

FORM APPROVED COUNTY COUNSEL  
DATE 5/28/13  
BY: MARSHAL VICTOR

**SUBMITTAL TO THE BOARD OF SUPERVISORS  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**

725A



**FROM:** TLMA - Transportation Department

**SUBMITTAL DATE:**  
May 22, 2013

**SUBJECT:** Murrieta Hot Springs Road Resurfacing, Winchester Road to Calistoga Avenue,  
East of the City of Murrieta

**RECOMMENDED MOTION:** That the Board of Supervisors:

1. Approve the plans and specifications for the resurfacing of Murrieta Hot Springs Road from Winchester Road to Calistoga Avenue, east of the City of Murrieta; and
2. Authorize the Clerk of the Board to advertise for bids to be received in the office of the Director of Transportation and Land Management up to the hour of 2:00 p.m., Wednesday, June 26, 2013, at which time bids will be opened; and

Juan C. Perez  
Director of Transportation and Land Management

JP:jrj:sb  
(Continued On Attached Page)

<b>FINANCIAL DATA</b>	Current F.Y. Total Cost:	\$ 1,336,000	In Current Year Budget:	No
	Current F.Y. Net County Cost:	\$ 0	Budget Adjustment:	Yes
	Annual Net County Cost:	\$ 0	For Fiscal Year:	2012/2013

<b>SOURCE OF FUNDS:</b> Proposition 1B (State bond funds-Local Roads) (100%)	<b>Positions To Be Deleted Per A-30</b>	<input type="checkbox"/>
	<b>Requires 4/5 Vote</b>	<input checked="" type="checkbox"/>

There are no General Funds used in this project.

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

APPROVE  
  
BY: Tina Grande

County Executive Office Signature

**MINUTES OF THE BOARD OF SUPERVISORS**

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

Ayes: Jeffries, Stone, Benoit and Ashley  
Nays: None  
Absent: Tavaglione  
Date: June 4, 2013  
xc: Transp., Auditor, EO

Kecia Harper-Ihem  
Clerk of the Board  
By:   
Deputy

Prev. Agn. Ref. | District: 3/3 | Agenda Number:

3-50

The Honorable Board of Supervisors

RE: Murrieta Hot Springs Road Resurfacing, Winchester Road to Calistoga Avenue, East of the City of Murrieta

May 22, 2013

Page 2 of 3

3. Approve and direct the Auditor-Controller to make the budget adjustment as shown on Schedule A.

**BACKGROUND:**

The Transportation Improvement Program provides for the resurfacing of Murrieta Hot Springs Road from Winchester Road to Calistoga Avenue. The project will remove and replace the existing AC pavement on Murrieta Hot Spring Road. Access ramps will be improved to meet the current ADA standards. New striping, pavement markings, and reflective markers will be installed. The project will include sidewalk replacement due to lifted and cracked sidewalk on the adjacent Sky Canyon Drive.

If Alternate Bid Schedule 1 is approved for award, the existing ground cover landscaping will be removed and replaced with pervious natural materials including recycled organic mulch and stabilized decomposed granite. A future project will provide the median with low-water use plants and drip irrigation system. These improvements to the median landscaping are expected to improve the life of the new pavement due to the reduction of watering that will be needed.

The work is scheduled to begin in late summer of 2013. The work will be phased to keep the road open during construction, which will take approximately three months to complete.

Bid documents include the following schedules of work:

Base Bid:

Primary items of work on Murrieta Hot Springs Road

Alternate Bid Schedule 1: Median Improvements

Remove ground cover and place pervious natural materials and modify hardscape and irrigation system within the existing median.

Alternate Bid Schedule 2: Utility Adjustments

Utility adjustments are to be funded by Eastern Municipal Water District (EMWD) under the terms of a cooperative agreement, which will be executed prior to or concurrently with the submission of the construction contract for award.

If the EMWD concurs with bid prices, as bid by the apparent low bidder, the alternate bid schedule will be included with the contract award, and the costs for the work will be funded by EMWD.

The submitted plans and specifications have been approved as to form by County Counsel.

Environmental clearance is complete.

Project No. B8-0669

The Honorable Board of Supervisors

RE: Murrieta Hot Springs Road Resurfacing, Winchester Road to Calistoga Avenue, East of the  
City of Murrieta

May 22, 2013

Page 3 of 3

SCHEDULE A

Increase Appropriations:

20000-3130500000-527980	Contracts	\$1,336,000
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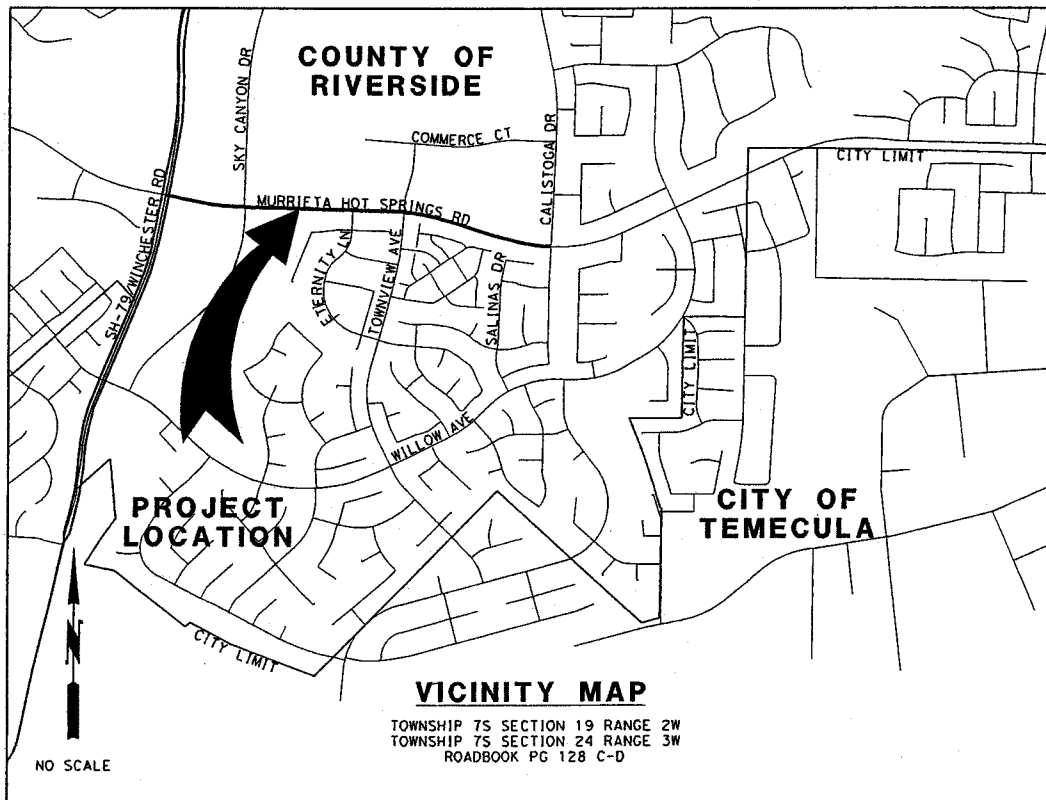
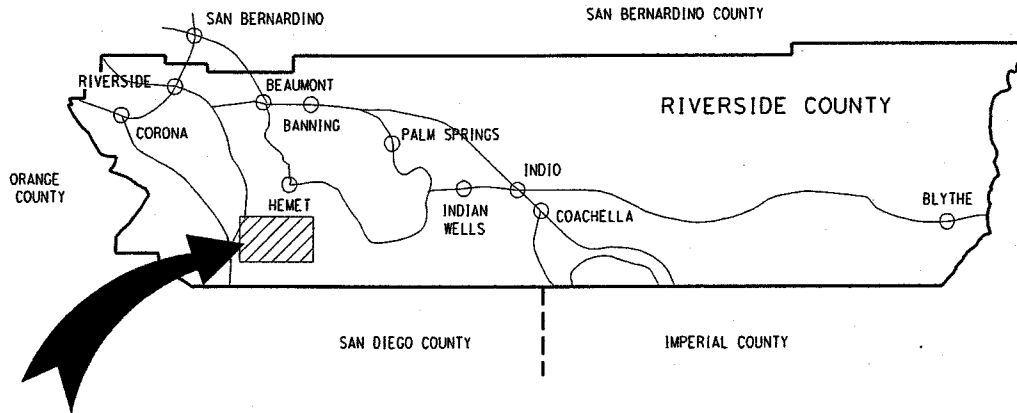
Anticipated Decrease in Fund Balance:

20013-3130500000-321101	Restricted Program Money	\$1,336,000
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COUNTY OF RIVERSIDE  
DEPARTMENT OF TRANSPORTATION

MURRIETA HOT SPRINGS RD

RESURFACING PROJECT  
WINCHESTER ROAD (SR-79) TO CALISTOGA DRIVE  
MURRIETA HOT SPRINGS AREA  
PROJECT No. B8-0669



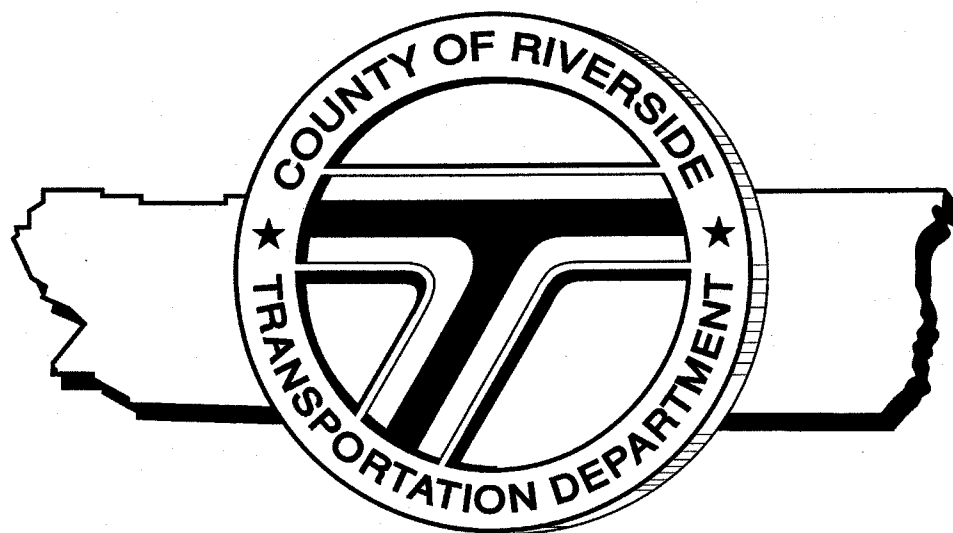


# **SPECIFICATIONS and CONTRACT DOCUMENTS**

## **for the CONSTRUCTION of**

**MURRIETA HOT SPRINGS ROAD  
RESURFACING PROJECT  
WINCHESTER ROAD TO CALISTOGA DRIVE**

**PROJECT NO. B8-0669**



# **TRANSPORTATION DEPARTMENT**

FORM APPROVED COUNTY COUNSEL  
BY: *[Signature]* 5/12/13  
HEAL R. KIPNIS DATE

JUN 04 2013 3-50 p/s

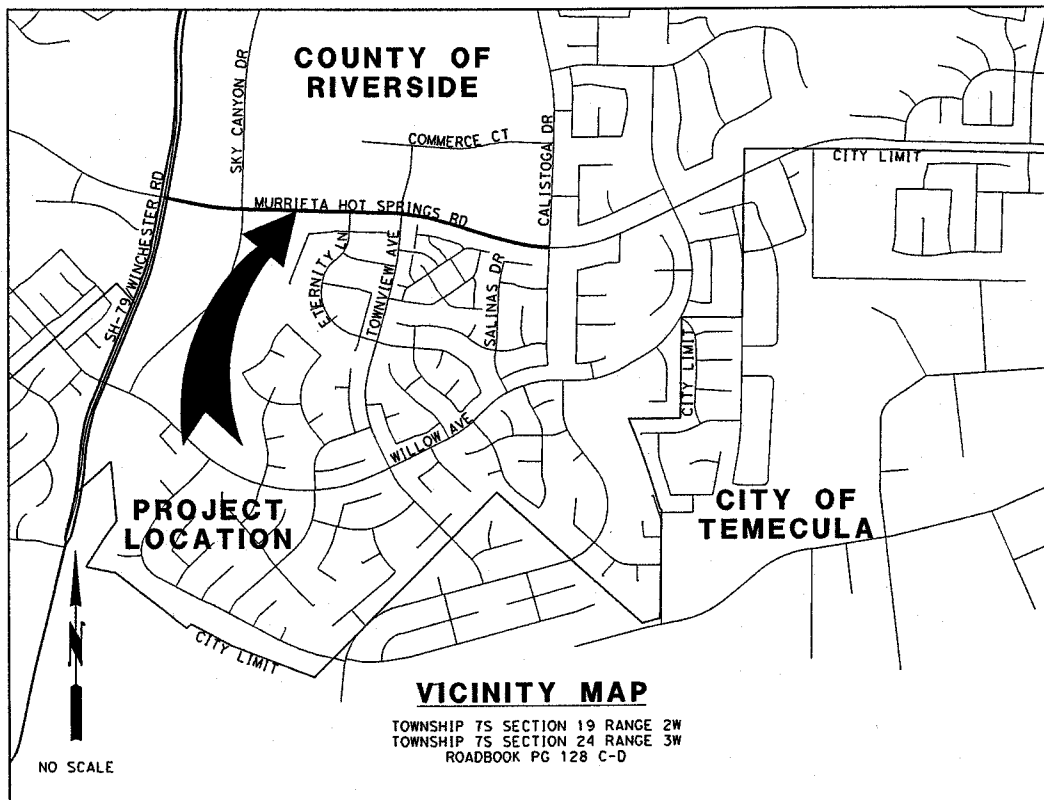
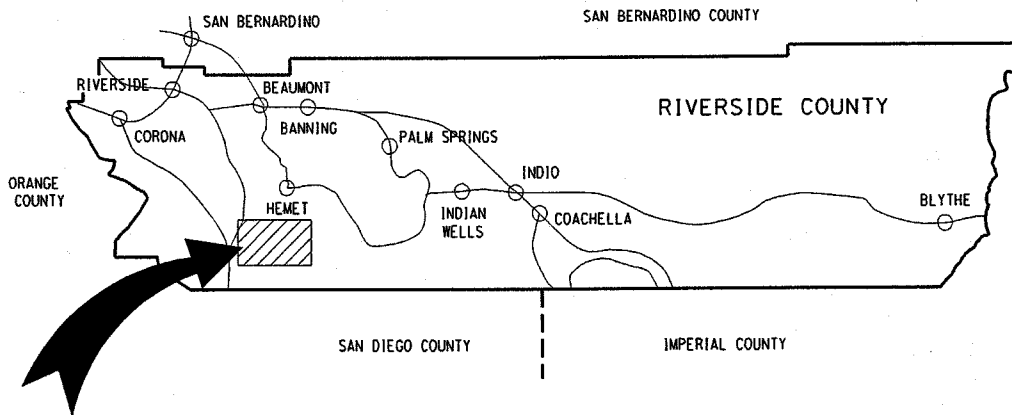
**MURRIETA HOT SPRINGS ROAD  
RESURFACING PROJECT  
WINCHESTER ROAD TO CALISTOGA DRIVE**

**PROJECT NO. B8-0669**

COUNTY OF RIVERSIDE  
DEPARTMENT OF TRANSPORTATION

MURRIETA HOT SPRINGS RD

RESURFACING PROJECT  
WINCHESTER ROAD (SR-79) TO CALISTOGA DRIVE  
MURRIETA HOT SPRINGS AREA  
PROJECT No. B8-0669



# Specification and Contract Documents

for the construction of

**Murrieta Hot Springs Road**

**Resurfacing Project**

**Winchester Road to Calistoga Drive**

**Project No. B8-0669**

## Contract Approval(s):

Approval:



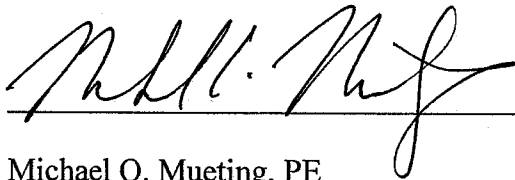
4/24/13

Khalid Nasim, PE  
Engineering Division Manager

Date

## Engineering Certification(s)

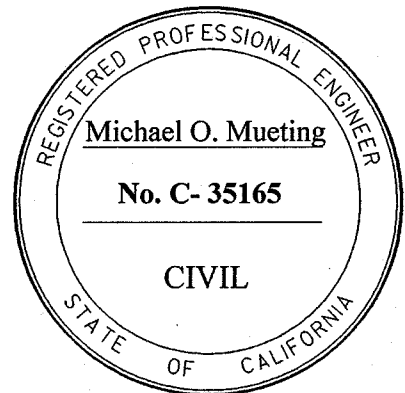
These specifications, special provisions, and estimates have been prepared by or under the direction of the following Registered Civil Engineer(s):



Michael O. Mueting, PE

4-24-13

Date



# **Specification and Contract Documents**

for the construction of

**Murrieta Hot Springs Road**

**Resurfacing Project**

**Winchester Road to Calistoga Drive**

**Project No. B8-0669**

## **Water Pollution Control – Specifications and Special Provisions**

**Reviewed and Recommended by:**



Claudia Steiding  
Senior Transportation Planner/NPDES  
Coordinator

4/24/13  
Date

**SPECIFICATIONS AND CONTRACT DOCUMENTS**

for the construction of

**Murrieta Hot Springs Road  
Resurfacing Project  
Winchester Road (SR-79) to Calistoga Drive  
Murrieta Hot Springs Area  
CSA 143 / L&LMD 89-1-C, Zone 19**

Project No. **B8-0669**

**Landscape Architect Certification:**

These specifications, Special Provisions, and estimates have been prepared by or under the direction of the following Registered Landscape Architect:



Mitch Phillippe,  
RLA#3781



Date

# TABLE OF CONTENTS

	<u>PAGE</u>
Notice Inviting Bids	
Instruction to Bidders	A1-A6
Contractor's Proposal	B1-B5
Non-Collusion Declaration	B6
Iran Contracting Act	B7
Bid Bond	B8
Agreement	C1-C3
Performance Bond	C4
Payment Bond	C5
General Conditions	1-21
Definitions	1
Standard Specifications	1
Director of Transportation and Land Management Agency (TLMA)	2
Site Inspection	3
Protection of Premises	4
Change Orders	5
Substitution of Equals	6
Final Inspection - Notice of Completion	7
Termination of Contracts	7
Payments and Monthly Estimates	8
Force Account Payment	9
Final Payment	9
Damages	10
Documents of Contractor	11
Responsibility of Contractor in Emergency	11
Labor Code	11
Obstructions	12
Insurance - Hold Harmless	12
Equal Employment Opportunity	14
Deposit of Securities	16
Assignment of Claims	16
Claims Resolution	17
Dust Abatement	18
AQMD Requirements	22-47
Special Provisions	48-97
Appendix (A) (Irrigation and Landscaping Special Provisions)	
Reference Drawings	

SPECIAL PROVISIONS.....	48
DESCRIPTION: .....	48
SPECIFICATIONS AND PLANS: .....	48
IRAN CONTRACTING ACT:.....	48
ADDITIONAL INSURANCE-HOLD HARMLESS:.....	49
MODIFIED HOURS OF WORK: .....	49
LIQUIDATED DAMAGES: .....	49
PARTIAL PAYMENTS: .....	50
ENCROACHMENT PERMIT: .....	50
PROJECT APPEARANCE: .....	51
GRAFFITI REMOVAL AND CLEANING: .....	51
DISPOSAL OF EXCESS EXCAVATION OR MATERIALS:.....	53
RECORD DRAWINGS:.....	53
SURVEY STAKING:.....	53
COOPERATION: .....	54
REFERENCE SPECIFIC BRANDS OR PRODUCTS:.....	54
ITEMS OF WORK .....	55
ORDER OF WORK:.....	55
CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGNS: .....	56
TRAFFIC CONTROL SYSTEM/ PUBLIC CONVENIENCE/ PUBLIC SAFETY: .....	56
CLOSURE REQUIREMENTS AND CONDITIONS: .....	59
MAINTAINING TRAFFIC:.....	60
CONSTRUCTION AREA TRAFFIC CONTROL DEVICES: .....	62
OBSTRUCTIONS: .....	63
WATER POLLUTION CONTROL (SANTA MARGARITA WATERSHED):.....	67
STREET SWEEPING:.....	70
DEVELOP WATER SUPPLY: .....	71
CLEARING AND GRUBBING:.....	72
ROADWAY EXCAVATION: .....	72
AGGREGATE BASE.....	73
HOT MIX ASPHALT (HMA): .....	74



RUBBERIZED HOT MIX ASPHALT- GAP GRADED (RHMA-G): .....	83
COMPENSATION ADJUSTMENTS FOR PRICE INDEX FLUCTUATIONS:.....	88
MINOR CONCRETE:.....	90
CURB RAMP DETECTABLE WARNING SURFACE: .....	91
ROADSIDE SIGN:.....	91
RELOCATE ROADSIDE SIGNS:.....	92
ADJUST MANHOLE TO GRADE: .....	93
THERMOPLASTIC CROSSWALK AND PAVEMENT MARKING:.....	93
PAINT TRAFFIC STRIPE:.....	94
PAVEMENT MARKERS (REFLECTIVE): .....	94
DETECTOR LOOP:.....	95
MOBILIZATION, DEMOBILIZATION, AND FINAL CLEANUP:.....	96
MEDIAN DEMOLITION/HARDSCAPE/IRRIGATION:.....	97

## **NOTICE INVITING BIDS**

County of Riverside, herein called Owner, invites sealed proposals for:

**Murrieta Hot Springs Road  
Resurfacing Project  
Winchester Road to Calistoga Drive  
Project No. B8-0669**

Proposal shall be delivered to the Riverside County Transportation Department, 14<sup>th</sup> Street Annex, 3525 14<sup>th</sup> Street, Riverside, California 92501, telephone (951) 955-6780 not later than 2:00 p.m., on Wednesday, June 26, 2013, to be promptly opened in public at said address. Each proposal shall be in accordance with plans, specifications, and other contract documents, dated April 2013, and prepared by County of Riverside, whose address is same as the above, from whom they may be obtained upon deposit of \$35 per set plus mailing. No refund. Prospective bidders may preview the plans, specifications and other contract documents, at no charge prior to purchase, at the above noted location.

The Contractor is required to have a Class "A" or C-12 license at the time of bid submission.

Dated: June 4, 2013

Kecia Harper-Ihem, Clerk of the Board

By: \_\_\_\_\_  
Deputy

## INSTRUCTIONS TO BIDDERS

1. Form of Proposal. The proposal must be made on the form of Contractor's Proposal which is included in the Contract Documents and must be completely filled in, dated and signed. If provision is made for alternates, they must all be bid, unless otherwise provided in the Special Provisions.
2. Bid Bond. The proposal must be accompanied by a 10% Bid Bond, using the form provided in the Contract Documents, or by a certified or cashier's check payable to the order of County in an amount not less than 10% of the amount bid, inclusive of alternates.
3. Submission of Proposal. A proposal must be submitted in a sealed opaque envelope which clearly identifies the bidder and the project. Bids must be received by the time and at the place set forth in the Notice Inviting Bids and may be withdrawn only as stated in the proposal. Bids shall be completed in ink.
4. Contract Documents. The complete Contract Documents are identified in the Agreement. Potential bidders are cautioned that the successful bidder incurs duties and obligations under all of the Contract Documents and that they should not merely examine the Plans and Specifications in making their bid.
5. License. To be considered for award of the contract, a potential bidder must have the kind of license required under provisions of the California Business and Professions Code for the work covered in this proposal. This includes joint ventures.

Each item of work will be performed by a Contractor which is qualified and properly licensed for that work.

Pursuant to California Labor Code Section 3099, certification is required for all persons who perform work as electricians for Contractors licensed as Class C-10 Electrical Contractors. Proof of certification shall be provided to the County before the start of construction.

6. Quantities. The amount of work to be done or materials to be furnished under the Contract as shown in the Contractor's Proposal are but estimates and are not to be taken as an expressed or an implied statement that the actual amount of work or materials will correspond to the estimate.

County reserves the right to increase or decrease or to entirely eliminate certain items from the work or materials to be furnished if such action is found to be desirable or expedient.

Contractor is cautioned against the unbalancing of his bid by prorating his overhead only into one or two items when there are a number of items listed in the schedule.

7. Interpretation of Documents. Discrepancies, omissions, ambiguities, requirements likely to cause disputes between trades and similar matter shall be promptly brought to the attention of the County of Riverside in writing. When appropriate, Addenda will be issued by County.

If the Bidder requires clarification or interpretation of the Bidding Documents, the Bidder shall make a written request to the County by a Request for Information (RFI). All requests for information must be submitted, in writing, between the hours of 8:00 AM and 5:00 PM on any day, Monday through Friday (except holidays), up to, including and no later than the fifth (5<sup>th</sup>) day prior to Bid Closing Deadline, by hand delivery, mail, fax or electronic mail. The County of Riverside will not respond to Requests for Information submitted after that time, unless the County determines, at its sole discretion, which it is in the best interest of the public and the County to do so. Requests for Information should be addressed to: County of Riverside, Transportation Department, Attn: Joel Jimenez; 3525 14<sup>th</sup> Street, Riverside, CA 92501, facsimile (951) 955-3164, electronic mail: [jrjimenez@rctlma.org](mailto:jrjimenez@rctlma.org)

No communication by anyone as to such matters except by an Addendum affects the meaning or requirements of the Contract Documents.

8. Addenda. County reserves the right to issue Addenda to the Contract Documents at any time prior to the time set to open bids. Each potential bidder shall leave with the County Transportation Department his name and address for the purpose of receiving Addenda to be mailed or delivered to such names at such addresses. To be considered, a Contractor's Proposal must list and take into account all issued Addenda.
9. Inspection of Site. Bidders must examine the site and acquaint themselves with all conditions affecting the work. By making his bid a bidder warrants that he has made such site examination as he deems necessary as to the condition of the site, its accessibility for materials, workmen and utilities and ability to protect existing surface and subsurface improvements. No claim for allowances - time or money - will be allowed as to such matters.
10. Bonds. The County requires a 100% Payment Bond and 100% Performance Bond from the successful bidder. All Bonds must be on County's forms contained in the Contract Documents.

The bonds must be underwritten by a Surety Company, which is admitted to transact the business of insurance in the State of California, and which carries a rating in the current issue of Best's Insurance Guide of "A" or better with a financial size of at least "VIII". The bond forms included in the project documents shall be used. All signatures on the bonds shall be notarized. Bonds shall be provided with an executed Power of Attorney issued by the surety.

11. Bids. Bids are required for the entire work, including all alternate bid schedules, if applicable, unless otherwise explicitly allowed in the bid documents. The amount of the bid for comparison purposes will be the total of all items. The total of unit basis items will be determined by extension of the item price bid on the basis of the estimated quantity set forth for the item.

The bidder shall set forth for each item of work in clearly legible figures, an item price and a total for the item in the respective spaces provided for this purpose. In the case of unit basis items, the amount set forth under the "Total" column shall be the extension of the item price bid on the basis of the estimated quantity for the item.

In case of discrepancy between the item price and the total set forth for the item, the item price shall prevail, provided, however, if the amount set forth as an item price is ambiguous, unintelligible or uncertain for any cause, or is omitted, or in the case of unit basis items, is the same amount as the entry in the "Total" column, then the amount set forth in the "Total" column for the item shall prevail in accordance with the following:

- a. As to lump sum items, the amount set forth in the "Total" column shall be the item price.
- b. As to unit basis items, the amount set forth in the "Total" column shall be divided by the estimated quantity for the item and the price thus obtained shall be the item price.

The bidder is advised that the items of work may be grouped into bid schedules, and that certain bid items may be listed in more than one bid schedule, and with different bid item numbers, and the following shall apply thereto:

The bidder is directed to submit the same bid amount for all contract bid items that are listed with the same item code and item description. Said bid items are referred to herein as "Like Bid Items".

"Like Bid Items" shall be considered a single bid item for purposes of calculating increased and decreased quantities, and as otherwise applicable in Section 4-1.03, "Changes" of the Standard Specifications.

The following are not subject to this bidding requirement:

1. Bid items with the same item code but different item descriptions.
2. Bid items that are measured as "lump sum" or "force account".
3. Alternate bid schedules.

In the event that a bidder submits different unit bid amounts for "Like Bid Items", as described above, the bid will be corrected by applying the lowest of the unit bid amounts to all the respective "Like Bid Items".

No bidder may withdraw his bid for a period of ninety (90) days after the bid opening.

12. Award of Contract. The County reserves the right to reject all bids received. Acceptance by the governing body of the County by resolution or minute order at a meeting regularly called

and held of a Contractor's Proposal constitutes an award of the contract and the execution of the Agreement is a written memorial thereof.

The County of Riverside will submit the contract documents to the low responsive and responsible bidder for execution prior to award utilizing the following procedures and requirements:

- a. A bidder whose proposal is accepted shall execute the formal construction agreement with the County of Riverside, similar to the form attached hereto as a sample, and shall return said agreement, together with approved performance and payment bonds and with complete evidence of insurance as required elsewhere herein, including executed additional insured endorsements and waivers of subrogation, within ten (10) working days from the date of the Notice of Acceptance of Proposal and Intent to Award as issued by the Transportation Department. All submittals shall meet the requirements of the bid documents. Corrections, if required, shall be made and the revised documents shall be resubmitted within two (2) working days of Contractor's receipt of review comments.
  - b. The contract bonds and insurance documentation shall be submitted in accordance with the contract requirements prior to submission to the County of Riverside Board of Supervisors for award by the Transportation Department, and prior to the performance of any work under the contract.
  - c. If a Bidder to whom a Notice of Acceptance of Proposal and Intent to Award has been issued, fails or refuses to sign a construction agreement, or to furnish the bonds or insurance certificates and endorsements as required within the prescribed period of time as described above, the County of Riverside may, at its sole discretion, rescind the Notice of Acceptance, and the bid guarantee submitted by that Contractor shall become the property of the County of Riverside as prescribed in the bid documents and as allowed by law.
  - d. If it is in the best interest of the County of Riverside, the County reserves the right to award the contract prior to execution by the Contractor. Thereafter, County shall mail or deliver to the lowest responsible bidder the agreement for Contractor's execution and return.
13. Return of Guarantee. Bid bonds will not be returned unless specifically requested by the bidder. Any submitted negotiable securities of unsuccessful bidders will be returned by mail within 30 days of the award of a contract to the successful bidder. Any submitted negotiable security of the successful bidder will be returned by mail within 30 days of receipt by the County of executed contract, certificate of insurance, performance bond and payment Bond.
14. Subletting and Subcontracting. Bidders are required pursuant to the Subletting and Subcontracting Fair Practices Act (commencing with Section 4100 of the Public Contracts Code) to list in their proposal the name and location of place of business of each subcontractor who will perform work or labor or render services in or about the construction

of the work or improvement or a subcontractor who specifically fabricates and installs a portion of the work or improvement according to detailed drawings contained in the Plans and Specifications in excess of 1/2 of 1% of this prime Contractor's total bid. Failure to list a subcontractor for a portion of the work means that the prime Contractor will do that portion of the work. It is the County's intent for the Subletting and Subcontracting Fair Practice Act to apply to all phases of the work.

15. Qualifications of Bidders. No award will be made to any bidder who cannot give satisfactory assurance to the Board of Supervisors as to his own ability to carry out the contract, both from his financial standing and by reason of his previous experience as a Contractor on work of the nature contemplated in the contract. The bidder may be required to submit his record of work of similar nature to that proposed under these specifications, and unfamiliarity with the type of work may be sufficient cause for rejection of bid.
16. Contract Participation. Riverside County's M/W/DVBE Contract Participation Program affirms the utilization and participation of qualified minority, women and disabled veteran firms in its contracting and procurement activities. The County encourages general and prime Contractors to afford competitive subcontracting opportunities to minority, women and disabled veteran firms where possible, in their contracting and procurement activities with the County of Riverside.
17. Hours of Work. Attention is directed to Section 8-1.06, "Time of Completion" and Section 7-1.01A (1), "Hours of Labor" of the Standard Specifications.

Daily working hours shall be between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday, except legal holidays, as approved by the Engineer. Exceptions and specific work schedules shall be submitted to the Engineer for consideration.

18. Labor Code. Pursuant to the Labor Code, the governing board of the Owner has obtained from the Director of the Department of Industrial Relations, State of California, his determinations of general prevailing rates of per diem wages applicable to the work, and for holiday, and overtime work, including employer payments for health and welfare, pensions, vacation and similar purpose, as set forth on schedule which is on file at the principal office of the Owner, and which will be made available to any interested person upon request.
19. Alternate Bid Schedules. If the Proposal includes bid items listed under a Base Bid Schedule and one or more Alternate Bid Schedules, the following shall apply: The County may award only the items of work listed on the Base Bid Schedule, or may choose to award some or all of the Alternate Bid Schedules in addition to the Base Bid Schedule. Unless otherwise specified, the basis of the selection of the lowest bid shall be the lowest responsive and responsible bid for the sum of all Bid Schedules.

If the Proposal includes bid items listed under two or more Alternate Bid Schedules with no Base Bid Schedule, the following shall apply: This project contains Alternate Bid Schedules that may or may not be mutually exclusive, as described elsewhere in the bid documents. The County may award the items of work listed on one or more of the Alternate Bid

Schedules. In the case of mutually exclusive Alternate Bid Schedules, only one of the Alternate Bid Schedules will be selected for award. Unless otherwise specified, the basis of the selection of the lowest bid shall be the lowest responsive and responsible bid for the sum of all Bid Schedules.

The County also reserves the right to reject all bids received.

20. Dust Abatement. Attention is directed to Section 23, "Dust Abatement" with regard to the dust abatement provisions of the contract.

21. Submission of Insurance Certificate. Within ten (10) working days of the date of the Notice of Acceptance of Proposal and Intent to Award issued by the County of Riverside, the successful Contractor shall submit a certificate of insurance, including required endorsements, which provides evidence that the bidding Contractor has insurance coverage that meets the requirements of Section 18 of the General Conditions. Failure to have complete insurance coverage in place and to provide all required certificates and endorsements within the specified ten (10) working days period will be grounds for declaring the bidder to not be in compliance with the bid documents, rescinding the Notice of Acceptance, making a claim against the bid bond, and awarding to the second low bidder, at the sole discretion of the County.



## CONTRACTOR'S PROPOSAL

TO: COUNTY OF RIVERSIDE

DATE: \_\_\_\_\_

hereafter called "County":

BIDDER: \_\_\_\_\_  
(hereafter called "Contractor")

THE UNDERSIGNED, Contractor, having carefully examined the site and the Contract Documents for the construction of **Murrieta Hot Springs Road Resurfacing Project, Winchester Road to Calistoga Drive, Project No. B8-0669** hereby proposes to construct the work in accordance with the Contract Documents, including Addenda Nos. \_\_\_\_\_ for the amount stated in this Proposal.

By submitting this Proposal, Contractor agrees with County:

1. That unless withdrawn in person by Contractor or some person authorized in writing by Contractor not by telephone or telegram before the time specified in the Notice Inviting Bids for the public opening of bids, this Proposal constitutes an irrevocable offer for 90 calendar days after that date.
2. County has the right to reject any or all Proposals and to waive any irregularities or informalities contained in a Proposal.
3. To execute the Agreement and deliver the Faithful Performance Bond, Payment Bond and Insurance Certificate with endorsements, which comply with the requirements set forth in the Instructions to Bidders and General Conditions, within ten (10) working days of the date of the Notice of Acceptance of Proposal and Intent to Award as issued by the County of Riverside.
4. That the contract shall be awarded upon a resolution or minute order to that effect duly adopted by the governing body of County; and that execution of the Contract Documents shall constitute a written memorial thereof.
5. To submit to County such information as County may require to determine whether a particular Proposal is the lowest responsible bid submitted.

6. That the accompanying certified or cashier's check or Bid Bond is in an amount not less than 10% of the total bid submitted and constitutes a guarantee that if awarded the contract, Contractor will execute the Agreement and deliver the required bonds within ten (10) days after notice of award. If Contractor fails to execute and deliver said documents, the check or bond is to be charged with the costs of the resultant damages to County, including but not limited to publication costs, the difference in money between the amount bid and the amount in excess of the bid which it costs County to do or cause to be done the work involved, lease and rental costs, additional salaries and overhead, increased interest and costs of funding the project, attorney expense, additional engineering and architectural expense and cost of maintaining or constructing alternate facilities occasioned by the failure to execute and deliver said documents.
7. By signing this proposal the Contractor certifies that the representations made therein are made under penalty of perjury.

**Murrieta Hot Springs Road Resurfacing Project  
Winchester Road to Calistoga Drive  
Project No. B8-0669**

**PROPOSAL**

**BASE BID**

ITEM No.	ITEM CODE	ITEM	UNIT	ESTIMATED QUANTITY	ITEM PRICE (IN FIGURES)	TOTAL (IN FIGURES)
1	066102	DUST ABATEMENT	LS	1		
2	074020	WATER POLLUTION CONTROL	LS	1		
3	120100	TRAFFIC CONTROL SYSTEM	LS	1		
4	170101	DEVELOP WATER SUPPLY	LS	1		
5	160101	CLEARING AND GRUBBING	LS	1		
6	152440	ADJUST MANHOLE TO GRADE (STORM DRAIN)	EA	12		
7	190101	ROADWAY EXCAVATION	CY	6,700		
8	260201	CLASS 2 AGGREGATE BASE	CY	700		
9	390130	HOT MIX ASPHALT	TON	7,900		
10	390137	RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	TON	4,500		
11	017309	MINOR CONCRETE (TYPE "D" CURB) (CRS 204)	LF	50		
12	731521	MINOR CONCRETE (SIDEWALK)	SQFT	4,300		
13	731656	CURB RAMP DETECTABLE WARNING SURFACE	EA	19		
14	152390	RELOCATE ROADSIDE SIGN	EA	1		
15	566011	ROADSIDE SIGN - ONE POST	EA	15		
16	568001	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	7		
17	840656	PAINT TRAFFIC STRIPE (2-COAT)	LF	10,500		
18	840519	THERMOPLASTIC CROSSWALK AND PAVEMENT MARKING	SQFT	3,000		
19	850102	PAVEMENT MARKER (REFLECTIVE)	EA	300		
20	860811	DETECTOR LOOP	EA	74		
21	760090	MOBILIZATION, DEMOBILIZATION, AND FINAL CLEANUP	LS	1		

Base Bid Sub

Total:

\$ \_\_\_\_\_

Items 1-21

"WORDS"

**ALTERNATE 1 (MEDIAN IMPROVEMENTS)**

ITEM No.	ITEM CODE	ITEM	UNIT	ESTIMATED QUANTITY	ITEM PRICE (IN FIGURES)	TOTAL (IN FIGURES)
22	000003	REMOVE LANDSCAPING / NON-PRESSURIZED IRRIGATION LATERALS	SQFT	48,000		
23	000003	FINE GRADING	SQFT	48,000		
24	000003	4" NATURAL COLOR CONCRETE W/ BROOM FINISH	SQFT	1,500		
25	000003	6" X 6" FORMED CONCRTE HEADER WITH REBAR	LF	630		
26	000003	3"+ LIFT OF ROAD BASE FOR UNDER DG SURFACING	SQFT	6,800		
27	000003	3" DECOMPOSED GRANITE SURFACING	SQFT	6,800		
28	000003	DRIP VALVE ASSEMBLY - BALL VALVE, FILTER, FITTINGS	EA	2		
29	000003	ELECTRIC CONTROL VALVE - BALL VALVE, FITTINGS	EA	1		
30	000003	PURPLE PLASTIC STD RECTILINEAR VB W/ FABRIC, GRAVEL	EA	3		
31	000003	PURPLE NON PRESSURE LATERAL LINE - SCH 40 3/4"	LF	50		
32	000003	PURPLE NON PRESSURE LATERAL LINE - SCH 40 1"	LF	100		
33	000003	PURPLE PVC SLEEVING 3" SCH. 40 @ 12" DEPTH	LF	1,450		

Alt. Bid Sub

Total:

Items 22-33

\$ \_\_\_\_\_

"WORDS"

**ALTERNATE 2 (UTILITY ADJUSTMENTS-EMWD)**

ITEM No.	ITEM CODE	ITEM	UNIT	ESTIMATED QUANTITY	ITEM PRICE (IN FIGURES)	TOTAL (IN FIGURES)
34	152440	ADJUST SEWER MANHOLE TO GRADE	EA	11		

Alt. Bid 1, Sub

Item 34

\$ \_\_\_\_\_

"WORDS"

Project Total:

Items 1-34

\$ \_\_\_\_\_

"WORDS"

**BIDDER DATA:**

Name of Bidder \_\_\_\_\_

Type of Organization \_\_\_\_\_

Person(s) Authorized to Sign for Bidder \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_ Phone \_\_\_\_\_

Contractor's License \_\_\_\_\_  
Type & Number

Expiration Date \_\_\_\_\_

8. **DESIGNATION OF SUBCONTRACTORS:** Contractor submits the following complete list of each subcontractor who will perform work or labor or render service in or about the construction in an amount in excess of 1/2 of 1% of the total bid.

<u>ITEM</u>	<u>SUBCONTRACTOR</u>	<u>ADDRESS</u>	<u>LICENSE NO.</u>
-------------	----------------------	----------------	--------------------

**Percent of work to be performed by sub-contractors: \_\_\_\_%**  
**(Note: 50% of the work required to be performed by general contractor)**

IN WITNESS WHEREOF Contractor executed this Proposal as of the date set forth on Page 1 of this proposal.

\_\_\_\_\_  
\_\_\_\_\_  
TITLE \_\_\_\_\_  
"Contractor"

## Non-Collusion Declaration

To be executed by bidder and submitted with bid. (Public Contract Code Section 7106)

The undersigned declares:

I am the \_\_\_\_\_ (Title) of \_\_\_\_\_ (Company),  
the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder.

All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price of any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on

\_\_\_\_\_ (Month) \_\_\_\_\_ (Day) of \_\_\_\_\_ (Year),

at \_\_\_\_\_ (City), California.

Signature of Declarant: \_\_\_\_\_

Printed name of Declarant: \_\_\_\_\_

Name of Bidder (Company): \_\_\_\_\_

Title or Office: \_\_\_\_\_

**Note:** Notarization of signature required.



Check box if attachment is included.

**Iran Contracting Act**  
**(Public Contract Code sections 2200-2208)**

Prior to bidding on, submitting a proposal or executing a contract or renewal for a County of Riverside contract for goods or services of \$1,000,000 or more, a Contractor must either:

- a) Certify it is not on the current list of persons engaged in investment activities in Iran created by the California Department of General Services ("DGS") pursuant to Public Contract Code section 2203(b) and is not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person, for 45 days or more, if that other person will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS; or
- b) Demonstrate it has been exempted from the certification requirement for that solicitation or contract pursuant to Public Contract Code section 2203(c) or (d).

To comply with this requirement, please insert your Contractor or financial institution name and Federal ID Number (if available) and complete one of the options below. Please note: California law establishes penalties for providing false certifications, including civil penalties equal to the greater of \$250,000 or twice the amount of the contract for which the false certification was made; contract termination; and three-year ineligibility to bid on contracts. (Public Contract Code section 2205.)

**Option #1 – Certification**

I, the official named below, certify I am duly authorized to execute this certification on behalf of the vendor/financial institution identified below, and the vendor/financial institution identified below is **not** on the current list of persons engaged in investment activities in Iran created by DGS and is not a financial institution extending twenty million dollars (\$20,000,000) or more in credit to another person/vendor, for 45 days or more, if that other person/vendor will use the credit to provide goods or services in the energy sector in Iran and is identified on the current list of persons engaged in investment activities in Iran created by DGS.

<i>Contractor Name/Financial Institution (Printed)</i>		<i>Federal ID Number (or n/a)</i>
<i>By (Authorized Signature)</i>		
<i>Printed Name and Title of Person Signing</i>		
<i>Date Executed</i>	<i>Executed in</i>	

**Option #2 – Exemption**

Pursuant to Public Contract Code sections 2203(c) and (d), a public entity may permit a Contractor/financial institution engaged in investment activities in Iran, on a case-by-case basis, to be eligible for, or to bid on, submit a proposal for, or enters into or renews, a contract for goods and services.

If you have obtained an exemption from the certification requirement under the Iran Contracting Act, please fill out the information below, and attach documentation demonstrating the exemption approval.

<i>Contractor Name/Financial Institution (Printed)</i>		<i>Federal ID Number (or n/a)</i>
<i>By (Authorized Signature)</i>		
<i>Printed Name and Title of Person Signing</i>		
<i>Date Executed</i>	<i>Executed in</i>	

## Bid Bond

### Recitals:

1. \_\_\_\_\_ "Contractor", has submitted his/her Contractor's Proposal to County of Riverside, "County", for the construction of public work for **Murrieta Hot Springs Road Resurfacing Project, Winchester Road to Calistoga Drive, Project No. B8-0669**, in accordance with a Notice Inviting Bids from the County.
2. \_\_\_\_\_ a \_\_\_\_\_ corporation, hereafter called "Surety", is the surety of this bond.

### Agreement:

We, Contractor as Principal and Surety as Surety, jointly and severally agree and state as follows:

1. The amount of the obligation of this bond is 10% of the amount of the Contractor's Proposal, including bid alternates, and inures to the benefit of County.
2. This Bond is exonerated by (1) County rejecting said Proposal or, in the alternate, (2) if said Proposal is accepted, Contractor executes the Agreement and furnishes the Bonds as agreed to in its Proposal, otherwise it remains in full force and effect for the recovery of loss, damage and expense of County resulting from failure of Contractor to act as agreed to in its Proposal. Some types of possible loss, damage and expense are specified in the Contractor's Proposal.
3. Surety, for value received, stipulates and agrees that its obligations hereunder shall in no way be impaired or affected by any extension of time within which County may accept the Proposal and waives notice of any such extension.
4. This Bond is binding on our heirs, executors, administrators, successors and assigns.

Dated: \_\_\_\_\_

Signatures:

\_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_ By: \_\_\_\_\_

Title: Attorney in Fact  
"Surety"

Title: \_\_\_\_\_  
"Contractor"

STATE OF \_\_\_\_\_ } ss. SURETY'S ACKNOWLEDGEMENT  
COUNTY OF \_\_\_\_\_ }

On \_\_\_\_\_ before me, \_\_\_\_\_  
personally appeared, \_\_\_\_\_ known to me, or proved to me on the basis of  
satisfactory evidence, to be the person whose name is subscribed to the within instrument and acknowledged  
to me that he/she executed the same in his/her authorized capacities, and that by his/her signature on the  
instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

\_\_\_\_\_  
Signature of Notary Public

\_\_\_\_\_  
Notary Public (Seal)

**Note: This Bond must be executed by both Contractor and Surety with corporate seal affixed. All signatures must be notarized. (Attach acknowledgements).**



## AGREEMENT

THIS AGREEMENT is entered into at Riverside, California as of the date set forth below is between County of Riverside hereafter called "County" and \_\_\_\_\_ hereafter called "Contractor".

## W I T N E S S E T H

### RECITALS:

1. Contractor has submitted to County his Contractor's Proposal for the construction of County Project, \_\_\_\_\_ in strict accordance with the Contract Documents identified below and County has accepted said Proposal.
2. Contractor states that he has reexamined his Contractor's Proposal and found it to be correct, has ascertained that his subcontractors are properly licensed and possess the requisite skill and forces, has reexamined the site and Contract Documents and is of the opinion that he can presently do the work in accordance with the Contract Documents for the money set forth in his Proposal to be paid as provided in the Contract Documents.

### AGREEMENT:

#### IT IS AGREED BY THE PARTIES AS FOLLOWS:

1. Contract Documents. The entire contract consists of the following: (a) The Agreement. (b) The Notice Inviting Bids. (c) The Instruction to Bidders. (d) The Contractor's Proposal. (e) The Bid Bond. (f) The Payment Bond. (g) The Performance Bond. (h) The General Conditions. (i) The Special Provisions. (j) The Standard Specifications of the State of California Department of Transportation edition of May 2006 as modified in other portions of the Contract Documents. (k) The Standard Plans of the Department of Transportation identified on the plans or in the Special Provisions. (l) The Plans. (m) Addenda No. \_\_\_\_\_. (n) The Determination of Prevailing Wage Rates for Public Work. (o) Any Change Orders issued. (p) Any additional or supplemental specifications, notice, instructions and drawings issued in accordance with the provisions of the Contract Documents. All of said Documents presently in existence are by this reference incorporated herein with like effect as if here set forth in full and upon the proper issuance of other documents they shall likewise be deemed incorporated. The Bid Bond is exonerated upon execution of this Agreement and the Payment Bond and Faithful Performance Bond.
2. The Work. Contractor shall do all things necessary to construct the work generally described in Recital No. 1 in accordance with the Contract Documents.

3. Liquidated Damages and Time of Completion. Attention is directed to the provisions in Section 8-1.06, "Time of Completion", and in Section 8-1.07, "Liquidated Damages", of the Standard Specifications and these Special Provisions.

The Contractor shall begin work within 15 days of the date stated within the written "Notice to Proceed".

The Contractor shall notify the Engineer, in writing, of his intent to begin work at least 72 hours before work is begun. The notice shall be delivered to the Transportation Department's Construction Engineer and shall specify the date the Contractor intends to start. If the project has more than one location of work, a separate notice shall be given for each location.

Should the Contractor begin work in advance of receiving a written "Notice to Proceed", any work performed by him in advance of the date stated in the "Notice to Proceed" shall be considered as having been done by him at his own risk and as a volunteer and subject to the following:

- (1) The Contractor shall, on commencing operations, take all precautions required for public safety and shall observe all the provisions in the Specifications and the Special Provisions.
  - (2) All work done according to the contract prior to the issuance of the "Notice to Proceed", will be considered authorized work and will be paid for as provided in the contract.
  - (3) The Contractor shall not be entitled to any additional compensation or an extension of time for any delay, hindrance or interference caused by or attributable to commencement of work prior to the issuance of the "Notice to Proceed".
4. Compensation. Contractor shall be paid in the manner set forth in the Contract Documents the amount of his Proposal as accepted by County, the above rates, subject to additions and deductions as provided in the Contract Documents. Said Proposal is on file in the Office of the Clerk of the Board of Supervisors of County.

**Murrieta Hot Springs Road  
Resurfacing Project  
Winchester Road to Calistoga Drive**

**Project No. B8-0669**

IN WITNESS WHEREOF the parties hereto have executed this agreement as of the date set forth below.

COUNTY OF RIVERSIDE

CONTRACTOR

BY \_\_\_\_\_  
Chairman, Board of Supervisors

BY \_\_\_\_\_

Dated \_\_\_\_\_

TITLE: \_\_\_\_\_  
(If Corporation, Affix Seal)

ATTEST:

Kecia Harper-Ihem, Clerk of the Board

ATTEST:

\_\_\_\_\_

BY \_\_\_\_\_  
Deputy

TITLE: \_\_\_\_\_

Licensed in accordance with an act  
providing for the registration of  
Contractors,

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

Federal Employer Identification Number:

\_\_\_\_\_

\_\_\_\_\_  
"County"  
(Seal)

\_\_\_\_\_  
"Corporation"  
(Seal)

## Performance Bond

### Recitals:

1. \_\_\_\_\_ (Contractor) has entered into a Contract with COUNTY OF RIVERSIDE (County) for construction of public work known as \_\_\_\_\_.
2. \_\_\_\_\_, a \_\_\_\_\_ corporation (Surety), is the Surety under this Bond.

### Agreement:

We, Contractor as Principal and Surety as Surety, jointly and severally agree, state, and are bound unto County, as obligee, as follows:

1. The amount of the obligation of this Bond is 100% of the estimated contract price for the Project of \$\_\_\_\_\_ and inures to the benefit of County.
2. This Bond is exonerated by Contractor doing all things to be kept and performed by it in strict conformance with the Contract Documents for this project, otherwise it remains in full force and effect for the recovery of loss, damage and expense of County resulting from failure of Contractor to so act. All of said Contract Documents are incorporated herein.
3. This obligation is binding on our successors and assigns.
4. For value received, Surety stipulates and agrees that no change, time extension, prepayment to Contractor, alteration or addition to the terms and requirements of the Contract Documents or the work to be performed thereunder shall affect its obligations hereunder and waives notice as to such matters, except the total contract price cannot be increased by more than 10% without approval of Surety.

THIS BOND is executed as of \_\_\_\_\_.

By \_\_\_\_\_

By \_\_\_\_\_

By \_\_\_\_\_

Type Name \_\_\_\_\_

Its Attorney in Fact  
"Surety"

Title \_\_\_\_\_

"Contractor"

(Corporate Seal)

(Corporate Seal)

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

## Payment Bond

(Public Works - Civil Code §9550 et seq.)

The makers of this Bond are \_\_\_\_\_, as Principal and Original Contractor and \_\_\_\_\_, a corporation, authorized to issue Surety Bonds in California, as Surety, and this Bond is issued in conjunction with that certain public works contract to be executed between Principal and COUNTY OF RIVERSIDE a public entity, as Owner, for \$ \_\_\_\_\_, the total amount payable. The amount of this bond is one hundred percent (100%) of said sum. Said contract is for public work generally consisting of \_\_\_\_\_.

The beneficiaries of this Bond are as is stated in 9554 of the Civil Code and requirements and conditions of this Bond are as is set forth in 9554, 9558, 9560 and 9564 of said code. Without notice, Surety consents to extension of time for performance, change in requirements, amount of compensation, or prepayment under said contract.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Original Contractor – Principal

\_\_\_\_\_  
Surety

By \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Its Attorney In Fact

(If corporation, affix seal)

(Corporate Seal)

(Corporate Seal)

STATE OF \_\_\_\_\_ }  
COUNTY OF \_\_\_\_\_ } ss. SURETY'S ACKNOWLEDGEMENT

On \_\_\_\_\_ before me, \_\_\_\_\_ personally appeared, \_\_\_\_\_, known to me, or proved to me on the basis of satisfactory evidence, to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacities, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

\_\_\_\_\_  
Signature of Notary Public

Notary Public (Seal)

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

## GENERAL CONDITIONS

### SS 1. DEFINITIONS:

- a. "County", "Contractor", and "Contract Documents" are identified in the Agreement. "County" and "Contractor" includes their authorized representatives are treated throughout as if each were singular in number. "Contractor" includes its surety.
- b. "Engineer" and "Director of Transportation" means the Director of Transportation and Land Management Agency (TLMA) for the County of Riverside, and includes his authorized representatives.
- c. "Plans" means the portion of the Contract Documents consisting of all drawings prepared for the direction and characteristics of the work. A schedule of said drawings which constitutes the plans as of the execution of the Agreement is set forth in the Special Provisions and are supplemented by the Standard Plans referred to in the Special Provisions.
- d. "State of California", "Department of Transportation" and "Director of Transportation", means the County of Riverside.

### SS 2. STANDARD SPECIFICATIONS:

The Standard Specifications of the State of California Department of Transportation, edition of May 2006 hereafter called "Standard Specifications", are incorporated herein as modified in these General Conditions, the Special Provisions and the Plans.

The following subsections of the Standard Specifications are deleted:

1-1.13, 1-1.15, 1-1.18, 1-1.25, 1-1.37, 1-1.40, 2-1.01, 2-1.05, 2-1.07, 5-1.14, 7-1.165, 8-1.03, 9-1.05, 9-1.065, 9-1.10, 12-2.02.

Section 3 of the Standard Specifications is deleted.

The following deletions and additions are made from the following subsections of the Standard Specifications.

Subsection 5-1.04, add to the second paragraph at its end the following sentence: "The General Conditions govern over all of

the Contract Documents except the Special Provisions, the Agreement and Bonds."

Subsection 7-1.01A (2), strike the last sentence of the second paragraph and in its place read: "These wage rates are on file in the Office of the County Clerk and are a part of the Contract."

Subsection 7-1.15, for "Director" read "Director of TLMA" except for last reference read "County of Riverside".

Subsection 7-1.16, delete references to Subsection 7-1.165.

Subsection 8-1.06, strike the last paragraph.

Subsection 8-1.08, strike "as provided in the State Contract Act".

SS     3. DIRECTOR OF TRANSPORTATION AND LAND MANAGEMENT AGENCY (TLMA):

All work shall be done under the supervision of the Director of TLMA who shall determine the amount, quality, acceptability and fitness of all parts of the work, and interpret the Contract Documents. No act or omission of the Director of TLMA relieves Contractor of the duty to proceed with the work in strict conformity with the Contract Documents.

Upon request, Director of TLMA shall reduce to writing any oral order, objection, requirement or determination. Whenever Director of TLMA's approval is required it shall be in writing only.

All communications to County by Contractor shall be via Director of TLMA.

No work shall be performed on site other than during normal working hours without the knowledge and consent of Director of TLMA.

When in Director of TLMA's opinion, weather or other conditions are such that attempts to perform a portion of the work will probably result in work not in accordance with the Contract Documents, he shall so advise Contractor. When Contractor advises Director of TLMA that he intends to proceed despite such advise, he does so at his peril. The Director of TLMA may then order Contractor, in writing which specifies the portion of the work involved and the conditions warranting the issuance of the order, not to proceed on such portion of the work if (1) proceeding will in his judgment have an adverse effect on Contractor's ability to complete the work within the stipulated time period, or (2) proceeding will in his judgment necessitate

unusual tests and procedures to ascertain whether said portion of the work is in accordance with the Contract Documents. Contractor shall comply with such orders at its expense.

Nothing herein contained relieves Contractor from the duty to make independent determinations as to weather and other conditions affecting the proper completion of the work.

Failure for any reason of Director of TLMA to advise Contractor as to such matters, or to issue an order as above provided, does not relieve Contractor from the duty to accomplish the work in accordance with the Contract Documents.

As stated elsewhere, amounts shown in the Proposal and Agreement as to quantities are but estimates only. From time to time Director of TLMA shall direct Contractor as to the prosecution of the work in such a manner as to increase or decrease such estimates as to the work actually to be done. Contractor shall comply with such instructions and shall be paid only for work actually done based on the unit price set out in the Agreement.

SS     4.    SITE INSPECTION - EFFECT OF OTHER IMPROVEMENTS SHOWN AND CONTRACTOR PROCEDURE:

Elsewhere in the Contract Documents reference may be made, graphically, descriptively or both, to the existence or possible existence of other improvements affecting the site and the prosecution of the work such as surface and subsurface utilities, drainage ditches and courses, buildings, fencing, retaining walls, roadways, curbs, trees, shrubs, and similar matters. Such matters are included to be used by Contractor to the extent he deems appropriate. However, it is expressly understood and agreed:

- a.    Showing or describing such items does not mean that it is an exhaustive and complete presentation and that as to matters shown or described that they necessarily exist.
- b.    All graphic presentations are schematic only unless the contrary is clearly set out elsewhere as to a particular matter.
- c.    Whenever in the plans survey markers are shown, boundaries of the site are shown or contour lines are shown, Contractor may assume that such matters are shown in accordance with acceptable standards.

All improvements of the nature above described, whether elsewhere shown or described or not, shall, unless the contrary is elsewhere specifically directed, remain in



place, undisturbed and suitably protected during the course of the work.

Whenever during the course of the work a subsurface improvement is discovered which Contractor believes is unknown to County, he shall immediately so inform Director of TLMA. Except as elsewhere provided, whenever in the course of the work it becomes apparent that the work cannot proceed without the destruction or relocation of any improvement, whether shown or described or not, Contractor shall immediately cease work affecting such improvements and notify Director of TLMA as to such circumstance and await instructions as to how to proceed.

- d. The Contractor shall be required to cooperate fully with all utility forces or forces of other public agencies engaged in relocation, lowering, altering or otherwise rearranging any facilities interfering with the progress of work or installing any facilities thereon.

The Contractor will also be required to cooperate fully with any County or State forces working on or near the project, or requiring access to the work in the performance of their duties.

SS    5. USE OF AND PROTECTION OF PREMISES AND REMOVAL OF DEBRIS:

At his expense Contractor shall:

- a. Take every precaution against injuries to persons or damage to property.
- b. Comply with regulations governing the use of the property.
- c. Store and suitably protect his apparatus, equipment, materials and supplies in an orderly fashion on site.
- d. Place on the work only such loads as are consistent with the safety of the work.
- e. Effect all cutting, fitting, or patching of his work required to make it conform to the Plans and Specifications and interrelate with other improvements or except with the consent of Director of TLMA, cut or otherwise alter existing improvements.
- f. Protect and preserve established bench marks and monuments, make no changes in the location of such without the prior written approval of County, replace and relocate any of them which may be lost or destroyed or which require

shifting because of necessary changes in grades or locations. All replacement and relocation work shall be accomplished only after approval of County and under the direct supervision and instruction of Director of TLMA.

- g. Before final payment remove all surplus materials, false work, temporary structures, debris, and similar matter resulting from his operations from the site and to put the site in an orderly condition.
- h. Construct, operate and maintain all passageways, guard fences, lights, barricades and other facilities required for protection by State or municipal laws and regulations and local conditions during the course of the work.
- I. Guard County's property from injury or loss.
- j. Take all reasonable precautions for dust and noise control and generally conduct operations so as not to constitute a nuisance.
- k. The Contractor shall be responsible for the protection of existing signs, fences, concrete curb and gutter and other highway facilities which may be encountered in the roadway. The replacement or repair of any facilities which the County 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 County Transportation Department.

SS     6. CHANGE ORDERS - DETAIL DRAWINGS AND INSTRUCTIONS:

Reference is made to 4-1.03 and 4-1.03A of the Standard Specifications regarding change orders. Wherever in these subsections the word "Engineer" appears read "County".

Each approved change order shall be considered as an amendment to the Contract Documents and will not be considered approved until executed by the Board of Supervisors, except Director of TLMA can approve certain change orders without the necessity of approval by the Board as provided in a Resolution of the Board adopted March 30, 1993, Resolution Number 93-047.

The above does not limit the ability of Director of TLMA to issue further detail drawings, explanations and instructions which are customarily given by an Engineer during the course of similar work. Director of TLMA will furnish Contractor with reasonable promptness such further detailed explanations, instructions and drawings as may be necessary for the proper execution of the work, and Contractor shall conform to same provided they are

consistent with the intent of the Contract Documents. In giving such additional instructions, explanations and drawings Director of TLMA has authority to make minor changes in the work which do not involve extra cost and are not inconsistent with the Contract Documents.

Contractor's acting on such instructions, explanations and drawings of Director of TLMA means that Contractor agrees that such explanations, instructions and drawings are within the scope of the work in accordance with the intent of the Contract Documents and do not constitute a basis for modification of the Contract Documents as to price or time.

SS     7. BRAND OR TRADE NAME - SUBSTITUTE OF EQUALS:

Reference is made to Section 3400 of the Public Contracts Code, which is by this reference incorporated herein with like effect as if here set forth in full.

If a potential bidder believes he knows of an equal to a specified brand or trade name which is not mentioned in the Contract Documents, then such potential bidder may so advise Director of TLMA of such fact, giving all relevant information. If appropriate, an addendum will be issued as to the alleged equal provided that such issuance may be accomplished at least 5 days before the time fixed for opening bids.

Unless the subject article or product is expressly designated for matching others in use in a particular public improvement either completed or in the course of completion, any bidder may, as part of its bid proposal, include a request for substitution of an item equal to any specified by brand or trade name.

Within 35 calendar days after award of the contract, Contractor may submit to Director of TLMA data substantiating such a request, and the difference, if any, in cost. Director of TLMA shall promptly investigate the request and make a recommendation to County as to equality. The governing body of County shall promptly determine whether the substitute is equal in every respect to the item specified, and approve or deny the request accordingly, and shall notify Director of TLMA of the determination made, who shall advise Contractor in writing of the decision. Unless the request is granted, substitution will not be permitted.

Nothing herein shall authorize a change in the contract price or prevent the use of change orders in the manner provided elsewhere in the Contract Documents.

SS     8. FINAL INSPECTION - NOTICE OF COMPLETION:

When the work is ready for final inspection County shall cause the work to be inspected and subjected to such tests as seem to it to be required for the purpose of determining if the work is complete in every respect.

At a meeting of the governing body of County held within 10 days after final inspection, the governing body shall consider the facts developed at the inspection. If it is found that the work is apparently complete in every respect, County will accept the work and a notice of completion will be recorded.

As between the parties, the recordation of the Notice of Completion, unless recorded because of a cessation of labor, means only that the time for final payment and the commencement of the guarantee period commences to run.

SS     9. COUNTY'S RIGHT TO STOP WORK OR TERMINATE THE CONTRACT:

(1) Contractor shall be adjudged bankrupt or make an assignment for the benefit of creditors, or (2) a receiver or liquidator is appointed for Contractor or any of his property, or (3) Contractor shall refuse or fail after Notice of Warning from County by Director of TLMA to supply sufficient properly skilled workmen or suitable materials, or (4) Contractor fails to prosecute the work with such diligence as will insure its completion within the stipulated time period, or (5) Contractor shall fail to make payments to persons supplying labor or materials for the work, or (6) Contractor does not comply with applicable law or instructions of Director of TLMA, or (7) Contractor is otherwise guilty of a substantial violation of any provision of the Contract Documents, then County without prejudice to such other and further right, remedy or relief it may be entitled to, may by 10 days notice to Contractor, terminate the employment of Contractor and his right to proceed, either as to the entire work, or at County's option, as to any portion thereof as to which delay shall have occurred or breach or miscompliance relates, and may thereupon take possession of the affected work and complete the work by contract or otherwise, as County deems expedient. In such case Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance shall exceed the expense of completion, and other damage, expense or loss of County occasioned by Contractor's failure to properly perform, such excess shall be paid by Contractor. If such expense and damage exceeds the unpaid balance, Contractor is liable to County for the excess. If County elects to proceed under this Section, it may take possession of and utilize in completing the work such

materials, supplies, plant and equipment on site which may be necessary or convenient for the purpose of completing the work, County is expressly granted the right - acting via Director of TLMA, an Engineer or otherwise - to operate equipment and machinery on site for the purpose of determining whether it has a basis for proceeding under this section.

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

Decision by County not to proceed under this Section does not constitute a waiver by County of any right it might from time to time have against Contractor under the Contract Documents.

SS 10. PAYMENT AND MONTHLY ESTIMATES:

Director of TLMA, once each month, after said work is commenced and until after the completion and acceptance thereof, shall make and deliver to Contractor duplicate certificates stating the value of work then completed according to the contract, estimated according to the standard of the unit contract price, and thereupon Contractor shall be paid an amount sufficient with all previous payments to make the aggregate ninety five percent (95%) of the amount earned as certified. Maximum value of progress payment retention, as set forth in Section 9-1.06 of the Standard Specifications and any other referenced text, shall be five (5%)

The partial payments made as the work progresses will be payment on account on work performed as of the 25th of the month and shall in no way be considered as an acceptance of any part of the work or material of the contract, nor shall they in any way govern the final estimate. No such estimate or payment shall be made when in the judgement of the Director of TLMA the total value of the work done since the last estimate amounts to less than \$300.

For the purpose of timely payment, the "receipt of payment request" date, as described in Public Contract Code 20104.50 and as referred to herein, shall be considered to be the fifth working day following the 25th day of each month.

Within 5 working days of the 25th day of each month the County shall:

- a. Calculate and prepare the certificate ("progress pay estimate") stating the value of the work completed for the billing month, for the purpose of determining the proper progress payment amount.
- b. If a progress pay estimate has been prepared by the County but has been contested by the Contractor as of the "receipt of payment request" date, as defined above, the County shall submit to the Contractor a document setting forth in writing a description of the dispute pertaining to the progress billing, and the County's reason for its position. Said document shall be submitted to the Contractor as soon as practicable, but not later than 7 calendar days after the "receipt of payment request" date.

Any progress pay estimate which is undisputed and remains unpaid for thirty (30) calendar days, after the "receipt of payment request date" shall accrue interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the California Code of Civil Procedure. The number of days available to the County to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which the County exceeds the seven-day submittal requirement set forth in the paragraph above.

Pursuant to Public Contract Code Section 20104.50, subsection (e), the progress payment date is the date that funds are encumbered and the payment warrant is issued.

SS    11. PAYMENT FOR EXTRA WORK (FORCE ACCOUNT BASIS):

Extra work to be paid for on a force account basis as directed by the Engineer will be paid for as set forth in Section 9-1.03 of the Standard Specifications. The labor surcharge, equipment rental rates and the right of way delay factors for each classification of equipment are listed in the Department of Transportation publication entitled Labor Surcharge and Equipment Rental Rates. A copy of which is on file at the Office of the Director of TLMA and is hereby incorporated herein in its entirety.

SS    12. FINAL PAYMENT:

Within thirty (30) days after the completion of the work and its acceptance by the Board of Supervisors, Director of TLMA will make a proposed final estimate in writing of the quantities of work done under the contract and the value of such work and will submit such estimate to Contractor. Within thirty (30) days

thereafter Contractor shall submit to Director of TLMA his written approval of said proposed final estimate or a written statement of all claims which he has for additional compensation claimed to be due under the contract.

On Contractor's approval or if he files no claims within said period of thirty (30) days, Director of TLMA will issue a final written estimate as submitted to Contractor and County shall pay the entire sum so found to be due after deducting there from all previous payments and all amounts to be kept and all amounts to be retained under the provisions of the contract.

If Contractor within said period of thirty (30) days files claims, Director of TLMA will issue as a semi-final estimate the proposed estimate submitted to Contractor and the County will within thirty (30) days pay the sum found due thereon after deducting all prior payments and all amounts to be kept and retained under the provisions of the contract, Director of TLMA shall then consider and investigate Contractor's claims and shall make such revisions in the said estimate as he may find to be due, and shall then make and issue his final written estimate. County will pay the amount so found due after deducting all previous payments and amount to be retained under the contract.

All prior or partial estimates and payments shall be subjected to correction in the final estimate and payment.

The final estimate shall be conclusive and binding against both parties to the contract on all questions relating to the performance of the contract and the amount of work done there under and compensation therefore, except in the case of gross error. Acceptance of final payment constitutes a release of County by Contractor of all claims relating to the work.

SS    13. DAMAGES:

Contractor acknowledges that failure to perform in strict accordance with the Contract Documents will cause County 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, and inspection expense and cost of maintaining or constructing alternate facilities.

SS    14. DOCUMENTS OF CONTRACTOR:

Upon demand, Contractor shall make available to County all documents in its possession relevant to the work accomplished or to be accomplished or any demand or claim of Contractor as to County. This includes copies of documents sent by Contractor or others in its possession. Contractor shall further make available to County conformed copies of all documents submitted to the sureties who executed the Bid Bond, Faithful Performance Bond or Payment Bond for the purpose of obtaining the sureties' signature, including any guarantee or indemnification made to such surety by others for such purpose. Contractor shall maintain in his possession all documents relative to the work for three years after Notice of Completion.

SS    15. RESPONSIBILITY OF CONTRACTOR TO ACT IN AN EMERGENCY:

In case of an emergency which threatens loss or injury to property or life, Contractor shall act without previous instructions as the situation may warrant. Contractor shall notify Director of TLMA immediately thereafter. Any compensation claimed by Contractor, together with substantiating documentation shall be submitted to County via Director of TLMA.

SS    16. 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, among other things with discrimination, penalties and forfeitures, their disposition and enforcement, wages, working hours, and securing worker's compensation insurance and directly effect 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 he 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 worker's 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 his subcontractors shall



comply with the provisions of SS 1777.5 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.

SS 17. OBSTRUCTIONS:

Attention is directed to Sections 8-1.10, "Utility and Non-Highway Facilities" and 15, "Existing Highway Facilities" of the Standard Specifications and these Special Provisions.

Add the following to the fourth paragraph of Section 8-1.10, "Utility and Non-Highway Facilities", of the Standard Specifications is amended to read:

In the event that the utility facilities mentioned above are not removed or relocated by the times specified and, if in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by reason of the utility facilities not being removed or relocated by said times, the State will compensate the Contractor for such delays to the extent provided in Section 8-1.09, "Right of Way Delays" of the Standard Specifications, and not otherwise, except as provided in Section 8-1.10, "Utility and Non-Highway Facilities" of the Standard Specifications.

SS 18. INSURANCE - HOLD HARMLESS:

In lieu of the provisions of Section 7-1.12 the following shall apply:

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 and approved by the County of Riverside.

Contractor shall submit to the County of Riverside a Certificate of Insurance, signed by an authorized representative of the Contractor's insurance provider or agency, which certifies to the County that insurance coverage is provided in accordance with the requirements of this section. The Certificate of Insurance shall include as attachments the required "Waiver of Subrogation" and "Additional Insured" policy endorsements.

### I. Workers Compensation Insurance:

Contractor shall procure and maintain during the life of the contract Worker's Compensation Insurance coverage as prescribed by the laws of the State of California. Policy shall include Employers' Liability including Occupational Disease with limits not less than \$1,000,000 per occurrence. Policy shall be endorsed to provide a Borrowed Servant Endorsement, Alternate Employer Endorsement, or Additional Insured Endorsement naming the County of Riverside, its Directors' Officers, Special Districts, Board of Supervisors, employees, agents or representatives as Additional Insureds. Policy shall contain a Waiver of Subrogation in favor of the County of Riverside.

Contractor shall further require each of its subcontractors to procure Worker's Compensation Insurance as required by the State while working on the project and the Contractor shall require the subcontractors to endorse the policy to provide a Borrowed Servant Endorsement, Alternate Employer Endorsement, or Additional Insured Endorsement naming the County of Riverside, its Directors' Officers, Special Districts, Board of Supervisors, employees, agents or representatives as Additional Insureds. Policy shall contain a Wavier of Subrogation in favor of the County of Riverside.

### II. Comprehensive General Liability Insurance:

Contractor shall take out and maintain during the course of the work General Liability Insurance covering bodily injury and property damage insurance and blanket contractual coverage as to the work and obligations covered hereunder. The amount of the insurance shall be in an amount **not less than \$2,000,000**. The policy may be a combined single limit or split limits, but the amount must be no less than \$2,000,000 per occurrence. The insurance carrier must have a current rating of "A" or better by the A.M. Best Company, a financial size of at least "VIII", and be an admitted carrier in the State of California. Any exceptions must be approved in advance by the County of Riverside Risk Management. Said insurance must contain an endorsement the County of Riverside is named as an additional insured as respects the work covered hereunder and **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 30 days written notice prior to

cancellation of the insurance or a reduction in coverage, and that "County of Riverside--its Directors' Officers, Special Districts, Board of Supervisors, employees, agents and representatives" are named as Additional Insureds.

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

### III. Auto Liability:

If Lessee's vehicles or licensed mobile equipment will be on the premises or used in any manner on behalf of the County, then Lessee shall maintain auto liability insurance for all owned, non-owned or hired automobiles in an amount not less than \$1,000,000 per occurrence combined single limit. Policy shall name the "County of Riverside, its Director's. Officers, Special Districts, Board of Supervisors, employees, agents, or representatives" as Additional Insureds.

### IV. Hold Harmless:

Contractor shall hold County of Riverside its officers, agent, and employees 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 anywise connected with or arising from the accomplishment of the work, whether or not such acts or omissions were in furtherance of the work required by the Contract Documents and agrees to defend at his expense, including attorney fees, Owner, County of Riverside its officers, agents and employees in any legal action based upon any such alleged acts or omissions.

## SS 19. 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 shall comply with the provisions of the California Fair Employment Practice Act (commencing with SS 1410 of the Labor Code), 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 the Contract.

Transactions of \$50,000 or More:

If Contractor has fifty or more employees and a Contract for \$50,000 or more, it shall develop and submit to Owner, within thirty 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 fifty 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 twelve month period immediately prior to award, or the total number of employees the Contractor or its subcontractor will have when performing this contract, whichever is higher, shall be used.

Federal Assisted Construction:

If this project is a Federally assisted construction project, then the contract provisions contained in 41 CFR SS 60-1.04 (b) are incorporated herein and the Contractor shall likewise incorporate said provisions in each subcontract entered by Contractor to perform the work. Federally assisted construction is identified as such in the Notice Inviting Bids.

SS    20. DEPOSIT OF SECURITIES:

In accordance with Public Contract Code Section 22300 and other applicable law, the Contractor may substitute securities for any moneys withheld to ensure performance under the contract.

SS    21. 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 Owner 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 acknowledgement by the parties.

SS 22. CLAIMS RESOLUTION:

In accordance with Public Contract Code Section 20104 - 20104.8 and other applicable law, public works claims of \$375,000 or less which arise between the Contractor and the Owner shall be resolved following the statutory procedure unless the Owner has elected to resolve the dispute pursuant to Public Contract Code SS 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 Owner.
  - (a) Claims Under or equal to \$50,000. The Owner shall respond in writing to the claim within 45 days of receipt of the claim, or, the Owner may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses of claims the Owner may have. If additional information is needed thereafter, it shall be provided upon mutual agreement of the Owner and the claimant. The Owner'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 Owner 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 of claims the Owner may have against the claimant. If additional information is needed thereafter, it shall be provided pursuant to mutual agreement between the Owner and the claimant. The Owner'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 Owner's response, or if the Owner fails to respond within the statutory time period, the claimant may so notify the Owner 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 Owner shall schedule a meeting 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 SS 900 et seq. and Government Code SS 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 SS 20104.4 shall be followed, providing for non-binding mediation and judicial arbitration.

SS    23. DUST ABATEMENT:

Dust control shall conform to Section 10, "Dust Control", Section 7-1.01F, "Air Pollution Control", Section 17, "Watering", and Section 18, "Dust Palliative" of the Standard Specifications, Rules no. 401, 402, 403 and 403.1 of the South Coast Air Quality Management District (AQMD), Riverside County Code, Chapter 8.52, "Fugitive Dust Reduction Program For Coachella Valley", all other applicable Federal and State laws, and the requirements set forth herein.

The Contractor is cautioned that failure to control fugitive dust may result in fines being levied by the South Coast Air Quality Management District to both the Contractor and the County of Riverside, as owner. The Contractor shall be fully responsible for payment of all fines pertaining to air pollution control violations, resulting from Contractor's operations related to the construction contract, which may be levied against both the Contractor and the County of Riverside by the AQMD or other regulatory agencies. The Contractor's attention is directed to Section 7-1.01, "Laws to be Observed" of the Standard Specifications. The cost of all fines levied against the County of Riverside will be deducted from any moneys due or which may

become due to the Contractor, unless other payment arrangements are made by the Contractor.

Dust control of all of the Contractor's operations is required 24 hours per day, 7 days a week for the duration of the contract, and until the disturbed soil is permanently stabilized. The Contractor shall take every precaution to prevent emissions of fugitive dust from the project site, from locations of stockpiled materials, from unpaved driving surfaces, from haul vehicles, from inactive construction areas, and from all other operations of the Contractor. The Contractor shall plan for and carry out proper and efficient measures to prevent thier operations from producing dust in amounts damaging to property or which constitute a public nuisance, or which cause harm to persons living or working in the vicinity of the work. Particular concern of emissions is PM10 particles. PM10 particles are fine particulate matter of 10 microns or less which are associated with sickness and death from respiratory disease.

The Contractor shall furnish and post dust mitigation signs, which shall be, at a minimum, in accordance with the "AQMD Signage Recommendations", attached hereto. Additional copies are available upon request from the Engineer. The sign shall include the Contractor's phone number which shall be maintained on a 24 hour basis. The sign message, size and design, including any deviations from the signage recommendations, shall be approved by the Engineer prior to fabrication.

The Contractor shall respond to complaints by mobilizing equipment and personnel at the construction site within 2 hours of each complaint to control fugitive dust.

Attention is directed to AQMD Rule 403.1, which applies to all contracts within the Coachella Valley Area of Riverside County. That AQMD Rule requires the Contractor to take specified dust control actions when prevailing wind speeds exceed 25 miles per hour. Wind forecasts, AQMD Rules and other related information are provided by AQMD at 1-800-CUT-SMOG and at [www.aqmd.gov](http://www.aqmd.gov).

Any days on which the Contractor is prevented from working, due to the requirements of AQMD Rules, will be considered as non-working days, in accordance with Section 8-1.06, "Time of Completion" of the Standard Specifications.

The Contractor shall utilize the "Best Available Control Measures" of controlling fugitive dust, as prepared by the AQMD. For projects within the Coachella Valley, the "Reasonably Available Control Measures" may be employed, if effective within the context of the AQMD rules. However, if fugitive dust crosses the project boundary, more effective control measures, including the "Best Available Control Measures" shall be implemented.



A site-specific fugitive dust control plan shall be submitted to the Engineer for review and approval at least 10 days prior to the start of construction. Additionally, for projects outside of the Coachella Valley which meet the criteria for AQMD plan approval, the Contractor shall submit the dust control plan to AQMD for approval. AQMD plan submittal criteria is defined in AQMD Rule 403 as being for projects that will have disturbed surface area in excess of 100 acres, or for projects with a scope of work which requires the movement of more than 10,000 cubic yards of soil on each of any three working days.

A sample plan and other pertinent information is attached, and additional copies are available from the Engineer upon request. The fugitive dust control plan shall include the "Reasonably Available Control Measures" and "Best Available Control Measures" of controlling fugitive dust, as may be appropriate and necessary, including but not limited to watering, application of chemical dust suppressants, wind fencing, covering of haul vehicles, haul vehicle bed-liners, covering or chemically stabilizing stored materials, phased grading, planting of vegetation, the use of a 24 hour environmental observer, and track-out controls at locations where unpaved construction accesses intersect with paved roads. The use of chemical stabilizers, which are approved by all environmental regulatory agencies, and the use of reclaimed water is encouraged. If water is intended as a primary dust control tool, the dust control plan shall provide for at least one 2,000 gallon water truck for every 4 acres of disturbed soil, unless otherwise approved by the Engineer.

If the Construction Engineer determines that the project scope and the forecasted weather conditions are such that the Contractor's work is unlikely to be a source of dust emissions, the Construction Engineer has the authority to waive the requirements for submittal of a dust control plan and for placement of the dust control signs described herein. However, the Contractors responsibilities for the control of fugitive dust and the other requirements of this section may not be waived.

A completion notice will not be filed, and the final payment will not be made to the Contractor until the areas of disturbed soil on the construction site, including roadway shoulders, are suitably stabilized for long term control of fugitive dust.

The successful Contractor shall attend an AQMD PM10 Dust Control Program training session, and furnish evidence of attendance to the Engineer. Attendance at AQMD training seminars can be scheduled through AQMD at 1-866-861-DUST (1-866-861-3878) or by email to [dustcontrol@aqmd.gov](mailto:dustcontrol@aqmd.gov). Current AQMD certification of previous attendance will be accepted.

At that training session, the successful Contractor will be furnished with the AQMD prepared Rule 403 and Rule 403.1 implementation handbooks, which include the "Best Available Control Measures" and "Reasonably Available Control Measures", and other associated information, including a listing of suggested dust control related devices, materials and chemicals.

The signature of the Contractor on the Proposal constitutes acknowledgement by the Contractor of the dust control requirements established by law and described herein, and the enforceability of those requirements.

When the contract includes a bid item for Dust Abatement, full compensation for conformance with these dust abatement requirements, including labor, equipment, materials, developing water supply and incidentals, shall be paid at the lump sum price for Dust Abatement, and no additional compensation will be allowed therefor.

When the contract does not include a bid item for Dust Abatement, full compensation for conformance with these dust abatement requirements, including labor, equipment, materials, developing water supply and incidentals, shall be considered as included in the various items of work, and no additional compensation will be allowed therefor.

## AQMD RECOMMENDATIONS

November, 2001

Plan holder shall post signage at specified locations on the subject property in accordance with the standards specified below. The exception to the standards is that all letters shall be 4 inches high, with the names and telephone numbers of appropriate contacts and services in bold print, as indicated in the standards. These signs shall also include the SCAQMD toll free complaint line 1-800-CUT-SMOG (1-800-288-7664) and the telephone number for the Environmental Observer. These signs shall be posted within 50 feet of the curb on all four (4) corners of the subject property.

For each Dust Control Plan aggregating less than, or equal to, ten (10) acres:

1. The applicant shall install a sign on such property which is visible to the public that meets the following requirements:
  - (a) Such sign shall measure at least four (4) feet wide by four (4) feet high and conform to the specifications in 1 (a) below.

For each Dust Control Plan aggregating over ten (10) acres:

2. The applicant shall install a sign on such property which is visible to the public that meets the following requirements:
  - (a) Such sign shall measure at least eight (8) feet wide by four (4) feet high and conform to the specifications in 1 (b) below.

### THE SIGN SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

1. The sign boards shall be constructed with materials capable of withstanding the environment in which they are placed.

(a) For 4' x 4' signs, the District recommends the following:

- I. ¾" A/C laminated plywood board
- II. Two 4" x 4" posts
- III. The posts should be attached to the edges of the plywood board with at least 2 carriage bolts on each post.
- IV. The front surface of the sign board should be painted in the contrasting color of a white background with black lettering.

(b) For 4' x 8' signs, the District recommends the following:

- I. 1" A/C laminated plywood board
- II. Two 5" x 6" posts
- III. The posts should be attached to the 4' edges of the plywood board with at least 2 carriage bolts on each post.
- IV. The front surface of the sign board should be painted in the contrasting color of a white background with black lettering.

**2. The sign board shall be installed and maintained in a condition such that members of the public can easily view, access, and read the sign at all times until the expiration date of the Dust Control plan.**

(a) For 4' x 4' signs, the District recommends the following:

- I. The lower edge of the sign board should be mounted at least 2' above the existing ground surface to facilitate ease of viewing.
- II. The posts should be set in a hole at least 3' deep with concrete footings to preclude downing by high winds.
- III. On the construction site, the sign should be positioned such that nothing obstructs the public's view from the primary street access point.
- IV. For construction projects that are developed in phases, the sign should be moved to the area that is under active construction.
- V. In situations where all phases of the construction project are completed on a property prior to expiration of the Dust Control Plan, a written request for cancellation of the Dust Control Plan must be submitted to the Engineer.

(b) For 4' x 8' signs, the District recommends the following:

- I. The lower edge of the sign board should be mounted at least 2' above the existing ground surface to facilitate ease of viewing.
- II. The posts should be set in a hole at least 4' deep with concrete footings to preclude downing by high winds.
- III. On the construction site, the sign should be positioned such that nothing obstructs the public's view from the primary street access point.
- IV. For construction projects that are developed in phases, the sign should be moved to the area that is under active construction.
- V. In situations where all phases of the construction project are completed on a property prior to expiration of the Dust Control Plan, a written request for cancellation of the Dust Control Plan must be submitted to the Engineer.

**3. The sign board shall contain the following information:**

- (a) Project Name
- (b) Name of Prime Contractor
- (c) Phone Number of Contractor's Employee Responsible for Dust Control Matters
- (d) County designated phone number (to be provided by the Engineer)
- (e) South Coast Air Quality Management District Phone Number

4. The sign board shall be designed to the following alpha and numeric text dimensions (sign boards written in longhand are unacceptable).

(a) For a permittee subject to the 4' x 4' sign requirement, the District provides the following example: (as modified by the County of Riverside for use on County Public Works projects)

1" UPPERCASE Letters	PROJECT NAME:		3 ½ " Title Case Bold Letters
1" UPPERCASE Letters	CONTRACTOR		3 ½ " Title Case Bold Letters
1" Title Case Letters	Contractor's Dust Control Phone #		3" Bold Numbers
1" Title Case Letters	County of Riverside Phone #		3" Bold Numbers
1" Title Case Letters	Phone Number:	<b>SCAQMD</b> <b>1-800-CUT-SMOG</b>	3 ½ " Bold Numbers

"Title Case" means the first letter of a word is capitalized and subsequent letters are lower case.

(b) For a permittee subject to the 4' x 8' sign requirement, the District provides the following example: (as modified by the County of Riverside)

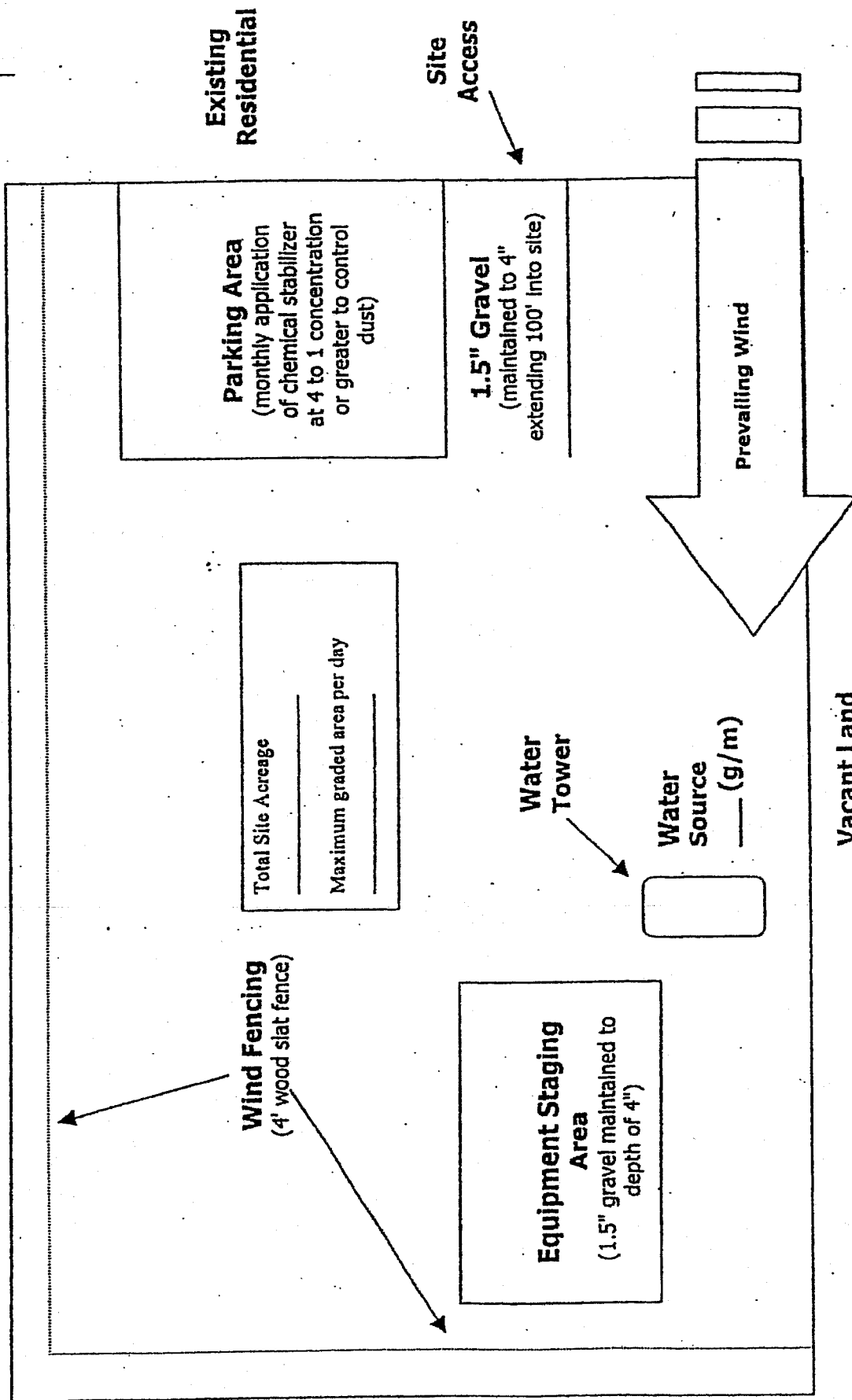
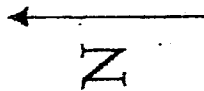
2" UPPERCASE Letters	PROJECT NAME:	4" Title Case Bold Letters
2" UPPERCASE Letters	CONTRACTOR	4" Title Case Bold Letters
2" Title Case Letters	Contractor's Dust Control Phone #	4" Bold Numbers
2" Title Case Letters	County of Riverside Phone #	4" Bold Numbers
2" Title Case Letters	Phone Number:	4 ½ " Bold Numbers
2" Title Case Letters	SCAQMD 1-800-CUT-SMOG	
	COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT	

Section 1

Simplified Sample Site Plan

Existing Residential

Distance and location of nearest:  
 Residence \_\_\_\_\_  
 Business \_\_\_\_\_



Existing Residential

Remember...  
 DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK,  
 REGARDLESS OF CONSTRUCTION STATUS

## Plan Review Checklist Clearing/Grubbing/Mass Grading Phase

☐ If feasible, use grading permit conditions to break the project into phases so that only a portion of the site is disturbed at any given time to ensure control of fugitive dust. This technique is critical for project sites with greater than 100 acres.

☐ Prior to initiating activity, pre-water site through use of portable irrigation lines. At least 72 hours of pre-watering is recommended for each area prior to initiating earth-movement. Require the Applicant to specify water source and available flow rate (g/m).

☐ Water applied continuously to all disturbed portions of the site by means of water truck/water pull as necessary to maintain sufficient visible moisture on the soil surface. For reference, one 2,000 gallon water truck can treat approximately 4 acres of active construction per hour. Also, for cut and fill activities, one 10,000 gallon water pull is estimated to be necessary for each 7,000 cubic yards of daily earth-movement. Multiple 4,000-gallon water trucks may be used in place of one 10,000-gallon water pull. Touch and visual contrast are reasonably good indicators of soil moisture. Surface areas that are dry to the touch and appear lighter-colored require the application of additional water to prevent visible or fugitive dust. Require the Applicant to specify the number of watering vehicles available for dust control during mass grading and during off-hours as well as availability of back-up water trucks if the site experiences dust control problems.

☐ Water towers are necessary for projects with more than 10 acres of active construction. Without a water tower, it can take up to 30 minutes to fill a 2,000 gallon water truck. Also, multiple water towers are necessary for projects that use water pulls as filling one 10,000 gallon water pull can drain a water tower which takes up to 40 minutes to refill.

☐ Wind fencing is necessary between the site and nearby residences or businesses. Off-site upwind fencing and on-site wind fencing for larger projects can also keep blowsand from being deposited onto the site or traveling through the site.

☐ A perimeter watering system consisting of portable irrigation equipment may be an effective mitigation system to protect surrounding residences and businesses. The portable watering system may be used in place of or in conjunction with watering trucks. The local jurisdiction may also be provided access to this equipment.

Remember...

**DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK,  
REGARDLESS OF CONSTRUCTION STATUS**



☐ Construction site accesses are to be improved with 1.5" gravel maintained to a depth of 4", at least 20' wide, and extending 100 feet into the site. If the project site is not balanced, a wheel washing system and/or ribbed steel plates should be placed in the roadway before the vehicle enters the graveled area to clean the tires and prevent trackout.

☐ Equipment staging areas are to be treated with 1.5" gravel maintained to a depth of 4".

☐ Employee parking areas are to be covered with 1.5" gravel maintained to a depth of 4" or treated with chemical dust suppressants at a 4 to 1 ratio on at least a monthly basis to prevent fugitive dust.

☐ Chemical dust suppressants are to be mixed at a ratio of 20 to 1 and applied to all disturbed surfaces that are proposed to remain inactive for a period of at least 10 consecutive days. These products are effective in preventing and controlling dust. Recordkeeping is necessary to demonstrate compliance.

☐ All project sites greater than 100 acres shall monitor daily wind speeds and AQMD forecasted wind events (call 1.800.CUT.SMOG, press one for air quality information, and then press five for Coachella Valley wind forecasts). Operators shall maintain these records for review by any local code enforcement officer or AQMD inspector.

☐ An environmental observer whose primary duty is to oversee dust control at the site is to be used for construction projects greater than 100 acres and/or sites with more than 50 acres of active construction. The environmental observer is tasked with monitoring dust abatement measures and authorized to deploy additional water trucks and other dust control actions (i.e., wind fencing, street sweepers, chemical dust suppressants, etc.) as necessary to prevent or control fugitive dust.

☐ Other (specify): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Remember...**  
**DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK,**  
**REGARDLESS OF CONSTRUCTION STATUS**

## Plan Review Checklist Finish Grading Phase

- ☐ Water applied continuously to all disturbed portions of the site by means of water truck/water pull as necessary to maintain sufficient visible moisture on the soil surface. For reference, one 2,000 gallon water truck can treat approximately 4 acres of active construction per hour. Also, for cut and fill activities, one 10,000 gallon water pull is estimated to be necessary for each 7,000 cubic yards of daily earth-movement. Multiple 4,000-gallon water trucks may be used in place of a 10,000-gallon water pull. Touch and visual contrast are reasonably good indicators of soil moisture. Surface areas that are dry to the touch and appear lighter-colored require the application of additional water to prevent visible or fugitive dust. Require the Applicant to specify the number of watering vehicles available for dust control during finish grading and during off-hours as well as availability of back-up water trucks if the site experiences dust control problems.
- ☐ Water towers are necessary for projects with more than 10 acres of active construction. Without a water tower, it can take up to 30 minutes to fill a 2,000 gallon water truck. Also, multiple water towers are necessary for projects that use water pulls as filling one 10,000 gallon water pull can drain a water tower which takes up to 40 minutes to refill.
- ☐ Wind fencing is necessary between the site and nearby residences or businesses to reduce fugitive dust. Off-site upwind fencing and on-site wind fencing for larger projects can also keep blowsand from being deposited onto the site or traveling through a site.
- ☐ Chemical dust suppressants are to be applied at a concentration of at least 10 to 1 to finish graded areas once final elevations have been reached. For areas that will remain inactive for longer periods, vegetation can be a cost-effective alternative to chemical stabilization. Wind fencing or other obstructions can keep the stabilized area free from future disturbances.
- ☐ Construction site access(es) are to be improved with 1.5" gravel maintained to a depth of at least 4" with a minimum width of at least 20', extending 100 feet into the project site.
- ☐ Equipment staging areas are to be treated with 1.5" gravel maintained to a depth of 4".
- ☐ Internal roadway networks are to be treated with chemical dust suppressants at a minimum rate of at least 4 to 1 and retreated on a monthly basis once final roadway elevations have been reached.
- ☐ Employee parking areas are to be treated with chemical dust suppressants at a mix ratio of at least 4 to 1 and retreated on at least a monthly basis or covered with 1.5" gravel maintained to a depth of 4" to prevent fugitive dust.
- ☐ Other (specify): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Remember...

**DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK,  
REGARDLESS OF CONSTRUCTION STATUS**

## Plan Review Checklist Construction Phase

☐ Water applied continuously to all disturbed portions of the site by means of water truck/water pull is necessary to maintain sufficient visible moisture on the soil surface. For reference, one 2,000 gallon water truck can treat approximately 4 acres of active construction per hour. Touch and visual contrast are reasonably good indicators of soil moisture. Surface areas that are dry to the touch and appear lighter-colored require the application of additional water to prevent visible or fugitive dust. Require the Applicant to specify the number of watering vehicles available for dust control during the construction phase and during off-hours as well as availability of back-up water trucks if the site experiences dust control problems.

☐ Wind fencing is necessary between the site and nearby residences or businesses. Off-site upwind fencing and on-site wind fencing for larger projects can also keep blowsand from being deposited onto the site or traveling through the site. Block walls, if part of the final project, can replace wind fencing during the construction phase.

☐ Chemical dust suppressants are to be applied at a concentration of at least 20 to 1 to finish graded areas once final elevations have been reached. For areas that will remain inactive for longer periods, vegetation can be a cost-effective alternative to chemical stabilization. Wind fencing or other obstructions can keep the stabilized area free from future disturbances.

☐ Construction site accesses are to be improved with 1.5" gravel, maintained to a depth of 4", with a width of at least 20', extending 100' into the project site. Paving internal roadways can substitute for gravel.

☐ Internal roadway networks are to be paved as early as feasible in the construction phase. Street sweeping of internal and/or external access roads will likely be required to control entrained road dust.

☐ Employee parking areas are to be treated with chemical dust suppressants at a mix ratio of no less than 4 to 1 and retreated on a monthly basis, or more frequently if fugitive dust is observed. If internal roadway is complete, employees are to be instructed to park on paved roads.

☐ Other (specify): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Remember...**  
**DUST CONTROL IS REQUIRED 24 HOURS A DAY, 7 DAYS A WEEK,**  
**REGARDLESS OF CONSTRUCTION STATUS**

## RULE 403 IMPLEMENTATION HANDBOOK

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### REASONABLY AVAILABLE CONTROL MEASURES

Paragraph (d)(3) of Rule 403 allows activities outside the South Coast Air Basin (see Figure 2-1) to implement reasonably available control measures in lieu of best available control measures. Additionally, as specified by subparagraph (f)(3)(D) of Rule 403, any person seeking approval of a fugitive dust emissions control plan for projects outside the South Coast Air Basin must demonstrate to the satisfaction of the District that the given activity is employing all reasonably available fugitive dust control measures.

The District has prepared the attached listing of reasonably available fugitive dust control measures for a variety of source categories. This list is based on the U.S. Environmental Protection Agency's reference document entitled, "Control of Open Fugitive Dust Sources," Midwest Research Institute, September 1988.

The District encourages the use of those dust control measures that minimize the use of potable water. When water is needed, reclaimed water should be utilized to the greatest extent feasible.

## REASONABLY AVAILABLE CONTROL MEASURES

The left column contains a listing of the sources of fugitive dust which are intended for emission control under District Rule 403 and a listing of control measures and high-wind measures. The right column contains a description of the reasonably available fugitive dust control measures for each of the sources.

Source: (1) Land Clearing/Earth-Moving

### CONTROL MEASURES

### DESCRIPTION

(A) Watering

- (1) Application of water by means of trucks, hoses and/or sprinklers prior to conducting any land clearing. This will increase the moisture content of the soils; thereby increasing its stability.
- (2) Pre-application of water to depths of proposed cuts.
- (3) Once the land clearing/earth moving activities are complete, a second application of water can generate a thin crust that stabilizes the disturbed surface area provided that it is not disturbed. (Security fencing can be used to prevent unwanted future disturbances of sites where a surface crust has been created).

(B) Chemical stabilizers

- (1) Only effective in areas which are not subject to daily disturbances.
- (2) Vendors can supply information on product application and required concentrations to meet the specifications established by the Rule.

(C) Wind fencing

- (1) Three- to five-foot barriers with 50% or less porosity located adjacent to roadways or urban areas can be effective in reducing the amount of windblown material leaving a site.
- (2) Would likely be used in conjunction with other measures (e.g., watering, chemical stabilization, etc.) to ensure that visible emissions do not cross a property line.

(D) Cover haul vehicles

- (1) Entire surface area of hauled earth should be covered once vehicle is full.

(E) Bedliners in haul vehicles

- (1) When feasible, use in bottom-dumping haul vehicles.

### HIGH WIND MEASURE

- (a) Cease all active operations; or
- (b) Apply water within 15 minutes to any soil surface which is being moved or otherwise disturbed.

Source: (2) Unpaved Roads

**CONTROL MEASURES**

**DESCRIPTION**

- |                            |   |
|----------------------------|---|
| (F) Paving                 | (1) Requires street sweeping/cleaning if subject to material accumulation.  |
| (G) Chemical stabilization | (1) Vendors can supply information as to application methods and concentrations to meet the specifications established by the Rule<br>(2) Not recommended for high volume or heavy equipment traffic use. |
| (H) Watering               | (1) In sufficient quantities to keep surface moist.<br>(2) Required application frequency will vary according to soil type, weather conditions, and vehicular use.  |
| (I) Reduce speed limits    | (1) 15 mile per hour maximum. May need to be used in conjunction with watering or chemical stabilization to prevent visible emissions from crossing the property line.                                    |
| (J) Reduce vehicular trips | (1) Access restriction or redirecting traffic to reduce vehicle trips by a minimum of 60 percent.   |
| (K) Gravel                 | (1) Gravel maintained to a depth of four inches can be an effective measure.<br>(2) Should only be used in areas where paving, chemical stabilization or frequent watering is not feasible.               |

**HIGH WIND MEASURE**

- (c) Apply a chemical stabilizer (to meet the specifications established by the Rule) prior to wind events; or  
(d) Apply water once each hour; or  
(e) Stop all vehicular traffic.

## RULE 403 IMPLEMENTATION HANDBOOK

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Source: (3) Storage Piles

### CONTROL MEASURES

#### DESCRIPTION

- |  |  |
|--|--|
| (L) Wind sheltering                      | (1) Enclose in silos.<br>(2) Install three-sided barriers equal to height of material, with no more than 50 percent porosity.  |
| (M) Watering                             | (1) Application methods include: spray bars, hoses and water trucks.<br>(2) Frequency of application will vary on site-specific conditions:  |
| (N) Chemical stabilizers                 | (1) Best for use on storage piles subject to infrequent disturbances.  |
| (O) Altering load-in/load-out procedures | (1) Confine load-in/load-out procedures to leeward (downwind) side of the material.<br>(2) May need to be used in conjunction with wind sheltering to prevent visible emissions from crossing the property line. |
| (P) Coverings                            | (1) Tarps, plastic, or other material can be used as a temporary covering.<br>(2) When used, these should be anchored to prevent wind from removing coverings.   |

### HIGH WIND MEASURE

- (f) Apply chemical stabilizers (to meet the specifications established by the Rule) prior to wind events; or  
(g) Apply water once per hour; or  
(h) Install temporary covers.

Source: (4) Paved Road Track-Out

CONTROL MEASURES

(Q) Chemical stabilization

DESCRIPTION

- (1) Most effective when used on areas where active operations have ceased.
- (2) Vendors can supply information on methods for application and required concentrations.

(R) Sweep/clean roadways

- (1) Either sweeping or water flushing may be used.

(S) Cover haul vehicles

- (1) Entire surface area should be covered once vehicle is full.

(T) Bedliners in haul vehicles

- (1) When feasible, use in bottom dumping vehicles.

(U) Site access improvement

- (1) Pave internal roadway system.
- (2) Most important segment, last 100 yards from the connection with paved public roads

HIGH WIND MEASURE

- (i) Cover all haul vehicles; and
- (j) Clean streets with water flushing, unless prohibited by the Regional Water Quality Control Board.



## RULE 403 IMPLEMENTATION HANDBOOK

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Source: (5) Disturbed Surface Areas/ Inactive Construction Sites

### CONTROL MEASURES

#### DESCRIPTION

- |                            |   |
|----------------------------|---|
| (Q) Chemical stabilization | (1) Most effective when used on areas where active operations have ceased.  |
|                            | (2) Vendors can supply information on methods for application and required concentrations.  |
| (R) Watering               | (1) Requires frequent applications unless a surface crust can be developed.   |
| (S) Wind fencing           | (1) Three- to five-foot barriers with 50% or less porosity adjacent to roadways or urban areas can be effective in reducing the amount of wind blown material leaving a site. |
| (T) Vegetation             | (1) Establish as quickly as possible when active operations have ceased.<br>(2) Use of drought tolerant, native vegetation is encouraged.                                     |

### HIGH WIND MEASURES

- (k) Apply chemical stabilizers (to meet the specifications established by the Rule); or
- (l) Apply water to all disturbed surface areas 3 times per day.

## BEST AVAILABLE CONTROL MEASURES

Rule 403, paragraph (d)(2) requires active operations [defined in Rule 403, paragraph (c)(1)] within the South Coast Air Basin (see Figure 2-1) to implement at least one best available control measure for each fugitive dust source type on site. Additionally, as specified by subparagraph (f)(3)(D) of Rule 403, any person seeking approval of a fugitive dust emissions control plan for projects within the South Coast Air Basin must demonstrate to the satisfaction of the AQMD that the given activity is employing all best available fugitive dust control measures.

The AQMD has prepared the attached listing of best available fugitive dust control measures for a variety of source categories. This list is based on the U.S. Environmental Protection Agency's reference document entitled, "Fugitive Dust Background Document and Technical Information Document for Best Available Control Measures," Office of Air and Radiation, September 1992.

The AQMD encourages the use of those dust control measures that minimize the use of potable water. When water is needed, reclaimed water should be utilized to the greatest extent feasible.

# RULE 403 IMPLEMENTATION HANDBOOK

## BEST AVAILABLE CONTROL MEASURES

The left column contains a listing of the sources of fugitive dust which are intended for emission control under District Rule 403 and a listing of control measures and high-wind measures. The right column contains a description of the best available fugitive dust control measures for each of the sources.

Source: (1) Land Clearing/Earth-Moving

### CONTROL MEASURES

### DESCRIPTION

(A) Watering (pre-grading)

- (1) Application of water by means of trucks, hoses and/or sprinklers prior to conducting any land clearing. This will increase the moisture content of the soils; thereby increasing its stability.
- (2) Pre-application of water to depths of proposed cuts.

(A-1) Watering (post-grading)

- (1) In active earth-moving areas water should be applied at sufficient frequency and quantity to prevent visible emissions from extending more than 100 feet from the point of origin.

(A-2) Pre-grading planning

- (1) Grade each phase separately, timed to coincide with construction phase; or
- (2) Grade entire project, but apply chemical stabilizers or ground cover to graded areas where construction phase begins more than 60 days after grading phase ends.

(B) Chemical stabilizers

- (1) Only effective in areas which are not subject to daily disturbances.
- (2) Vendors can supply information on product application and required concentrations to meet the specifications established by the Rule.

(C) Wind fencing

- (1) Three- to five-foot barriers with 50% or less porosity located adjacent to roadways or urban areas can be effective in reducing the amount of windblown material leaving a site. Must be implemented in conjunction with either measure (A-1) or (B).

(D) Cover haul vehicles

- (1) Entire surface area of hauled earth should be covered once vehicle is full.

(E) Bedliners in haul vehicles

- (1) When feasible, use in bottom-dumping haul vehicles.

### HIGH WIND MEASURE

- (a) Cease all active operations; or
- (b) Apply water within 15 minutes to any soil surface which is being moved or otherwise disturbed.

## RULE 403 IMPLEMENTATION HANDBOOK

---

Source: (2) Unpaved Roads

### CONTROL MEASURES

#### DESCRIPTION

- |                            |   |
|----------------------------|---|
| (F) Paving                 | (1) Requires street sweeping/cleaning if subject to material accumulation.  |
| (G) Chemical stabilization | (1) Vendors can supply information as to application methods and concentrations to meet the specifications established by the Rule<br>(2) Not recommended for high volume or heavy equipment traffic use. |
| (H) Watering               | (1) In sufficient quantities to keep surface moist.<br>(2) Required application frequency will vary according to soil type, weather conditions, and vehicular use.  |
| (I) Reduce speed limits    | (1) 15 mile per hour maximum. May need to be used in conjunction with watering or chemical stabilization to prevent visible emissions from crossing the property line.                                    |
| (J) Reduce vehicular trips | (1) Access restriction or redirecting traffic to reduce vehicle trips by a minimum of 60 percent.   |
| (K) Gravel                 | (1) Gravel maintained to a depth of four inches can be an effective measure.<br>(2) Should only be used in areas where paving, chemical stabilization or frequent watering is not feasible.               |

### HIGH WIND MEASURE

- (a) Apply a chemical stabilizer (to meet the specifications established by the Rule ) prior to wind events; or  
(b) Apply water once each hour; or  
(c) Stop all vehicular traffic.

## RULE 403 IMPLEMENTATION HANDBOOK

---

Source: (3) Storage Piles

### CONTROL MEASURES

### DESCRIPTION

- |  |  |
|--|--|
| (L) Wind sheltering                      | (1) Enclose in silos.<br>(2) Install three-sided barriers equal to height of material, with no more than 50 percent porosity.                                  |
| (M) Watering                             | (1) Application methods include: spray bars, hoses and water trucks.<br>(2) Frequency of application will vary on site-specific conditions.                    |
| (N) Chemical stabilizers                 | (1) Best for use on storage piles subject to infrequent disturbances.  |
| (O) Altering load-in/load-out procedures | (1) Confine load-in/load-out procedures to leeward (downwind) side of the material.<br>Must be used in conjunction with either measure (L), (M), (N), or (P).  |
| (P) Coverings                            | (1) Tarps, plastic, or other material can be used as a temporary covering.<br>(2) When used, these should be anchored to prevent wind from removing coverings. |

### HIGH WIND MEASURE

- (a) Apply chemical stabilizers (to meet the specifications established by the Rule) prior to wind events; or  
(b) Apply water once per hour; or  
(c) Install temporary covers.

## **RULE 403 IMPLEMENTATION HANDBOOK**

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Source: (4) Paved Road Track-Out

### **CONTROL MEASURES**

### **DESCRIPTION**

Compliance with District Rule 403.

Paragraph (d)(5).

## RULE 403 IMPLEMENTATION HANDBOOK

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Source: (S) Disturbed Surface Areas/ Inactive Construction Sites

### CONTROL MEASURES

(Q) Chemical stabilization

### DESCRIPTION

- (1) Most effective when used on areas where active operations have ceased.
- (2) Vendors can supply information on methods for application and required concentrations.
- (1) Requires frequent applications unless a surface crust can be developed.
- (R) Watering
- (1) Three- to five-foot barriers with 50% or less porosity adjacent to roadways or urban areas can be effective in reducing the amount of wind blown material leaving a site. Must be used in conjunction with either measure (Q), (R), or (T).
- (S) Wind fencing
- (1) Establish as quickly as possible when active operations have ceased.
- (T) Vegetation

### HIGH WIND MEASURES

- (a) Apply chemical stabilizers (to meet the specifications established by the Rule); or
- (b) Apply water to all disturbed surface areas 3 times per day.

---

\* Use of drought tolerant, native vegetation is encouraged.

TABLE 1

**BEST [REASONABLY]\* AVAILABLE CONTROL MEASURES FOR HIGH  
WIND CONDITIONS**

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

\* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

January 1999



**TABLE 2**  
**DUST CONTROL ACTIONS FOR EXEMPTION FROM PARAGRAPH (d)(4)\***

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

\* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

January 1999

**TABLE 2 (Continued)\***

<b><u>FUGITIVE DUST SOURCE CATEGORY</u></b>	<b><u>CONTROL ACTIONS</u></b>
<b>Earth-moving: Construction cut areas and mining operations:</b>	(1c) Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
<b>Disturbed surface areas (except completed grading areas)</b>	(2a/b) Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 [70] percent of the unstabilized area.
<b>Disturbed surface areas: Completed grading areas</b>	(2c) Apply chemical stabilizers within five working days of grading completion; OR  (2d) Take actions (3a) or (3c) specified for inactive disturbed surface areas.
<b>Inactive disturbed surface areas</b>	(3a) Apply water to at least 80 [70] percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR  (3b) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR  (3c) Establish a vegetative ground cover within 21 [30] days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR  (3d) Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

\* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

January 1999

TABLE 2 (Continued)\*

<b><u>FUGITIVE DUST SOURCE CATEGORY</u></b>	<b><u>CONTROL ACTIONS</u></b>
<b>Unpaved Roads</b>	<p>(4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR</p> <p>(4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR</p> <p>(4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.</p>
<b>Open storage piles</b>	<p>(5a) Apply chemical stabilizers; OR</p> <p>(5b) Apply water to at least 80 [70] percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR</p> <p>(5c) Install temporary coverings; OR</p> <p>(5d) Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile.</p>
<b><u>All Categories</u></b>	<p>(6a) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.</p>

\* Measures in [brackets] are reasonably available control measures and only apply to sources not within the South Coast Air Basin.

January 1999

**TABLE 3**  
**TRACK-OUT CONTROL OPTIONS**  
**PARAGRAPH (d)(5)(B)**

**CONTROL OPTIONS**

(1)	Pave or apply chemical stabilization at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface, and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
(2)	Pave from the point of intersection with the public paved road surface, and extending for a centerline distance of at least 25 feet and a width of at least 20 feet, and install a track-out control device immediately adjacent to the paved surface such that exiting vehicles do not travel on any unpaved road surface after passing through the track-out control device.
(3)	Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

January 1999

**MURRIETA HOT SPRINGS ROAD  
RESURFACING PROJECT  
WINCHESTER ROAD TO CALISTOGA DRIVE**

**PROJECT NO. B8-0669**

**SPECIAL PROVISIONS**

**DESCRIPTION:**

In general, this project consists of resurfacing of Murrieta Hot Springs Road from Winchester Road to Calistoga Drive. The work includes excavation of existing asphalt concrete pavement, scarifying and re-compacting existing base material, replacing saturated base material, placing Rubberized Hot Mix Asphalt (RHMA-G) over Hot Mix Asphalt (Type C). Additional improvements include remove and replace existing signing, striping, pavement markings, installation of detector loops, upgrading access ramps and other work as may be required.

The project includes remove and replace segments of concrete sidewalk on Sky Canyon Drive.

Median Demolition/Hardscape/Irrigation includes removal of existing median landscaping, except trees, and non-pressurized irrigation systems from Winchester Road to Inverness Way. Additional median work includes fine grading, concrete landscape headers, place decomposed granite surfacing, irrigation sleeving and irrigation valves. Existing trees shall be protected and watered by Contractor.

**SPECIFICATIONS AND PLANS:**

This project shall conform to the requirements of the May 2006 edition of the Standard Specifications and Standard Plans as issued by the State of California Department of Transportation and amendments to the standard plans and Specification.

Amendments to May 2006 Standard Specifications, updated June 20, 2012, are incorporated herein and can be found on the County of Riverside website during the Bid Period.

[http://www.rctlma.org/trans/con\\_bid\\_advertisements.html](http://www.rctlma.org/trans/con_bid_advertisements.html)

**IRAN CONTRACTING ACT:**

The Department of General Services has published a list of companies who are prohibited from contracting with public entities in California as required by Public Contract Code section § 2200-2208.

The Iran Contracting Act Certification/Exemption form is included in the bid proposal section of this document and must be completely filled in, dated, signed and submitted with Proposal bid documents. The bidding Contractor is required to submit the appropriate form with the bid.

#### **ADDITIONAL INSURANCE-HOLD HARMLESS:**

In addition to the requirements of Section 18, "Insurance – Hold Harmless" in General Condition section of the contract documents, the Contractor's Certificate of Insurance and endorsements for the project shall name the following entities as additional insured under the Contractor's general liability, excess liability and auto liability insurance policies and on the Waiver of Subrogation for the Contractor's Workers Compensation policy.

1. Caltrans, its officers, directors, employees and agents
2. Eastern Municipal Water District, its officers, directors, employees and agents
3. City of Murrieta, its officers, directors, employees and agents

Full compensation for compliance with the requirements of this Section shall be considered as included in the various items of work and no additional compensation will be allowed therefore.

#### **MODIFIED HOURS OF WORK:**

Hours of work as stated elsewhere in these Special Provisions are modified below and applied to this project. These hours of work shall be considered as regular working hours.

##### **Night Time Work:**

Resurfacing work from Winchester Road to the Tualota Creek bridge deck shall be performed at night. The work hours will be **9:00 PM to 5:00 AM**.

##### **Day Time Work:**

Resurfacing work from the Tualota Creek bridge deck to Calistoga Drive and any other location on this project shall be performed during normal daytime working hours. The work hours are **7:00 AM to 6:00 PM**.

#### **LIQUIDATED DAMAGES:**

The Contractor shall diligently prosecute the work to completion before the expiration of 50 working days from the date stated in the "Notice to Proceed". The Contractor shall pay to the County of Riverside the sum of **\$5,000.00** per day, for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed above.

##### ***Additional Liquidated Damages:***

**Late Reopening of Lane Closures:** For each 15 minute interval, or fraction thereof past the time specified to reopen all lanes to traffic, the Department will deduct **\$500** per interval from moneys due or that may become due the Contractor under the contract.

Contractor shall complete the excavating and place 0.35' HMA from Winchester Road to the Tualota Creek bridge deck within 20 working days. The Contractor shall pay to the County of Riverside the sum of \$5,000.00 per day, for each and every calendar day delay in finishing the work in excess of the number of working days prescribed above.

Contractor shall complete the excavating and place 0.35' HMA from the Tualota Creek bridge deck to Calistoga Drive within 20 working days. The Contractor shall pay to the County of Riverside the sum of \$5,000.00 per day, for each and every calendar day delay in finishing the work in excess of the number of working days prescribed above.

**Project Appearance:** If the Contractor fails to comply with the requirements of Special Provisions entitled "PROJECT APPEARANCE" the Contractor shall pay to the County of Riverside the sum of \$500.00 per day for each and every calendar day's delay after the expiration of 48 hours notification from the Engineer.

#### **PARTIAL PAYMENTS:**

Attention is directed to Sections 9-1.06, "Partial Payments" and 9-1.07, "Payment After Acceptance" of the Standard Specifications and these Special Provisions.

For the purpose of making partial payments pursuant to Section 9-1.06, "Partial Payments of the Standard Specifications, the amount set forth for the contract items of work hereinafter listed shall be deemed to be the maximum value of the contract items of work which will be recognized for progress payment purposes:

A.	Clearing and Grubbing	\$5,000
B.	Dust Abatement	\$2,600
C.	Develop Water Supply	\$2,100

After acceptance of the contract pursuant to the provisions in Section 7-1.17, "Acceptance of Contract" of the Standard Specifications, the amount, if any, payable for a contract item of work in excess of the maximum value for progress payment purposes hereinabove listed for the item, will be included for payment in the first estimate made after acceptance of the contract.

#### **ENCROACHMENT PERMIT:**

It shall be the responsibility of the Contractor to obtain Encroachment Permits from the following agencies for the work done within their jurisdiction prior to commencing any work.

- State of California Department of Transportation (Caltrans)
- City of Murrieta

Permit is required if traffic detour is allowed on City Streets and/or State Highway for placing advance warning traffic control devices for the work done within City and State's Right Of Way prior to commencing any work.

Contractor to submit WPCP and Traffic Control plans to City and Caltrans for review and approval prior to issuance of Encroachment Permit.

### ***Method of Payment***

If the Contractor pays any fees to City and Caltrans to obtain Encroachment Permit, then the full compensation for the actual cost of the Encroachment Permit fees, as paid by the Contractor to City and Caltrans, shall be made on a force account basis, in accordance with Section 9-1.03 of the Standard Specifications and these Special Provisions. No markups will be allowed. All incidental costs incurred by the Contractor shall be considered as included in the various items of work and no compensation will be allowed therefor.

### **PROJECT APPEARANCE:**

The Contractor shall maintain a neat appearance to the worksite. The following shall apply:

When practicable, broken concrete and debris developed during clearing and grubbing shall be disposed of concurrently with its removal. If stockpiling is necessary, the material shall be covered daily and removed or disposed of weekly.

The Contractor shall furnish covered trash bins for all debris from structure construction. All debris shall be placed in the covered trash bins daily.

Full compensation for conforming to the provisions in this section, not otherwise provided for, shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

See "Liquidated Damages" Special Provisions for penalties associated with non-compliance.

### **GRAFFITI REMOVAL AND CLEANING:**

The Contractor shall remove existing graffiti within the project limits and any new graffiti produced during the construction period of the project.

Contractor shall submit a method of graffiti removal plan to the Engineer for approval. Sand blasting will not be allowed. Methods may include but not limited to power washing, solvent washing, and painting over graffiti, as appropriate for the surface to be cleaned.

All graffiti shall be completely removed or obliterated and the area feathered out to hide any imperfections.



Graffiti shall be removed from, but not limited to, the surfaces listed as follows: bricks, cinder blocks, concrete sidewalks, pavement, bridge under passes, overhead structures, drainage channels, roadside signs, temporary construction signs, barricades, k-railing, traffic control devices, all types of poles, and other objects within the project limits as directed by the Engineer. Painting of k-railing for the purposes of graffiti removal shall not be considered as repainting as outlined in paragraph one of Section 12-3.08 and shall not be paid for as extra work.

Graffiti to be removed may include, but shall not be limited to: paint, signs, wood, metal, plastic, decals, gum, markers, crayons, ropes, chains, strings, wires, and tapes of any kind on an as needed basis.

All painting over graffiti must be done with exact color matches, so as not to show any blocking or shadowing of colors. Painting over graffiti is the preferred option on previously painted surfaces, and where solvents are unsuccessful at removing graffiti. Painting services shall be done on an as needed basis on the following types of surfaces, but not limited to: walls, hardscapes, poles, fences, bollards, railings, and buildings.

Paint shall be exact color match. Paint types may include oil base, water base and enamels as approved by the Engineer. Graffiti cover-up by paint will be allowed with appropriate type of paint at locations where graffiti cannot be removed only upon direction by the Engineer. All paint applications shall adhere to the manufacture's recommendations. All material and solutions shall be safe and biodegradable and approved by the Engineer.

Regional Water Quality Control Board (RWQCB) and Air Quality Management District (AQMD) regulations, as well as all NPDES required best management practices shall be complied with and followed.

The Contractor shall so conduct his operation as to cause the least possible obstruction and inconvenience to public traffic. The Contractor shall provide, erect and maintain barricades, lights, danger signals, and warning signs as deemed appropriate by the Engineer.

When necessary, the Contractor shall provide and erect safe and adequate scaffolding and equipment, barriers, and masking, required for the proper execution of the work. All scaffolding shall be properly braced and erected to insure the safety of the workmen and meet all appropriate OSHA regulations.

The Contractor shall respond and provide manpower for any urgent graffiti removal and cleaning notifications within two (2) working days.

Full compensation for conformance with these Graffiti Removal and Cleaning requirements, including labor, equipment, materials, necessary traffic control, and incidentals, shall be considered as included in the lump sum bid price paid for Traffic Control System, and no additional compensation will be allowed therefor.

### **DISPOSAL OF EXCESS EXCAVATION OR MATERIALS:**

Excess earth excavation, pavement grindings and other excess materials resulting from construction operations shall be disposed of by the Contractor outside of the highway right of way, as provided in Section 7-1.13 of the Standard Specifications.

The second paragraph of Section 7-1.13 of the Standard Specifications is modified to read as follows:

When any material is to be disposed of outside the highway right of way, and the County of Riverside has not made arrangements for the disposal of such material, the Contractor shall first obtain written authorization from the property owner on whose property the disposal is to be made, and obtain all required permits from the jurisdictional agency(s) for said work, and he shall file with the Engineer said authorization or a certified copy thereof together with a written release from the property owner absolving the County of Riverside from any and all responsibility in connection with the disposal of material on said property. If the disposal of materials is to be made at an established disposal facility that is available for public use, the Contractor shall retain all authorizations and receipts from said disposal facility and shall provide copies to the Engineer upon request.

Full compensation for all costs involved in disposing of materials as specified in this section, including all costs of hauling, shall be considered as included in the various contract items of work and no additional compensation will be allowed therefor.

### **RECORD DRAWINGS:**

The Contractor shall keep one clean set of bond originals to note any changes which take place during construction. These changes to the original plans and/or specifications shall be noted at the appropriate locations with the appropriate changes indicated in red pencil or ink. The Contractor shall note in large letters "RECORD DRAWINGS" on the Title Sheet of the plans. The job will not be finalized by the Engineer until these record drawings have been completed to the satisfaction of the Engineer. The changes shall be noted on the plans as the changes occur. The record drawings shall be submitted to the Resident Engineer, and become the property of the County at conclusion of the project.

Full compensation for maintaining and compiling the record drawings shall be considered to be included in other items of work and no additional compensation will be allowed therefor.

### **SURVEY STAKING:**

County surveyors will establish external primary survey control marks and/or monuments to be used throughout the construction period. These control marks are to be protected by the contractor and will be used to set construction stakes. The control marks will also be used to make verification surveys at various stages of work.

Survey stakes and marks are set per the County's Survey Manual.

Contractor must submit a written request for County furnished construction staking before or once area to receive staking is ready for the installation of the construction stakes. The County will provide Contractor with a survey request form. Survey staking requests must be received from the Contractor a minimum of 2 business days prior to the installation of the requested construction staking. The County shall receive survey request from the contractor on normal business days, Monday through Thursday, 7:00 A.M. to 4:00 P.M. Requests received after 4:00 PM or on any day not previously noted, shall be considered as submitted at 7:00 AM the next business day.

A "business day" is as defined by County Ordinance 358 (County Holidays, open and closed days, and hours of operation, etc.) and as revised by Board of Supervisor's resolution to alter days and/or hours for which a County office may be open for transaction of business.

Note: Since August 13, 2009, the County has closed many facilities on Fridays. Therefore, Friday is not a business day for this contract.

Contractor must preserve primary and construction stakes and marks placed by the County. Survey costs are incurred by the County. If the Contractor fails to protect and/or destroys the primary and construction stakes and marks, the County shall replace them at the County's earliest convenience and deduct the cost of replacement from monies due the contractor.

### **COOPERATION:**

Attention is directed to Section 7-1.14, "Cooperation" of the Standard Specifications and these Special Provisions.

The Contractor is hereby advised to cooperate with utility companies, homeowners, and local businesses within or adjacent to project limits.

Should construction be under way by other forces or by other Contractors within or adjacent to those limits, the Contractor shall cooperate with all the other Contractors or other forces to the end that any delay or hindrance to their work will be avoided. The right is reserved to perform other or additional work at or near the site (including material sources) at any time, by the use of other forces.

### **REFERENCE SPECIFIC BRANDS OR PRODUCTS:**

Although the Special Provisions and construction plans reference specific brands or products, the intent of these references is as a guideline only, and products from alternate manufacturers will be accepted, provided that the product and its performance are a close approximation of the specified product. The Contractor shall submit information and specifications of the proposed alternate product to the Engineer for evaluation and approval prior to placing an order with the vendor.

## **ITEMS OF WORK**

### **ORDER OF WORK:**

Order of work shall conform to the provisions in Section 5-1.05, "Order of Work" of the Standard Specifications and these Special Provisions.

Attention is directed to "Maintaining Traffic" of these special provisions. Resurfacing work from Winchester Road to the Tualota Creek bridge deck shall be performed at night. The work hours will be 9:00 PM to 5:00 AM. One paved lane for traffic in each direction shall be maintained at all times. Contractor shall excavate, compact, place 0.35' HMA and provide temporary AC transitions so a paved lane is open to traffic each day by 5:00 AM. If pockets of moisture are encountered, Contractor shall excavate an addition 0.30' and place Class 2 base to subgrade. Sky Country Drive may be closed to through traffic during night working hours.

Attention is directed to "Maintaining Traffic" of these special provisions. Resurfacing work from the Tualota Creek bridge deck to Calistoga Drive shall be performed during normal daytime working hours. The work hours are 7:00 AM to 6:00 PM. One lane for traffic in each direction shall be maintained at all times. Contractor shall excavate, scarify, moisture condition and compact to 95%. If pockets of moisture are encountered, Contractor shall excavate an addition 0.30' and place Class 2 base to subgrade and compact to 95%. Closure of one lane in each direction is allowed except at the intersections. For work in the intersections, Contractor shall place 0.35' HMA and provide temporary AC transitions so all lanes in the intersection will be paved and open for traffic each day by 6:00 PM.

Attention is directed to "Maintaining Traffic" of these special provisions. Any work requiring full or partial lane closures between Winchester Road and the Tualota Creek bridge deck, other than resurfacing, shall be performed at off peak hours to avoid congestion. The lane closures for this area will be limited from 9:00 AM to 2:00 PM.

Attention is directed to "Public Convenience" of these Special Provisions regarding access to the business in the vicinity of the projects. For all business adjacent to the construction area, the Contractor shall coordinate with these businesses to provide clearly marked, unobstructed access to the business.

Attention is directed to "Traffic Control System" of these Special Provisions regarding preparation of Traffic Control Plans. The Contractor is responsible for preparation and permitting of the Traffic Control Plans with the Riverside County Transportation Department.

Attention is directed to "Public Convenience" of these Special Provisions regarding the Public Awareness Program and responding to communications with the public. The Contractor shall coordinate with the Public Affairs Officer retained by the County on project signage, responding to comments and complaints from the public and other public awareness requests as needed.

Attention is directed to "Public Safety" of these Special Provisions regarding access for emergency vehicles. The Contractor shall provide continual 12 feet drivable access for emergency vehicles through the construction zones.

### **CONSTRUCTION PROJECT FUNDING IDENTIFICATION SIGNS:**

Contractor shall furnish and install two (2) Construction Project Funding Identification Signs (4' X 8'). The signs shall be installed at locations on Murrieta Hot Springs Road to be determined by the Engineer, within or near the project limits, in accordance with the relevant requirements of Section 56-2 of the Standard Specifications and the appropriate details of Standard Plans RS1 through RS4 for two post installation of signs, and as directed by the Engineer.

A reference exhibit displaying the text and colors of the sign will be provided to the Contractor prior to construction. The Contractor shall submit a copy of the final sign design for approval by the resident Engineer prior to fabrication.

The Contractor shall submit to the Engineer the final sign design in the form of an editable picture file in .eps format – Encapsulated PostScript file.

At the completion of the project, the signs will become property of the County. When directed by the Engineer, the Contractor shall remove all hardware from the signs. Posts and hardware shall become the property of the Contractor. The Contractor shall deliver and off-load the signs to the nearest County Yard address below or as directed by the Engineer:

Riverside County Transportation Department  
23-315 Jefferson Ave.  
Murrieta, California 92567  
Telephone (951) 677-5889

### ***Method of Payment***

Full compensation for furnishing and installing Project Funding Identification Sign shall be considered included in various items of work and shall include furnishing all labor, materials, tools, equipment, incidentals and for doing all the work including sign installation, transportation, maintenance, removal, delivery, excavation and backfill as specified in the Standard Specification and these Special Provisions and no additional compensation will be allowed therefor.

### **TRAFFIC CONTROL SYSTEM/ PUBLIC CONVENIENCE/ PUBLIC SAFETY:**

Contractor shall prepare construction staging, detour and traffic control plans for review and approval by the Transportation Department and Caltrans.

Proposed plans shall be submitted by the Contractor for review and approval by the Transportation Department at least two weeks prior to the start of construction. The construction staging, detour plans and traffic control plans shall be prepared, signed and stamped by a Civil Engineer or Traffic

Engineer who is registered as such in the State of California, unless otherwise specifically allowed by the Engineer. The Contractor shall revise and implement the plans as directed by the Construction Engineer. Construction shall not begin until the Engineer provides Contractor with County approval of the plans.

Construction staging, detour and traffic control plans shall be in accordance with the appropriate standards and specifications for construction staging, detour roads, traffic control, including the State of California Highway Design Manual, the manual on Uniform Traffic Control Devices 2012 Edition, the corresponding California Supplement, and subsequent modifications as adopted by the State of California Department of Transportation, Standard Plans and Standard Specifications, and the Work Area Traffic Control Handbook (WATCH), as published by Building News, Inc. Any requests for deviation from the established design standards or specifications are to be submitted to the Construction Engineer for review and approval prior to submission of the required plans.

With regard to the preparation and implementation of the plans, attention is especially directed to Sections 7-1.06, 7-1.08, 7-1.09, 7-1.11, 7-1.12 and Section 12 of the State of California Standard Specifications. Section 12-2.02 of the Standard Specifications is deleted.

Maintaining traffic shall conform to the provisions in 7-1.02 "Load Limitations", 7-1.06 "Safety and Health Provisions", 7-1.08 "Public Convenience", 7-1.09 "Public Safety", and 12-3.04 "Portable Delineators" of the Standard Specifications, the Manual on Uniform Traffic Control Devices 2012 Edition, the corresponding California Supplement, and subsequent modifications as adopted by the State of California Department of Transportation, the Section of these contract documents entitled "Insurance - Hold Harmless", and these Special Provisions.

All existing traffic control signs and street name signs shall be maintained in visible locations as directed by the Engineer.

Portable changeable message signs (minimum 2 signs) shall be furnished, placed, operated and maintained at those locations shown on the approved Traffic Control Plans or where designated by the Engineer in conformance with the provisions in Section 12, "Construction Area Traffic Control Devices" of the Standard Specifications and these Special Provisions.

All warning lights, signs, flares, barricades and other facilities for the sole convenience and direction of public traffic shall be furnished and maintained by the Contractor. All traffic control devices shall conform to and be placed in accordance with the Manual on Uniform Traffic Control Devices 2012 Edition, the corresponding California Supplement, and subsequent modifications as adopted by the State of California Department of Transportation.

All construction signs shall be either covered or removed when not required by the nature of the work or if no present hazard to the motorist exists.

The Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to commencing excavation for construction area sign posts. The regional notification centers include, but not limited to, the following:

Notification Center	Telephone Number
Underground Service Alert-Southern California (USA)	1-800-422-4133      1-800-227-2600 or 811

Excavations required to install construction area signs shall be performed by hand methods without the use of power equipment, except that power equipment may be used if it is determined there are no utility facilities in the area of the proposed post holes.

No payment for extra work will be allowed for work performed as specified in Section 12-2.02 (Flagging Costs) of the Standard Specifications. Flagging costs will be borne entirely by the Contractor.

Dust control shall conform to the provision of Section 10 of the Standard Specifications except that no extra work will be allowed when the Engineer orders the application of water for the purpose of controlling dust caused by public traffic as provided for in the last paragraph of Section 10.

The Contractor shall be responsible to distribute an information letter pertaining to the planned work to all affected residences and businesses, at least one week prior to commencing work adjacent to those residences and businesses. It shall be the responsibility of the Contractor to print sufficient copies, and distribute the letter. The Transportation Department logo shall be included on the letter. A computer file of the logo may be obtained from the Engineer in .WPG, .DXF, .DGN or .DWG format. The letter shall be similar to the sample provided by the Engineer, and shall include a project description, the scope of work, the anticipated construction schedule, and other information as appropriate.

The Contractor shall post temporary no parking signs on affected streets 24 hours prior to work on those streets. The temporary no parking signs shall state the anticipated dates and hours of work on those streets.

### ***Method of Payment***

Full compensation, except as otherwise provided herein, for conforming to the requirements of this article, including Graffiti Removal and Cleaning, and shall include furnishing, installing and maintaining all traffic control devices including portable changeable message signs, shown on the construction staging, detour and traffic control plans, shall be paid for on a lump sum basis, and no additional compensation will be allowed therefor.

## **CLOSURE REQUIREMENTS AND CONDITIONS:**

Closure shall conform to the provisions in "Maintaining Traffic" of these Special Provisions.

### **CLOSURE SCHEDULE**

By noon Monday, the Contractor shall submit a written schedule of planned closures for the following week period, defined as Sunday noon through the following Sunday noon.

The Closure Schedule shall show the locations and times of the proposed closures. The Closure Schedule request forms furnished by the Engineer shall be used. Closure Schedules submitted to the Engineer with incomplete or inaccurate information will be rejected and returned for correction and re-submittal. The Contractor will be notified of disapproved closures or closures that require coordination with other parties as a condition of approval.

Closure Schedule amendments, including adding additional closures, shall be submitted by noon to the Engineer, in writing, at least three (3) business days in advance of a planned closure. Approval of Closure Schedule amendments will be at the discretion of the Engineer.

The Engineer shall be notified of cancelled closures two (2) business days before the date of closure.

Closures that are cancelled due to unsuitable weather may be rescheduled at the discretion of the Engineer.

### **LATE REOPENING OF CLOSURES**

If a closure is not reopened to public traffic by the specified time, work shall be suspended in conformance with the provisions in Section 8-1.05, "Temporary Suspension of Work" of the Standard Specifications. No further closures are to be made until the Engineer has accepted a work plan, submitted by the Contractor that will insure that future closures will be reopened to public traffic at the specified time. The Engineer will have two (2) business days to accept or reject the Contractor's proposed work plan. The Contractor will not be entitled to compensation for the suspension of work resulting from the late reopening of closures.

### **Additional Liquidated Damages**

See "Liquidated Damages" Special Provisions for penalties associated with non-compliance.

### **COMPENSATION**

The Engineer shall be notified of delays in the Contractor's operations due to the following conditions, and if, in the opinion of the Engineer, the Contractor's controlling operation is delayed or interfered with by reason of those conditions, and the Contractor's loss due to that delay could not have been avoided by rescheduling the affected closure or by judicious handling of forces, equipment and plant, the delay will be considered a right of way delay and will be compensated in conformance with the provisions in Section 8-1.09, "Right of Way Delays" of the Standard Specifications:



1. The Contractor's proposed Closure Schedule is denied and his planned closures are within the time frame allowed for closures in "Maintaining Traffic" of these Special Provisions, except that the Contractor will not be entitled to compensation for amendments to the Closure Schedule that are not approved.
2. The Contractor is denied a confirmed closure.

Should the Engineer direct the Contractor to remove a closure before the time designated in the approved Closure Schedule, delay to the Contractor's schedule due to removal of the closure will be considered a right of way delay and compensation for the delay will be determined in conformance with the provisions in Section 8-1.09, "Right of Way Delays" of the Standard Specifications.

<p style="text-align: center;"><b>Chart</b>  <b>Complete Conventional Highway Closure Hours</b>  Location: Murrieta      Resurfacing of Murrieta Hot Springs Road</p>																									
Closure Limits: From Winchester Road to Calistoga Drive																									
FROM HOUR TO HOUR	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mondays through Fridays	1	1	1	1	1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	1	1	1	1	
Legend:  <div>1</div> Provide at least one through lane open in the direction of travel from 8:00 p.m. to 5:00 a.m.  <div>N</div> No lane closure																									
REMARKS: Work is permitted within project right of way during normal working hours where shoulder or lane closure is not required.																									

### **MAINTAINING TRAFFIC:**

Maintaining traffic shall conform to the provisions in Section 7-1.08, "Public Convenience", Section 7-1.09, "Public Safety" and Section 12, "Construction Area Traffic Control Devices" of the Standard Specifications and "Public Safety" of these Special Provisions.

Resurfacing work from Winchester Road to the Tualota Creek bridge deck shall be performed at night. The work hours will be 9:00 PM to 5:00 AM. One paved lane for traffic in each direction shall be maintained at all times. Contractor shall excavate, compact, place 0.35' HMA and provide temporary AC transitions so a paved lane is open to traffic each day by 5:00 AM. If pockets of moisture are encountered, Contractor shall excavate an addition 0.30' and place Class 2 base to subgrade. Sky Country Drive may be closed to through traffic during night working hours.

Resurfacing work from the Tualota Creek bridge deck to Calistoga Drive shall be performed during normal daytime working hours. The work hours are 7:00 AM to 6:00 PM. One lane for traffic in each direction shall be maintained at all times. Contractor shall excavate, scarify,

moisture condition and compact to 95%. If pockets of moisture are encountered, Contractor shall excavate an addition 0.30' and place Class 2 base to subgrade and compact to 95%. Closure of one lane in each direction is allowed except at the intersections. For work in the intersections, Contractor shall place 0.35' HMA and provide temporary AC transitions so all lanes in the intersection will be paved and open for traffic each day by 6:00 PM.

Any work requiring full or partial lane closures between Winchester Road and the Tualal Creek bridge deck, other than resurfacing, shall be performed at off peak hours to avoid congestion. The lane closures for this area will be limited from 9:00 AM to 2:00 PM.

Closure is defined as the closure of a traffic lane or lanes, including shoulder, ramp or connector lanes, within a single traffic control system.

Closure shall conform to the provisions in "Traffic Control System" of these Special Provisions.

Local authorities shall be notified at least five (5) business days before work begins. The Contractor shall cooperate with local authorities to handle traffic through the work area and shall make arrangements to keep the work area clear of parked vehicles.

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders including sections closed to public traffic.

When work vehicles or equipment are parked on the shoulder within six (6) feet of a traffic lane, the shoulder area shall be closed.

When work vehicles or equipment are parked on the shoulder within six (6) feet of a traffic lane, the shoulder area shall be closed with fluorescent orange traffic cones or portable delineators placed on a taper in advance of the parked vehicles or equipment and along the edge of the pavement at 25-foot intervals to a point not less than 25 feet past the last vehicle or piece of equipment. A minimum of 9 traffic cones or portable delineators shall be used for the taper. A W20-1 (ROAD WORK AHEAD) or W21-5b (RIGHT/LEFT SHOULDER CLOSED AHEAD) or C24 (CA) (SHOULDER WORK AHEAD) sign shall be mounted on a crashworthy portable sign support with flags. The sign shall be placed where designated by the Engineer. The sign shall be a minimum of 48" x 48" in size. The Contractor shall immediately restore to the original position and location a traffic cone or delineator that is displaced or overturned, during the progress of work.

If minor deviations from the lane requirement chart are required, a written request shall be submitted to the Engineer at least 15 days before the proposed date of the closure. The Engineer may approve the deviations if there is no significant increase in the cost to the County and if the work can be expedited and better serve the public traffic.

Designated County legal holidays are January 1<sup>st</sup>, the third Monday in January, February 12<sup>th</sup>, the third Monday in February, the last Monday in May, July 4<sup>th</sup>, the first Monday in September, the second Monday in October, November 11<sup>th</sup>, Thanksgiving Day, the Friday following Thanksgiving Day, December 24<sup>th</sup> and 31<sup>st</sup> when they fall on Monday, December 25<sup>th</sup>, December 26<sup>th</sup> and January 2<sup>nd</sup> when they fall on Friday. When a designated legal holiday falls on a Sunday, the following Monday shall be a designated legal holiday. When January 1<sup>st</sup>, February

12th, July 4th, November 11<sup>th</sup>, or December 25th fall on a Saturday, the preceding Friday shall be a designated legal holiday.

Full compensation for furnishing, erecting, maintaining, removing and disposing of the signs shall be considered as included in the contract lump sum price paid for Traffic Control System and no additional compensation will be allowed therefor.

### **CONSTRUCTION AREA TRAFFIC CONTROL DEVICES:**

Flagging, signs, and temporary traffic control devices furnished, installed, maintained, and removed when no longer required shall conform to the provisions in Section 12, "Construction Area Traffic Control Devices" of the Standard Specifications and these Special Provisions.

Category 1 temporary traffic control devices are defined as small and lightweight (less than 100 pounds) devices. These devices shall be certified as crashworthy by crash testing, crash testing of similar devices, or years of demonstrable safe performance. Category 1 temporary traffic control devices include traffic cones, plastic drums, portable delineators, and channelizers.

If requested by the Engineer, the Contractor shall provide written self-certification for crashworthiness of Category 1 temporary traffic control devices at least 5 days before beginning any work using the devices or within 2 days after the request if the devices are already in use. Self-certification shall be provided by the manufacturer or Contractor and shall include the following:

- A. Date,
- B. Federal Aid number (if applicable),
- C. Contract number, district, county, route and post mile of project limits,
- D. Company name of certifying vendor, street address, city, state and zip code,
- E. Printed name, signature and title of certifying person; and
- F. Category 1 temporary traffic control devices that will be used on the project.

The Contractor may obtain a standard form for self-certification from the Engineer.

Category 2 temporary traffic control devices are defined as small and lightweight (less than 100 pounds) devices that are not expected to produce significant vehicular velocity change, but may cause potential harm to impacting vehicles. Category 2 temporary traffic control devices include barricades and portable sign supports.

Category 2 temporary traffic control devices shall be on the Federal Highway Administration's (FHWA) list of Acceptable Crashworthy Category 2 Hardware for Work Zones. This list is maintained by FHWA and can be located at:  
[http://safety.fhwa.dot.gov/roadway\\_dept/road\\_hardware/listing.cfm?code=workzone](http://safety.fhwa.dot.gov/roadway_dept/road_hardware/listing.cfm?code=workzone)

The Department also maintains this list at:

<http://www.dot.ca.gov/hq/traffops/signtech/signdel/pdf/Category2.pdf>

Category 2 temporary traffic control devices that have not received FHWA acceptance shall not be used. Category 2 temporary traffic control devices in use that have received FHWA acceptance shall be labeled with the FHWA acceptance letter number and the name of the manufacturer. The label shall be readable and permanently affixed by the manufacturer. Category 2 temporary traffic control devices without a label shall not be used.

If requested by the Engineer, the Contractor shall provide a written list of Category 2 temporary traffic control devices to be used on the project at least 5 days before beginning any work using the devices or within 2 days after the request if the devices are already in use.

Category 3 temporary traffic control devices consist of temporary traffic-handling equipment and devices that weigh 100 pounds or more and are expected to produce significant vehicular velocity change to impacting vehicles. Temporary traffic-handling equipment and devices include crash cushions, truck-mounted attenuators, temporary railing, temporary barrier, and end treatments for temporary railing and barrier.

Type III barricades may be used as sign supports if the barricades have been successfully crash tested, meeting the NCHRP Report 350 criteria, as one unit with a construction area sign attached.

Category 3 temporary traffic control devices shall be shown on the plans or on the Department's Highway Safety Features list. This list is maintained by the Division of Engineering Services and can be found at:

[http://www.dot.ca.gov/hq/esc/approved\\_products\\_list/HighwaySafe.htm](http://www.dot.ca.gov/hq/esc/approved_products_list/HighwaySafe.htm)

Category 3 temporary traffic control devices that are not shown on the plans or not listed on the Department's Highway Safety Features list shall not be used.

Full compensation for providing self-certification for crashworthiness of Category 1 temporary traffic control devices and for providing a list of Category 2 temporary traffic control devices used on the project shall be considered as included in the lump sum price paid for the Traffic Control system, and no additional compensation will be allowed therefor.

### **OBSTRUCTIONS:**

Attention is directed to Sections 8-1.10, "Utility and Non-Highway Facilities", and 15, "Existing Highway Facilities" of the Standard Specifications and these Special Provisions.

Existing utility and privately owned facilities shall be protected in accordance with Section 7-1.11, "Preservation of Property" and these Special Provisions. The Contractor is also responsible to protect those facilities that are to be relocated by others prior to or during construction, and shall protect those facilities in both their existing and their ultimate locations. The Contractor shall cooperate with owners and their Contractors of utility and privately owned facilities, for the relocation of said facilities, in accordance with Section 7-1.14, "Cooperation" of the Standard Specifications.

All water valves and covers, gas valves and covers, sewer manholes, survey monuments, survey markers and any other utility appurtenances shall be protected in place.

The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipe lines greater than 6 inches in diameter or pipe lines operating at pressures greater than 60 psi (gage); underground electric supply system conductors or cables either directly buried or in duct or conduit which do not have concentric neutral conductors or other effectively grounded metal shields or sheaths; and underground electrical conductors with potential to ground of more than 300 volts. The Contractor shall notify the Engineer at least twenty-four hours prior to performing any work in the vicinity of such facilities.

Attention is directed to the requirements of Government Code Sections 4216-4216.9 pertaining to existing utility facilities.

The Contractor shall assume that every house, building and lot within the project limits has utility service pipes and conductors (laterals), and that utility main and trunk facilities exist within the project limits. The Contractor shall determine if it is warranted to determine the exact location of these utility service laterals and existing main lines, unless directed by the Engineer to pot-hole at specific locations, or as otherwise required herein. The Contractor will not be directly reimbursed for determining the exact location of the utility main lines or services laterals but shall include any compensation for this work in the contract price paid for the various items of work. Any damage to existing main lines or service laterals for which pot-holing was not performed shall be considered damage due to not using reasonable care and the damage shall be repaired at the Contractor's expense.

The Contractor shall conduct his operations with the assumption that underground utility facilities exist within the project limits. The Contractor shall exercise caution and best construction practices for safety and for protection of underground facilities. The approximate locations of underground utility facilities, as shown on the plans, are based on information provided by the respective owners, listed below. The Contractor shall also utilize the markings of the regional notification center (Underground Service Alert), and above-ground utility appurtenances to determine the existence and approximate location of underground utilities.

No excavation shall be made within 4 feet of any underground utilities, as shown on the plans and/or marked by Underground Service Alert, unless and until such utilities have been positively located as to horizontal and vertical position. This requirement applies to all underground electric, natural gas, toxic or flammable gas, chlorine, oxygen or petroleum facilities.

Forty-eight hours prior to beginning construction, the Contractor shall notify the following agencies:

Underground Service Alert	800-227-2600
Southern California Edison Company	951-928-8318
Southern California Gas Company	818-701-4546
AT & T	714-963-7964
Verizon Communications	951-929-9427
Kinder Morgan Energy Partners, L.P.	714-560-4600

Time Warner Cable  
Eastern Municipal Water District  
MCI Network  
Sprint communication Company

951-549-1189  
951-928-6107  
972-729-6016  
951-334-5754

### ***Method of Payment***

Full compensation for all costs, including labor, equipment, materials and incidentals, required to comply with the requirements of this section above, including protection of water valves and covers, gas valves and covers, sewer manholes, survey monuments, survey markers and any other utility appurtenances, shall be considered as included in the various items of work, and no additional compensation will be allowed therefor.

### **Adjustments to Grade for Obstructions**

The Contractor shall adjust to finish grade any valve covers encountered within the project limits, as required, for those utility valves that are provided with slip cans and are adjustable without the replacement of parts or the removal of concrete collars. In cases where the owning utility company insists upon upgrades in the standards, or when additional parts or the removal of concrete collars are required for the adjustment, said adjustment will be the responsibility of the owning utility company.

Communication and coordination with the owning utility company shall be the responsibility of the contractor.

For public safety, traffic shall not be allowed on temporary or permanent pavement until all manholes are either adjusted to grade or otherwise protected, as approved by the Engineer. The Contractor shall adjust to grade manholes and valves when and as necessary for the protection of the traveling public during construction, and shall coordinate all work on said facilities with the owning utility companies. This requirement is intended for traffic that is to be allowed on temporary surfaces during the course of construction. Final adjustment to grade will be the responsibility of the owning utility company, except as provided herein.

Said work shall be performed in accordance with Section 15-2.05A, "Frames, Covers, Grates, and Manholes" of the Standard Specifications. Full compensation for adjustment of valve covers shall be considered as included in the contract price paid for asphalt concrete, or applicable items of work in the event that there is no asphalt concrete bid item, and no additional compensation will be allowed therefor.

All existing utility facilities shall be protected from damage by the Contractor's operations.

Unless otherwise provided herein, the owning utility companies will not be obligated to lower their surface utilities (manholes and valve covers) for Contractor's grading, grinding and/or paving operations. The contractor shall lower surface facilities, including manholes and valve covers, to facilitate construction, and the following shall apply:

1. Contractor shall coordinate all work with the utility owner.

2. Contractor shall be responsible for all costs and shall be responsible for any damage caused to the owner's facilities. If the Contractor observes any pre-existing damage to the utility facilities, the Contractor shall notify the Engineer and the utility owner of that damage prior to performing additional work on the facility.
3. Contractor shall, after removing grade rings and covers, arrange for pickup by, or delivery to, the owner's yard. Any and all concrete collars removed by the Contractor shall become the property of the Contractor, and shall be disposed of as specified elsewhere in these special provisions.
4. The Contractor is advised that he is responsible for ensuring that construction materials do not enter the utility owner's facilities. The Contractor shall install traffic bearing steel plates for this purpose, and provide all coordination and transportation necessary. It is recommended that the Contractor request the utility owner to provide such steel plates. If the Contractor provides steel plates, it shall be the Contractor's responsibility to coordinate with the utility owner for the return of the steel plates to the Contractor after final adjustment to grade. If the Contractor utilizes utility owner's steel plates, and if the Contract items of work include adjustment to final grade, the Contractor shall return the steel plates to the Utility owner's yard, or as otherwise arranged with the Utility owner.
5. Prior to paving or covering the plated utility facility, the Contractor shall tie-out the facility utilizing a method acceptable to the utility owner and provide notes and data of all covered facilities to both the utility owner and the Engineer.
6. The Contractor shall notify the utility owner, upon completion of the Contractor's work, when the utility owner may move in to make the final adjustments to grade.
7. The requirements for lowering of surface facilities shall not apply to vaults. The Contractor shall notify the utility owner of the need to make adjustments to such major facilities.
8. The Contractor is reminded that the utility facilities are owned by public and private utility companies that operate their facilities within public rights of way. The utility owner's preferences with regards to the handling of its facilities shall be complied with to the greatest extent feasible.

### ***Method of Payment***

Full compensation for initial lowering of surface utilities facilities shall be considered as included in the contract price paid for asphalt concrete, or applicable items of work in the event that there is no asphalt concrete bid item, and no additional compensation will be allowed therefor.

## **WATER POLLUTION CONTROL (SANTA MARGARITA WATERSHED):**

Throughout the term of this contract, the total land disturbance area of the project site shall be less than 1 acre. The Contractor shall comply the Area-Wide Municipal Stormwater Permit NPDES No. CAS0108766, hereafter referred to in this section as the "Municipal Permit", issued by the California Regional Water Quality Control Board (CRWQCB) – San Diego Region. This Permit regulates both stormwater and non-stormwater discharges associated with Contractor's construction activities. A copy of the Permit may be obtained at the office of the County of Riverside Transportation Department, 14<sup>th</sup> Street Transportation Annex, 3525 14<sup>th</sup> Street, Riverside, California. (951) 955-6780, or may be obtained on the internet at: <http://www.waterboards.ca.gov/sandiego/>

The Contractor shall comply with the requirements of the Municipal Permit, and all other applicable federal, state and local laws, ordinances, statutes, rules, and regulations concerning water pollution control.

Contractor's Water Pollution Control Program (WPCP) Preparation Manual shall be prepared by a Qualified SWPPP Developer in accordance with Section 3, "Preparing a Water Pollution Control Program (WPCP)", of the *Caltrans Stormwater Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual (June 2011)*, which is available as a free download from:

<http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>

## **WATER POLLUTION CONTROL MEASURES**

- A. Work having the potential to cause water pollution shall not commence until the Contractor's WPCP has been reviewed and approved by the Engineer. The Engineer's review and approval of the Contractor's WPCP shall not waive any contractual requirements and shall not relieve the Contractor from achieving and maintaining compliance with all federal, state, and local laws, ordinances, statutes, rules, and regulations. A copy of Contractor's WPCP shall be maintained onsite. When the WPCP or access to the construction site is requested by a representative of a federal, state, or local regulatory agency, Contractor shall make the WPCP available and Contractor shall immediately contact the Engineer. Requests from the public for the Contractor's WPCP shall be directed to the Engineer.
- B. Contractor's WPCP shall describe the Contractor's plan for managing runoff during each construction phase. Contractor's WPCP shall describe the Best Management Practices (BMPs) that will be implemented to control erosion, sediment, tracking, construction materials, construction wastes, and non-stormwater flows. BMP details shall be based upon California Stormwater Quality Association's (CASQA) 2009 California Stormwater Quality BMP Handbook Subscription Portal (<http://www.cabmphandbooks.com>) or the Caltrans Construction Site BMP Manual (<http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm>). Contractor's WPCP shall describe installation, operation, inspection, maintenance, and monitoring activities that will be implemented for compliance with the Municipal Permit and all



applicable federal, state, and local laws, ordinances, statutes, rules, and regulations related to the protection of water quality.

- C. The Contractor's WPCP preparer shall have been trained to prepare WPCPs or SWPPPs and shall have previous experience with preparing SWPPP or WPCP requirements on a previous project.

The Contractor shall designate a Water Pollution Control Manager that shall have been trained to implement WPCP or SWPPP requirements. Contractor's Water Pollution Control Manager shall:

1. Be responsible for all water pollution control work.
2. Be the Engineer's primary contact for all water pollution control work.
3. Have the authority to mobilize resources (crews, supplies, equipment, etc.) to make immediate repairs of water pollution control measures or to supplement water pollution control measures to maintain compliance with all federal, state, and local laws, ordinances, and regulations related to the protection of water quality, including the Municipal Permit.

The WPCP shall contain all required and applicable certifications and evidence of training for the Water Pollution Control Manager, WPCP Developer, and all other employees working on the project receiving formal training or certification.

- D. Water Pollution Control Training: Contractor shall provide water pollution control training to Contractor's employees and subcontractors prior to their performing work on the work site. The water pollution control training shall be appropriate to the employee or subcontractor function and area of responsibility and shall address (as applicable):

1. Erosion Control (water and wind)
2. Sediment Control
3. Tracking Control
4. Materials & Waste Management
5. Non-Stormwater Discharge Management
6. Run-on and Run-off Control

- E. Monitoring and Reporting: Observations and inspections conducted by the Contractor's Water Pollution Control Manager shall be documented on the Construction Site Inspection Checklist included in Contractor's WPCP. A copy of each completed Construction Site Inspection Checklist shall be submitted to the Engineer within 24 hours of conducting the inspection.

### **General Requirements:**

In the event the County incurs any Administrative Civil Liability (fine) imposed by the CRWQCB – San Diego Region, the State Water Resources Control Board, or EPA, as a result of Contractor's failure to fully implement the provisions of "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 Administrative Civil Liability including County staff time, legal counsel, consultant support costs and all other associated cost.

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 "Water Pollution Control", including but not limited to, compliance with the applicable provisions of the Caltrans Handbooks, Municipal Permit, Federal, State, and local regulations. For the purpose of this paragraph, costs and liabilities include, but not limited to, fines, penalties, damages, and costs associated with defending against enforcement actions whether taken against the County or the Contractor, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Act.

Within fifteen (15) working days after the award of the contract, the Contractor shall submit two (2) copies and one (1) PDF. file of the WPCP to the Engineer for review and approval. The Contractor shall allow ten (10) working days for the Engineer to review the WPCP. If revisions are required as determined by the Engineer, the Contractor shall revise and resubmit the WPCP 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 and one (1) PDF. file of the approved WPCP to the Engineer prior to notice to proceed. The Contractor must have an approved WPCP prior to the notice to proceed.

Unless otherwise directed by the Engineer or specified in these Special Provisions, the Contractor's responsibility for WPCP implementation shall continue throughout any temporary suspension of work ordered in accordance with Section 8-1.05, "Temporary Suspension of the Work", of the Standard Specifications. The Engineer may withhold progress payments or order the suspension of construction operations without an extension of the contract time, if the Contractor fails to comply with the requirements of "Water Pollution Control" as determined by the Engineer.

All BMP repairs shall be implemented by the Contractor within 72 hours of identification.

### ***Method of Payment***

Payment for Water Pollution Control shall be on a lump sum basis and shall include full compensation for the work performed, including, developing, preparing, revising, obtaining approval of, and amending the WPCP, implementing, installing, constructing, operating, maintaining, and removing and disposing of temporary BMPs, performing the observations, inspections, sampling, analysis, reporting, and street sweeping, and as specified in the Caltrans Handbooks, Municipal Permit and these Special Provisions, and as directed by the Engineer.

## **STREET SWEEPING:**

### **GENERAL**

#### **Summary**

This work includes street sweeping.

The SWPPP/CSMP shall describe and include the use of street sweeping as a Water Pollution Control practice for sediment control and tracking control. Street sweeping shall also conform to all applicable AQMD requirements. No tracking of dirt or other construction waste will be allowed.

#### **Submittals**

At least 5 working days before starting clearing and grubbing, earthwork, or other activities with the potential for tracking sediment or debris, submit:

- A. The number of street sweepers that will be used as described in the SWPPP/CSMP.
- B. Type of sweeper technology (or technologies).

#### **Quality Control and Assurance**

Retain the following records related to street sweeping and submit weekly to Engineer:

- A. Tracking Inspection Log
- B. Sweeping times and locations.
- C. Quantity of sweeping waste disposal.

### **CONSTRUCTION**

#### **Street Sweepers**

Sweepers must use one of these technologies:

- A. Mechanical sweeper followed by a vacuum-assisted sweeper.
- B. Vacuum-assisted dry (waterless) sweeper.
- C. Regenerative-air sweeper.

#### **Operation**

Street sweeping shall be conducted at:

- A. Paved roads at job site entrance and exit locations.
- B. Paved areas within the job site that flow to storm drains or water bodies.

Street sweeping shall be conducted, and sweeper(s) shall be available to operate at all times, for the following:

- A. During clearing and grubbing activities.
- B. During earthwork activities.

- C. During trenching activities.
- D. During roadway structural section activities.
- E. When vehicles are entering and leaving the job site.
- F. After soil disturbing activities.
- G. After observing offsite tracking of material.

Contractor's Water Pollution Control Manager shall inspect adjacent paved areas at job site entrances and exits and paved roadways within the job site on a minimum daily basis, and more frequently when activities that require street sweeping are being performed. Contractor's Water Pollution Control Manager shall maintain a "Tracking Inspection Log." Street sweeping shall be conducted:

- A. Within 1 hour, if sediment or debris is observed on paved areas or paved roadways.

At least one sweeper, in good working order, must be on the job site at all times when sweeping work may be required.

Perform street sweeping to minimize dust. If dust generation is excessive or sediment pickup is ineffective, water may be used but shall be contained, collected (e.g. vacuum), and properly disposed.

Material collected during street sweeping must be removed and disposed of under Section 7-1.13, "Disposal of Material Outside the Highway Right of Way" of the Standard Specifications.

Full compensation to conform with the requirements of this section shall be considered as included the contract lump sum price paid for Water Pollution Control including furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in street sweeping, including disposal of collected material, as shown on the plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer. Therefore, no additional compensation will be allowed for street sweeping.

#### **DEVELOP WATER SUPPLY:**

Develop water supply shall conform to the provisions of Section 17 of the Standard Specifications and these Special Provisions.

Attention is directed to the requirements of Section 10, "Dust Control".

#### ***Method of Payment***

Full compensation for developing water supply and furnishing watering equipment shall be paid for on a lump sum basis, and no additional compensation will be allowed therefor.

### **CLEARING AND GRUBBING:**

Clearing and grubbing shall conform to the provisions in Section 16 of the Standard Specifications.

Vegetation shall be cleared and grubbed within the Right-Of-Way, excavation and embankment slope lines, and construction easements.

Existing vegetation outside the areas to be cleared and grubbed shall be protected from injury or damage resulting from the Contractor's operations.

Activities controlled by the Contractor, except cleanup or other required work, shall be confined within the graded areas of the roadway.

Removed vegetation, shrubs and other removed debris shall be the property of the Contractor and shall be disposed of by the Contractor, as provided in Section 7-1.13 of the Standard Specifications

Nothing herein shall be construed as relieving the Contractor of the Contractor's responsibility for final cleanup of the highway as provided in Section 4-1.02, "Final Cleaning Up" of the Standard Specifications.

#### ***Method of Payment***

Clearing and Grubbing shall be paid for on a lump sum basis.

Full compensation, except as otherwise provided herein, for conforming to the requirements of this article shall be paid for on a lump sum basis and no additional compensation will be allowed therefor.

### **ROADWAY EXCAVATION:**

Roadway excavation shall conform to the provisions of Section 19 of the Standard Specifications and these Special Provisions.

At road connections and at limits of concrete paving, existing pavement shall be header cut, grind to a depth of 0.10', 2 feet wide, full roadway width as directed by the Engineer. Full compensation for furnishing all labor, tools and doing all the work necessary including grinding, and sawcutting shall be considered as included in the contract price paid per cubic yard for Roadway Excavation and no additional compensation will be allowed therefor.

Existing pavement including any base material shall be cut back to neat lines and removed as shown on the plans or as directed by the Engineer. Excess material will become the property of the Contractor and will be disposed of as provided in Section 7-1.13 of the Standard Specifications.

Pavement and base material removal will be considered as roadway excavation for payment purposes.

## **RELATIVE COMPACTION**

Whenever relative compaction is specified to be determined by Test Method No. Calif. 216, the in-place density may be determined by Test Method No. Calif. 231. The in-place density required by Test Method No. Calif. 312 may be determined by Test Method No. 231. The wet weight or dry weight basis and English Units of Measurement may be used at the option of the Materials Engineer.

### ***Method of Payment***

The contract unit bid price paid per cubic yard for Roadway Excavation shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved including scarifying base and recompaction of base to 95% and as directed by the Engineer and no additional compensation will be allowed therefor.

## **AGGREGATE BASE**

Aggregate base shall be Class 2 and shall conform to the provisions in Section 26, "Aggregate Bases" of the Standard Specifications and these Special Provisions and shall meet the gradation requirements for 3/4 inch maximum.

The first paragraph of Section 26-1.02A, "Class 2 Aggregate Base" shall be modified to read:

Aggregate for Class 2 aggregate base shall be free from organic matter and other deleterious matter, and shall be of such nature that it can be compacted readily under watering and rolling to form a firm and stable base. Aggregate may consist of broken and crushed asphalt concrete or Portland cement concrete and may contain crushed aggregate base or other rock materials. The material may contain no more than 3 percent brick by weight as determined by California Test Method 202 as modified: Brick material retained on a No.4 sieve shall be identified visually and separated manually. Brick quantification shall be based on total weight of dry sample. Also, material retained on the No.4 sieve shall contain no more than 15 percent of particles (gravel) that have no more than one fractured face.

The Quality Requirements contained in Section 26-1.02A shall be modified to read:

## QUALITY REQUIREMENTS

Test	Contract Compliance
Resistance (R-Value)	
Virgin Rock	78 Minimum
Crushed Miscellaneous	80 Minimum
Sand Equivalent	
Virgin Rock	25 Minimum
Crushed Miscellaneous	35 Minimum
Durability Index	35 Minimum
Percentage Wear	
100 Revolutions	15 Maximum
500 Revolutions	52 Maximum

### *Method of Payment*

Quantities of Aggregate Base will be paid for at the contract unit price per cubic yard and in accordance with the provisions of Sections 26-1.06 and 26-1.07 of the Standard Specifications

### **HOT MIX ASPHALT (HMA):**

HMA shall be Type "C" and shall conform to the requirements of Section 39 of the Standard Specifications and these Special Provisions:

The grade of asphalt binder mixed with aggregate for HMA Type C must be PG 70-10.

The aggregate for HMA Type C must comply with the 1-inch grading as presented in the following table.

**Aggregate Gradation  
(Percentage Passing)  
HMA Type C**

<u>1-inch HMA Type C</u>		
Sieve Sizes	Target Value Limits	Allowable Tolerance
1"	100	—
3/4"	88 - 93	TV ±5
1/2"	72 - 85	TV ±6
3/8"	55 - 70	TV ±6
No. 4	35 - 52	TV ±7
No. 8	22 - 40	TV ±5
No. 30	8 - 24	TV ±4
No. 50	5 - 18	TV ±4
No. 200	3 - 7	TV ±2

The aggregate shall conform to the following quality requirements prior to the addition of asphalt binder.

### Aggregate Quality

Quality Characteristic	Test Method	Requirement
Percent of crushed particles <sup>a</sup>	CT 205	
Coarse aggregate (% min.)		95
Two fractured faces		
Fine aggregate (Passing No. 4 sieve and retained on No. 8 sieve.) (% min.)	CT 211	90
One fractured face		
Los Angeles Rattler (% Max.) <sup>a</sup>		12
Loss at 100 rev.	CT 217	40
Loss at 500 rev.		
Sand equivalent <sup>a, b</sup> (min.)		47
Fine aggregate angularity (% min.) <sup>a</sup>	AASHTO T 304 Method A	45
Flat and elongated particles (% max. by weight @ 5:1.) <sup>a</sup>	ASTM D 4791	10

Note:

<sup>a</sup> Combine aggregate in the JMF proportions.

<sup>b</sup> Reported value must be the average of 3 tests from a single sample.

During mix design, determine the optimum binder content (OBC) at 5 percent air voids content. Determine the proposed JMF from a mix design that complies with the following table:

### Hot Mix Asphalt Mix Design Requirements

Quality Characteristic	Test Method or Lab Procedure	Requirement	
Design air voids content (%)		4.0	5.0
Air voids content <sup>a</sup> (%)	CT 367	4.0	5.0
Voids in mineral aggregate (% min.) <sup>b</sup>	LP-2		
1" grading			
with NMAS = 1"		12	13
with NMAS = 3/4"		13	14
Voids filled with asphalt (%)	LP-3		
1" grading		65.0 – 75.0	60.0 – 70.0
Dust proportion <sup>c</sup> (P200/Pbe)	LP-4	0.6 – 1.3	0.6 – 1.3
Stabilometer value (min.)	CT 366	37 <sup>d</sup>	37 <sup>d</sup>

Notes:

<sup>a</sup> Calculate the air voids content of each specimen using CT 309 and LP-1. Modify CT 367, Paragraph C5, to use the exact air voids content specified in the selection of OBC.

<sup>b</sup> Minimum VMA is dependent upon NMAS of JMF. NMAS is defined as one sieve size larger than the first sieve to retain more than 10 percent.

<sup>c</sup> Asphalt content based on dry weight of aggregate

<sup>d</sup> Follow CT 366: 150 tamps at 500 psi tamping pressure and 230 °F compaction temperature; cool specimens to 140 °F; apply 12,600 lb leveling load; and perform stabilometer test at 140 °F.

The asphalt lift thickness table, as shown in Section 39-6.01, "General Requirements" of the Standard Specifications, is revised as follows:



Total Thickness Shown on Plans	Minimum No. of Layers	Top Layer Thickness (foot)		Next Lower Layer Thickness (foot)		All Other Lower Layer Thickness (foot)	
		Min.	Max.	Min.	Max.	Min.	Max.
0.24-foot or less <sup>a</sup>	1	-	-	-	-	-	-
0.25-foot	2 <sup>b</sup>	0.12	0.13	0.12	0.13	-	-
0.26 - 0.46 foot	2	0.12	0.21	0.14	0.25	-	-
0.47-foot or more	3 or more	0.15	0.21	0.15	0.25	0.17	0.25

Footnotes to asphalt thickness table are revised as follows:

- a. No Change.
- b. One layer of 0.25 foot thick may be placed as approved by the Engineer. When the Traffic Index specified is 5.5 or below, two layers shall be placed.

### **Asphalts:**

Asphalt shall conform to the provisions in this Section, "Asphalts". Section 92, "Asphalts" of the Standard Specifications shall not apply.

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

1. Free from residues caused by the artificial distillation of coal, coal tar, or paraffin;
2. Free from water;
3. Homogeneous.

### **General:**

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/fpm/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:

Performance graded (PG) asphalt binder shall conform to the following:

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 % <sup>b</sup>	T44	99	99	99
Viscosity at 135 °C, Maximum, Pa.s	T316	3.0	3.0	3.0
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G <sup>*</sup> /sin(delta), kPa	T315	64 1.00	64 1.00	70 1.00
RTFO Test <sup>e</sup> , Mass Loss, Maximum, %	T240	1.00	1.00	1.00
RTFO Test Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G <sup>*</sup> /sin(delta), kPa	T315	64 2.20	64 2.20	70 2.20
Ductility at 25 °C Minimum, cm	T51	75	75	75
PAV <sup>f</sup> Aging, Temperature, °C	R28	100	100	110
RTFO Test and PAV Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Maximum G <sup>*</sup> /sin(delta), kPa	T315	31 <sup>d</sup> 5000	28 <sup>d</sup> 5000	34 <sup>d</sup> 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

### Notes:

- Not used.
- The Engineer will waive this specification if the supplier is a Quality Supplier as defined by Department's "Certification Program for Suppliers of Asphalt".
- The Engineer will waive this specification if the supplier certifies the asphalt binder can be adequately pumped and mixed at temperatures meeting applicable safety standards.
- Test the sample at 3 °C higher if it fails at the specified test temperature.  $G^*\sin(\delta)$  shall remain 5000 kPa maximum.
- "RTFO Test" means the asphaltic residue obtained using the Rolling Thin Film Oven Test, AASHTO Test Method T240 or ASTM Designation: D2827.
- "PAV" means Pressurized Aging Vessel.

Performance graded polymer modified asphalt binder (PG Polymer Modified) is:

Performance Graded Polymer Modified Asphalt Binder <sup>a</sup>

Property	AASHTO Test Method	Specification Grade		
		PG 58-34 PM	PG 64-28 PM	PG 76-22 PM
Original Binder				
Flash Point, Minimum °C	T 48	230	230	230
Solubility, Minimum % <sup>b</sup>	T 44 <sup>c</sup>	98.5	98.5	98.5
Viscosity at 135°C, <sup>d</sup> Maximum, Pa·s	T 316	3.0	3.0	3.0
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T 315	58 1.00	64 1.00	76 1.00
RTFO Test , Mass Loss, Maximum, %	T 240	1.00	1.00	1.00
RTFO Test Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T 315	58 2.20	64 2.20	76 2.20
Dynamic Shear, Test Temp. at 10 rad/s, °C Maximum (delta), %	T 315	Note e 80	Note e 80	Note e 80
Elastic Recovery <sup>f</sup> , Test Temp., °C Minimum recovery, %	T 301	25 75	25 75	25 65
PAV <sup>g</sup> Aging, Temperature, °C	R 28	100	100	110
RTFO Test and PAV Aged Binder				
Dynamic Shear, Test Temp. at 10 rad/s, °C Maximum G* sin(delta), kPa	T 315	16 5000	22 5000	31 5000
Creep Stiffness, Test Temperature, °C Maximum S-value, MPa Minimum M-value	T 313	-24 300 0.300	-18 300 0.300	-12 300 0.300

**Notes:**

- Do not modify PG Polymer Modified using acid modification.
- The Engineer waives this specification if the supplier is a Quality Supplier as defined by the Department's "Certification Program for Suppliers of Asphalt."
- The Department allows ASTM D 5546 instead of AASHTO T 44
- The Engineer waives this specification if the supplier certifies the asphalt binder can be adequately pumped and mixed at temperatures meeting applicable safety standards.
- Test temperature is the temperature at which G\*/sin(delta) is 2.2 kPa. A graph of log G\*/sin(delta) plotted against temperature may be used to determine the test temperature when G\*/sin(delta) is 2.2 kPa. A graph of (delta) versus temperature may be used to determine delta at the temperature when G\*/sin(delta) is 2.2 kPa. The Engineer also accepts direct measurement of (delta) at the temperature when G\*/sin(delta) is 2.2 kPa.
- Tests without a force ductility clamp may be performed.
- "PAV" means Pressurized Aging Vessel.

**Sampling:**

Provide a sampling device in the asphalt feed line connecting the plant storage tanks to the asphalt weighing system or spray bar. Make the sampling device accessible between 24 and 30 inches above the platform. Provide a receptacle for flushing the sampling device.

Include with the sampling device a valve:

1. Between 1/2 and 3/4 inch in diameter
2. Manufactured in a manner that a one-quart sample may be taken slowly at any time during plant operations
3. Maintained in good condition

The Contractor shall replace failed valves.

In the Engineer's presence, take 2 one-quart samples per operating day. Provide round, friction top, one-quart containers for storing samples.

**Applying Asphalt:**

Unless otherwise specified, the Contractor shall heat and apply asphalt in conformance with the provisions in Section 93, "Liquid Asphalts" of the Standard Specifications.

Section 39-2.01, "Asphalts" is replaced in its entirety with the following:

Asphalt binder to be mixed with aggregate shall conform to the provisions in "Asphalts" of these Special Provisions.

The grade of asphalt binder shall be: PG 70-10

Liquid asphalt for prime coat shall conform to the provisions in Section 93, "Liquid Asphalts" of the Standard Specifications and shall be Grade PG 64-10 unless otherwise designated by the contract item or otherwise specified in the Special Provisions.

Asphaltic emulsion for paint binder (tack coat) shall conform to the provisions in Section 94, "Asphaltic Emulsion" of the Standard Specifications for the rapid-setting or slow-setting type and grade approved by the Engineer.

Section 39-3.01B (1) shall be amended to include:

Aggregate of the 3/4 inch or 1/2 inch maximum size and aggregate for asphalt concrete base shall be separated into 3 or more sizes and each size shall be stored in separate bins. If 3 sizes are used, one bin shall contain that portion of the material which will pass the maximum size specified and be retained on a 3/8 inch sieve; one bin shall contain that portion of the material which will pass a 3/8 inch sieve and be retained on a No. 8 sieve; and one bin shall contain that portion of the material which will pass a No. 8 sieve.

Aggregate of 1 inch maximum size shall be separated into 2 sizes and each size shall be stored in separate bins. One bin shall contain that portion of the material which will pass the maximum size specified and be retained on a No. 8 sieve and one bin shall contain that portion of the material which will pass a No. 8 sieve.

The bin containing the fine material shall not contain more than 15 percent of material retained on the No. 8 sieve. The material in any of the other bins shall not contain more than 15 percent of material passing a No. 8 sieve. Failure to comply with this requirement shall be corrected immediately, and the material in the bins not meeting these requirements shall be re-screened or wasted.

All asphalt concrete for this project shall be supplied from one source unless approved by the Engineer. Said source shall be listed on the Contractor Source of Materials List as required in Section 6 of the Standard Specifications.

Asphaltic emulsion shall be furnished and applied as provided in Section 39-4.02.

Asphalt concrete driveway approaches shall be reconstructed to match existing as directed by the Engineer.

Unless otherwise specified on the plans, asphalt concrete placed on driveways shall be two and a half inches (2 ½") in thickness and will be paid for at the same unit price as for material placed on the roadbed.

In addition to the provisions in Section 39-5.01, "Spreading Equipment" of the Standard Specifications, asphalt paving equipment shall be equipped with automatic screed controls and a sensing device or devices.

When placing asphalt concrete to the lines and grades established by the Engineer, the automatic controls shall control the longitudinal grade and transverse slope of the screed. Grade and slope references shall be furnished, installed, and maintained by the Contractor. The Contractor shall use a ski device with a minimum length of 30 feet or as directed by the Engineer. The ski device shall be a rigid one piece unit and the entire length shall be utilized in activating the sensor.

When placing the initial mat of asphalt concrete on existing pavement, the end of the screed nearest the centerline shall be controlled by a sensor activated by a ski device not less than 30 feet. The end of the screed farthest from centerline shall be controlled by an automatic transverse slope device set to reproduce the cross slope designated by the Engineer, by a sensor activated by a similar ski device or as directed by the Engineer.

When paving contiguously with previously placed mats, the end of the screed adjacent to the previously placed mat shall be controlled by a sensor that responds to the grade of the previously placed mat and will reproduce the grade in the new mat within a 0.12 inch tolerance. The end of the screed farthest from the previously placed mat shall be controlled in the same way it was controlled when placing the initial mat.

Should the methods and equipment furnished by the Contractor fail to produce a layer of asphalt concrete conforming to the provisions, including straightedge tolerance, of Section 39-6.03,

“Compacting” of the Standard Specifications or elsewhere in these Special Provisions, the paving operations shall be discontinued and the Contractor shall modify the equipment or methods, or furnish substitute equipment.

Should the automatic screed controls fail to operate properly during a day’s work, the Contractor may manually control the spreading equipment for the remainder of that day. However, the equipment shall be corrected or replaced with alternative automatically controlled equipment conforming to the provisions in this section before starting another day’s work.

#### **General Criteria For Profiling:**

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

The uppermost layer of asphalt concrete surfacing shall be profiled in the presence of the Engineer using a California Profilograph or equivalent in conformance with California Test 526 and as specified in these Special Provisions.

The California Profilograph or equivalent will not be required for the following areas of the pavement surface but shall conform to the straightedge requirements in Section 39-6.03, “Compacting” of the Standard Specifications:

1. Pavement with a total thickness less than 0.24 foot;
2. Pavement on horizontal curves with a centerline curve radius of less than 1,000 feet and the pavement within the superelevation transition on those curves;
3. Pavement placed in a single lift when required by the Special Provisions;
4. Pavement with extensive grade or cross slope correction which does not receive advance leveling operations in conformance with the provisions in Section 39-6.02, “Spreading” of the Standard Specifications;
5. Pavement for ramps and connectors with steep grades and high rates of superelevation, as determined by the Engineer;
6. Shoulders and miscellaneous areas.

The Contractor shall conform to California Test 526, except a zero (null) blanking band shall be used for determining the Profile Index. Prior to beginning profiles, the profilograph shall be calibrated in the presence of the Engineer. Two profiles shall be obtained within each traffic lane, 3 feet from and parallel with the edges of the lane.

Pavements profiled shall conform to the following Profile Index requirements:

1. Pavement on tangent alignment and pavement on horizontal curves having a centerline curve radius of 2,000 feet or more shall have a Profile Index of 0.16 foot or less for each 330 feet section profiled;

2. Pavement on horizontal curves having a centerline curve radius of 1,000 feet or more but less than 2,000 feet, including the pavement within the superelevation transition of these curves, shall have a Profile Index of 0.32 foot or less for each 330 feet section profile;
3. Pavement within any 330 feet section, containing high point areas with deviations in excess of 0.025 foot 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 regardless of the Profile Index.

The Contractor shall complete initial runs of the profilograph prior to opening the pavement to public traffic. If initial profiles cannot be made prior to opening the pavement to public traffic, the initial runs of the profilograph shall be made the next day that traffic control is permitted for the area to be profiled.

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 foot, and to reduce the Profile Index of the pavement to be within the specified tolerance. Areas which have been subjected to abrasive grinding shall receive a seal coat. Deviations in excess of 0.025 foot which cannot be brought into specified tolerance by abrasive grinding shall be corrected by either (1) removal and replacement or (2) placing an overlay of asphalt concrete. The corrective method for each area shall be selected by the Contractor and shall be approved by the Engineer prior to beginning the corrective work. Replacement or overlay pavement not meeting the specified tolerances shall be corrected by the methods specified above. Corrective work shall be at the Contractor's expense. The Contractor shall run profilograms on the areas that have received abrasive grinding or corrective work until the final profilograms indicate the Profile Index of the area is within the specified tolerance.

When abrasive grinding is used to bring the top surface of the uppermost layer of asphalt concrete surfacing within the specified surface tolerances, additional abrasive grinding shall be performed as necessary to extend the area ground in each lateral direction so that the lateral limits of grinding are at a constant offset from, and parallel with, the nearest lane line or pavement edge, and in each longitudinal direction so that the grinding begins and ends at lines normal to the pavement centerline, within a ground area. Ground areas shall be neat rectangular areas of uniform surface appearance.

The original of the final profilograms that indicate the pavement surface is within the Profile Index specified shall become the property of the County and shall be delivered to the Engineer prior to acceptance of the contract.

### ***Method of Payment***

HMA will be paid for at a unit price per ton as a combined item, including mineral aggregate and asphalt binder in place on the roadbed.

Full compensation for furnishing and applying asphaltic emulsion (paint binder/tack coat) shall be considered as included in the contract price paid for HMA.

### **RUBBERIZED HOT MIX ASPHALT- GAP GRADED (RHMA-G):**

RHMA-G, shall conform to the provisions for Type "A" asphalt concrete in Section 39, "Asphalt Concrete" of the Standard Specifications and these Special Provisions with the exception that RHMA-G shall be spread at a temperature of not less than 285<sup>0</sup> F and not more than 350<sup>0</sup> F, measured in the hopper of the paving machine.

Binder for RHMA-G shall be Type 2 asphalt-rubber binder with an asphalt modifier as specified in these Special Provisions.

The grade of asphalt-rubber binder shall be PG 64-16.

The asphalt modifier will be a resinous, high flash point, aromatic hydrocarbon compound and shall conform to the requirements following:

#### **REQUIREMENTS FOR ASPHALT MODIFIER**

Property	ASTM Test Method	Value
Flash Point, C.L.O.C., *°C (*°F)	D92	207 (405) min
Viscosity,cSt @ 100°C (212°F)	D445	X±3*
Molecular Analysis Asphaltenes, percent by mass Aromatics, percent by mass	D2007	0.1 max
	D2007	55 min

\*The symbol "X" is the viscosity of the asphalt modifier the Contractor proposes to furnish. The value "X" which the Contractor proposes shall be between the limits of 19 and 36 and shall be submitted in writing to the Engineer. Any proposed change requested by the Contractor in the value "X" shall require a new asphalt-rubber binder design.

The amount of asphalt-rubber binder to be added to the aggregate shall be between 6.7% and 8.7% by dry weight of the aggregate. The exact amount will be determined by the Engineer. The temperature of the aggregate at the time the asphalt-rubber binder is added shall be not more than 350<sup>0</sup> F.

Rubber for use in asphalt-rubber binder shall be free of loose fabric, wire and other contaminants except that up to 3% (by weight of rubber) calcium carbonate or talc may be added to prevent



rubber particles from sticking together. The rubber shall be sufficiently dry so as to be free flowing and not produce foaming when blended with the hot asphalt.

A sample of the asphalt-rubber binder proposed for use on the project, consisting of four one-quart cans, together with the proposed formulation of the binder shall be furnished to the Engineer at least two weeks before RHMA-G pavement construction is scheduled to begin.

The method and equipment for combining the rubber and the asphalt shall be so designed and accessible that the Engineer can readily determine the percentage by weight for each material being incorporative into the mixture.

Equipment utilized in the production and proportioning of the asphalt-rubber binder shall include the following:

An asphalt heating tank with hot oil heat transfer to heat the asphalt to the necessary temperature before blending with the granulated rubber. This unit shall be equipped with a thermostatic heat control device.

A mechanical blender for proper proportioning and thorough mixing of the asphalt and rubber. This unit shall have both an asphalt totalizing meter (gallons or liters) and a flow rate meter (gallons per minute or liters per minute).

An asphalt-rubber storage tank equipped with a heating system to maintain the proper temperature of the binder and an internal mixing unit capable of maintaining a homogeneous mixture of asphalt and rubber.

An asphalt-rubber supply system equipped with a pump and metering device capable of adding the binder by volume to the aggregate at the percentage specified or ordered.

The equipment utilized in the manufacture of asphalt rubber binder shall keep the mix in a continuous blend state. The batch method is not acceptable.

The swell, moisture vapor susceptibility, and the stabilometer value requirement in Section 39-2.02, "Aggregate" of the Standard Specifications shall not apply to RHMA-G.

Before opening a traffic lane to public traffic, when directed by the Engineer, a sand cover shall be spread uniformly over areas where RHMA-G has been placed.

Sand shall be free from clay or organic material and shall be of such size that from 90% to 100% will pass a No. 4 sieve and not more than 5% will pass a No. 200 sieve.

Sand shall be spread at the approximate rate of from one to two pounds per square yard.

Traffic shall not be allowed on the RHMA-G for at least one hour after final rolling operations have been completed.

Pneumatic tired rollers shall not be used to compact RHMA-G.

The asphalt-rubber mixture shall not be used as a binder after it has been retained for more than 48 hours.

## **Type 2 Asphalt-Rubber Binder**

Type 2 asphalt-rubber binder shall be a uniform and reacted mixture of compatible paving grade asphalt, extender oil, and reclaimed vulcanized rubber.

Extender oil shall be a resinous, high flash point aromatic hydrocarbon conforming to the following:

Viscosity, SUS @ 100 <sup>0</sup> F (ASTM D 88)	2500 minute
Flash Point, COC, Degree F (ASTM D 92)	405 minute
Molecular Analysis (ASTM D 2007)	
Asphaltenes, % by weight	0.1 maximum
Aromatics, % by weight	55 minimum

The asphalt and extender oil, when combined shall form a material that is chemically compatible with the rubber.

The rubber used in Type 2 asphalt-rubber binder shall be reclaimed vulcanized rubber and shall contain between 22 percent and 39 percent by weight, natural rubber when tested in accordance with ASTM D 297. The crumb rubber modifier (CRM) shall have the values for the quality characteristics shown in the following table:

**Rubber Modifier for Asphalt Rubber Binder**

Quality Characteristic	Test Method	Value
Scrap tire crumb rubber gradation (% passing #8 sieve)	LP-10	100
High natural rubber gradation (% passing #10 sieve)	LP-10	100
Wire in CRM (% max)	LP-10	0.01
Fabric in CRM (% max)	LP-10	0.05
CRM particle length (inch max)*	--	3/16
CRM specific gravity*	CT-208	1.1 – 1.2
Natural rubber content in high natural rubber (%)*	ASTM D 297	40.0-48.0

\* Test at mix design and for certification of compliance.

The rubber shall contain no particles longer than 3/16 inch in length.

The extender oil shall be added to the asphalt at a rate between 2 percent and 6 percent by weight of the asphalt, the exact amount shall be determined by the asphalt-rubber supplier. The asphalt shall be at a temperature of not less than 350<sup>0</sup> F nor more than 425<sup>0</sup> F when the extender oil is added.

The asphalt-extender oil blend and rubber shall be combined and mixed together in the blender unit to produce a homogeneous mixture.

The amount of rubber to be added to the asphalt-extender oil blend shall be 18 percent and 22 percent by weight of the total combined mixture of asphalt, extender oil, and rubber. The exact amount shall be determined by the asphalt-rubber supplier. The asphalt-extender oil blend shall be at a temperature of not less than 350<sup>0</sup> F nor more than 425<sup>0</sup> F when the rubber is added. After the material has reacted for at least 45 minutes, the asphalt-rubber shall be metered into the mixing chamber of the asphalt concrete production plant at the percentage specified or ordered.

The asphalt-rubber mixture shall be reacted for a minimum of 45 minutes from the time the rubber is added to the asphalt-extender oil blend. The temperature of the asphalt-rubber mixture shall be maintained between 375<sup>0</sup> F and 425<sup>0</sup> F during the reaction period.

The asphalt-rubber mixture shall possess the following physical property after the reaction period:

Viscosity at 400 <sup>0</sup> F (ASTM D 2196) (Brookfield)	600-2000 cp
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Asphalt-rubber shall consist of the following:

After reacting the PG 64-16, asphalt modifier and rubber, the asphalt-rubber binder shall conform to the following requirements:

<u>Test Parameter</u>	<u>Specification Limits</u>
Field Viscosity, Haake at 375 <sup>0</sup> F in centipoise ASTM D 2669	1500-4000
Penetration, Cone at 77 <sup>0</sup> F in 1/10 MM ASTM D 217	45 ± 25
Resilience 77 <sup>0</sup> F in percent rebound ASTM D 3407	18 Minimum
Field Softening Point in degree F ASTM D 36	145 ± 20

Contractor shall have available a Haake Viscometer conforming to ASTM D 2669.

The asphalt-rubber mixture after reaching the desired consistency shall not be held at temperatures over 375<sup>0</sup> F for more than 4 hours.

## **General Requirements**

The aggregate for RHMA-G shall conform to the following grading and shall meet the quality requirements for "Type A" as specified in Section 39-2.02, "Aggregate" of the Standard Specifications.

For ½" maximum size aggregate, use the following table:

<b>½"-inch RHMA -G</b>		
Sieve Sizes	Target Value Limits	Allowable Tolerance
¾"	100	--
1/2"	90 - 100	TV ±6
3/8"	83 - 87	TV ±6
No. 4	28 - 42	TV ±7
No. 8	14 - 22	TV ±5
No. 200	0 - 6.0	TV ±2

For ¾" maximum size aggregates, use the following table:

<b>¾"-inch RHMA -G</b>		
Sieve Sizes	Target Value Limits	Allowable Tolerance
1"	100	--
¾"	95 - 100	TV ±5
1/2"	83 - 87	TV ±6
3/8"	65 - 70	TV ±6
No. 4	28 - 42	TV ±7
No. 8	14 - 22	TV ±5
No. 200	0 - 6.0	TV ±2

The Los Angeles Rattler requirement in Section 39-2.02, "Aggregate" of the Standard Specifications shall be amended to read "40 percent maximum loss at 500 revolutions".

RHMA-G shall be spread at a temperature of not less than 285<sup>0</sup> F and not more than 350<sup>0</sup> F, measured in the hopper of the paving machine, with ambient temperature of not less than 55<sup>0</sup> F.

## **Measurement**

The mixture of RHMA-G will be measured by the ton in the same manner specified for asphalt concrete in Section 39-8.01, "Measurement" of the Standard Specifications.

## **Method of Payment**

The contract price paid per ton for RHMA-G shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in placing RHMA-G complete in place, including header cutting as directed by the Engineer, furnishing and applying asphalt binder, furnishing and spreading sand cover if directed by the Engineer, as shown on the plan, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

## **COMPENSATION ADJUSTMENTS FOR PRICE INDEX FLUCTUATIONS:**

The provisions of this section shall apply only to the following contract items:

ITEM CODE	ITEM
390130	Hot Mix Asphalt
390137	Rubberized Hot Mix Asphalt

The compensation payable for asphalt binder used in hot mix asphalt and tack coat will be increased or decreased in conformance with the provisions of this section for paving asphalt price fluctuations exceeding 10 percent ( $I_u/I_b$  is greater than 1.10 or less than 0.90) which occur during performance of the work.

The quantity of asphalt binder used in tack coat will be determined by multiplying the item quantity for tack coat included in a monthly estimate by the minimum percent residue specified in Section 94, "Asphaltic Emulsions" of the Standard Specifications. The asphaltic emulsion minimum percent residue will be based on the type of emulsion used by the Contractor.

At the Contractor's option, the Contractor may provide actual daily test results for asphalt binder residue for the tack coat used. Test results provided by the Contractor shall be from an independent testing laboratory that participates in the AASHTO Proficiency Sample Program. The Contractor shall take samples of asphaltic emulsion from the distributor truck at mid-load from a sampling tap or thief. Two separate one-half ( $\frac{1}{2}$ ) gallon samples shall be taken in the presence of the Engineer. The Contractor shall provide one sample to the Contractor's independent testing laboratory within 24 hours of sampling. The second sample shall be given to the Engineer. The test results from the Contractor independent testing laboratory shall be delivered to the Engineer within 10 days from sample date.

The adjustment in compensation will be determined in conformance with the following formulae when the item of hot mix asphalt or tack coat or both are included in a monthly estimate:

A. Total monthly adjustment =  $AQ$

B. For an increase in paving asphalt price index exceeding 10 percent:

$$A = 0.90 (I_u/I_b - 1.10) I_b$$

C. For a decrease in paving asphalt price index exceeding 10 percent:

$$A = 0.90 (I_u/I_b - 0.90) I_b$$

D. Where:

A = Adjustment in dollars per ton of paving asphalt used to produce hot mix asphalt and asphaltic emulsion residue used as tack coat rounded to the nearest \$0.01.

Iu = The California Statewide Paving Asphalt Price Index which is in effect on the first business day of the month within the pay period in which the quantity subject to adjustment was included in the estimate.

Ib = The California Statewide Paving Asphalt Price Index for the month in which the bid opening for the project occurred.

Q = Quantity in tons of asphalt binder that was used in producing the quantity of hot mix asphalt shown under "This Estimate" on the monthly estimate using the amount of asphalt binder determined by the Engineer plus the quantity in tons of asphalt binder that would have been used as residue in the tack coat shown under "This Estimate" on the monthly estimate.

The adjustment in compensation will also be subject to the following:

- A. The compensation adjustments provided herein will be shown separately on payment estimates. The Contractor shall be liable to the State for decreased compensation adjustments and the Department may deduct the amount thereof from moneys due or that may become due the Contractor.
- B. Compensation adjustments made under this section will be taken into account in making adjustments in conformance with the provisions in Section 4-1.03B, "Increased or Decreased Quantities" of the Standard Specifications.
- C. In the event of an overrun of contract time, adjustment in compensation for paving asphalt included in estimates during the overrun period will be determined using the California Statewide Paving Asphalt Price Index in effect on the first business day of the month within the pay period in which the overrun began.

The California Statewide Paving Asphalt Price Index is determined each month on the first business day of the month by the Department using the median of posted prices in effect as posted by Chevron, Mobil, and Unocal for the Buena Vista, Huntington Beach, Kern River, Long Beach, Midway Sunset, and Wilmington fields.

In the event that the companies discontinue posting their prices for a field, the Department will determine an index from the remaining posted prices. The Department reserves the right to include in the index determination the posted prices of additional fields.

The California Statewide Paving Asphalt Price Index is available on the Division of Engineering Services website at: [http://www.dot.ca.gov/hq/esc/oe/asphalt\\_index/astable.html](http://www.dot.ca.gov/hq/esc/oe/asphalt_index/astable.html).

## **MINOR CONCRETE:**

Minor Concrete curb, gutter, sidewalk, curb ramp, type "D" curb and median maintenance header shall be constructed in accordance with the County Road Improvement Standards And Specifications, as directed by the Engineer and in conformance with Section 51, 73 and 90 of Standard Specifications, except as herein modified:

Preparation of subgrade for the minor concrete structures shall be done in conformance with the requirements of Section 73-1.02 of the Standard Specifications. Unless otherwise specified, all curbs and gutters will be backfilled as shown on the plans.

The placement of aggregate base material is required under all concrete in accordance with County Road Improvement Standards and Specifications.

The area behind and along the concrete improvements shall be filled and compacted with native or select material and graded to match and provide a smooth transition from the edge of the new improvements, to the satisfaction of the Engineer.

Excess material resulting from the excavation of the subgrade shall be disposed of as elsewhere provided in these Special Specifications.

The Contractor is responsible for meeting all requirements of the Americans with Disability Act (ADA).

Construction of minor concrete structures shall include, but not be limited to, the following:

- 1) Removal and disposal of existing sidewalk, curb, and/or curb and gutter, and/or curb ramp, and existing soil and aggregate as required;
- 2) Establishing grades, and assuring that all grades are met;
- 3) Performing all grading and compaction – including all required aggregate import, as directed by the Engineer and in accordance with County Standard 403;
- 4) Construction of new sidewalk, median maintenance band, curb, curb and gutter, curb ramp and type "D" curb;
- 5) All scoring/grooving and required saw cutting;
- 6) Repair of existing asphalt and PCC surfacing;
- 7) Installing 1/2" wide expansion joints;
- 8) All landscaping, and related work, to return the area adjacent to the curb ramp to its original condition and to conform the area to the new improvements;

At locations where the surface of the area behind the sidewalk is paved with Portland Cement Concrete or Asphalt Concrete, the paving shall be replaced in-kind, or as directed by the Engineer, so as to match and provide a smooth transition from the back of the sidewalk.

### ***Method of Payment***

The contract unit bid prices paid per each for Curb Ramp, per Linear foot for curb & gutter, type "D" curb and median maintenance header, per square foot for sidewalk and shall include full compensation for furnishing all labor, equipment, materials and tools, and incidentals, and for

doing all the work involved in the construction and complete in place including the furnishing and placing of expansion joints within the right of way and as directed by the Engineer, no additional compensation will be allowed therefor

### **CURB RAMP DETECTABLE WARNING SURFACE:**

Curb Ramp Detectable warning surfaces consisting of truncated dome panels shall be yellow in color and shall meet all requirements of ADA, the Standard Specifications and these Special Provisions.

#### ***Method of Payment***

The contract unit bid price paid per each for ADA compliant Curb Ramp Detectable Warning Surface and shall include full compensation for furnishing all labor, tools, material, equipment, and incidentals, and for doing all the work involved and no additional compensation will be allowed therefor.

### **ROADSIDE SIGN:**

Roadside signs shall conform to the provisions in Section 56-2 "Roadside Signs" of the Standard Specifications and these special provisions.

The Contractor shall furnish and install roadside signs, in accordance with Standard Plans RS-2, at the locations shown on the plans or as directed by the Engineer.

Roadside signs with steel posts shall be installed at the location shown on the construction plans or where directed by the Engineer.

Roadside signs furnished by the Contractor shall be of the standard size specified in the State of California Department of Transportation Sign Specification Sheets, unless otherwise indicated on the construction plans.

Sheeting shall be guaranteed against defects for a period of ten years from the date of fabrication.

The base metal shall be new aluminum, 0.08 gauge, of alloys 6061-T6 or 5052-H38 conforming to the requirements of ASTM Designation: B209.

Any reflective sheeting supplied, as a part of this contract, whether as a legend or background, shall be FHWA FP-85 Type IIA or AASHTO M268 Type III.

Reflective sheeting shall be applied to the sign by a method approved by the manufacturer of the sheeting and shall produce a durable bond equal to or greater than the strength of the reflective sheeting. No air pockets or bubbles shall exist between the sheeting and aluminum backing.

The reflective material and screening inks or overlay film shall be graffiti proof. The graffiti proofing method shall be supplied by and/or approved by the sheeting manufacturer. Neither the



color nor the reflective intensity of the finished sign shall be significantly diminished by the use of graffiti remover when used in a manner approved by the Transportation Department in conjunction with the sheeting manufacturer. Any sign graffiti with the use of over-the-counter spray paint or marking pens, which fail to be restored, shall be replaced by the sign sheeting manufacturer.

All letters and numerals shall be in accordance with the "Standard Alphabet of Highway Signs" as used by the State of California, Department of Transportation.

All signs shall be installed using hex head bolts, washers, nuts and jam nuts in accordance with Standard Plans RS2 or as directed by the Engineer.

#### ***Method of Payment***

The contract price paid **per each** for Roadside Sign-one post and Install Sign (Strap and Saddle Bracket Method) and shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals and for doing all the work including excavation and backfill, and installation as specified in the Standard Specification and these Special Provisions and no additional compensation will be allowed therefor.

#### **RELOCATE ROADSIDE SIGNS:**

Relocation of roadside signs shall conform to the provisions in Section 56-2, "Roadside Signs" of the Standard Specifications and as directed by the Engineer.

Roadside signs shall be relocated at the locations shown on the construction plans or where directed by the Engineer.

#### ***Method of Payment***

The contract unit prices paid per each for relocating Roadside Signs shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work including all necessary concrete, excavation and backfill as specified in the Standard Specification and these Special Provisions and no additional compensation will be allowed therefor.

### **ADJUST MANHOLE TO GRADE:**

Existing sewer and storm drain manhole covers shall be adjusted to finish grade with materials similar in quality to those in the original structure in accordance with the applicable provisions of Sections 15-2 and 71 of the Standard Specifications, the requirements of the owning utility company and these Special Provisions. EMWD standard drawing SB-53 is attached and made a part hereof. All work shall be performed in compliance with the Standard drawings of EMWD, which are located on the EMWD website at:

<http://www.emwd.org/modules/showdocument.aspx?documentid=728>.

After the structure frame has been removed, the top of the structure shall be carefully trimmed to provide a suitable foundation for the new material.

Steel plates shall be used as necessary and when directed by the Engineer to prevent asphalt and debris from entering the sewer system.

After completion of the work, the structure covers, frames, grade rings and old concrete debris that were removed from the roadbed shall become the property of the Contractor.

Nothing in these Special Provisions shall relieve the Contractor from his responsibilities as provided in Section 7-1.09, "Public Safety" of the Standard Specifications.

#### ***Method of Payment***

The contract unit bid prices paid per each for adjusting manhole to grade shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, for doing all the work involved and no additional compensation will be allowed therefor.

### **THERMOPLASTIC CROSSWALK AND PAVEMENT MARKING:**

Thermoplastic crosswalk and pavement markings shall conform to the provisions in Sections 84-1, "General," and 84-2, "Thermoplastic Traffic Stripes and Pavement Markings," of the Standard Specifications and these Special Provisions.

#### ***Method of Payment***

Payment for Thermoplastic Crosswalk and Pavement Marking shall be paid by the square foot price bid and shall be considered as full compensation for furnishing all labor, materials, tools, equipment, and incidentals and doing all the work necessary including the placing of limit lines, and no additional compensation will be allowed.

### **PAINT TRAFFIC STRIPE:**

Painting traffic stripe shall conform to the provisions in Sections 84-1, "General" and 84-3, "Painted Traffic Stripes and Pavement Markings" of the Standard Specifications and these Special Provisions.

Traffic striping shall be applied in two coats with airless equipment and shall be performed with a roadliner truck mounted striping machine. Where the configuration or location of a traffic stripe is such that the use of a roadliner truck mounted striping machine is unsuitable, traffic striping and glass spheres may be applied by other methods and equipment approved by the Engineer.

Newly painted traffic striping shall be protected from damage by public traffic or other causes until the paint is thoroughly dry. Any newly painted traffic striping which are damaged as a result of the construction, including wheel markings by public traffic and the construction equipment, shall be repainted by the Contractor and any associated removals shall be performed as called for in these Special Provisions.

### ***Method of Payment***

The contract price paid per linear foot for Paint Traffic Stripe (2 Coats) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in painting traffic stripe (regardless of the number, widths, and types of individual stripes involved in each traffic stripe) including any necessary cat tracks, dribble lines any layout work, complete in place as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

### **PAVEMENT MARKERS (REFLECTIVE):**

Pavement markers shall conform to the provisions in Section 85, "Pavement Markers" of the Standard Specifications and these Special Provisions.

Pavement markers shall be placed to the line established by the Engineer. All additional work necessary to establish satisfactory lines for markers shall be performed by the Contractor.

Pavement markers shall be installed where indicated on the plans in accordance with the indicated striping detail. Refer to Standard Plans A20-A through A20-D for striping and markings details.

Markers removal shall be performed by a method approved by the Engineer. Any pavement scarring resulting from the markers removal shall be repaired to the satisfaction of the Engineer.

Blue reflective pavement markers designating the location of fire hydrants within project limits shall be replaced after the paving is completed at all fire hydrants locations, whether the blue reflective makers exist or not prior to paving. Installation of blue markers shall comply with the requirements of MUTCD 2012, Figure 3B-11.

### ***Method of Payment***

Payment for furnishing and placing Pavement Markers (Reflective) will be at the unit price bid and shall include full compensation for removal and disposal of existing markers, furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and placing pavement markers, complete in place, including adhesives, and establishing alignment for pavement markers, as shown on the plans, as specified in these special provisions, and as directed by the Engineer and no additional compensation will be allowed therefor.

### **DETECTOR LOOP:**

Detectors shall conform to the provisions in Section 86-5, "Detectors", of the Standard Specifications and these Special Provisions.

Delay timers shall delay calls only during display of the associated red or yellow indications. If a vehicle departs the area of detection prior to expiration of the assigned delay period, the timer shall reset and no call shall be placed upon the controller. During display of the associated green indication, detectors shall operate in the present mode and calls shall not be delayed.

### **Inductive Loops**

Detector loops' configuration shall be Type E unless otherwise shown on the construction plan, in the Special Provisions or as directed by the Engineer.

Limit Line detector loop configuration shall be modified Type E with diagonal saw cuts and wire winding conforming to Type D loop configuration.

Detector loops' wire shall be Type 2.

Detector loops' lead-in cable shall be Type B.

Detector loops' curb terminations shall be Type A in accordance with Standard Plans ES-5D. The conduit shall extend 18 inches into the paved roadway.

Loop sealant shall be the Hot-Melt Rubberized Asphalt sealant type, unless otherwise directed by the Engineer. Loop conductors and sealant shall be installed on the same day the loop slots are cut.

All detector loops shall be tested sequentially by the following methods:

- impedance (measured by megaohms)
- resistance (measured by ohms)
- inductance (measured in microhenries)

### ***Method of Payment***

The contract unit bid price paid per each for Detector Loops including the removal and disposal of existing detector loops as shown on the plans and as specified in the special provisions and as directed by the Engineer shall include full compensation for furnishing all labor, materials, tools, and equipment and no additional compensation will be allowed therefor."

### **MOBILIZATION, DEMOBILIZATION, AND FINAL CLEANUP:**

Mobilization shall consist of preparatory work and operations, including, but not limited to those necessary for the movement of personnel, equipments, supplies and incidentals to the project site 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.

De-mobilization shall consist of the completion of all final construction and administrative work required to secure the project for termination and acceptance by the Engineer, including, but not limited to the following:

1. Satisfactory completion of Finishing Roadway in accordance with Section 22, "Finishing Roadway" of the Standard Specifications;
2. Removal of all temporary facilities, construction office, temporary utilities, plant, equipment, surplus material, construction debris and similar from project limits and adjacent property, as required and as directed by the Engineer;
3. Restoration of all temporary roads and haul routes and construction storage and office areas, etc. to original or better condition;
4. Completion of record of drawings (as-built), to the satisfaction of the Engineer;
5. Submission of final certified payroll documents to the Engineer;
6. Submission of property owner releases, as required by the Engineer;
7. Completion of the requirements of permits issued by other agencies;
8. Satisfactory completion of all other contractually and legally required construction and administrative items of work.

De-Mobilization shall include the satisfactory completion of all items of work, but shall not be construed as being a separate payment for work that is paid under separate contract items. The De-Mobilization is intended for proper close-out activities.

### ***Method of Payment***

- A. The following schedule will be used to determine measurement of mobilization, demobilization and final cleanup and disbursement of the bid price for mobilization, demobilization and final cleanup:

<b>Percent of Contract work Completed (\$ Expended/ \$ Total Contract Price)</b>	<b>Percent of Mobilization, Demobilization, and Final Cleanup Considered to be Complete (Compensated for)</b>
10% - 50%	30%
51% - 79%	40%
More Than 80%	50%
Upon Demobilization and Final Cleanup	100%

- B. Payment of Mobilization, Demobilization and Final Cleanup work shall be based upon the fixed bid price for Bid item, **“Mobilization, Demobilization and Final Cleanup.”** Payment shall constitute full compensation for all labor, material, equipment, and all other items necessary and incidental for completion of this item of work. The deletion for work or the addition of extra work, as provided for herein, shall not affect the price paid for Mobilization, Demobilization, and Final Cleanup.

### **MEDIAN DEMOLITION/HARDSCAPE/IRRIGATION:**

Median Demolition/Hardscape/Irrigation includes removal of existing median landscaping and non-pressurized irrigation systems from Winchester Road to Inverness Way. The existing landscaping, except trees, and non-pressurized irrigation system shall be removed and the median fine graded in accordance with Demolition and Hardscape plans. Demolition/Hardscape/Irrigation shall comply with the special provisions, Appendix “A”, or as directed by the Engineer. After removing the non-pressure irrigation facilities, the facilities shall be checked for proper operation and repaired if needed. The Contractor shall be responsible for watering trees and for the routine maintenance of the remaining irrigation systems until accepted by the County. The work shall include, but not limited to, checking irrigation systems for proper operation and adjusting, repairing or replacing valves, valve boxes, sprinklers, risers, swing joints, wye strainers, valve assembly units, and filter assembly units.

Refer to Appendix “A” of these Special Provisions for “Irrigation System” and “Natural Stone and Rock Work” provisions.

### ***Method of Payment***

Contract unit bid prices will be paid as listed in the bid list (Proposal) which shall include furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in Median Landscaping, Irrigation and Grading complete in place until accepted, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and no additional compensation will be allowed therefor.

**APPENDIX A**  
**(IRRIGATION AND LANDSCAPING)**

**SECTION 328400**  
**IRRIGATION SYSTEM**

**PART 1 - GENERAL**

**1.01 SUMMARY:**

- A. This section covers the furnishings of all materials and performing all operations to provide a complete operable landscape irrigation system as shown on the drawings including the following:
  - 1. Trenching, stockpiling excavated materials and refilling trenches.
  - 2. Irrigation system components including but not limited to: valves and fittings.

**1.02 GENERAL REQUIREMENTS:**

- A. Code Requirements shall be those of State and Municipal Codes and Regulations locally governing this work, providing that any requirements of the Drawings and Specifications, not conflicting therewith but exceeding the Code Requirements shall govern, unless written permission to the contrary is granted by the County Inspector.
- B. Conform to the requirements of the reference information listed below except where more stringent requirements are shown or specified in the most current set of construction documents:
  - 1. American Society for Testing Material (ASTM), for test methods specifically referenced in this section.
  - 2. Underwriter's Laboratories (UL), for UL wires and cables.
- C. Specified depths of pressure supply lines, laterals and pitch of pipes as stated in this section are minimums. Settlement of trenches lower than grades specified on the final grading plans is cause for removal of finish grade treatment, refilling trenches, recompacting and repairing of finish grade treatment.
- D. Follow current printed manufacturer's specifications and drawings for items or information not specified or graphically indicated in the most current set of construction drawings.
- E. Scaled dimensions are approximate and at times it is not possible to indicate offsets, fittings and other related equipment graphically on the construction drawings. Contractor shall be responsible for minor changes caused by actual site conditions. Before proceeding with any work, the Contractor shall carefully check and verify all dimensions of related architectural elements, utilities and landscaping and furnish and install required fittings.
- F. Do not install the irrigation system as shown on the construction drawings when it is obvious that actual field conditions such as physical obstructions, grading discrepancies



and field dimensions vary from those recorded on the construction drawings. Immediately bring any such discrepancies to the attention of the County Inspector prior to proceeding with work. If immediate notification is not given and such discrepancies exist, the contractor shall assume full responsibility for necessary revisions, as determined by the architect.

#### 1.03 EXISTING FIELD CONDITIONS:

- A. Preserve and protect all existing trees, plants, monuments, structures, hardscape and architectural elements from damage due to work in this section. In the event that damage does occur to inanimate object and structures, the contractor will repair or replace such damage to the satisfaction of the owner or owner's representative. Damage or injury to living plant material will be replaced by the contractor at the contractor's expense.
- B. Trenching or other work required in this section under the limb spread of existing trees shall be done by hand or by other methods so as to prevent damage or harm to limbs, branches and roots.
- C. Trenching in areas where root diameter exceeds 2 inches shall be done by hand. Exposed roots of this size shall be heavily wrapped with moistened burlap to avoid scarring or excessive drying. Where a trenching machine is operated in proximity to roots that are less than 2 inches, the wall of the trench shall be hand trimmed , making clean cuts through roots.
- D. Trenches adjacent to or under existing trees shall be closed within 24 hours , and when this is not possible, the side of trench closest to the tree or trees affected shall be covered with moistened burlap.
- E. Protect, maintain and coordinate work with other contracts, specifications, trades, and utilities. Extreme care shall be exercised in excavating and working in the area due to existing utilities. Contractor shall be responsible for damages caused by their operations. In the event that damage does occur, the costs of such repairs shall be paid by the contractor unless other arrangements have been made with the owner.
- F. Use caution where trenches and piping cross existing roadways, sidewalks, hardscape, paths or curbs. In the event that damage does occur, the contractor will repair such damage at the contractor's expense.

#### 1.04 REQUIRED DOCUMENTS:

- A. Submittals
  - 1. Submit (2) two sets of all irrigation equipment to be used, manufacturer's brochures, service manuals, guarantees, and operating instructions for approval to the County Inspector prior to beginning work. Submittals should be in a bound form complete with table of contents. The contractor shall not proceed with work in the field until this submittal is approved in its entirety by the County Inspector.

## **PART 2 - PRODUCTS**

### **2.01 PIPING**

#### **A. General Piping:**

1. Pipe sizes shown are nominal inside diameter unless otherwise noted.
2. Pipe shall be identified with the following indelible markings:
  - a. Manufacturer's name.
  - b. Nominal pipe size.
  - c. Schedule or class.
  - d. Pressure rating.
  - e. NSF (National Sanitation Foundation) seal of approval.
  - f. Date of extrusion.

#### **B. Solvent Weld Pressure Supply Line:**

1. Solvent Weld Purple Pressure Supply Line: (downstream of Backflow prevention device) PVC SCH. 40 (1" - 3")
  - a. Manufactured from virgin polyvinyl chloride (PVC) compound in accordance with ASTM D2241 and ASTM D1784; cell classification 12454-B.
  - b. Type 1, Grade 1.
2. Fittings: Standard weight, Schedule 80, injection molded PVC, complying with ASTM D1784 and D2466, cell classification 12454-B.
  - a. Threads- Injection molded type (where required)
  - b. Tees and Ells- side gated
3. Threaded Nipples: ASTM D2464, Schedule 80 with molded threads.
4. Joint Cement and Primer: Type as recommended by manufacturer of pipe and fittings.

#### **C. Non-Pressure Lines Below Grade:**

1. Purple Non-Pressure Lines: (downstream of electric remote control valve) PVC SCH 40.
2. Fittings: Standard weight, Schedule 40, injection molded PVC, complying with ASTM D1784 and D2466, cell classification 12454-B.
  - a. Threads- Injection molded type (where required)
  - b. Tees and Ells- side gated
  - c. Threaded Nipples: ASTM D2464, Schedule 80 with molded threads.

3. Joint Cement and Primer: Type as recommended by manufacturer of pipe and fittings.

D. Sleeving and Conduit:

1. All PVC sleeving for non- pressure supply line shall be installed in the size as listed on legend. Existing irrigation pressure supply line will not require sleeving.

2. Sleeving and Conduit Material Under Hardscape:

a. Purple PVC Sch. 40

## 2.02 ELECTRIC CONTROL VALVES

- A. Electric Remote Control Valves: Electric control valves with purple handle / tag, pressure regulating feature two way solenoid, pilot operated made of synthetics, non corrosive material; diaphragm activated and slow closing. Include freely pivoted seat seal, retained (mounted ) without attachment to diaphragm.

B. Isolation Ball Valve at Manifold and/or Electric Control Valve:

1. Ball Valve: PVC threaded true union ball valve, with heavy bodied PVC construction, buttress threaded double union nuts, safe-t-block seal carrier, PTFE ball seat, high impact polypropylene handlesafe-t-shear stem, full schedule 80 bore, 235PSI rating, NSF listed.

## 2.03 DRIP VALVE ASSEMBLIES:

- A. Electric Remote Control Valves: Electric control valves with purple handle / tag, pressure regulating feature two way solenoid, pilot operated made of synthetics, non corrosive material; diaphragm activated and slow closing. Include freely pivoted seat seal, retained (mounted ) without attachment to diaphragm.

- B. Wye Strainer: 150 mesh screen for point to point drip and sub surface

- C. Isolation Ball Valve: Ball Socket Ball Valve with thermoplastic molded one piece construction and teflon seat with EDPM cushions.

## 2.04 VALVE BOXES:

- A. Valve boxes shall have locking covers secure with a 3/8-inch stainless steel bolt and washer.

- B. Rectangle valve boxes shall be used for control valves, pressure regulators, flow sensors, wye strainers, filtration devices, ball valves and pull boxes.

- C. All valve boxes for reclaimed water shall be purple in color and bare the reclaimed water warnings as well as the international "Do Not Drink" symbol.

- D. All valve boxes shall receive landscape fabric. Landscape fabric shall be constructed of 5.0 oz. weight proven polypropylene weed barrier with burst strength of 225 P.S.I. and capable of 12 gallons per minute of water flow and puncture strength of 60 lbs. Dewitt Pro, Mirify or approved equal. Product as listed here is for guideline only. Contractor's attention is directed to : "Reference Specific Brands or Product" of these Special Provisions.
- E. All valve boxes shall receive 2 cubic feet of 3/4-inch gravel.
- F. Purple Valve Tag: Manufactured from UV stabilized plastic with 180lbs pull out resistance and hot stamped for maximum visibility. Top hole shall be designed to pass a 16 gauge or smaller solenoid pigtail or attach with a nylon tie.

### **PART 3 - EXECUTION**

#### **3.01 PREPARATION**

- A. Examine field conditions prior to beginning work described in this section. Grading operations shall be completed and approved prior to beginning work.
- B. Verify all sleeve locations below future hardscape and/or across concrete v-ditches prior to beginning work in this section. Flag all existing sleeves and conduits installed by other trades. Report any conflicts and discrepancies to the County Inspector immediately.
- C. Install sleeves, to accommodate lateral line pipe, under decomposed granite and concrete header, prior to the installation of these hardscape components. Compact backfill around sleeves to 95% Modified Proctor Density within 2% of optimum moisture content in accordance with ASTM D1557.

#### **3.02 EXCAVATION AND BACKFILLING OF TRENCHES**

- A. Trench excavation shall as much as possible follow the layout shown on the drawings. Trenches shall be straight in alignment and support pipe continuously on bottom of trench. Remove rocks and debris greater than 1" in diameter. Over excavate as required for bedding material.
- B. Depth of Trench (in landscape areas and under decomposed granite):  
  
Pressure Supply Line (3" and smaller): 18" from top of pipe to finish grade.
- C. Width of Trench:  
  
Pipe Greater than 3": 14" minimum.  
Pipe Less than 3": 7" minimum.
- D. Width between Trenches:

Irrigation Trench to Irrigation Trench: 6" minimum.  
Irrigation Trench and other Trade Trenches: 12" minimum.

- E. Backfilling: Backfilling of trenches may not be done until all required testing for the irrigation system has been completed.
1. Material: Excavated material is generally considered to be adequate for backfilling operations. Before beginning the backfilling operation, insure that backfill material is free from debris and rocks greater than 1" in diameter, and is not mixed with topsoil. These materials after separated from backfill, shall be legally disposed of at contractor's expense.
  2. Bedding: Bed pressure supply line with construction grade sand 6" above and 6" below pipe as shown on details. Remaining backfill may be as described above.
  3. Bed all electrical control wire trenched separate from pressure supply line, with construction grade sand 6" above and 6" below wires.
  4. When backfilling, slightly mound filled trenches for settlement after backfilling is compacted. Compact backfill to a 90% maximum density in accordance with ASTM D1557 with a mechanical tamper. Do not leave trenches open for a period greater than 48 hours. Open trenches shall be protected in accordance with current OSHA regulations.
  5. Smooth trenches to finish grade prior to requesting a walk through for substantial completion with the architect.

### 3.03 INSTALLATION OF SOLVENT WELD POLYVINYL CHLORIDE PIPE (PVC)

- A. Polyvinyl chloride pipe shall be cut with an approved PVC pipe cutter designed only for that purpose.
- B. All plastic-to-plastic solvent weld joints shall use only the solvent recommended by the pipe manufacturer. Do not install solvent weld pipe when temperature is below 40° F.
- C. Pipe ends and fittings shall be wiped with MEK, or approved equal, before welding solvent is applied. Welded joints shall be given a minimum of 15 minutes to set before moving or handling. Product as listed here is for guideline only. Contractor's attention is directed to : "Reference Specific Brands or Product" of these Special Provisions.
- D. Pipe shall be snaked from side-to-side on trench bottom to allow for expansion and contractions.
- E. All changes of direction over 15 degrees shall be made with appropriate fittings.
- F. When pipe laying is not in progress at the end of each working day, close pipe ends with tight plug or cap.

- G. Install pressure supply line locating tape along the entire length of pressure supply line.
- H. Coordinate pressure supply line with sand bedding operations.
- I. No water shall be permitted in the pipe until inspections have been completed and a period of at least 24 hours has elapsed for solvent weld setting and curing.
- J. Center load pipe with small amount of backfill to prevent arching and slipping under pressure. Leave joints exposed for inspection during testing.

#### 3.04 ELECTRIC CONTROL VALVES

- A. Install each electric control valve in a separate valve box so that cross handle is 3" min. below valve box cover as specified on the detail drawings.
- B. Locate electric control valves as shown on plans. Install valve boxes in the same direction and parallel with one another and perpendicular to paving, hardscape, sidewalks and paths.

#### 3.05 VALVE BOXES

- A. Install valve boxes with each type of irrigation equipment so that top of valve box is above finish grade as specified on the detail drawings. Valve box extensions are not acceptable.
- B. Place gravel sump below and around each valve box prior to installing valve box as specified on the drawings. Place remaining portion of gravel inside valve box allowing full access in and around all fittings. Valve box shall be fully supported by gravel sump. No brick or wood supports are allowed.

**END OF SECTION 328400**

**SECTION 04450**  
**NATURAL STONE AND ROCK WORK**

**PART 1 – GENERAL**

**1.01 SUMMARY:**

The work includes all services, labor, materials, transportation and equipment necessary to perform the work indicated on the Drawings and as specified. The conditions of the Contract and General and Supplementary Conditions apply to this section as fully as if repeated herein.

**1.02 GENERAL REQUIREMENTS:**

- A. Provide natural rock work as shown on the Drawings, as specified herein and as needed for a complete and proper installation.
- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work in this section.

**1.03 SUBMITTALS**

- A. For each product specified, submit a 5lb. sample and sieve analysis for grading of decomposed granite to be sent to the County Inspector for submittal to Stabilizer Solutions prior to any construction (allow a 2 week turn around). Submittals must be approved by the County Inspector, owner and Stabilizer Solutions prior to beginning the mock-up as described in this specification.

**1.04 QUALITY ASSURANCE**

- A. Install one 3' X 3' mock-up of the decomposed granite as shown on the details with stabilizer additive as described in these specifications for approval by the County Inspector prior to installing the remainder of the decomposed granite. The mock-up period shall continue until written approval is submitted to the owner and installing contractor by the County Inspector confirming that the mock-up meets the specifications herein. Upon written approval of the mock-up by the County Inspector, the installing contractor may commence with the remaining installation of the landscape decomposed granite.

**1.05 WARRANTY**

- A. General Warranty: The special warranty specified in this section shall not deprive the owner of other rights the owner may have under the provisions of the contract documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the contract documents.
- B. Special Warranty: Prior to commencing work, the installing contractor shall submit a written warranty to the owner on the installing contractor's letterhead. The warranty shall state that the installing contractor agrees to repair and/or replace stabilized decomposed granite in the

landscape median maintenance strip that fail in materials and workmanship within the specified warranty period. Failures include, but are not limited to, the following:

1. Premature wear and tear provided the material is maintained in accordance with the manufacturer's written maintenance instructions.
  2. Failure of the system to meet the performance requirements as outlined by the manufacturer.
- C. Warranty Period: The installing contractor shall provide a warranty for performance of product installed for a period of one year from the date of full acceptance of the landscape median decomposed granite. This warranty shall be written on the installing contractor's letterhead and delivered to the County Inspector for conveyance to the owner at the time of the final walk through.

## **PART 2 - PRODUCTS**

### **2.01 LANDSCAPE MEDIAN DECOMPOSED GRANITE:**

- A. Product as listed here is for guideline only. Contractor's attention is directed to : "Reference Specific Brands or Product" of these Special Provisions.

- B. Apache Brown Decomposed Granite  
Decorative Stone Solutions  
P.O. Box 662  
Rancho Cucamonga, CA 917-0662  
Contact: Randy Jergunson

(909) 202-9279 Mobile  
(800) 699-1878 Office  
(909) 356-1446 Fax

[randy@decorativestonesolutions.com](mailto:randy@decorativestonesolutions.com) Email

- C. Patented, non toxic, organic binder that is a colorless and odorless concentrated powder that binds 3/8" decomposed granite or crushed aggregate  
Stabilizer Solutions, Inc.  
205 South 28<sup>th</sup> St.  
Phoenix, Arizona 85034  
Contact: Laura Hubbs

(602) 225-5900 Office  
(602) 225-5902 Fax

Email [lphubbs@stabilizersolutions.com](mailto:lphubbs@stabilizersolutions.com)  
[www.stabilizersolutions.com](http://www.stabilizersolutions.com)



### **PART 3 - EXECUTION**

#### **3.01 SURFACE CONDITIONS:**

Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.

#### **3.02 INSTALLATION OF LANDSCAPE DECOMPOSED GRANITE:**

- A. Blend 12lbs of Stabilizer per 1-ton of decomposed granite screenings. It is critical that the Stabilizer be thoroughly and uniformly mixed throughout the decomposed granite. Pugmilling is an acceptable method, bucket blending is not acceptable. Blending with a rake or a shovel is not acceptable. Install decomposed granite in (1) one 4" lift.
- B. Lightly water stabilized decomposed granite to achieve full depth moisture penetration without blasting away or eroding the material. Water activates the stabilizer.
- C. After applying water wait a minimum of 6 hours and maximum of 48 hours and then use a water filled lawn roller filled to capacity and roll the entire area. Take care when rolling not to damage adjacent landscaping or irrigation.

#### **3.03 QUALITY CONTROL:**

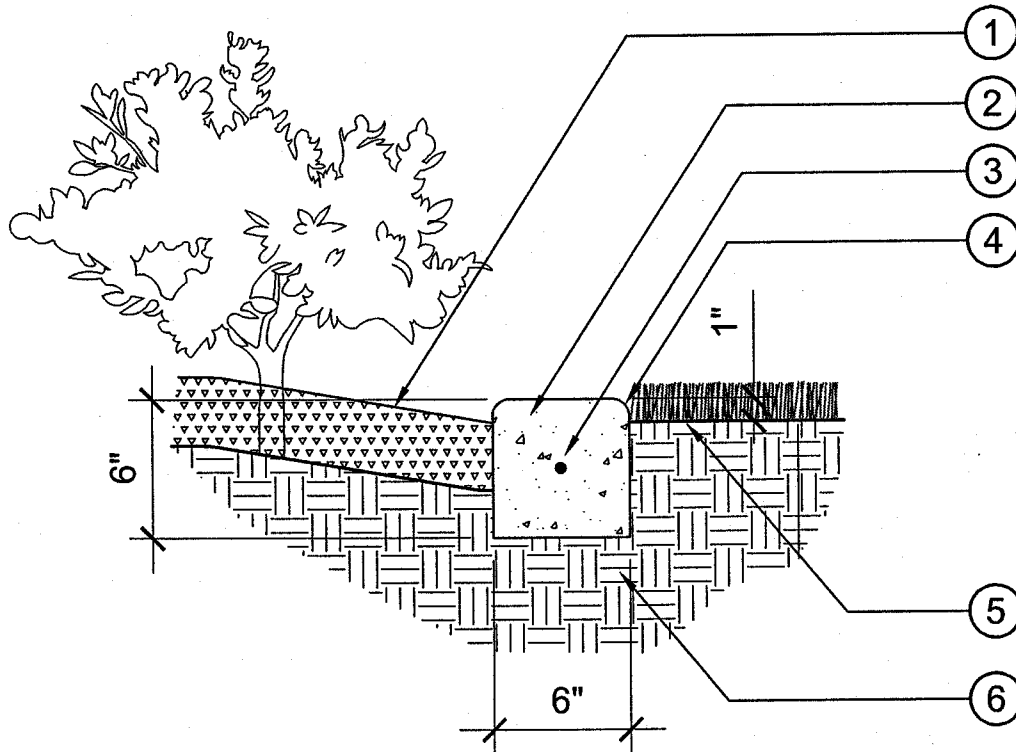
- A. Preconstruction Meeting: The contractor is responsible for contacting the County Inspector prior to beginning construction and/or ordering materials to establish a meeting to review and discuss project objectives, concerns and to review the construction documents to insure a complete understanding of required installation procedures.
- B. General Observation: The County Inspector will visit the construction site at interim times during the construction process to access construction progress regarding installation of landscape median maintenance strip and boulder placement to insure compliance with the drawings, details, specifications and site conditions. The County Inspector will prepare a site report after each visit noting progress of installation, verbal communication with the contractor and identifying any field adjustments necessary, which require modifications to the designed wall, and fencing system. A copy of this site report will be delivered to both the owner and the contractor. The contractor is responsible for immediately addressing each item on the site report before proceeding with further construction.
- C. Walk Through For Substantial Completion:
  - 1. Before requesting a walk through for substantial completion the following requirements must be entirely satisfied:
    - a. The landscape median decomposed granite is completely installed.

2. Visual Walk Through: This will consist of walking through the decomposed granite installation. A punch list will be established of deficiencies in the construction and workmanship of the landscape median decomposed granite.
3. Once the Walk Through for Substantial Completion has been completed the landscape architect will provide a copy of all punch list items to the owner for review and distribution to the contractor. It is the contractor's responsibility to repair, replace, and adjust all items on the punch prior to requesting a final walk through.

D. Final Walk Through:

1. Before commencement of a final walk through is requested, the following requirements must be entirely satisfied:
  - a. Each item on the walk through for substantial completion has been thoroughly addressed and resolved by the contractor.
2. Visual Walk Through: This will consist of walking through the punch list items created at the time of the walk through for substantial completion, and examining all the components of the landscape median maintenance strip noted on the punch list. Any remaining deficiencies in the construction and workmanship of the wall and pilaster system as compared to the punch list generated at the time of the walk through for substantial completion, construction drawings, details and specifications will be noted.
3. Once the Final Walk Through is completed and all items created on the final punch list have been addressed the maintenance period may begin. Any additional walk throughs required due to contractors' inability to address all issues on the punch lists described above will be provided at the contractor's expense.
4. Maintenance period will extend on decomposed granite until Formal Notice of Completion (NOC) is issued by the County on the project.

**END OF SECTION 04450**



- ① PLANTING AREA WITH MULCH  
TRANSITION AT HARDSCAPE
- ② CONCRETE HEADER,  
SMOOTH TROWEL FINISH
- ③ #3 REBAR CONTINUOUS,  
OVERLAP 12" @ ALL SPLICES

- ④ 1/2" RADIUS TYP
- ⑤ TURF
- ⑥ BASE AND COMPACTION PER  
GEOTECHNICAL REPORT

**NOTE:**  
LOCATE WEAKENED PLANE JOINTS  
AT 20' O.C. MAX, AND AT ALL  
CHANGES IN DIRECTION

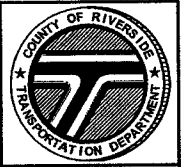


COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT

## CONCRETE HEADER

APPROVED BY:

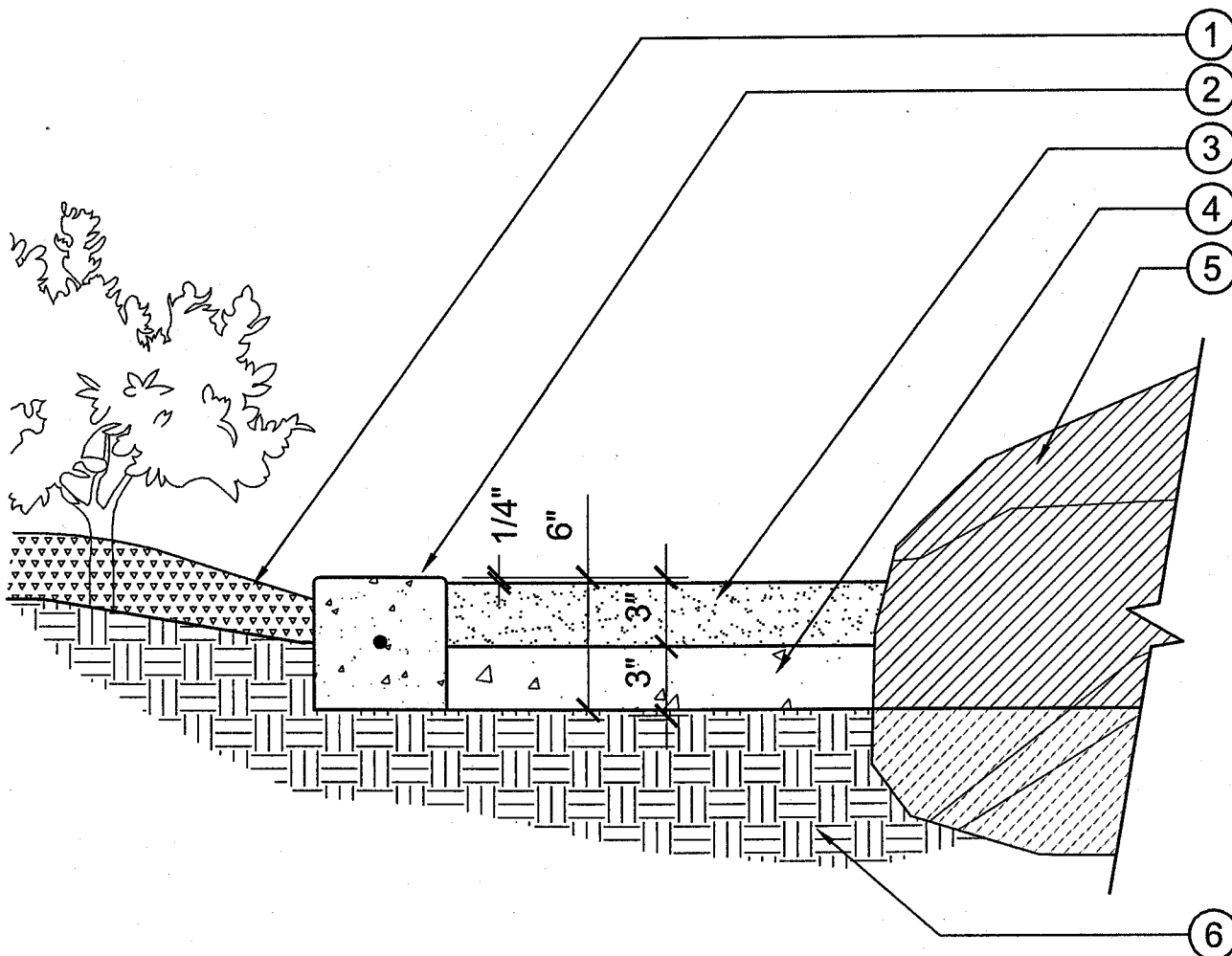
REV:



STD. H-004

1 1/2"=1'=0"

DATE: 10-21-11



① PLANTING AREA WITH MULCH  
TRANSITION GRADING AT CONCRETE  
HEADER

② CONCRETE HEADER  
(PER HEADER DETAIL)

③ STABILIZED DECOMPOSED  
GRANITE. INSTALL AND COMPACT  
IN ONE (1) 3" LIFT, COLOR PER PLAN.

④ APPROVED ROAD BASE MATERIAL  
INSTALL IN ONE (1) 3" LIFT, COMPACT TO 90%

⑤ BOULDER (WHERE APPLICABLE)

⑥ BASE AND COMPACTION TO 90%  
OR PER GEOTECHNICAL REPORT

**NOTE:**

PROVIDE PRE-EMERGENT  
HERBICIDE TO SUBGRADE OF  
SURFACING PRIOR TO INSTALLING  
DECOMPOSED GRANITE



COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT

## DECOMPOSED GRANITE SURFACING

INERT LANDSCAPE AREA

APPROVED BY:

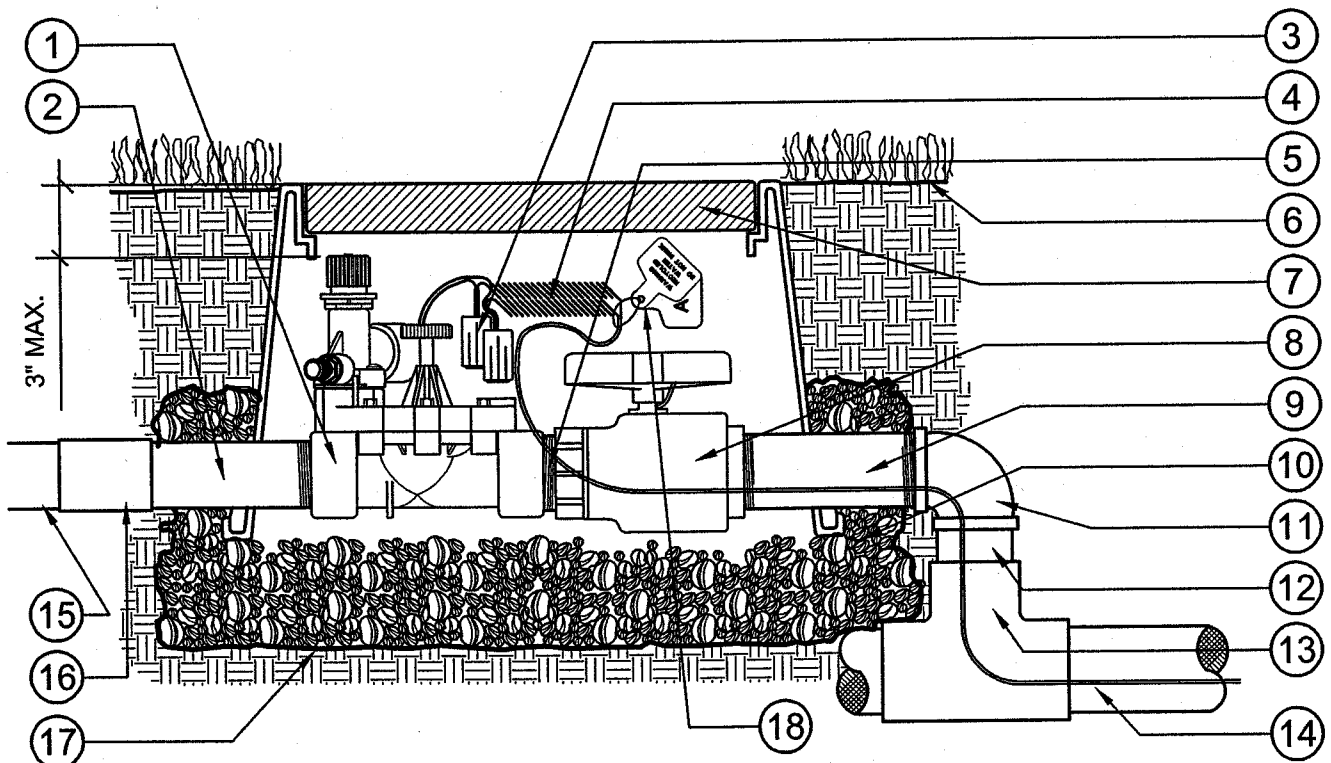
REV:



STD. H-010

1 1/2" = 1'-0"

DATE: 10-21-11



- ① ELECTRIC CONTROL VALVE
- ② 6" LONG SCH. 80 TOE NIPPLE (LATERAL LINE SIZE)
- ③ CONNECT WIRES TO VALVE USING WATER TIGHT CONNECTORS (SEE SPECIFICATIONS)
- ④ USE 1/2" PVC SCRAP T WRAP 12" OF ADDITIONAL WIRE BEFORE CONNECTING
- ⑤ CLOSED NIPPLE (LINE SIZE)
- ⑥ FINISH GRADE
- ⑦ RECTANGULAR PURPLE VALVE BOX (SEE SPECIFICATIONS, DO NOT CUT ADDITIONAL HOLES INTO BOX)
- ⑧ PVC SCH 80 BALL VALVE (LINE SIZE)
- ⑨ 4" SCH 80 NIPPLE (LINE SIZE)

- ⑩ 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX. FILL TO TOP OF VALVE BOX HOLES
- ⑪ SLIP X FIP ELL (LINE SIZE)
- ⑫ PVC PRESSURE SUPPLY LINE (CUT TO FIT MAXIMUM DIMENSION FROM TOP OF VALVE TO TOP OF LID)
- ⑬ TEE IN PRESSURE SUPPLY LINE (LINE SIZE)
- ⑭ PRESSURE SUPPLY LINE (SEE PLAN FOR SIZE)
- ⑮ LATERAL LINE (SEE PLAN FOR SIZE)
- ⑯ SCH. 80 COUPLING (LATERAL LINE SIZE)
- ⑰ INSTALL FILTER FABRIC AROUND GRAVEL SUMP
- ⑱ VALVE IDENTIFICATION TAG AND RECYCLED WATER WARNING TAG

NOTE:  
BALL VALVE TO BE USED ONLY IF IRRIGATION CONTROL VALVE IS INSTALLED AS A SINGLE VALVE AND NOT PART OF A MANIFOLD.



STD. R-041

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT

## RECLAIMED ELECTRICAL CONTROL VALVE

WITH BALL VALVE

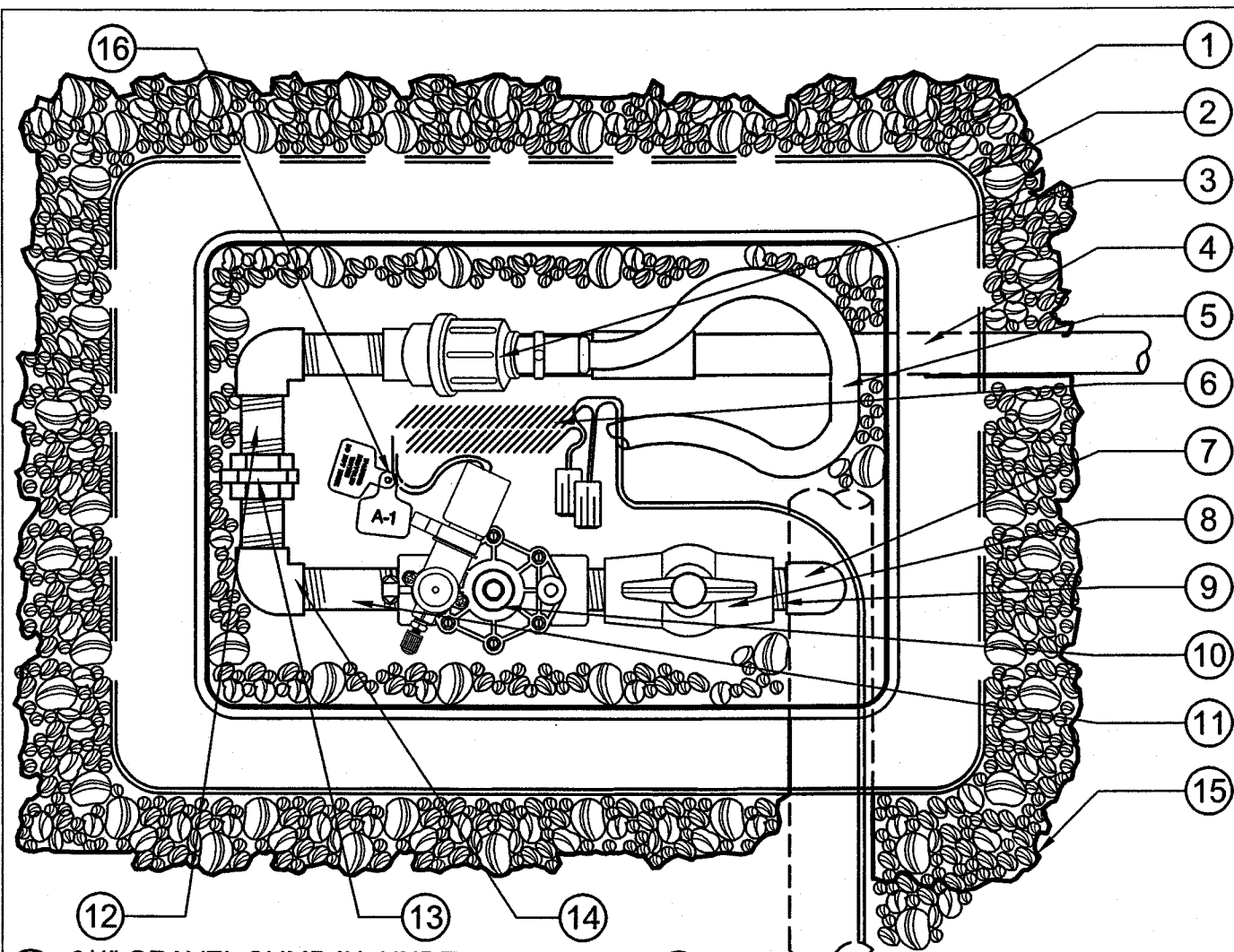
1 1/2"=1'-0"

APPROVED BY:



REV:

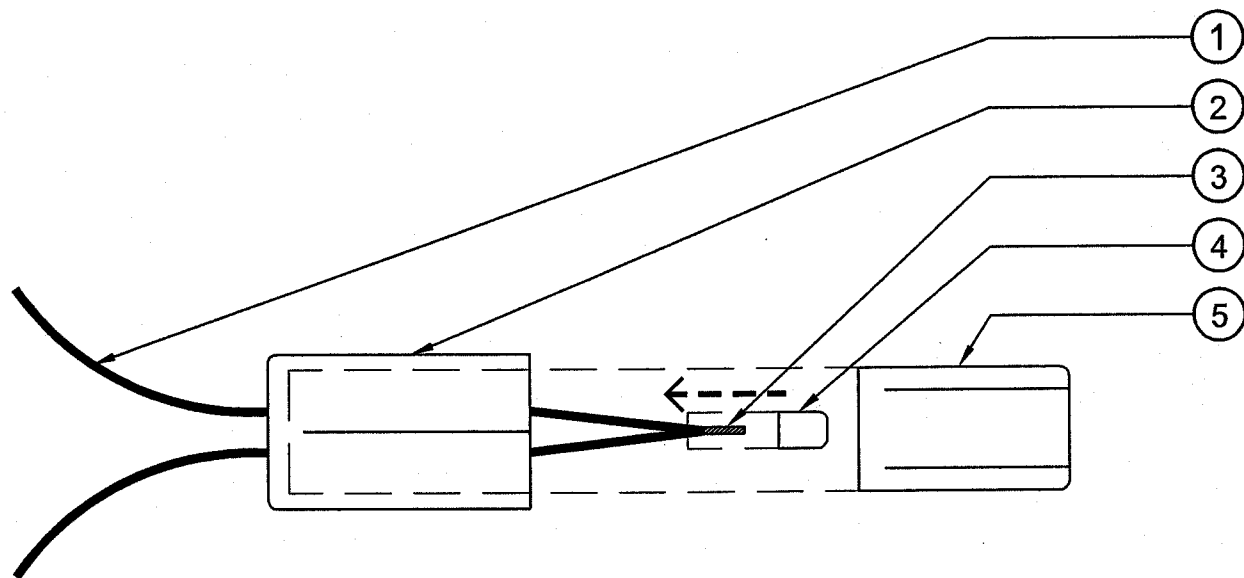


DATE: 10-21-11



- ① 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX. FILL TO TOP OF VALVE BOX HOLES
- ② RECTANGULAR PURPLE VALVE BOX (SEE SPECIFICATIONS, DO NOT CUT ADDITIONAL HOLES INTO BOX)
- ③ WYE STRAINER (SEE SPECIFICATIONS)
- ④ PURPLE PVC NON-PRESSURE LATERAL LINE OR POLYETHYLENE TUBING (SEE SPECIFICATIONS)
- ⑤ 18" LENGTH OF SCH. 40 FLEXIBLE PVC TUBING, CONNECT TO FILTER
- ⑥ USE 1/2" PVC SCRAP TO WRAP 12" OF ADDITIONAL WIRE BEFORE CONNECTING
- ⑦ PVC SCH. 40 SLIP X FIPT ELL CONNECTING RISER FROM PVC PRESSURE SUPPLY LINE
- ⑧ SCH. 80 PVC BALL VALVE (LINE SIZE)
- ⑨ CLOSED NIPPLE (2 REQUIRED)
- ⑩ 1" ELECTRIC CONTROL VALVE (WITH PRESSURE REGULATING FEATURE, SEE SPECIFICATIONS)
- ⑪ 2" SCH. 80 NIPPLE (2 REQUIRED)
- ⑫ 1" SCH. 80 NIPPLE (2 REQUIRED)
- ⑬ SCH. 80 PVC UNION (LINE SIZE)
- ⑭ PVC SCH. 40 FIP X FIP ELL (2 REQUIRED)
- ⑮ INSTALL FILTER FABRIC AROUND GRAVEL SUMP
- ⑯ RECYCLED WATER WARNING AND VALVE IDENTIFICATION TAG

	COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT		
	<b>RECLAIMED DRIP VALVE ASSEMBLY - 1"</b>		
	WITH BALL VALVE	APPROVED BY:	
STD. R-042	3"=1'-0"	REV:	DATE: 10-21-11



- ① LOW VOLTAGE WIRES, 3 MAXIMUM
- ② OUTER CASE OF CONNECTOR
- ③ STRIP AND TWIST WIRES FOR PROPER CONNECTION
- ④ COPPER SLEEVE CRIMP INSTALLED WITH RECOMMENDED TOOL
- ⑤ INNER CASE OF CONNECTOR

**NOTE:**

-FILL INNER CASE FILLED WITH SEALER PRIOR TO FINAL ASSEMBLY

-ALL WIRE ROUTED BETWEEN CONTROLLER AND REMOTE CONTROL VALVES SHALL BE A CONTINUOUS RUN WITH NO WIRE SPLICES

-WIRE SPLICES SHALL ONLY OCCUR AT THE REMOTE CONTROL VALVE.



COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT

## LOW VOLTAGE WIRE CONNECTOR

APPROVED BY:

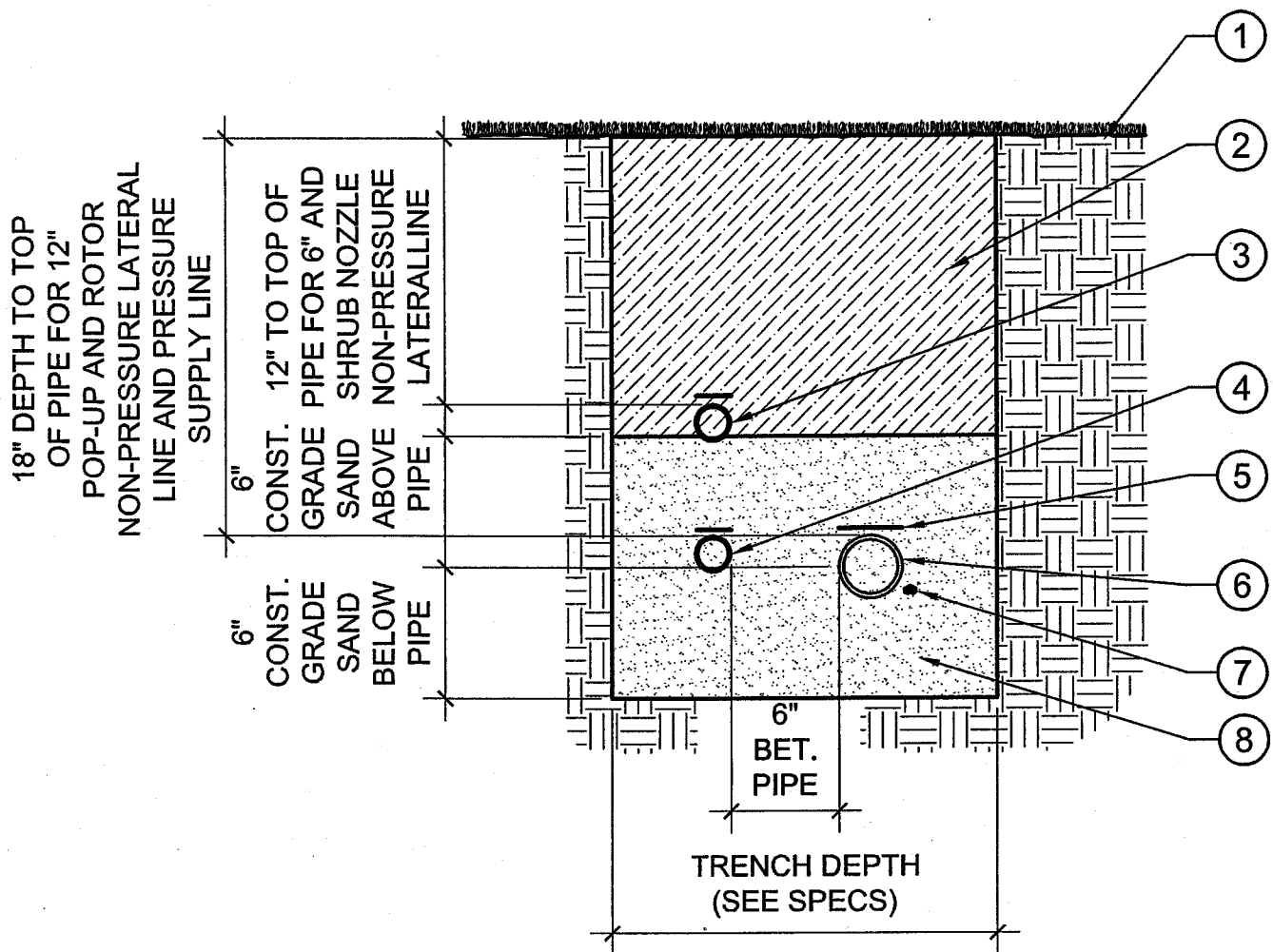
STD. G-021

N.T.S.

REV:



DATE: 10-21-11



STD. G-040

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT

## TRENCH IN LANDSCAPE

3"=1'-0"

APPROVED BY:

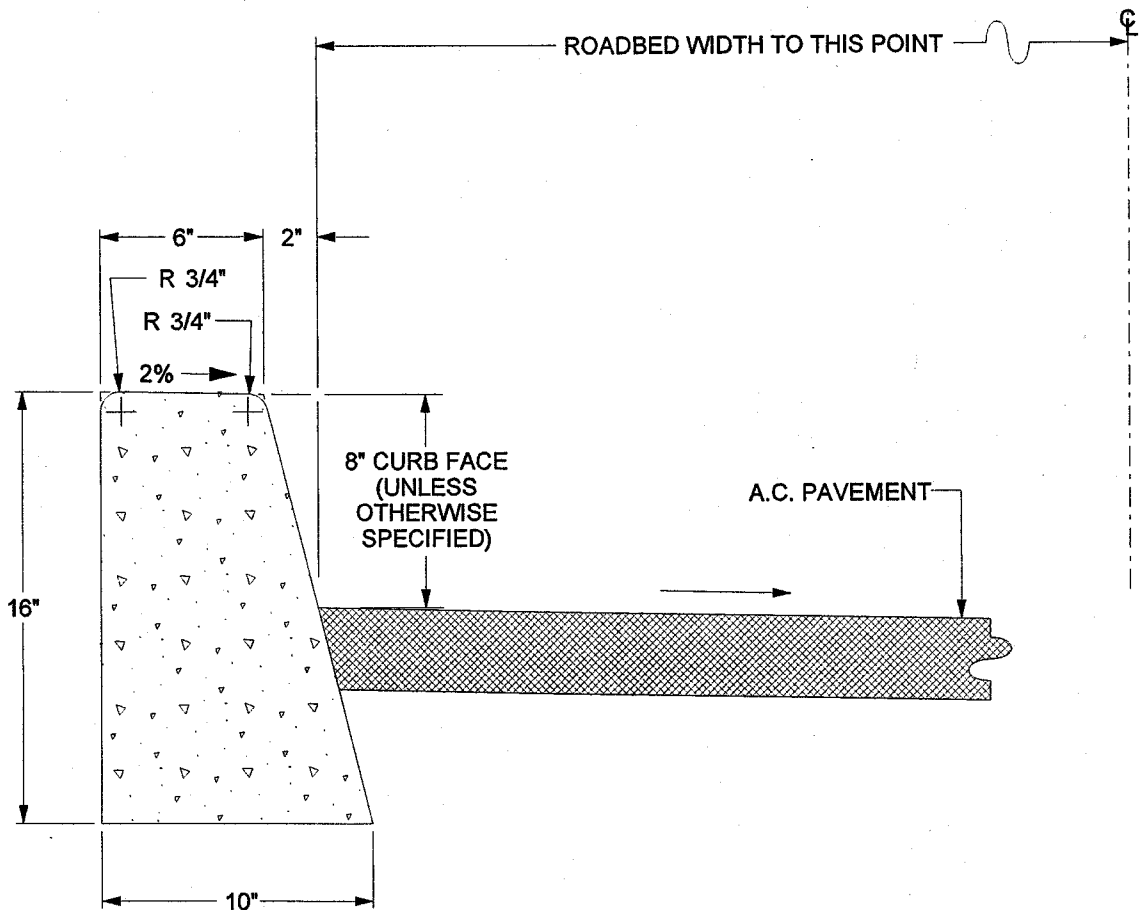
REV:



DATE: 10-21-11



## **REFERENCE DRAWINGS**



CLASS "B" CONCRETE

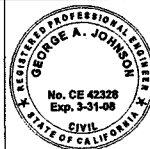
0.888 CU FT. / L.F.

1 CU. YD. = 30.41 L.F.

APPROVED BY:

*George A. Johnson*  
 DIRECTOR OF TRANSPORTATION  
 GEORGE A. JOHNSON, RCE 42328

DATE: 05/01/07



COUNTY OF RIVERSIDE

**TYPE "D" CURB**

STANDARD NO. 204

REVISIONS		REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
8-71, 2-90		1				4			
11-04		2				5			
		3				6			

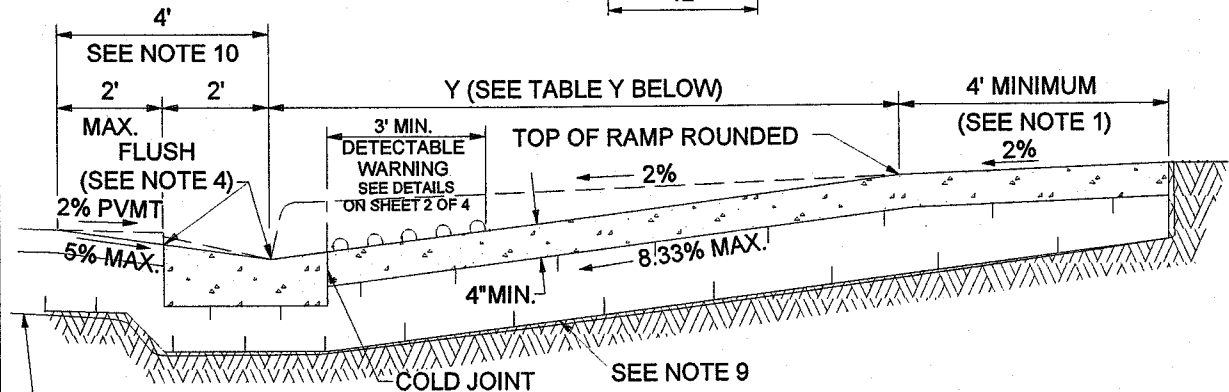
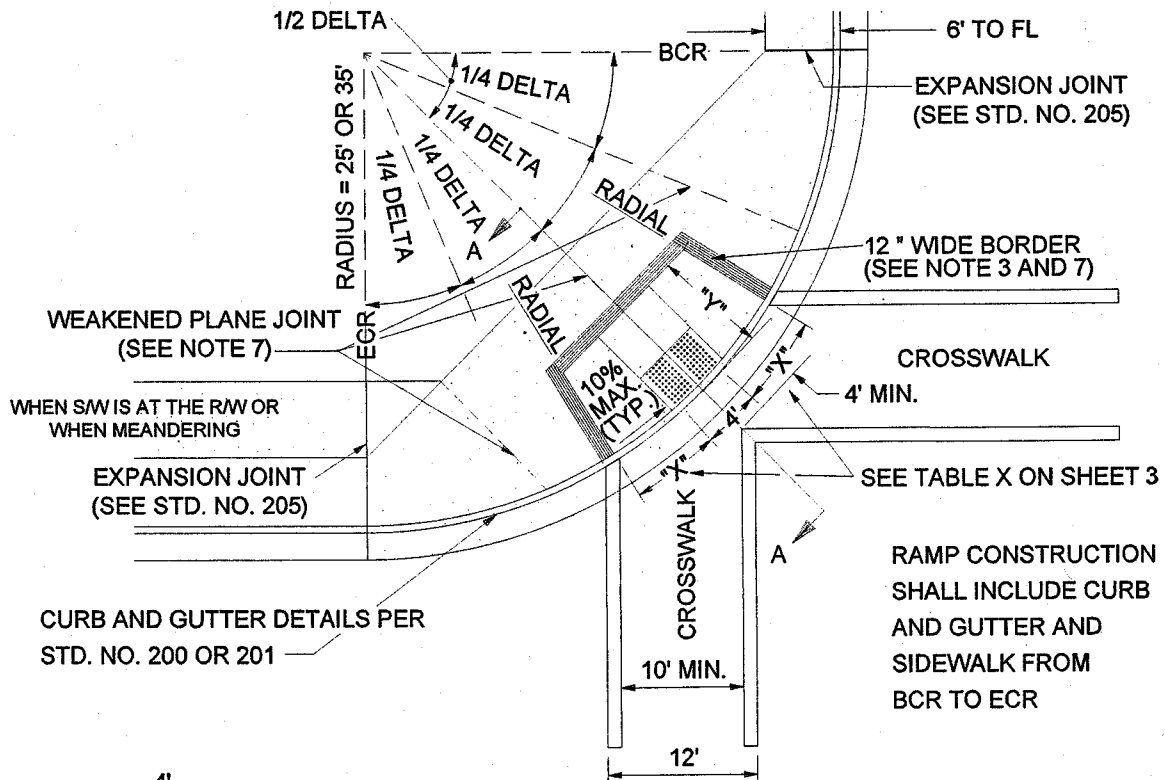


TABLE Y

CF	Y
6"	7.90'
8"	10.53'

$$Y = \frac{\text{CURB FACE (FT.)}}{6.33\%}$$

SECTION A-A

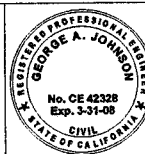
NOT TO SCALE

SEE SHEET 4 OF 4 FOR NOTES.

APPROVED BY:

*George A. Johnson*  
 DIRECTOR OF TRANSPORTATION  
 GEORGE A. JOHNSON, RCE 42328

DATE: 11/15/04

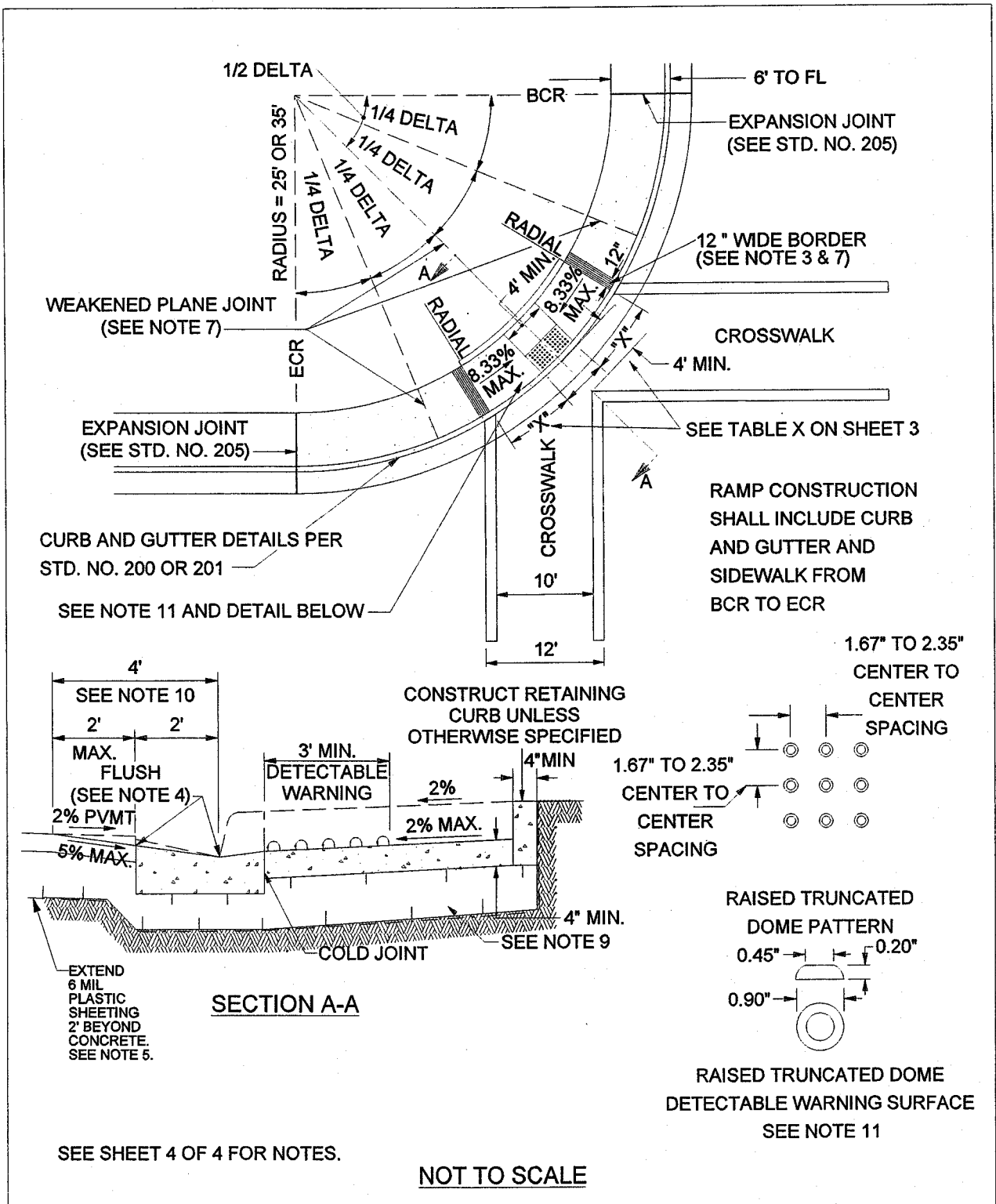


COUNTY OF RIVERSIDE

**CURB RAMP  
CASE A**

REVISIONS	REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
8-77, 5-80	1				4			
10-81, 6-82	2				5			
9-88, 2-90	3				6			

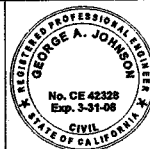
STANDARD NO. 403 (1 OF 4)



APPROVED BY:

*George A. Johnson*  
 DIRECTOR OF TRANSPORTATION  
 GEORGE A. JOHNSON, RCE 42328

DATE: 11/15/04



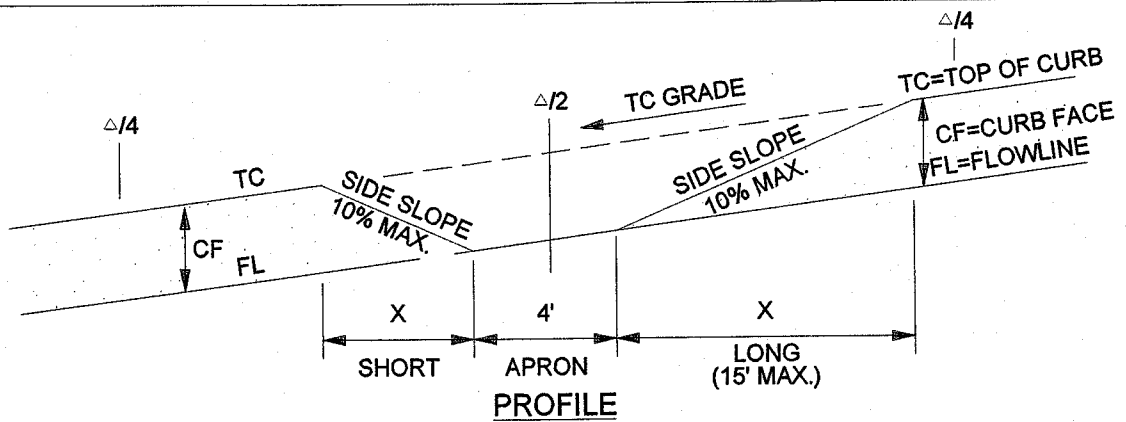
COUNTY OF RIVERSIDE

## CURB RAMP CASE B

REVISIONS		REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
8-77, 5-80	11-04	1				4			
10-81, 6-82		2				5			
9-88, 2-90		3				6			

12-97

STANDARD NO. 403 (2 OF 4)



**TABLE X**

CF (IN)	RADIUS (FT)	SIDE SLOPE	X	TC GRADE (ALONG CURB RETURN)					
				1%	2%	3%	4%	5%	6%
6"	35'	10%	X <sub>S</sub>	4.6	4.2	3.9	3.6	3.4	3.2
			X <sub>L</sub>	5.6	6.3	7.2	8.4	10.0	12.5
8"	35'	10%	X <sub>S</sub>	6.1	5.6	5.2	4.8	4.5	4.2
			X <sub>L</sub>	7.5	8.4	9.6	11.2	13.4	15.0

**TO CALCULATE "X" DIMENSION:**

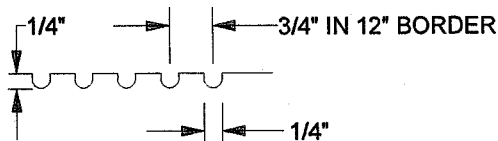
SHORT SIDE (DOWN SLOPE):

$$X_S \text{ (FT)} = \frac{\text{CURB FACE (FT)}}{\text{SIDE SLOPE} + \text{TC GRADE}}$$

LONG SIDE (UP SLOPE):

$$X_L \text{ (FT)} = \frac{\text{CURB FACE (FT)}}{\text{SIDE SLOPE} - \text{TC GRADE}}$$

ENGINEER TO SHOW X<sub>S</sub> AND X<sub>L</sub> ON IMPROVEMENT PLANS



**GROOVING DETAIL**

APPROVED BY:

*George A. Johnson*  
 DIRECTOR OF TRANSPORTATION  
 GEORGE A. JOHNSON, RCE 42328

DATE: 05/05/04



COUNTY OF RIVERSIDE

**CURB RAMP**

REVISIONS		REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
8-77, 5-80	11-04	1				4			
10-81, 6-82		2				5			
9-88, 2-90		3				6			

STANDARD NO. 403 (3 OF 4)

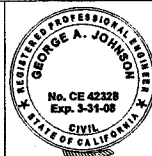
## CONSTRUCTION NOTES:

1. IF DISTANCE FROM CURB TO BACK OF SIDEWALK IS TOO SHORT TO ACCOMMODATE RAMP AND 4' LANDING, THEN USE THE CASE "B" RAMP.
2. IF SIDEWALK IS LESS THAN 6' WIDE, THE FULL WIDTH OF THE SIDEWALK SHALL BE DEPRESSED AS SHOWN IN CASE B. MINIMUM SIDEWALK WIDTH IS 4' FROM BACK OF CURB.
3. THE RAMP SHALL HAVE A 12" WIDE BORDER WITH GROOVES 1/4" WIDE AND 1/4" DEEP APPROXIMATELY 3/4" ON CENTER. SEE GROOVING DETAIL.
4. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES.
5. WHEN ABUTTING SOIL HAS A HIGH SULFATE CONTENT, SPECIAL CONSIDERATIONS ARE REQUIRED. SEE SPECIFICATIONS (SECTION 16.04).
6. RAMP SIDE SLOPE VARIES UNIFORMLY FROM A MAXIMUM OF UP TO 10% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP (EXCEPT IN CASE B).
7. CONSTRUCT WEAKENED PLANE JOINTS AT 1/4 DELTAS WHEN RADIUS EQUALS 35' AND AT INSIDE EDGE OF GROOVED BORDER WHEN RADIUS EQUALS 25'.
8. IF EXPANSIVE SOIL IS ENCOUNTERED, THEN RAMP SHALL BE CONSTRUCTED OVER CLASS 2 AGGREGATE MATERIAL.
9. CONCRETE SHALL BE CLASS B.
10. MAXIMUM SLOPES OF ADJOINING GUTTERS: THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP AND CONTINUOUS PASSAGE TO THE CURB RAMP SHALL NOT EXCEED 5% WITHIN 4' OF THE BOTTOM OF THE CURB RAMP.
11. DETECTABLE WARNING SURFACES ARE REQUIRED ON ALL CURB RAMPS THAT ENTER INTO A VEHICULAR TRAVEL WAY.

APPROVED BY:

  
DIRECTOR OF TRANSPORTATION  
GEORGE A. JOHNSON, RCE 42328

DATE: 11/15/04



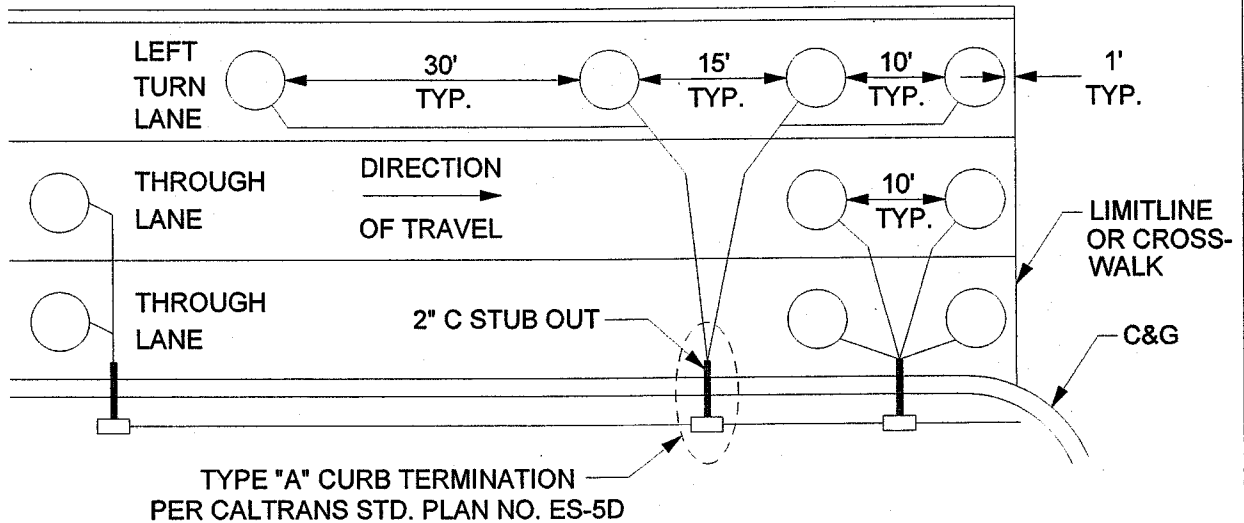
COUNTY OF RIVERSIDE

## CURB RAMP CONSTRUCTION NOTES

REVISIONS		REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
8-77, 5-80	11-04	1				4			
10-81, 6-82		2				5			
9-88, 2-90		3				6			

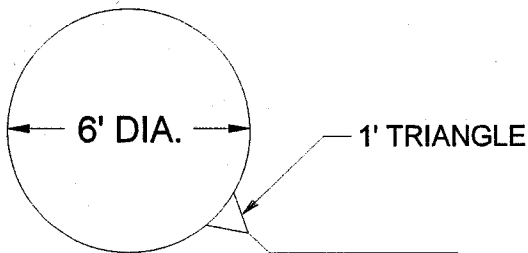
12-97

STANDARD NO. 403 (4 OF 4)



## LOOP DETECTOR PLACEMENT DETAIL

NOT TO SCALE



## LOOP DETECTOR SAWCUT DETAIL

NOT TO SCALE

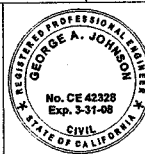
### MINIMUM ADVANCED DETECTOR SETBACK FROM LIMIT LINE (MUTCD 2003 CA SUPPLEMENT)

SETBACK	SPEED
100'	25
140'	30
185'	35
230'	40
285'	45
345'	50
405'	55
475'	60

APPROVED BY:

*George A. Johnson*  
 DIRECTOR OF TRANSPORTATION  
 GEORGE A. JOHNSON, RCE 42328

DATE: 05/01/07



COUNTY OF RIVERSIDE

## TYPE E LOOP DETECTOR SAWCUT & PLACEMENT DETAIL

STANDARD NO. 1201

REVISIONS	REV.	BY:	APR'D	DATE	REV.	BY:	APR'D	DATE
	1				4			
	2				5			
	3				6			

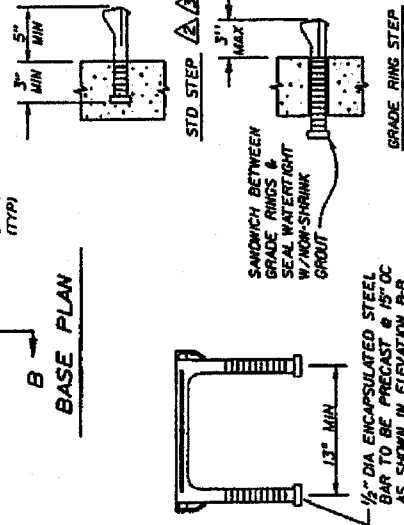
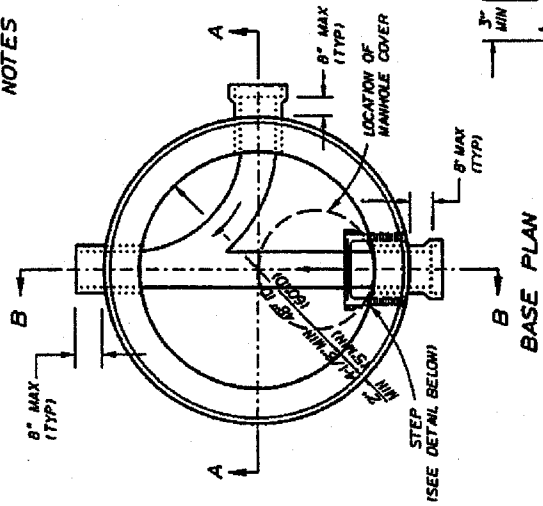
1. PRECAST REINFORCED CONCRETE MANHOLES SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF ASTM C-478 AND:
  - A. SHALL BE DESIGNED FOR A4SHO H-80 LOADING.
  - B. CONCRETE SHALL BE COMPACTLY VIBRATED, CENTRIFUGALLY CAST, OR MECHANICALLY TAMPED.
2. SEWER MAINS ARE TO BE LAID THRU THE MANHOLE WHERE POSSIBLE AND USED AS A FORM FOR THE INVERT. THE TOP 1/2 DIAMETER OF THE PIPE IS TO BE BROKEN OUT TO A NEAT LINE. BROKEN EDGES SHALL BE PLASTERED SMOOTH WITH CEMENT MORTAR.
3. CONCRETE BASE SHALL BE OF CLASS "A" CONCRETE AND PLACED IN ONE OPERATION. CONCRETE INVERTS SHALL BE TO GRADE AND ALIGNMENT AND FINISHED WITH A SMOOTH SURFACE. SPECIAL CARE SHALL BE USED IN FORMING ALL CHANNELS TO FACILITATE THE FLOW OF SEWAGE.
4. ALL MANHOLE TOPS SHALL BE INSTALLED WITH THE MANHOLE COVER OVER THE UPSTREAM INLET, EXCEPT AS OTHERWISE SPECIFIED.
5. SEE DRAWING SB-61 FOR DETAILS AND INSTALLATION OF MANHOLE COVER AND FRAME.
6. CONTRACTOR TO USE MANHOLES WITH A 24" CLEAR OPENING FOR SEWERS 24" DIA AND SMALLER AND 36" CLEAR OPENING FOR SEWERS LARGER THAN 24" DIA UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
7. STANDARD 48" & 60" MANHOLES AS SHOWN HEREON TO BE INSTALLED WHEN DEPTH TO PIPE SHELF IS GREATER THAN 5' FROM FINISHED STREET GRADE.
8. MANHOLE STEPS SHALL BE EITHER CAST IN PLACE OR M.A. INDUSTRIES STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC DRIVE-IN STEP. INSTALLATION TO BE BY MANHOLE MANUFACTURER. ALL STEPS ORIENTED 180° FROM MANHOLE OUTLET. GRADE RING STEPS SHALL BE PLACED BETWEEN GRADE RINGS AND GROUTED IN PLACE. BOTTOM STEP SHALL BE CAST IN PLACE TO BE USED AS CLEANING HOOK AND SHALL BE PLACED 6" MIN AND 12" MAX FROM TOP OF SHELF.
9. DIMENSIONS PERTAINING TO 60" ID REINFORCED MANHOLES SHOWN IN PARENTHESES (18").
10. JOINT SHALL BE 3/8" THICK CEMENT MORTAR NEATLY STRUCK AND JOINTED OR PREFORMED COLD-APPLIED READY-TO-USE PLASTIC JOINT SEALING COMPOUND AND PRIMER.

NOTE: ALL MATERIALS TO BE PER EMD APPROVED MATERIALS LIST.

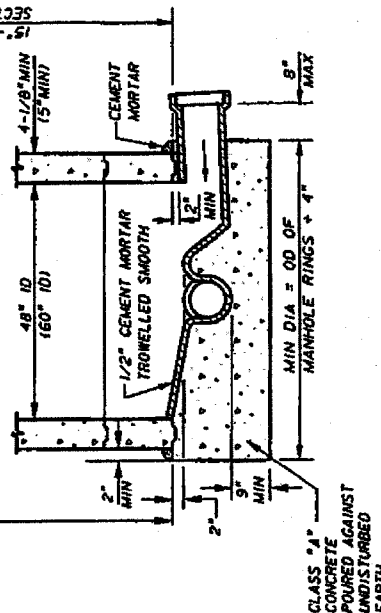
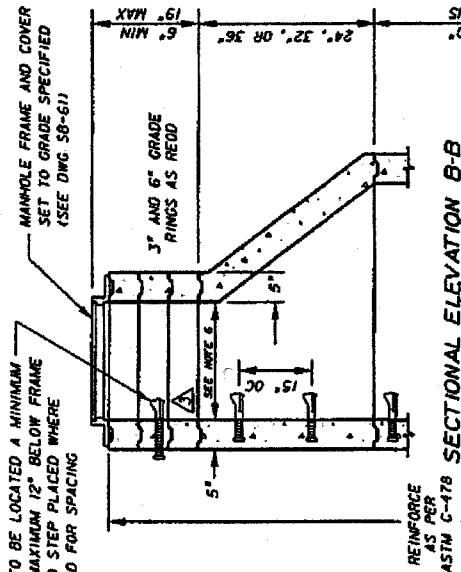
3/8" THICK CEMENT MORTAR JOINT NEATLY STRUCK & POINTED, OR PREFORMED COLD-APPLIED READY-TO-USE PLASTIC JOINT SEALING COMPOUND AND PRIMER

JOINT DETAIL

# NOTES

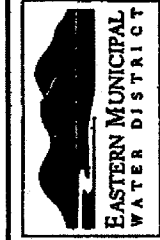


MANHOLE STEP DETAILS



SECTIONAL ELEVATION A-A

REVISIONS			APPROVALS		
NO.	DATE	INITIAL	DESCRIPTION	DATE	INITIAL
1	8/6/96	KER	REDRAWN W/CAD ON MYLAR	1/18/98	9/1/98
2	10/13/96	KER	REVISED STEP DETAIL AND NOTE B	1/18/98	10/18/98
3	12/11/96	KER	REVISED STEP DETAIL AND NOTE B	1/18/98	10/18/98
4	1/9/03	C.M.	REVISED NOTE B, M.A. IND. DRIVE-IN STEP	1/15/03	10/18/03
REFERENCES: ORIGINAL SB-53 DRAWN 1-31-97			SCALE: NONE		
FILE ID: V:\projects\sb53\dwg\sb53.dgn			DRAWN BY KER		



EASTERN MUNICIPAL WATER DISTRICT  
STANDARD DRAWING

PRECAST REINFORCED CONCRETE  
STANDARD 48" & 60" I.D. MANHOLE

APPROVED Douglas J. Boen 1/67 DATE  
CHIEF ENGINEER

SB-53 A





OFFICE OF  
CLERK OF THE BOARD OF SUPERVISORS  
1st FLOOR, COUNTY ADMINISTRATIVE CENTER  
P.O. BOX 1147, 4080 LEMON STREET  
RIVERSIDE, CA 92502-1147  
PHONE: (951) 955-1060  
FAX: (951) 955-1071

KECIA HARPER-IHEM  
Clerk of the Board of Supervisors

KIMBERLY A. RECTOR  
Assistant Clerk of the Board

June 6, 2013

THE PRESS ENTERPRISE  
ATTN: LEGALS  
PO BOX 792  
RIVERSIDE, CA 92501

FAX (951) 368-9018  
E-MAIL: [legals@pe.com](mailto:legals@pe.com)

**RE: NOTICE INVITING BIDS: MURRIETA HOT SPRINGS ROAD RESURFACING  
B8-0669**

To Whom It May Concern:

Attached is a copy for publication in your newspaper for **TEN (10) TIMES:**

Sunday	- June 9, 2013	Friday	- June 14, 2013
Monday	- June 10, 2013	Saturday	- June 15, 2013
Tuesday	- June 11, 2013	Sunday	- June 16, 2013
Wednesday	- June 12, 2013	Monday	- June 17, 2013
Thursday	- June 13, 2013	Tuesday	- June 18, 2013

We require your affidavit of publication immediately upon completion of the last publication.

Your invoice must be submitted to this office in duplicate, WITH TWO CLIPPINGS OF THE PUBLICATION.

**NOTE: PLEASE COMPOSE THIS PUBLICATION INTO A SINGLE COLUMN FORMAT.**

Thank you in advance for your assistance and expertise.

Sincerely,

*Cecilia Gil*

Board Assistant to:  
KECIA HARPER-IHEM, CLERK OF THE BOARD

**Gil, Cecilia**

---

**From:** neller@pe.com on behalf of Master, PEC Legals <legalsmaster@pe.com>  
**Sent:** Thursday, June 06, 2013 8:42 AM  
**To:** Gil, Cecilia  
**Subject:** Re: [Legals] FOR PUBLICATION: Murrieta Hot Springs B8-0669

Received for publication on 6/9 - 6/18

Thank You!

Nick Eller



Publisher of The Press-Enterprise  
*Inland Southern California's News Leader*

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Please Note: Deadline is 10:30 AM two (2) business days prior to the date you would like to publish.

**\*\*Additional days required for larger ad sizes\*\***

On Thu, Jun 6, 2013 at 8:18 AM, Gil, Cecilia <[CCGIL@rcbos.org](mailto:CCGIL@rcbos.org)> wrote:

One more..Notice Inviting Bids, for publication from June 9 to 18, 2013. Please confirm. THANK YOU!

***Cecilia Gil***

Board Assistant to the  
Clerk of the Board of Supervisors

951-955-8464

***THE COUNTY ADMINISTRATIVE CENTER IS CLOSED EVERY FRIDAY UNTIL FURTHER NOTICE.***

**PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING.**

## **NOTICE INVITING BIDS**

County of Riverside, herein called Owner, invites sealed proposals for:

**Murrieta Hot Springs Road  
Resurfacing Project  
Winchester Road to Calistoga Drive  
Project No. B8-0669**

Proposal shall be delivered to the Riverside County Transportation Department, 14<sup>th</sup> Street Annex, 3525 14<sup>th</sup> Street, Riverside, California 92501, telephone (951) 955-6780 not later than 2:00 p.m., on Wednesday, June 26, 2013, to be promptly opened in public at said address. Each proposal shall be in accordance with plans, specifications, and other contract documents, dated April 2013, and prepared by County of Riverside, whose address is same as the above, from whom they may be obtained upon deposit of \$35 per set plus mailing. No refund. Prospective bidders may preview the plans, specifications and other contract documents, at no charge prior to purchase, at the above noted location.

The Contractor is required to have a Class "A" or C-12 license at the time of bid submission.

Engineering Estimate:	\$1,200,000.00 - \$1,400,000.00
Bid Bond	10 %
Performance Bond	100 %
Payment Bond	100 %
Working Days	50 Working Days

[http://www.rctlma.org/trans/con\\_bid\\_advertisements.html](http://www.rctlma.org/trans/con_bid_advertisements.html)

Dated: June 6, 2013

Kecia Harper-Ihem, Clerk of the Board  
By: Cecilia Gil, Board Assistant