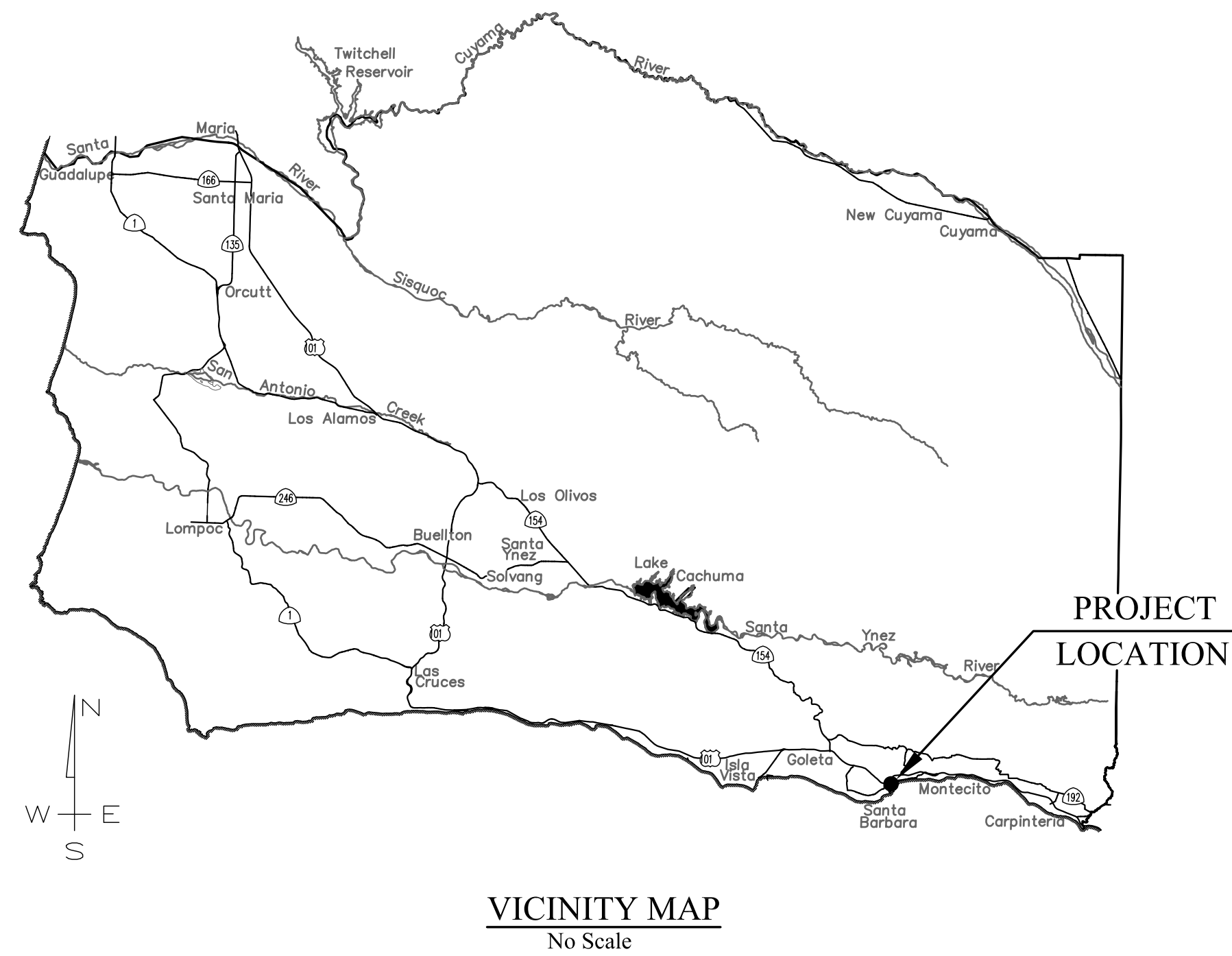
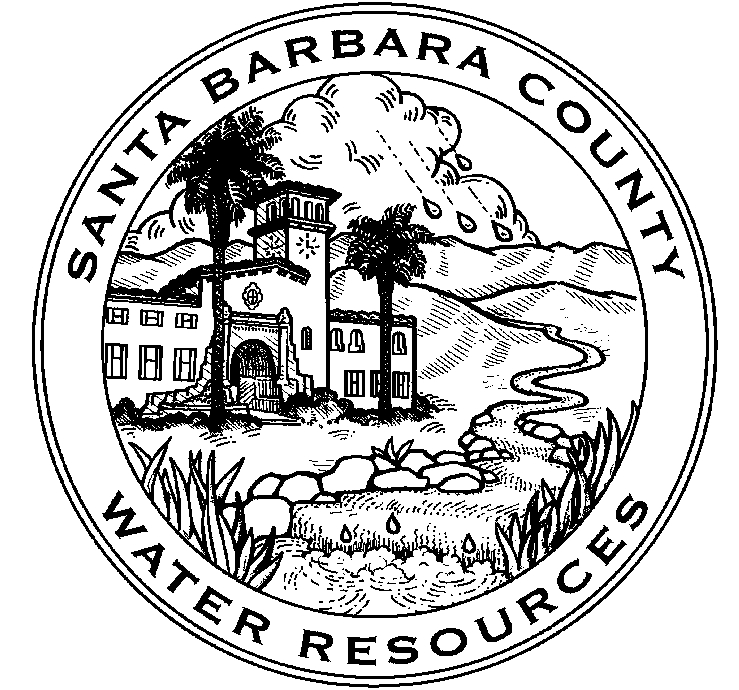


SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

LOWER MISSION CREEK, REACH 1A - HARBOR VIEW INN WATER LINE RELOCATION & PARKING LOT MODIFICATION

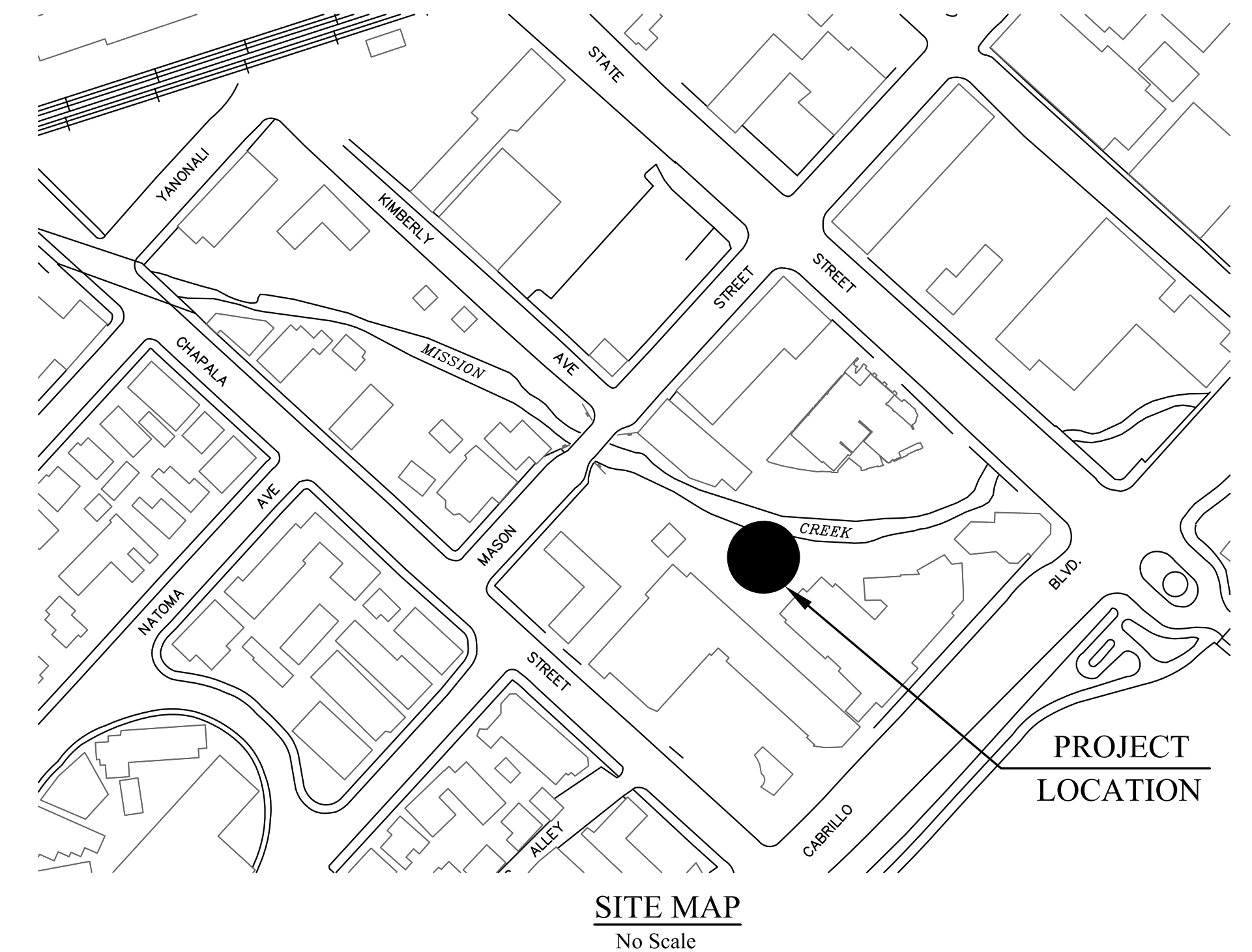
SC8042

IN THE CITY OF SANTA BARBARA
SANTA BARBARA COUNTY, CALIFORNIA



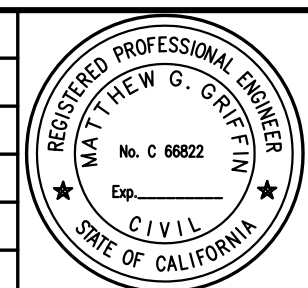
INDEX TO SHEETS

DESCRIPTION	SHEET NO.
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GENERAL INFORMATION	2
PLAN AND PROFILE	3
PARKING LOT MODIFICATIONS AND DETAILS	4



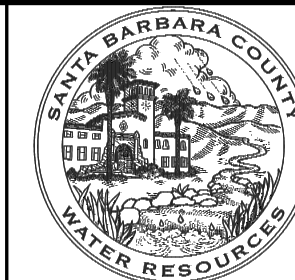
UNAUTHORIZED CHANGES OR USES:
THE SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT AND ITS
EMPLOYEES WILL NOT BE RESPONSIBLE FOR OR LIABLE FOR UNAUTHORIZED CHANGES TO OR
USES OF THESE PLANS. ALL PROPOSED CHANGES TO THE PLANS MUST BE PRESENTED IN
WRITING TO THE DISTRICT AND APPROVED IN WRITING BY THE DISTRICT PRIOR TO IMPLEMENTATION
OF ANY SUCH CHANGE OF USE.
CONTRACTOR'S LICENSE:
THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED
IN THE DISTRICT ADVERTISING FOR BIDS.

REVISIONS			
NO.	DESCRIPTION	DATE	APR



DESIGNED BY:	REVIEWED BY:
FLOOD CONTROL DESIGN ENGINEER DATE	COUNTY SURVEYOR DATE
REVIEWED BY:	REVIEWED BY:
FLOOD CONTROL ENGINEERING MANAGER DATE	ENVIRONMENTAL SERVICES MANAGER DATE
REVIEWED BY:	
FLOOD CONTROL DEPUTY DIRECTOR DATE	

SANTA BARBARA COUNTY
FLOOD CONTROL AND
WATER CONSERVATION DISTRICT
130 E. VICTORIA STREET
SANTA BARBARA, CA 93101
(805) 568-3440



LOWER MISSION CREEK, REACH 1A
HARBOR VIEW INN WATER LINE
RELOCATION & PARKING LOT
MODIFICATION
CITY OF SANTA BARBARA
SANTA BARBARA COUNTY, CALIFORNIA

TITLE SHEET

DESIGNED BY:	KW
DRAWN BY:	JT
CHECKED BY:	MG

O-1120

SHEET 1 OF 4

Filename: LMC Reach 1A-2 Water Line Relocation - realignment.DWG

SYMBOL LEGEND

CONTROL POINT		EX. ROCK		EX. TREE	
EX. CABLE TV BOX		EX. SEWER CLEANOUT		EX. TREE - EUCALYPTUS	
EX. CABLE TV VAULT		EX. SEWER MANHOLE		EX. TREE - LEMON	
EX. ELECTRIC BOX		EX. SIGNAGE		EX. TREE - PALM	
EX. ELECTRIC GUY WIRE		EX. STORM DRAIN GRATE		EX. TREE - PINE	
EX. ELECTRIC MANHOLE		EX. STORM DRAIN MANHOLE		EX. TREE - STUMP	
EX. ELECTRIC METER		EX. STRUCTURE BENCH		EX. TREE - SYCAMORE	
EX. FIRE HYDRANT		EX. STRUCTURE BOLLARD/POST		EX. TREE - WILLOW	
EX. GAS METER		EX. TELEPHONE BOX		EX. TREE - YUCCA	
EX. GAS VALVE		EX. TELEPHONE MANHOLE		EX. WATER METER	
EX. IRRIGATION SPRINKLER		EX. TELEPHONE POLE		EX. WATER SPIGOT	
EX. LUMINARY		EX. TELEPHONE VAULT		EX. WATER VALVE	
EX. MAILBOX		EX. BUSH/HEDGE		EX. WATER WELL	
EX. MONUMENT		EX. CACTUS			
EX. POWER & TELEPHONE POLE		EX. SHRUB			

LINETYPE LEGEND

BOUNDARY EASEMENT LINE		EX. FLOWLINE	
BOUNDARY RIGHT OF WAY LINE		EX. GAS	
BOUNDARY PROPERTY LINE		EX. GUARDRAIL	
CENTERLINE		EX. SEWER	
CONTOUR LINE-MAJOR		EX. SIDEWALK	
CONTOUR LINE-MINOR		EX. STORM DRAIN	
EX. AC EDGE OF PAVEMENT		EX. STRUCTURE CONCRETE	
EX. BARBED WIRE FENCE		EX. STRUCTURE WALL	
EX. BRUSH		EX. TELEPHONE	
EX. BUILDING		EX. WATER	
EX. CABLE TV		EX. WOOD RAIL FENCE	
EX. CHAINLINK FENCE		PROPOSED FACILITIES	
EX. DRAINAGE		PROPOSED STORM DRAIN	
EX. ELECTRIC		RETAINING WALL GUTTER	
EX. ELECTRIC OVERHEAD		TEMP. CONSTRUCTION FENCE	
EX. FACILITIES			

EXISTING UTILITY INFORMATION

ALL UNDERGROUND UTILITIES SHOWN ARE PLOTTED BASED ON INFORMATION PROVIDED BY OTHERS, AND ARE APPROXIMATE. OVERHEAD UTILITIES ARE NOT SHOWN. NOTE THAT INDIVIDUAL SERVICE LATERALS AND CONNECTIONS ARE NOT PLOTTED ON THE PROFILE.

THE SANTA BARBARA COUNTY FLOOD CONTROL DISTRICT IS NOT RESPONSIBLE FOR THE ACCURACY OF THIS INFORMATION. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT A MINIMUM OF TWO WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION @ 1-800-422-4133.

UTILITY DISPOSITION NOTE SYMBOLS:

- FACILITIES TO BE REMOVED BY OTHERS
- FACILITIES TO BE RE-LOCATED BY OTHERS TO A LOCATION IN CLOSE PROXIMITY TO THE WORK. NEW FACILITY TO BE PROTECTED IN PLACE BY THE CONTRACTOR.
- FACILITIES TO BE RELOCATED BY CONTRACTOR
- PROTECT EXISTING UTILITY IN PLACE. EXACT HORIZONTAL AND VERTICAL LOCATION UNKNOWN
- ABANDONED UTILITY IN PLACE. INTERFERING PORTIONS TO BE REMOVED BY CONTRACTORS

STANDARD DETAILS AND PLANS LIST

STANDARD NO. DESCRIPTION
 STATE DEPARTMENT OF TRANSPORTATION STANDARD PLANS (MAY 2006 EDITION)
 The Standard Plan sheets applicable to this contract include, but are not limited to those indicated below. The Revised Standard Plans (RSP) and New Standard Plans (NSP) which apply are attached to the contract.

A10A	ABBREVIATIONS
A10B	SYMBOLS
W-03.0	FIRE HYDRANT GUARD POST
W-11.0	CONCRETE THRUST BLOCK
U-01.0	TRENCH BEDDING AND BACKFILL - NOTES
U-01.1	TRENCH BEDDING AND BACKFILL

CITY OF SANTA BARBARA STANDARD PLANS

W-03.0	FIRE HYDRANT GUARD POST
W-11.0	CONCRETE THRUST BLOCK
U-01.0	TRENCH BEDDING AND BACKFILL - NOTES
U-01.1	TRENCH BEDDING AND BACKFILL

ABBREVIATIONS

ACP	ASBESTOS CEMENT PIPE	IP	IRON PIPE
APN	ASSESSORS PARCEL NUMBER	IN	INCH
APWA	AMERICAN PUBLIC WORKS ASSOC.	JS	JUNCTION STRUCTURE
AT	ARCHITECTURAL TEXTURE	LOL	LAYOUT LINE
BLDG	BUILDING	MJ	MECHANICAL JOINT
BOT	BOTTOM	n	MANNING'S COEFFICIENT
BW	BOTH WAYS	N	NORTH OR NORTHING
CFS	CUBIC FEET PER SECOND	NTS	NOT TO SCALE
CL or C/L	CENTER LINE	OC	ON CENTER
CALTRANS	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	PK	PK NAIL
COUNTY	COUNTY OF SANTA BARBARA	Q	FLOW VELOCITY
CMP	CORRUGATED METAL PIPE	R1	RECORD PER BOOK NN, PAGE NN OF MAPS
CP	CONTROL POINT	S	SEWER OR SLOPE OR SOUTH
DI	DUCTILE IRON OR DROP INLET	SDMH	STORM DRAIN MANHOLE
DW	DRIVEWAY	SH	SHINER
E	EAST OR EASTING	SPK	SPIKE
EG	EXISTING GROUND	S/W	SIDEWALK
EGL	ENERGY GRADE LINE	TW or tw	TOP OF WALL
EL	ELEVATION	TCE	TEMPORARY CONSTRUCTION EASEMENT
EP	EDGE OF PAVEMENT	TBM	TEMPORARY BENCH MARK
ELEC	ELECTRIC	TSW	TOP OF SIDEWALK
FD	FOUND	TP	TOP OF PAVEMENT
FT	FEET	W	WEST
g	GRAVITATIONAL CONSTANT	W or WL	WATER LINE
G	GAS LINE	WF	WALL FACE
GB	GRADE BREAK	WWF	WELDED WIRE FABRIC
HDPE	HIGH DENSITY POLYETHYLENE	V	VELOCITY
HGL	HYDRAULIC GRADE LINE	VB	VALVE BOX

SURVEY MAPPING NOTES

1. MAPPING

TOPOGRAPHIC MAPPING WAS COMPILED AT A SCALE OF 1"=200', WITH A 1 FOOT CONTOUR INTERVAL, USING STANDARD PHOTOGRAMMETRIC METHODS AND PROCEDURES BY ARROWHEAD MAPPING CORPORATION, FROM AERIAL PHOTOGRAPHY DATED MAY 5, 2003.

MAPPING IS SUPPLEMENTED BY DATA COLLECTED IN A FIELD SURVEY USING CONVENTIONAL METHODS AND PROCEDURES IN JUNE 2003 AND IN APRIL 2010 BY PENFIELD & SMITH, AND IN AUGUST 2003 BY JOHNSON FRANK & ASSOCIATES.

AERIAL PHOTOGRAPHY

THE AERIAL PHOTOGRAPHY USED AS THE BACKGROUND FOR THIS MAP WAS OBTAINED ON MAY 5, 2003 BY ARROWHEAD MAPPING CORPORATION, THE PHOTOGRAPHY HAS BEEN CONVERTED INTO A DIGITAL FORMAT AND CORRECTED FOR HORIZONTAL AND VERTICAL DISTORTION USING STANDARD PHOTOGRAMMETRIC METHODS.

2. BASIS OF BEARINGS AND COORDINATES

BEARINGS SHOWN ON THIS MAP ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM, NAD 83, ZONE 5 GRID (EPOCH 1991.35), DEFINED LOCALLY BY THE SANTA BARBARA CONTROL NETWORK AS SHOWN ON RECORD OF SURVEY FILED WITH THE COUNTY SURVEYOR IN BOOK 147 PAGES 70-74. DISTANCES AND COORDINATES SHOWN AS MEASURED OR CALCULATED ARE EXPRESSED IN CCS, NAD 83, ZONE V GRID US SURVEY FOOT UNITS.

3. ELEVATIONS

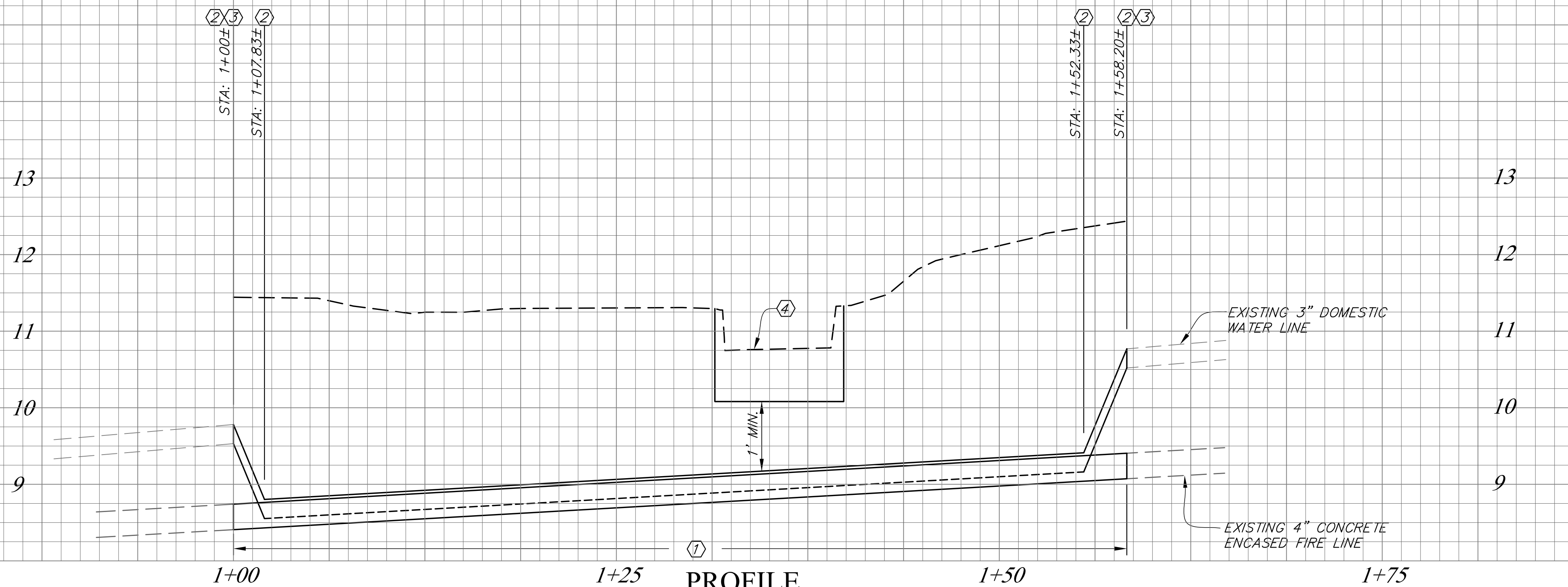
ELEVATIONS SHOWN HEREON ARE EXPRESSED IN U.S. SURVEY FEET AND ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), DEFINED LOCALLY BY THE SANTA BARBARA CONTROL NETWORK AS SHOWN ON RECORD OF SURVEY FILED WITH THE COUNTY SURVEYOR IN BOOK 147 PAGES 70-74.

CONTROL POINT TABLE

CONTROL POINT#	NORTHING	EASTING	ELEVATION	DESCRIPTION	RECORD
CP1	1976887.30	6052422.15	11.31	NOT SEARCHED FOR	----
CP2	1976639.92	6052242.70	11.87	FD MAG NAIL ON TOP CURB	----
CP12	1976823.03	6051681.45	12.63	FD SCRIBED X IN SIDEWALK	----
CP103	1976730.48	6052088.02	12.67	FD MAG NAIL ON SIDEWALK ON BRIDGE	----
CP104	1976850.65	6052465.73	16.15	NOT SEARCHED FOR	----
CP105	1976812.31	6052094.64	11.34	FD SCRIBED X IN TOP CURB	----
CP106	1976669.89	6051885.54	14.54	FD BRASS TACK ON WOOD PEDESTRIAN BRIDGE OVER MISSION CREEK	----
CP107	1976688.85	6051892.50	1.94	NOT SEARCHED FOR	----
CP108	1976640.19	6051874.67	13.82	FD NAIL IN BRICK WALK ACCESS TO PEDESTRIAN BRIDGE	NO RECORD
CP109	1976645.54	6051690.50	10.25	SET MAG NAIL IN AC PARKING LOT	----
CP110	1976774.44	6051684.01	14.67	SET MAG NAIL IN CURB JOINT, MASON ST NEAR BRIDGE	----
CP111	1976671.97	6051882.47	14.58	SET CUPPED TACK ON WOOD PEDESTRIAN BRIDGE OVER MISSION CREEK	----
CP112	1976739.22	6051648.19	14.42	FD MAG NAIL & TIN IN AC ROAD 2 FT FROM CURB	NO RECORD

UNAUTHORIZED CHANGES OR USES OF THE SANTA BARBARA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT AND ITS EMPLOYEES WILL NOT BE RESPONSIBLE FOR OR LIABLE FOR. UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS, ALL PROPOSED CHANGES TO THE PLANS MUST BE PREPARED BY REFERENCE TO THE DISTRICT AND APPROVED IN WRITING BY THE DISTRICT. PRINT TO THE FRONT OF EACH SHEET OF ANY SUCH CHANGES TO THESE PLANS.

REVISIONS NO. DESCRIPTION DATE APR					DESIGNED BY:	SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT 130 E. VICTORIA STREET SANTA BARBARA, CA 93101 (805) 568-3440		LOWER MISSION CREEK, REACH 1A HARBOR VIEW INN WATER LINE RELOCATION & PARKING LOT MODIFICATION CITY OF SANTA BARBARA SANTA BARBARA COUNTY, CALIFORNIA	GENERAL INFORMATION	DESIGNED BY:	O-1120
					FLOOD CONTROL DESIGN ENGINEER			DATE		CHECKED BY:	
										MG	Filename: LMC Reach 1A-2 Water Line Relocation - realignment.DWG



PROFILE

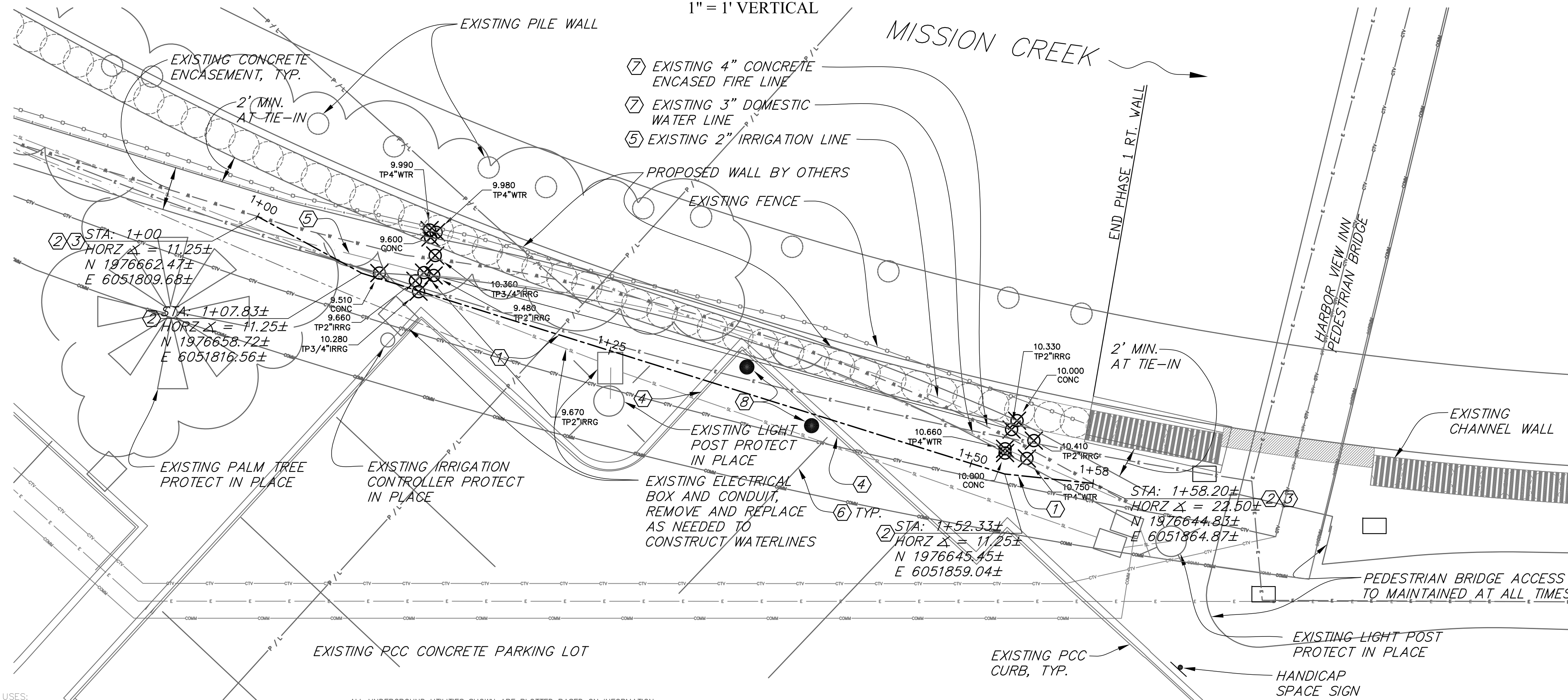
SCALE: 1" = 5' HORIZONTAL
1" = 1' VERTICAL

GENERAL NOTES

1. Protect in place existing CTV and communications conduit upstream of pedestrian bridge.
2. Irrigation lines will need to be relocated by the Contractor. This work shall consist of removing and replacing interfering portions of the existing landscape irrigation system and water service within the limits of construction. Removal and replacement of the landscape irrigation system shall conform to standard practice and approval of the Harbor View Inn and be reconstructed 2' min. beyond the limits of the proposed channel wall.
3. Relocation of 4" fire water line and 3" domestic water line shall conform to applicable City of Santa Barbara details and standard technical provisions for water line work.
4. Service outage of 4" fire water line shall be coordinated with the City of Santa Barbara Public Works Department and Fire Department.
5. Service outage of 3" domestic water line shall be coordinated with the Harbor View Inn.
6. The maximum amount of time allowed for domestic service shut down is 3 hours. Service is not allowed to be interrupted between 6:00 a.m. and 12:00 a.m. without prior authorization from hotel owner and the Engineer. "High-lining" for temporary water service may be allowed.
7. For fire water service shut down, the Contractor must contact the City of Santa Barbara Fire Department at least 72 hours in advance of the shut down.
8. It is the Contractor's responsibility to cap any irrigation lines and to provide interim water for the existing vegetation as directed by the hotel owner. Any damage to existing irrigation caused by contractor shall be repaired at the Contractor's expense. Replacement of landscaping will be performed by others.
9. Construction shall comply with the most recent edition of the construction standard details and specifications by the City of Santa Barbara Public Works Department.
10. Existing utility locations are approximate. Contractor shall locate existing utilities (horizontally and vertically) prior to construction, and notify the Engineer in writing if there are conflicts that necessitate a change in the alignment shown on the plans.
11. The Contractor shall take all necessary measures to protect all utilities and structures found at the site, including those shown and not shown on the plans.
12. Sawcutting of existing concrete pavement shall be to a clean straight edge. If edges are damaged during construction, Contractor will be required to re-sawcut to provide a clean, straight edge before replacement.
13. Sterilization and testing the new installation per City of Santa Barbara standards shall be completed prior to making final connection to existing system.

CONSTRUCTION NOTES

1. Construct 4" C900 CL200 PVC fire water and 3" Schedule 80 PVC domestic water service per Proposed Trench Section, Sheet 4.
2. Install 3" and 4" bend (MJ XMJ) fittings as needed to meet horizontal and vertical alignments. Fittings shall be wrapped in 3 mil plastic before pouring concrete. Install thrust block per City of Santa Barbara Standard Detail W-11.0.
3. Remove concrete encasement from existing fire waterline. Provide restrained sleeve couplings and pipe at connections to existing as necessary to construct waterline as shown at no additional cost to the contract. Pothole prior to work to confirm location.
4. Sawcut and remove existing curb as necessary for waterline construction. Replace at conclusion of construction in-kind to match existing grades per PCC Curb and Pavement Detail, Sheet 4.
5. Contractor to relocate irrigation. Existing and proposed layout not shown. Contractor to coordinate with hotel owner and maintenance supervisor prior to relocation.
6. All striping damaged by contractor to be replaced in-kind at conclusion of construction with two coats of paint per Caltrans Standards.
7. Remove waterlines and concrete encasement interfering with proposed wall.
8. Install guard post 6" clear from front curb face in accordance with City of Santa Barbara Standard Detail W-03.0 and as directed by the engineer.



PLAN

SCALE: 1" = 5'

GRAPHIC SCALE



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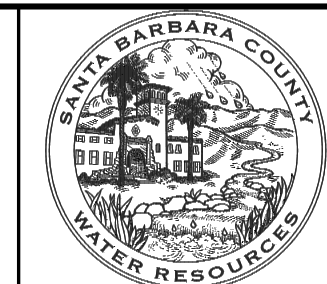
THE SANTA BARBARA COUNTY FLOOD CONTROL DISTRICT IS NOT RESPONSIBLE FOR THE ACCURACY OF THIS INFORMATION. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT A MINIMUM OF TWO WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION @ 1-800-422-4133.

REVISIONS			
NO.	DESCRIPTION	DATE	APR



DESIGNED BY: FLOOD CONTROL DESIGN ENGINEER	DATE

SANTA BARBARA COUNTY
FLOOD CONTROL AND
WATER CONSERVATION DISTRICT
130 E. VICTORIA STREET
SANTA BARBARA, CA 93101
(805) 568-3440



LOWER MISSION CREEK, REACH 1A
HARBOR VIEW INN WATER LINE
RELOCATION & PARKING LOT
MODIFICATION
CITY OF SANTA BARBARA
SANTA BARBARA COUNTY, CALIFORNIA

PLAN & PROFILE

DESIGNED BY: KW	O-1120
DRAWN BY: JT	
CHECKED BY: MG	
SHEET 3 OF 4	
Filename: LMC Reach 1A-2 Water Line Relocation - realignment.DWG	

**SANTA BARBARA COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT**

**CONTRACT DOCUMENTS
INCLUDING
SPECIFICATIONS**

The Contract Documents contained herein have been prepared by or under the direction of the following Registered Engineer.



REGISTERED CIVIL ENGINEER

DATE

APPROVAL RECOMMENDED - CIVIL ENGINEERING MANAGER

DATE

APPROVED BY DEPUTY DIRECTOR OF PUBLIC WORKS,
WATER RESOURCES

DATE

**LOWER MISSION CREEK, REACH 1A – HARBOR VIEW INN WATER LINE RELOCATION
& PARKING MODIFICATION**

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 PAYMENT BOND..... B6
 PERFORMANCE BOND B8
 WORKERS' COMPENSATION INSURANCE CERTIFICATE B10
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**E. CITY OF SANTA BARBARA WATER MAIN MATERIALS AND CONSTRUCTION
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SECTION A

BIDDING REQUIREMENTS

**SANTA BARBARA COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT**

BID SCHEDULE

for construction of the

**LOWER MISSION CREEK, REACH 1A – HARBOR VIEW INN WATER LINE RELOCATION
& PARKING MODIFICATION**

F.I.N. PROJECT NO. SC8042

The bidder agrees if this proposal is accepted, that he will contract with the Santa Barbara County Flood Control and Water Conservation District and will take in full payment therefore to include all necessary materials, labor, machinery, tools, apparatus and equipment needed to do all of the work as specified in the contract under the following unit prices to wit:

Item No.	Item	Quantity	Unit	Unit Price	Item Price
	Mobilization	1	LS	_____	_____
	Remove PCC Curb and Pavement	1	LS	_____	_____
	Remove Water Lines and Concrete Encasement	1	LS	_____	_____
	Relocate Irrigation System	1	LS	_____	_____
	3" Schedule 80 PVC Domestic Water Line	158	LF	_____	_____
	4" C900 CL200 PVC Fire Water Line	158	LF	_____	_____
	Construct PCC Curb and Pavement	1	LS	_____	_____
	Install Guard Posts	2	EA	_____	_____

CONTRACTOR'S BID ITEMS TOTAL: \$ _____

TOTAL BID ITEMS PRICE IN WORDS: _____

SECTION B

CONTRACT FORMS

Santa Barbara County Flood Control and Water Conservation District

AGREEMENT

**for the LOWER MISSION CREEK, REACH 1A – HARBOR VIEW INN WATER LINE
RELOCATION & PARKING MODIFICATION**

F.I.N. Project No. **SC8042**

Auditor - Controller Contract No. _____

THIS AGREEMENT is made by and between the **Santa Barbara County Flood Control and Water Conservation District**, a political subdivision of the State of California, hereinafter called **DISTRICT**, and

_____ hereinafter referred to as **CONTRACTOR**, for the completion of the work identified herein, on the following terms, conditions and provisions:

1. CONTRACT This agreement incorporates by reference all of the General and Special Provisions and Specifications provided by DISTRICT for the work identified above; and where consistent with this document, the proposal executed and submitted by the CONTRACTOR. CONTRACTOR acknowledges receipt of all such documents as were not already in Contractor's possession. Said incorporated documents, this agreement, any Notice to Contractors, the Bid Bond, the Faithful Performance Bond, and Payment Bond are referred to herein as the "Contract" or "Contract Documents". Copies of all said documents are on file in the DISTRICT office and have been and will be made available to the CONTRACTOR during the term of this Agreement.

2. WORK CONTRACTOR agrees, at his own proper cost and expense, to furnish all the work and all equipment and materials necessary to perform and complete the work described in the documents referred to above, in a good and workmanlike manner to the satisfaction of the Flood Control Engineer of said DISTRICT, all in strict accordance with the Plans and the Contract Documents provided.

3. EXCAVATIONS Before any pavement resurfacing, displacement or excavation of the ground that may be required by any performance under this Agreement, the CONTRACTOR shall obtain an inquiry identification number by calling Underground Service Alert (USA) 1 (800) 422-4133 or by such other means as may be required; shall conform to all requirements of Government Code Sections 4215 through 4217 regarding any such pavement resurfacing, displacement or excavation, including the payment of any fees required; and shall facilitate performance by the DISTRICT of any obligation required of the DISTRICT under said Sections. There shall be no performance under this Agreement by either party unless and until the provisions of such Sections are complied with and the Engineer is notified regarding the compliance.

4. ENGINEER The Engineer referred to in the Contract Documents is the Flood Control Engineer.

5. PAYMENT As full compensation for furnishing all labor, supervision, overhead, materials and equipment and for doing all the work completed and embraced in this Agreement and subject to adjustments and liquidated damages, if any, as provided in the Contract Documents, the base amount to be paid to the CONTRACTOR for satisfactory completion of all requirements of the Contractor under this Agreement is and shall be \$_____, to be paid as provided in the Contract Documents. The CONTRACTOR assumes and will provide against any and all loss or damage arising out of the nature of

the work undertaken, or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its acceptance by the DISTRICT, and assumes any and all expenses incurred by or in consequence of suspension or discontinuance of the work, for well and faithfully completing the work and the whole thereof, in the manner and to the requirements of the Contract and directions of the Engineer, hereunder. The DISTRICT will have the right to audit of Contractor's project records. Records must be made available in a form satisfactory to the Santa Barbara County Auditor-controller. All invoices submitted for payment shall include Contract Number BC _____.

6. EXTRA WORK Extra work, materials, resolution of disputes, corrections, and/or changes to the specifications as are required for the proper completion of the work or the improvement contemplated may be effected or authorized and agreement made for compensation at the same rate per unit (or at a corresponding rate for work that is different from that provided for in the Contract Documents) by the Engineer, if compensation is in accordance with Section 20142 of the Public Contract Code:

- An amount not to exceed five thousand dollars (\$5,000) for contracts of fifty thousand dollars (\$50,000) or less.
- 10 percent for contracts over fifty thousand dollars (\$50,000) but not to exceed two hundred fifty thousand dollars (\$250,000). In no event shall any change exceed a net total addition of twenty-five thousand dollars (\$25,000).
- For contracts whose original cost exceeds two hundred fifty thousand dollars (\$250,000), the extra cost for any change or addition to the work so ordered shall not exceed twenty-five thousand dollars (\$25,000), plus 5 percent of the amount of the original contract costs in excess of two hundred fifty thousand dollars (\$250,000). In no event shall any change or alteration exceed two hundred ten thousand dollars (\$210,000).

Compensation in such equitable amount as is appropriate for the requirements of the DISTRICT may be authorized by resolution or minute order of the Board of Directors. The Engineer may agree upon appropriate additional time to be allowed as required for such extra work, materials, resolution or changes. In no event shall the District be liable for the cost of any extra work not approved in advance and in writing by the Flood Control Engineer.

7. COMPLIANCE WITH LAW, AMENDMENTS CONTRACTOR shall keep fully informed of all laws, ordinances and regulations which do or may affect the conduct of the work, the materials used therein or persons engaged or employed thereon and all such orders of bodies and tribunals having any jurisdiction over same. If it be found that the Special Provisions or Standard Specifications for the work conflict with any such law, ordinance or regulation, the CONTRACTOR shall immediately report same to the Engineer in writing. CONTRACTOR shall at all times observe and comply with and shall cause all agents and employees to observe and comply with all such laws, ordinances, regulations or decrees as the same now exists or may be hereafter amended and all superseding provisions thereof. CONTRACTOR acknowledges, particularly, the provisions of Sections [9100 through 9510](#), inclusive, of the Civil Code of California. CONTRACTOR shall protect and indemnify the Santa Barbara County Flood Control District, the Board of Directors, the Flood Control Engineer, and/or any officer, agent or employee of the DISTRICT against any claims or liability arising from or based on the violation of any such law, ordinance, regulation or decree whether by CONTRACTOR, or a subcontractor, agent or employee.

8. PAYMENTS NOT ACCEPTANCE No certificate given or payments made under this Contract shall be evidence of the performance of this Contract, either wholly or in part, against any claim upon CONTRACTOR. Final payment for the work performed under this Contract shall not be made until the

lapse of thirty (30) days after the Notice of Completion of said work has been filed for record and no payment shall be construed to be acceptance of any defective work or improper materials. CONTRACTOR agrees that the payment for final quantities due under this Contract and the payment of amounts due for any work in accordance with any amendments of this Contract, shall release the County of Santa Barbara from any and all claims or liabilities on account of work performed under this Contract or any amendments thereof. In addition to guarantees required elsewhere, CONTRACTOR shall and does hereby guarantee all workmanship and material to be free of defects and fit for the purposes intended for a period of one year from and after both the date of acceptance of the work and the recordation of the Notice of Completion by the DISTRICT, and CONTRACTOR shall repair or replace any or all work and material, together with any other portions of the work which may be displaced in so doing, that in the opinion of the Engineer, is or becomes defective during the period of said guarantee without expense whatsoever to the DISTRICT.

9. PREVAILING WAGE RATES Rates of wages, including overtime, holiday and Sunday rates provided for the work are subject to the effect of Executive Orders of the President of the United States No. 9240, dated September 9, 1942, and No. 9250, dated October 3, 1942, and to any modifications thereof and to any and all lawful orders of the President or any authorized Federal Officer or agency, insofar as the same may be applicable to this Contract. In accordance with the requirements of Labor Code section 1770, the Director of the Department of Industrial Relations has determined the general prevailing rate per diem or hourly wages for workers required to perform the subject work. A copy of the prevailing wage rate is on file at the office of the Santa Barbara County Flood Control and Water Conservation District, 130 East Victoria Street, Suite 200, Santa Barbara, California, and is available for inspection. CONTRACTOR, and any subcontractor under his or her direction, shall pay not less than the said prevailing rates to all laborers, workers and mechanics employed by the in the execution of the contract.

10. CONTRACT DOCUMENTS ACKNOWLEDGED CONTRACTOR hereby declares that he has read the "Contract Documents" pertaining to the work to be accomplished hereunder, has carefully examined the plans and detail drawings of the work to be performed and fully understands the intent and meaning of the same.

11. TIME FOR COMMENCEMENT, COMPLETION Time is of the essence in the execution of this Contract. The work to be done under this Agreement shall be completed within the Contract Period described in the Instructions to Bidders. As soon as practicable after the Contract has been executed by both the CONTRACTOR and the DISTRICT, a Notice to Proceed will be issued by the Engineer stating the starting date of the Contract time. The CONTRACTOR shall begin work within FIFTEEN (15) calendar days after receiving the Notice to Proceed, unless otherwise provided. Attention is directed to the provisions of the Contract documents pertaining to Liquidated Damages for failure to complete the work within the allowed time.

12. WORKERS' COMPENSATION INSURANCE CONTRACTOR certifies as to knowledge of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self insurance in accordance with the provisions of that Code. Contractor will comply with such provisions before commencing the performance of the work of this Contract.

13. PROGRESS PAYMENT NO WAIVER FOR DELAY Any progress payment made after the scheduled completion date will not constitute a waiver of any liquidated damages heretofore agreed upon as part of this Contract.

14. GUARANTEE BONDS Before any performance under this Agreement, the CONTRACTOR shall provide the security required by statute for the payment of all workers and suppliers, and security for

faithful performance of all terms and conditions of this Agreement, in an amount and form approved by the DISTRICT. Both securities shall contain provisions which automatically increase amounts thereof and/or time of completion or both for all change orders, extensions and additions to the work provided pursuant to this Agreement.

15. NON DISCRIMINATION The CONTRACTOR acknowledges that this Agreement is subject to the provisions of Article XIII of Chapter 2 of the Santa Barbara County Code, providing against discrimination in employment. The CONTRACTOR agrees to perform all requirements of a contractor under the provisions of said Article and to pay all costs occasioned to the DISTRICT by any noncompliance by the CONTRACTOR.

16. RECORDS, AUDIT, AND REVIEW. CONTRACTOR shall keep such business records pursuant to this Agreement as would be kept by a reasonably prudent practitioner of CONTRACTOR's profession and shall maintain such records for at least four (4) years following the termination of this Agreement. All accounting records shall be kept in accordance with generally accepted accounting practices. COUNTY shall have the right to audit and review all such documents and records at any time during CONTRACTOR's regular business hours or upon reasonable notice.

17. DISPUTES Should any dispute arise which the parties are unable to resolve by negotiation respecting the interpretation, construction or meaning of any of the plans or specifications or provisions affecting the work or respecting the true value of any extra work or work omitted, the dispute shall be submitted to arbitration. Such arbitration shall be carried out in accordance with provisions of the Public Contract Code, any applicable provision of County ordinance, regulation or standard and in accordance with standards of the American Arbitration Association. Any resulting arbitration ruling or result shall be binding on the parties, unless there is a mutual written agreement to litigate the matter.

The Contractor's attention is directed to the provisions of Public Contract Code 20104 for resolutions of claims of \$375,000 or less. The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims.

18. SUBSTITUTION OF MATERIALS, SUBSTITUTION OF CONTRACTORS The Engineer is authorized to act on behalf of the awarding authority in any matters requiring consent, notice or hearing in order to substitute materials or equipment specified or to substitute subcontractors.

IN WITNESS WHEREOF, the parties have executed this Agreement to be effective on the date executed by COUNTY.

SANTA BARBARA COUNTY FLOOD CONTROL
& WATER CONSERVATION DISTRICT

CONTRACTOR

SCOTT D. MCGOLPIN
PUBLIC WORKS DIRECTOR

By: _____
Public Works Director

Date: _____

By: _____

License No. _____

APPROVED AS TO FORM:
MICHAEL C. GHIZZONI
COUNTY COUNSEL

APPROVED AS TO ACCOUNTING
FORM:
ROBERT W GEIS, CPA
AUDITOR-CONTROLLER

By: _____
Deputy County Counsel

By: _____
Deputy

APPROVED AS TO FORM:
RAY AROMATORIO, ARM, AIC
RISK MANAGER

By: _____
Risk Manager

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS:

That the **SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT** of the State of California (hereinafter referred to as the **DISTRICT**) and _____ (hereinafter referred to as **PRINCIPAL**) have by written agreement entered into a contract identified as **LOWER MISSION CREEK, REACH 1A – HARBOR VIEW INN WATER LINE RELOCATION & PARKING MODIFICATION** (hereinafter referred to as the **CONTRACT**) and

That, pursuant to law and to said **CONTRACT**, and before entering upon the performance of said **CONTRACT**, the **PRINCIPAL** is required to file with the **DISTRICT** a good and sufficient bond to secure the payment of labor and materials claims.

NOW, THEREFORE, said **PRINCIPAL** and _____ as corporate surety (hereinafter referred to as **SURETY**), are held firmly bound unto the **DISTRICT** in the amount of \$ _____ (100% of Contract Amount), or the payment of which **PRINCIPAL** and **SURETY** bind themselves, their heirs, executors, administrators, successors and assigns both jointly and severally.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said **PRINCIPAL**, his or its subcontractors, heirs, executors, administrators, successors, or assigns, shall fail to pay any of the persons named or referred to in Section [9100](#) of the California Civil code, or amounts due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant, or for any amounts required to be deducted, withheld and paid over the Employment Development Department from the wages of employees of the contractor and his subcontractors pursuant to Section 13020 of the Unemployment Insurance Code with respect to such work and labor as required by Division [4](#), Part [6](#), Title [3](#), Chapter [5](#) (commencing at Section [9550](#)) of the California Civil Code, or this bond, then said **SURETY** will pay for the same, in an amount not to exceed the amount hereinafter set forth.

This bond shall inure to the benefit of any and all persons, companies and corporations named or referred to in Section [9100](#) of the California Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

And the said **SURETY**, for value received, hereby agrees that no change, extension of time, alteration or addition to the terms of the **CONTRACT**, or to the work to be performed thereunder, or the specifications accompanying the same, shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the **CONTRACT** or to the work or to the specifications.

In the event suit is brought upon this Bond by **DISTRICT** and judgment is recovered, **SURETY** shall pay all costs incurred by the **DISTRICT** in such suit, including a reasonable attorney's fee to be fixed by the court.

Death, illness, disability or disqualification of the **PRINCIPAL** shall not relieve **SURETY** of its obligations hereunder.

DATED: _____

PRINCIPAL

BY: _____

SURETY

BY: _____

Attorneys-in-fact

Address

Agent for Service of Process

Address

NOTE: Signatures of those executing for Surety and Power of Attorney MUST have notarial acknowledgement.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That the **SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT** of the State of California California (hereinafter referred to as the **DISTRICT**) and _____(hereinafter referred to as **PRINCIPAL**) have by written agreement entered into a contract identified as

LOWER MISSION CREEK, REACH 1A – HARBOR VIEW INN WATER LINE RELOCATION & PARKING MODIFICATION
(hereinafter referred to as the **CONTRACT**) and

That, the **PRINCIPAL** is required under the terms and conditions of said **CONTRACT** to furnish a bond for the faithful performance of **CONTRACT**.

NOW, THEREFORE, said **PRINCIPAL** and _____ as corporate surety (hereinafter referred to as **SURETY**), are held firmly bound unto the **DISTRICT** in the amount of \$ _____(100% of Contract Amount), for the payment of which **PRINCIPAL** and **SURETY** bind themselves, their heirs, executors, administrators, successors and assigns both jointly and severally.

THE CONDITION OF THIS OBLIGATION is such that if the **PRINCIPAL**, his heirs, executors, administrators, successors or assigns shall perform all of the covenants, conditions and agreements in the said **CONTRACT** and any alteration thereof made as therein provided, in his or their part, to be kept and performed at the time, and in the manner therein specified, and shall indemnify and save harmless **DISTRICT**, its officers, agents, and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force, virtue and effect.

And the said **SURETY** for value received, agrees that no change, extension of time, alteration or addition to the terms of the **CONTRACT** or to the work to be performed thereunder or the specifications accompanying the same shall affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or additions to the terms of the **CONTRACT** or to the work or to the specifications.

In the event suit is brought upon this bond by **DISTRICT** and judgment is recovered, **SURETY** shall pay all costs incurred by **DISTRICT** in such suit, including a reasonable attorney's fee to be fixed by the Court.

Death, illness, disability or disqualification of the **PRINCIPAL** shall not relieve **SURETY** of its obligations hereunder.

DATED: _____

PRINCIPAL

SURETY

BY: _____

BY: _____

Attorneys-in-fact

Address

Agent for Service of Process

Address

NOTE: Signatures of those executing for Surety and Power of Attorney MUST have notarial acknowledgement.

WORKERS' COMPENSATION INSURANCE CERTIFICATE

The Contractor shall execute the following form as required by the California Labor Code, Sections 1860 and 1861:

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

Date _____

Contractor

By _____
Signature

Title

CERTIFICATE OF COMPLIANCE

TO: SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

FROM: _____

THIS IS TO CERTIFY THAT ALL REQUIREMENTS FOR INSURANCE OF SUBCONTRACTORS AS SPECIFIED IN THESE CONTRACT DOCUMENTS HAVE BEEN MET.

FIRM:

BY: _____

TITLE: _____

DATED: _____

(Please return this completed form with your Bonds and Certificates of Insurance)

**STATEMENT OF
UNLAWFUL DISCRIMINATION IN EMPLOYMENT PRACTICES
(SANTA BARBARA COUNTY CODE, SECTION 2-95)**

The party contracting with the Santa Barbara County Flood Control and Water Conservation District agrees that it will not discriminate against any employee or applicant for employment in violation of any applicable State or Federal laws, rules or regulations which may now or hereafter specifically prohibit such discrimination on such grounds as race, religion, sex color, national origin, physical handicap when otherwise qualified, Vietnam era veteran/disabled, or ago. If it is determined by the Board of Directors upon recommendation of the Affirmative Action Officer and the County Counsel that during the life of this agreement any such unlawful discriminations have occurred, the County Board of Directors may forthwith terminate this agreement. Said party contracting with the District further agrees that whether or not the term of this agreement is still in existence at the time of final determination of such unlawful discrimination, that it will forthwith reimburse the District for any and all damages, costs and expenses incurred in connection with such unlawful discrimination, including but not limited to damages from loss of Federal or State grants, subventions or loans; costs of processing, investigating and reporting complaints of unlawful discrimination; additional costs of expenses incurred in completion of this agreement by another party if this agreement is terminated before completion; all costs of suit including reasonable attorney's fees incurred in collecting any such damages, costs and expenses; and interest at 7% on all such damages, costs and expenses from the date they are incurred to date of payment.

Employment practices shall include, but are not limited to employment, promotion, demotion, transfer, recruitment and advertising for recruitment, layoff or other termination, rates of pay, employee benefits and all other forms of compensation, selection for training and apprenticeship and probationary periods.

Said party contracting with the District further agrees to permit access at all reasonable times and places to all of its records of employment advertising, application forms, tests and all other pertinent employment data and records, to the Santa Barbara County Flood Control and Water Conservation District, its officers, employees and agents for the purpose of investigation to ascertain if any unlawful discrimination as described herein has occurred or is being practiced.

Failure to fully comply with any of the foregoing provisions relating to unlawful discrimination in employment practices shall be deemed to be a material breach of this agreement.

SECTION C
SPECIAL PROVISIONS

SECTION C
SPECIAL PROVISIONS
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SANTA BARBARA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

SPECIAL PROVISIONS

SECTION 1. SPECIFICATIONS AND PLANS

The work embraced herein shall conform to the provisions in the Standard Specifications dated May 2006, and the Standard Plans dated May 2006, of the Department of Transportation insofar as the same may apply, and these special provisions.

In case of conflict between the Standard Specifications and these special provisions, the special provisions shall take precedence over and shall be used in lieu of the conflicting portions.

AMENDMENTS TO MAY 2006 STANDARD SPECIFICATIONS

Amendments to the 2006 Caltrans Standard Specifications prior to and including those made 10-19-2012 are incorporated herein by reference. These amendments can be downloaded at the Caltrans website at:

<http://www.dot.ca.gov/hq/esc/oe/standards.php>

You may also purchase paper copies of the amendments for \$15 at the same address where plans and specifications are available.

1-1 ABBREVIATIONS

AA – Aluminum Association.
ACI – American Concrete Institute.
AMS- Aerospace Material Specifications.
APWA - The American Public Works Association.
SAE – Society of Automotive Engineers.

1-2 DEFINITIONS

1-2.1 Engineer - The Flood Control Engineer acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.

1-2.2 Acceptance - The formal written approval by the Agency of a project which has been completed in all respects in accordance with the plans and specifications and any modifications thereof.

1-2.3 Agency - The Santa Barbara County (CA) Flood Control and Water Conservation District.

1-2.4 APWA Standard Plans - Standard Plans for Public Works Construction, promulgated by the American Public Works Association (Southern California Chapter)/Associated General Contractors of California (Southern California Districts) Joint Cooperative Committee, published by Building News Inc., 3055 Overland Avenue, Los Angeles, California 90034, 1997 edition.

1-2.5 Board - The Governing Board of Directors of the Santa Barbara County (CA) Flood Control and Water Conservation District.

1-2.6 Caltrans - State of California, Business & Transportation Agency, Department of Transportation .

1-2.7 County - The County of Santa Barbara, CA.

1-2.8 County Standard Details - Standard Details of the County of Santa Barbara Department of Public Works Roads Division, dated April 1, 1987.

1-2.9 Department of Transportation – The Santa Barbara County (CA) Flood Control and Water Conservation District.

1-2.10 District - The Santa Barbara County (CA) Flood Control and Water Conservation District.

1-2.11 District Office – The Santa Barbara County (CA) Flood Control and Water Conservation District office.

1-2.12 Flood Control - The Santa Barbara County (CA) Flood Control and Water Conservation District.

1-2.13 Green Book - Standard Specifications for Public Works Construction, 2003 edition, including supplements, published by Building News, Inc., Los Angeles, CA.

1-2.14 High Risk Facilities - Facilities conducting the following materials, whether encased or not, are considered to be High Risk facilities:

1. Petroleum Products,
2. Oxygen,
3. Chlorine,
4. Toxic or flammable gases,
5. Natural gas in pipelines greater than 150 mm (6 inches) nominal pipe diameter, or pipelines with normal operating pressures greater than 415 kPa gauge (60 p.s.i.g.),
6. Underground electric supply lines, conductors or cables that have a potential to ground of more than 300 volts, either directly buried or in duct or conduit, which do not have concentric grounded or other effectively grounded metal shields or sheaths.

1-2.15 Labor Code - California Labor Code

1-2.16 Laboratory – The Division of New Technology, Materials and Research of the Department of Transportation of the State of California or laboratories authorized by the Engineer to test materials and work involved in the contract.

1-2.17 Low Risk Facilities - Facilities conducting the following materials are considered to be Low Risk facilities:

1. Natural gas in pipelines 150 mm (6 inches) or smaller (nominal pipe diameter) with normal operating pressures of 415 kPa gauge (60 p.s.i.g.) or less.
2. Underground electric supply lines, conductors or cables with a potential to ground of more than 300 volts, either directly buried or in duct or conduit, which do have concentric grounded or other effectively grounded metal shields or sheaths, and for which the utility owner furnished location information in conformance with the requirements of Article 17.7, “Location Information” of General Order No. 128 of the California Public Utility Commission, or electrical underground conductors with a potential to ground of 300 volts or less.

1-2.18 Owner - Same meaning as Agency.

1-2.19 Prompt - The briefest interval of time required for a considered reply, including time required for approval by governing body.

1-2.20 Reconstruct - Remove and disassemble and construct again at an existing or new location. New parts or alteration may or may not be required.

1-2.21 Standard Specifications – Means the 2006 edition of the standard specifications {United States Standard Measures units} of the State of California, Department of Transportation. Any reference therein to the State of California or a State agency, office or officer shall be interpreted to refer to the Santa Barbara County (CA) Flood Control and Water Conservation District or its corresponding agency, office or officer acting under this contract.

1-2.22 State Highway Engineer – The Santa Barbara County (CA) Flood Control and Water Conservation District.

1-2.23 State Standard Plans - Standard plans prepared by State of California, Business & Transportation Agency, Department of Transportation (Caltrans).

1-2.24 Transportation Building, Sacramento - The Santa Barbara County (CA) Flood Control and Water Conservation District office.

SECTION 2 - PROPOSAL REQUIREMENTS AND CONDITIONS

2-1 (BLANK)

2-2 EXAMINATION OF PLANS, SPECIFICATIONS, CONTRACT, AND SITE OF WORK

A geotechnical engineering report for the adjacent LMC Reach 1A Project is available upon request. All soil and test hole data, water table elevations, and soil analyses shown in the report apply only at the location of the test holes and to the depths indicated. Any additional subsurface exploration shall be done by the Bidders or the Contractor at their own expense.

The indicated elevation of the water table is that which existed on the date when test hole data was determined. It is the Contractor's responsibility to determine and allow for the elevation of groundwater at the date of project construction. A difference in elevation between groundwater shown in soil boring logs and groundwater actually encountered during construction will not be considered as a basis for extra work.

2-3 PROPOSAL FORMS

The proposal and forms are bound together with the "Contract Documents". Contract Documents for bidding may be obtained at the office of the Santa Barbara County Flood Control and Water Conservation District, 130 East Victoria Street, Suite 200, Santa Barbara, CA 93101.

SECTION 3 - AWARD AND EXECUTION OF CONTRACT

3-1 (BLANK)

3-2 CONTRACT BONDS

Before execution of the Contract, the Bidder shall file surety bonds with the District to be approved by the Board of Directors in the amounts noted below and for the purpose listed in Section 3-1.02, Contract Bonds, of the Caltrans Standard Specifications. Bonds issued by a surety who is listed in the latest version of the U.S. Department of Treasury Circular 570, who is authorized to issue bonds in California, and whose bonding limitation shown in said circular is sufficient to provide bonds in the amount required by the Contract shall be deemed to be approved unless specifically rejected by the District. Bonds from all other sureties shall be accompanied by all of the documents enumerated in the Code of Civil Procedure 995.660(a). The Bidder shall pay all bond premiums, costs, and incidentals.

Each bond shall incorporate, by reference, the Contract and be signed by both the Bidder and Surety and the signature of the authorized agent of the Surety shall be notarized.

The Performance Bond shall remain in effect until the end of all warranty periods set forth in the Contract Documents.

The amounts of the Payment Bond and the Performance Bond shall not be less than 100% of the Contract price.

3-3 EXECUTION OF CONTRACT

The Bidder to whom award is made shall execute a written Agreement with the OWNER on the form of agreement provided herein, shall execute all insurance, and shall furnish all certificates and bonds required by the Contract Documents within seven calendar days after notification of acceptance of the Bid by the Engineer.

3-4 RETURN OF PROPOSAL GUARANTIES

Bid Securities are not required for this project.

SECTION 4. BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES

Attention is directed to the provisions in Section 8-1.03, "Beginning of Work," 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 Contractors attention is directed to Section 10-1.01, "Order of Work," of these special provisions.

Time is of the essence in the execution of this Contract. The Contractor shall begin work within 15 calendar days after receiving the Notice to Proceed. The actual date on which the Contractor starts work will not affect the required time for completion.

The work shall be diligently prosecuted to completion before the expiration of

10 WORKING DAYS

from the date listed on the Notice to Proceed.

The Contractor shall pay to the Santa Barbara County Flood Control District, or have withheld from monies due it, the sum of \$1,500 per day, for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed above.

SECTION 5. GENERAL

SECTION 5-1. MISCELLANEOUS

5-1.01 APPLICABLE STATUTORY PROVISIONS

Any references in State Standard Specifications to statutory provisions applicable only to state contracts or which are inconsistent with statutory provisions applicable to County or local agency contracts, shall not prevail over, and shall be superseded by, any statutory provisions applicable to County or local agency contracts.

5-1.012 DIFFERING SITE CONDITIONS

Attention is directed to Section 5-1.116, "Differing Site Conditions," of the Standard Specifications.

(a) The Contractor shall promptly notify the Engineer of the following Work site conditions (hereinafter called differing site conditions), in writing, upon their discovery and before they are disturbed:

1. Material differing from that represented in the Contract which the Contractor believes may be hazardous waste;
2. Subsurface or latent physical conditions at the site differing from those indicated by information available to bidders prior to submitting bids;
3. Unknown physical conditions at the site of any unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

(b) [The] local public entity shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for performance of any part of the work shall issue a change order under the procedures described in the Contract.

(c) That, in the event that a dispute arises between the local public entity and the Contractor, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed, retaining all rights to make a claim.

5-1.018 GUARANTEE

GENERAL

The Contractor shall guarantee the work is in accordance with contract requirements and remains free from substantial defects in materials and workmanship for a period of one year after contract acceptance. For certain portions of the work where the Director relieves the Contractor of responsibility in accordance with Section 7-1.15, "Relief from Maintenance and Responsibility," of the Standard Specifications, the guarantee period starts on the relief date and ends one year therefrom.

Substantial defects in materials and workmanship means defective work objectively manifested by damaged, displaced, or missing parts or components and workmanship resulting in improper function of materials, components, equipment, or systems, as installed or manufactured by the Contractor, subcontractor, supplier, or manufacturer.

During the guarantee period, the Contractor shall repair or replace contract work and associated work which is not in accordance with contract requirements or has substantial defects in materials and workmanship. The Contractor shall perform the corrective work with no expense to the Department other than State-provided field inspection services.

The guarantee of work excludes damage or displacement that is outside the control of the Contractor and caused by normal wear and tear, improper operation, insufficient maintenance, abuse, unauthorized modification, or natural disaster as described in Section 7-1.165, "Damage by Storm, Flood, Tsunami or Earthquake," of the Standard Specifications.

The Contractor shall have the same insurance coverage during corrective work operations as prior to contract acceptance, in accordance with Section 7-1.12, "Indemnification and Insurance," of the Standard Specifications. The contract bonds furnished in accordance with this contract must remain in full force and effect during the guarantee period and until all corrective work is complete.

In the case of conflict between this guarantee provision and any warranty provision included in the contract, the warranty provision shall govern for the specific construction product or feature covered.

CORRECTIVE WORK

During the guarantee period, the Department will monitor performance of the highway facilities completed by the Contractor and will perform a thorough review of the contract work at least 60 days before the expiration of the one-year guarantee.

If the Engineer discovers contract work not in compliance with contract requirements or that has substantial defects in materials and workmanship, at any time during the guarantee period, a list of items that require corrective work will be developed and forwarded to the Contractor. Within 15 days of receipt of a list, the Contractor shall submit to the Engineer a detailed plan for performing corrective work. The work plan shall include a start to finish schedule. It shall include a list of labor, equipment, materials, and any special services intended to be used. It shall clearly show related work including traffic control, temporary delineation, and permanent delineation.

The Contractor shall start the corrective and related work within 15 days of receiving notice from the Engineer that the Contractor's work plan is approved. The corrective work shall be diligently prosecuted and completed within the time allotted in the approved work plan.

If the Engineer determines that corrective work, covered by the guarantee, is urgently needed to prevent injury or property damage, the Engineer will give the Contractor a request to start emergency repair work and a list of items that require repair work. The Contractor shall mobilize within 24 hours and diligently perform emergency repair work on the damaged highway facilities. The Contractor shall submit a work plan within 5 days of starting emergency repair work.

If the Contractor fails to commence and execute, with due diligence, corrective work and related work required under the guarantee in the time allotted, the Engineer may proceed to have the work performed by State forces or other forces at the Contractor's expense. Upon demand, the Contractor shall pay all costs incurred by the Department for work performed by State forces or other forces including labor, equipment, material, and special services.

PAYMENT

Full compensation for performing corrective work; and related work such as traffic control, temporary delineation, and permanent delineation, and to maintain insurance coverage and bonds, shall be considered as included in the contract prices paid for the various contract items of work and no separate payment will be made therefor.

5-1.02 LABOR NONDISCRIMINATION

Attention is directed to the following Notice that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

NOTICE OF REQUIREMENT FOR NONDISCRIMINATION PROGRAM

(GOV. CODE, SECTION 12990)

Your attention is called to the "Nondiscrimination Clause", set forth in Section 7-1.01A(4), "Labor Nondiscrimination," of the Standard Specifications, which is applicable to all nonexempt State contracts and subcontracts, and to the "Standard California Nondiscrimination Construction Contract Specifications" set forth therein. The specifications are applicable to all nonexempt State construction contracts and subcontracts of \$5,000 or more.

5-1.021 INDEMNIFICATION AND INSURANCE

Section 7-1.12, "Indemnification and Insurance," (through paragraph 7-1.12B(6), "Miscellaneous,") of the Standard Specifications is deleted. All references to Section 7-1.12 in the Contract documents shall be deemed to mean Sections 7-1.121, "Indemnification," and 7-1.122, "Insurance," as added below.

Indemnification and liability coverage in this section, Indemnification and Insurance, shall mean the County of Santa Barbara, the Santa Barbara County Flood Control District, the City of Santa Barbara, Designated Representative, Architect/Engineer, and their officials, agents and employees.

The Standard Specifications is amended by adding the following Section 7-1.121, "Indemnification," and Section 7-1.122, "Insurance," before Section 7-1.125, "Legal Actions Against the Department":

7-1.121 Indemnification. — Contractor shall defend, indemnify and save harmless the County, its officers, agents and employees from any and all claims, demands, damages, costs, expenses (including attorney's fees), judgments or liabilities arising out of this Agreement or occasioned by the performance or attempted performance of the provisions hereof; including, but not limited to, any act or omission to act on the part of the Contractor or his agents or employees or other independent contractors directly responsible to him; except those claims, demands, damages, costs, expenses (including attorney's fees), judgments or liabilities resulting from the sole negligence or willful misconduct of the County.

The Contractor shall notify the County immediately in the event of any accident or injury arising out of or in connection with this Agreement.

7-1.22 Insurance. — Insurance shall conform to the following requirements:

Without limiting the Contractor's indemnification of the County, the Contractor shall procure the following required insurance coverage at its sole cost and expense. All insurance coverage is to be placed with insurers which (1) have a Best's rating of no less than A: VII, and (2) are admitted insurance companies in the State of California. All other insurers require the prior approval of the County. Such insurance coverage shall be maintained during the term of this Agreement. Failure to comply with the insurance requirements shall place Contractor in default. Upon request by the County, the Contractor shall provide a certified copy of any insurance policy to the County within ten (10) working days.

7-1.122A(1) Workers' Compensation and Employer's Liability Insurance. — Statutory Workers' Compensation and Employers Liability Insurance shall cover all Contractor's staff while performing any work incidental to the performance of this Agreement. The policy shall provide that no cancellation, or expiration or reduction of coverage shall be effective or occur until at least thirty (30) days after receipt of such notice by the County. In the event the Contractor is self-insured, it shall furnish a copy of Certificate of Consent to Self-Insure issued by the Department of Industrial Relations for the State of California. This provision does not apply if the Contractor has no employees as defined in Labor Code Section 3350 et seq. during the entire period of this Agreement and the Contractor submits a written statement to the County stating that fact.

7-1.122A(2) General Liability Insurance. — The general liability insurance shall include bodily injury, property damage and personal injury liability coverage. It shall afford coverage for all premises, operations, products and completed operations of the Contractor and shall include contractual liability coverage sufficiently broad so as to include the insurable liability assumed by the Contractor in the indemnity and hold harmless provisions of the Indemnification Section of this Agreement between the County and the Contractor. The Contractor shall require all subcontractors to be included under its policies or furnish separate certificates and endorsements to meet the standards of these provisions by each subcontractor. The County, its officers, agents, and employees shall be Additional Insured status on any policy. A cross liability clause, or equivalent wording, stating that coverage will apply separately to each named or additional insured as if separate policies had been issued to each shall be included in the policies. A copy of the endorsement evidencing that the policy has been changed to reflect the Additional Insured status must be attached to the certificate of insurance.

Said policy or policies shall include a severability of interest or cross liability clause or equivalent wording. Said policy or policies shall contain a provision of the following form:

"Such insurance as is afforded by this policy shall be primary and non-contributory to the full limits stated in the declarations, and if the COUNTY has other valid and collectible insurance for a loss covered by this policy, that other insurance shall be excess only."

If the policy providing liability coverage is on a 'claims-made' form, the Contractor is required to maintain such coverage for a minimum of three years [ten years for construction] following completion of the performance or attempted performance of the provisions of this agreement. Said policy or policies shall provide that the County shall be given thirty (30) days written notice prior to cancellation or expiration of the policy or reduction in coverage.

7-1.122A(3) General Liability Limits. — The limits of liability shall be at least:

- (a) \$1,000,000 for each occurrence (combined single limit for bodily injury and property damage).
- (b) \$1,000,000 for each occurrence (for products-completed operations).
- (c) \$2,000,000 general aggregate. This general aggregate limit shall apply separately to the Contractor's work under this Agreement.
- (d) Any deductible or Self-Insured Retention {SIR} over \$10,000 requires approval by the County.

7-1.122B Automobile Liability Insurance. — The Contractor shall carry automobile liability insurance, including coverage for all owned, non-owned, and hired vehicles that are operated on behalf of the Contractor pursuant to the Contractor's activities hereunder.

7-1.122B(A) Automobile Liability Limits. — The limit of liability shall be at least:

- (a) \$1,000,000 combined single limit for each accident for bodily injury and property damage.

7-1.122C Policy Forms, Endorsements and Certificates. — The Contractor shall submit to the office of the designated County representative certificate(s) of insurance documenting the required insurance as specified above prior to this Agreement becoming effective. The County shall maintain current certificate(s) of insurance at all times in the office of the designated County representative as a condition precedent to any payment under this Agreement. Approval of insurance by the County or acceptance of the certificate of insurance by the County shall not relieve or decrease the extent to which the contractor may be held responsible for payment of damages resulting from the Contractor's services of operation pursuant to the contract, nor shall it be deemed a waiver of the County's rights to insurance coverage hereunder.

In the event the Contractor is not able to comply with the County's insurance requirements, the County may, at their sole discretion and at the Contractor's expense, provide compliant coverage.

The above insurance requirements are subject to periodic review by the County. The County's Risk Manager is authorized to change the above insurance requirements, with the concurrence of County

Counsel, to include additional types of insurance coverage or higher coverage limits, provided that such change is reasonable based on changed risk of loss or in light of past claims against the County or inflation. This option may be exercised during any amendment of this Agreement that results in an increase in the nature of the County's risk and such change of provisions will be in effect for the term of the amended Agreement. Such change pertaining to types of insurance coverage or higher coverage limits must be made by written amendment to this Agreement. The Contractor agrees to execute any such amendment within thirty (30) days of acceptance of the amendment or modification.

Evidence of insurance in a form acceptable to the County, including the required "additional insured" endorsements, shall be furnished by the Contractor to the County prior to the award of the contract. The evidence of insurance shall provide that there will be no cancellation, lapse, or reduction of coverage without thirty (30) days prior written notice to the Department. Certificates of Insurance, as evidence of required insurance, for the General Liability and Auto Liability policies shall set forth deductible amounts applicable to each policy and all exclusions which are added by endorsement to each policy.

7-1.122D Enforcement. — The County may take any steps as are necessary to assure Contractor's compliance with its obligations. Should any insurance policy lapse or be canceled during the contract period the Contractor shall, within thirty (30) days prior to the effective expiration or cancellation date, furnish the Department with evidence of renewal or replacement of the policy. Failure to continuously maintain insurance coverage as herein provided is a material breach of contract. In the event the Contractor fails to maintain any insurance coverage required, the County may at their sole discretion, but is not required to, maintain this coverage and charge the expense to the Contractor or terminate this Agreement.

Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve the Contractor for liability in excess of such coverage, nor shall it preclude the County from taking other actions as is available to it under any other provision of the contract or law. Failure of the County to enforce in a timely manner any of the provisions of this section shall not act as a waiver to enforcement of any of these provisions at a later date.

7-1.122E Self-Insurance. — Self-insurance programs and self-insured retentions in insurance policies are subject to separate annual review and approval by the County for evidence of the Contractor's financial capacity to respond. Additionally, self-insurance programs or retentions must provide the State with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance.

7-1.122F Miscellaneous. — Nothing contained in the Contract is intended to make the public or any member thereof a third party beneficiary of the Insurance or Indemnity provisions of these Standard Specifications, nor is any term, condition or other provision of the Contract intended to establish a standard of care owed to the public or any member thereof.

7-1.122G Subcontractors. — Contractors shall include all subcontractors as insurers under its policies or shall furnish separate certificates for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.

5-1.022 PAYMENT OF WITHHELD FUNDS

Payment of withheld funds shall conform to Section 9-1.065, "Payment of Withheld Funds," of the Standard Specifications and these special provisions.

Pursuant to Section 22300 of the Public Contract Code, and the project specifications, the Contractor may substitute securities for monies withheld to ensure contract performance.

Upon the Contractor's request, the County will make payment of funds withheld to ensure performance of the Contract if the Contractor deposits in escrow with the Santa Barbara County Treasurer, or with a bank acceptable to the County, securities eligible for investment under Government Code Section 16430, or bank or savings and loan certificates of deposits, upon the following conditions;

A. The Contractor shall bear the expense of the County and the escrow agent, either the County Treasurer or the bank, in connection with the escrow deposit made.

B. Securities or certificates of deposit to be placed in escrow shall be of a value at least equivalent to the amounts of retention to be paid to the Contractor pursuant to this Section.

C. The Contractor shall enter into an escrow agreement satisfactory to the County, which agreement shall include provisions governing inter alia:

- 1) The amount of securities to be deposited.
- 2) The providing of powers of attorney, or other documents necessary for the transfer of the securities to be deposited
- 3) Conversion to cash to provide funds to meet defaults by the Contractor, including but not limited to the termination of the Contractor's control over the work, stop notices filed pursuant to law, assessment of liquidated damages, or other amounts to be kept or retained under the provisions of the contract
- 4) Decrease in value of securities on deposit.
- 5) The termination of the escrow upon completion of the contract.

D. The Contractor shall obtain the written consent of the surety to such agreement.

Funds withheld from progress payments to ensure performance of the contract that are eligible for payment into escrow or to an escrow agent pursuant to Section 22300 of the California Public Contract Code do not include funds withheld or deducted from payment due to failure of the Contractor to fulfill a contract requirement.

5-1.023 JOINT LABOR COMPLIANCE MONITORING PROGRAM

The Joint Labor Compliance Monitoring Program monitors labor compliance by conducting interviews with construction workers at the job site. The Contractor, and all subcontractors, shall cooperate in allowing approved Compliance Group Representatives along with a County employee access to the project employees and work site for the purpose of conducting worker interviews to ensure compliance with the requirement to pay proper prevailing wages on County projects. This will be done in order to comply with the Board of Supervisors July 10, 2012 adoption of a Joint Labor Compliance Monitoring Program.

Each Compliance Group Representative will always be accompanied with a County employee for a joint contractor worker interview. The Compliance Group Representative will be issued an identification card by the County at the job site. Compliance Group Representatives must restrict their actions to interviewing workers employed on the project. A copy of the Joint Labor Compliance Monitoring Program and Board Letter adoption from July 10, 2012 is available on request.

Payment

Full Compensation for Contractor and Subcontractor compliance with the provisions of the Joint Labor Compliance Monitoring Program shall be considered as included in the prices paid for the various contract items of work involved.

5-1.03 INTEREST ON PAYMENTS

Interest shall be payable on progress payments, payments after acceptance, final payments, extra work payments, and claim payments as follows:

- A. Unpaid progress payments, payment after acceptance, and final payments shall begin to accrue interest 30 days after the Engineer prepares the payment estimate.
- B. Unpaid extra work bills shall begin to accrue interest 30 days after preparation of the first pay estimate following receipt of a properly submitted and undisputed extra work bill. To be properly submitted, the bill must be submitted within 7 days of the performance of the extra work and in conformance with the provisions in Section 9-1.03C, "Records," and Section 9-1.06, "Partial Payments," of the Standard Specifications. An undisputed extra work bill not submitted within 7 days of performance of the extra work will begin to accrue interest 30 days after the preparation of the second pay estimate following submittal of the bill.
- C. The rate of interest payable for unpaid progress payments, payments after acceptance, final payments, and extra work payments shall be 10 percent per annum.
- D. The rate of interest payable on a claim, protest or dispute ultimately allowed under this contract shall be 6 percent per annum. Interest shall begin to accrue 61 days after the Contractor submits to the Engineer information in sufficient detail to enable the Engineer to ascertain the basis and amount of said claim, protest or dispute.

The rate of interest payable on any award in arbitration shall be 6 percent per annum if allowed under the provisions of Civil Code Section 3289.

5-1.04 PUBLIC SAFETY

The Contractor shall provide for the safety of traffic and the public in conformance with Section 7-1.09, "Public Safety," of the Amendments to the 2006 Standard Specifications.

5-1.045 SURFACE MINING AND RECLAMATION ACT

Attention is directed to the Surface Mining and Reclamation Act of 1975, commencing in Public Resources Code, Mining and Geology, Section 2710, which establishes regulations pertinent to surface mining operations, and to California Public Contract Code Section 10295.5.

Material from mining operations furnished for this project shall only come from permitted sites in compliance with California Public Contract Code Section 10295.5.

The requirements of this section shall apply to materials furnished for the project, except for acquisition of materials in conformance with the provisions in Section 4-1.05, "Use of Materials Found on the Work," of the Standard Specifications.

5-1.05 TESTING

Testing of materials and work shall conform to the provisions in Section 6-3, "Testing," of the Standard Specifications and these special provisions.

Whenever the provisions of Section 6-3.01, "General," of the Standard Specifications refer to tests or testing, it shall mean tests to assure the quality and to determine the acceptability of the materials and work.

The Engineer will deduct the costs for testing of materials and work found to be unacceptable, as determined by the tests performed by the Department, and the costs for testing of material sources identified by the Contractor which are not used for the work, from moneys due or to become due to the Contractor. The amount deducted will be determined by the Engineer.

The Engineer will perform compaction tests to ascertain conformance with the specifications. The number of tests and their locations and depths will be determined by the Engineer. The Contractor shall, as directed by the Engineer, make all excavations and subsequent backfill and compaction, required to perform the compaction tests. No additional compensation will be provided therefor.

The standard test for maximum density shall be the most recent version of ASTM D-1557 or California Test Method No. 216. The standard test for maximum/minimum index density tests shall be the most recent version of ASTM Test Method D4253 and D4254. The test method used to assess laboratory maximum density and moisture content shall be selected at the sole discretion of the Engineer.

The standard field tests for in-place density and moisture content shall be the most recent versions of ASTM D 1556, D 2922, D 2937 and/or D 3017 or California Test Method No. 231 or other appropriate California Test Methods. The number of tests and test methods used to assess in-place density and moisture content shall be selected at the sole discretion of the Engineer.

5-1.06 REMOVAL OF ASBESTOS AND HAZARDOUS SUBSTANCES

When the presence of asbestos or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, and the asbestos or hazardous substance has not been rendered harmless, the Contractor may continue work in unaffected areas reasonably believed to be safe. The Contractor shall immediately cease work in the affected area and report the condition to the Engineer in writing. In conformance with Section 25914.1 of the Health and Safety Code, removal of asbestos or hazardous substances including exploratory work to identify and determine the extent of the asbestos or hazardous substance will be performed by separate contract.

If delay of work in the area delays the current controlling operation, the delay will be considered a right of way delay and the Contractor will be compensated for the delay in conformance with the provisions in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

5-1.07 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.

The District will retain 5% of the estimated value of the work performed in conformance with Public Contract Code Section 7201.

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.

No partial payment will be made for any materials on hand which are furnished but not incorporated in the work. Partial payment requests may be made by the Contractor no more than once each month. The estimate shall be prepared by the Contractor in a format acceptable to the Engineer and submitted to the Engineer for review and approval. The date of the month on which the estimate will be accepted for review by the Engineer will be determined by mutual agreement at the beginning of the project. Original invoices must be submitted for partial payment request. Faxed payment claims are not acceptable.

The Contractor shall submit to the Engineer within 15 days after award of Contract, a detailed schedule, to be used only as a basis for determining progress payments on designated lump sum bid items. This schedule shall equal the lump sum bid item and shall be in such form and sufficiently detailed as to satisfy the Engineer that it correctly represents a reasonable apportionment of the lump sum.

If required by the Agency, the Contractor will submit labor and material releases covering the progress payment time frame that shall be required prior to release of funds. Releases shall be signed by a representative of the Contractor duly authorized to do so.

The Agency may withhold any payment, or on account of subsequently discovered evidence, nullify the whole or a part of any certificate, to such extent as may be necessary to protect Agency from loss of account of or by:

- a) Defective work not remedied.
- b) Claims filed or reasonable evidence indicating probable filing of claims.
- c) Failure of Contractor to make payments properly to subcontractors or for materials or labor.
- d) A reasonable doubt that the contract can be completed in accordance with all of the terms of the contract for the balance then unpaid.
- e) Damage to another Contractor.

When such cause for withholding payment is removed, payment shall then, and only then, be made of any amount so withheld.

5-1.075 COMPLIANCE WITH AIR QUALITY REGULATIONS

This project is located in the County of Santa Barbara (part of the South Central Coast Air Basin). The Santa Barbara County Air Pollution Control District (SBCAPCD) is responsible for implementing local, state and federal air quality requirements. The Contractor shall fully inform him/herself of the requirements, rules, regulations and conditions that may govern his/her operations in said area, and shall conduct his/her operations in full compliance with these requirements. Contact SBCAPCD at (805) 961-8800 (www.sbcapcd.org) for more information about what requirements apply to your equipment and/or operations.

Applicable air quality requirements apply, but are not limited, to the following equipment/operations:

- "Dust Control" – See Section 10-1.04 of these special provisions regarding construction activities as they relate to fugitive dust. See also SBCAPCD Rule 345 (*Fugitive Dust - Construction and Demolition*).

- “Engines” - Pertaining to equipment used during the construction of this work, all portable spark-ignited and compression-ignited (diesel-fired) engines rated at 50 brake-horsepower or greater must have either a California statewide Portable Equipment Registration Program (PERP) Registration or SBCAPCD permits prior to operation. This includes auxiliary engines on vehicles and cranes, and any engine that has been de-rated below 50 brake horse-power from the manufacturer’s original rating.
- “Other Portable Equipment Units” – Portable equipment used for concrete batch plants, rock crushing and pavement recycling operations, tub grinders and trommel screens must have either a California statewide Portable Equipment Registration Program (PERP) Registration or SBCAPCD permits prior to operation.

The Contractor shall abide with the most current air quality rules and regulations. The Contractor shall provide proof of compliance with the air quality requirements (e.g., copies of Registrations or Permits) to the County or its authorized representative.

Full compensation for conforming to the requirements of this section shall be considered as included in the contract prices paid for the various contract items of work and no separate payment will be made therefor.

5-1.08 SOUND CONTROL REQUIREMENTS

Sound control shall conform to the provisions in Section 7-1.01I, "Sound Control Requirements," of the Standard Specifications and these special provisions.

The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 dBa at a distance of 50 feet. This requirement shall not relieve the Contractor from responsibility for complying with local ordinances regulating noise level.

The noise level requirement shall apply to the equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

Full compensation for conforming to the requirements of this section 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.

5-1.09 SUBCONTRACTING

Attention is directed to the provisions in Section 8-1.01, "Subcontracting," of the Standard Specifications and these special provisions.

Pursuant to the provisions in Section 1777.1 of the Labor Code, the Labor Commissioner publishes and distributes a list of contractors ineligible to perform work as a subcontractor on a public works project. This list of debarred contractors is available from the Department of Industrial Relations web site at:

<http://www.dir.ca.gov/DLSE/Debar.html>

5-1.10 PROMPT PROGRESS PAYMENT TO SUBCONTRACTORS

Attention is directed to the provisions in Sections 10262 and 10262.5 of the Public Contract Code concerning prompt payment to subcontractors.

5-1.11 PROJECT APPEARANCE

The Contractor shall maintain a neat appearance to the work.

In areas visible to the public, the following shall apply:

- A. 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 removed or disposed of weekly.
- B. Trash bins shall be furnished for debris from structure construction. Debris shall be placed in trash bins daily. Forms or falsework that are to be re-used shall be stacked neatly concurrently with their removal. Forms and falsework that are not to be re-used shall be disposed of concurrently with their removal.

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

5-1.12 PRESERVATION OF PROPERTY

Attention is directed to Section 7-1.11, "Preservation of Property," of the Standard Specifications and these special provisions.

Existing trees, shrubs and other plants, that are not to be removed as shown on the plans or specified in these special provisions, and are injured or damaged by reason of the Contractor's operations, shall be replaced by the Contractor. The minimum size of tree replacement shall be 24 inch box and the minimum size of shrub replacement shall be 15-gallon. Replacement ground cover plants shall be from flats and shall be planted 12 inches on center. Replacement of Carpobrotus ground cover plants shall be from cuttings and shall be planted 12 inches on center. Replacement planting shall conform to the requirements in Section 20-4.07, "Replacement," of the Standard Specifications. The Contractor shall water replacement plants in conformance with the provisions in Section 20-4.06, "Watering," of the Standard Specifications.

Damaged or injured plants shall be removed and disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications. At the option of the Contractor, removed trees and shrubs may be reduced to chips. The chipped material shall be spread within the highway right of way at locations designated by the Engineer.

Replacement planting of injured or damaged trees, shrubs and other plants shall be completed not less than 20 working days prior to acceptance of the contract. Replacement plants shall be watered as necessary to maintain the plants in a healthy condition.

5-1.13 PRE-CONSTRUCTION CONFERENCE

The Contractor shall attend a pre-construction conference to be held prior to the commencement of the construction at a place and time designated by the Engineer. Representatives of Flood Control, the Contractor and other affected parties will be invited. At this meeting the Contractor shall designate the project superintendent and the superintendent's authority to act for the Contractor, unless this information has previously been provided by the Contractor.

5-1.14 SHOP DRAWINGS AND SUBMITTALS

Shop drawings and submittals shall conform to Section 5-1.02, "Plans and Working drawings," of the Standard Specifications and these special provisions.

Shop drawings and submittals shall be provided, at the Contractor's expense, when required by the Plans or Specifications, or requested by the Engineer.

Materials shall not be furnished or fabricated, nor any work done for which shop drawings or submittals are required, before those shop drawings or submittals have been reviewed, as provided herein. Neither review nor approval of shop drawings or submittals by the Engineer shall relieve the Contractor from responsibility for errors, omissions, or deviations from the Contract Documents, unless such deviations were specifically called to the attention of the Engineer in the letter of transmittal. The Contractor shall be responsible for the correctness of the submittals and shop drawings, including shop fits, field connections, and results obtained by use of such drawings.

The Contractor shall allow a minimum of 10 working days for review of shop drawings and submittals. Each set of shop drawings or submittals shall be accompanied by a letter of transmittal describing exactly what is transmitted.

Four copies of each shop drawing and submittal shall be transmitted to the Engineer. One copy will be returned to the Contractor.

Shop drawings shall be prepared in accordance with current modern engineering practice and shall be of a size and scale to clearly show all necessary details.

Submittals shall consist of the appropriate combination of catalog sheets, material lists, manufacturer's brochures, technical bulletins, specifications, diagrams, or product samples, necessary to describe a system, product, or item.

The Contractor shall review, stamp with his approval and submit with reasonable promptness and in orderly sequence so as to cause no delay in the work or in the work of any other Contractor, all shop drawings and samples required by the contract documents.

The Contractor's stamp of approval on each shop drawing submittal indicates that each shop drawing is acceptable in terms of the means, methods, techniques, sequences and operations of construction, safety precautions and programs incidental thereto, all of which are the Contractor's responsibility.

The Engineer's checking of shop drawing submittals is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of his or her work with that of all other trades; and the satisfactory performance of his or her work.

The Contractor shall pay Flood Control for review of any submission that varies from what the plans and specifications have called for, and/or for the review of any submission that is redundant (for example, submitting similar portland cement concrete mix designs from more than one supplier).

Progress payments may be withheld because of the Contractor's failure to provide submittals in a timely manner. Failure of the Contractor to provide submittals in a timely manner will be treated as an avoidable delay if delays resultant therefrom of any type are encountered.

5-1.15 COORDINATION AND INTERPRETATION OF PLANS, STANDARD SPECIFICATIONS, AND SPECIAL PROVISIONS

If there is a conflict between Contract Documents, the document highest in precedence shall control. The precedence shall be:

- 1) Permits from other agencies as may be required by law.
- 2) Addendums
- 3) Special Provisions.
- 4) Plans.
- 5) Standard Plans.
- 6) Standard Specifications.
- 7) Reference Specifications.

Except, when there is a conflict of working hours the more stringent requirement shall apply. Change Orders, Supplemental Agreements, and approved revisions to Plans and Specifications will take precedence over Items 2) through 6) above. Detailed plans shall have precedence over general plans.

As the figured dimensions shown on the drawings and in the specifications of the contract may not in every case agree with scaled dimensions, the figured dimensions shall be followed in preference to the scaled dimensions, and drawings to a large scale shall be followed in preference to the drawings to a small scale. Should it appear that the work to be done, or any of the matter relative thereto is not sufficiently detailed or explained in the contract documents, the Contractor shall apply to the Engineer for such further explanations as may be necessary, and shall conform thereto as part of the contract so far as may be consistent with the terms thereof.

5-1.16 SUPERINTENDENCE

Superintendence shall conform to Section 5-1.06, "Superintendence," of the Standard Specifications and these special provisions.

The Contractor shall notify the Owner, in writing, when the Contractor desires to change the Project Manager and Superintendent for the Project, and shall provide in writing the name, qualifications, and experience statements of the personnel proposed by the Contractor to be used.

5-1.17 INSPECTION

Before beginning Work, the Contractor shall contact all jurisdictional agencies and determine from each: 1) scope of work to be inspected and by whom, 2) scope of testing, and 3) advance notice required.

During the course of work, the Contractor shall be responsible for calling for testing and inspection as required by the jurisdictional agencies. Work not properly tested and inspected shall be subject to rejection.

If any work that is to be inspected, tested or approved is covered by the Contractor without written concurrence of the Engineer, it must, if requested by the Engineer, be uncovered for observation. Uncovering work shall be at the Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness to such notice.

5-1.18 RETENTION OF DEFECTIVE WORK

If, in the opinion of the Engineer, the defective work is not of sufficient magnitude or importance to make the work dangerous or undesirable, or if, in the opinion of the Engineer, the removal of such work is impractical or will create conditions which are dangerous or undesirable, the Owner shall have the right and authority to retain such work instead of requiring it to be removed and reconstructed, but will make such deductions therefor in the payments due or to become due to the Contractor as the Owner may deem just and reasonable.

5-1.19 RECORD DRAWINGS

Contractor shall maintain a complete and accurate record of all changes of construction from that shown in these plans and specifications for the purpose of providing a basis for construction record drawings. No changes shall be made without prior written approval of the Engineer.

5-1.20 SUGGESTIONS TO CONTRACTOR

Any plan or method of work suggested by the Owner or the Engineer to the Contractor but not specified or required, if adopted or followed by the Contractor in whole or in part, shall be used at the risk and responsibility of the Contractor; and the Owner and the Engineer shall assume no responsibility therefor and in no way be held liable for any defects in the work which may result from or be caused by use of such plan or method of work.

5-1.21 MANUFACTURER'S RECOMMENDATIONS

Where the manufacturer of any material or equipment provides written recommendations or instructions for its use or method in installation (including labels, tags, manuals, or trade literature), such recommendations or instructions shall be complied with except where the contract documents specifically require deviations. Copies of such manufacturer's recommendations shall be provided by the Contractor to the Engineer.

5-1.22 POLICY ON DRUGS AND ALCOHOL

The Contractor shall have an implemented Policy on Drugs and Alcohol conforming to Federal Regulation 49 CFR Part 40, Procedures for Transportation Workplace Drug and Alcohol Testing Programs.

A copy of the Contractor's Policy on Drugs and Alcohol conforming to Federal Regulation 49 CFR Part 40, Procedures for Transportation Workplace Drug and Alcohol Testing Programs, shall be made available to the Owner at the pre-construction meeting, or before if required, and as required by the Engineer.

5-1.23 INJURY AND ILLNESS PREVENTION PROGRAM

The Contractor's Injury and Illness Prevention Program shall be made available to the District upon request.

The Injury and Illness Prevention Program shall be in conformance with the California Code of Regulations, Title 8 Industrial Relations, Division 1 Department of Industrial Relations, Chapter 4 Division of Industrial Safety, Subchapter 4 Construction Safety Orders, Article 3 General, Section 1509 Injury and Illness Prevention Program. The Injury and Illness Prevention Program shall also be in conformance with the California Code of Regulations, Title 8 Industrial Relations, Division 1 Department of Industrial Relations, Chapter 4 Division of Industrial Safety, Subchapter 20 Tunnel Safety Orders, Article 3 Injury and Illness Prevention Program (Sections 8406-8409) at any place of employment where the Tunnel Safety Orders are applicable.

At any place of employment where the Tunnel Safety Orders are applicable, a pre-job safety conference, scheduled by the Contractor, with representatives of the Division of Industrial Safety, Owner, Contractor and the Contractor's employees shall be held before work begins as required by Labor Code, Section 7955. Such a conference shall include the Contractor's review of the construction plan and any special equipment, practices and potential safety and health problems.

The Contractor shall post a true and correct copy of the Department of Industrial Relations, Division of Occupational Safety and Health, Mining and Tunneling Unit's Underground Classification at the job site.

5-1.24 PERMITS AND LICENSES

The Contractor shall conform to all of the regulations and requirements, and shall be responsible for costs associated therewith, of all permits required of the Work.

The Contractor shall obtain a State Division of Industrial Safety Permit for excavations and trenches prior to commencement of any excavation or trench of 5 feet or more in depth per California Code of Regulations, Title 8, Chapter 3.2, Article 2, Section 341 and Title 8, Division 1, Chapter 4, Subchapter 4 of the California Occupational Safety and Health Regulations (Cal/OSHA). A copy of the permit shall be provided to the Engineer.

The Contractor shall know and comply with provisions of Federal, State, and local regulations and requirements that govern the Contractor's operations and storm water and non-storm water discharges from the project site and areas of disturbance outside the project limits during construction. Attention is directed to Sections 7-1.01, "Laws to be Observed," 5-1.18, "Property and Facility Preservation," 7-1.12, "Indemnification and Insurance," and 9-1.07E(5), "Penalty Withholds," of the Standard Specifications.

The Contractor shall notify the Engineer immediately upon request from the regulatory agencies to enter, inspect, sample, monitor, or otherwise access the project site or the Contractor's records pertaining to water pollution control work. The Contractor and the Department shall provide copies of correspondence, notices of violation, enforcement actions, or proposed fines by regulatory agencies to the requesting regulatory agency.

The Contractor's attention is directed to Section 5-1.241, "General Permit to Discharge Storm Water," of these special provisions.

Compensation for any construction permit requirement shall be considered as included in various other items of work, and no additional compensation will be allowed therefor.

5-1.241 GENERAL PERMIT TO DISCHARGE STORM WATER

The contractor may need to discharge storm water off site during construction; the District requires its' contractors to comply with the terms and conditions stated in the State Water Resources Control Board (SWRCB) Construction Storm Water General Permit [National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Dischargers Associated Construction and Land Disturbance Activities (current)].

5-1.25 (BLANK)

5-1.26 DRAINAGE CONTROL

The Contractor shall be fully responsible for continually accepting and discharging water from any source in a manner that causes no damage to existing or partially completed proposed improvements, in a manner that causes no ponded water to accumulate at low points, and in a manner which poses no potential hazard to persons or property and is conformance with all permits required for this project. The Contractor will not be allowed to divert stormwater to surface streets. Damage to existing or partially completed proposed improvements caused by lack of drainage control shall be repaired, or removed and replaced, at the Contractor's expense.

It shall be understood and agreed that the Contractor shall hold the Owner and the Engineer harmless from legal action taken by any third party with respect to construction and operation of temporary drainage control works.

5-1.27 NON-COMPLYING WORK

Neither the final certificate of payment nor any provision in the contract documents, nor partial or entire use of the improvements by the owner, shall constitute an acceptance of work not done in accordance with the contract documents

or relieve the Contractor of liability in respect to any express warranties or responsibility for faulty materials or workmanship.

5-1.28 NO WAIVER OF LEGAL RIGHTS

The Agency shall not be precluded or stopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefor from showing the true amount and character of the work performed and materials furnished by the Contractor, nor from showing that any such measurement, estimate, or certificate is untrue or is incorrectly made, nor that the work or materials do not in fact conform to the contract.

The Agency shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering the Contractor or his Surety, or both, such damages as it may sustain by reason of the Contractor's failure to comply with the terms of the contract.

The failure of the Engineer to observe or to notify the Contractor of deviations from the approved plans and specifications, whether or not such deviations could have been corrected if such notification had been given, shall in no way relieve the Contractor of any responsibility or liability for the Contractor's failure to complete, and the Contractor shall be required to repair and complete the work covered by this contract in exact accordance with the approved plans and specifications and all applicable laws and regulations; and the Agency shall not be estopped or be deemed to have waived its right to insist on exact compliance by the Contractor with the plans and specifications and other terms of the contract because of such failure to observe or notify the Contractor of such defects or because of any progress or final payments made to the Contractor pursuant to the terms of this contract or the issuance of any inspection reports or any certificates of partial or final completion.

Neither the acceptance by the Engineer or by his representative nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the Engineer shall operate as a waiver of any portion of the contract or of any right to damages.

A waiver of any breach of the contract shall not be held to be a waiver of any other or subsequent breach.

5-1.29 DISPUTED WORK

If the Contractor and the District are unable to reach agreement on disputed work, the District may direct the Contractor to proceed with the work. Payment shall be as later determined by arbitration, if the District and Contractor agree thereto, or as fixed in a court of law.

Although not to be construed as proceeding under extra work provisions, the Contractor shall proceed as provided in Section 9-1.03, Force Account Payment, of the Standard Specifications

5-1.30 CHANGES REQUESTED BY THE CONTRACTOR

Changes in the Plans and Specifications, requested in writing by the Contractor, which do not materially affect the Work and which are not detrimental to the Work or to the interests of the District, may be granted by the District to facilitate the Work, when approved in writing by the Engineer.

If such changes are granted, they shall be made at a reduction in cost or at no additional cost to the District. Nothing herein shall be construed as granting a right to the Contractor to demand acceptance of such changes. See Section 5-1.019, "Cost Reduction Incentive," of these special provisions.

5-1.31 WEEKLY CONSTRUCTION MEETINGS

A weekly construction meeting may be held at a time and place designated by the Engineer with the Contractor's representatives and other affected parties.

5-1.32 TEMPORARY SUSPENSION OF WORK

Temporary Suspension of Work shall conform to Section 8-1.05, "Temporary Suspension of Work," of the Standard Specifications and these special provisions.

When existing conditions are encountered which, in the opinion of the Engineer, require temporary suspension of work for design modifications or for other determinations to be made, the Contractor shall move to other areas of work until

such determinations are made. No additional compensation will be allowed by reason of such temporary suspension of work when the Contractor can reasonably reschedule work at a different location.

The Contractor shall notify the District 24 hours minimum in advance if the Contractor decides to suspend work for one day or more. The Contractor shall notify the District a minimum of 24 hours in advance of recommencing work on the project.

5-1.33 HOLIDAYS

The County of Santa Barbara, Department of Public Works, Water Resources Division, observes the following dates as designated legal holidays: January 1, the third Monday in January, the third Monday in February, the last Monday in May, July 4, the first Monday in September, Veterans Day (November 11), Thanksgiving Day, the day after Thanksgiving Day, and December 25. When a designated legal holiday falls on a Saturday, the preceding Friday shall be a designated legal holiday. When a designated legal holiday falls on a Sunday, the following Monday shall be a designated legal holiday. The Contractor shall not schedule or perform any operations during the above dates. These dates shall be designated as contract non-working days.

5-1.34 WORKING HOURS

Working hours on working days, as defined in Section 8-1.06 of the Standard Specifications, shall be from 12:30 p.m. to 5:00 p.m. on Mondays, 8:30 a.m. to 5:00 p.m. Tuesdays –Thursdays, and 8:30a.m. to 12:30 p.m. on Fridays. No work shall be done or noise generated outside those hours except such work as is necessary for the proper care and protection of the work already performed or in case of an emergency.

The Contractor shall be responsible for overtime compensation of inspection personnel for their work that occurs outside the above stated hours. The actual costs will be deducted from the Contractor's payment.

5-1.35 FINAL JOB WALKTHROUGH MEETING

The Contractor shall attend the Final Job Walkthrough Meeting to be held prior to final payment at a time designated by the Engineer. The contractor's representative shall be present at all times during the final job walkthrough.

5-1.36 DEFAULT BY CONTRACTOR

Default by Contractor shall conform to Section 8-1.08, "Termination of Control," of the Standard Specifications and these special provisions.

Any control exercised by the Surety towards the completion of the Project shall be subject to the Contract Documents, and review and approval of the District.

5-1.37 RECORDS

Records shall conform to Section 9-1.03C, "Records," of the Standard Specifications and these special provisions.

Contractor shall maintain and make available to District all books, papers, job descriptions, records, detail costs, estimates, claims, and accounts, including payment, property, payroll, personnel, subcontractors, sub-subcontractors and financial records related to or which arise out of the Work or under the terms or conditions of the Contract. The form or record keeping shall be subject to approval by District. These books, papers, records, claims, and accounts shall be made available for examination during normal business hours by District or District's representative and shall be retained at Contractor's principal place of business in California for audit during normal business hours at such place for four (4) years after recording of the Notice of Completion of Project. Contractor shall provide an office to enable District and District's representative to conduct such audit.

5-1.38 AREAS FOR CONTRACTOR'S USE

The Contractor shall coordinate site access and areas for Contractor's use with the Harbor View Inn. The Contractor shall occupy only the areas necessary to complete the work and shall keep as many parking stalls unobstructed, for the hotel's use, as feasible. The Flood Control District has entered into a Temporary Right of Entry (TROE) Agreement with the Harbor View for the Contractor's use of Hotel property. The TROE provisions listed below that apply to the COUNTY shall apply to the Contractor, OWNER means the Harbor View Inn:

1. The COUNTY, its authorized agents, employees and contractors shall exercise reasonable precautions necessary to prevent damage to and protect the Property during COUNTY'S entry thereon.

2. COUNTY'S exercise of this Right of Entry Agreement, OWNERS assume no liability for loss or damage to COUNTY'S property, or injury to or death of any agent, employee, or contractor of COUNTY, unless said loss, damage, injury, or death is as a result, in part or wholly, of the OWNERS' negligence.

3. COUNTY agrees to defend, indemnify and hold OWNERS harmless from any claims or damages resulting from COUNTY'S use of the Property, unless said claims or damages are as a result, in part or wholly, of the OWNERS' negligence.

4. COUNTY, its authorized agents, employees and contractors shall replace and/or repair any improvements on OWNER'S property, destroyed or damaged, as a result of the rights granted under this Right of Entry Agreement. If any improvements are damaged or removed by COUNTY, its authorized agents, employees and contractors, they shall be restored or replaced by COUNTY to as near the original condition and location as is practicable. If any mature trees are damaged to the extent that they do not survive, COUNTY shall replace each such tree with two of the same or similar trees of not less than 5-gallon size as OWNERS' sole remedy

SECTION 6. (BLANK)

SECTION 7. (BLANK)

SECTION 8. MATERIALS

SECTION 8-1. MISCELLANEOUS

8-1.01 GENERAL

The Contractor's attention is directed to the provisions of Section 6, "Control of Materials," of the Standard Specifications. Certificates of Compliance, with the project number clearly shown thereon, are required for all materials incorporated in the project.

No materials shall be incorporated into the project without first presenting evidence of testing, and complying with release procedures, or without first submitting a Certificate of Compliance with the delivered materials. The Project Number, Item Number, and Statement of Compliance with the Project Specification shall appear on all Certificates of Compliance.

Any attempts to incorporate material without certified release tags, or acceptable Certificates of Compliance, shall be just cause for immediate suspension of the construction operation involved. All materials that are untagged or do not have Certificates of Compliance, that are placed or installed in the Project by the Contractor or his subcontractor shall be considered as placed or installed at his own expense and the County shall not be charged therefor.

Materials incorporated into the Project without the required release tags or Certificates of Compliance shall be removed by the Contractor, if directed by the Engineer, at no cost to the County.

SECTION 8-2. CONCRETE

8-2.1 PORTLAND CEMENT CONCRETE

Portland cement concrete shall conform to the provisions in Section 90, "Portland Cement Concrete," of the Standard Specifications and these special provisions.

The Department maintains a list of sources of fine and coarse aggregate that have been approved for use with a reduced amount of supplementary cementitious material in the total amount of cementitious material to be used. A source of aggregate will be considered for addition to the approved list if the producer of the aggregate submits to

the Transportation Laboratory certified test results from a qualified testing laboratory that verify the aggregate complies with the requirements. Before the testing starts, the aggregate test shall be registered with the Department. A registration number can be obtained by calling (916) 227-7228. The registration number shall be used as the identification for the aggregate sample in correspondence with the Department. Upon request, a split of the tested sample shall be provided to the Department. Approval of aggregate will depend upon compliance with the specifications, based on the certified test results submitted, together with any replicate testing the Department may elect to perform. Approval will expire 3 years from the date the most recent registered and evaluated sample was collected from the aggregate source.

Qualified testing laboratories shall conform to the following requirements:

1. Laboratories performing ASTM Designation: C 1293 shall participate in the Cement and Concrete Reference Laboratory (CCRL) Concrete Proficiency Sample Program and shall have received a score of 3 or better on each test of the previous 2 sets of concrete samples.
2. Laboratories performing ASTM Designation: C 1260 shall participate in the Cement and Concrete Reference Laboratory (CCRL) Pozzolan Proficiency Sample Program and shall have received a score of 3 or better on the shrinkage and soundness tests of the previous 2 sets of pozzolan samples.

Aggregates on the list shall conform to one of the following requirements:

1. When the aggregate is tested in conformance with the requirements in California Test 554 and ASTM Designation: C 1293, the average expansion at one year shall be less than or equal to 0.040 percent; or
2. When the aggregate is tested in conformance with the requirements in California Test 554 and ASTM Designation: C 1260, the average of the expansion at 16 days shall be less than or equal to 0.15 percent.

If the aggregates used in the concrete are on the Department's list, the minimum amount of supplementary cementitious material shall conform to the following:

1. If fly ash or natural pozzolan conforming to the provisions in Section 90-2.01C, "Required Use of Supplementary Cementitious Materials," of the Standard Specifications is used, the minimum amount of supplementary cementitious material shall be 15 percent by weight of the total cementitious material; or
2. If silica fume conforming to the provisions in Section 90-2.01C, "Required Use of Supplementary Cementitious Materials," of the Standard Specifications is used, the minimum amount of supplementary cementitious material shall be 7 percent by weight of the total cementitious material.

The limitation on tricalcium silicate (C₃S) content in Type II cement specified in Section 90-2.01A, "Cement," of the Standard Specifications shall not apply.

SECTION 8-3. (BLANK)

SECTION 9. (BLANK)

SECTION 10. CONSTRUCTION DETAILS

SECTION 10-1. GENERAL

10-1.01 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.

The Contractors attention is directed to Section 4, "Beginning of Work, Time of Completion and Liquidated Damages," of these special provisions.

The Contractor's attention is directed to Section 5-1.14, "Shop Drawings and Submittals," of these special provisions.

The Contractor's attention is directed to Section 5-1.24, "Permits and Licenses," of these special provisions.

The Contractor's attention is directed to Section 10-1.03, "Obstructions," of these special provisions.

10-1.02 CONSTRUCTION SITE MANAGEMENT

GENERAL

Summary

Construction site management work shall conform to the provisions in Section 7-1.01G, "Water Pollution," of the May, 2006 State of California Department of Transportation Standard Specifications and these special provisions.

This work includes controlling potential sources of water pollution before they come in contact with storm water systems or watercourses.

Control material pollution and manage waste and non-stormwater at the job site by implementing effective handling, storage, use, and disposal practices.

For information on documents specified in these special provisions, refer to the Department's Preparation Manual, Dewatering Guide, and BMP Manual.

A Water Pollution Prevention Program will not be required this project but that does not relieve the Contractor complying with these Construction Site Management special provisions.

Definitions and Abbreviations

active and inactive areas: (1) Active areas have soil disturbing work activities occurring at least once within 14 days, and (2) Inactive areas are areas that have not been disturbed for at least 15 days.

BMP Manual: The Department's Construction Site Best Management Practices (BMP) Manual.

CDPH: California Department of Public Health

Dewatering Guide: The Department's Field Guide to Construction Site Dewatering.

ELAP: Environmental Laboratory Accreditation Program

minor spills: Small quantities of oil, gasoline, paint, or other material that are small enough to be controlled by a first responder upon discovery of the spill.

MSDS: Material Safety Data Sheet

Preparation Manual: The Department's Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual.

semi-significant spills: Spills that can be controlled by a first responder with help from other personnel.

significant or hazardous spills: Spills that cannot be controlled by construction personnel.

WPC: Water Pollution Control

WPC Manager: Water Pollution Control Manager as defined under "Water Pollution Control" of these special provisions.

Submittals

Submit the following:

1. MSDS at least 5 days before material is used or stored
2. Monthly inventory records for material used or stored
3. Copy of written approval to discharge into a sanitary sewer system at least 5 days before beginning discharge activities

Quality Control and Assurance

Not Used

MATERIALS

Not Used

CONSTRUCTION

Spill Prevention and Control

Implement spill and leak prevention procedures for chemicals and hazardous substances stored at the job site. If you spill or leak chemicals or hazardous substances at the job site, you are responsible for all associated cleanup costs and related liability.

As soon as it is safe, contain and clean up spills of petroleum products, sanitary and septic waste substances listed under CFR Title 40, Parts 110, 117, and 302.

Minor Spills

Clean up minor spills using the following procedures:

1. Contain the spread of the spill
2. Recover the spilled material by absorption
3. Clean the contaminated area
4. Dispose of the contaminated material promptly and properly

Semi-significant Spills

Clean up semi-significant spills immediately by the following procedures:

1. Contain the spread of the spill
2. Recover the spilled material using absorption whenever a spill occurs on a paved surface or an impermeable surface
3. Contain the spill with an earthen dike and dig up the contaminated soil for disposal whenever a spill occurs on soil
4. If the spill occurs during precipitation, cover the spill with plastic or other material to prevent contaminated runoff
5. Dispose of the contaminated material promptly and properly

Significant or Hazardous Spills

Immediately notify qualified personnel of significant or hazardous spills. Do not let construction personnel attempt to clean up the spill until qualified staff have arrived. Do the following:

1. Notify the Engineer and follow up with a written report
2. Obtain the services of a spills contractor or hazardous material team immediately
3. Notify the local emergency response team by dialing 911 and county officials at the emergency phone numbers kept at the job site
4. Notify the Governor's Office of Emergency Services Warning Center at (805) 852-7550
5. Notify the National Response Center at (800) 424-8802 regarding spills of Federal reportable quantities under CFR Title 40, Parts 110, 119, and 302
6. Notify other agencies as appropriate, including:
 - 6.1. Fire Department
 - 6.2. Public Works Department
 - 6.3. Coast Guard
 - 6.4. Highway Patrol
 - 6.5. City Police or County Sheriff Department
 - 6.6. Department of Toxic Substances
 - 6.7. California Division of Oil and Gas
 - 6.8. Cal OSHA
 - 6.9. Regional Water Resources Control Board

Report minor, semi-significant, and significant spills to the WPC Manager. The WPC Manager must notify the Engineer immediately. The WPC Manager must oversee and enforce proper spill prevention and control measures. Prevent spills from entering storm water runoff before and during cleanup. Do not bury spills or wash spills with water.

Keep material or waste storage areas clean, well organized, and equipped with enough cleanup supplies for the material being stored.

Material Management

General

Material must be delivered, used, and stored for this job in a way that minimizes or eliminates discharge of material into the air, storm drain systems, and watercourses.

Implement the practices described under "Material Management" of these special provisions while taking delivery of, using, or storing any of the following materials:

1. Hazardous chemicals including acids, lime, glues, adhesives, paints, solvents, and curing compounds
2. Soil stabilizers and binders
3. Fertilizers
4. Detergents
5. Plaster
6. Petroleum materials including fuel, oil, and grease
7. Asphalt components and concrete components
8. Pesticides and herbicides

Employees trained in emergency spill cleanup procedures must be present during the unloading of hazardous materials or chemicals.

If practicable, use less hazardous materials.

Material Storage

Use the following material storage procedures:

1. Store liquids, petroleum materials, and substances listed in CFR Title 40, Parts 110, 117, and 302 as specified by the Department, and place them in secondary containment facilities.
2. Secondary containment facilities must be impervious to the materials stored there for a minimum contact time of 72 hours.
3. Cover secondary containment facilities during non-working days and when precipitation is predicted. Secondary containment facilities must be adequately ventilated.
4. Keep secondary containment facility free of accumulated rainwater or spills. After precipitation, or in the event of spills or leaks, collect accumulated liquid and place into drums within 24 hours. Handle these liquids as hazardous waste under "Hazardous Waste" of these special provisions unless testing determines them to be nonhazardous.
5. Do not store incompatible materials, such as chlorine and ammonia, in the same secondary containment facility.
6. Store materials in the original containers with the original material labels maintained in legible condition. Replace damaged or illegible labels immediately.
7. Secondary containment facilities must have the capacity to contain precipitation from a 24-hour-long, 25-year storm, and 10 percent of the aggregate volume of all containers, or entire volume of the largest container within the facility, whichever is greater.
8. Store bagged or boxed material on pallets. Protect bagged or boxed material from wind and rain during non-working days and while precipitation is predicted.
9. Provide sufficient separation between stored containers to allow for spill cleanup or emergency response access. Storage areas must be kept clean, well organized, and equipped with cleanup supplies appropriate for the materials being stored.
10. Repair or replace perimeter controls, containment structures, covers, and liners as necessary. Inspect storage areas before and after precipitation, and at least weekly during other times.

Stockpile Management

Use the following stockpile management procedures:

1. Reduce or eliminate potential water pollution from stockpiled material including soil, paving material, and pressure treated wood.
2. Locate stockpiles:
 - 2.1. If within the floodplain, at least 100 feet from concentrated flows of storm water, drainage courses, and inlets unless approved
 - 2.2. If outside the floodplain, at least 50 feet from concentrated flows of storm water, drainage courses, and inlets unless approved

Install WPC practices within 15 days or before predicted precipitation, whichever occurs first.
Active and inactive soil stockpiles must be:

1. Covered with soil stabilization measures, plastic sheeting, or geosynthetic fabric
2. Surrounded with a linear sediment barrier

Portland cement concrete rubble, AC, HMA, AC and HMA rubble, aggregate base or aggregate sub-base stockpiles must be:

1. Covered with plastic sheeting, or geosynthetic fabric
2. Surrounded with a linear sediment barrier

Pressure treated wood stockpiles must be:

1. Placed on pallets
2. Covered with impermeable material

Cold mix asphalt concrete stockpiles must be:

1. Placed on impervious surface
2. Covered with impermeable material
3. Protected from run-on and runoff

Control wind erosion year round under Section 14-9.02, "Dust Control" of the Standard Specifications.
Repair or replace linear sediment barriers and covers as needed to keep them functioning properly. If sediment accumulates to 1/3 of the linear sediment barrier height, remove the sediment.

Waste Management

Solid Waste

Do not allow litter or debris to accumulate anywhere at the job site, including storm drain grates, trash racks, and ditch lines. Pick up and remove trash and debris from the job site at least once a week. The WPC Manager must monitor solid waste storage and disposal procedures at the job site.

If practicable, recycle nonhazardous job site waste and excess material. If recycling is not practicable, disposal must comply with Section 7-1.13, "Disposal of Material Outside the Highway Right of Way" of the Standard Specifications.

Furnish enough closed-lid dumpsters of sufficient size to contain any solid waste generated by work activities.

When the refuse reaches the fill line, empty the dumpsters. Dumpsters must be watertight. Do not wash out dumpsters at the job site. Furnish additional containers and pick up dumpsters more frequent during the demolition phase of construction.

Solid waste includes:

1. Brick
2. Mortar
3. Timber
4. Metal scraps
5. Sawdust
6. Pipe
7. Electrical cuttings
8. Non-hazardous equipment parts
9. Styrofoam and other packaging materials
10. Vegetative material and plant containers from highway planting
11. Litter and smoking material, including litter generated randomly by the public
12. Other trash and debris

Furnish and use trash receptacles at the job site yard, field trailers, and locations where workers gather for lunch and breaks.

Hazardous Waste

Use hazardous waste management practices if waste is generated at the job site from the following substances:

1. Petroleum products
2. Asphalt products
3. Concrete curing compound
4. Pesticides
5. Acids
6. Paints
7. Stains
8. Solvents
9. Wood preservatives and treated posts
10. Roofing tar
11. Road flares
12. Lime
13. Glues and adhesives
14. Materials classified as hazardous by California Code of Regulations, Title 22, Division 4.5; or listed in CFR Title 40, Parts 110, 117, 261, or 302

The WPC Manager must oversee and enforce hazardous waste management practices. Minimize the production of hazardous materials and hazardous waste at the job site. If damaged, repair or replace perimeter controls, containment structures, and covers.

If hazardous material levels are unknown, use a laboratory certified by ELAP under CDPH to sample and test waste to determine safe methods for storage and disposal.

Separate potentially hazardous waste from nonhazardous waste at the job site. Hazardous waste must be handled, stored, and disposed of under California Code of Regulations, Title 22, Division 4.5, Section 66262.34; and in CFR Title 49, Parts 261, 262, and 263.

Store hazardous waste in sealed containers constructed and labeled with the contents and date accumulated under California Code of Regulations, Title 22, Division 4.5; and in CFR Title 49, Parts 172, 173, 178, and 179. Keep hazardous waste containers in temporary containment facilities under "Material Storage" of these special provisions. Furnish containers with adequate storage volume at convenient locations for hazardous waste collection. Do not overfill hazardous waste containers. Do not mix hazardous waste. Do not allow potentially hazardous waste to accumulate on the ground. Store containers of dry waste that are not watertight on pallets. Store hazardous waste away from storm drains, watercourses, moving vehicles, and equipment.

Clean water based or oil based paint from brushes or equipment within a contained area and in a way that does not contaminate soil, watercourses, and storm drain systems. Handle and dispose of the following as hazardous waste: paints, thinners, solvents, residues, and sludges that cannot be recycled or reused. When thoroughly dry, dispose of the following as solid waste: dry, latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths. Dispose of hazardous waste within 90 days of being generated. Use a licensed hazardous waste transporter to take hazardous waste to a Class I Disposal Site. Submit a copy of uniform hazardous waste manifest forms within 24 hours of transporting hazardous waste.

The WPC Manager must inspect the following daily:

1. Storage areas for hazardous materials and waste
2. Hazardous waste disposal and transporting activities
3. Hazardous material delivery and storage activities

Contaminated Soil

Identify contaminated soil from spills or leaks by noticing discoloration, odors, or differences in soil properties. Soil with evidence of contamination must be sampled and tested by a laboratory certified by ELAP.

If levels of contamination are found to be hazardous, handle and dispose of the soil as hazardous waste.

Prevent the flow of water, including ground water, from mixing with contaminated soil by using one or a combination of the following measures:

1. Berms
2. Cofferdams
3. Grout curtains
4. Freeze walls
5. Concrete seal course

If water mixes with contaminated soil and becomes contaminated, sample and test the water using a laboratory certified by ELAP. If levels of contamination are found to be hazardous, handle and dispose of the water as hazardous waste.

Concrete Waste

Use practices that will prevent the discharge of portland cement concrete, AC, or HMA waste into storm drain systems or watercourses.

Collect and dispose of portland cement concrete, AC, or HMA waste at locations where:

1. Concrete material, including grout, is used
2. Concrete dust and debris result from demolition
3. Sawcutting, coring, grinding, grooving, or hydro-concrete demolition of portland cement concrete, AC, or HMA creates a residue or slurry
4. Concrete truck or other concrete-coated equipment is cleaned at the job site

Sanitary and Septic Waste

Do not bury or discharge wastewater from sanitary or septic systems within Department right-of-way. The WPC Manager must inspect sanitary or septic waste storage and monitor disposal procedures at least weekly. Sanitary facilities that discharge to the sanitary sewer system must be properly connected and free from leaks. Place sanitary facilities at least 50 feet away from storm drains, watercourses, and flow lines.

Obtain written approval from the local health agency, city, county, and sewer district before discharging from a sanitary or septic system directly into a sanitary sewer system, and submit a copy to the Engineer. Comply with local health agency provisions while using an on-site disposal system.

Liquid Waste

Use practices that will prevent job site liquid waste from entering storm drain systems or watercourses. Liquid waste includes the following:

1. Drilling slurries or fluids
2. Grease-free or oil-free wastewater or rinse water
3. Dredgings, including liquid waste from drainage system cleaning
4. Liquid waste running off a surface including wash or rinse water
5. Other non-stormwater liquids not covered by separate permits

Hold liquid waste in structurally sound, leak proof containers such as:

1. Roll-off bins
2. Portable tanks

Liquid waste containers must be of sufficient quantity and volume to prevent overflow, spills and leaks.

Store containers:

1. At least 50 feet from moving vehicles and equipment
2. If within the floodplain, at least 100 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved
3. If outside the floodplain, at least 50 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved

Remove and dispose of deposited solids from sediment traps under "Solid Waste" of these special provisions unless the Engineer approves another method.

Liquid waste may require testing to determine hazardous material content before disposal.

Drilling fluids and residue must be disposed of outside the highway right-of-way.

If an approved location is available within the job site, fluids and residue exempt under California Code of Regulations, Title 23, Section 2511(g) may be dried by evaporation in a leak proof container. Dispose of remaining solid waste under "Solid Waste" of these special provisions.

Non-Storm Water Management

Water Control and Conservation

Manage water used for work activities to prevent erosion or discharge of pollutants into storm drain systems or watercourses. Obtain approval before washing anything at the job site with water that could discharge into a storm drain system or watercourse. Report discharges immediately.

If water is used at the job site, implement water conservation practices. Inspect irrigation areas. Adjust watering schedules to prevent erosion, excess watering, or runoff. Shut off water source to broken lines, sprinklers, or valves, and repair breaks within 24 hours. If possible, reuse water from waterline flushing for landscape irrigation. Sweep and vacuum paved areas; do not wash them with water.

Direct job site water runoff, including water from water line repair, to areas where it can infiltrate into the ground and not enter storm drain systems or watercourses. Do not allow spilled water to escape water truck filling areas. If possible, direct water from off-site sources around the job site. Minimize the contact of off-site water with job site water.

Illegal Connection and Discharge Detection and Reporting

Inspect the job site and the site perimeter before starting work for evidence of illegal connections, discharges, or dumping. After starting work, inspect the job site and perimeter on a daily schedule.

Whenever illegal connections, discharges, or dumping are discovered, notify the Engineer immediately. Take no further action unless ordered by the Engineer. Assume unlabeled or unidentifiable material is hazardous.

Look for the following evidence of illegal connections, discharges, or dumping:

1. Debris or trash piles
2. Staining or discoloration on pavement or soils
3. Pungent odors coming from drainage systems
4. Discoloration or oily sheen on water
5. Stains or residue in ditches, channels or drain boxes
6. Abnormal water flow during dry weather
7. Excessive sediment deposits
8. Nonstandard drainage junction structures
9. Broken concrete or other disturbances near junction structures

Vehicle and Equipment Cleaning

Limit vehicle and equipment cleaning or washing at the job site except what is necessary to control vehicle tracking or hazardous waste. Notify the Engineer before cleaning vehicles and equipment at the job site with soap, solvents, or steam. Contain and recycle or dispose of resulting waste under "Liquid Waste" or "Hazardous Waste" of these special provisions, whichever is applicable. Do not use diesel to clean vehicles or equipment, and minimize the use of solvents.

Clean or wash vehicles and equipment in a structure equipped with disposal facilities. If using a structure is not possible, clean or wash vehicles and equipment in an outside area. The outside area must be:

1. Paved with AC, HMA, or concrete paving
2. Surrounded by a containment berm
3. Equipped with a sump to collect and dispose of wash water
4. If within the floodplain, located at least 100 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved
5. If outside the floodplain, located at least 50 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved

When washing vehicles or equipment with water, use as little water as possible. Hoses must be equipped with a positive shutoff valve.

Discharge liquid from wash racks to a recycle system or to another approved system. Remove liquids and sediment as necessary.

The WPC Manager must inspect vehicle and equipment cleaning facilities:

1. Daily if vehicle and equipment cleaning occurs daily
2. Weekly if vehicle and equipment cleaning does not occur daily

Vehicle and Equipment Fueling and Maintenance

If practicable, perform maintenance on vehicles and equipment off the job site.

If fueling or maintenance must be done at the job site, designate a site, or sites, and obtain approval before using. Minimize mobile fueling or maintenance.

If vehicle and equipment fueling and maintenance must be done at the job site, areas for the following activities must be:

1. On level ground
2. Protected from storm water run-on
3. If within the floodplain, located at least 100 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved
4. If outside the floodplain, located at least 50 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved

Use containment berms or dikes around the fueling and maintenance area. Keep adequate quantities of absorbent spill cleanup material and spill kits in the fueling and maintenance area and on fueling trucks. Dispose of spill cleanup material and kits immediately after use. Use drip pans or absorbent pads during fueling or maintenance. Fueling or maintenance activities must not be left unattended. Fueling nozzles must be equipped with an automatic shutoff control. Vapor recovery fueling nozzles must be used where required by the Air Quality Management District. When not in use, nozzles must be secured upright. Do not top-off fuel tanks.

Recycle or properly dispose of used batteries and tires.

The WPC Manager must inspect vehicle and equipment maintenance and fueling areas:

1. Daily when vehicle and equipment maintenance and fueling occurs daily
2. Weekly when vehicle and equipment maintenance and fueling does not occur daily

The WPC Manager must inspect vehicles and equipment at the job site for leaks and spills on a daily schedule.

Operators must inspect vehicles and equipment each day of use.

If leaks cannot be repaired immediately, remove the vehicle or equipment from the job site.

Material and Equipment Used Over Water

Place drip pans and absorbent pads under vehicles or equipment used over water. Keep an adequate supply of spill cleanup material with the vehicle or equipment. If the vehicle or equipment will be idle for more than one hour, place drip pans or plastic sheeting under the vehicle or equipment on docks, barges, or other surfaces over water. Furnish watertight curbs or toe boards on barges, platforms, docks, or other surfaces over water to contain material, debris, and tools. Secure material to prevent spills or discharge into water due to wind.

Structure Removal Over or Adjacent to Water

Do not allow demolished material to enter storm water systems or watercourses. Use approved covers and platforms to collect debris. Use attachments on equipment to catch debris on small demolition activities. Empty debris catching devices daily and handle debris under "Waste Management" of these special provisions.

The WPC Manager must inspect demolition sites within 50 feet of storm water systems or watercourses daily.

Paving, Sealing, Sawcutting, Grooving, and Grinding Activities

Prevent the following materials from entering storm drain systems or water courses:

1. Cementitious material
2. Asphaltic material
3. Aggregate or screenings
4. Grinding grooving, or sawcutting residue
5. Pavement chunks
6. Shoulder backing
7. Methacrylate

Cover drainage inlets and use linear sediment barriers to protect downhill watercourses until paving, sealing, sawcutting, grooving, or grinding activities are completed and excess material has been removed. Cover drainage inlets and manholes during the application of seal coat, tack coat, slurry seal, or fog seal.

If precipitation is predicted, limit paving, sawcutting, and grinding to places where runoff can be captured.

Do not start seal coat, tack coat, slurry seal, or fog seal activities if precipitation is predicted during the application or curing period. Do not excavate material from existing roadways during precipitation.

Use a vacuum to remove slurry immediately after slurry is produced. Do not allow slurry to run onto lanes open to traffic or off the pavement.

Collect residue from portland cement concrete grinding and grooving activities with a vacuum attachment on the grinding machine. Do not leave any residue on the pavement or allow the residue to flow across the pavement. If approved, material excavated from existing roadways may be stockpiled under "Stockpile Management" of these special provisions.

Do not coat asphalt trucks and equipment with substances that contain soap, foaming agents, or toxic chemicals. When paving equipment is not in use, park over drip pans or plastic sheeting with absorbent material to catch drips.

Thermoplastic Striping and Pavement Markers

Thermoplastic striping and preheating equipment shutoff valves must work properly at all times. Do not preheat, transfer, or load thermoplastic within 50 feet of drainage inlets or watercourses. Do not fill a preheating container above a level that is 6 inches below the top. Truck beds must be cleaned daily of scraps or melted thermoplastic. Do not unload, transfer, or load bituminous material for pavement markers within 50 feet of drainage inlets or watercourses. Release all pressure from a melting tank before removing the lid to fill or service. Do not fill a melting tank above a level that is 6 inches below the top.

Collect bituminous material from the roadway after marker removal.

Pile Driving

Keep spill kits and cleanup material at pile driving locations. Pile driving equipment must be parked over drip pans, absorbent pads, or plastic sheeting with absorbent material. If precipitation is predicted, protect pile driving equipment by parking on plywood and covering with plastic.

Store pile driving equipment when not in use. Stored pile driving equipment must be:

1. Kept on level ground
2. Protected from storm water run-on
3. If within the floodplain, at least 100 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved
4. If outside the floodplain, at least 50 feet from concentrated flows of storm water, drainage courses, watercourses, and storm drain inlets unless approved

If practicable, use vegetable oil instead of hydraulic fluid.

The WPC Manager must inspect the pile driving area for leaks and spills:

1. Daily when pile driving occurs daily
2. Weekly when pile driving does not occur daily

Concrete Curing

Do not overspray chemical curing compound. Minimize the drift by spraying as close to the concrete as possible.

Cover drainage inlets before applying the curing compound.

Minimize the use and discharge of water by using wet blankets or similar methods to maintain moisture while curing concrete.

Concrete Finishing

Collect and dispose of water and solid waste from high-pressure water blasting. Cover drainage inlets within 50 feet before sandblasting. Minimize drift of dust and blast material by keeping the nozzle close to the surface of the concrete. The blast residue may contain hazardous material.

Inspect concrete finishing containment structures for damage before each day of use and before predicted precipitation. Remove liquid and solid waste from containment structures after each work shift.

Dewatering

Dewatering consists of discharging accumulated storm water, ground water, or surface water from excavations or temporary containment facilities.

If dewatering and discharging activities are specified under a work item such as "Temporary Active Treatment System" or "Dewatering and Discharge," perform dewatering work as specified in the section involved.

If dewatering and discharging activities are not specified under a work item and you will be performing dewatering activities, you must:

1. Submit a Dewatering and Discharge Plan under Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications and "Water Pollution Control" of these special provisions at least 10 days before starting dewatering activities. The Dewatering and Discharge Plan must include:
 - 1.1. Title sheet and table of contents
 - 1.2. Description of dewatering and discharge activities detailing locations, quantity of water, equipment, and discharge points
 - 1.3. Estimated schedule for dewatering and discharge (start and end dates, intermittent or continuous)
 - 1.4. Discharge alternatives such as dust control or percolation
 - 1.5. Visual monitoring procedures with inspection log
2. Conduct dewatering activities under the Departments' s "Field Guide for Construction Dewatering."
3. Ensure that any dewatering discharge does not cause erosion, scour, or sedimentary deposits that could impact natural bedding materials.
4. Discharge the water within the project limits. Dispose of the water in the same way as specified for material in Section 7-1.13 "Disposal of Material Outside the Highway Right of Way" of the Standard Specification if it cannot be discharged within project limits due to site constraints.
5. Do not discharge storm water or non-stormwater that has an odor, discoloration other than sediment, an oily sheen, or foam on the surface. Notify the Engineer immediately upon discovering any such condition.

The WPC manager must inspect dewatering activities:

1. Daily when dewatering work occurs daily
2. Weekly when dewatering work does not occur daily

PAYMENT

Full compensation for Construction Site Management shall be considered as included in the prices paid for the various items of work and no separate payment will be made therefore.

10-1.03 OBSTRUCTIONS

Attention is directed to Section 8-1.10, "Utility and Non-Highway Facilities," and Section 15, "Existing Highway Facilities," of the Standard Specifications and these special provisions.

The Contractor shall notify the Engineer and the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include, but are not limited to, the following:

Notification Center	Telephone Number
Underground Service Alert-Northern California (USA)	(800) 642-2444 (800) 227-2600
Underground Service Alert-Southern California (USA)	(800) 422-4133 (800) 227-2600

The Contractor shall provide the Underground Service Alert "Inquiry Identification" number and start date to the District prior to commencement of excavation or other work close to any underground facility. The Contractor shall be responsible for keeping the USA request number valid throughout the duration of the construction contract.

The locations of all public and private utilities shown on the plans are approximate.

The Contractor shall protect or coordinate the protection therefore of the various existing facilities including but not limited to electrical, communication, cable TV, domestic water, fire water service, and irrigation facilities owned by the Harbor View Inn. The Contractor's proposed methods of protection shall be to the satisfaction of the facility owner. The Contractor shall submit a detailed description of the proposed methods of protection in accordance with the Shop Drawings and Submittals section of these special provisions, when requested by the Engineer.

The Contractor shall pothole the existing irrigation system, and domestic and fire water lines at the proposed tie-in locations, as needed to determine exact horizontal and vertical alignments, and all other existing facilities as necessary to protect them in place.

The Contractor's attention is directed to Section 10-1.11, "Water Line Construction," of these special provisions.

Full compensation for protection of utilities and potholing, including furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved shall be considered as included in the contract prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

10-1.04 DUST CONTROL

Dust control shall conform to the provisions in Section 10, "Dust Control," of the Standard Specifications and these special provisions.

Trucks transporting soil or construction debris to and from the site shall be tarped from the point of origin to the point of unloading.

The Contractor shall designate a person to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work will not be in progress.

Full Compensation for Dust Control shall be considered as included in the contract price paid for items involved and no additional compensation will be allowed therefor.

10-1.05 MOBILIZATION

Mobilization shall conform to the provisions in Section 11, "Mobilization," of the Standard Specifications.

Mobilization shall, in addition to those items listed in this Section 11 of the Standard Specifications, consist of work and/or costs necessary in advance of construction operations and not directly attributable to any specific bid item. Mobilization items include, but are not limited to, moving on to the site the Contractor's equipment required for the first month's operations; providing on-site sanitary facilities; obtaining all required permits; establishment of safety programs; establishment and restoration of staging areas; obtaining required bonds and insurance; submitting of initial submittals in accordance with the Specifications; and moving off of the site the Contractor's equipment.

The contract lump sum price paid for mobilization shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in mobilization, complete in place as specified in the Standard Specifications and these special provisions.

10-1.06 COOPERATION

Attention is directed to Section 7-1.14, "Cooperation," of the Standard Specifications and these special provisions. The District will be responsible for landscape restoration, other than as described in the "Preservation of Property" Section of the special provisions, as well as the removal and relocation of palm trees, shown on the plans to be performed by others. The Contractor is responsible for coordinating the removal and relocation of these palm trees with the District's landscape contractor. The Contractor shall make the site accessible for the landscape contractor and accommodate the landscape contractor's operations within the project schedule.

Full Compensation for Cooperation shall be considered as included in the contract price paid for items involved and no additional compensation will be allowed therefor.

10-1.07 FLAGGING COSTS

Standard Specification Section 12-2.02, "Flagging Costs," is amended. All flagging costs shall be the sole responsibility of the Contractor.

10-1.08 EXISTING FACILITIES

The work performed in connection with various existing facilities shall conform to the provisions in Section 15, "Existing Highway Facilities," of the Standard Specifications and these special provisions. Attention is directed to Section 15-1.02, "Preservation of Property," of the Standard Specifications.

Existing facilities, which are shown on the plans as to be removed, relocated, reconstructed, salvaged or abandoned in place by the contractor but are not included in the pay items described following, shall be removed or otherwise in accordance with the Standard Specifications, the plans and these Special Provisions.

Full compensation for removal, relocations, reconstructions, salvaging or abandonment of these existing facilities, including any associated backfill, furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved shall be considered as included in the contract prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

The excavation and backfill associated with any existing facility removal shall conform to Section 10-1.09, "Earthwork," of these special provisions.

10-1.081 REMOVE PCC CURB AND PAVEMENT

This work shall consist of removing Portland Cement Concrete (PCC) Curb and Pavement at the locations shown on the plans and as necessary to facilitate the construction of proposed waterlines.

Remove PCC Curb and Pavement shall conform to the provisions in Section 15-3, "Removing Concrete" of the Standard Specifications and these special provisions.

Removal of PCC Curb and Pavement shall include removal and disposal of underlying aggregate base material and any subgrade excavation necessary for the construction of proposed new PCC curb and pavement. Areas of concrete removal where no new PCC curb or pavement is proposed shall be backfilled to conform to adjacent landscaped areas.

Removed materials shall become the property of the Contractor and shall be disposed of outside the public right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

PAYMENT – The contract lump sum price paid for Remove PCC Curb and Pavement shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing PCC curb and pavement, including sawcutting, excavation, backfill, demolition, and disposal of material, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.082 REMOVE WATERLINES AND CONCRETE ENCASEMENT

This work shall consist of removing the existing 3" domestic water line and 4" fire water line with concrete encasement, serving the Harbor View Inn, at the locations shown on the plans and in accordance with these special provisions.

Removed materials shall become the property of the Contractor and shall be disposed of outside the public right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Excavations shall be backfilled to conform to adjacent landscaped areas.

The Contractor's attention is directed to Section 10-1.11, "Water Line Construction," of these special provisions.

PAYMENT – The contract lump sum price paid for Remove Waterlines and Concrete Encasement shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing waterlines and concrete encasement, including excavation, backfill, demolition, and disposal of material, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.083 RELOCATE IRRIGATION SYSTEM

This work shall consist of investigating, identifying, removing, relocating and reconstructing portions of the existing irrigation system, as needed to construct the proposed improvements, as shown on the plans, in accordance with these special provisions and as directed by the Engineer.

Relocated irrigation lines and components shall be reconstructed in accordance with Section 20-5, "Irrigation Systems" of the Standard Specifications, using new materials, unless use of salvaged materials is approved by both the Engineer and the Harbor View prior to installation.

The Contractor shall coordinate the identification and relocation of the existing irrigation system with the Harbor View Inn prior to the beginning of work.

Removed materials shall become the property of the Contractor and shall be disposed of outside the public right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Excavations shall be backfilled to conform to adjacent landscaped areas.

PAYMENT – The contract lump sum price paid for Relocate Irrigation System shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in relocating the irrigation system, including excavation, backfill, demolition, and disposal of material, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.09 EARTHWORK

Earthwork shall conform to the provisions in Section 19, "Earthwork," of the Standard Specifications, these special provisions and the plans.

Excavation and backfill for water line construction shall conform to the provisions in Sections 19-3, "Structure Excavation and Backfill," 19-3.06, "Structure Backfill," of the Standard Specifications. Bedding and Pipe Zone material and placement shall be in conformance with City of Santa Barbara Standard Detail U-01.0, "Trench Bedding and Backfill Notes."

All surplus excavated materials shall become the property of the Contractor and shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

The exposed bottom of the trench shall be inspected by the Engineer to determine its suitability to receive the bedding material.

Jetting or ponding shall not be permitted for the placement or compaction of fill materials for this project. Fill materials shall be spread in lifts no thicker than 8 inches prior to being compacted. Each layer shall be spread evenly and shall be thoroughly blade-mixed during the spreading to provide relative uniformity of material within each layer.

Rocks larger than 3 inches in diameter, organics, and other deleterious material shall not be permitted within fill material being placed. Rocks shall not be nested, and voids shall be filled with compacted material.

When the moisture content of the fill material is above or below that sufficient to achieve the recommended compaction, the material shall be dried or wetted to near optimum moisture, and bladed and mixed to provide for relatively uniform moisture content throughout the material. Soft or yielding materials shall be removed and replaced with properly compacted material prior to placing the next layer of fill. Fill and backfill materials may need to be placed in thinner lifts to achieve the recommended compaction with the equipment being used.

Earthwork, including subgrade preparation, shall be considered as included in the various contract items of work involved and no separate payment will be made therefore.

10-1.10 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. Alternatively, aggregate base can consist of Class 3 material conforming to the provisions in Section 26-1.02B, "Class 3 Aggregate Base," of the Standard Specifications, comprised of reclaimed material provided the Class 3 material will meet the gradation and quality requirements for Class 2 aggregate base.

Full compensation for the placement of aggregate base and the preparation of subgrade upon which aggregate base is placed shall be considered as included in the contract price paid for Construct PCC Curb and Pavement and no additional compensation will be allowed therefore.

10-1.11 WATER LINE CONSTRUCTION

This work shall consist of constructing new 3" Schedule 80 PVC Domestic Water and 4" C900 CL200 PVC Fire Water Lines, as shown on the plans, in accordance with these special provisions, the City of Santa Barbara Department of Public Works Construction Standard Details (most recent), the "City of Santa Barbara Water Main Materials and Construction Methods Specifications" and as directed by the Engineer.

A copy of the "City of Santa Barbara Water Main Materials and Construction Methods Specifications" is included as Section E of these Special Provisions. Reference Standard Details are included in Section D of these special provisions.

Disruptions to the existing 3" domestic water service line shall be coordinated with the Harbor View by the Contractor. Disruptions to the 4" fire water service line shall be coordinated with the Harbor View Inn and the City of Santa Barbara Fire Department by the Contractor. Disruptions shall be limited to a maximum duration of 3 hours and shall only occur between the hours of 12:00 am and 6:00 am, without the prior approval of the Harbor View Inn. The contractor shall notify the City of Santa Barbara Fire Department and the Harbor View a minimum of 72 hours in advance of any water service disruption. "High lining" of water services may be allowed with the prior approval of the Engineer.

The Contractor's attention is directed to Section 10-1.03, "Obstructions," of the special provisions and the requirement to pothole the existing water services at the tie-in points. The Contractor shall determine bend fitting angles based upon the horizontal and vertical alignments shown on the plans. The Contractor may propose minor revisions to the pipe alignments in order to utilize standard bend fitting angles. Any such revisions shall be submitted to the Engineer for review and approval.

The Contractor shall carefully remove the concrete encasement at the water line tie-in points and provide restrained sleeve couplings as necessary to securely connect existing pipe to new pipe.

Excavation and backfill for water line construction shall conform to Section 10-1.09, "Earthwork," of these special provisions.

MEASUREMENT & PAYMENT – The contract unit price paid per linear foot of water line construction (3" Schedule 80 PVC Domestic Water Line and 4" C900 CL200 PVC Fire Water Line) shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in water line construction, including coordination, high lining (if utilized), preparing existing pipe at tie-in points, pipe joints, bends, fittings, couplers, trench excavation, bedding, pipe zone material, slurry backfill and native trench backfill, temporarily shutting down service to make connections, flushing, sterilizing and testing of lines, venting air from the lines, and disposal of removed materials, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.12 CONSTRUCT PCC CURB AND PAVEMENT

This work shall consist of constructing new PCC Curb and Pavement, as shown on the plans and as directed by the Engineer. New PCC Curb shall conform to Section 73, "Concrete Curbs and Sidewalks," of the Standard Specifications. New PCC Pavement shall conform to Section 40, "Portland Cement Concrete Pavement," of the Standard Specifications.

All concrete for curbs and pavement shall have a minimum compressive strength of 4000 psi. Concrete improvements subject to vehicle loads shall not be opened to vehicle traffic until concrete has cured to a minimum strength of 2,000 psi.

The Contractor shall be responsible for establishing the lines and grades, and setting their own stakes or markings, for the construction of new PCC Curbs and Pavement. The Owner's Representative shall be present to verify the concrete forms, prior to pouring any PCC construction improvements.

PAYMENT— The contract lump sum price paid for Construct PCC Curb and Pavement shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in constructing PCC Curb and Pavement, and shall also include all appurtenant work, including cold plane work and saw-cutting, (consequent to the removal/replacement of other improvements), equipment, material, labor and incidentals necessary to complete the work, in place, as shown in the plans, as specified in these specifications and special provisions, and as directed by the Engineer, and no additional compensation is allowed therefore.

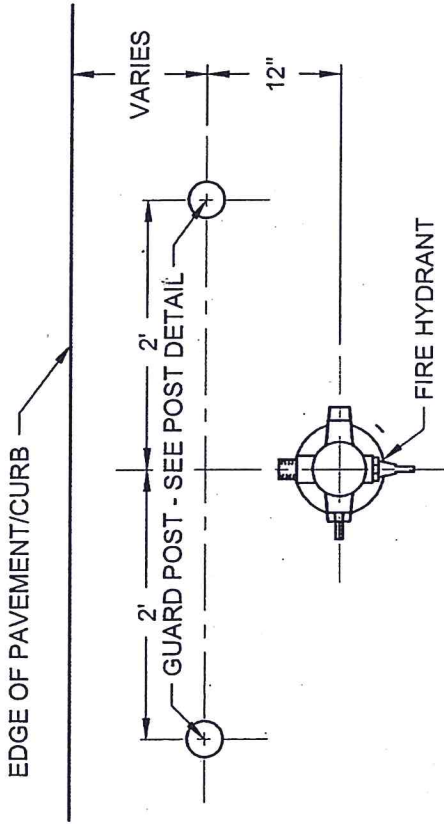
10-1.13 INSTALL GUARD POSTS

This work shall consist of installing new Guard Posts, as shown on the plans and as directed by the Engineer. Installation of guard posts shall conform to Section 83-2, "Barriers," of the Standard Specifications and City of Santa Barbara Standard Detail W-03.0.

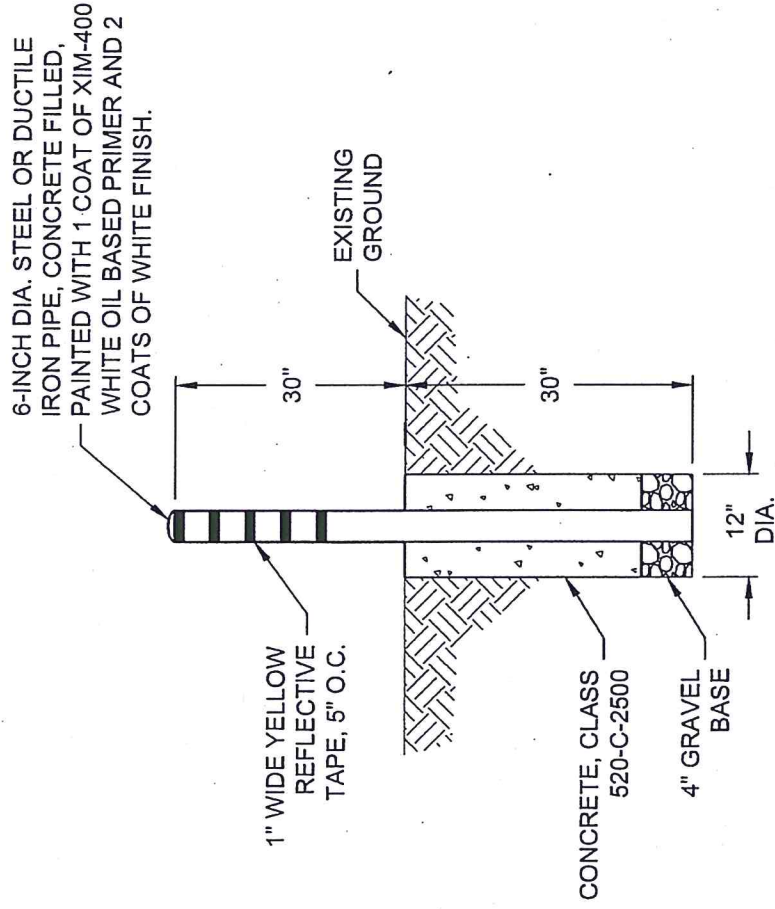
PAYMENT— The contract unit price paid per each guard post shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in installing guard posts, including equipment, material, labor and incidentals necessary to complete the work, in place, as shown in the plans, as specified in these specifications and special provisions, and as directed by the Engineer, and no additional compensation is allowed therefore.

SECTION D

REFERENCE STANDARD DETAILS



PLAN



POST DETAIL

NOTES:

1. Guard posts shall be installed plumb. Concrete for setting guard posts shall be Class 520-C-2500.
2. Concrete shall be placed against firm undisturbed native soil and shall be thoroughly consolidated.
3. Any variance to the guard post layout to conform to conditions other than shown must be approved by the Engineer.



**FIRE HYDRANT
GUARD POST**

STREETS:	REV. DATE: 11/12	DETAIL: W-03.0
TRANS OPS:	APPROVED: <i>[Signature]</i>	
FACILITIES:	CITY ENGINEER: <i>[Signature]</i>	
WATER RESOURCES: <i>[Signature]</i>	PUBLIC WORKS DIRECTOR: <i>[Signature]</i>	

CONCRETE THRUST BLOCK NOTES:

- Concrete mix shall be Class 520-C-2500.
- Concrete placed against the pipe fitting shall not extend beyond the joints.
- Concrete thrust blocks shall be installed to the dimensions and configurations as shown. Thrust Block Requirements table is designed for a test water pressure of 150psi and a soil bearing pressure of 2000 psf with a safety factor of 1.5. Thrust blocks for all other values for water pressure and soil bearing must use multiplier tables accordingly, see example below.
- Concrete thrust blocks shall be placed solidly against firm undisturbed native soil. Soil bearing pressure of undisturbed native soil must be considered in design, see multiplier table below.
- For configurations with multiple thrust blocks, required bearing area square footage values represent the cumulative total of all thrust block bearing areas.
- The ratio of thrust block height (H) to length (L) shall be at minimum 1:2 and at maximum 1:1 (square), with preference toward 1:1.
- All thrust blocks shall extend a minimum of 24" outward from the pipe. Exceptions for small sized thrust blocks may be made at Engineer's discretion.
- In locations where the water table is higher than the thrust block, special design is required.

THRUST BLOCK REQUIREMENTS (at 150psi water pressure and 2000psf soil bearing capacity):

Pipe inner diameter (in.)	Horizontal Bends (required S.F. bearing area)				Vertical bends (required C.Y.)			
	Tees, crosses, & plugs	90°	45°	22.5°	11.25°	45°	22.5°	11.25°
4	2.0	2.9	1.6	0.8	0.4	0.8	0.4	0.2
6	4.2	5.9	3.2	1.6	0.8	1.7	0.9	0.4
8	7.2	10.2	5.5	2.8	1.4	2.9	1.5	0.8
10	10.9	15.4	8.3	4.2	2.1	4.4	2.2	1.1
12	15.4	21.8	11.8	6.0	3.0	6.2	3.2	1.6
14	20.7	29.3	15.8	8.1	4.1	8.4	4.3	2.1
16	26.8	37.8	20.5	10.4	5.2	10.8	5.5	2.8

SOIL MULTIPLIERS:

Actual Soil Bearing (psf)	Multiplier
1000	2.00
1500	1.33
2000	1.00
2500	0.80
3000	0.67
3500	0.57

WATER MULTIPLIERS:

Actual Test Water Pressure (psi)	Multiplier
100	0.67
150	1.00
200	1.33
250	1.67
300	2.00
350	2.33

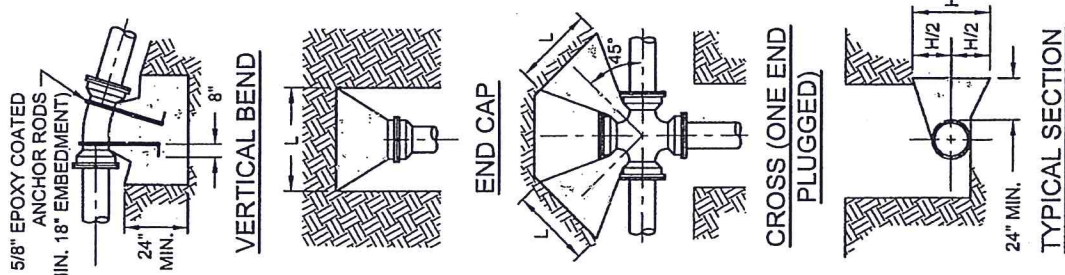
EXAMPLE:

10" pipe, 90° bend, 250psi test water pressure, 1500psf soil bearing capacity:

From Thrust Block Requirements table, 10" pipe on a 90° bend requires 15.4 S.F. bearing area.

Adjust values using multiplier tables:

$$\begin{aligned} \text{Required S.F.} &= (\text{Table value}) \times (\text{Multiplier, 1500psf soil}) \times (\text{Multiplier, 250psi water}) \\ &= (15.4 \text{ S.F.}) \times (1.33) \times (1.67) \\ &= 34.2 \text{ S.F. required thrust block bearing area} \end{aligned}$$



CONCRETE THRUST BLOCK

REV. DATE: 11/12 DETAIL: W-11.0

APPROVED: *[Signature]*

CITY ENGINEER: *[Signature]*

PUBLIC WORKS DIRECTOR: *[Signature]*

TRANS OPS:

FACILITIES:

WATER RESOURCES: *[Signature]*

TRENCH BEDDING AND BACKFILL NOTES:

1. Improvements constructed under this Standard Detail shall conform to applicable provisions of the Standard Specifications for Public Works Construction, current edition.
2. Trench width shall be as shown, unless otherwise specified on plans.
3. Pipe zone bedding material shall be sand with a sand equivalent greater than 50.
4. Basefill shall have a maximum of 8-inch lifts and meet the requirements of one of the following:
 - a. Crushed Aggregate Base;
 - b. Crushed Miscellaneous Base;
 - c. Backfill material with a sand equivalent greater than 50.
5. The Engineer shall approve all backfill material prior to backfilling trench. Contractor must submit sand equivalent tests, per ASTM D2419, for all backfill and bedding, both native and imported, and identify the source of the material.
6. Bedding and backfill shall be compacted mechanically. Compaction by flooding, ponding, or jetting shall not be permitted.
7. Compaction Test, per ASTM D1557, current revision, will be required by the Engineer at various depths in the trench, at intervals not to exceed 250 feet. All tests shall be paid for by the Contractor, and performed by a laboratory approved by the City, unless otherwise specified.
8. A continuous length of 3-inch wide detectable tape, Terratape or approved equal, shall be placed in a direct line over all pipe, as shown. Tape color shall be blue for water, green for sewer, yellow for electrical, and purple for reclaimed water.
9. The roadway structural section shall be of the same material and thickness as existing, but shall meet minimum pavement depth requirements of Standard Detail U-01.2.
10. New concrete shall be doweled into existing concrete streets according to the following:
 - New #4 reinf. bar @ 32" on center (O.C.) along longitudinal joints
 - New #4 reinf. bar @ 12" O.C. along transverse joints
 - First dowel shall be placed 6" from edge of new concrete panel
 - Dowels shall be placed at $\frac{1}{2}$ of the concrete pavement depth and centered between two connecting panels
 - When doweling into existing concrete street along longitudinal joints, drill $\frac{5}{8}$ " diameter by 9" long hole in existing cement concrete. If using pre-coated epoxy dowels, follow manufacturer's specifications for hole size and installation.
 - When doweling into existing concrete street along transverse joints, drill $\frac{5}{8}$ " diameter by 6" long hole in existing cement concrete. If using pre-coated epoxy dowels, follow manufacturer's specifications for hole size and installation.
 - All reinforcing bar installed shall be green epoxy coated.
 - Use chemical adhesive to bond reinforcing bar to existing concrete pavement.
11. Asphalt concrete shall be laid in courses not exceeding 4 inches in thickness. Asphalt concrete shall be Class C2 Grade PG 64-10 for finish courses and Class B Grade PG 64-10.



TRENCH BEDDING AND BACKFILL NOTES

STREETS:	<i>mn</i>
TRANS OPS:	
FACILITIES:	
WATER RESOURCES:	<i>WJ</i>

REV. DATE: 11/12	DETAIL: U-01.0
APPROVED:	<i>John A. Bell</i>
CITY ENGINEER	
PUBLIC WORKS DIRECTOR	<i>Christine J. Anderson</i>

FINISH SURFACE

ROAD STRUCTURAL SECTION
SEE U-01.2 & U-01.3 FOR MATERIAL
AND SAWCUTTING DETAILS

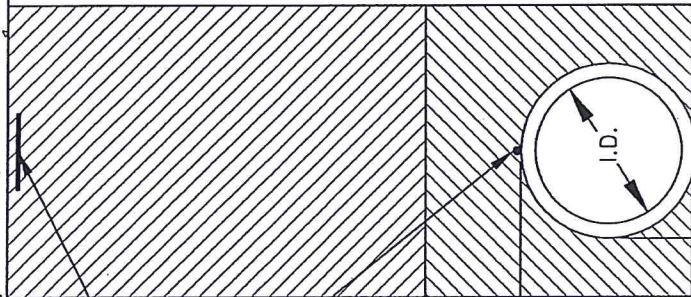
DETECTABLE TAPE TO
BE PLACED A MINIMUM OF
6" TO A MAXIMUM OF 12" BELOW
THE STRUCTURAL ROAD SECTION

NON-METALLIC WATER PIPES ONLY;
12 GAUGE INSULATED COPPER WIRE,
STRIP WIRE AND WRAP AROUND EACH
COPPER SERVICE FOR DIRECT
CONTACT. TAPE WIRE ON PIPE EVERY
10 FEET.

12" MIN.

COMPACTION
ZONE

1/4" OF I.D. OR 4" MIN. BEDDING



TRENCH ZONE BACKFILL SHALL BE 1-SACK
CONCRETE SLURRY FOR TRENCHES UNDER
100 FT. IN LENGTH. EXCEPTIONS MUST BE
AUTHORIZED BY THE CITY ENGINEER. ALL
OTHER TRENCHES SHALL USE ONE OF THE
BACKFILL OPTIONS LISTED IN NOTE 4, DETAIL
U-01.0 COMPACTED TO TO 95% RELATIVE
COMPACTION.

PIPE ZONE COMPACTED TO
95% RELATIVE COMPACTION

6" MIN.
12" MAX.
VARIES

NOT FOR
HDPE

TYPICAL SECTION



STREETS: _____		REV. DATE: 11/12	DETAIL: U-01.1
TRANS OPS: _____		APPROVED: <i>[Signature]</i>	
FACILITIES: _____		CITY ENGINEER	
WATER RESOURCES: _____		PUBLIC WORKS DIRECTOR	

TRENCH BEDDING AND BACKFILL

LOWER MISSION CREEK PROJECT

STANDARD DETAILS AND PLANS LIST

Description _____ Standard Number _____

**CITY OF SANTA BARBARA - PUBLIC WORKS DEPARTMENT - CONSTRUCTION STANDARD
DETAILS**

The Standard Detail sheets (dated 2012) applicable to this contract include, but are not limited to those indicated below.

Fire Hydrant Guard Post	W-03.0
Concrete Thrust Block	W-11.0
Trench Bedding and Backfill - Notes	U-01.0
Trench Bedding and Backfill	U-01.1

SECTION E

**WATER MAIN MATERIALS AND CONSTRUCTION METHODS
SPECIFICATIONS**

CITY OF SANTA BARBARA

CALIFORNIA



PART C – SPECIAL PROVISIONS - TECHNICAL

SECTION C1 – GENERAL CONSTRUCTION MATERIALS

C1.01 Standard Specifications

The work provided herein shall be performed in accordance with the Standard Specifications for Public Works Construction, (2003 edition and supplemental updates) of the Southern California Chapter American Public Works Association (“Greenbook”). Part 2 (Construction Materials) of the Greenbook is incorporated herein by reference. In case of conflict between the Greenbook and the Special Provisions, the Special Provisions shall control.

Certificates of compliance for all materials described in this section and used on this project shall be furnished per Section 6-1.07, “Certificates of Compliance,” of the Standard Specifications (State of California Department of Transportation).

C1.02 Modifications to Greenbook

Greenbook Section 207-9, IRON PIPE AND FITTINGS

Add the following to Greenbook Paragraph 207–9.2.1, “General”:

Ductile iron pipe shall meet the requirements of AWWA C150 and AWWA C151 unless otherwise shown or specified, and shall be Pressure Class 350. Ductile iron pipe shall not be used as sewer pipe unless approved by the Engineer.

Ductile Iron pipe shall be used between all Ductile Iron Mechanical Joint fittings less than 10-feet apart.

Add the following to Greenbook Paragraph 207–9.2.2, “Pipe Joints”:

Unless otherwise noted on the plans or specifications, ductile iron pipe **joints** shall be Mechanical Joint. All ductile iron pipe joints shall be restrained with a locking gasket, (e.g. "Field-Lok" gaskets by U.S. Pipe, or approved equal).

Add the following to Greenbook Paragraph 207–9.2.3, “Fittings”:

All **fittings** shall be Mechanical Joint, pressure class 350, ductile iron, conforming to the requirements of AWWA C110 or C153, and C111. "Megalug" by U.S. Pipe or approved equal, locking wedge–type retainer glands shall be used instead of the standard mechanical–joint gland. Locking retainer glands shall be specifically manufactured for use with PVC or ductile iron pipe, as applicable.

The City will accept the use of the epoxy coated "Foster Adaptor" by Infact Inc. or approved equal for use in connecting mechanical joint fittings. For more information on the Foster Adaptor call Infact Inc. at (615) 206-9113 or Ventura Pipe & Supply (local distributor) at (805) 658-0839.

Add the following to Greenbook Paragraph 207–9.2.4, “Lining and Coating”:

All interior surfaces of ductile iron fittings shall be coated with fully cured–in–place coating material that meets all of the requirements of AWWA C550 and AWWA C213, as specified below. The exterior surface shall be coated with bituminous coating approximately 1-mil thick.

Interior Coating for Fittings:

Material: The coating material shall be a 100% solid, thermosetting, fusion–bonded, dry–powder epoxy coating such as Scotchkote 206N or 134 coating, or approved equal.

Surface Preparation: All surface irregularities, welds, and weld spatter shall be ground smooth to a 1/8-inch (3.18 millimeter) radius. All surfaces shall be blasted to near–white metal in accordance with Steel Structures Painting Council Surface Preparation Specification SSPC-SP10 or NACE No. 2 near-white finish.

Application: Apply coating by the fluidized bed process to a thickness of not less than 12-mils (305 microns). The parts shall be heated and cured in accordance with the manufacturer's specifications.

Inspection: The coating should be pinhole-free and tested with a low voltage, wet sponge holiday detector. All pinholes should be marked, repaired and retested to insure a pinhole-free coating.

Add the following to Greenbook Paragraph 207-9.2.6, "Polyethylene Encasement for External Corrosion Protection":

Polyethylene encasement shall be furnished and installed in accordance with the requirements of AWWA C105. All ductile iron pipe, gray iron and ductile iron fittings, and valves shall be encased with 8-mil thick polyethylene film.

Copper Tubing

Copper water service pipe shall be soft annealed copper tubing conforming to the requirements of ASTM B88, Type K.

Mechanical Joint Solid Sleeve Couplings

Mechanical joint solid sleeve couplings shall be ductile iron "long" (L2) as manufactured by U.S. Pipe and Foundry Company or approved equal. Refer to sections 207-9 as modified by the Special Provisions for coating specifications.

Sufficient length of ductile iron pipe shall be installed to ensure proper alignment at the tie-in. Lengths may vary with field conditions and shall be paid for by linear feet of ductile iron pipe. Lengths of ductile iron pipe for tie-ins greater than 10 feet must be approved by the engineer prior to installation.

SECTION C2 – CONSTRUCTION METHODS

C2.01 Standard Specifications

The work provided herein shall be performed in accordance with the Standard Specifications for Public Works Construction, (2003 edition and supplemental updates) of the Southern California Chapter American Public Works Association ("Greenbook"). Part 3 (Construction Methods) of the Greenbook is incorporated herein by reference. In case of conflict between the Greenbook and the Special Provisions, the Special Provisions shall control.

C2.02 Modifications to Greenbook

Paragraph 306-1.2.2.1 Separation Requirements and Conflicts with Existing Utilities

The Contractor shall physically expose (pothole), in order to determine exact horizontal and vertical locations, all subsurface utility lines and services sufficiently ahead of the trench excavation operations to allow for timely planning and coordination of main grade and deflection adjustments.

In the event of actual physical interference between existing crossing subsurface utilities, the proposed main, or vertical discrepancy in connecting proposed mains to the existing main, the new mains shall not be adjusted without the approval of the Engineer.

The Contractor shall maintain a minimum 3-foot parallel separation, and a 6-inch perpendicular separation to all existing active utilities (such as storm drains, gas, electric, television, and telephone). The Contractor may encroach upon the 3-foot separation with water or sewer pipes if those pipes are to be abandoned as a result of this project.

All water pipe shall meet the Department of Health Services "Criteria for the Separation of Water Mains and Sanitary Sewers".

Water Main in Parallel with Existing Sewer Line

A minimum of ten feet of separation shall be maintained when constructing a water main in parallel with an existing sewer pipe. Any encroachment on the 10-foot water-sewer separation zone must be approved by the City of Santa Barbara's Water Resources Division.

Water Crossing Existing Sewer Line

A minimum of twelve inches of separation shall be maintained when constructing a water pipe above or below an existing sewer main.

Water mains constructed **below** an existing sewer main shall be a continuous section of Class 200 (DR14 per AWWA C900) plastic pipe centered over the pipe being crossed. No joints in the sewer pipe are allowed within 10 feet of the outside wall of the existing water main. Where this is not possible, the Contractor shall center a full 20-foot stick of water pipe under the existing sewer main with the Engineer's approval. The City will pay for all wasted pipe directly associated with this work, as agreed upon by the Engineer prior to commencement of the work.

Water mains constructed **above** an existing sewer main shall be of a continuous section of Class 200 (DR14 per AWWA C900) plastic pipe centered over the pipe being crossed. No joints in the sewer pipe are allowed within 4 feet of the outside wall of the existing water main.

All **damaged** sewer laterals shall be repaired using PVC SDR 35. The pipe joints shall be attached to the existing laterals using a Calder Repair Coupling with an added stainless steel sleeve to avoid offset during compaction. These "Strong Back's" as they are often referred to, shall be Joints Inc., Model CRC-106, Mission Coupling, 300 Series Model ARC 3/16", or approved equal.

Paragraph 306-1.3.7.1 Slurry Backfill – General

If any copper pipes are encountered in a trench to be backfilled with slurry, the Contractor shall wrap all exposed portions of the existing copper pipe with "bubble wrap" prior to backfilling operations.

C2-1 WATER MAIN CONSTRUCTION METHODS

C2-1.0 Installation of Water Pipe

All water mains shall be constructed in accordance with the plans, details, the Greenbook and Special Provisions unless otherwise directed by the Engineer.

C2-1.2 General

The Contractor shall push (or "bar") the plain end of pipe into the bell end from the bell end only. In no case shall the Contractor push the pipe from the plain end.

The Contractor shall obtain approval and coordinate with the Engineer and Water Resources any temporary cutting and capping of existing water mains, the installation of blow-offs or flush lines not shown on contract drawings.

Deflections and Offsets. When it is necessary to deflect the pipe from a straight line, either horizontally or vertically, the pipe shall be assembled in a straight line, then deflected to the required degree of deflection in accordance with the manufacturer's recommendations. In the case of mechanical joints, the joint shall be loosely assembled, deflected to the required degree of deflection (not exceeding manufacturer's recommendations), and the joint assembled tightly.

Offsets may be used to correct misalignments of main line or fire lines of up to 12 inches per the direction of the Engineer.

Detectable Tape. A continuous length of 3-inch wide detectable tape shall be centered over the PVC water pipe at the top of the compacted backfill and shall be protected from damage or displacement during pavement resurfacing.

Debris in Pipe. At times when water main pipe laying is not in progress, the open ends of the pipe shall be closed with a water tight plug. This provision shall apply during worker breaks as well as overnight, or any other time the pipe is unattended. If water is in the trench, the seal shall remain in place until the trench is free of water. Trench water shall be kept out of the pipe at all times.

Cover. The Contractor shall install water pipe with a minimum cover of 32-inches, unless other indicated on the plans, or if valve minimum cover requirements are greater. PVC pipe shall always be installed with a minimum cover of 32 inches. Ductile Iron Pipe may be installed with a minimum cover of 15 inches only when shown on the plans or directed by the Engineer. Ductile Iron pipe shall be used in any situation were the 32 inches minimum cover cannot be achieved.

Pipe Transitions. In-line transitions between Ductile Iron Pipe and PVC Pipe shall be accomplished by a solid sleeve coupling only. In no case shall the Contractor "stab" the plastic pipe plain end into the ductile iron bell, nor shall the Contractor "stab" the ductile iron plain end into the plastic pipe bell.

For pipe transitions where solid sleeve couplings cannot be installed, Contractor shall submit alternate coupling to the Engineer for approval.

Field Cutting Pipe. The cutting of pipe for inserting valves, fittings, or tie-in sections shall be done in a neat and professional manner without damage to the pipe, or any pipe coatings and linings. The Contractor shall cut the pipe so as to leave a smooth end at right angles to the axis of the pipe. Flame cutting of the pipe by means of oxyacetylene cutting equipment shall not be allowed. To assure a square cut, the pipe shall be marked around its entire circumference prior to cutting.

The cut on the pipe spigot end shall be tapered back or beveled at approximately 1/8-inch at an angle of approximately 30 degrees. This shall be accomplished with a beveling tool, machine grinder, or by file, and shall leave no sharp or rough edges. The spigot end of the pipe shall be marked in order to determine when the pipe is fully seated in the bell.

No joints are permitted within 5 feet of a mechanical joint.

Buried Bolted Connections. All buried bolted connections, including flanged and mechanical joints, restraining harnesses, and locking retainer glands, shall be thoroughly and completely coated with a heavy film of no-oxide grease and wrapped with an 8-mil thick polyethylene encasement and taped as specified in AWWA C105.

Assemblies shall be made with new gaskets, nuts, and bolts of the proper size. Bolt heads shall be positioned to ensure free movement of nuts after installing concrete thrust blocks.

Torque Settings for Saddles. Nuts for saddles installed on C900 PVC pipe shall be tightened to between 30 and 40-foot pounds torque. Nuts for saddles installed on ductile iron pipe shall be tightened to between 40 and 50-foot pounds torque. Contractor to provide submittal of process used to torque the saddle nuts and evidence that the tools used result in the specified torque values.

C2-1.3 Thrust Blocks

All plugs, caps, tees, wyes, unbalanced crosses, and horizontal and vertical bends equal to or greater than 11 1/4 degrees shall be provided with concrete thrust blocks in accordance with the details in the plans. Thrust block concrete shall be poured against plywood or approved alternative surfaces with half-rounds cut out against the pipe surface. Concrete shall not be in contact with bolts or extend into the tee bolt area. Joints must remain capable of disconnection without interference of the concrete thrust block. Vertical bends and horizontal bends which are "rolled" vertically more than 45 degrees, shall be vertically retained with thrust blocks and/or anchor rods as approved by the Engineer.

C2-1.4 Abandonment or Removal of Existing Water Mains and Appurtenances

Existing water mains that are to be abandoned or are encountered in excavations for the new mains shall, to the extent feasible, remain in place, **and be capped or plugged with concrete** and abandoned in place after all services have been connected to the new water mains. Abandonment of water mains shall include removal of any valve cans or appurtenances deemed necessary by the Engineer.

C2-1.7 Waterline Shutdowns

The Contractor shall notify the Engineer one-week in advance of any waterline shutdown. No shutdowns will be permitted on Mondays or Fridays. The Engineer will, upon notification by the Contractor and in accordance with the requirements of these specifications, notify customers of scheduled shutdowns and turnoffs, and request City forces to operate valves necessary for the Contractor to complete the work. The Contractor shall provide temporary water to customers as necessary. The Contractor shall not operate any existing valves to shut-off or turn on the water except in an emergency situation. When valves do not seal properly, the City does not guarantee a dry shutdown in which case the Contractor shall, at the Contractor's expense, provide for dewatering the trench.

C2-1.8 Removal and Replacement Procedure

The Contractor shall obtain approval and coordinate with the Engineer and Water Resources all removal and replacements (high-lining) of water lines.

Plans for high-lining for temporary water service during main replacements shall be reviewed and approved by the Engineer, prior to scheduling of shut-downs. All high-lines shall be disinfected with 25 mg/L free chlorine, using Table 4 of these specifications.

C2-1.9 Disinfection of Water Mains

Prior to connecting new water mains and appurtenances to the active water system (including installation of valve clusters, fire hydrants, and service saddles/corporation stops), disinfection shall be completed to the satisfaction of the Engineer, including passing the bacteriological test. The Contractor shall tie into the water system as soon as reasonably possible, but not more than 72 hours after the bacteriological test has been passed.

The Contractor shall use the Continuous-Feed Method for disinfecting water mains. This section references AWWA C651-86.

The Contractor shall use liquid chlorine or sodium hypochlorite or calcium hypochlorite in the disinfection operations.

- Liquid chlorine contains 100% available chlorine and is packaged in steel containers usually of 100-pound, 150-pound or 1-ton net chlorine weight. Liquid chlorine shall be used only (1) in combination with appropriate gas-flow chlorinators and ejectors to provide a controlled high-concentration solution feed to the water to be chlorinated; (2) under the direct supervision of a person who is familiar with the physiological, chemical, and physical properties of liquid chlorine, and who is trained and equipped to handle any emergency that may arise; and (3) when appropriate safety practices are observed to protect working personnel and the public.
- Sodium hypochlorite or calcium hypochlorite is available in liquid form in glass, rubber-lined, or plastic containers typically ranging in size from 1 quart to 5 gallons; containers of 30 gallons or larger sizes may be available in some areas. Sodium Hypochlorite contains approximately 5% to 15% available chlorine, but care must be used in control of conditions and length of storage to minimize its deterioration.

Water from the existing distribution system shall be made to flow at a constant, measured rate (measured by City water meter) into the newly laid water main.

At a point not more than 10 feet downstream from the beginning of the new main, water entering the new main shall receive a dose of chlorine fed at a constant rate such that the water will have not less than 25 mg/L free chlorine. To assure that this concentration is provided, the Contractor shall use Table 4, which gives the amount of chlorine required for each 100 feet of pipe of various diameters. Solutions of 1% chlorine may be prepared with sodium hypochlorite or calcium hypochlorite. The latter solution requires 1 pound of calcium hypochlorite in 8 gallons of water.

TABLE 4
Chlorine Required to Produce 25–mg/L Concentration in 100 feet of Pipe
(by Diameter)

Pipe Diameter (inches)	100% Chlorine (pounds)	1% Chlorine Solution (gallons)
4	0.013	0.16
6	0.030	0.36
8	0.054	0.65
10	0.085	1.02
12	0.120	1.44
16	0.217	2.60

During the application of chlorine, no part of the main being tested shall be connected to existing valves. Chlorine application shall not cease until the entire main is filled with heavily chlorinated water. The chlorinated water shall be retained in the main for at least 24 hours, during which time all valves and hydrants in the treated section shall be operated to ensure disinfection of the appurtenances.

At the end of this 24–hour period, the treated water in all portions of the main shall have a residual of not less than 10 mg/L free chlorine.

Direct feed chlorinators, which operate solely from gas pressure in the chlorine cylinder, shall not be used for application of liquid chlorine. The preferred equipment for applying liquid chlorine is a solution–feed, vacuum–operated chlorinator and a booster pump. The vacuum–operated chlorinator mixes the chlorine in solution water; the booster pump injects the chlorine solution into the main to be disinfected. Sodium Hypochlorite solutions may be applied to the water main with a gasoline or electrically powered chemical feed pump designed for feeding chlorine solutions.

When the 24–hour contact time has elapsed, the main shall be flushed until the chlorine, as measured by a comparator in the discharge of the pipe, is 1.5 PPM or less. Adequate precaution shall be taken during flushing of the main to preclude property damage or saturation of the surrounding material.

Upon completion of flushing, a sample of the discharge shall be collected in a bacteriological test bottle for testing by the City. The Contractor shall comply with the County Health Department requirements for conducting the test. The City, upon notification by the Contractor, shall arrange for the taking of the sample and shall notify the Contractor of the results as soon as they are available.

If the test fails (results are positive), the main must be disinfected, flushed, and sampled again. Such operations must be repeated until results are negative.

Full compensation for disinfection shall be considered as incidental to the project and no separate payment shall be made. All costs related to disinfection shall be included in the various other applicable items of work.

C2–1.10 Pressure Testing Pipeline

Modify Section 306–1.4 of the Greenbook as follows:

Pressure Testing Pipeline shall take place after water main disinfection and bacteriological testing, and shall be conducted per these specifications.

Full compensation for pressure testing the pipeline shall be considered as incidental to the project and no separate payment shall be made. All costs related to pressure testing the pipeline shall be included in the various other applicable items of work.

Water Pressure Test

The water pressure test, or leakage test, shall establish that the section of line to be tested, including all joints, fittings and other appurtenances, will not leak within the limits of the applicable leakage allowance.

The Contractor shall provide all necessary apparatus for testing. A double check valve assembly meeting the requirements of the County of Santa Barbara Health Department shall be used at all times. All necessary taps on the main for testing purposes shall be provided and installed by the Contractor at locations designated by the Engineer.

All service saddles, corporation stops, fire hydrants, fire lines, blow-offs, air vacuum valves and appurtenances are to be installed on the main pipeline prior to testing. Tie-ins shall be observed by the Engineer at operating pressure prior to backfill.

The Contractor shall apply a pressure of 50 psi above normal operating pressure for all tests. This pressure shall be maintained as constant as possible throughout the period of test. All additional water pumped in during the testing period shall be measured and recorded. The Contractor shall provide and use an air relief valve so air trapped in the line during test will not affect test results.

The test duration shall be two-hours, and the allowable leakage shall be determined by the formula:

$$L = \frac{ND\sqrt{P}}{7400}$$

where:

- L = allowable leakage (gallons per hour)
- N = number of joints in the length of pipeline tested
- D = nominal diameter of the pipe (inches)
- P = average test pressure during the test (pounds per square inch gauge)

Leakage values determined by the above formula are shown in the table below:

**Leakage Allowable (Gallons per 1,000 feet per hour)
(1,000 feet = 50 joints)**

Pipe Size (Inches)	Test Pressure (psi)				
	50	100	150	200	250
4	0.19	0.37	0.33	0.38	0.43
6	0.29	0.41	0.50	0.57	0.64
8	0.38	0.54	0.66	0.76	0.85
10	0.48	0.68	0.83	0.96	1.07
12	0.57	0.81	0.99	1.15	1.28

Should the test of the pipe installed disclose leakage in excess of the specified allowable, the Contractor shall, at the Contractor's expense, locate and repair the defective joints until the leakage is within the specified allowance.

C2-4 Water Services

C2-4.1 General

All water service tie-ins, relocations and replacements shall be accomplished in accordance with the details in the plans.

A saddle connection to the water main shall be used for all water services. Bolts shall be tightened to meet the manufacturer's recommendations. Saddle bolts shall be evenly wrench tighten using the following torque guide. Do

not over tighten. J-969 6 to 16-inch, 30 to 40-foot pounds; J-979 6 to 16-inch 50 to 60-foot pounds. Testing shall be accomplished by a method approved by the Engineer.

Contractor shall install the meter boxes to grade after the new services are operational. Water services shall be installed perpendicular to the property line. Water services shall not be installed in a common trench with any other utility.

Air trapped in the reconnected service line is to be removed during service tie-over by either opening a hose bib at the resident or opening faucets on the top floor of a multi-story building. Precautions must be followed by the Contractor to avoid having the entrapped air damaging existing plumbing connections.

C2-4.2 Water Service Tie-Overs

All existing copper water services shall be tied over to the new PVC or ductile iron pipe water main with size of services to match existing but must be either 1-inch or 2-inch from the existing service line to the corporation stop. A soldered copper reducer is to be used to adapt to the existing copper service. New corporation stops shall be installed for the tie-over. The Contractor shall provide additional copper tubing and fittings as required to make the tie-over of up to two feet of the dimensions shown on the plans. Copper tubing and fittings in excess of 2 feet of what is shown on the plans shall be measured under contingency items.

C2-4.3 Water Service Replacements/Relocations

Where the existing water services are galvanized steel or plastic, where noted on the plans, where the service is to be relocated, or where directed by the Engineer, the entire water service shall be replaced. This replacement or relocation requires a new corporation stop, saddle, copper tubing, angle meter stop, ball valve, customer side ball valve handle, meter box, and all necessary fittings and appurtenances to install the service in place and operational.

Where the service connection to be replaced is connected to an existing ductile iron or cast iron main, the Contractor shall not retap the main, unless there is evidence of leakage. **The Contractor shall expose the saddle as directed by the City Inspector.** The new copper service shall be connected to the existing corporation stop unless directed by the Engineer to replace the old saddle and corporation stop with new ones.

The Contractor shall provide copper tubing and fittings as required to replace the service, of up to two feet beyond the dimensions specified. Copper tubing and fittings in excess of two feet of what is specified shall be measured under contingency items.

Where the service is to be relocated, the existing meter box and assembly shall be removed, backfilled, and the surface shall be restored to match existing.

The above prices and payments shall include full compensation for furnishing all labor, materials (including water in the material at the time of weighing as provided in Section 26-1.06, "Measurement"), tools, equipment, and incidentals, and for doing all the work involved in constructing aggregate base, complete in place, as shown on the plans, and as specified in these specifications and the special provisions, and as directed by the Engineer.