTY OF RIVERSIDE
SPECIAL DISTRICTS, THEIR RESPECTIVE DIRECTORS, OFFICERS, BOARD OF SUPERVISORS, ELECTED OFFICIALS
EMPLOYEES, AGENTS OR REPRESENTATIVES

Any person or organization to which you are obligated by virtue of a written contract to provide insurance such as is afforded by this policy, but only with respect to (1) occurrences taking place after such written contract has been executed and (2) occurrences resulting from work performed by you during the policy period, or occurrences resulting from the conduct of your business during the policy period.

✓ JOB: L.I.D. TESTING & DEMONSTRATION FACILITY FOR RCFC DISTRICT PARKING LOT RENOVATION 2010
AND WATER EFFICIENT LANDSCAPE CONVERSION

(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.

Coverage provided by this policy to the Additional Insured(s) shown in the Schedule shall be primary insurance and any other insurance maintained by the Additional Insured(s) shall be excess and non-contributory, but only if required of the Named Insured and by written contract.

IMPORTANT

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

DISCLAIMER

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

ASR CONSTRUCTORS, INC.
01-CI-03360120

COMMERCIAL AUTO
CA 71 10 03 07

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

AUTO PLUS ENDORSEMENT

RIVERSIDE COUNTY FLOOD CONTROL AND
WATER CONSERVATION DISTRICT, COUNTY OF
RIVERSIDE, SPECIAL DISTRICTS, THEIR RESPECTIVE DIRECTORS,
OFFICERS, BOARD OF SUPERVISORS, ELECTED OFFICIALS, EMPLOYEES
AGENTS OR REPRESENTATIVES

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement. **JOB: L.I.D. TESTING & DEMONSTRATION FACILITY FOR RCFC DISTRICT PARKING LOT RENOVATION 2010 AND WATER EFFICIENT LANDSCAPE CONVERSION**

EXTENDED CANCELLATION CONDITION

Paragraph 2.b. of the CANCELLATION Common Policy Condition is replaced by the following:

- b. 60 days before the effective date of cancellation if we cancel for any other reason.

TEMPORARY SUBSTITUTE AUTO — PHYSICAL DAMAGE COVERAGE

Under paragraph C. — CERTAIN TRAILERS, MOBILE EQUIPMENT AND TEMPORARY SUBSTITUTE AUTOS of SECTION 1 — COVERED AUTOS, the following is added:

If Physical Damage coverage is provided by this Coverage Form, then you have coverage for:

Any "auto" you do not own while used with the permission of its owner as a temporary substitute for a covered "auto" you own that is out of service because of its breakdown, repair, servicing, "loss" or destruction.

BROAD FORM NAMED INSURED

SECTION II — LIABILITY COVERAGE — A.1. WHO IS AN INSURED provision is amended by the addition of the following:

- d. Any business entity newly acquired or formed by you during the policy period provided you own 50% or more of the business entity and the business entity is not separately insured for Business Auto Coverage. Coverage is extended up to a maximum of 180 days following acquisition or formation of the business entity. Coverage under this provision is afforded only until the end of the policy period.

BLANKET ADDITIONAL INSURED

SECTION II — LIABILITY COVERAGE — A.1. WHO IS AN INSURED provision is amended by the addition of the following:

- e. Any person or organization for whom you are required by an "insured contract" to provide insurance is an "insured", subject to the following additional provisions:
 - (1) The "insured contract" must be in effect during the policy period shown in the Declarations, and must have been executed prior to the "bodily injury" or "property damage".
 - (2) This person or organization is an "insured" only to the extent you are liable due to your ongoing operations for that insured, whether the work is performed by you or for you, and only to the extent you are held liable for an "accident" occurring while a covered "auto" is being driven by you or one of your employees.
 - (3) There is no coverage provided to this person or organization for "bodily injury" to its employees, nor for "property damage" to its property.
 - (4) Coverage for this person or organization shall be limited to the extent of your negligence or fault according to the applicable principles of comparative negligence or fault.
 - (5) The defense of any claim or "suit" must be tendered by this person or organization as soon as practicable to all other insurers which potentially provide insurance for such claim or "suit".

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- (6) The coverage provided will not exceed the lesser of:
- (a) The coverage and/or limits of this policy; or
 - (b) The coverage and/or limits required by the "insured contract".
- (7) A person's or organization's status as an "insured" under this subparagraph d ends when your operations for that "insured" are completed.

EMPLOYEE AS INSURED

Under Paragraph A. of Section II — LIABILITY COVERAGE item f. is added as follows:

Your "employee" while using his owned "auto", or an "auto" owned by a member of his or her household, in your business or your personal affairs, provided you do not own, hire or borrow that "auto". This coverage is excess to any other collectible insurance coverage.

FELLOW EMPLOYEE COVERAGE

Exclusion 5. FELLOW EMPLOYEE of SECTION II — LIABILITY COVERAGE — B. EXCLUSIONS is amended by the addition of the following:

However, this exclusion does not apply if the "bodily injury" results from the use of a covered "auto" you own or hire, and provided that any coverage under this provision only applies in excess over any other collectible insurance.

BLANKET WAIVER OF SUBROGATION

We waive the right of recovery we may have for payments made for "bodily injury" or "property damage" on behalf of the persons or organizations added as "insureds" under Section II — LIABILITY COVERAGE — A.1.D. BROAD FORM NAMED INSURED and A.1.e. BLANKET ADDITIONAL INSURED.

PHYSICAL DAMAGE — ADDITIONAL TRANSPORTATION EXPENSE COVERAGE

The first sentence of paragraph A.4. of SECTION III — PHYSICAL DAMAGE COVERAGE is amended as follows:

We will pay up to \$50 per day to a maximum of \$1,500 for temporary transportation expense incurred by you because of the total theft of a covered "auto" of the private passenger type.

PERSONAL EFFECTS COVERAGE

A. SECTION III — PHYSICAL DAMAGE COVERAGE, A.4. COVERAGE EXTENSIONS, is amended by adding the following:

c. Personal Effects Coverage

For any Owned "auto" that is involved in a covered "loss", we will pay up to \$500 for "personal effects" that are lost or damaged as a result of the covered "loss", without applying a deductible.

EXTRA EXPENSE — BROADENED COVERAGE

Paragraph A. — COVERAGE of SECTION III — PHYSICAL DAMAGE COVERAGE is amended to add:

- 5. We will pay for the expense of returning a stolen covered "auto" to you.

AIRBAG COVERAGE

Under paragraph B. — EXCLUSIONS of SECTION III — PHYSICAL DAMAGE COVERAGE, the following is added:

The exclusion relating to mechanical breakdown does not apply to the accidental discharge of an airbag.

NEW VEHICLE REPLACEMENT COST

Under Paragraph C — LIMIT OF INSURANCE of Section III — PHYSICAL DAMAGE COVERAGE section 2 is amended as follows:

- 2. An adjustment for depreciation and physical condition will be made in determining actual cash value in the event of a total loss. However, in the event of a total loss to your "new vehicle" to which this coverage applies, as shown in the declarations, we will pay at your option:
 - a. The verifiable "new vehicle" purchase price you paid for your damaged vehicle, not including any insurance or warranties purchased;
 - b. The purchase price, as negotiated by us, of a new vehicle of the same make, model and equipment, not including any furnishings, parts or equipment not installed by the manufacturer or manufacturer's dealership. If the same model is not available pay the purchase price of the most similar model available;

- c. The market value of your damaged vehicle, not including any furnishings, parts or equipment not installed by the manufacturer or manufacturer's dealership.

This coverage applies only to a covered "auto" of the private passenger, light truck or medium truck type (20,000 lbs or less gross vehicle weight) and does not apply to initiation or set up costs associated with loans or leases.

TWO OR MORE DEDUCTIBLES

Under SECTION III — PHYSICAL DAMAGE COVERAGE, if two or more "company" policies or coverage forms apply to the same accident, the following applies to paragraph D. Deductible:

- a. If the applicable Business Auto deductible is the smaller (or smallest) deductible it will be waived; or
- b. If the applicable Business Auto deductible is not the smaller (or smallest) deductible it will be reduced by the amount of the smaller (or smallest) deductible; or
- c. If the loss involves two or more Business Auto coverage forms or policies the smaller (or smallest) deductible will be waived.

For the purpose of this endorsement "company" means:

- a. Safeco Insurance Company of America
- b. American States Insurance Company
- c. General Insurance Company of America
- d. American Economy Insurance Company
- e. First National Insurance Company of America
- f. American States Insurance Company of Texas
- g. American States Preferred Insurance Company
- h. Safeco Insurance Company of Illinois

LOAN/LEASE GAP COVERAGE

Under paragraph C — LIMIT OF INSURANCE of SECTION III — PHYSICAL DAMAGE COVERAGE, the following is added:

- 4. The most we will pay for a total "loss" in any one "accident" is the greater of the following, subject to a \$1,500 maximum limit:

- a. Actual cash value of the damaged or stolen property as of the time of the "loss", less an adjustment for depreciation and physical condition; or

- b. Balance due under the terms of the loan or lease that the damaged covered "auto" is subject to at the time of the "loss", less any one or all of the following adjustments:

- (1) Overdue payment and financial penalties associated with those payments as of the date of the "loss".
- (2) Financial penalties imposed under a lease due to high mileage, excessive use or abnormal wear and tear.
- (3) Costs for extended warranties, Credit Life Insurance, Health, Accident or Disability Insurance purchased with the loan or lease.
- (4) Transfer or rollover balances from previous loans or leases.
- (5) Final payment due under a "Balloon Loan".
- (6) The dollar amount of any un-repaired damage that occurred prior to the "total loss" of a covered "auto".
- (7) Security deposits not refunded by a lessor.
- (8) All refunds payable or paid to you as a result of the early termination of a lease agreement or any warranty or extended service agreement on a covered "auto".
- (9) Any amount representing taxes.
- (10) Loan or lease termination fees

GLASS REPAIR — WAIVER OF DEDUCTIBLE

Under paragraph D. — DEDUCTIBLE of SECTION III — PHYSICAL DAMAGE COVERAGE, the following is added:

No deductible applies to glass damage if the glass is repaired rather than replaced.

AMENDED DUTIES IN THE EVENT OF ACCIDENT, CLAIM, SUIT OR LOSS

The requirement in LOSS CONDITION 2.a. — DUTIES IN THE EVENT OF ACCIDENT, CLAIM, SUIT OR LOSS — of SECTION IV — BUSINESS AUTO CONDITIONS that you must notify us of an

"accident" applies only when the "accident" is known to:

- (1) You, if you are an individual;
- (2) A partner, if you are a partnership; or
- (3) An executive officer or insurance manager, if you are a corporation.

UNINTENTIONAL FAILURE TO DISCLOSE HAZARDS

SECTION IV — BUSINESS AUTO CONDITIONS — B.2. is amended by the addition of the following:

If you unintentionally fail to disclose any hazards existing at the inception date of your policy, we will not deny coverage under this Coverage Form because of such failure. However, this provision does not affect our right to collect additional premium or exercise our right of cancellation or non-renewal.

HIRED AUTO — LIMITED WORLD WIDE COVERAGE

Under Section IV — Business Conditions, Paragraph B.7.b.e(1) is replaced by the following:

- (1) The "accident" or "loss" results from the use of an "auto" hired for 30 days or less.

RESULTANT MENTAL ANGUISH COVERAGE

SECTION V — DEFINITIONS — C. is replaced by the following:

"Bodily injury" means bodily injury, sickness or disease sustained by a person including mental anguish or death resulting from any of these.

HIRED AUTO PHYSICAL DAMAGE COVERAGE

If hired "autos" are covered "autos" for Liability coverage and if Comprehensive, Specified Causes of Loss or Collision coverages are provided under this Coverage Form for any "auto" you own, then the Physical Damage Coverages provided are extended to "autos" you hire or borrow.

The most we will pay for loss to any hired "auto" is \$50,000 or Actual Cash Value or Cost of Repair, whichever is smallest, minus a deductible. The deductible will be equal to the largest deductible applicable to any owned "auto" of the private passenger or light truck type for that coverage. Hired Auto Physical Damage coverage is excess over any other collectible insurance. Subject to the above limit,

deductible and excess provisions, we will provide coverage equal to the broadest coverage applicable to any covered "auto" you own.

HIRED AUTO PHYSICAL DAMAGE COVERAGE — LOSS OF USE

SECTION III — PHYSICAL DAMAGE A.4.b. Form does not apply.

Subject to a maximum of \$1,000 per accident, we will cover loss of use of a hired "auto" if it results from an accident, you are legally liable and the lessor incurs an actual financial loss.

RENTAL REIMBURSEMENT COVERAGE

- A. We will pay for rental reimbursement expenses incurred by you for the rental of an "auto" because of a covered "loss" to a covered "auto". Payment applies in addition to the otherwise applicable amount of each coverage you have on a covered "auto". No deductibles apply to this coverage.
- B. We will pay only for those expenses incurred during the policy period beginning 24 hours after the "loss" and ending, regardless of the policy's expiration, with the lesser of the following number of days:
 1. The number of days reasonably required to repair or replace the covered "auto". If "loss" is caused by theft, this number of days is added to the number of days it takes to locate the covered "auto" and return it to you.
 2. 30 days.
- C. Our payment is limited to the lesser of the following amounts:
 1. Necessary and actual expenses incurred.
 2. \$50 per day.
- D. This coverage does not apply while there are spare or reserve "autos" available to you for your operations.
- E. If "loss" results from the total theft of a covered "auto" of the private passenger type, we will pay under this coverage only that amount of your rental reimbursement expenses which is not already provided for under the PHYSICAL DAMAGE COVERAGE Coverage Extension.
- F. The Rental Reimbursement Coverage described above does not apply to a covered "auto" that is described or designated as a covered "auto" on

Rental Reimbursement Coverage Form
CA 99 23.

the manufacturer for the installation of a radio.

AUDIO, VISUAL AND DATA ELECTRONIC EQUIPMENT COVERAGE

A. Coverage

1. We will pay with respect to a covered "auto" for "loss" to any electronic equipment that receives or transmits audio, visual or data signals and that is not designed solely for the reproduction of sound. This coverage applies only if the equipment is permanently installed in the covered "auto" at the time of the "loss" or the equipment is removable from a housing unit which is permanently installed in the covered "auto" at the time of the "loss", and such equipment is designed to be solely operated by use of the power from the "auto's" electrical system, in or upon the covered "auto".
2. We will pay with respect to a covered "auto" for "loss" to any accessories used with the electronic equipment described in paragraph A.1. above.

However, this does not include tapes, records or discs.
3. If Audio, Visual and Data Electronic Equipment Coverage form CA 99 60 or CA 99 94 is attached to this policy, then the Audio, Visual and Data Electronic Equipment Coverage described above does not apply.

B. Exclusions

The exclusions that apply to PHYSICAL DAMAGE COVERAGE, except for the exclusion relating to Audio, Visual and Data Electronic Equipment, also apply to this coverage. In addition, the following exclusions apply:

We will not pay for either any electronic equipment or accessories used with such electronic equipment that is:

1. Necessary for the normal operation of the covered "auto" for the monitoring of the covered "auto's" operating system; or
2. Both:
 - a. an integral part of the same unit housing any sound reproducing equipment designed solely for the reproduction of sound if the sound reproducing equipment is permanently installed in the covered "auto"; and
 - b. permanently installed in the opening of the dash or console normally used by

C. Limit of Insurance

With respect to this coverage, the LIMIT OF INSURANCE provision of PHYSICAL DAMAGE COVERAGE is replaced by the following:

1. The most we will pay for "loss" to audio, visual or data electronic equipment and any accessories used with this equipment as a result of any one "accident" is the lesser of:
 - a. The actual cash value of the damaged or stolen property as of the time of the "loss"; or
 - b. The cost of repairing or replacing the damaged or stolen property with other property of like kind and quality.
 - c. \$1,000.
2. An adjustment for depreciation and physical condition will be made in determining actual cash value at the time of the "loss".
3. If a repair or replacement results in better than like kind or quality, we will not pay for the amount of the betterment.

D. Deductible

1. If "loss" to the audio, visual or data electronic equipment or accessories used with this equipment is the result of a "loss" to the covered "auto" under the Business Auto Coverage Form's Comprehensive or Collision Coverage, then for each covered "auto" our obligation to pay for, repair, return or replace damaged or stolen property will be reduced by the applicable deductible shown in the Declarations. Any Comprehensive Coverage deductible shown in the Declarations does not apply to "loss" to audio, visual or data electronic equipment caused by fire or lightning.
2. If "loss" to the audio, visual or data electronic equipment or accessories used with this equipment is the result of a "loss" to the covered "auto" under the Business Auto Coverage Form's Specified Causes of Loss Coverage, then for each covered "auto" our obligation to pay for, repair, return or replace damaged or stolen property will be reduced by a \$100 deductible.
3. If "loss" occurs solely to the audio, visual or data electronic equipment or accessories used with this equipment, then for each covered "auto" our obligation to pay for, repair,

return or replace damaged or stolen property will be reduced by a \$100 deductible.

4. In the event that there is more than one applicable deductible, only the highest deductible will apply. In no event will more than one deductible apply.

SECTION V — DEFINITIONS is amended by adding the following:

- Q. "Personal effects" means your tangible property that is worn or carried by you, except for tools, jewelry, money, or securities.
- R. "New vehicle" means any "auto" of which you are the original owner and the "auto" has not been previously titled and is less than 365 days past the purchase date.

OK in compliance
 10-14-10



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
 10/13/2010

PRODUCER
 Aon Risk Insurance Services West, Inc.
 fka Aon Risk Services, Inc. of S CA
 1901 Main Street
 Suite 300
 Irvine CA 92614 USA

PHONE: (949) 608-6300 FAX: (949) 608-6451

INSURED
 ASR Constructors, Inc.
 5230 Wilson Street
 Riverside CA 92509 USA

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURERS AFFORDING COVERAGE		NAIC #
INSURER A:	Old Republic General Ins Corp	24139
INSURER B:		
INSURER C:		
INSURER D:		
INSURER E:		

Holder Identifier : L.I.D. Testing

COVERAGES

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

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION	LIMITS	
		GENERAL LIABILITY <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> OCCUR <hr/> GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC				EACH OCCURRENCE	
		AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON OWNED AUTOS				COMBINED SINGLE LIMIT (Ea accident)	
		GARAGE LIABILITY <input type="checkbox"/> ANY AUTO				BODILY INJURY (Per person)	
		EXCESS / UMBRELLA LIABILITY <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE <input type="checkbox"/> DEDUCTIBLE <input type="checkbox"/> RETENTION				BODILY INJURY (Per accident)	
A		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input checked="" type="checkbox"/> Y <input type="checkbox"/> N If yes, describe under SPECIAL PROVISIONS below	A1CW98701000	10/01/2010	10/01/2011	AUTO ONLY - EA ACCIDENT OTHER THAN AUTO ONLY: EA ACC AGG	
		OTHER				EACH OCCURRENCE AGGREGATE	
						X WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE-EA EMPLOYEE \$1,000,000 E.L. DISEASE-POLICY LIMIT \$1,000,000	

Certificate No : 570040504648

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS
 Waiver of subrogation applies in favor of Riverside County Flood Control and Water Conservation District, County of Riverside, special districts, their respective directors, officers, Board of Supervisors, elected officials, employees, agents or representatives, and City of Riverside. Re: L.I.D. Testing and Demonstration Facility for

CERTIFICATE HOLDER
 Riverside County Flood Control and Water Conservation District, County of Riverside and City of Riverside
 Attn: Henry Olivo - Contract Admin
 1995 Market Street
 Riverside CA 92501 USA

CANCELLATION
 SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT. BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE *Aon Risk Insurance Services West, Inc.*

Attachment to ACORD Certificate for ASR Constructors, Inc.

The terms, conditions and provisions noted below are hereby attached to the captioned certificate as additional description of the coverage afforded by the insurer(s). This attachment does not contain all terms, conditions, coverages or exclusions contained in the policy.

INSURED

ASR Constructors, Inc.
5230 Wilson Street
Riverside CA 92509 USA

INSURER
INSURER
INSURER
INSURER
INSURER

ADDITIONAL POLICIES

If a policy below does not include limit information, refer to the corresponding policy on the ACORD certificate form for policy limits.

INSR LTR	ADD'L INSRD	TYPE OF INSURANCE	POLICY NUMBER POLICY DESCRIPTION	POLICY EFFECTIVE DATE	POLICY EXPIRATION DATE	LIMITS	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS
 RCFC District - Parking Lot Renovation 2010, and Water Efficient Landscape Conversion. *WC waiver attached.
 Except in the case of non-payment or non-reporting, 10 days cancellation notice will be given.

OLD REPUBLIC GENERAL INSURANCE CORPORATION
WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE
WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

THIS ENDORSEMENT MODIFIES INSURANCE PROVIDED UNDER THE FOLLOWING:

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.

This agreement shall not operate directly or indirectly to benefit anyone not named in the Schedule.

Schedule

Name of Person or Organization:

Riverside County Flood Control and Water Conservation District, County of Riverside, special districts, their respective directors, officers, Board of Supervisors, elected officials, employees, agents or representatives, and City of Riverside.

Re: L.I.D. Testing and Demonstration Facility for RCFC District - Parking Lot Renovation 2010, and Water Efficient Landscape Conversion.

The premium charge for this endorsement is \$0.00

Named Insured	ASR Constructors, Inc..		
Policy Number	A1CW98701000		
Policy Period	10/1/10 to 10/1/11	Endorsement Effective Date:	10/1/10
Producer's Name:	Aon Risk Insurance Services West, Inc.		
Producer Number:			

Aon Risk Insurance Services West, Inc.

 AUTHORIZED REPRESENTATIVE

See certificate

 DATE



CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)
10/14/2010

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 Aon Risk Insurance Services West, Inc. fka Aon Risk Services, Inc. of S CA 1901 Main Street Suite 300 Irvine CA 92614 USA	CONTACT NAME: _____	
	PHONE (A/C. No. Ext): (949) 608-6300	FAX (A/C. No.): (949) 608-6451
E-MAIL ADDRESS: PRODUCER CUSTOMER ID #: 570000048050		
INSURED ASR Constructors, Inc. 5230 Wilson Street Riverside CA 92509 USA	INSURER(S) AFFORDING COVERAGE	
	INSURER A: Old Republic General Ins Corp	
	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
INSURER F:		NAIC # 24139

COVERAGES **CERTIFICATE NUMBER:** 570040512213 **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. **Limits shown are as requested**

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR VVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY COMMERCIAL GENERAL LIABILITY CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON OWNED AUTOS			A1CA98701000	10/19/2010	10/19/2011	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DEDUCTIBLE RETENTION						EACH OCCURRENCE AGGREGATE
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		Y/N N/A				WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT 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: L.I.D. Testing and Demonstration Facility for RCFC District - Parking Lot Renovation 2010, and Water Efficient Landscape Conversion. Except in the case of non-payment or non-reporting, 10 days cancellation notice will be given.

CERTIFICATE HOLDER Riverside County Flood Control and Water Conservation District, County of Riverside and City of Riverside Attn: Henry Olivo - Contract Admin 1995 Market Street Riverside CA 92501 USA	CANCELLATION 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
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Holder Identifier : L.I.D. Testing

Certificate No : 570040512213



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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. Specialty Items are defined as the Installation of the following Bid Items: 20, 23 through 34, 71, 73 through 88, 99 through 105.

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

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

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

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

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

7.07 DELAYED PAYMENTS

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

7.08 FINAL PAYMENT

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

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

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

7.09 CLAIMS RESOLUTION

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

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

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

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

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

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

SECTION VIII - GENERAL

8.01 COOPERATION BETWEEN CONTRACTORS

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

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

8.02 INSURANCE - HOLD HARMLESS

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

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

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

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

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

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

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

8.03 PUBLIC UTILITIES

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

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

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

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

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

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

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

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

8.04 PROTECTION OF EXISTING STREET FACILITIES

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

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

8.05 DIVERSION AND CONTROL OF WATER

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

8.06 DUST ABATEMENT

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

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

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

8.07 PROJECT SIGNS

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

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

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

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

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

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

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

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

SECTION IX - WATERING

9.01 DESCRIPTION

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

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

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

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

SECTION X - PUBLIC CONVENIENCE, TRAFFIC CONTROL AND DETOURS

10.01 GENERAL

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

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

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

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

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

10.02 SIGNS

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

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

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

10.03 MATERIALS STORAGE

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

SPECIAL PROVISIONS
AND
DETAILED SPECIFICATIONS

SPECIAL PROVISIONS

SECTION 1 - GENERAL

1.1 Drawings and Specifications - These documents are for the construction of **L.I.D. Testing & Demonstration Facility, Parking Lot Renovation 2010, and Water Efficient Landscape Conversion**, located at the Riverside County Flood Control and Water Conservation District Office, 1995 Market Street, Riverside, California. This work shall conform with the three (3) different sets of contract drawings included herewith.

Referenced standard drawings are available on the District web site.

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

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

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

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

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

Class "A" shall mean Class "2"

Class "B" shall mean Class "3"

Class "C" shall mean Class "4"

Class "D" shall mean Class "1"

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

SECTION 2 - TIME OF COMPLETION, DAMAGES AND
LEGAL HOLIDAYS

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

ONE HUNDRED EIGHTY (180) 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 drawings. 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.

SECTION 5 - PROJECT SITE MAINTENANCE

Through all phases of construction, the Contractor shall comply with the provisions of Section 7-8 of the Standard Specifications. Before final acceptance of the work, the Contractor shall clean the work and the site of the work of all falsework, temporary structures, other construction materials and equipment, excess materials and rubbish, and shall leave the work and the site in a neat and presentable condition. Such final cleanup work shall be performed within the time specified for completion of all of the work.

SECTION 6 - SPECIAL REQUIREMENTS

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

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

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

6.3 Heavy Equipment Working Hours - Heavy construction equipment will not be allowed to commence construction work until 7:00 a.m. each normal working day, unless otherwise approved by the Engineer.

6.4 Encroachment Permits – The Contractor is required to obtain an encroachment permit from the City of Riverside for work within City right of way. The City of Riverside will require the Contractor to pay a fee for the encroachment permit. A copy of the encroachment permit shall be provided to the Engineer prior to commencement of work.

SECTION 5 - PROJECT SITE MAINTENANCE

Through all phases of construction, the Contractor shall comply with the provisions of Section 7-8 of the Standard Specifications. Before final acceptance of the work, the Contractor shall clean the work and the site of the work of all falsework, temporary structures, other construction materials and equipment, excess materials and rubbish, and shall leave the work and the site in a neat and presentable condition. Such final cleanup work shall be performed within the time specified for completion of all of the work.

SECTION 6 - SPECIAL REQUIREMENTS

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

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

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

6.3 Heavy Equipment Working Hours - Heavy construction equipment will not be allowed to commence construction work until 7:00 a.m. each normal working day, unless otherwise approved by the Engineer.

6.4 Encroachment Permits – The Contractor is required to obtain an encroachment permit from the City of Riverside for work within City right of way. The City of Riverside will not require the Contractor to pay a fee for the encroachment permit. A copy of the encroachment permit shall be provided to the Engineer prior to commencement of work.

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

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

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

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

6.8 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/tables:

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		1 inch on tangents 2 inches on curves
Departure from established profile grade		0.1 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

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

6.9 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.

6.10 Sewer Line Inspection - Prior to the commencement of construction, the Contractor is required to video record all sewer mains (4" diameter and larger) within the project limits. Additionally, the Contractor shall video record the sewer mains upon completion of the work. All costs associated with this requirement shall be included in the contract price bid for Clearing and Miscellaneous Work. The Contractor is required to replace and/or repair at his own expense, any sewers damaged or misaligned as a result of his construction activities.

6.11 Project Signs - Supplementing Section 8.07 of the General Provisions, the Contractor shall be required to provide one new project sign. The Contractor shall install and maintain the project sign at the location specified by the Engineer, with painting and lettering as shown in Appendix "B" of these Special Provisions. The sign 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 sign shall be removed.

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

6.13 Pre-Bid Site Inspection Tour - The Contractor's attention is directed to Section 8.08 of the General Provisions. To facilitate the Contractor's site examination, the District has scheduled a Pre-Bid Site Inspection Tour on Thursday, August 19, 2010. The tour will begin at 9:00 a.m. at the entrance to the District office at 1995 Market Street, Riverside, CA 92501.

SECTION 7 - SOILS REPORT

In conjunction with the soils investigation report prepared by Leighton Consulting, 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 runoff can be expected during periods of rainfall. Groundwater was 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 preparation by Contractor of construction phasing, parking and circulation drawings, all temporary and permanent signage, striping and pavement markings, control of site vehicular and pedestrian access during and outside of business hours, and all 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 Contractor's prepared drawings.

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

City of Riverside Public Works (Philip Hannawi)	951.826.5706
City of Riverside Police Department	951.826.5700
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 prepare and submit for District approval a Construction Phasing, Parking and Circulation Plan prior to commencement of the work. No work shall be performed prior to District approval of this plan. The plan shall provide for public and employees vehicular access to the site and for pedestrian access to the main building entrance between the business hours defined here as 6:00 a.m. and 6:00 p.m. Monday through Friday and shall ensure that this access provides for Americans with Disabilities Act (ADA) compliant parking and building access during these business hours. The Contractor shall maintain a minimum 145 parking spaces (including 5 handicap parking spaces) available on the site at all times during business hours and these parking spaces must be depicted on the Construction Phasing, Parking and Circulation Plan. The Contractor shall at his own expense modify the plan as needed to meet field conditions as the project progresses.

Closures or partial closures of the traveled ways 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 and employees 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 24 feet, 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.

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

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

12.6 Striping and Pavement Marking - Temporary and permanent striping shall be performed by the Contractor at his expense as directed by the Engineer. All permanent parking signage, striping and pavement markings shall be installed by the Contractor as shown on the drawings. The Contractor shall restore the permanent striping immediately after resurfacing of the travel ways is completed.

All temporary traffic striping and pavement markings shall conform to Section 84 of the State Standard Specifications and shall be acceptable to the Engineer.

All pavement markings such as arrows, striping, "STOP", "ONLY", etc., shall be placed by the Contractor using white paint per State Standard Specification PTWB-01. All disabled persons pavement markings shall be placed by the Contractor using blue paint per Federal Specification TT-P-1952D.

Painted crosswalk, traffic stripes and pavement markings shall conform to the provisions in Section 84-1, "General" and 84-3, "Painted Traffic Stripes and Pavement Markings" of the State Standard Specifications and these Detailed Specifications.

12.7 Measurement and Payment - The contract lump sum price paid for Traffic Control shall include full compensation for all material and labor costs incurred under this section. Contractor's proposed Construction Phasing, Parking and Circulation Plan may be modified as field conditions require. No additional payment shall be made for modifications to the Contractor's 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 items Clearing and Miscellaneous Work; and Extra Directed Work as required for construction of the work. All objectionable materials shall be removed and disposed of offsite.

13.2 Clearing and Miscellaneous Work - The contract item Clearing and Miscellaneous Work includes any required saw cutting, any required sewer line video record and the removal and disposal of all vegetation, trees, roots, stumps, fences, pipes, culverts, rocks, structures, concrete curb, curb and gutter, sidewalks, paving, miscellaneous flatwork, footings, miscellaneous concrete, asphalt curb, paving and miscellaneous asphalt, all paving and flatwork aggregate base material down to the existing subgrade elevation, signage, and any required demolition as shown on the drawings.

Included in this item are the following:

1. Remove all existing sprinkler irrigation equipment no longer being used in the new system including valves, heads, controllers, risers and valve boxes.
2. Any holes caused from removal of any irrigation equipment shall be filled to match finished grade.
3. Abandon all wiring, piping and tubing to hydraulic remote control valves.
4. Return all irrigation equipment removed, including sprinklers, riser assemblies, remote control valves, valve boxes and controllers, to the District.
5. The temporary relocation of signs and their reinstallation.
6. 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 Extra Directed Work - The contract item Extra Directed Work shall consist of necessary work that is not included in other contract bid items and not shown on the drawings, as determined by the Engineer. All Extra Directed Work shall be performed as directed by the Engineer in accordance with all applicable standards and specifications.

13.4 Payment - The contract lump sum payment for Clearing and Miscellaneous Work shall include full compensation for all material and labor costs incurred under this section and will be made on a basis of the percentage of work completed on the entire project.

Full compensation for the contract item Extra Directed Work shall be made as "Extra Work" and shall be paid pursuant to Section 2.07 of the General Provisions. The total accumulated costs for Extra Directed Work shall not exceed the amount specified in the contract bid item unless otherwise increased by change order.

SECTION 14 - EARTHWORK

14.1 Description - This section covers the contract item Excavation.

14.2 General Excavation Requirements - Excavation shall be in conformance with Section 300-2 of the Standard Specifications, and 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 various pavement subgrades, pipe or structure and the construction of the various other concrete structures. However, for pipes larger than 8 inches in diameter 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 (over-excavated) 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 offsite.

The removal and disposal of all materials including asphalt, concrete, rubble, rock material, abandoned pipelines, structures and miscellaneous materials from within any excavation 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.

All asphalt and concrete shall be saw cut unless otherwise specified on the drawings or by the Engineer.

To prevent compaction of the infiltration basin, the Contractor shall not drive with rubber tires at any time on any surface below elevation 797.0.

14.3 General Embankment Requirements – All embankment material shall be constructed of approved material selected from the infiltration basin excavation as directed by the Engineer. The embankment material shall be free of sod, roots, brush, debris, trash, rocks over 6 inches in largest diameter, and other objectionable material. Clods or hard lumps over 6 inches in greatest dimension shall be broken up before compacting in embankments.

Embankment material shall be placed in horizontal layers not more than 6 inches in thickness before compaction. If any oversized rock is encountered, it shall be removed from the embankment before compacting. Material placed in the embankment shall be disked, harrowed or manipulated by other approved methods so as to obtain the best possible mixture and gradation, and shall be free from lenses, pockets, or streaks of material differing substantially in texture and gradation from the surrounding material.

Prior to and during the compaction operations, the material in each layer of the embankment shall, if necessary, be moistened and manipulated to attain moisture content within the range as determined by the Engineer. The moisture content shall be uniform throughout the layer. The moisture content of embankment soils at the time of compaction shall fall within the range from optimum moisture, to three percent (3%) above optimum. Embankment material which contains excessive moisture shall not be compacted until the material is sufficiently dry to comply with the specified moisture content. No separate payment will be made for any additional work involved in drying embankment material to the required moisture content. To obtain the specified moisture content, the Contractor will be required to perform such operations as are considered necessary by the Engineer.

Embankment compaction shall be done with a tamping roller, rubber-tired roller or other approved compaction equipment and be compacted to not less than ninety percent (90%) relative compaction.

The Contractor shall be entitled to no additional compensation above the unit prices named in the Contract Schedule for materials deposited in temporary storage piles prior to being placed in the embankments or other fill areas.

14.4 General Backfill Requirements - Backfill described in this section excludes that used for porous or pervious pavement base materials. Whenever backfill is specified or required (except for pipe backfill) the work shall be performed as set forth in Sections 300-4.1 to 300-4.8 of the Standard Specifications. Backfill for pipe shall conform to Section 306-1.3 of the Standard Specifications. Backfill includes all backfill and pipe bedding material compacted as specified around the various concrete structures and pipe within the paylines as shown on District Standard

Drawing No. M815 of the standard drawings. Backfill also includes all backfill required for non-porous asphalt or non-pervious concrete pavement repair as shown on the drawings.

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.

The Contractor is responsible for shoring all structures against movement during the placement of backfill materials adjacent to the structures. The Contractor is directed to pay particular attention to this matter in placement of backfill adjacent to deepened curbs as shown on the drawings. 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.

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 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.

14.5 Subgrade Compaction – In areas where subgrade compaction for pavement is specified on the drawings the subgrade shall be compacted per this section. In areas where the subgrade for pavement is called out on the drawings as uncompacted the Contractor shall not compact the subgrade and shall not drive on the excavated area with rubber tires except during the excavation

operation when the existing surface at the existing surface elevation can be driven on. In all cases, the Contractor shall ensure that the subgrade is compacted below new concrete curbs.

Subgrade compaction for pavement areas where specified on the drawings, for all concrete sidewalks and flatwork, and for concrete curbs shall be performed in the following manner:

1. The subgrade shall be brought to proposed grade, moisture conditioned to or slightly above optimum moisture content, and the surface proof rolled to a minimum ninety-five percent (95%) relative compaction.
2. Subgrade compaction for all walls and miscellaneous concrete structures shall be per the soils report.

14.6 Excavation - The contract item Excavation includes excavation within the existing paved areas below the existing subgrade as required to obtain the new subgrade elevation, and excavation of all areas outside of existing paved areas as required to complete the work as shown on the drawings including and limited to all parking areas, all pedestrian trails, the infiltration basin (aka Lake Smithhammer), the landscape filter basin, and the grass swale, as well as disposal of all excavated materials. The contract item Excavation also includes removal and relocation of all utilities required to construct the improvements as shown on the drawings except those utilities to be removed, replaced, and/or relocated that are specifically covered in Section 32. The contract bid item Excavation also includes the removal from the site and disposal of all excavated materials including all soils, asphalt, concrete, rubble, rock material, abandoned pipelines, structures and miscellaneous materials. The contract bid item Excavation also includes any engineered fill required to obtain the finished grade and finished surface elevations as shown on the drawings. The contract bid item Excavation also includes subgrade and foundation soils compaction. The contract bid item Excavation also includes backfill except that used for pavement base or pipe bedding. The contract bid item Excavation excludes excavation for all conduits.

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

1. A complete series of compaction tests will be taken for each 2-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. 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.

14.8 Slurry Cement Backfill - Slurry Cement Backfill shall be in conformance with Section 19-3.062 of the State Standard Specifications.

A minimum of two (2) sacks of cement shall be used for each cubic yard of Slurry Cement Backfill produced.

14.9 Measurement – Excavation beyond the limits established by the drawings, unless ordered in writing by the Engineer, will not be measured for payment.

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. Where the existing surface is pavement or flatwork that is to be removed under contract item "Clearing and Miscellaneous Work", the excavated material shall be measured from the existing subgrade elevation, as determined from surveyed cross sections taken by the District, to the lines, grades and dimensions shown on the drawings.

Measurement for payment for the contract item Excavation will be the number of cubic yards of material excavated as shown on the drawings and includes Subgrade Compaction as described in this section.

No measurement for payment will be made for placement of Backfill or Slurry Cement Backfill. These items will be measured and paid under different sections.

No measurement for payment will be made for any fill required to obtain the finished grade and finished surface elevations as shown on the drawings.

14.10 Payment - The contract price paid for Excavation 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 and 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. For trench excavations 5 feet or more in depth, the Contractor shall furnish and implement a 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 - This item is only applicable for excavation for any trench five (5) feet or more in depth. 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 lump sum price paid for the item Trench Safety System shall include full compensation for all costs incurred under this section.

SECTION 16 - CONCRETE CONSTRUCTION

16.1 Description - This section includes the contract items for the various classes of Concrete with the exception of the Pervious Concrete Pavement which is covered in Section 36.

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	Catch Basins, Junction and Transition Structures No. 3, Manholes, Wall Footings, Concrete Collars, and Headwalls	3250*

*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 1" maximum and in conformance with Section 90-3.04 of the State Standard Specifications.

Fly Ash, Class F may be substituted for cement, up to a maximum of fifteen percent (15%) 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 as called out on the drawings or in cases where not called out 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, planter walls, sampling basin structure, drain cleanout, and Transition Structure No. 3	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. A tight wood float finish will be required on the surface of trapezoidal channels and bridge decks and excessive surface working will not be permitted. The exposed concrete surfaces shall be broomed in a transverse direction with a fine textured hair push broom to produce a uniform surface and eliminate float marks. Brooming shall be done when the surface is sufficiently set to prevent deep scarring. If directed by the Engineer, a fine spray of water shall be applied to the surface immediately in advance of brooming.

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

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

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

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

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

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

16.9 Joints - Joints shall be made at the locations shown on the drawings, per the appropriate standard drawings, or as approved by the Engineer. In cases where not otherwise specified on the drawings or standard drawings, maximum control joint spacing for all concrete flatwork shall be no greater than 10 feet on center. Weakened plane joints in curbs shall be per Riverside County Road Improvement Standards and Specifications Drawing Number 205 (Std. Dwg. 205) except that the joint depth shall be increased to twenty percent (20%) of the curb depth. Expansion joints in curbs shall be per Std. Dwg. 205 and shall be full depth for all curbs. All joints to be made by cutting the concrete must be made within 12 hours of pouring the concrete and must have rounded edges per Std. Dwg. 205. The Contractor shall consider potential structural effects on the formwork and bracing for all forms that must be cut through in making the joints.

16.10 Class "A" Concrete, 3'x3' Cleanout Structure and Sampling Vault - The contract item Class "A" Concrete, 3'x3' Cleanout Structure and Sampling Vault covers the complete construction of these structures including excavation, subgrade preparation, forming, concrete and reinforcing steel, backfill, and covers the procurement and installation of Inwesco 3636 Series Torsion Assist Frame and Cover Assemblies, or approved equal, as shown on the drawings and per manufacturer's specifications.

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

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

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

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

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

16.9 Joints - Joints shall be made at the locations shown on the drawings, per the appropriate standard drawings, or as approved by the Engineer. In cases where not otherwise specified on the drawings or standard drawings, maximum control joint spacing for all concrete flatwork shall be no greater than 10 feet on center. Weakened plane joints in curbs shall be per Riverside County Road Improvement Standards and Specifications Drawing Number 205 (Std. Dwg. 205) except that the joint depth shall be increased to twenty percent (20%) of the curb depth. Expansion joints in curbs shall be per Std. Dwg. 205 and shall be full depth for all curbs. All joints to be made by cutting the concrete must be made within 12 hours of pouring the concrete and must have rounded edges per Std. Dwg. 205. The Contractor shall consider potential structural effects on the formwork and bracing for all forms that must be cut through in making the joints.

16.10 Class "A" Concrete, 3'x3' Cleanout Structure - The contract item Class "A" Concrete, 3'x3' Cleanout Structure covers the complete construction of these structures including excavation, subgrade preparation, forming, concrete and reinforcing steel, backfill, and covers the procurement and installation of Inwesco 3636 Series Torsion Assist Frame and Cover Assemblies, or approved equal, as shown on the drawings and per manufacturer's specifications.

16.11 Class "A" Concrete, Transition Structure No. 3 - The contract item Class "A" Concrete, Transition Structure No. 3 covers the complete construction of these structures including excavation, subgrade preparation, forming, concrete and reinforcing steel, and backfill.

16.12 Class "A" Concrete, Under Sidewalk Drain - The contract item Class "A" Concrete, Under Sidewalk Drain covers the complete construction of these structures including excavation, subgrade preparation, forming, concrete and reinforcing steel, and backfill.

16.13 Class "A" Concrete, Footing and CMU Raised Planters and Entry Sign Walls - The contract item Class "A" Concrete, Footing and CMU Raised Planters and Entry Sign Walls covers the complete construction of these structures including excavation, subgrade preparation, footing forming, concrete and reinforcing steel, Concrete Masonry Units inclusive of all items in Section 34, water proofing of interior and backfill.

16.14 Class "A" Concrete, CMU Flow Through Planter Walls - The contract item Class "A" Concrete, CMU Flow Through Planter Walls covers the complete construction of these structures including excavation, subgrade preparation, footing forming, concrete and reinforcing steel, Concrete Masonry Units inclusive of all items in Section 34, waterproofing of interior and backfill.

16.15 Class "A" Concrete, Landscape Filter Basin Retaining Wall - The contract item Class "A" Concrete, Landscape Filter Basin Retaining Wall covers the complete construction of this structure per Caltrans Standard B3-3 Type 1A including excavation, subgrade preparation, footing and wall forming, concrete and reinforcing steel, backfill outside of the Landscape Filter Basin to the existing grade, and backfill inside of the Landscape Filter Basin up to the top of footing elevation.

16.16 Class "A" Concrete, Sampling Basin Structure - The contract item Class "A" Concrete, Sampling Basin Structure covers the complete construction of this structure including excavation, subgrade preparation, forming, concrete and reinforcing steel, and backfill.

16.17 Class "B" Concrete, Curb and Gutter (CD1, CD2, CD3, CD9) - The contract item Class "B" Concrete, Curb and Gutter (CD1, CD2, CD3, CD9) covers the complete construction of these structures including forming, concrete, and backfill. Excavation and subgrade preparation for this item is excluded here and is included in Section 14.

16.18 Class "B" Concrete, Standard Curb (CD4, CD5, CD6, CD7, CD8, CD24, CD26) - The contract item Class "B" Concrete, Standard Curb (CD4, CD5, CD6, CD7, CD8, CD24, CD26) covers the complete construction of these structures including forming, concrete, concrete or slurry cement backfill, and backfill. Excavation and subgrade preparation for this item is excluded here and is included in Section 14.

16.19 Class "B" Concrete, Deepened Curb (CD10, CD11, CD12, CD30, CD31) - The contract item Class "B" Concrete, Deepened Curb (CD10, CD11, CD12, CD30, CD31) covers the complete construction of these structures including forming, reinforcing steel, concrete and/or

slurry cement backfill, and backfill. Excavation and subgrade preparation for this item is excluded here and is included in Section 14.

16.20 Class "B" Concrete, Miscellaneous - The contract item Class "B" Concrete, Miscellaneous covers the complete construction of the concrete cross gutters per Riverside County Std. Dwg. 209, 4" thick "V" gutters, PCC sidewalks per Riverside County Std. Dwgs. 400 and 401, miscellaneous PCC pads, slabs and walkways not included elsewhere, 2" high berms, and PCC steps, including excavation, subgrade preparation, forming, concrete and reinforcing steel, and backfill.

16.21 Class "B" Concrete, Planter and Building Slabs - The contract item Class "B" Concrete, Planter and Building Slabs covers the complete construction of the 8" thick concrete slabs at the two flow through planter structures, and the 6" thick concrete slab with concrete stem wall and perimeter footing for the prefabricated building including excavation, subgrade preparation, forming, concrete and reinforcing steel, and backfill.

16.22 Install Decorative Concrete Flatwork - The contract item Install Decorative Concrete Flatwork includes furnishing all materials, installing concrete flatwork and all specialist labor required to perform template sandblasting to produce a 6 foot diameter etched District emblem outside lobby entrance at location shown on drawings. The etched emblem shall be in color complementary to the modular pavers surrounding the emblem as approved by Engineer.

The District will provide Contractor with emblem design in digital format of Contractor's choice.

All decorative concrete flatwork designated in the drawings and specifications shall be etched using template sandblasting. Template materials shall be an adhesive backed rubber sandblast stencil.

Approved Products:

- a. 3M™ Sandblast Stencil 520T:

Industrial Business Industrial Adhesives and Tapes Division
3M Center, Building 21-1W-10, 900 Bush Avenue
St. Paul, MN 55144-1000
800.362.3550 / 877.369.2923 (fax)
www.3M.com/industrial

- b. Or Approved Equal

Template material for emblem design is to be computer cut and installed by qualified personnel familiar with template sandblasting.

Special requirements: Proper application of Sandblast Stencils requires detail and planning. Special attention must be paid to the concrete mix design, placement and preparation

of the concrete to achieve the intended colors. Special considerations must be given to such items as the use of color admixtures and/or the use of specialty or decorative aggregates to be revealed as a result of sandblasting.

A minimum of two (2) weeks prior to installation of the flatwork concrete to be etched, Contractor shall submit a concrete mix design for the concrete flatwork and shall identify the specific person(s) that will be performing the template sandblasting for review and approval by the Engineer. Sandblasting equipment operator shall have demonstrated experience in template sandblasting and Contractor shall provide evidence of successful previous projects.

Contractor is encouraged to consult with specialists in decorative template concrete sandblasting prior to submitting bids.

16.23 Measurement - Measurement for payment for the contract items Class "A" Concrete, 3'x3' Cleanout Structure; Class "A" Concrete, Transition Structure No. 3; Class "A" Concrete, Under Sidewalk Drain; and Class "A" Concrete, Sampling Basin Structure will be the number of each item constructed as specified and shown on the drawings.

Measurement for payment for the contract items Class "A" Concrete, Footing and CMU Raised Planters and Entry Sign Walls; Class "A" Concrete, CMU Flow Through Planter Walls; Class "B" Concrete, Curb and Gutter (CD1, CD2, CD3, CD9); Class "B" Concrete, Standard Curb, (CD4, CD5, CD6, CD7, CD8, CD24, CD26); Class "B" Concrete, Deepened Curb (CD10, CD11, CD12, CD30, CD31), will be the number of lineal feet as measured along the centerline of each item constructed as specified and shown on the drawings.

Measurement for payment for the contract items Class "A" Concrete, Landscape Filter Basin Retaining Wall; Class "B" Concrete, Miscellaneous; and Class "B" Concrete, Planter and Building Slabs, will be the number of cubic yards placed as specified, and measured to the neat lines as shown on the drawings.

Measurement for the contract item Install Decorative Concrete Flatwork will be lump sum.

No measurement or payment will be made for dowels, tie bars, tie wires, blocks, chairs and other accessories for the construction of items in this section.

16.24 Payment - The contract prices paid for the various items in this section shall include full compensation for all costs incurred under this section and shall be paid upon completion of construction of each item.

SECTION 17 - CONCRETE PIPE

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

of the concrete to achieve the intended colors. Special considerations must be given to such items as the use of color admixtures and/or the use of specialty or decorative aggregates to be revealed as a result of sandblasting.

A minimum of two (2) weeks prior to installation of the flatwork concrete to be etched, Contractor shall submit a concrete mix design for the concrete flatwork and shall identify the specific person(s) that will be performing the template sandblasting for review and approval by the Engineer. Sandblasting equipment operator shall have demonstrated experience in template sandblasting and Contractor shall provide evidence of successful previous projects.

Contractor is encouraged to consult with specialists in decorative template concrete sandblasting prior to submitting bids.

16.23 Measurement - Measurement for payment for the contract items Class "A" Concrete, 3'x3' Cleanout Structure and Sampling Vault; Class "A" Concrete, Transition Structure No. 3; Class "A" Concrete, Under Sidewalk Drain; and Class "A" Concrete, Sampling Basin Structure will be the number of each item constructed as specified and shown on the drawings.

Measurement for payment for the contract items Class "A" Concrete, Footing and CMU Raised Planters and Entry Sign Walls; Class "A" Concrete, CMU Flow Through Planter Walls; Class "B" Concrete, Curb and Gutter (CD1, CD2, CD3, CD9); Class "B" Concrete, Standard Curb, (CD4, CD5, CD6, CD7, CD8, CD24, CD26); Class "B" Concrete, Deepened Curb (CD10, CD11, CD12, CD30, CD31), will be the number of lineal feet as measured along the centerline of each item constructed as specified and shown on the drawings.

Measurement for payment for the contract items Class "A" Concrete, Landscape Filter Basin Retaining Wall; Class "B" Concrete, Miscellaneous; and Class "B" Concrete, Planter and Building Slabs, will be the number of cubic yards placed as specified, and measured to the neat lines as shown on the drawings.

Measurement for the contract item Install Decorative Concrete Flatwork will be lump sum.

No measurement or payment will be made for dowels, tie bars, tie wires, blocks, chairs and other accessories for the construction of items in this section.

16.24 Payment - The contract prices paid for the various items in this section shall include full compensation for all costs incurred under this section and shall be paid upon completion of construction of each item.

SECTION 17 - CONCRETE PIPE

17.1 Description - This section covers the contract item Reinforced Concrete Pipe 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 item Reinforced Concrete Pipe includes the furnishing and installing of the pipe as specified and shown on the drawings, inclusive of earthwork, including excavation, subgrade compaction and backfill.

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 drawings or approved by the Engineer.

17.5 Video Inspection - All concrete pipe 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 areas to be paved or finished with any surface other than soil, video inspection shall be performed and the results approved by the Engineer prior to paving or finishing.

17.6 Measurement - Measurement for payment of the contract item Reinforced Concrete Pipe will be the number of lineal feet installed as specified and shown on the drawings measured along the centerline of the pipe in place including curves.

17.7 Payment - The contract price paid for Reinforced Concrete Pipe shall include full compensation for all costs incurred under this section and shall be paid upon completion of construction of the pipe.

SECTION 18 - NOT USED

SECTION 19 - PAVING

19.1 Description - This section covers the contract items 3" Class 2 Aggregate Base Driveway and Access Ramp; Pervious Pavers over 2" #8 over 3" #57 over 13" #2 Stone; Pervious Pavers over 2" #8 over 10-7/8" #57 Stone; Pervious Pavers over 2" #8 over 3" #57 over 17" #2 Stone; Pervious Pavers over 1" #8 over 4" #57 Stone; 8.5" Pervious Concrete over 25" #57 Stone over Impermeable Composite Barrier; 8.5" Pervious Concrete over 25" #57 Stone Surrounding 9" Class 2 Aggregate Base and Filter Fabric over Impermeable Composite Barrier; 5" Porous

Asphalt over 25" #57 Stone over Impermeable Composite Barrier; 5" Porous Asphalt over 25" #57 Stone Surrounding 9" Class 2 Aggregate Base and Filter Fabric over Impermeable Composite Barrier; 4" AC over 6" Class 2 Aggregate Base and 4" AC over 11" Class 2 Aggregate Base; Variable Depth AC Overlay; Grind Existing AC Pavement; and Slurry Seal.

19.2 General Requirements, Asphalt Concrete (AC) Paving - The Contractor shall not pave any or start paving asphalt concrete until all compaction on the aggregate base is tested and approved by the Engineer.

With the exception of porous asphalt pavement which is covered in Section 37, 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 Special Provisions. 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 Special Provisions and shall be of Performance Grade PG 64-10 or as determined by the Engineer.

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.

Paving asphalt for Asphalt Rubber Hot Mix (ARHM) shall be grade PG 64-16.

An asphalt emulsion fog seal coat shall be required on all new asphalt concrete surfaces, excluding porous asphalt paving. After fourteen (14) days following placement of the asphalt surfacing the fog seal coat shall be applied at a rate of 0.05 gallon per square yard. Asphalt emulsion shall conform to Sections 37, 39, and 94 of the State Standard Specifications. Paint binder shall be applied at a rate of approximately 0.02 to 0.10 gallon per square yard of surface covered. The location and the exact rate of application will be determined by the Engineer and be in conformance with Section 39-4 of the State Standard Specifications.

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

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

- B. Free from water.
- C. Homogeneous.

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

The Contractor shall ensure the safe transportation, storage, use and disposal of asphalt.

The Contractor shall prevent the formation of carbonized particles caused by overheating asphalt during manufacturing or construction.

Performance grade paving asphalt shall conform to the testing requirements in the table below:

Performance Graded Asphalt Binder

Property	AASHTO Test Method	Specification Grade		
		PG 64-10	PG 64-16	PG 70-10
Original Binder				
Flash Point, Minimum °C	T48	230	230	230
Solubility, Minimum %	T44	99	99	99
Viscosity at 135°C, Maximum, Pa·s	T316	3.0	3.0	3.0
Dynamic Shear, Test Temp. at 10 rad/s, °C	T315	64	64	70
Minimum G*/sin(Delta), kPa		1.00	1.00	1.00
Rolling Thin Film Oven (RTFO) Test, or ASTM D2827	T240			
Mass Loss, Maximum, %		1.00	1.00	1.00
RTFO Test Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C	T315	64	64	70
Minimum G*/sin(delta), kPa		2.20	2.20	2.20
Ductility at 25°C	T51			
Minimum, cm		75	75	75
Pressurized Aging Vessel (PAV) Aging, Temperature, °C	R28			
		100	100	110

RTFO Test and PAV Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*sin(delta), kPa	T315	31 5000	28 5000	34 5000
Creep Stiffness, Test Temperature, °C Maximum S-value, MPa Minimum M-value	T313	0 300 0.300	-6 300 0.300	0 300 0.300

Certificates of compliance shall be furnished to the Engineer certifying that the asphaltic emulsions and paving asphalts conform to the referenced standard specifications.

In lieu of the table of Section 39-6.01 of the State Standard Specifications, 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'

In addition to the straightedge provisions in Section 39-6.03, "Compacting", of the State Standard Specifications, asphalt concrete pavement shall conform to the surface tolerances specified herein.

Pavement within any 330 foot section, containing high point areas with deviations in excess of 0.025 feet in a length of 25 feet or less, when tested in conformance with the requirements in California Test 526, shall be corrected by the Contractor.

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. Abrasive grinding shall be performed to reduce individual deviations in excess of 0.025 feet. Areas which have been subjected to abrasive grinding shall receive a fog seal coat. Deviations in excess of 0.025 feet which cannot be brought into specified tolerance by abrasive grinding shall be corrected by removal and replacement.

Slurry Seal shall be Type I asphalt emulsion slurry seal conforming to Sections 37, 39, and 94 of the State Standard Specifications.

19.3 General Requirements, Class 2 Aggregate Base - Class 2 Aggregate Base shall be clean and free from roots, vegetable matter and other deleterious substances, and be of such character that when wet it will compact to form a firm stable base. Material and placing shall be in accordance with Section 26 of the State Standard Specifications using 3/4-inch maximum size.

Class 2 Aggregate Base shall also have a sand equivalent value of not less than 35 when tested in conformance with California Test Method 217.

Class 2 Aggregate Base shall be spread as specified in Sections 26-1.035 and 26-1.04 of the State Standard Specifications. The material shall be compacted as specified in Section 26-1.05 of the State Standard Specifications.

19.4 3" Class 2 Aggregate Base Driveway and Access Ramp - The contract item 3" Class 2 Aggregate Base Driveway and Access Ramp includes furnishing and placing such material as specified and shown on the drawings.

19.5 Pervious Pavers over 2" #8 over 3" #57 over 13" #2 Stone - The contract item Pervious Pavers over 2" #8 over 3" #57 over 13" #2 Stone covers the complete construction of this item as specified and shown on the drawings for the traffic circle, rear parking area, entry walk, PPW1 and PPW2 including placement of Pervious Pavers inclusive of all items in Section 35. This item excludes excavation and subgrade compaction.

19.6 Pervious Pavers over 2" #8 over 10-7/8" #57 Stone - The contract item Pervious Pavers over 2" #8 over 10-7/8" #57 Stone covers the complete construction of this item as specified and shown on the drawings for PPW4 including placement of Pervious Pavers inclusive of all items in Section 35. This item excludes excavation and subgrade compaction.

19.7 Pervious Pavers over 2" #8 over 3" #57 over 17" #2 Stone - The contract item Pervious Pavers over 2" #8 over 3" #57 over 17" #2 Stone covers the complete construction of this item as specified and shown on the drawings for PPW3 including placement of Pervious Pavers inclusive of all items in Section 35. This item excludes excavation and subgrade compaction.

19.8 Pervious Pavers over 1" #8 over 4" #57 Stone - The contract item Pervious Pavers over 1" #8 over 4" #57 Stone covers the complete construction of this item as specified and shown on the drawings for the courtyard area and outdoor lunch area including placement of Pervious Pavers inclusive of all items in Section 35. This item excludes excavation and subgrade compaction.

19.9 8.5" Pervious Concrete over 25" #57 Stone over Impermeable Composite Barrier - The contract item 8.5" Pervious Concrete over 25" #57 Stone over Impermeable Composite Barrier covers the complete construction of this item as specified and shown on the drawings including placement of Pervious Concrete Paving inclusive of all items in Section 36. This item includes a leak test of the impermeable composite barrier and all penetrations prior to placement of the #57 Stone. The Contractor is to submit a testing method for Engineer approval prior to testing. This item excludes excavation and subgrade compaction.

19.10 8.5" Pervious Concrete over 25" #57 Stone Surrounding 9" Class 2 Aggregate Base and Filter Fabric over Impermeable Composite Barrier - The contract item 8.5" Pervious Concrete over 25" #57 Stone Surrounding 9" Class 2 Aggregate Base and Filter Fabric over Impermeable Composite Barrier covers the complete construction of this item as specified and shown on the drawings including placement of Pervious Concrete Paving inclusive of all items in Section 36.

This item includes a leak test of the impermeable composite barrier and all penetrations prior to placement of the #57 Stone. The Contractor is to submit a testing method for Engineer approval prior to testing. This item excludes excavation and subgrade compaction.

19.11 5" Porous Asphalt over 25" #57 Stone over Impermeable Composite Barrier - The contract item 5" Porous Asphalt over 25" #57 Stone over Impermeable Composite Barrier covers the complete construction of this item as specified and shown on the drawings including placement of Porous Asphalt Paving inclusive of all items in Section 37. This item includes a leak test of the impermeable composite barrier and all penetrations prior to placement of the #57 Stone. The Contractor is to submit a testing method for Engineer approval prior to testing. This item excludes excavation and subgrade compaction.

19.12 5" Porous Asphalt over 25" #57 Stone Surrounding 9" Class 2 Aggregate Base and Filter Fabric over Impermeable Composite Barrier - The contract item 5" Porous Asphalt over 25" #57 Stone Surrounding 9" Class 2 Aggregate Base and Filter Fabric over Impermeable Composite Barrier covers the complete construction of this item as specified and shown on the drawings including placement of Porous Asphalt Paving inclusive of all items in Section 37. This item includes a leak test of the impermeable composite barrier and all penetrations prior to placement of the #57 Stone. The Contractor is to submit a testing method for Engineer approval prior to testing. This item excludes excavation and subgrade compaction.

19.13 4" AC over 6" Class 2 Aggregate Base and 4" AC over 11" Class 2 Aggregate Base - The contract item 4" AC over 6" Class 2 Aggregate Base and 4" AC over 11" Class 2 Aggregate Base covers the complete construction of these items as specified and shown on the drawings. This item excludes excavation and subgrade compaction.

19.14 Variable Depth AC Overlay - The contract item Variable Depth AC Overlay covers the complete construction of this item as specified and shown on the drawings. This item excludes grinding existing AC pavement.

19.15 Grind Existing AC Pavement - The contract item Grind Existing AC Pavement covers the complete construction of this item as specified and shown on the drawings.

19.16 Slurry Seal - The contract item Slurry Seal covers the complete construction of this item as specified and shown on the drawings.

19.17 Measurement - Measurement for payment of the contract item 3" Class 2 Aggregate Base Driveway and Access Ramp will be the number of cubic yards placed to the lines, grades and dimensions shown on the drawings. **No allowance will be made for aggregate base placed outside said dimensions unless otherwise ordered by the Engineer.**

Measurement for payment of the contract items Pervious Pavers over 2" #8 over 3" #57 over 13" #2 Stone; Pervious Pavers over 2" #8 over 10-7/8" #57 Stone; Pervious Pavers over 2" #8 over 3" #57 over 17" #2 Stone; Pervious Pavers over 1" #8 over 4" #57 Stone; 8.5" Pervious Concrete over 25" #57 Stone over Impermeable Composite Barrier; 8.5" Pervious Concrete over 25" #57 Stone Surrounding 9" Class 2 Aggregate Base and Filter Fabric over Impermeable

Composite Barrier; 5" Porous Asphalt over 25" #57 Stone over Impermeable Composite Barrier; 5" Porous Asphalt over 25" #57 Stone Surrounding 9" Class 2 Aggregate Base and Filter Fabric over Impermeable Composite Barrier; 4" AC over 6" Class 2 Aggregate Base and 4" AC over 11" Class 2 Aggregate Base; and Slurry Seal will be the number of square feet placed to the lines, grades and dimensions shown on the drawings. No measurement will be made for fog seal or paint binder where required for this portion of the work as these costs are to be included in the price paid for these items.

Measurement for payment of the contract item Variable Depth AC Overlay will be the number of tons placed to the lines, grades and dimensions shown on the drawings. The Variable Depth AC Overlay pay quantity shall be determined by using a conversion factor of 144 pounds per cubic foot. No measurement will be made for fog seal or paint binder required for this portion of the work. All charges for asphalt emulsions are included in the price paid for Variable Depth AC Overlay. **No allowance will be made for asphalt concrete placed outside said dimensions unless otherwise ordered by the Engineer.**

Measurement for payment of the contract item Grind Existing AC Pavement will be the number of square feet ground per the depths and dimensions shown on the drawings.

19.18 Payment - The contract prices paid for 3" Class 2 Aggregate Base Driveway and Access Ramp; Pervious Pavers over 2" #8 over 3" #57 over 13" #2 Stone; Pervious Pavers over 2" #8 over 10-7/8" #57 Stone; Pervious Pavers over 2" #8 over 3" #57 over 17" #2 Stone; Pervious Pavers over 1" #8 over 4" #57 Stone; 8.5" Pervious Concrete over 25" #57 Stone over Impermeable Composite Barrier; 8.5" Pervious Concrete over 25" #57 Stone Surrounding 9" Class 2 Aggregate Base and Filter Fabric over Impermeable Composite Barrier; 5" Porous Asphalt over 25" #57 Stone over Impermeable Composite Barrier; 5" Porous Asphalt over 25" #57 Stone Surrounding 9" Class 2 Aggregate Base and Filter Fabric over Impermeable Composite Barrier; 4" AC over 6" Class 2 Aggregate Base and 4" AC over 11" Class 2 Aggregate Base; Variable Depth AC Overlay; Grind Existing AC Pavement; and Slurry Seal shall include full compensation for all costs incurred under this section.

SECTION 20 - FENCES

20.1 Description - This section covers the contract item Bollard as required for the work.

20.2 Bollard - The contract item Bollard includes furnishing all materials, equipment, tools, fittings and all labor required to perform the installation of bollards at locations shown on the drawings. **Contractor shall note that District may, at its sole discretion, reduce Bollard item quantity significantly. No adjustment in contract unit price will be made.**

Steel Posts shall be round schedule 40 or thicker steel with matching domed cap insert as indicated on the drawings. Dome insert shall be manufactured to fit the post diameter and shall be securely welded to post. Rebar footing anchor shall be securely welded to post to provide secure anchoring to the concrete footing. Post components and all welds shall be smooth to the touch and uniform in appearance. Drill holes shall be 3/8" diameter and smoothed to reduce

abrasion. Verify drill hole size with cable manufacturer. Steel posts shall be coated with uniform, factory applied powder coat finish. Color: Gloss Black.

Cable shall be a component system of 1/4" diameter 316 stainless steel twisted wire cable, 1x19 construction free of frayed or worn wires and sharp or rough aberrations. Cable shall be manufactured by Cable-Rail, Feeney Wire Rope and Rigging, 1.800.888.2418, Model No. 4118 or approved equivalent.

Fittings shall be 316 stainless steel, unless otherwise designated. All components shall be compatible with the cable. The Contractor shall verify the components required to construct the cable fence as indicated in the detail. Following is a guideline for components by Cable-Rail, Feeney Wire Rope and Rigging:

1. Quick Connect (Part No. 3148) to provide attachment at one end of each cable run.
2. Threaded terminal (Part No. 3249) at second end of each cable run.
3. Copper zinc stops (Part No. 1867) crimped onto cable at each side of each post to hold cable steady between posts with 4" maximum sag per plan.
4. All crimping shall be done using a swager cutter tool (Part No. 22187).

20.3 Measurement - Measurement for payment for the contract item Bollard will be the number of bollards installed. The cable connecting two consecutive bollards will not be measured separately for payment, but the cable cost and installation will be included in this section.

20.4 Payment - The contract price paid for Bollard shall include full compensation for all costs incurred under this section.

SECTION 21 - MISCELLANEOUS

21.1 Description - This section covers the contract items 4" PVC Pipe; 6" PVC Pipe; 8" PVC Pipe; 12" PVC Pipe; 18" PVC Pipe; 10" Wide Slotted Drain; Precast Concrete Flow Detection Catch Basin; 9"x9" Plastic Catch Basin; 18"x18" Precast Concrete Catch Basin; 24"x24" Precast Concrete Catch Basin; 36"x36" Precast Concrete Catch Basin; Galvanized Steel Catch Basin Lid; PVC Pipe Stormwater Cleanout; Precast Concrete Headwall for 8" Pipe; 3" Electrical Conduit from Prefabricated Building to Sampling Basin Structure; New Wheel Stops; Signs Including Post and Footing; Prefabricated 12'x22' Building and 2" Electrical Conduit from Pull Box to Prefabricated Building; 3.5' High Metal Railing; Connection to Existing Building Roof Downdrains; Enhanced Grass Swale; Adjust Manhole and Vault to Grade; and Adjust Valve and Cleanout to Grade.

21.2 General Requirements, PVC Pipe, Fittings and Couplings, Excluding Electrical Conduit - All smooth (aka solid) walled and perforated PVC pipe, fittings and couplings, shall conform to

Standard Specifications Section 207-17 and other Standard Specifications sections referenced therein. All perforated PVC pipe shall have two rows of holes 1/2" in diameter on 5" centers, with allowable tolerances of plus 1/8" or minus 0" on the diameter and plus or minus 1/4" on the spacing. The two rows of holes shall be parallel to the axis of the pipe and 120 degrees plus or minus 5 degrees apart, with the pipe laid so each row of holes is located on the bottom half of the pipe and at an equal angle when measured from the pipe invert to the centerline of each row.

All PVC pipe, and fittings and couplings for PVC pipe, 15" or less in diameter shall be SDR-35 per ASTM D3034. All PVC pipe, and fittings and couplings for PVC pipe, greater than 15" in diameter shall be T-1 per ASTM D679.

All PVC Pipe shall have buried upstream terminal ends solid capped unless otherwise specified or shown on the drawings.

All PVC fittings and couplings shall be gasket style fittings and couplings. Gaskets shall be manufactured in accordance with ASTM F477 or ASTM F913. Gaskets shall be firmly seated in fitting in order to ensure proper installation and to prevent dislocation or misalignment during system assembly.

All PVC pipe shall be laid so that any naturally occurring bend in the pipe is oriented in the horizontal plain, thus minimizing the vertical variation from the elevations shown on the drawings and the likelihood that sag areas will develop over the pipe reach.

21.3 General Requirements, 2" Electrical Conduit from Pull Box to Prefabricated Building and 3" Electrical Conduit from Prefabricated Building to Sampling Basin Structure - All electrical conduit, bends, sweeps, elbows, fittings, and couplings shall be schedule 40 PVC approved for direct burial. All electrical conduit shall be assembled with solvent welded joints in accordance with the manufacturer's written instructions. All bends, sweeps, elbows, fittings, and couplings shall be factory-produced. The minimum depth from the finished surface to the top of conduit (electrical conduit burial depth) shall be 18".

21.4 4" PVC Pipe - The contract item 4" PVC Pipe covers the complete construction of this item as specified and shown on the drawings and includes all pipes, fittings, couplings, excavation, compaction, bedding and backfill. The contract item 4" PVC Pipe includes all 4" PVC Pipe either smooth walled or perforated.

21.5 6" PVC Pipe - The contract item 6" PVC Pipe covers the complete construction of this item as specified and shown on the drawings and includes all pipes, fittings, couplings, excavation, compaction, bedding and backfill. The contract item 6" PVC Pipe includes all 6" PVC Pipe either smooth walled or perforated.

21.6 8" PVC Pipe - The contract item 8" PVC Pipe covers the complete construction of this item as specified and shown on the drawings and includes all pipes, fittings, couplings, excavation, compaction, bedding and backfill. The contract item 8" PVC Pipe includes all 8" PVC Pipe either smooth walled or perforated.

21.7 12" PVC Pipe – The contract item 12" PVC Pipe covers the complete construction of this item as specified and shown on the drawings and includes all pipes, fittings, couplings, excavation, compaction, bedding and backfill.

21.8 18" PVC Pipe – The contract item 18" PVC Pipe covers the complete construction of this item as specified and shown on the drawings and includes all pipes, fittings, couplings, excavation, compaction, bedding and backfill.

21.9 10" Wide Slotted Drain - The contract item 10" Wide Slotted Drain covers the complete construction of this item as specified and shown on the drawings and includes all saw cutting, grinding, removals, excavation, compaction, forming, bedding, backfill, slurry, asphalt concrete paving, Portland cement concrete curb and gutter, slotted drain steel trough, slotted drain traffic rated grate, and slotted drain appurtenances.

21.10 Precast Concrete Flow Detection Catch Basin - The contract item Precast Concrete Flow Detection Catch Basin covers the complete construction of this item as specified and shown on the drawings and includes all Portland cement concrete, PVC pipe, forming, connections, neoprene stoppers, catch basins and appurtenances, and traffic rated grates.

21.11 9"x9" Plastic Catch Basin - The contract item 9"x9" Plastic Catch Basin covers the complete construction of this item as specified and shown on the drawings and includes all fine grading, excavation, bedding, backfill, pipes, couplings, fittings, catch basins and appurtenances, and grates.

21.12 18"x18" Precast Concrete Catch Basin - The contract item 18"x18" Precast Concrete Catch Basin covers the complete construction of this item as specified and shown on the drawings and includes all excavation, compaction, bedding, backfill, catch basins and appurtenances, connections, catch basin inserts, and traffic rated grates.

21.13 24"x24" Precast Concrete Catch Basin - The contract item 24"x24" Precast Concrete Catch Basin covers the complete construction of this item as specified and shown on the drawings and includes excavation, compaction, bedding, backfill, catch basins and appurtenances, connections, catch basin inserts, and traffic rated grates.

21.14 36"x36" Precast Concrete Catch Basin - The contract item 36"x36" Precast Concrete Catch Basin covers the complete construction of this item as specified and shown on the drawings and includes excavation, compaction, bedding, backfill, catch basins and appurtenances, connections, cutting of catch basins, Portland cement concrete and reinforcing, catch basin inserts, and traffic rated grates.

21.15 Galvanized Steel Catch Basin Lid - The contract item Galvanized Steel Catch Basin Lid covers the removal of the existing catch basin grate located in the new traffic circle as shown on the drawings and replacement of the grate with a new galvanized steel traffic rated lid, and includes all materials and labor to complete the work.

21.16 PVC Pipe Stormwater Cleanout - The contract item PVC Pipe Stormwater Cleanout covers the complete construction of this item as specified and shown on the drawings and includes all excavation, compaction, bedding, backfill, concrete, cast iron covers, pipes, forming, fittings, and couplings.

21.17 Precast Concrete Headwall for 8" Pipe - The contract item Precast Concrete Headwall for 8" Pipe covers the complete construction of this item as specified and shown on the drawings and includes excavation, compaction, bedding, backfill, headwall and appurtenances, mortar, and connection to the pipe.

21.18 3" Electrical Conduit from Prefabricated Building to Sampling Basin Structure - The contract item 3" Electrical Conduit from Prefabricated Building to Sampling Basin Structure covers the complete construction of this item as specified and shown on the drawings and includes all pipes, bends, sweeps, elbows, fittings, couplings, connections to structures, solvent weld cement, excavation, compaction, bedding and backfill. The Contractor shall place no electrical wires within the 3" electrical conduit.

21.19 New Wheel Stops - The contract item New Wheel Stops covers the complete construction of this item as specified and shown on the drawings and includes all wheel stops, anchoring dowels, drilling, and adhesive bonding systems.

21.20 Signs Including Post and Footing - The contract item Signs Including Post and Footing covers the complete construction of this item as specified and shown on the drawings and includes all excavation, concrete, posts, materials and signage.

21.21 Prefabricated 12'x22' Building and 2" Electrical Conduit from Pull Box to Prefabricated Building - The contract item Prefabricated 12'x22' Building and 2" Electrical Conduit from Pull Box to Prefabricated Building covers the complete construction of this item as specified and shown on the drawings and includes the building, windows, doors, interior and exterior finish, paint, all building appurtenances, 2" electrical conduit, electrical pull box, and includes any and all required building permits and inspections. This contract item excludes the concrete slab, but includes all required hold downs and connections to the slab.

21.22 3.5' High Metal Railing - The contract item 3.5' High Metal Railing covers the complete construction of this item as specified and shown on the drawings and includes all fabrication and installation of the railing.

21.23 Connection to Existing Building Roof Downdrains - The contract item Connection to Existing Building Roof Downdrains covers the complete construction of this item as specified and shown on the drawings and includes demolition of the existing exterior building wall sufficient to locate and create a water tight connection to the existing building roof drain downspout, placement of a ninety degree elbow supported from below so as to prevent separation of the new connection, placement of a smooth walled pipe extension from the elbow to the building exterior per the drawings, and repair of the building to its original structural integrity and appearance, including forming a waterproof seal around the new drain opening to

prevent water intrusion from the outside, and matching the color of the repair to the color of the existing building.

21.24 Enhanced Grass Swale - The contract item Enhanced Grass Swale (aka grass swale, swale) covers the complete construction of this item as specified and shown on the drawings and includes all cast-in-place concrete slabs, cast-in-place concrete collars, precast concrete flared end sections, forming, reinforcing steel, dowels, epoxy, 12" thick by 6' wide by 2' long cobble apron, filtration soil mixture, and #57 stone. Clearing and removals as shown on the drawings for the Enhanced Grass Swale shall be performed and paid per Section 13. Excavation as shown on the drawings for the Enhanced Grass Swale shall be performed and paid per Section 14.

21.25 Adjust Manhole and Vault to Grade - The contract item Adjust Manhole and Vault to Grade covers all labor, equipment, materials and incidentals required for the complete adjustment of all manholes and vaults within the limits of work to meet the finished grade. Adjustments shall be performed in accordance with Section 301.1.6 of the Standard Specifications.

21.26 Adjust Valve and Cleanout to Grade - The contract item Adjust Valve and Cleanout to Grade covers all labor, equipment, materials and incidentals required for the complete adjustment of all valves and cleanouts within the limits of work to meet the finished grade.

21.27 Measurement - Measurement for payment for the contract item 4" PVC Pipe; 6" PVC Pipe; 8" PVC Pipe; 12" PVC Pipe; 18" PVC Pipe; 10" Wide Slotted Drain; 3" Electrical Conduit from Prefabricated Building to Sampling Basin Structure; and 3.5' High Metal Railing will be the number of lineal feet as measured along the centerline of each item constructed as specified and shown on the drawings.

Measurement for payment for the contract item Precast Concrete Flow Detection Catch Basin; 9"x9" Plastic Catch Basin; 18"x18" Precast Concrete Catch Basin; 24"x24" Precast Concrete Catch Basin; 36"x36" Precast Concrete Catch Basin; Galvanized Steel Catch Basin Lid; PVC Pipe Stormwater Cleanout; Precast Concrete Headwall for 8" Pipe; New Wheel Stops; Signs Including Post and Footing; Connection to Existing Building Roof Downdrains; Adjust Manhole and Vault to Grade; and Adjust Valve and Cleanout to Grade will be the number of each item constructed as specified and shown on the drawings.

The contract lump sum payment price paid for the contract item Prefabricated 12'x22' Building; 2" Electrical Conduit from Pull Box to Prefabricated Building; and Enhanced Grass Swale shall include full compensation for all material and labor costs incurred for this bid item and will be made on a basis of the percentage of work completed for this bid item.

21.28 Payment - The contract prices paid for 4" PVC Pipe; 6" PVC Pipe; 8" PVC Pipe; 12" PVC Pipe; 18" PVC Pipe; 10" Wide Slotted Drain; Precast Concrete Flow Detection Catch Basin; 9"x9" Plastic Catch Basin; 18"x18" Precast Concrete Catch Basin; 24"x24" Precast Concrete Catch Basin; 36"x36" Precast Concrete Catch Basin; Galvanized Steel Catch Basin Lid; PVC Pipe Stormwater Cleanout; Precast Concrete Headwall for 8" Pipe; 3" Electrical Conduit from Prefabricated Building to Sampling Basin Structure; New Wheel Stops; Signs

Including Post and Footing; Prefabricated 12'x22' Building and 2" Electrical Conduit from Pull Box to Prefabricated Building; 3.5' High Metal Railing; Connection to Existing Building Roof Downdrains; Enhanced Grass Swale; Adjust Manhole and Vault to Grade; and Adjust Valve and Cleanout to Grade shall include full compensation for all costs incurred under this section.

SECTION 22 THROUGH SECTION 25 – NOT USED

SECTION 26 - STONEWORK

26.1 Description - This section covers the contract items Cobble Filled Trench; 4'x4' #2 Stone Infiltration Trench in Lake Smithhammer; #57 Stone in Landscape Filter Basin and Flow Through Planters; Mirafi FW402 Filter Fabric; Mirafi NT100 Impermeable Barrier; and #2 Stone Energy Dissipaters.

26.2 General Requirements, Cobble and Stone – All cobble shall be washed rounded river rock 2" to 6" in diameter. Contractor shall submit sample of cobble for approval by the Engineer. All #2 stone, #8 stone and #57 stone shall conform to ASTM D448-08.

26.3 General Requirements, Filter Fabric – All filter fabric shall be furnished to the job site in protective covers capable of protecting the fabric from ultraviolet rays, abrasion and water. All filter fabric shall be placed per manufacturer's specifications unless otherwise noted and shall be cut neatly to match the finished surface. All filter fabric exposed to ultraviolet rays for more than 72 hours shall be treated or removed and replaced per Section 88-1.03 of the State Standard Specifications.

26.4 General Requirements, Impermeable Barrier - While unloading or transferring the impermeable barrier from one location to another, the Contractor shall prevent damage to the wrapping, core, label, and the impermeable barrier itself. If the impermeable barrier is to be stored for an extended period of time, it must be located and placed in a manner that ensures the integrity of the wrapping, core, and label as well as the physical properties of the impermeable barrier. During storage, the impermeable barrier must be adequately covered and protected from ultraviolet radiation including sunlight, chemicals that are strong acids or strong bases, fire or flames including welding sparks, temperatures in excess of 70°C (160°F), and human or animal destruction. At any time, the Contractor shall place only that amount of impermeable barrier required for immediately pending work to prevent undue damage. Damage that occurs during storage, handling or installation shall be repaired per manufacturer recommendations and as directed by the Engineer.

Prior to commencing work, the Contractor shall submit to the Engineer a specification for the asphalt emulsion to be utilized in splicing adjacent impermeable barrier panels together and for sealing all penetrations for PVC subdrains.

Subgrade soil must be excavated to the lines and grades as shown on the drawings or as directed by the Engineer. Over excavated areas should be filled with compacted backfill material. The subgrade soil surface must be smooth and level such that any shallow depressions and humps do not exceed one inch in depth and height. Any zones of non-compacted or

saturated soils should be removed and replaced with compacted soil prior to placement of the impermeable barrier. The subgrade must be proofrolled prior to impermeable barrier placement.

The Contractor shall install the impermeable barrier by rolling out by hand. While unrolling, the Contractor shall inspect the barrier for damage or defects. After the impermeable barrier has been laid in place it should be tensioned by hand until taut, free of wrinkles and lying flat. When placing an adjoining panel, an asphalt emulsion "seal" must be applied onto the outer 12 to 18" of the in-place panel in preparation for placing the next upstream panel. The upstream panel is placed to shingle water from the upstream panel to the downstream panel. All work with the impermeable barrier shall start at the downstream end and proceed in the upstream direction.

Impermeable barrier panels may be secured in-place with sand bags or as directed by the Engineer. The Contractor shall use no pins, stakes, staples, or anything that penetrates the impermeable barrier, except, where shown on the drawings PVC subdrain may penetrate the barrier.

In areas where the 6" PVC subdrain penetrates the impermeable barrier, the Contractor shall cut a circular hole in the impermeable barrier that is slightly smaller in diameter than the outside diameter of the subdrain in order to facilitate a tight fit. An asphalt emulsion shall be utilized to form a water tight seal between the PVC subdrain and the impermeable barrier at the penetration.

Fill materials must be placed, spread, and compacted in such a manner that minimizes the development of wrinkles in and/or movement of the impermeable barrier. Care should be taken to control the timing and rate of placement of fill material to ensure that damage does not occur due to compaction or site vehicles traveling on the exposed impermeable barrier. Vehicular traffic is not permitted to drive directly on the impermeable barrier. A minimum base thickness of six inches is required prior to operation of tracked vehicles over the impermeable barrier. Turning of tracked vehicles must be kept to a minimum to prevent tracks from displacing the base material and damaging the geosynthetic fabric. When pushing previously dumped base into position, care is required to not blade through the base material and into the impermeable barrier.

The Contractor shall ensure that at no location a concentrated load is applied to the impermeable barrier from above or below that could puncture or in any way compromise the integrity of the impermeable barrier.

The impermeable barrier shall be cut neat to the finished surface or location as shown on the drawings.

26.5 Cobble Filled Trench - The contract item Cobble Filled Trench covers the complete construction of this item as specified and shown on the drawings and includes excavation.

26.6 4'x4' #2 Stone Infiltration Trench in Lake Smithhammer - The contract item 4'x4' #2 Stone Infiltration Trench in Lake Smithhammer covers the complete construction of this item as specified and shown on the drawings, excluding excavation and filter fabric. Per Section 14

requirements, the Contractor shall not drive with rubber tires at any time on any surface below elevation 797.0.

26.7 #57 Stone in Landscape Filter Basin and Flow Through Planters - The contract item #57 Stone in Landscape Filter Basin and Flow Through Planters covers the complete construction of this item as specified and shown on the drawings, excluding excavation.

26.8 Mirafi FW402 Filter Fabric - The contract item Mirafi FW402 Filter Fabric covers the complete construction of this item as specified and shown on the drawings. The Contractor may utilize an equivalent filter fabric upon submittal to and approval of the Engineer of the equivalent fabric manufacturer's product specifications and a written comparison with the specified Mirafi product.

26.9 Mirafi NT100 Impermeable Barrier - The contract item Mirafi NT100 Impermeable Barrier covers the complete construction of this item as specified and shown on the drawings and includes the asphalt emulsion sealant and labor required for sealing the barrier around all penetrations. The Contractor may utilize an equivalent impermeable barrier upon submittal to and approval of the Engineer of the equivalent material manufacturer's product specifications and a written comparison with the specified Mirafi product.

26.10 #2 Stone Energy Dissipaters - The contract item #2 Stone Energy Dissipaters covers the complete construction of this item as specified and shown on the drawings and includes the excavation required to shape the energy dissipater as shown on the drawings. The surface of the energy dissipaters shall slope away from the pipe invert at a gradient equal to the finished surface slope as shown on the drawings.

26.11 Measurement - Measurement for payment for the contract items Cobble Filled Trench; and 4'x4' #2 Stone Infiltration Trench in Lake Smithhammer will be the number of lineal feet as measured along the centerline of each item constructed as specified and shown on the drawings. Excavation for the contract item 4'x4' #2 Stone Infiltration Trench in Lake Smithhammer will be measured and paid per Section 14. Filter fabric for the contract item 4'x4' #2 Stone Infiltration Trench in Lake Smithhammer will be measured and paid per the contract item Mirafi FW402 Filter Fabric within this section.

Measurement for payment for the contract items #57 Stone in Landscape Filter Basin and Flow Through Planters; and #2 Stone Energy Dissipaters will be the number of cubic yards of material placed as specified and shown on the drawings. Excavation for the contract items #57 Stone in Landscape Filter Basin and Flow Through Planters, and #2 Stone Energy Dissipaters, will be measured and paid per Section 14.

Measurement for payment for the contract items Mirafi FW402 Filter Fabric; and Mirafi NT100 Impermeable Barrier will be the number of square feet of material placed as specified and shown on the drawings. Excavation and surface preparation for the contract items Mirafi FW402 Filter Fabric, and Mirafi NT100 Impermeable Barrier, will be measured and paid per Section 14.

26.12 Payment - The contract prices paid for Cobble Filled Trench; 4'x4' #2 Stone Infiltration Trench in Lake Smithhammer; #57 Stone in Landscape Filter Basin and Flow Through Planters; Mirafi FW402 Filter Fabric; Mirafi NT100 Impermeable Barrier; and #2 Stone Energy Dissipaters shall include full compensation for all costs incurred under this section except as noted in the measurement section above.

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". 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 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.

27.2 Measurement and Payment - No measurement will be made for items in this section. The contract lump sum price paid for Dust Abatement shall include full compensation for all direct and indirect costs incurred under this section.

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

SECTION 28 - NOT USED

SECTION 29 - STORMWATER AND NON-STORMWATER POLLUTION CONTROL

29.1 Description - This section covers the contract items Stormwater and Non-Stormwater Pollution; and the Non-Stormwater Discharge or Dewatering. The contract item Stormwater and Non-Stormwater Pollution Control shall include preparing, obtaining approval of, amending and implementing the Permit Registration Documents (PRDs) as required by the State Water Resources Control Board (SWRCB) and the California Regional Water Quality Control Board (CRWQCB) - Santa Ana Region. The contract item Non-Stormwater Discharge or Dewatering shall include compliance with the Santa Ana Regional Water Quality Board Order No. R8-2009-2003.

29.2 General Requirements - All activities performed by the Contractor for this project shall conform to the requirements of the State-wide National Pollutant Discharge Elimination System (NPDES) General Permit (Board Order No. 2009-0009-DWQ, NPDES No. CAS000002) for Stormwater Discharges Associated with Construction and Land Disturbance Activities, hereafter referred to as the "General Permit", issued by the SWRCB. This General Permit regulates both stormwater and non-stormwater discharges associated with Contractor's construction activities.

This General Permit can be downloaded at http://www.swrcb.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

The PRDs mentioned above consist of:

1. Risk Assessment (Section VIII of the General Permit)
2. Site Map
3. Stormwater Pollution Prevention Plan (Section XIV of General Permit)
4. Signed Certification Statement

Risk Assessment – The Contractor shall calculate the project site's sediment risk and receiving water risk during periods of soil exposure (i.e. grading and site stabilization) and use the calculated risks to determine a Risk Level(s) using the methodology in Appendix 1 of the General Permit.

Site Map – The Contractor shall provide a site map of the project area.

Stormwater Pollution Prevention Plan (SWPPP) – The SWPPP shall identify site specific Best Management Practices (BMPs) to be implemented during and after construction to minimize the potential pollution of stormwater runoff and downstream receiving waters. The identified BMPs shall be practices designed to minimize or eliminate the discharge of pollutants from the construction site and Contractor's construction activities, including, but not limited to:

1. Good housekeeping practices for solid and sanitary/septic waste management, vehicle and equipment cleaning/maintenance, and material handling and storage.
2. Construction procedures such as stabilized construction access points, scheduling/phasing to minimize areas of soil disturbance, soil stabilization and erosion/sediment control.

The SWPPP shall also stipulate an ongoing program for monitoring and maintenance of all BMPs.

The SWPPP shall be designed to address the following objectives:

1. All pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled;
2. Where not otherwise required to be under a Regional Water Board permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;
3. Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available Technology/Best Conventional Technology (BAT/BCT) standard;

4. Calculations and design details as well as BMP controls for site run-on are complete and correct; and
5. Stabilization BMPs, installed to reduce or eliminate pollutants after construction, are completed.

To demonstrate compliance with requirements of the General Permit, the Qualified SWPPP Developer (QSD) shall include information in the SWPPP that supports the conclusions, selections, use, and maintenance of BMPs.

The Contractor shall make the SWPPP available at the construction site during working hours while construction is occurring and shall be made available upon request by a State or Regional Board inspector. When the original SWPPP is retained by a crewmember in a construction vehicle and is not currently at the construction site, current copies of the BMPs and map/drawing will be left with the field crew and the original SWPPP shall be made available via a request by radio/telephone.

Signed Certification Statement – The Contractor shall submit a signed certification (see Appendix "D") certifying the SWPPP was prepared under their direction and that the SWPPP is a true, accurate and complete representation of the proposed project and mitigation measures.

In the event the District incurs any Administrative Civil Liability or Mandatory Minimum (fine) imposed by the CRWQCB - Santa Ana Region, as a result of Contractor's failure to fully implement the provisions of this section and permit requirements, "Stormwater and Non-Stormwater Pollution Control", the Engineer may, in the exercise of his sole judgment and discretion, withhold from payments otherwise due Contractor a sufficient amount to cover the Civil Liability. Liability for "Negligent Violations" may be in an amount up to \$50,000 per day per deemed occurrence while "Knowing Violations" can result in fines as high as \$250,000 and imprisonment.

Stormwater and Non-Stormwater Pollution Control work shall conform to the requirements in the latest version of the California Stormwater Quality Association (CASQA) Handbook, entitled "**California Stormwater BMP Handbook – Construction**" updated **November 2009**. A copy of the "California Stormwater BMP Handbook – Construction", updated November 2009, hereafter referred to as the "CASQA Handbook", may be obtained from CASQA, Post Office Box 2105, Menlo Park, California 94026-2105. Telephone: 650.366.1042. Copies of the handbook can also be downloaded from the CASQA Internet site at <http://www.cabmphandbooks.com/construction.asp>.

The Contractor shall be responsible for all costs and for any liability imposed by law as a result of the Contractor's failure to comply with the requirements set forth in this section, "Stormwater and Non-Stormwater Pollution Control", including but not limited to, compliance with the applicable provisions of the CASQA Handbook, General Permit, General De Minimus Permit, Federal, State and local regulations. For the purpose of this paragraph, costs and liabilities include, but are not limited to, fines, penalties and damages whether assessed against the District or the Contractor, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Act.

The Contractor shall become fully informed of and comply with the applicable provisions of the CASQA Handbook, General Permit, General De Minimus Permit, and Federal, State and local regulations that govern the Contractor's activities and operation pertaining to both stormwater and non-stormwater discharges from both the project site and areas of disturbance outside the project limits during construction. The Contractor shall, at all times, keep copies of the General Permit, General De Minimus Permit, approved SWPPP and all amendments at the project site. The SWPPP shall be made available upon request of a representative of the SWRCB, CRWQCB, United States Environmental Protection Agency (USEPA) or local stormwater management agency. Requests by the public shall be directed to the Engineer.

The Contractor is solely and exclusively responsible for any arrangements made between the Contractor and other property owners or entities that result in disturbance of areas or construction activities being conducted outside limits of the designated rights-of-way and temporary construction easements as shown on the project drawings.

The Contractor shall, at reasonable times, allow authorized agents of the CRWQCB, SWRCB, USEPA or local stormwater management agency, upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the construction site and the Contractor's facilities pertinent to the work;
2. Have access to and copy any records required to be kept as specified in the General Permit;
3. Inspect the construction site, including any offsite staging areas or material storage areas, and related soil stabilization practices and sediment control BMPs; and
4. Sample or monitor for the purpose of ensuring compliance with the General Permit.

The Contractor shall notify the Engineer immediately upon request from regulatory agencies to enter, inspect, sample, monitor or otherwise access the project site or the Contractor's records.

29.3 Permit Registration Documents (PRDs) Preparation and Approval - The Contractor shall prepare and obtain approval of the PRDs as part of the Stormwater and Non-Stormwater Pollution Control work for this contract. The SWPPP shall include an appropriate Construction Site Monitoring Program (CSMP) as required by Section I, "Monitoring and Reporting Requirements" of Attachment C of the General Permit. A guidance document titled "Field Monitoring and Analysis Guidance Document" is available from the California Stormwater Quality Association internet site at <http://www.casqa.org/LeftNavigation/BMPHandbooksPortal/tabid/200/Default.aspx>. The Contractor shall prepare and implement the SWPPP in accordance with the CASQA Handbook and CSMP, the General Permit and these Detailed Specifications.

In case of conflict between the CASQA Handbook and these Detailed Specifications, the Detailed Specifications shall govern; in case of conflict between these Detailed Specifications and the General Permit, the latter shall govern.

Within five (5) working days after the award of the contract, the Contractor shall submit two (2) copies of the PRDs to the Engineer for review and approval. The Contractor shall allow ten (10) working days for the Engineer to review the PRDs. If revisions are required as determined by the Engineer, the Contractor shall revise and resubmit the PRDs within three (3) working days of receipt of the Engineer's comments and shall allow ten (10) working days for the Engineer to review the revisions. The Contractor shall submit four (4) copies of the approved SWPPP to the Engineer prior to the pre-construction meeting. **The Contractor must have approved PRDs prior to the pre-construction meeting.**

The SWPPP shall incorporate BMPs in each of the following categories:

1. Soil stabilization practices;
2. Sediment control practices;
3. Sediment tracking control practices;
4. Wind erosion control practices; and
5. Non-stormwater management, and waste management and disposal control practices.

Specific objectives and minimum requirements for each category of BMPs are described in the CASQA Handbook. The Contractor shall consider the objectives and minimum requirements presented in the CASQA Handbook for each of the above categories. When minimum requirements are listed for any category, the Contractor shall incorporate one or more of the listed minimum BMPs required into the SWPPP and implement them on the project to meet the pollution control objectives for the category. In addition, the Contractor shall consider other BMPs presented in the CASQA Handbook to supplement the minimum BMPs required when necessary to meet the objectives of the SWPPP and maintain compliance with the General Permit. The Contractor shall document the selection process in accordance with the procedure specified in the CASQA Handbook.

The Contractor should not assume that the minimum BMPs required for each category presented in the CASQA Handbook are adequate to meet the pollution control objectives. The Contractor may use other effective BMPs, as approved by the Engineer, in addition to the minimum as required in the CASQA Handbook to achieve the pollution control objectives.

The SWPPP shall include the following items as described in the CASQA Handbook, CSMP and General Permit:

Section 1 - SWPPP Requirements:

- 1.1 Introduction
- 1.2 Permit Registration Documents
- 1.3 SWPPP Availability and Implementation

- 1.4 SWPPP Amendments
- 1.5 Retention of Records
- 1.6 Required Non-Compliance Reporting
- 1.7 Annual Report
- 1.8 Changes to Permit Coverage
- 1.9 Notice of Termination

Section 2 - Project Information:

- 2.1 Project and Site Description
- 2.2 Stormwater Run-On From Offsite Areas
- 2.3 Findings of the Construction Site Sediment and Receiving Water Risk Determination
- 2.4 Construction Schedule
- 2.5 Potential Construction Site Pollutant Sources
- 2.6 Identification of Non-Stormwater Discharges

Section 3 - Best Management Practices:

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

Section 4 - BMP Inspection, Maintenance, and Rain Event Action Plans:

- 4.1 BMP Inspection and Maintenance
- 4.2 Rain Event Action Plans

Section 5 - Training

Section 6 - Responsible Parties and Operators:

- 6.1 Responsible Parties
- 6.2 Contractor List

Section 7 - Construction Site Monitoring Program:

- 7.1 Purpose
- 7.2 Applicability of Permit Requirements
- 7.3 Monitoring Locations
- 7.4 Safety
- 7.5 Visual Monitoring (Inspections)
- 7.6 Water Quality Sampling and Analysis
- 7.7 Watershed Monitoring Option
- 7.8 Quality Assurance and Quality Control

7.9 Reporting Requirements and Records Retention

To ensure that the preparation, implementation, and oversight of the SWPPP is sufficient for effective pollution prevention, individuals responsible for creating, revising, overseeing, and implementing the SWPPP should participate in applicable training programs and document such training in the SWPPP. A copy of the SWPPP should be located at the construction site.

The following notes (or notes of substantially similar intent) that address pollution prevention to the Maximum Extent Practicable during the construction phase of a project on a year-round basis need to be placed on the Stormwater and Non-Stormwater Pollution Control Drawings:

- ◆ Erosion control BMPs shall be implemented and maintained to minimize and/or prevent the entrainment of soil in runoff from disturbed soil areas on construction sites.
- ◆ Sediment control BMPs shall be implemented and maintained to prevent and/or minimize the transport of soil from the construction site.
- ◆ Stockpiles of soil shall be properly contained to eliminate or reduce sediment transport from the site to streets, drainage facilities or adjacent properties via runoff, vehicle tracking or wind.
- ◆ Appropriate BMPs for construction-related materials, wastes, spills or residues shall be implemented to eliminate or reduce transport from the site to streets, drainage facilities or adjoining properties by wind or runoff.
- ◆ Runoff from equipment and vehicle washing shall be contained at construction sites and must not be discharged to receiving waters or the local storm drain system. Washwaters or rinsate from ready mix, concrete, or cement vehicles must be handled appropriately and may not be discharged to receiving waters or any storm drain system.
- ◆ All construction Contractor and subcontractor personnel are to be made aware of the required best management practices and good housekeeping measures for the project site and any associated construction staging areas.
- ◆ At the end of each day of construction activity all construction debris and waste materials shall be collected and properly disposed in trash or recycle bins.
- ◆ Construction sites shall be maintained in such a condition that a storm does not carry wastes or pollutants off the site. Discharges other than stormwater (non-stormwater discharges) are prohibited, except as authorized by an individual NPDES permit or the State-wide General Permit for Storm Water Discharges Associated with Construction Activity. Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, solvents, detergents, glues, lime, pesticides, herbicides, fertilizers, wood preservatives and asbestos fibers; paint flakes or stucco fragments; fuels, oils, lubricants and hydraulic, radiator or battery fluids; concrete and related cutting or curing residues; floatable wastes; wastes from engine/equipment steam cleaning or chemical degreasing; wastes from street cleaning; and super-chlorinated potable water from line flushing and testing. During construction, disposal of

such materials should occur in a specified and controlled temporary area onsite physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, State and Federal requirements.

- ◆ Discharging contaminated groundwater produced by dewatering groundwater that has infiltrated into the construction site is prohibited. Discharging of contaminated soils via surface erosion is also prohibited.
- ◆ The Contractor is required to notify and obtain approval from the District ten (10) days prior to any non-stormwater discharge or dewatering associated with Contractor's construction activities.
- ◆ Construction sites shall be managed to minimize the exposure time of disturbed soil areas through phasing and scheduling of grading to the extent feasible and the use of temporary and permanent soil stabilization.
- ◆ BMPs shall be maintained at all times. In addition, BMPs shall be inspected prior to predicted storm events and following storm events.

29.4 Permit Registration Document (PRD) and Rain Event Action Plan (REAP) Amendments

- If the scope or schedule of the project changes, the Contractor shall immediately notify the Engineer. The Engineer will determine if the Contractor will be required to recalculate the Risk Assessment. If it is determined by the Engineer that a new Risk Assessment is required, the Engineer will notify the Contractor to resubmit amended PRDs and in the case that the risk level increases, the Contractor shall comply with additional applicable requirements of the General Permit, including preparation and implementation of REAPs, Construction Site Monitoring Program (CSMP), Numeric Action Level (NAL) Exceedance Reports, and annual reporting requirements. The Contractor shall also prepare amendments to the PRDs, both graphically and in narrative form, whenever there is a change in Contractor's construction activities or operations which may result in the discharge of pollutants to surface waters, groundwaters, municipal storm drain systems, or as deemed necessary by the Engineer. The Contractor shall also amend the PRDs if they are in violation of any condition of the General Permit, or has not effectively achieved the objective of reducing pollutants in stormwater discharges. Amendments shall show additional BMPs, revised Contractor's construction activities or operations, including those in areas not shown in the initially approved SWPPP, which are required on the project to effectively control water pollution.

Amendments to the PRDs shall be submitted for review and approval by the Engineer in the same manner specified for the initial approval of the PRDs. The Contractor shall date and attach all approved amendments to any of the PRDs. Upon approval of the amendment, the Contractor shall implement the approved changes, revised construction activities or operations.

29.5 Non-Compliance Reporting - If the project is in non-compliance at any time, the Contractor shall make a written report to the Engineer within two (2) calendar days of identification of non-compliance activities.

29.6 SWPPP Implementation - Upon approval of the SWPPP, the Contractor shall be responsible throughout the duration of the project for placing, installing, constructing, inspecting and maintaining the BMPs as well as conducting the Construction Site Monitoring Program as included in the SWPPP and any amendments thereto, and for removing and disposing of

temporary BMPs. Unless otherwise directed by the Engineer or specified in these Detailed Specifications, the Contractor's responsibility for SWPPP implementation shall continue throughout any temporary suspension of work ordered in accordance with Section 6.05, "TEMPORARY SUSPENSION OF THE WORK", of the General Provisions. Requirements for installation, construction, inspection, maintenance, removal and disposal of BMPs are specified in the Caltrans Handbooks and these Detailed Specifications.

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

The Contractor will not be compensated for sampling and analysis work because of the Contractor's failure to properly implement, inspect, maintain and repair BMPs in the approved SWPPP and any amendments thereto, or for failing to store construction materials or wastes in watertight containers.

- (a) Stormwater Pollution Control - The Contractor shall implement soil stabilization practices and sediment control BMPs, including minimum requirements as presented in the Caltrans Handbooks, on all disturbed areas of the project site during the rainy season, defined as between October 1st and May 31st.

Implementation of soil stabilization practices and sediment control BMPs for soil-disturbed areas, including but not limited to, rough graded access roads, slopes, channel inverts, operational inlets and outlets of the project shall be completed no later than ten (10) calendar days prior to the start of the rainy season or upon start of applicable Contractor's construction activities for projects which begin either during or within ten (10) calendar days of the rainy season.

The Engineer may require the Contractor, on a case-by-case basis, to reduce the active, soil-disturbed area limit of the project. The Contractor shall demonstrate the ability and preparedness to fully deploy soil stabilization practices and sediment control BMPs to protect soil-disturbed areas of the project site by maintaining an adequate quantity of soil stabilization and sediment control materials onsite to protect exposed, soil-disturbed areas and a detailed plan for the mobilization of sufficient labor and equipment to fully deploy the required BMPs prior to the onset of precipitation and for the duration of the project.

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

during the rainy season or within ten (10) calendar days thereof shall be fully protected with sediment control BMPs within ten (10) calendar days of the discontinuance of soil disturbing activities or prior to the onset of precipitation, whichever is first to occur.

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

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

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

1. Prior to a forecast storm;
2. After any precipitation which causes runoff capable of carrying sediment from the construction site;
3. At 24 hour intervals during extended precipitation events; and
4. At a regular interval of once every 2 weeks.

The construction site inspection checklist provided in the Caltrans Handbooks shall be used to ensure that the necessary BMPs are being properly implemented and are functioning adequately. The Contractor shall submit one copy of each site inspection record to the Engineer.

- (d) **Maintenance** - The Contractor shall maintain construction site BMPs identified in the SWPPP to ensure the proper implementation and functioning of BMPs. If the Contractor or the Engineer identifies a deficiency in the deployment or functioning of an identified BMP, the deficiency shall be corrected by the Contractor immediately, or by a later date and time if requested by the Contractor and approved by the Engineer in writing, but not later than the onset of subsequent precipitation events. The correction of deficiencies shall be at no additional cost to the District.

- (e) **Training** – The Contractor shall ensure that all persons responsible for implementing requirements of the General Permit shall be appropriately trained in accordance with Section VII "Training Qualifications and Certification Requirements" of the General Permit. Training should be both formal and informal, occur on an ongoing basis, and should include training offered by recognized governmental agencies or professional organizations.

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

29.7 Rain Event Action Plan (REAP) – The REAP is applicable to Risk Level 2 construction sites only. The Contractor shall ensure a QSP develop a REAP (see Appendix "E") and submit a copy to the Engineer for review 48 hours prior to any likely precipitation event. The Contractor shall amend and implement the REAP as directed by the Engineer. If no comments are received prior to the precipitation event, the REAP shall be implemented as proposed. A likely precipitation event is any weather pattern that is forecast to have a 50% or greater probability of producing precipitation in the project area. The discharger shall ensure a QSP obtain a printed copy of precipitation forecast information from the National Weather Service Forecast Office (e.g., enter the zip code of the project's location at <http://www.srh.noaa.gov/forecast>).

The Contractor shall ensure a QSP ensure that the REAP include, at a minimum, the following site information:

- a. Site Address
- b. Calculated Risk Level
- c. Site Storm Water Manager Information including the name, company and 24-hour emergency telephone number
- d. Erosion and Sediment Control Provider information including the name, company and 24-hour emergency telephone number
- e. Storm Water Sampling Agent information including the name, company and 24-hour emergency telephone number

29.8 Water Quality Monitoring, Sampling and Analysis – The Water Quality Monitoring, Sampling and Analysis is applicable to Risk Level 2 construction sites only. The Contractor shall be responsible for preparing a Construction Site Monitoring Program (CSMP) and implementing the monitoring, sampling and analysis requirements as described in Attachment D