

PLANS AND SPECIFICATIONS
FOR

**EL RIO PEDESTRIAN
IMPROVEMENTS**

SPECIFICATION NO. RD24-05

PROJECT NO. 50616

STATE PROJECT NO. ATPSB1L – 5952 (208)



county of ventura
ROADS & TRANSPORTATION

COUNTY OF VENTURA PUBLIC WORKS AGENCY

NOTICE INVITING BIDS, PROJECT INFORMATION FORM, & SPECIFICATIONS

FOR

PROJECT NAME: EL RIO PEDESTRIAN IMPROVEMENTS

LOCATION: VARIOUS ROADS WITHIN THE EL RIO AREA

SPEC. NO.: RD24-05 COST ACCOUNTING PROJECT NO.: 50616
STATE PROJECT NO.: ATPSB1L – 5952 (208)

DESIGNED BY: JOEANN HEREDIA/ARIEL BRAZA CHECKED BY: CHRIS HOOKE

REVIEWED BY: GIANFRANCO LAURIE

PROJECT MANAGER: GIANFRANCO LAURIE



RECOMMENDED BY:

A handwritten signature in blue ink that reads "Gianfranco Laurie".

Acting Deputy Director
Roads & Transportation

APPROVED BY:

A handwritten signature in blue ink, likely belonging to the Director of Roads & Transportation.

Director – Roads & Transportation

APPROVED BY:

A handwritten signature in blue ink, likely belonging to the Director of the Public Works Agency.

Director of Public Works Agency

Construction bidding documents, including plans, specifications, addenda and any supplementary documents are only available on the Ventura County Public Works Agency Web Site.

NOTICE TO BIDDERS, SUBCONTRACTORS AND SUPPLIERS **SOURCES OF INFORMATION**

DURING BIDDING PERIOD

PROJECT DOCUMENTS, PLAN HOLDERS LIST, & OTHER INFORMATION IS AVAILABLE
ON THE INTERNET AT THE BONFIRE WEBSITE AT:

<https://ventura.bonfirehub.com/portal/?tab=openOpportunities#department=Public%20Works%20Agency>

All questions concerning the plans, specifications, requirements, terms, schedule, addenda, and any other matters related to the solicitations shall be submitted using the Bonfire web site using the "Opportunity Q&A" tab.

Submit any questions early in the bidding period as an addendum may be required.

All addenda will be issued using the Bonfire web site.

Please do not call other staff members or consultant.

Note that our consultants are directed to refer all calls to the Project Managers.

AFTER BID OPENING

BID RESULTS are available on <https://www.vcpbublicworks.org/es/bidsandsubs/>,

AFTER AWARD OF CONTRACT

ALL QUESTIONS concerning project **AFTER AWARD** should be directed to the
Project Manager named in the Notice of Award

Any other information can be requested at (805) 654-2039

COUNTY OF VENTURA
EL RIO PEDESTRIAN IMPROVEMENTS
SPECIFICATION NO.: RD24-05 PROJECT NO: 50616

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COUNTY OF VENTURA

NOTICE INVITING FORMAL BIDS

Bids will be received, electronically, until **2:00 p.m. on APRIL 23RD, 2024** for **EL RIO PEDESTRIAN IMPROVEMENTS**, Specification No. **RD24-05**, which consists of construction of **PCC sidewalk construction including public access & notice, traffic control & construction signing, water pollution prevention, bracing & shoring, RCP storm drains, slurry cement backfill, storm drain manholes, curb opening catch basins, local depression at catch basin, infiltration trench, sidewalk & pavement widening preparation, tree removal, fence relocation, gate adjustment, curb & gutter, curb & gutter with opening, curb & trench drains, driveway approaches, metal hand railings, curb ramps, AC pavement widening & repairs, miscellaneous paving, Type II emulsion-Aggregate slurry, ladder type crosswalks, pavement delineation & striping, cluster box & roadside mailboxes, and appurtenant work.**

Bids must be submitted on-line through Bonfire at:

<https://ventura.bonfirehub.com/portal/?tab=openOpportunities#department=Public%20Works%20Agency>

After the deadline for receiving bids, the bids will be opened, and the results made public.

The estimated cost of construction is **\$7,900,000**.

All bidding documents, including plans, specifications, addenda, and any supplementary documents are available on the Bonfire website shown above.

A list of Plan Holders is available on the Bonfire website shown above.

An abstract of bids received will be available at <https://www.vcpublishworks.org/es/bidsandsubs/>

When projects are awarded, the award notification to the State will be posted at <https://www.vcpublishworks.org/es/awardedcontracts/>

Bids must be submitted electronically, using the forms provided, on the Bonfire Website.

Subcontractor list must include a valid Contractor's License Number. Contractor and any subcontractors must be registered with the Department of Industrial Relations prior to bid time.

Each bid must be accompanied by a bid guarantee in the amount of not less than 10% of the amount bid, **PAYABLE TO THE COUNTY OF VENTURA** and guaranteeing that the bidder will enter into a contract in accordance with the terms of the bidding documents, if award is made. The bid guarantee shall be in one of the following forms: a bid bond written by an admitted surety insurer on the form included with the Proposal form, a cashier's check drawn by a national bank, a check certified by a national bank or cash. Bid bonds must be submitted in hard copy with the original signatures of the principal and surety. Copies of the completed bond will not be accepted.

Bidders must have a **Class A** California Contractors license. Upon award, the Contractor will be required to furnish a Performance Bond and a Payment Bond, each in the amount of 100% of the contract price.

In accordance with Section 22300 of the Public Contract Code, securities may be substituted for funds withheld.

Bidders, contractors, and other interested parties can obtain wage rates pertaining to Ventura County projects at the link provided below.

California general prevailing wage rates for construction can be obtained from the following Web site: <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>.

The awarded contractor must post copies of the prevailing wage determinations at each job site.

PROJECT INFORMATION

FOR

EL RIO PEDESTRIAN IMPROVEMENTS

**LOCATED IN
VENTURA COUNTY, CALIFORNIA**

MAKE BID GUARANTEE TO **COUNTY OF VENTURA**
USE FORM PROVIDED (SEE PARAGRAPH 9, INSTRUCTION TO BIDDERS).

SPECIFICATION NO. **RD24-05** INCLUDING **71** SHEETS OF PLANS

BIDS WILL BE RECEIVED ELECTRONICALLY UNTIL **APRIL 23, 2024 AT 2:00 P.M.**

AGENCY IS ALLOWED **60** DAYS TO AWARD A CONTRACT (SEE SECTION 1-7.3).
THE STARTING DATE OF CONTRACT WILL BE **28** CALENDAR DAYS AFTER AWARD OF
CONTRACT (SEE SECTION 6-3.2.1).

COMPLETION TIME IS **110** WORKING DAYS (SEE SECTION 6-3).

LIQUIDATED DAMAGES ARE **\$1,500** PER CALENDAR DAY (SEE SECTION 6-9).

CONTRACTOR'S LICENSE CLASSIFICATION REQUIRED IS **CLASS A**.

LIABILITY INSURANCE CLASS REQUIRED PER SECTION 5-4.2.2 IS **L-C**.

FEDERAL-AID CONTRACT PROVISIONS ARE **NOT** INCLUDED IN THESE SPECIFICATIONS.

INSTRUCTION TO BIDDERS

1. LICENSING OF BIDDER. Before submitting bids, bidders shall be licensed in accordance with the provisions of Sections 7000 through 7145 of the Business and Professions Code of the State of California in the classification required for the work bid on. The bidder's license number, classification, and expiration date shall be inserted on Signature Sheet. The bidder's name shall correspond in all respects with the name shown on the license. License numbers and names are checked with the State.

2. SITE INSPECTION. Personally visit the worksite before submitting your bid to ascertain the existence of any surface or subsurface conditions affecting the cost of the work.

3. INTERPRETATION AND QUESTIONS. Carefully review the plans and specifications for any errors, omissions, or ambiguities. If you discover any or have specific questions, notify the Agency far enough in advance of the bid opening to allow time for the issuance of appropriate written addenda, if necessary. All questions concerning the plans, specifications, requirements, terms, schedule, addenda, and any other matters related to the solicitation shall be submitted through the Bonfire website using the "Opportunity Q&A" tab.

Written addenda shall be the sole means for modifying the plans and/or specifications prior to the bid opening. The Agency shall not be bound by oral communications purportedly modifying or interpreting the plans and/or specifications regardless of when or by whom such oral communications are made and you should not rely upon such oral communications in preparing your bid. Addenda will be posted on the Bonfire web site.

4. BID ITEMS. State in figures the unit prices, lump sum prices and extensions as indicated which shall be the prices for which you propose to supply all materials and services and perform all work required by the plans and specifications. All items described are to be construed as complete and in place. Include in the bid amount for items listed in the Bid Table the cost of performing all work shown on the plans or required by the specifications for which a specific bid item is not provided. Bid on all items listed under Schedule of Work and Prices unless otherwise indicated in the Bid Table.

5. SIGNING OF BID. Fill in all indicated blanks on the various forms provided. Bids will only be accepted if submitted electronically using the Bonfire website. Bids signed by an agent other than an owner, partner or corporate officer shall be accompanied by a power-of-attorney.

6. NON-COLLUSION AFFIDAVIT. The non-collusion affidavit required by Public Contract Code 7106 is included as a required document on the Bonfire website.

7. BID FORM NOT TO BE ALTERED. Do not change the wording of the Bid documents. Any additions, deletions, conditions, limitations or provisions by the bidder will render the Bid irregular and may cause its rejection.

8. CORRECTING BID. Corrections or adjustments to bids must be done using the Bonfire website and must be completed prior to the Bid Closure date and time.

9. **BID GUARANTEE.** A Bid Guarantee in the amount of not less than 10% of the amount bid and guaranteeing that the bidder will enter into a contract in accordance with the terms of the bidding documents if award is made to him must be submitted. The bid guarantee shall be in one of the following forms: A bid bond written by an admitted surety insurer on the form provided, a cashier's check drawn by a national bank, a check certified by a national bank or cash.

Original hard copies of the Bid Guarantee must be submitted and received by the County prior to the Time of Bid Closure. Bid Guarantee shall be mailed or delivered to:

Public Works Agency, County of Ventura
County Surveyor's Public Counter - 3rd Floor
Hall of Administration
800 South Victoria Ave.
Ventura, California 93009-1670.

For proper handling, mark the envelope as "BID GUARANTEE – SEALED BID" and show the specification number, project title, and the Bidder's name and address.

The bid bond must have the original wet signatures of the principal and surety.

Note: Performance and Payment Bonds are required from the bidder to whom a contract is awarded. See specifications Subsection 1-7.2 for contract bond requirements including limitations on the sureties that may issue the bonds.

10. **SUBMITTING BID.** Submit your bid using the Bonfire website at:

www.ventura.bonfirehub.com

Only bids submitted via the Bonfire website will be considered. All documentation listed as required on that website must be completed and submitted.

11. **TIME OF BID CLOSURE.** The time and date of the Bid closure is indicated on the Bonfire website solicitation as "Close Date". No bids will be accepted after that time.

12. **REVISION OR WITHDRAWAL OF BID.** Bids submitted using the Bonfire website can only be revised or withdrawn using the website. Once submitted, a bid that requires revisions or withdrawal must be accessed via the "Completed" tab under the "Your Submissions" section and action taken to revise or "unsubmit" (withdraw).

13. **ERRORS.** Bidder will not be released on account of errors. Bids submitted using the Bonfire website will be considered final. Bidders shall be careful to ensure all information that is submitted is complete and accurate.

14. **SUBCONTRACTOR LICENSE NUMBERS.** License numbers for subcontractors must be provided at the time the bid is received using the forms provided.

15. **PUBLIC WORKS CONTRACTOR REGISTRATION PROGRAM.** No contractor or subcontractor may be listed on a bid for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)]

No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5

16. **LABOR COMPLIANCE MONITORING.** This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The Prime Contractor shall post job site notices prescribed by regulation.

(See Chapter 8, California Code Regulation section 16451(d) for notice that previously was required for projects monitored by the Compliance Monitoring Unit.)

Printed Name of Officer:

LIST OF SUBCONTRACTORS

CONTRACTOR NAME: _____

Listing shall comply with the provisions of California Public Contract Code, Section 4104.

Name of Subcontractor	Contractor's License Number	Contractor's DIR Registration Number	Business Address	Items of Work

If more space is needed, add additional pages.

Public Contract Code Section 4104 provides that bidders must list:

- (a)(1) The name, the location of the place of business, and the California contractor license number of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater.
- (b) The portion of the work that will be done by each subcontractor under this act. The prime contractor shall list only one subcontractor for each portion as is defined by the prime contractor in his or her bid.

BID TABLE

Schedule of work and prices for: **EL RIO PEDESTRIAN IMPROVEMENTS**

Item No.	Units	Approx. Quantity	Item Description	Payment Reference	Unit-Price (In Figures)	Item Total (In Figures)
1	LS	1	Mobilization	7-3.4.2		
2	LS	1	Traffic Control & Construction Signing	1003-8		
3	LS	1	Water Pollution Prevention	1004-3		
4	LS	1	Trench Excavation & Backfill	1006-2		
5	LS	1	Bracing & Shoring	1007-2		
6	LF	312	Reinforced Concrete Pipe (18" RCP)	1008-5		
7	LF	118	Reinforced Concrete Pipe (24" RCP)	1008-5		
8	LF	68	Reinforced Concrete Pipe (30" RCP)	1008-5		
9	LF	540	Reinforced Concrete Pipe (36" RCP)	1008-5		
10	LF	62	Reinforced Concrete Pipe (54" RCP)	1008-5		
11	LF	324	Reinforced Concrete Pipe (66" RCP)	1008-5		
12	LS	1	Removal of Existing Manhole & RCP	1009-2		
13	LS	1	RCP Tie into Existing Manhole	1010-2		
14	EA	1	RCP Concrete Cover	1011-2		
15	CY	110	Slurry Cement Backfill	1012-2		
16	EA	1	Storm Drain Manhole (MH1, MH2)	1013-2		
17	EA	1	Storm Drain Manhole (MH4)	1013-2		
18	EA	1	Storm Drain Manhole (MH3, MH5, MH6, MH7, MH8, MH9, MH10)	1013-2		
19	EA	1	Curb Opening Catch Basin (CB1, CB2, CB3, CB4, CB7, CB8, CB9, CB10, CB11, CB12, CB13, CB14)	1014-2		
20	EA	1	Curb Opening Catch Basin (CB5)	1014-2		
21	EA	1	Curb Opening Catch Basin , CB6)	1014-2		

Item No.	Units	Approx. Quantity	Item Description	Payment Reference	Unit-Price (In Figures)	Item Total (In Figures)
22	LF	400	Local Depression at` Catch Basin	1015-2		
23	LS	1	Sidewalk & Pavement Widening Preparation	1016-2		
24	EA	1	Pepper Tree Removal (H=40', W=36")	1017-3		
25	EA	2	Cluster of Yucca Trees Removal (H=40', W=60")	1017-3		
26	EA	12	Palm Tree Removal (H > 50')	1017-3		
27	EA	1	Chinese Pistache Tree Removal (H=30', W=30")	1017-3		
28	EA	1	Cypress Tree Removal (H=25', W=18")	1017-3		
29	EA	1	Deciduous Tree Removal (H=25', W=18")	1017-3		
30	LF	450	Chain Link & Vinyl Fence Relocation	1018-3		
31	LF	50	Masonry Block with Chain Link Fence Relocation	1019-2		
32	EA	18	Slide Gate Elevation Adjustment	1020-3		
33	EA	15	Swing Gate Elevation Adjustment	1020-3		
34	EA	10	Access Gate Elevation Adjustment	1021-3		
35	LS	1	Irrigation Line Repair and/or Adjustment	1022-2		
36	LF	3,403	4" Curb & Gutter	1023-2		
37	LF	8,530	6" Curb & Gutter	1023-2		
38	LF	4,566	4" Curb & Gutter with Opening	1024-2		
39	LF	956	6" Curb & Gutter with Opening	1024-2		
40	LF	2,400	6" Curb	1025-2		
41	LF	675	8" Curb	1025-2		
42	EA	75	3" PVC Pipe Drain to Gutter	1026-2		
43	EA	70	3" PVC Pipe Drain to Trench	1027-2		
44	LF	365	PCC Dwarf Wall	1028-2		
45	LF	1,850	PCC Thickened Edge Sidewalk	1029-2		
46	SF	81,200	PCC Sidewalk & Walkway, 4" Thick	1030-2		

Item No.	Units	Approx. Quantity	Item Description	Payment Reference	Unit-Price (In Figures)	Item Total (In Figures)
47	SF	45940	PCC Driveway Approach, 4" Thick	1031-2		
48	SF	3300	AC Driveway Approach Tie-in	1032-2		
49	SF	4300	PMB Driveway Approach Tie-in	1033-2		
50	SF	530	Colored Concrete Driveway Tie-in	1034-3		
51	SF	500	Colored Stamped Concrete Driveway Tie-in	1035-3		
52	SF	405	Paver Driveway Approach Tie-in	1036-3		
53	SF	904	Brick Driveway Approach Tie-in	1037-3		
54	EA	20	Reinforced Concrete Steps	1038-2		
55	EA	3	Reinforced Concrete Steps with Hand Railing	1039-2		
56	EA	1	PCC Ramp (300 to 399 SF, 2 ADA Pads)	1040-2		
57	EA	1	PCC Ramp (500 to 599 SF, 2 ADA Pads)	1040-2		
58	EA	1	PCC Ramp (600 to 699 SF, 2 ADA Pads)	1040-2		
59	EA	1	PCC Ramp (700 to 799 SF, 2 ADA Pads)	1040-2		
60	EA	1	PCC Ramp (800 to 899 SF, 2 ADA Pads)	1040-2		
61	EA	1	PCC Ramp (900 to 999 SF, 2 ADA Pads)	1040-2		
62	EA	1	PCC Ramp (1000 to 1099 SF, 2 ADA Pads)	1040-2		
63	EA	1	PCC Ramp (100 to 199 SF, 1 ADA Pad)	1040-2		
64	EA	1	PCC Ramp (400 to 499 SF, 1 ADA Pad)	1040-2		
65	EA	1	PCC Ramp (600 to 699 SF, 1 ADA Pad)	1040-2		
66	EA	1	PCC Ramp (700 to 799 SF, 1 ADA Pad)	1040-2		
67	EA	1	PCC Ramp (1200 to 1299 SF, 1 ADA Pad)	1040-2		
68	EA	1	PCC Ramp (500 to 599 SF, 3 ADA Pads)	1040-2		
69	EA	1	Truncated Domes ADA Tile, 3' x 4'	1041-2		

Item No.	Units	Approx. Quantity	Item Description	Payment Reference	Unit-Price (In Figures)	Item Total (In Figures)
70	LF	157	PCC Cross Gutter, 6'-Wide	1042-2		
71	LF	110	Retaining Wall Type 6A, (H=3'-4")	1043-2		
72	LF	5,522	Infiltration Trench	1044-2		
73	SF	19,900	AC Pavement Micro-milling	1045-2		
74	TN	50	AC Pavement Leveling Course	1047-2		
75	TN	4,360	AC Pavement Widening & Repair, 6" Thick	1048-5		
76	TN	25	AC Miscellaneous Paving	1049-4		
77	SY	50,530	Type II Emulsion-Aggregate Slurry	1050-11		
78	SF	9,575	Ladder Type Crosswalk	1051-2		
79	LS	1	Pavement Delineation, Striping & Signs	1052-5		
80	EA	20	Temporary Cluster Box Unit Mailbox, in place	1053-2		
81	EA	20	Cluster Box Unit Mailbox Relocation, in place	1054-2		
82	EA	14	Roadside Mailbox, in place	1055-2		
83	EA	13	Rectangular Rapid Flashing Beacon (RRFB), in place	1056-5		
84	EA	4	RRFB Relocation, in place	1057-2		
85	EA	10	Traffic Signal Loop Detector Replacement	1058-2		
86	EA	5	Manhole Frame & Cover Adjustment	1059-2		
87	EA	12	Sewer Cleanout Cover Adjustment	1060-2		
			Total Amount Bid			

Bid Table is shown here for informational purposes.

Bid Table shall be filled out by Bidders using the Bonfire website. Bidders will access the Schedule of Work and Prices on the Bonfire website and input their Unit Prices.

SIGNATURE SHEET

Name: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone Number: (_____)_____-_____

Email Address: _____

I make this proposal and certify or declare under penalty of perjury under the laws of the State of California that:

- The statements and attestations made and associated with this Proposal, and below my signature, are true and correct.
- The bidder has read the Bid documents and has abided by and agrees to the conditions herein and has carefully examined the project plans and read the specifications and does hereby propose to furnish all materials and do all the work required to complete the work in accordance with the plans and specifications for the unit prices or lump sums named in the Bid Table.
- The bidder, as Principal, acknowledges himself as being bound by the attached bond or other acceptable bid guarantee.

Dated: _____ At: _____
(City and State)

Signature: _____

Printed Name: _____

Position: _____
(Sole Owner, Partner, President, etc.)

Company Name: _____ Type of Organization: _____
(Individual, Partnership, Corp.)

License No.: _____ License Classification: _____

License Expiration Date: _____

DIR Registration Number: _____

BID BOND

Enter }
Name & }
Address }
of Bonding }
Company }

KNOW ALL MEN BY THESE PRESENTS: That we _____

_____, Principal,

and _____

_____, Surety, are held and firmly bound
unto

COUNTY OF VENTURA Obligee,
in the sum of Ten Percent of the total amount of the Bid for the payment of which we bind ourselves,
our legal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has submitted or is about to submit a bid or proposal to Obligee on a contract for
EL RIO PEDESTRIAN IMPROVEMENTS

NOW, THEREFORE, if that contract be awarded to principal and principal shall, within such time as specified, duly execute the contract in the prescribed form and deliver the same to obligee with all required bonds/performance securities, certificates of insurance and such other items as required in the bidding or contract documents then this obligation shall be null and void; otherwise to remain in full force and effect, and if the contract is awarded to principal and principal fails, within the time specified, to duly execute the contract in the prescribed form and deliver the same to obligee with all said required items, then surety shall pay obligee the full sum of this bond.

Surety, for value received, hereby agrees that no extension of time, change, alteration, modification, or addition to the bidding or contract documents, or of the work required thereunder, shall release or exonerate surety on this bond or in any way affect the obligation of this bond; and surety does hereby waive notice of same.

Signed, sealed and dated

(Principal)

by _____ (Seal)

(Surety)

by _____
Attorney-in-Fact

INDICATE COMPLETE ADDRESS OF SURETY TO WHICH
CORRESPONDENCE CONCERNING THIS BOND SHOULD BE
DIRECTED.

Telephone No. _____

Form PW-B-1

PREVAILING RATES OF WAGES

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY**

PREVAILING RATES OF WAGES

As provided in Subsection 7-2.2 of these specifications, and in accordance with Section 1770 (*Amended by Stats. 2017, Ch. 28, Sec. 17. (SB 96) Effective June 27, 2017*), et. seq. of the California Labor Code, determinations of the generally prevailing wages for various classes of workers in Ventura County have been made by the California Director of Industrial Relations as required by the California Labor Code.

As required by California Labor Code Section 1777.5, properly indentured apprentices shall be employed on the work in the minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification. Travel and subsistence shall be paid in accordance with California Labor Code Section 1773.8.

The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. The stipulations shall fix the responsibility of compliance with this section for all apprenticeable occupations with the prime contractor.

The determinations made by the State are available on the Internet at <http://www.dir.ca.gov/DLSR/PWD/Index.htm>

and are on file in the office of the Public Works Agency

The rate fixed for each craft, classification, or type of work shall be not less than the prevailing rate paid in the craft, classification, or type of work.

The Contractor shall post a copy of the wage rates at each jobsite at a location readily available to the workers.

**EXCERPTS FROM CALIFORNIA
LABOR CODE**

Excerpts from the California Labor Code

These excerpts from the Labor Code include the sections listed in specification Section 7.2.2.2 that are required by Labor Code 1775(b)(1) to be included in all subcontracts. These excerpts also include sections recommended by the CA Department of Industrial Relations that contain information on the contractor registration requirements. These sections are furnished for the convenience of the contractor and in no way limit the required compliance with all laws.

1725.5. A contractor shall be registered pursuant to this section to be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code or engage in the performance of any public work contract that is subject to the requirements of this chapter. For the purposes of this section, "contractor" includes a subcontractor as defined by Section 1722.1.

(a) To qualify for registration under this section, a contractor shall do all of the following:

(1) (A) Register with the Department of Industrial Relations in the manner prescribed by the department and pay an initial nonrefundable application fee of four hundred dollars (\$400) to qualify for registration under this section and an annual renewal fee on or before July 1 of each year thereafter. The annual renewal fee shall be in a uniform amount set by the Director of Industrial Relations, and the initial registration and renewal fees may be adjusted no more than annually by the director to support the costs specified in Section 1771.3.

(B) Beginning June 1, 2019, a contractor may register or renew according to this subdivision in annual increments up to three years from the date of registration. Contractors who wish to do so will be required to prepay the applicable nonrefundable application or renewal fees to qualify for the number of years for which they wish to preregister.

(2) Provide evidence, disclosures, or releases as are necessary to establish all of the following:

(A) Workers' compensation coverage that meets the requirements of Division 4 (commencing with Section 3200) and includes sufficient coverage for any worker whom the contractor employs to perform work that is subject to prevailing wage requirements other than a contractor who is separately registered under this section. Coverage may be evidenced by a current and valid certificate of workers' compensation insurance or certification of self-insurance required under Section 7125 of the Business and Professions Code.

(B) If applicable, the contractor is licensed in accordance with Chapter 9 (commencing with Section 7000) of the Business and Professions Code.

(C) The contractor does not have any delinquent liability to an employee or the state for any assessment of back wages or related damages, interest, fines, or penalties pursuant to any final judgment, order, or determination by a court or any federal, state, or local administrative agency, including a confirmed arbitration award. However, for purposes of this paragraph, the contractor shall not be disqualified for any judgment, order, or determination that is under appeal, provided that the contractor has secured the payment of any amount eventually found due through a bond or other appropriate means.

(D) The contractor is not currently debarred under Section 1777.1 or under any other federal or state law providing for the debarment of contractors from public works.

(E) The contractor has not bid on a public works contract, been listed in a bid proposal, or engaged in the performance of a contract for public works without being lawfully registered in accordance with this section, within the preceding 12 months or since the effective date of the requirements set forth in subdivision (e), whichever is earlier. If a contractor is found to be in violation of the requirements of this paragraph, the period of disqualification shall be waived if both of the following are true:

(i) The contractor has not previously been found to be in violation of the requirements of this paragraph within the preceding 12 months.

(ii) The contractor pays an additional nonrefundable penalty registration fee of two thousand dollars (\$2,000).

(b) Fees received pursuant to this section shall be deposited in the State Public Works Enforcement Fund established by Section 1771.3 and shall be used only for the purposes specified in that section.

(c) A contractor who fails to pay the renewal fee required under paragraph (1) of subdivision (a) on or before the expiration of any prior period of registration shall be prohibited from bidding on or engaging in the performance of any contract for public work until once again registered pursuant to this section. If the failure to pay the renewal fee was inadvertent, the contractor may renew its registration retroactively by paying an additional nonrefundable penalty renewal fee equal to the amount of the renewal fee within 90 days of the due date of the renewal fee.

(d) If, after a body awarding a contract accepts the contractor's bid or awards the contract, the work covered by the bid or contract is determined to be a public work to which Section 1771 applies, either as the result of a determination by the director pursuant to Section 1773.5 or a court decision, the requirements of this section shall not apply, subject to the following requirements:

(1) The body that awarded the contract failed, in the bid specification or in the contract documents, to identify as a public work that portion of the work that the determination or decision subsequently classifies as a public work.

(2) Within 20 days following service of notice on the awarding body of a determination by the Director of Industrial Relations pursuant to Section 1773.5 or a decision by a court that the contract was for public work as defined in this chapter, the contractor and any subcontractors are registered under this section or are replaced by a contractor or subcontractors who are registered under this section.

(3) The requirements of this section shall apply prospectively only to any subsequent bid, bid proposal, contract, or work performed after the awarding body is served with notice of the determination or decision referred to in paragraph (2).

(e) The requirements of this section shall apply to any bid proposal submitted on or after March 1, 2015, to any contract for public work, as defined in this chapter, executed on or after April 1, 2015, and to any work performed under a contract for public work on or after January 1, 2018, regardless of when the contract for public work was executed.

(f) This section does not apply to work performed on a public works project of twenty-five thousand dollars (\$25,000) or less when the project is for construction, alteration, demolition, installation, or repair work or to work performed on a public works project of fifteen thousand dollars (\$15,000) or less when the project is for maintenance work.

(Amended by Stats. 2017, Ch. 28, Sec. 15. (SB 96) Effective June 27, 2017.)

1771. Except for public works projects of one thousand dollars (\$1,000) or less, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in this chapter, shall be paid to all workers employed on public works.

This section is applicable only to work performed under contract, and is not applicable to work carried out by a public agency with its own forces. This section is applicable to contracts let for maintenance work.

(Amended by Stats. 1981, Ch. 449, Sec. 1.)

1771.1. (a) A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

(b) Notice of the requirement described in subdivision (a) shall be included in all bid invitations and public works contracts, and a bid shall not be accepted nor any contract or subcontract entered into without proof of the contractor or subcontractor's current registration to perform public work pursuant to Section 1725.5.

(c) An inadvertent error in listing a subcontractor who is not registered pursuant to Section 1725.5 in a bid proposal shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive, provided that any of the following apply:

(1) The subcontractor is registered prior to the bid opening.

(2) Within 24 hours after the bid opening, the subcontractor is registered and has paid the penalty registration fee specified in subparagraph (E) of paragraph (2) of subdivision (a) of Section 1725.5.

(3) The subcontractor is replaced by another registered subcontractor pursuant to Section 4107 of the Public Contract Code.

(d) Failure by a subcontractor to be registered to perform public work as required by subdivision

(a) shall be grounds under Section 4107 of the Public Contract Code for the contractor, with the consent of the awarding authority, to substitute a subcontractor who is registered to perform public work pursuant to Section 1725.5 in place of the unregistered subcontractor.

(e) The department shall maintain on its Internet Web site a list of contractors who are currently registered to perform public work pursuant to Section 1725.5.

(f) A contract entered into with any contractor or subcontractor in violation of subdivision (a) shall be subject to cancellation, provided that a contract for public work shall not be unlawful, void, or voidable solely due to the failure of the awarding body, contractor, or any subcontractor to comply with the requirements of Section 1725.5 or this section.

(g) If the Labor Commissioner or his or her designee determines that a contractor or subcontractor engaged in the performance of any public work contract without having been registered in accordance with this section, the contractor or subcontractor shall forfeit, as a civil penalty to the state, one hundred dollars (\$100) for each day of work performed in violation of the registration requirement, not to exceed an aggregate penalty of eight thousand dollars (\$8,000) in addition to any penalty registration fee assessed pursuant to clause (ii) of subparagraph (E) of paragraph (2) of subdivision (a) of Section 1725.5.

(h) (1) In addition to, or in lieu of, any other penalty or sanction authorized pursuant to this chapter, a higher tiered public works contractor or subcontractor who is found to have entered into a subcontract with an unregistered lower tier subcontractor to perform any public work in violation of the requirements of Section 1725.5 or this section shall be subject to forfeiture, as a civil penalty to the state, of one hundred dollars (\$100) for each day the unregistered lower tier subcontractor performs work in violation of the registration requirement, not to exceed an aggregate penalty of ten thousand dollars (\$10,000).

(2) The Labor Commissioner shall use the same standards specified in subparagraph (A) of paragraph (2) of subdivision (a) of Section 1775 when determining the severity of the violation and what penalty to assess, and may waive the penalty for a first time violation that was unintentional and did not hinder the Labor Commissioner's ability to monitor and enforce compliance with the requirements of this chapter.

(3) A higher tiered public works contractor or subcontractor shall not be liable for penalties assessed pursuant to paragraph (1) if the lower tier subcontractor's performance is in violation of the requirements of Section 1725.5 due to the revocation of a previously approved registration.

(4) A subcontractor shall not be liable for any penalties assessed against a higher tiered public works contractor or subcontractor pursuant to paragraph (1). A higher tiered public works contractor or subcontractor may not require a lower tiered subcontractor to indemnify or otherwise be liable for any penalties pursuant to paragraph (1).

(i) The Labor Commissioner or his or her designee shall issue a civil wage and penalty assessment, in accordance with the provisions of Section 1741, upon determination of penalties pursuant to subdivision (g) and subparagraph (B) of paragraph (1) of subdivision (h). Review of a civil wage and penalty assessment issued under this subdivision may be requested in accordance with the provisions of Section 1742. The regulations of the Director of Industrial Relations, which govern proceedings for review of civil wage and penalty assessments and the withholding of contract payments under Article 1 (commencing with Section 1720) and Article 2 (commencing with Section 1770), shall apply.

(j) (1) Where a contractor or subcontractor engages in the performance of any public work contract without having been registered in violation of the requirements of Section 1725.5 or this section, the Labor Commissioner shall issue and serve a stop order prohibiting the use of the unregistered contractor or the unregistered subcontractor on all public works until the unregistered contractor or unregistered subcontractor is registered. The stop order shall not apply to work by registered contractors or subcontractors on the public work.

(2) A stop order may be personally served upon the contractor or subcontractor by either of the following methods:

(A) Manual delivery of the order to the contractor or subcontractor personally.

(B) Leaving signed copies of the order with the person who is apparently in charge at the site of the public work and by thereafter mailing copies of the order by first class mail, postage prepaid to the contractor or subcontractor at the address on file with either of the following:

(i) The Contractors' State License Board.

(ii) The Secretary of State.

(3) The stop order shall be effective immediately upon service and shall be subject to appeal by the party contracting with the unregistered contractor or subcontractor, by the unregistered contractor or subcontractor, or both. The appeal, hearing, and any further review of the hearing decision shall be governed by the procedures, time limits, and other requirements specified in subdivision (a) of Section 238.1.

(k) Failure of a contractor or subcontractor, owner, director, officer, or managing agent of the contractor or subcontractor to observe a stop order issued and served upon him or her pursuant to subdivision (j) is guilty of a misdemeanor punishable by imprisonment in county jail not exceeding 60 days or by a fine not exceeding ten thousand dollars (\$10,000), or both.

(l) This section shall apply to any bid proposal submitted on or after March 1, 2015, and any contract for public work entered into on or after April 1, 2015. This section shall also apply to the performance of any public work, as defined in this chapter, on or after January 1, 2018, regardless of when the contract for public work was entered.

(m) Penalties received pursuant to this section shall be deposited in the State Public Works Enforcement Fund established by Section 1771.3 and shall be used only for the purposes specified in that section.

(n) This section shall not apply to work performed on a public works project of twenty-five thousand dollars (\$25,000) or less when the project is for construction, alteration, demolition, installation, or repair work or to work performed on a public works project of fifteen thousand dollars (\$15,000) or less when the project is for maintenance work.

(Amended by Stats. 2018, Ch. 455, Sec. 2. (SB 877) Effective September 17, 2018.)

1775. (a) (1) The contractor and any subcontractor under the contractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit not more than two hundred dollars (\$200) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rates as determined by the director for the work or craft in which the worker is employed for any public work done under the contract by the contractor or, except as provided in subdivision (b), by any subcontractor under the contractor.

(2) (A) The amount of the penalty shall be determined by the Labor Commissioner based on consideration of both of the following:

(i) Whether the failure of the contractor or subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of the contractor or subcontractor.

(ii) Whether the contractor or subcontractor has a prior record of failing to meet its prevailing wage obligations.

(B) (i) The penalty may not be less than forty dollars (\$40) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, unless the failure of the contractor or subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of the contractor or subcontractor.

(ii) The penalty may not be less than eighty dollars (\$80) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, if the contractor or subcontractor has been assessed penalties within the previous three years for failing to meet its prevailing wage obligations on a separate contract, unless those penalties were subsequently withdrawn or overturned.

(iii) The penalty may not be less than one hundred twenty dollars (\$120) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, if the Labor Commissioner determines that the violation was willful, as defined in subdivision (c) of Section 1777.1.

(C) If the amount due under this section is collected from the contractor or subcontractor, any outstanding wage claim under Chapter 1 (commencing with Section 1720) of Part 7 of Division 2 against that contractor or subcontractor shall be satisfied before applying that amount to the penalty imposed on that contractor or subcontractor pursuant to this section.

(D) The determination of the Labor Commissioner as to the amount of the penalty shall be reviewable only for abuse of discretion.

(E) The difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the contractor or subcontractor, and the body awarding the contract shall cause to be inserted in the contract a stipulation that this section will be complied with.

(b) If a worker employed by a subcontractor on a public works project is not paid the general prevailing rate of per diem wages by the subcontractor, the prime contractor of the project is not liable for any penalties under subdivision (a) unless the prime contractor had knowledge of that failure of the subcontractor to pay the specified prevailing rate of wages to those workers or unless the prime contractor fails to comply with all of the following requirements:

(1) The contract executed between the contractor and the subcontractor for the performance of work on the public works project shall include a copy of the provisions of this section and Sections **1771, 1776, 1777.5, 1813, and 1815**.

(2) The contractor shall monitor the payment of the specified general prevailing rate of per diem wages by the subcontractor to the employees, by periodic review of the certified payroll records of the subcontractor.

(3) Upon becoming aware of the failure of the subcontractor to pay his or her workers the specified prevailing rate of wages, the contractor shall diligently take corrective action to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the subcontractor for work performed on the public works project.

(4) Prior to making final payment to the subcontractor for work performed on the public works project, the contractor shall obtain an affidavit signed under penalty of perjury from the subcontractor that the subcontractor has paid the specified general prevailing rate of per diem wages to his or her employees on the public works project and any amounts due pursuant to Section 1813.

(c) The Division of Labor Standards Enforcement shall notify the contractor on a public works project within 15 days of the receipt by the Division of Labor Standards Enforcement of a complaint of the failure of a subcontractor on that public works project to pay workers the general prevailing rate of per diem wages.

(Amended by Stats. 2011, Ch. 677, Sec. 1. (AB 551) Effective January 1, 2012.)

1776 (a) Each contractor and subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

(1) The information contained in the payroll record is true and correct.

(2) The employer has complied with the requirements of Sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project.

(b) The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the contractor on the following basis:

(1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.

(2) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract and the Division of Labor Standards Enforcement of the Department of Industrial Relations.

(3) A certified copy of all payroll records enumerated in subdivision (a) shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through either the body awarding the contract or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the contractor, subcontractors, and the entity through which the request was made. The public may not be given access to the records at the principal office of the contractor.

(C) Unless required to be furnished directly to the Labor Commissioner in accordance with paragraph (3) of subdivision (a) of Section 1771.4, the certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the division. The payroll records may consist of printouts of payroll data that are maintained as computer records, if the printouts contain the same information as the forms provided by the division and the printouts are verified in the manner specified in subdivision (a).

(d) A contractor or subcontractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested the records within 10 days after receipt of a written request.

(e) Except as provided in subdivision (f), any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body or the Division of Labor Standards Enforcement shall be marked or obliterated to prevent disclosure of an individual's name, address, and social security number. The name and address of the contractor awarded the contract or the subcontractor performing the contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a multiemployer Taft-Hartley trust fund (29 U.S.C. Sec. 186(c)(5)) that requests the records for the purposes of allocating contributions to participants shall be marked or obliterated only to prevent disclosure of an individual's full social security number, but shall provide the last four digits of the social security number. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (29 U.S.C. Sec. 175a) shall be marked or obliterated only to prevent disclosure of an individual's social security number.

(f) (1) Notwithstanding any other provision of law, agencies that are included in the Joint Enforcement Strike Force on the Underground Economy established pursuant to Section 329 of the Unemployment Insurance Code and other law enforcement agencies investigating violations of law shall, upon request, be provided nonredacted copies of certified payroll records. Any copies of records or certified payroll made available for inspection and furnished upon request to the public by an agency included in the Joint Enforcement Strike Force on the Underground Economy or to a law enforcement agency investigating a violation of law shall be marked or redacted to prevent disclosure of an individual's name, address, and social security number.

(2) An employer shall not be liable for damages in a civil action for any reasonable act or omission taken in good faith in compliance with this subdivision.

(g) The contractor shall inform the body awarding the contract of the location of the records enumerated under subdivision (a), including the street address, city, and county, and shall, within five working days, provide a notice of a change of location and address.

(h) The contractor or subcontractor has 10 days in which to comply, subsequent to receipt of a written notice requesting the records enumerated in subdivision (a). In the event that the contractor or subcontractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit one hundred dollars (\$100) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. A contractor is not subject to a penalty assessment pursuant to this section due to the failure of a subcontractor to comply with this section.

(i) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section.

(j) The director shall adopt rules consistent with the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code) and the Information Practices Act of 1977 (Title 1.8 (commencing with Section 1798) of Part 4 of Division 3 of the Civil Code) governing the release of these records, including the establishment of reasonable fees to be charged for reproducing copies of records required by this section.
(Amended by Stats. 2014, Ch. 28, Sec. 71. (SB 854) Effective June 20, 2014.)

1777.5. (a) (1) This chapter does not prevent the employment upon public works of properly registered apprentices who are active participants in an approved apprenticeship program.

(2) For purposes of this chapter, "apprenticeship program" means a program under the jurisdiction of the California Apprenticeship Council established pursuant to Section 3070.

(b) (1) Every apprentice employed upon public works shall be paid the prevailing rate of per diem wages for apprentices in the trade to which he or she is registered and shall be employed only at the work of the craft or trade to which he or she is registered.

(2) Unless otherwise provided by a collective bargaining agreement, when a contractor requests the dispatch of an apprentice pursuant to this section to perform work on a public works project and requires the apprentice to fill out an application or undergo testing, training, an examination, or other preemployment process as a condition of employment, the apprentice shall be paid for the time spent on the required preemployment activity, including travel time to and from the required activity, if any, at the prevailing rate of per diem wages for apprentices in the trade to which he or she is registered. Unless otherwise provided by a collective bargaining agreement, a contractor is not required to compensate an apprentice for the time spent on preemployment activities if the apprentice is required to take a preemployment drug or alcohol test and he or she fails to pass that test.

(c) Only apprentices, as defined in Section 3077, who are in training under apprenticeship standards that have been approved by the Chief of the Division of Apprenticeship Standards and who are parties to written apprentice agreements under Chapter 4 (commencing with Section 3070) of Division 3 are eligible to be employed at the apprentice wage rate on public works. The employment and training of each apprentice shall be in accordance with either of the following:

(1) The apprenticeship standards and apprentice agreements under which he or she is training.

(2) The rules and regulations of the California Apprenticeship Council.

(d) If the contractor to whom the contract is awarded by the state or any political subdivision, in performing any of the work under the contract, employs workers in any apprenticeable craft or trade, the contractor shall employ apprentices in at least the ratio set forth in this section and may apply to any apprenticeship program in the craft or trade that can provide apprentices to the site of the public work for a certificate approving the contractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, the decision of the apprenticeship program to approve or deny a certificate shall be subject to review by the Administrator of Apprenticeship. The apprenticeship program or programs, upon approving the contractor, shall arrange for the dispatch of apprentices to the contractor. A contractor covered by an apprenticeship program's standards shall not be required to submit any additional application in order to include additional public works contracts under that program. "Apprenticeable craft or trade," as used in this section, means a craft or trade determined as an apprenticeable occupation in accordance with rules and regulations prescribed by the California Apprenticeship Council. As used in this section, "contractor" includes any subcontractor under a contractor who performs any public works not excluded by subdivision (o).

(e) Before commencing work on a contract for public works, every contractor shall submit contract award information to an applicable apprenticeship program that can supply apprentices to the site of the public work. The information submitted shall include an estimate of journeyman hours to be performed under the contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to the awarding body, if requested by the awarding body. Within 60 days after concluding work on the contract, each contractor and subcontractor shall submit to the awarding body, if requested, and to the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the contract. The information under this subdivision shall be public. The apprenticeship programs shall retain this information for 12 months.

(f) The apprenticeship program supplying apprentices to the area of the site of the public work shall ensure equal employment and affirmative action in apprenticeship for women and minorities.

(g) The ratio of work performed by apprentices to journeymen employed in a particular craft or trade on the public work may be no higher than the ratio stipulated in the apprenticeship standards under which the apprenticeship program operates if the contractor agrees to be bound by those standards. However, except as otherwise provided in this section, in no case shall the ratio be less than one hour of apprentice work for every five hours of journeyman work.

(h) This ratio of apprentice work to journeyman work shall apply during any day or portion of a day when any journeyman is employed at the jobsite and shall be computed on the basis of the hours worked during the day by journeymen so employed. Any work performed by a journeyman in excess of eight hours per day or 40 hours per week shall not be used to calculate the ratio. The contractor shall employ apprentices for the number of hours computed as above before the end of the contract or, in the case of a subcontractor, before the end of the subcontract. However, the contractor shall endeavor, to the greatest extent possible, to employ apprentices during the same time period that the journeymen in the same craft or trade are employed at the jobsite. When an hourly apprenticeship ratio is not feasible for a particular craft or trade, the Administrator of Apprenticeship, upon application of an apprenticeship program, may order a minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification.

(i) A contractor covered by this section who has agreed to be covered by an apprenticeship program's standards upon the issuance of the approval certificate, or who has been previously approved for an apprenticeship program in the craft or trade, shall employ the number of apprentices or the ratio of apprentices to journeymen stipulated in the applicable apprenticeship standards, but in no event less than the 1-to-5 ratio required by subdivision (g).

(j) Upon proper showing by a contractor that he or she employs apprentices in a particular craft or trade in the state on all of his or her contracts on an annual average of not less than one hour of apprentice work for every five hours of labor performed by journeymen, the Administrator of Apprenticeship may grant a certificate exempting the contractor from the 1-to-5 hourly ratio, as set forth in this section for that craft or trade.

(k) An apprenticeship program has the discretion to grant to a participating contractor or contractor association a certificate, which shall be subject to the approval of the Administrator of Apprenticeship, exempting the contractor from the 1-to-5 ratio set forth in this section when it finds that any one of the following conditions is met:

(1) Unemployment for the previous three-month period in the area exceeds an average of 15 percent.

(2) The number of apprentices in training in the area exceeds a ratio of 1 to 5.

(3) There is a showing that the apprenticeable craft or trade is replacing at least one-thirtieth of its journeymen annually through apprenticeship training, either on a statewide basis or on a local basis.

(4) Assignment of an apprentice to any work performed under a public works contract would create a condition that would jeopardize his or her life or the life, safety, or property of fellow employees or the public at large, or the specific task to which the apprentice is to be assigned is of a nature that training cannot be provided by a journeyman.

(l) If an exemption is granted pursuant to subdivision (k) to an organization that represents contractors in a specific trade from the 1-to-5 ratio on a local or statewide basis, the member contractors shall not be required to submit individual applications for approval to local joint apprenticeship committees, if they are already covered by the local apprenticeship standards.

(m) (1) A contractor to whom a contract is awarded, who, in performing any of the work under the contract, employs journeymen or apprentices in any apprenticeable craft or trade shall contribute to the California Apprenticeship Council the same amount that the director determines is the prevailing amount of apprenticeship training contributions in the area of the public works site. A contractor may take as a credit for payments to the council any amounts paid by the contractor to an approved apprenticeship program that can supply apprentices to the site of the public works project. The contractor may add the amount of the contributions in computing his or her bid for the contract.

(2) (A) At the conclusion of the 2002–03 fiscal year, and each fiscal year thereafter, the California Apprenticeship Council shall distribute training contributions received by the council under this subdivision, less the expenses of the Department of Industrial Relations for administering this subdivision, by making grants to approved apprenticeship programs for the purpose of training apprentices. The grant funds shall be distributed as follows:

(i) If there is an approved multiemployer apprenticeship program serving the same craft or trade and geographic area for which the training contributions were made to the council, a grant to that program shall be made.

(ii) If there are two or more approved multiemployer apprenticeship programs serving the same craft or trade and county for which the training contributions were made to the council, the grant shall be divided among those programs based on the number of apprentices from that county registered in each program.

(iii) All training contributions not distributed under clauses (i) and (ii) shall be used to defray the future expenses of the Department of Industrial Relations for the administration and enforcement of apprenticeship standards and requirements under this code.

(B) An apprenticeship program shall only be eligible to receive grant funds pursuant to this subdivision if the apprenticeship program agrees, prior to the receipt of any grant funds, to keep adequate records that document the expenditure of grant funds and to make all records available to the Department of Industrial Relations so that the Department of Industrial Relations is able to verify that grant funds were used solely for training apprentices. For purposes of this subparagraph, adequate records include, but are not limited to, invoices, receipts, and canceled checks that account for the expenditure of grant funds. This subparagraph shall not be deemed to require an apprenticeship program to provide the Department of Industrial Relations with more documentation than is necessary to verify the appropriate expenditure of grant funds made pursuant to this subdivision.

(C) The Department of Industrial Relations shall verify that grants made pursuant to this subdivision are used solely to fund training apprentices. If an apprenticeship program is unable to demonstrate how grant funds are expended or if an apprenticeship program is found to be using grant funds for purposes other than training apprentices, then the apprenticeship program shall not be eligible to receive any future grant pursuant to this subdivision and the Department of Industrial Relations may initiate the process to rescind the registration of the apprenticeship program.

(3) All training contributions received pursuant to this subdivision shall be deposited in the Apprenticeship Training Contribution Fund, which is hereby created in the State Treasury. Upon appropriation by the Legislature, all moneys in the Apprenticeship Training Contribution Fund shall be used for the purpose of carrying out this subdivision and to pay the expenses of the Department of Industrial Relations.

(n) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. The stipulations shall fix the responsibility of compliance with this section for all apprenticeable occupations with the prime contractor.

(o) This section does not apply to contracts of general contractors or to contracts of specialty contractors not bidding for work through a general or prime contractor when the contracts of general contractors or those specialty contractors involve less than thirty thousand dollars (\$30,000).

(p) An awarding body that implements an approved labor compliance program in accordance with subdivision (b) of Section 1771.5 may, with the approval of the director, assist in the enforcement of this section under the terms and conditions prescribed by the director. *(Amended by Stats. 2018, Ch. 704, Sec. 17. (AB 235) Effective September 22, 2018.)*

1813. The contractor or subcontractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars (\$25) for each worker employed in the execution of the contract by the respective contractor or subcontractor for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of this article. In awarding any contract for public work, the awarding body shall cause to be inserted in the contract a stipulation to this effect. The awarding body shall take cognizance of all violations of this article committed in the course of the execution of the contract, and shall report them to the Division of Labor Standards Enforcement.

(Amended (as added by Stats. 1997, Ch. 757, Sec. 6) by Stats. 2002, Ch. 28, Sec. 3. Effective January 1, 2003.)

1815. Notwithstanding the provisions of Sections 1810 to 1814, inclusive, of this code, and notwithstanding any stipulation inserted in any contract pursuant to the requirements of said sections, work performed by employees of contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon public work upon compensation for all hours worked in excess of 8 hours per day at not less than 1¹/₂ times the basic rate of pay.

(Amended by Stats. 1963, Ch. 964.)

PUBLIC CONTRACT CODE 9204

EXCERPTS FROM PUBLIC CONTRACT CODE 9204

EFFECTIVE DATE JANUARY 1, 2017

Please note section 9204 of the Public Contract Code, set forth in full below. Contractor must follow the contractual dispute resolution process specified in the Ventura County Standard Specifications, which is consistent with section 9204.

* * *

(a) The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.

(b) Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3, this section shall apply to any claim by a contractor in connection with a public works project.

(c) For purposes of this section:

(1) "Claim" means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:

(A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.

(B) Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.

(C) Payment of an amount that is disputed by the public entity.

(2) "Contractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.

(3)(A) "Public entity" means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.

(B) "Public entity" shall not include the following:

(i) The Department of Water Resources as to any project under the jurisdiction of that department.

(ii) The Department of Transportation as to any project under the jurisdiction of that department.

- (iii) The Department of Parks and Recreation as to any project under the jurisdiction of that department.
- (iv) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.
- (v) The Military Department as to any project under the jurisdiction of that department.
- (vi) The Department of General Services as to all other projects.
- (vii) The High-Speed Rail Authority.

(4) "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.

(5) "Subcontractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

(d)(1)(A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.

(B) The claimant shall furnish reasonable documentation to support the claim.

(C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.

(D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2)(A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.

(B) Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public

entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

(C) For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

(D) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

(E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

(3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

(4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

(5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

(e) The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.

(f) A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a

public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

(g) This section applies to contracts entered into on or after January 1, 2017.

(h) Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

(i) This section shall remain in effect only until January 1, 2027, and as of that date is repealed, unless a later enacted statute that is enacted before January 1, 2027, deletes or extends that date.

**NON-DISCRIMINATION
ASSURANCES**

Non-Discrimination Assurances

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, age, sex, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitation for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor’s obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, national origin, age, sex, or disability.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the FHWA to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
 1. withholding payments to the contractor under the contract until the contractor complies; and/or
 2. cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

**VENTURA COUNTY
STANDARD SPECIFICATIONS
(VCSS)**

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**COUNTY OF VENTURA
PUBLIC WORKS AGENCY
STANDARD SPECIFICATIONS**

PART 1 - GENERAL PROVISIONS

SECTION 0 - SPWC ADOPTION AND MODIFICATIONS

0-1 STANDARD SPECIFICATIONS.

Except as hereinafter provided or as modified by the Special Provisions, the provisions of Parts 2 through 8 of the 2018 edition of the Standard Specifications for Public Works Construction (referred to as SSPWC), published by BNi Building News, Los Angeles, are part of these Standard Specifications.

0-2 DELETIONS.

The following portions of SSPWC are hereby deleted: Part 1

0-3 NUMBERING OF SECTIONS.

The numbering in these modifications is compatible with the numbering in SSPWC. Standard Special Provisions, if included, are numbered as Sections 901 through 999. The Special Provisions are numbered starting with Section 1000 or higher.

Cross-references contained in SSPWC to sections deleted by 0-2 hereof shall be references to the sections of like number contained herein.

0-4 ADDITIONS.

The sections that follow either replace sections of like number in SSPWC which were deleted in 0-2 above, modify sections of SSPWC, or add material not in SSPWC.

SECTION 1 - GENERAL, TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE AND SYMBOLS

1-1 GENERAL.

Unless otherwise stated, the words directed, required, permitted, ordered, instructed, designated, considered necessary, prescribed, approved, acceptable, satisfactory, or words of like meaning, refer to actions, expressions, and prerogatives of the Engineer.

1-2 TERMS AND DEFINITIONS.

Acceptance--The formal written acceptance by the Agency of the Work which has been completed in all respects in accordance with the Plans and Specifications and any Modifications thereof. Acceptance by the Agency will occur when the Engineer signs the Notice of Completion.

Addendum--Written or graphic instrument issued prior to the opening of Bids which clarifies, corrects or changes the bidding or Contract Documents. The term "Addendum" shall include bulletins and all other types of written notices issued to potential bidders prior to opening of Bids.

Agency--The legal entity for which the Work is being performed.

Agreement--See Contract.

Assessment Act Contract – A Contract financed by special assessments authorized under a State Act or procedural ordinance of a City or County.

Base--A layer of specified material of planned thickness placed immediately below the pavement or surfacing.

Bid--The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work.

Bidder--Any individual, firm, partnership, corporation, or combination thereof, submitting a Bid for the Work, acting directly or through a duly authorized representative.

Board--The officer or body constituting the awarding authority of the Agency.

Bond--Bid, performance and payment bond or other instrument of security.

Caltrans--The State of California Department of Transportation

Cash Contract--A contract financed by means other than special assessments.

Certificate of Compliance--A written document signed and submitted by a supplier or manufacturer that certifies that the material or assembled material supplied to the Work site conforms to the requirements of the Contract Documents.

Change Order--A written order to the Contractor signed by the Agency directing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract time issued after the effective date of the Contract. A Change Order may or may not also be signed by the Contractor.

Code--The terms Government Code, Labor Code, etc. refer to codes of the State of California.

Consultant--A professional engineer, architect, landscape architect or other professional who designed the project or performed other services for the Agency on the project.

Contract--The written agreement between the Agency and the Contractor covering the Work.

Contract Documents--The Contract, Addenda, notice inviting bids, instruction to bidders; Bid (including documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Contract, the Bonds, permits from jurisdictional regulatory agencies, Special Provisions, Plans, Standard Plans,

Standard Specifications, Reference Specifications, Change Orders and Supplemental Agreements.

Contractor--The individual, partnership, corporation, joint venture, or other legal entity having a Contract with the Agency to perform the Work. In the case of work being done under permit issued by the Agency, the Permittee shall be construed to be the Contractor. The term "prime contractor" shall mean Contractor.

Contract Price--The total amount of money for which the Contract is awarded.

Contract Unit Price--The amount shown in the Bid for a single unit of an item of work.

County Sealer--The Sealer of Weights and Measures of the county in which the Contract is let.

Days--Days shall mean consecutive calendar days unless otherwise specified.

Daily Extra Work Reports--Reports on Agency furnished forms as required by 7-4.4.

Disputed Work--Work in which Agency and Contractor are in disagreement.

Due Notice--A written notification, given in due time, of a proposed action where such notification is required by the Contract to be given a specified interval of time (usually 48 hours or two Working Days) prior to the commencement of the contemplated action. Notification may be from Engineer to Contractor or from Contractor to Engineer.

Electrolier--Street light assembly complete, including foundation, standard, luminaire arm, luminaire, etc.

Extra Work--New or unforeseen work not covered by a Contract Unit Price or Stipulated Unit Price.

Engineer--The Director of Public Works Agency acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.

Field Directive--A written communication from the Engineer to the Contractor that does not make any Modification to the Contract Documents. It is used only to answer Contractor's questions and to provide decisions as specified in the Contract Documents.

Geotextile--Synthetic fiber used in civil engineering applications, serving the primary function of separation and filtration.

House Connection Sewer--A sewer, within a public street or right of way, proposed to connect any parcel, lot, or part of a lot with a main line sewer.

House Sewer--A sewer, wholly within private property, proposed to connect any building to a house connection sewer.

Luminaire--The lamp housing including the optical and socket assemblies (and ballast if so specified).

Major Bid Item--A single Contract item constituting 10% or more of the original Contract Price.

Mast Arm--The structural member or bracket, which, when mounted on a Standard, supports the luminaire.

Modification--Includes Change Orders and Supplemental Agreements. A Modification may only be issued after the effective date of the Contract.

Notice of Award--The written notice by the Agency to the successful Bidder stating that upon compliance by it with the required conditions, the Agency will execute the Contract.

Notice to Proceed--A written notice given by the Agency to the Contractor fixing the date on which the Contract time will start.

Operation, Maintenance, and Warranty Instructions-- Documents published by manufacturers of pre-manufactured products describing operation, maintenance and any other actions that must be performed by the Agency as a condition for the manufacturer to honor the specified warranty.

Owner--Same meaning as Agency.

Person--Any individual, firm, association, partnership, corporation, trust, joint venture, or other legal entity.

Plans--The drawings, profiles, cross sections, Standard Plans, working drawings, shop drawings, and supplemental drawings, or reproductions thereof, approved by the Engineer, which show the location, character, dimensions, or details of the Work.

Private Contract--Work subject to Agency inspection, control, and approval, involving private funds, not administered by the Agency.

Proposal--See Bid.

Reference Specifications--The latest edition, including amendments, in effect as of the date of advertisement of the Contract or issuing the permit, unless otherwise specified, of:

- a. bulletins,
- b. standards,
- c. rules,
- d. methods of analysis or testing,
- e. codes,
- f. specifications of other agencies, engineering societies, or industrial associations referred to in the Contract Documents.

Roadway--The portion of a street reserved for vehicular use.

Service Connection--All or any portion of the conduit cable or duct including meter, between a utility distribution line and an individual consumer.

Service Lateral Connection--The interface of the House Connection Sewer with the host pipe.

Sewer--Any conduit intended for the reception and transfer of sewage and fluid industrial waste.

Shop Drawings--Drawings showing details of manufactured or assembled products proposed to be incorporated in the Work.

Special Provisions--Any provisions which supplement or modify the Standard Specifications.

Specifications--Standard Specifications, Reference Specifications, Standard Special Provisions, Special Provisions, and specifications in Change Orders or Supplemental Agreements between the Contractor and the Board.

Standard--The shaft or pole used to support street lighting luminaire, traffic signal heads, mast arms, etc.

Standard Plans--Details of standard structures, devices, or instructions referred to on the Plans or in the Specifications by title or number.

Standard Specifications--Parts 1 through 8 of this document. See Section 0. References to whole sections will be preceded by the word "Section", references to parts of sections will show numbers only, such as "3-2", except at the beginning of a sentence, the word "Section" precedes the number.

State--The State of California.

State Standard Plans--Standard Plans prepared by State of California, Business and Transportation Agency, Department of Transportation.

Stipulated Unit Price--Unit prices established by Agency in the Contract Documents.

Storm Drain--Any conduit and appurtenances intended for the reception and transfer of storm water.

Street--Any road, highway, parkway, freeway, alley, walk or way.

Subbase--A layer of specified material of planned thickness between a base and the subgrade.

Subcontractor--An individual, firm or corporation having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the Work.

Subgrade--For roadways, that portion of the roadbed on which pavement, surfacing, base, subbase, or a layer of other material is placed. For structures, the soil prepared to support a structure.

Supervision—Supervision, where used to indicate supervision by the Engineer, shall mean the performance of obligations, and the exercise of rights, specifically imposed upon and granted to the Agency in becoming a party to the Contract. Except as specifically stated herein, supervision by the Agency shall not mean active and direct superintendence of details of the Work.

Supplemental Agreement--A written amendment of the Contract Documents signed by both parties.

Surety--Any individual, firm, or corporation, bound with and for the Contractor for the acceptable performance, execution, and completion of the Work, and for the satisfaction of all obligations incurred.

Utility--Tracks, overhead or underground wires, pipelines, conduits, ducts, or structures, sewers or storm drains owned, operated or maintained in or across a public right of way or private easement.

Work--That which is proposed to be constructed or done under the Contract or permit, including the furnishing of all labor, materials, equipment, and services.

Working Day--See 6-3.2.3 and 6-3.2.3.1.

Working Drawings--Drawings showing details not shown on the Plans which are required to designed by the Contractor.

1-3 ABBREVIATIONS.

1-3.1 General.

The abbreviations herein, together with others in general use, are applicable to these Standard Specifications and to all other Contract Documents.

All abbreviations and symbols used on Plans for structural steel construction shall conform to those given by the "Manual of Steel Construction" published by the American Institute of Steel Construction, Inc.

1-3.2 Common Usage.

Abbreviation Word or Words

ABS.....	Acrylonitrile-Butadiene-Styrene
AC.....	Alternating Current
ADA	Americans with Disabilities Act of 1990 (Public Law 101-336, 104 Sat. 1990, 42 USC 12101-12213 (as amended))
APC.....	Air Placed Concrete
ARHM	Asphalt Rubber Hot Mix
ARAM.....	Asphalt Rubber and Aggregate Membrane
AWG	American Wire Gauge
BMPs	Best Management Practices
BR.....	Butadiene Rubber

BWG	Birmingham Wire Gauge
CAB.....	Crushed Aggregate Base
CAPA	Corrugated Aluminum Pipe Arch
CAP.....	Corrugated Aluminum Pipe
CBR	California Bearing Ratio
CCFRPM.....	Centrifugally Cast Fiberglass Reinforced Plastic Mortar
CCR	California Code of Regulations
CCTV	Closed Circuit Television
CHDPE	Corrugated High Density Polyethylene
CIP	Cast Iron Pipe
CIPCP	Cast-In-Place Non-Reinforced Concrete Pipe
CIPP.....	Cured-In-Place Pipe
CLSM	Controlled Low Strength Material
CMB	Crushed Miscellaneous Base
CMP	Corrugated Metal Pipe
CQS	Cationic Quick-Setting
CRM.....	Crumb Rubber Modifier
CRS	Cationic Rapid-Setting
CRUMAC	Crumb Rubber Modified Asphalt Concrete
CSEP	Confined Space Entry Plan
CSPA	Corrugated Steel Pipe Arch
CSPB	Cement Stabilized Pulverized Base
CSP.....	Corrugated Steel Pipe
CSS.....	Cationic Slow-Setting
CTB.....	Cement Treated Base
CTM	California Test Method
CT	California Test
CWA.....	Constant Wattage Attenuator
CW	Constant Wattage
DC.....	Direct Current
DIP	Ductile Iron Pipe
EAS.....	Emulsion-Aggregate Slurry
EPDM.....	Ethylene-Propylene Diene Monomer
EPM.....	Ethylene-Propylene Monomer
FRPM.....	Fiberglass Reinforced Polymer Mortar
GG	Gap-Graded
HC.....	House Connection
HDPE	High Density Polyethylene
HPS.....	High Pressure Sodium
HRWRA	High Range Water Reducing Admixture
IIPP	Injury and Illness Prevention Program
IPS	Iron Pipe Size
JMF	Job Mix Formula
LCB	Lean Concrete Base
LED	Light Emitting Diode
LSPB.....	Lime Stabilized Pulverized Base
LS.....	Lump Sum
MAC	Modified Asphalt Cement
MC	Medium Curing
Min	Minimum

MTBM	Microtunneling Tunnel Boring Machine
MUTCD	Manual on Uniform Traffic Control Devices
N/A	Not Applicable
NBR	Nitrile-Butadiene Rubber
NEC	National Electric Code
NPDES	National Pollutant Discharge Elimination System
NRCP	Non-Reinforced Concrete Pipe
OBC	Optimum Binder Content
OD	Outside Diameter
PAM	Pneumatically Applied Mortar
PAV	Pressure Aging Vessel
PBM	Pulverized Base Material
PCC	Portland Cement Concrete
PE	Polyethylene
PG	Performance Graded
PLI	Pounds Per Linear Inch
PMB	Processed Miscellaneous Base
PME	Polymer Modified Emulsion
PM	Polymer Modified
PRCB	Precast Reinforced Concrete Box
PTFE	Polytetrafluoroethylene
PVC	Polyvinyl Chloride
RC	Rapid Curing
R	Resistance Value
RA	Reclaimed Aggregates
RAP	Reclaimed Asphalt Pavement
RCP	Reinforced Concrete Pipe
REAS	Rubberized Emulsion-Aggregate Slurry
RMS	Root Mean Square
RPPCC	Reclaimed Plastic Portland Cement Concrete
RTFO	Rolling Thin Film Oven
RW	Reclaimed Water
S	Hveem Stability
SAPPA	Structural Aluminum Plate Pipe Arch
SAPP	Structural Aluminum Plate Pipe
SBR	Styrene-Butadiene Rubber
SC	Slow Curing
SCMs	Supplementary Cementitious Materials
SDR	Standard Dimension Ratio
SDS	Safety Data Sheet
SE	Sand Equivalent
SG	Specific Gravity
SI	International System of Units (Metric)
SLC	Service Lateral Connection
SPA	Special Performance Admixture
SS	Slow-Setting
SSPPA	Structural Steel Plate Pipe Arch
SSPP	Structural Steel Plate Pipe
SWPPP	Storm Water Pollution Prevention Plan

TCP	Traffic Control Plan
THN.....	Thermoplastic, High Heat, Nylon-Coated
THWN	Thermoplastic, Heat and Water Resistant, Nylon-Coated
THW	Thermoplastic, Heat and Water Resistant
TRMAC	Tire Rubber Modified Asphalt Concrete
TR	Tire Rubber
TTC	Temporary Traffic Control
TW	Thermoplastic, Water Resistant
U.S.C.	United States Code
U.S.	United States
UV	Ultraviolet
VCP.....	Vitrified Clay Pipe
VTCSH.....	Vehicle Traffic Controls Signal Head
WATCH.....	Work Area Traffic Control Handbook
WMA	Warm Mix Asphalt
WTAT	Wet Track Abrasion Test
X.....	By

1-3.3 Institutions.

Abbreviation	Word or Words
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
AREA	American Railway Engineering Association
ASME	American Society of Mechanical Engineers
ASQ	American Society for Quality
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers Association
AWS	American Welding Society
AWWA	American Water Works Association
EEI	Edison Electric Institute
EIA	Electronic Industries Alliance
EPA	Environmental Protection Agency
ETL	Electrical Testing Laboratories
FCC	Federal Communications Commission
FHWA	Federal Highway Administration
GRI	Geosynthetic Research Institute
IEEE	Institute of Electrical and Electronics Engineers
IMSA	International Municipal Signal Association
ISSA.	International Slurry Surfacing Association
ITE	Institute of Transportation Engineers
NCHRP	National Cooperative Highway Research Program
NEMA	National Electrical Manufacturers Association
NSF	NSF International
OSHA	Occupational Safety and Health Administration
PPI	Plastics Pipe Institute

RUS	Rural Utilities Service
SAE	Society of Automotive Engineers
SSPC	Society for Protective Coatings
UL	Underwriters' Laboratories Inc.

1-3.4 Building Codes.

The Ventura County Building Code (VCBC) and Ventura County Fire Code (VCFC) are applicable to the Work. VCBC and VCFC adopt by reference a number of uniform and national codes. Where such codes are referenced directly in the Specifications, such references shall be to the VCBC or VCFC which adopt and modify certain provisions in the referenced codes.

<u>Abbreviation</u>	<u>Code</u>	<u>Publisher</u>
CBC	California Building Code	CBSC
CEC	California Energy Code	ICC
CEBC	California Existing Building Code	ICC
CALGreen	California Green Building Standards Code	ICC
CRC	California Residential Code	ICC
DBC	Uniform Code for Abatement of Dangerous Buildings	ICC
IBC	International Building Code	ICC
IFC	International Fire Code	ICC
UHC	Uniform Housing Code	ICBO
UMC	Uniform Mechanical Code	IAPMO
UPC	Uniform Plumbing Code	IAPMO
NEC	National Electrical Code	NFPA

1-3.5 Reference Documents.

<u>Abbreviation</u>	<u>Document</u>
HDM	Highway Design Manual, State of CA, Dept. of Transportation, Latest Edition
MUTCD	Manual on Uniform Traffic Control Devices
SSP	Standard Plans, State of California, Department of Transportation, Latest Edition
SPPWC	Standard Plans for Public Works Construction, Latest edition, published by BNi Building News, Los Angeles,
SPPWC	Standard Specifications for Public Works Construction, (See Section 0-1)
SSS	Standard Specifications, State of California, Department of Transportation, Latest Edition
VCSS	Ventura County Standard Specifications

1-4 UNITS OF MEASURE.

1-4.1 General.

The U.S. Standard Measures, also referred to as the U.S. Customary System, is the principal measurement system in these Specifications and shall be used for construction unless otherwise specified in the Special Provisions. The International System of Units, also referred to as SI or the metric system, is included in parenthesis. U.S. Standard Measures units may or may not be exactly equivalent to the SI units in parenthesis. If SI is specified for use in the Contract Documents, then all values used for construction shall be the SI units shown in parenthesis. Certain material specifications and test requirements contained herein use SI units specifically and U.S. Standard Measures have not been included in those circumstances.

Reference is also made to ASTM E380 for definitions of various units of the SI system and a more extensive set of conversion factors.

1-4.1.1 Units for Work.

Where U. S. Standard Measure units are shown on the Plans or are specified, U. S. Standard Measure shall be used for the Work.

1-4.2 Units of Measure and Their Abbreviations.

U.S. Customary Unit (Abbreviations)	Equal To	SI Unit (Abbreviations)
1 mil (= 0.001 inch)		25.4 micrometer (μm)
1 inch		25.4 millimeter (mm)
1 inch		2.54 centimeter (cm)
1 foot (ft).....		0.3048 meter (m)
1 yard (yd).....		0.9144 meter (m)
1 mile (mi)		1.6093 kilometer (km)
1 square foot (ft^2)		0.0929 square meter (m^2)
1 square yard (yd^2).....		0.8361 square meter (m^2)
1 cubic foot (ft^3).....		0.0283 cubic meter (m^3)
1 cubic yard (yd^3)		0.7646 cubic meter (m^3)
1 acre		0.4047 hectare (ha)
1 U.S. gallon (gal)		3.7854 liter (L)
1 fluid ounce (fl. oz).....		29.5735 milliliter (mL)
1 pound mass (lb) (avoirdupois).....		0.4536 kilogram (kg)
1 ounce mass (oz)		0.02835 kilogram (kg)
1 Ton (= 2000 lb avoirdupois)		0.9072 tonne (= 907 kg)
1 Poise.....		0.1 pascal · second ($\text{Pa} \cdot \text{s}$)
1 centistoke (cs).....		1 square millimeters per second (mm^2/s)
1 pound force (lbf).....		4.4482 Newton (N)
1 pound per square inch (psi)		6.8948 kilopascal (kPa)
1 pound force per foot (lbf/ft).....		1.4594 Newton per meter (N/m)
1 foot-pound force (ft-lbf).....		1.3558 joules (J)
1 foot-pound force per second (ft-lbf).....		1.3558 watt (W)
1 part per million (ppm)		1 milligram/liter (mg/L)

Temperature Units and Abbreviations

Degree Fahrenheit (°F):

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$

Degree Celsius (°C):

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32)/1.8$$

SI Units (abbreviation) Commonly Used in Both Systems

1 Ampere (A)

1 Volt (V)

1 Candela (cd)

1 Lumen (lm)

1 second (s)

Common Metric Prefixes

kilo (k)..... 10^3

centi (c) 10^{-2}

milli (m)..... 10^{-3}

micro (μ)..... 10^{-6}

nano (n)..... 10^{-9}

pico (p)..... 10^{-12}

1-5 SYMBOLS.

%.....Percent

'Feet or minutes

"Inches or seconds

¹.....Number

/.....per or (between words)

°.....Degree

xTimes

1-6 BIDDING AND SUBMISSION OF THE BID.

1-6.1 General.

Bidding and submission of the Bid shall conform to the requirements specified in the Special Provisions, Instructions to Bidders, and Notice Inviting Bids.

1-6.2 Subcontractor Listing.

Each Bidder shall comply with Division 2, Chapter 4 of the Public Contract Code including Sections 4100 through 4113.

The Bidder shall set forth in the Bid, as provided in 4104:

- "a) (1) The name, the location of the place of business, and the California contractor license number and public works contractor registration number issued pursuant to Section 1725.5 of the Labor Code of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of

the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater."

"(2) An inadvertent error in listing the California contractor license number provided pursuant to paragraph (1) shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected contractor's license number is submitted to the public entity by the prime contractor within 24 hours after the bid opening and provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor."

"(3) (A) Subject to subparagraph (B), any information requested by the officer, department, board, or commission concerning any subcontractor who the prime contractor is required to list under this subdivision, other than the subcontractor's name, location of business, the California contractor license number, and the public works contractor registration number, may be submitted by the prime contractor up to 24 hours after the deadline established by the officer, department, board, or commission for the receipt of bids by prime contractors."

"(B) A state or local agency may implement subparagraph (A) at its option."

"b) The portion of the work which will be done by each such subcontractor under this act. The prime contractor shall list only one subcontractor for each such portion as is defined by the prime contractor in his or her bid."

If the Contractor fails to specify a Subcontractor, or specifies more than one Subcontractor for the same portion of the Work to be performed under the Contract (in excess of one-half of 1 percent of the Contractor's total bid), the Contractor shall be qualified to perform that portion itself, and shall perform that portion itself except as otherwise provided in the Code.

Except as provided in Section 4107, no prime contractor, whose Bid is accepted, shall substitute any person or Subcontractor in place of the Subcontractor listed in the original bid other than for causes and by procedures established in Section 4107.5 which provides procedures to correct a clerical error in the listing of a Subcontractor.

Section 4110 provides that a Contractor violating any of the provisions of the Chapter violates the Contract and the Board may exercise the option either to cancel the Contract or assess the Contractor a penalty in an amount of not more than 10 percent of the subcontract involved, after a public hearing.

1-7 AWARD AND EXECUTION OF THE CONTRACT.

1-7.1 General.

Award and execution of the Contract shall be as specified in the Special Provisions, Instruction to Bidders, or Notice Inviting Bids.

1-7.2 Contract Bonds.

Before execution of the Contract by the Agency, the Contractor shall file surety bonds with the Agency to be approved by the Board in the amounts and for the purposes noted below. Bonds issued by a Surety who is listed in the latest version of 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 Agency. Bonds from all other sureties shall be accompanied by all of the documents enumerated in 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 Bidder shall provide two good and sufficient surety bonds. The "Payment Bond" (Material and Labor Bond) shall be for not less than 100 percent of the Contract Price, to satisfy claims of material suppliers and mechanics and laborers employed by it on the Work. The bond shall be maintained by the Contractor in full force and effect until the Work is accepted by the Agency, and until all claims for materials and labor are paid, and shall otherwise comply with the Civil Code.

The "Performance Bond" shall be for 100 percent of the Contract Price to guaranty faithful performance of all Work, within the time prescribed, in a manner satisfactory to the Agency, and that all materials and workmanship will be free from original or developed defects. The bond must remain in effect until the end of the warranty period set forth in 3-14.2.

Should any bond become insufficient, the Contractor shall renew the bond within 10 Days after receiving notice from the Agency.

Should any Surety at any time be unsatisfactory to the Board, notice will be given the Contractor to that effect. No further payments shall be deemed due or will be made under the Contract until a new Surety shall qualify and be accepted by the Board.

Changes in the Work, or extensions of time, made pursuant to the Contract, shall in no way release the Contractor or Surety from its obligations. Notice of such changes or extensions shall be waived by the Surety.

1-7.2.1 Bond Forms.

Bonds shall be on forms furnished by Agency.

1-7.3 Award of Contract.

The right is reserved to waive minor irregularities in the proposals and to reject any or all proposals. The award of the Contract, if it be awarded, will be to the lowest responsive, responsible Bidder, determined as provided on the Proposal Form, whose Proposal complies with all the requirements prescribed. Such award, if made, will be made within the number of Days stated in the Proposal form. If the lowest responsible Bidder refuses or fails to execute the Contract, the Agency may, within 45 additional Days, consider the next lowest Bidder to be the lowest responsive, responsible Bidder. The periods of time specified above within which the award of Contract may be made shall be subject to extension for such further period as may be agreed upon in writing by the Bidder concerned. If the Bidder's bid guarantee was in the form of a bid bond, the Bidder shall also submit a statement from the Surety that the bond has been extended for the same period.

Proposals not accompanied by a properly executed Noncollusion Affidavit required by Public Contract Code Section 7106 will be considered nonresponsive and will not be considered for award.

All bids will be compared on the basis of the quantities, amounts and unit prices, or lump sums, as shown on the Bid Proposal.

Before award, the Bidder may be required to furnish acceptable evidence of adequate capability, equipment and financial resources to adequately perform the Work. Bidders found not to be so qualified may have their bids rejected. If reasonable cause exists to believe collusion exists among Bidders, or that prices Bid are unbalanced between Bid items, any or all proposals may be rejected.

Award will not be made to a Bidder who is listed by the State Labor Commissioner as ineligible to bid, work on, or be awarded public works projects.

1-7.4 Notice of Award.

Within one Day after award of Contract by the Board, the Bidder to whom Contract is awarded will be notified of award by email and telephone, or if no contact is made by telephone, then by mail. Within three business days after award of Contract, a Notice of Award will be sent, transmitting the Contract Documents to such Bidder for execution. If telephone contact is made, the Bidder may request that the Contract Documents be held in Agency's office to be picked up.

1-7.5 Execution of Contract Documents.

On receipt of the Contract Documents, the Bidder shall promptly obtain the required insurance coverage, certificates of insurance, power-of-attorney and Contract bonds, execute the Contract, and transmit all required documents to the Agency (in the forms included in the appendices hereto).

1-7.6 Failure to Execute Documents.

Should the Bidder fail to furnish Agency all required documents, properly executed, prior to the starting day of the Contract time computed as provided in 6-3.2.1 and stated in the Notice of Award, Agency may thereafter declare the Bidder to be in default and its Proposal guarantee forfeited.

1-7.7 Return of Proposal Guarantees.

Within 10 Days after the award of the Contract, Agency will return the Proposal guarantees, other than Bidder's bonds, accompanying such of the proposals as are not to be further considered in making the award. The low and second Bidder's Proposal guarantee will be held until the Contract has been executed, after which all Proposal guarantees, except Bidders' bonds and any guarantees which have been forfeited, will be returned to the respective Bidders whose proposals they accompany.

SECTION 2 - SCOPE OF THE WORK

2-1 WORK TO BE DONE.

The Contractor shall perform all work necessary to complete the Contract in accordance with the Contract Documents. Unless otherwise specified, the Contractor shall furnish all materials, equipment, tools, labor, and incidentals necessary to complete the Work.

All work under the Contract shall be performed in accordance with the highest standards prevailing in the trades unless otherwise specified on the Plans or in the Special Provisions. Unless otherwise specified, it is the intent that the Contractor will construct a complete facility ready for use.

2-1.1 Manufacturer's Recommendations.

Where the manufacturer of any materials or equipment provides written recommendations or instructions for its use or method of installation (including labels, tags, manuals, or trade literature), such recommendations or instructions shall be complied with except where the Contract Documents specifically require deviations.

2-1.2 Testing of Installed Components.

Where the specifications provide that any component of the Work is to be tested, calibrated or adjusted during or after installation, such testing shall be performed by a qualified firm, approved by the Engineer. The firm performing the testing or calibration shall be employed by and paid for by the Contractor.

2-1.3 Training of Agency Personnel.

Where the specifications provide for training of Agency personnel in the use or maintenance of any component of the Work, the Contractor shall arrange for and pay for competent personnel to perform the training. Contractor shall schedule the training with the Engineer.

2-2 PERMITS.

The Agency will obtain, at no cost to the Contractor, all permits necessary to perform the Work in streets, highways, railways or other rights-of-way. The Contractor shall obtain and pay for all costs incurred for permits necessitated by its operations such as, but not limited to, those permits required for night work, overload, blasting, and demolition. The Contractor shall pay all business taxes or license fees that are required for the Work.

2-2.1 Highway and Railroad Permits.

The Engineer will obtain the basic State highway and railroad encroachment permits which will include checking of plans. However, the Contractor must also obtain permits from these agencies. Inspection fees charged by these agencies must be paid by the Contractor.

2-2.2 Grading Ordinance.

2-2.2.1 General.

All excavation, filling and grading operations in Ventura County are governed by the Ventura County Grading Ordinance or City Ordinances, except within the project right of way shown on the Plans.

2-2.2.2 Permits Required.

Work outside the project right of way which involves excavation or filling of soils is subject to all requirements of the applicable grading ordinance. The requirements may include, but are not limited to, submitting of a grading plan prepared by a Civil Engineer, obtaining a grading permit, paying the permit fee, posting a grading bond, hiring professionals for engineering and testing services, compacting fills, constructing drainage facilities and providing erosion protection.

2-2.2.3 Imported and Exported Material.

To insure that neither the Agency nor the Contractor is a party to aiding or abetting any property owner (who is ultimately responsible) to violate the applicable grading ordinance, no material shall be imported from or exported or wasted outside the project right of way until the Contractor has furnished the Engineer a copy of the grading permit covering such operation on land where material is to be deposited or excavated, unless exempt.

2-2.2.4 Exemptions from Permit.

No grading permit is required of the Contractor for Work performed within the project right of way shown on the Plans or on borrow or disposal areas shown on the Plans or described in the Special Provisions and which are specifically designated as being exempt from such permit requirements.

2-2.3 Building Permit.

2-2.3.1 Agency Furnished Permits.

Except as provided in 2-2.3.2, Agency will submit the plans for the Work to Department of Building and Safety, and other building related permit issuing agencies, for plan check and make the corrections necessary for the issuance of building and related permits. Agency will Pay plan check and permit fees for the Work. The Contractor may be required to furnish information to the permit issuing agencies, as required for the issuance of permits, and sign the permit.

2-2.3.2 Contractor Furnished Permits.

Components or systems, required by the Contract, may require the preparation of plans and calculations to obtain approvals or permits from state or local building, fire prevention, public health, safety, environmental protection and other agencies in addition to the basic permits arranged for by the Agency as provided in 2-2.3.1. Contractor shall take all actions in a timely manner to obtain such approvals or permits so as not to delay completion of the Work beyond the time provided in 6-3. Contractor shall include all costs and consider the time required to obtain approvals or permits in the Contract price bid.

2-2.4 Coastal Zone Permits.

2-2.4.1 Agency Furnished Permits.

Permits required for Work on the project within rights of way furnished by the Agency within the Coastal Zone will be obtained by the Agency.

2-2.4.2 Contractor Furnished Permits.

Permits required for the Contractor's operations outside of rights of way furnished by the Agency must be obtained by the Contractor. Such permits are required for brush removal, grading, dredging, disposal of material and many other operations within the Coastal Zone.

2-3 RIGHT-OF-WAY.

Rights-of-way, easements, or rights-of-entry for the Work will be provided by the Agency. Unless otherwise specified, the Contractor shall make arrangements, pay for, and assume all responsibility for acquiring, using, and disposing of additional work areas and facilities temporarily required. The Contractor shall indemnify and hold the Agency harmless from all claims for damages caused by such actions.

2-4 COOPERATION AND COLLATERAL WORK.

The Contractor shall be responsible for ascertaining the nature and extent of any simultaneous, collateral, and essential work by others. The Agency, its workers and contractors and others, shall have the right to operate within or adjacent to the Work site during the performance of such work.

The Agency, the Contractor, and each of such workers, contractors and others, shall coordinate their operations and cooperate to minimize interference.

The Contractor shall include in its Bid all costs involved as a result of coordinating its work with others. The Contractor will not be entitled to additional compensation from the Agency for damages resulting from such simultaneous, collateral, and essential work. If necessary to avoid or minimize such damage or delay, the Contractor shall redeploy its work force to other parts of the Work.

Should the Contractor be delayed by the Agency, and such delay could not have been reasonably foreseen or prevented by the Contractor, the Engineer will determine the extent of the delay, the effect on the Work, and any extension of time.

2-5 THE CONTRACTOR'S EQUIPMENT AND FACILITIES.

2-5.1 General.

The Contractor shall furnish and maintain in good condition all equipment and facilities as required for the proper execution and inspection of the Work.

The Contractor shall provide and maintain enclosed toilets for the use of employees engaged in the Work. These accommodations shall be maintained in a neat and sanitary condition, and regularly pumped out.

The Contractor and any and all subcontractors shall at all times have valid Certificates of Reported Compliance as described in California Code of Regulations, title 13, ("13 CCR") section 2449(n) for fleets of vehicles subject to 13 CCR section 2449 which may be used in performance of the contract. No such vehicle is permitted onsite unless and until Contractor provides County with a valid Certificate of Reported compliance therefor.

2-5.2 Temporary Utility Services.

The Contractor shall, at its own expense, make all arrangements necessary for the provision of temporary utility services necessary for its own use during performance of the Work.

The Contractor shall not draw water from any fire hydrant (except to extinguish a fire), without obtaining permission from the water utility owner.

2-5.3 Crushing and Screening Operations.

Unless otherwise specified in the Special Provisions, the establishment and operation of portable screens and crushers will not be allowed on or adjacent to the Work site.

2-5.4 Haul Routes.

Unless otherwise specified in the Special Provisions, the haul route(s) shall be determined by the Contractor.

2-6 CHANGES REQUESTED BY THE CONTRACTOR.

2-6.1 General.

Changes in specified methods of construction may be made at the Contractor's request when approved in writing by the Engineer. 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 Agency, may be granted by the Board to facilitate the Work, when approved in writing by the Engineer. Nothing herein shall be construed as granting a right to the Contractor to demand acceptance of such changes.

2-7 CHANGES INITIATED BY THE AGENCY.

2-7.1 General.

The Agency may change the Plans, Specifications, character of the Work, or quantity of work, provided the total arithmetic dollar value of all such changes, both additive and deductive, does not exceed 25 percent of the Contract Price. Should it become necessary to exceed this limitation, the change shall be by written Supplemental Agreement between the Contractor and Agency, unless both parties agree to proceed with the change by Change Order.

Change orders shall be in writing and state the dollar value of the change or establish method of payment, any adjustment in Contract time, and, when negotiated prices are involved, shall provide for the Contractor's signature indicating its acceptance.

2-8 EXTRA WORK.

New or unforeseen work will be classed as "Extra Work" when the Engineer determines that it is not covered by Contract Unit Prices or Stipulated Unit Prices.

2-9 CHANGED CONDITIONS.

The Contractor shall notify the Engineer in writing of the following work site conditions, hereinafter called changed conditions, promptly upon their discovery and before they are disturbed:

- 1) Subsurface or latent physical conditions differing materially from those represented in the Contract;
- 2) Unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character being performed; and
- 3) Material differing from that represented in the Contract which the Contractor believes may be hazardous waste, as defined in Section 25117 of the Health and Safety Code that is required to be removed to a Class I, Class II or Class III disposal site in accordance with provisions of existing law.

The Engineer will promptly investigate conditions which appear to be changed conditions. If the Engineer determines that the conditions are changed conditions and that they will materially increase or decrease the costs of any portion of the Work, a Change Order will be issued adjusting the compensation for such portion of the Work in accordance with 2-7. VCI If the Engineer determines that conditions are changed conditions and that they will materially affect

the performance time, the Contractor, upon submitting a written request, will be granted an extension of time subject to the provisions of 6-4.

If the Engineer determines that the conditions of which it has been notified by the Contractor do not justify an adjustment in compensation, the Contractor will be so notified in writing. This notice will also advise the Contractor of its obligation to notify the Engineer, in writing, if the Contractor disagrees.

Should the Contractor disagree with such determination, it may submit a written notice of potential claim to the Engineer before commencing the disputed work. In the event of such a disagreement, the Contractor shall not be excused on account of that disagreement from any scheduled completion date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. However, the Contractor shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties. The Contractor shall proceed as provided in 3-4.

The Contractor's failure to give notice of changed conditions promptly upon their discovery and before they are disturbed shall constitute a waiver of all claims in connection therewith.

2-10 DISPUTED WORK.

If the Contractor and the Agency are unable to reach agreement on disputed work, the Agency may direct the Contractor to proceed with the Work. Payment shall be as later determined by mediation or arbitration, if the Agency and the 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 keep and furnish records of disputed work in accordance with 7-4.

SECTION 3 - CONTROL OF THE WORK

3-1 ASSIGNMENT.

No Contract or portion thereof may be assigned without consent of the Board except that the Contractor may assign money due or which will accrue to it under the Contract. If given written notice, such assignment will be recognized by the Board to the extent permitted by law, but any assignment of money shall be subject to all proper withholdings in favor of the Agency and to all deductions provided for in the Contract. All money withheld, whether assigned or not, shall be subject to being used by the Agency for completion of the Work, should the Contractor be in default.

3-2 SELF- PERFORMANCE.

Except where the required Contractor's License Class is "B", the Contractor shall perform, with its own organization, Contract work amounting to at least 50 percent of the Contract Price except that any designated "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the Contract Price before computing the amount required to be performed by the Contractor with its own organization. "Specialty Items" will be identified by the Agency in the Bid or Proposal with an "[S]". Where an entire item is subcontracted, the value of work subcontracted will be based on the Contract Unit Price. When a portion of an item is subcontracted, the value of work subcontracted will be based on the estimated percentage of the Contract Unit Price. This will be determined from information submitted by the Contractor, and subject to approval by the Engineer.

3-3 SUBCONTRACTORS.

The Contractor shall give personal attention to the fulfillment of the Contract. The Contractor shall keep the Work under its control. Subcontractors shall be considered employees of the Contractor, and the Contractor shall be responsible for their work.

In addition to the requirements of 1-6.2, before the work of any Subcontractor is started, the Contractor shall submit to the Engineer for approval a written statement listing the name, contractor license number, registration with the Department of Industrial Relations, and business address of each Subcontractor and a description and value of each portion of the Work to be so subcontracted.

3-3.1 Use of Debarred Subcontractors Prohibited.

The Contractor is prohibited from performing work using a Subcontractor who is listed by the State Labor Commissioner as ineligible to work on public works projects.

3-3.2 Subcontracts.

The Contractor shall incorporate into all subcontracts, and the Subcontractor shall incorporate into all lower tier subcontracts, all of the Plans and Specifications which are part of the Contract between the Contractor and the Agency.

3-3.3 Contractor Responsible.

The Contractor is responsible for properly performing and completing all Work required by the Contract whether or not it employs subcontractors for certain portions of the Work. It shall coordinate the sequence and timing of its efforts and that of its subcontractors to insure the proper and timely completion of the Work.

3-3.4 Specialty Contractors.

Where a specialty Contractor's license is required by law or by the Specifications in order to perform certain portions of the Work, the Contractor may perform such portion with its own forces if it holds the proper license. Otherwise, it shall employ a properly licensed subcontractor to perform that portion of the Work. Such requirement to employ a subcontractor does not modify the other requirements of 3-3.

3-4 AUTHORITY OF BOARD AND ENGINEER.

3-4.1 General.

The Board has complete authority in all matters affecting the Work. Within the scope of the Contract, the Engineer has the authority to enforce compliance with the Plans and Specifications. The contractor shall promptly comply with instructions from the Engineer or its authorized representative.

On all questions relating to quantities, the acceptability of material, equipment, or work, the execution, progress or sequence of work, and the interpretation of Specifications or drawings, the decision of the Engineer is final and binding, and shall be precedent to any payment under the Contract, unless otherwise ordered by the Board.

3-4.1.1 Decisions in Writing.

Any and all decisions of the Engineer interpreting Specifications or drawings shall be in writing. Any purported "interpretation" which is not in writing shall not be binding upon the Agency and should not be relied upon by the Contractor.

3-4.2 Engineer.

The Director of the Public Works Agency of the County of Ventura is the Engineer and has general authority to administer the Contract. The Engineer has the following specific authority:

- (a) To issue Contract Change Orders (CCO) and to settle claims subsequent to Acceptance as follows:

<u>Original Contract Amount</u>	<u>Maximum Amount of any Change Order or Claim</u>
<u>Settlement</u>	
\$50,000 or less.....	\$5,000
greater than \$50,000	
and not over \$250,000	10% of the original Contract amount
greater than \$250,000	
and not over \$3,950,000	\$25,000 plus 5% of the original Contract cost in excess of \$250,000.
greater than \$3,950,000.....	\$210,000
CCOs and claim settlements exceeding the amounts set forth above require Board approval.	

- (b) To make final adjustments of quantities (FAQ) on unit price items.
- (c) To accept the Work when the Contractor has completed all obligations of the Contract, in accordance with the Plans, Specifications and other Contract Documents. The Engineer also has authority to make and record the Notice of Completion.
- (d) To approve progress and final payments under the Contract, including the provisions for withholding funds.
- (e) To determine whether performance on the Work is satisfactory. Satisfactory performance includes compliance with all contract requirements.
- (f) To approve the substitution of a Subcontractor, where allowed by law, if the listed Subcontractor does not object when notified.
- (g) To suspend the Work for the benefit of the Agency.
- (h) In the absence of the Agency Director, a Public Works Agency Department Director, as Deputy Director of Public Works, may exercise the Engineer's authority. Such action will be indicated by "Acting" with the Department Director's signature.

3-4.3 Department Director (Public Works Agency).

The Department Director responsible for the project is designated in the Notice to Proceed. The Department Director has the following authority:

- (a) To issue Contract Change Orders (CCO) as follows:

<u>Original Contract Amount</u>	<u>Maximum Amount of any Change Order</u>
Less than \$500,000.....	\$5,000
\$500,000 to \$1,000,000	1% of Bid Price
Greater than \$1,000,000	\$10,000

- (b) To issue extensions of Contract time in accordance with the Contract Documents.
- (c) To make final adjustment of quantities where the total does not exceed the amounts listed in (a) above.
- (d) To approve the substitution of subcontractors, where allowed by law, if the listed Subcontractor does not object when notified.
- (e) To determine when the Work has been completed and acknowledge in writing the completion of the Work.

3-4.4 Project Manager.

The Project Manager responsible for the project is designated in the Notice to Proceed. This person may also be referred to as Project Engineer. The Project Manager has the following authority:

- (a) To interpret the Plans and Specifications.
- (b) To make minor changes in the location or features of the Work where no change in cost is involved. Such changes in cost may not be the net of multiple changes.

- (c) To approve substitutes for material and equipment specified by proprietary names when such material and equipment meet the Contract requirements.
- (d) To approve shop drawings and submittals.
- (e) To issue stop work orders when necessary to enforce the provisions of the Contract.
- (f) To make determinations of each Working Day to be charged against the Contract time in accordance with 6-3.2.
- (g) To take over a portion of the Work for Agency's use in accordance with 6-5.
- (h) To receive all correspondence and other documents from the Contractor.
- (i) To inspect the Work and perform Final Inspection subject to review by the Department Director and the Engineer.

3-4.5 Inspector.

One or more inspectors will be assigned to the project by the Project Manager. Substitutes may be used during absence of the assigned inspector. The Inspector has the following authority subject to review by the Project manager, Department Director and the Engineer:

- (a) To view and inspect the Work, sample and test components (at the Work site and at offsite manufacturing locations), and to discuss the Work with the Contractor's field representative.
- (b) To determine compliance with the Plans, Specifications and other Contract Documents and to issue warnings of noncompliance.
- (c) To issue stop work notices in the following two instances only:
 - 1) Where a safety hazard exists that has an immediate potential for serious injury or death.
 - 2) Where the operation in progress, if continued for even a short period of time, could be adverse to the Agency's interests.

3-4.6 Other Agency Personnel and Consultants.

3-4.6.1 Materials Engineer.

The Materials Engineer is designated in the Notice to Proceed. The Materials Engineer may assign one or more Materials Inspectors to the project.

Materials Inspectors have authority to sample and test material at the Work site and at offsite manufacturing or storage locations. They may furnish available written test results to the Contractor's field representative. At batch plants, they may issue warnings of noncompliance, but stop notices require the signature of the Materials Engineer or Project Manager.

3-4.6.2 Surveyors & Technicians.

Surveyors and technicians shall have free access to the site to perform their duties but have no authority related to Contract administration.

3-4.6.3 Other Persons.

Other Agency personnel who are not involved in construction administration and the general public may be present at the site because it is their present place of work, as client/customers, as visitors, as future users of the facility, or as persons who will maintain the completed facility. Where the facility is to continue in use during construction, work access for Agency workers and client/customers shall be maintained as provided in the Special Provisions. Where the facility (or portion where construction is being performed) is not in use during construction, admittance to the Work site by Agency personnel not involved in construction administration and visitors may be allowed by the Contractor or by the inspector, subject to compliance with safety regulations. Such persons have no authority under the Contract and the Agency is not responsible for their comments, suggestions, or directions.

3-4.6.4 Consultants.

Consultants hired by the Agency shall have free access to the site to perform their duties but have no authority related to Contract administration, unless such duties are specifically identified in writing to the Contractor. When so identified, Consultant may perform the duties of certain Agency personnel described above.

3-5 INSPECTION.

The Work is subject to inspection and approval by the Engineer. The Contractor shall notify the Engineer before noon of the Working Day before inspection is required. Work shall be done only in the presence of the Engineer, unless otherwise approved. Any work done without proper inspection will be subject to rejection. The Engineer and any authorized representatives shall at all times have access to the Work during its construction at shops and yards and while in storage, as well as to the Work site. The Contractor shall provide every reasonable facility for ascertaining that the materials and workmanship conform to the Contract Documents. Inspection of the Work shall not relieve the Contractor of the obligation to fulfill all conditions of the Contract.

3-5.1 Permit Inspections.

The Contractor shall arrange for code compliance inspections by all agencies issuing permits for the Work. The Work shall not continue beyond mandatory inspection points without clearance from the controlling agency. Each agency involved shall be notified in accordance with the code they enforce or in accordance with their standard operating procedures. No extensions of time will be granted for delays occasioned by such inspections except where, through no fault of the Contractor, the inspection is delayed more than one Day beyond normal response time after proper notification has been given.

It shall be the Contractor's responsibility to see that any required inspection record card is signed off before proceeding with the next phase of the Work and completely signed off on completion of the Work.

3-5.2 Structural Observation.

When the plans indicate that "Structural Observation" of specific work is required prior to Permit Inspection, Contractor shall notify Engineer, in writing, at least five working days prior to the date Contractor plans to have the work ready for structural observation. If the work is not ready for structural observation on the date indicated, Contractor shall reimburse Agency the cost of structural observer's visit to the Work site. If the work to be observed is substantially complete but

is found to need correction before approval by the structural observer, Contractor shall give notice of a new date, as required above.

3-6 THE CONTRACTOR'S REPRESENTATIVE.

Before starting the Work, the Contractor shall designate in writing a representative who shall have complete authority to act for it. An alternative representative may be designated as well. The representative or alternate shall be present at the Work site whenever work is in progress or whenever actions of the elements necessitate its presence to take measures necessary to protect the Work, persons, or property. Any order or communication given to this representative shall be deemed delivered to the Contractor. A joint venture shall designate only one representative and alternate. In the absence of the Contractor or its representative, instructions or directions may be given by the Engineer to the superintendent or person in charge of the specific work to which the order applies. Such order shall be complied with promptly and referred to the Contractor or its representative.

In order to communicate with the Agency, the Contractor's representative, superintendent, or person in charge of specific work shall be able to speak, read, and write the English language.

3-7 CONTRACT DOCUMENTS.

3-7.1 General.

The Contractor shall keep at the work site a copy of the Plans and Specifications, to which the Engineer shall have access at all times.

The Plans, Specifications, and other Contract Documents shall govern the Work. The Contract Documents are intended to be complementary and cooperative. Anything specified in the Specifications and not shown on the Plans or shown on the Plans and not specified in the Specifications, shall be as though shown or specified in both.

The Plans shall be supplemented by such working drawings and shop drawings as are necessary to adequately control the Work.

The Contractor shall ascertain the existence of any conditions affecting the cost of the Work through reasonable examination of the work site prior to submitting the Bid.

Existing improvements visible at the work site, for which no specific disposition is made on the Plans, but which interfere with the completion of the Work, shall be removed and disposed of by the Contractor.

The Contractor shall, upon discovering any error or omission in the Plans or Specifications, immediately call it to the attention of the Engineer.

3-7.1.1 Specifications Captions.

Captions accompanying specification parts, sections and paragraphs are for convenience of reference only and do not limit the content of such part, section, or paragraph.

The division of the Plans into parts and the division of the Specifications into divisions and sections are for the ease of reference only and does not imply the division of work between trades or subcontractors.

3-7.2 Precedence of Contract Documents.

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

- 1) Permits issued by jurisdictional regulatory agencies.
- 2) Change Orders and Supplemental Agreements; whichever occurs last.
- 3) Contract/Agreement.
- 4) Addenda.
- 5) Bid/Proposal.
- 6) Special Provisions.
- 7) Plans.
- 8) Standard Plans.
- 9) Standard Specifications.
- 10) Reference Specifications.

Detail drawings shall take precedence over general drawings.

3-8 SUBMITTALS.

3-8.1 General.

Submittals shall be provided, at the Contractor's expense, as required in this section, when required by the Plans or Special Provisions, or when requested by the Engineer.

Materials shall neither be furnished nor fabricated, nor shall any work for which submittals are required be performed, before the required submittals have been reviewed and accepted by the Engineer. Neither review nor acceptance of 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.

The Contractor shall allow a minimum of 20 working days for review of submittals unless otherwise specified in the Special Provisions. Each submittal shall be accompanied by a letter of transmittal.

Payment for submittals shall be included in the Contract Unit Price or lump sum Bid price for the various Bid items.

3-8.2 Working Drawings.

Working drawings shall be of a size and scale to clearly show all necessary details.

Six copies and one reproducible shall be submitted. If no revisions are required, 3 of the copies will be returned to the Contractor. If revisions are required, the Engineer will return one copy along with the reproducible for resubmission. Upon acceptance, the Engineer will return 2 of the copies to the Contractor and retain the remaining copies and the reproducible.

Working drawings are required in the following subsections:

TABLE 3-8.2

Item	Subsection No.	Title	Subject
1	3-12.5.2	Sanitary Sewers	Sewage Bypass and Pumping Plan
2	3-12.6.3	Water Pollution Control	Storm Water Pollution Prevention Plan
3	3-12.6.6	Water Pollution Control	Dewatering Plan
4	5-7.2.2	Safety Orders	Shoring Plan
5	5-7.8	Steel Plate Covers	Thickness (Trench Width > 5'-3"(1.6 m))
6	300-3.2	Cofferdams	Falsework Plans
7	303-1.6.1	Falsework	
8	303-1.7.1	Placing Reinforcement	
9	303-3.1	Prestressed Concrete Construction	
10	304-1.1.2	Structural Steel	
11	307-1.1	Jacking Operations	Submittals
12	307-2.1	Tunneling Operations	
13	308-3	Microtunneling	
14	601-2	Temporary Traffic Control Plan	

Working drawings listed above as Items 4, 5, 6, 8, 9, 10, 11, 12, 13, and 14 shall be prepared by a Civil or Structural Engineer registered by the State of California.

3-8.3 Shop Drawings.

Shop drawings are drawings showing details of manufactured or assembled products proposed to be incorporated into the Work. Shop drawings are required in the subsections shown in Table 3-8.3 and as specified in the Special Provisions.

TABLE 3-8.3

Item	Subsection No.	Title	Subject
1	207-2.5	Joints	Reinforced Concrete Pipe
2	207-8.4	Joints	Vitrified Clay Pipe
3	304-1.1.1	Shop Drawings	Structural Steel
4	304-2.1	General	Metal Hand Railings

3-8.4 Supporting Information.

Supporting information is information required by the Specifications for the purposes of administration of the Contract, analysis for verification of conformance with the Specifications, the operation and maintenance of a manufactured product or system to be constructed as part of the Work, and other information as may be required by the Engineer. Six copies of the supporting information shall be submitted to the Engineer prior to the start of the Work unless otherwise specified in the Special Provisions or directed by the Engineer. Supporting information for

systems shall be bound together and include all manufactured items for the system. If resubmittal is not required, three copies will be returned to the Contractor.

Supporting information shall consist of the following and is required unless otherwise specified in the Special Provisions:

- a) List of subcontractors per 3-3.
- b) List of materials per 4-4.
- c) Certificates of Compliance per 4-5.
- d) Construction schedule per 6-1.
- e) Spill Prevention and Emergency Response Plan per 3-12.5.3.
- f) Confined Space Entry Program per 5-7.5.1.
- g) Lean concrete base mix designs per 200-4.
- h) Concrete mix designs per 201-1.1.
- i) Asphalt concrete job mix formulas and/or mix designs per 203-6.3.
- j) Pipeline layout diagrams per 207-2.1.
- k) Equipment and materials list per 700-1.
- l) Controller cabinet wiring diagrams per 701-17.2.2.
- m) Data, including, but not limited to, catalog sheets, manufacturer's brochures, technical bulletins, specifications, diagrams, product samples, and other information necessary to describe a system, product or item. This information is required for irrigation systems, street lighting systems, and traffic signals, and may also be required for any product, manufactured item, or system.

3-8.5 Installation Instructions.

When installation instructions for a pre-manufactured product are specified or referenced in the Contract Documents, the Contractor shall submit the following:

- a) One original or legal copy of the installation instructions referenced.
- b) When a manufacturer's installation instructions deviate from the Contract Documents, the Contractor shall submit a written statement from the manufacturer identifying the proposed deviations and the basis for such.
- c) Unless the proposed deviations are approved, installation shall conform to the requirements in the Contract Documents.
- d) The Engineer may waive the requirement for submitting installation instructions.

3-8.6 Manufacturer's Operation, Maintenance, and Warranty Instructions.

For each pre-manufactured product covered by a manufacturer's warranty, the Contractor shall submit 3 bound original or legal copies prior to acceptance of the Contract. When no instructions are submitted the Agency will presume no operational restrictions or maintenance procedures are required by the manufacturer as a condition for the manufacturer to honor the specified warranty.

3-8.7 Record Drawings.

The Contractor shall prepare and maintain a set of prints in the Engineer's Field Office on which the locations and description of all plumbing, mechanical, and electrical facilities, which were not detailed fully on the Plans, are marked in colored pencil. Such prints shall also indicate any authorized changes from the original Plans. Such prints shall be furnished to the Engineer before final Acceptance of the Work.

3-9 SUBSURFACE DATA.

Subsurface data shall include geotechnical reports, groundwater elevations, borings, soil analyses and characterization, and other such information included or referenced in the Special Provisions or provided to bidders prior to the deadline for submitting bids. Subsurface data only indicates conditions at the time and location of the test holes and to the depths indicated. Additional subsurface exploration may be performed by Bidders or the Contractor at their own expense.

If there is a difference between the groundwater elevation shown in the subsurface data and the groundwater elevation encountered during the Work, no additional payment will be made if the groundwater elevation encountered is at or above an elevation 1 foot below the conduit invert elevation or bottom elevation of other structures shown on the Plans unless Extra Work is required.

3-10 SURVEYING.

3-10.1 Permanent Survey Markers.

The Contractor shall notify the Engineer at least 7 Days before starting work to allow for the preservation of survey monuments, lot stakes (tagged), and benchmarks. The Engineer, or the owner at its cost, shall file a Corner Record Form referencing survey monuments subject to disturbance in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of survey monuments. The Contractor shall not disturb survey monuments, lot stakes (tagged), or benchmarks without the consent of the Engineer or the owner on Private Contracts. The Contractor shall bear the expense of replacing any that may be disturbed without permission. Replacement shall be done only under the direction of the Engineer by a Licensed Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the state.

When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the Contractor shall adjust the monument cover to the new grade within 7 Days of finished paving unless otherwise specified.

3-10.2 Survey Service.

The Engineer will set only the horizontal and vertical control survey points shown on the Plans. These will be set prior to the commencement of construction. The Contractor shall preserve these points as well as any other surveys established by the Engineer for use by the Contractor for the duration of their usefulness. If any survey points established by Engineer are lost or disturbed and need to be replaced, such replacement shall be by the Engineer at the expense of the Contractor. The Contractor shall employ engineers or surveyors to perform adequate surveys and staking necessary to construct the Work to the lines, elevations and grades shown on the Plans and for the Engineer's use in checking such work. Copies of the field notes or diagrams used in setting stakes shall be promptly furnished to the Engineer.

3-10.2.1 Open Areas.

Where dimensions are not given on the Plans for parking lots, landscaped areas, or graded areas, distances shall be scaled. Unless otherwise indicated, straight grades and smooth vertical curves shall be set between indicated elevations. Finished surfaces shall be sloped to drain in order to eliminate ponding of water.

3-10.2.2 Utilities.

Section 6-4.1.1 requires the Contractor's cooperation during the relocation of utilities, which may require the setting of lines and grades when needed by utility owners performing relocations.

3-10.3 Contractor's Surveys.

Surveying by private engineers and surveyors on the Work shall conform to the quality and practice required by the Engineer.

3-10.3.1 Errors in Surveys.

The Contractor is responsible for the accuracy of all surveys except those performed by the Engineer. To assure that a survey point set by the Engineer has not been disturbed since it was set and that it was accurately set, all surveys by the Contractor shall be based on at least two survey points set by the Engineer or by other governmental surveys, in accordance with good survey practice. Should discrepancies be found between such points, the Engineer shall be notified and construction shall not proceed until the discrepancy has been resolved.

3-10.4 Line and Grade.

All Work upon completion shall conform to the lines, elevations, and grades shown on the Plans.

3-10.5 Quantity Surveys.

The Engineer will perform all quantity surveys for payment purposes, however, in performing such quantity surveys, it may make use of surveys performed by the Contractor.

3-10.6 Payment for Surveys.

Payment for performing all of the surveying and staking as required by the Specifications and such additional surveying and staking as required by the Contractor will be made at the lump sum price set forth in the Proposal and shall be full compensation for furnishing all labor, equipment, instruments and materials necessary to perform the Work. If no bid item for surveying is included in the Proposal, the cost of surveying shall be included in the prices bid for other applicable items of work.

3-11 CONTRACT INFORMATION SIGNS.

The names of contractors, subcontractors, architects, or engineers, with their addresses and the designation of their particular specialties, may be displayed on removable signs. The size and location of such signs shall be subject to the Engineer's approval.

Commercial advertising matter shall not be attached or painted on the surfaces of buildings, fences, canopies, or barricades.

3-12 WORK SITE MAINTENANCE.

3-12.1 General.

Throughout all phases of construction, including suspension of the Work, and until acceptance per 3-14, the Contractor shall keep the Work site clean and free from rubbish and debris. Rubbish and debris collected on the Work site shall only be stored in roll-off, enclosed containers prior to disposal. Stockpiles of such will not be allowed.

When required by the Special Provisions, the Contractor shall provide a self-loading motorized street sweeper equipped with a functional water spray system. The sweeper shall clean all paved areas within the Work site and all paved haul routes at least once each working day.

The Contractor shall ensure there is no spillage along haul routes. Any such spillage shall be removed immediately and the area cleaned.

Should the Contractor fail to keep the Work site free from rubbish and debris, the Engineer may suspend the Work per 6-6 until the condition is corrected.

3-12.2 Air Pollution Control.

The Contractor shall not discharge smoke, dust, equipment exhaust, or any other air contaminants into the atmosphere in such quantity as will violate any Federal, State, or local regulations.

The Contractor shall also abate dust nuisance by cleaning, sweeping and spraying with water, or other means as necessary. The use of water shall conform to 3-12.6.

3-12.3 Noise Control.

Noise generated from the Contractor's operations shall be controlled as specified in the Special Provisions.

3.12.4 Storage of Equipment and Materials.

3-12.4.1 General.

Materials and equipment shall be removed from the Work site as soon as they are no longer necessary. Before inspection by the Engineer for acceptance, the Work site shall be cleared of equipment, unused materials, and rubbish so as to present a satisfactory clean and neat appearance.

Excess excavated material shall be removed from the Work site immediately unless otherwise specified in the Special Provisions.

Forms and form lumber shall be removed from the Work site as soon as practicable after stripping.

3-12.4.2 Storage in Public Streets.

Construction materials and equipment shall not be stored in streets, roads, or highways for more than 5 days after unloading unless otherwise specified in the Special Provisions or approved by the Engineer. All materials or equipment not installed or used in construction within 5 days after unloading shall be stored at a location approved by the Engineer.

Excavated material, except that which is to be used as backfill in the adjacent trench, shall not be stored in public streets unless otherwise specified in the Special Provisions or approved by the Engineer. Immediately after placing backfill, all excess material shall be removed from the Work site.

3-12.5 Sanitary Sewers.

3-12.5.1 General.

The flow of sewage shall not be interrupted. Should the Contractor disrupt the operation of existing sanitary sewer facilities, or should disruption be necessary for performance of the Work, the Contractor shall bypass the sewage flow around the Work. Sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system. Sewage shall not be permitted to flow in trenches nor be covered by backfill.

Whenever sewage bypass and pumping is required by the Plans or Specifications, or the Contractor so elects to perform, the Contractor shall submit per 3-8.2 a working drawing conforming to 3-12.5.2 detailing its proposed plan of sewage bypass and pumping.

3-12.5.2 Sewage Bypass and Pumping Plan.

The plan shall indicate the locations and capacities of all pumps, sumps, suction and discharge lines. Equipment and piping shall be sized to handle the peak flow of the section of sewer line to be bypassed and pumped. Equipment and piping shall conform to 5-9, the Plans, and the Special Provisions. Bypass piping, when crossing areas subject to traffic loads, shall be constructed in trenches with adequate cover and otherwise protected from damage due to traffic. Lay-flat hose or aluminum piping with an adequate casing and/or traffic plates may be allowed if so approved by the Engineer. Bypass pump suction and discharge lines that extend into manholes shall be rigid hose or hard pipe. Lay flat hose will not be allowed to extend into manholes. The Contractor shall provide a backup bypass pumping system in case of malfunction. The backup bypass system shall provide 100 percent standby capability and be in place and ready for immediate use.

Each standby pump shall be a complete unit with its own suction and discharge piping. In addition to the backup system, the Contractor shall furnish and operate vacuum trucks when required by the Plans or Special Provisions.

3-12.5.3 Spill Prevention and Emergency Response Plan.

The Contractor shall prepare and submit per 3-8.2 a spill prevention and emergency response plan. The plan shall address implementation of measures to prevent sewage spills, procedures for spill control and containment, notifications, emergency response, cleanup, and spill and damage reporting.

The plan shall account for all storm drain systems and water courses within the vicinity of the Work which could be affected by a sewage spill. Catch basins that could receive spilled sewage shall be identified unless otherwise specified in the Special Provisions, these catch basins shall be sealed prior to operating the bypass and pumping system. The Contractor shall remove all material used to seal the catch basins when the bypass and pumping system operations are complete.

The Contractor shall be fully responsible for containing any sewage spillage, preventing any sewage from reaching a watercourse, recovery and legal disposal of any spilled sewage, any

finest or penalties associated with the sewage spill imposed upon by the Agency and/or the Contractor by jurisdictional regulatory agencies, and any other expenses or liabilities related to the sewage spill.

3-12.6 Water Pollution Control.

The Contractor shall prevent, control, and abate discharges of pollutants from the construction site in order to protect the storm drain system, which includes pipes, channels, streams, waterways, and other bodies of water, by the construction, installation or performance of water pollution control measures as shown on the Stormwater Pollution Control Plan (SWPCP) or Stormwater Pollution Prevention Plan (SWPPP) depending on the land area affected by the construction activity. The Contractor shall ensure compliance with the current State NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activity (General Construction Permit), NPDES No. CAS000002 and current Ventura County NPDES Municipal Separate Storm Sewer System (MS4) Permit No. CAS004002.

3-12.6.1 Compliance with NPDES General Construction Permit.

3-12.6.1.1 Construction Sites.

If the Work involves construction activity that results in soil disturbance of one acre or more of total land area, or results in soil disturbances of less than one acre but is a part of a work area larger than one acre, the Contractor shall comply with the requirements of the General Construction Permit NPDES No. CAS000002. Construction activity includes clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement. Construction activity does not include routine maintenance such as, maintenance of original line and grade, hydraulic capacity, or original purpose of the facility.

The Contractor shall comply with requirements of the General Construction Permit (NPDES No. CAS000002), obtained by the Agency, including a site-specific Stormwater Pollution Prevention Plan (SWPPP) for the Work to be developed by Qualified SWPPP Developer (QSD) and implemented by the Qualified SWPPP Practitioner (QSP). After July 1, 2010, the Agency will electronically file all required Permit Registration Documents (PRDs) through the State Water Board's Stormwater Multi-Application and Report Tracking System (SMARTS) website, as required prior to the commencement of construction activity. PRDs consist of the Notice of Intent (NOI), Risk Assessment, Post-Construction Calculations, a Site Map, the SWPPP, a signed certification statement by the Legally Responsible Party (LRP), and the first annual fee. For the Permit application, the Contractor shall submit to Project Manager the following:

- The completed site-specific Risk Assessment
- Post-construction calculations if applicable for the project, and
- Site-specific SWPPP developed in accordance with applicable Permits.

3-12.6.1.2 Linear Utility Projects.

Contractor shall comply with the requirements of the General Construction Permit NPDES No. CAS000002 for Linear Underground/Overhead projects (LUPs) one acre or greater.

3-12.6.2 Compliance with NPDES MS4 Permit.

3-12.6.2.1 *Construction Sites Less Than One Acre.*

The Contractor shall ensure implementation of an effective combination of erosion and sediment control Best Management Practices (BMPs) listed in Table 6 of the Ventura County NPDES MS4 Permit. The Contractor shall develop and implement a Storm Water Pollution Control Plan (SWPCP).

3-12.6.2.2 *Construction Sites One Acre but Less Than 5 Acres.*

The Contractor shall ensure implementation of an effective combination of appropriate erosion and sediment control BMPs from Table 7 (BMPs at Construction sites 1 acre or greater but less than 5 acres) of the Ventura County NPDES MS4 Permit in addition to the ones identified in Table 6 (BMPs at Construction sites less than 1 acre) to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites one acre or greater, the Contractor shall submit the SWPPP to the Agency for review and certification as the Local SWPPP.

3-12.6.2.3 *Construction Sites 5 Acres and Greater.*

The Contractor shall ensure implementation of an effective combination of the following BMPs in Tables 8 (BMPs at Construction sites 5 acres or greater) in addition to the ones identified in Table 6 (BMPs at Construction sites less than 1 acre) and Table 7 (BMPs at Construction sites 1 acre or greater but less than 5 acres) at all construction sites 5 acres and greater to prevent erosion and sediment loss, and the discharge of construction wastes. For all construction sites one acre or greater, the Contractor shall submit the SWPPP to the Agency for review and certification as the Local SWPPP.

3-12.6.2.4 *Enhanced Construction BMP Implementation.*

Construction sites located on hillsides, adjacent or directly discharging to CWA 303(d) listed waters for siltation or sediment, and directly adjacent to Environmentally Sensitive Areas are termed "high risk sites." Contractor shall implement enhanced practices that preclude impacts to water quality posed by the high risk sites.

Contractor shall ensure that high risk sites are inspected by the Qualified SWPPP Developer, Qualified SWPPP Practitioner, or Certified Professionals in Erosion and Sediment Control (CPESC) at the time of BMP installation, at least weekly during the wet season, and at least once each 24 hour period during a storm event that generates runoff from the site, to identify BMPs that need maintenance to operate effectively, that have failed or could fail to operate as intended.

During the wet season, the area of disturbance shall be limited to the area that can be controlled with an effective combination of erosion and sediment control BMPs. Enhanced sediment controls should be used in combination with erosion controls and should target portions of the site that cannot be effectively controlled by standard erosion controls described above. Effective sediment and erosion control BMPs proposed by the Contractor shall include the BMPs listed in Table 9 (Enhanced Construction BMP Implementation) of the NPDES MS4 Permit. The Contractor shall implement the BMPs listed in Table 9 unless shown unnecessary. Also, the Contractor shall retain records of the inspection and a determination and rationale of the BMPs selected to control runoff.

3-12.6.3 Plan.

3-12.6.3.1 Stormwater Pollution Control Plan.

The SWPCP, required for construction projects less than one acre, shall be prepared in accordance with the requirements of current Ventura County NPDES MS4 Permit No. CAS004002 and County Ordinance No. 4142.

3-12.6.3.2 Stormwater Pollution Prevention Plan.

The SWPPP, required for construction projects one acre or greater, shall be prepared in accordance with the requirements of the state's General Construction Permit NPDES Permit CAS000002, Ventura Countywide Stormwater Quality Management Program, NPDES MS4 Permit No. CAS004002, and County Ordinance No. 4142.

3-12.6.3.3 Best Management Practices.

The SWPCP/SWPPP shall identify potential pollutant sources on the construction site that may affect the quality of discharges, whether non-stormwater or stormwater, from the site and design the use and placement of water pollution control measures, BMPs, to effectively prohibit the entry of pollutants from the site into the storm drain system during construction. At a minimum, and depending on the size of the project area, the SWPCP/SWPPP will include all appropriate minimum BMPs as required by the Ventura Countywide Stormwater Quality Management Program, NPDES MS4 Permit No. CAS004002 (Tables 6 through 9). The SWPCP/SWPPP must utilize the measures recommended in the California Stormwater Quality Association (CASQA) Stormwater BMPs Handbook for Construction (January 2003 version until July 1, 2010 and 2009 version after July 1, 2010). Starting July 1, 2010 SWPPP shall be prepared by QSD as defined in the NPDES Permit CAS000002. The Contractor shall complete, sign and submit the SWPCP/SWPPP for review and final approval by the Project Engineer, prior to issuance of the Notice to Proceed as provided in 6-3.2.1.

3-12.6.3.4 SWPPP Approval.

For all construction projects one acre and greater, the Contractor shall submit the SWPPP to the Agency for review and certification as Local SWPPP in accordance with NPDES MS4 Permit No. CAS004002 prior to the Notice to Proceed as provided in 6-3.2.1.

3-12.6.4 Measures.

All water pollution control measures shall conform to the requirements of the submitted SWPCP/SWPPP. If circumstances during the course of construction require changes to the original SWPCP/SWPPP, a revised SWPCP/SWPPP shall be promptly submitted to the Project Manager in each instance. The SWPPP shall be amended or revised by QSD. A copy of the current SWPCP/SWPPP including revisions and amendments shall be kept at the site to ensure that field personnel have access to the current document, at all times. If measures being taken are inadequate to control water pollution effectively, the Project Manager may direct the Contractor to revise the operations and no further work shall be performed until adequate water pollution control measures are implemented. Effective September 2, 2011, implementation of the SWPPP shall be overseen by the Contractor's QSP as defined in the General Construction Permit NPDES No. CAS000002. All work installed by the Contractor in connection with the SWPCP/SWPPP but not specified to become a permanent part of the Work shall be removed and the site restored in so far as practical to its original condition prior to completion of the Work.

3-12.6.4.1 Post-Construction Standards.

Contractor shall ensure that applicable post-construction standards are implemented to meet applicable project requirements of the Ventura County NPDES MS4 Permit and General Construction Permit NPDES No. CAS000002 (effective September 2, 2012).

3-12.6.4.2 Active Treatment Systems.

Contractor shall comply with requirements of the General Construction Permit NPDES No. CAS000002 for active treatment systems as applicable.

3-12.6.5 Monitoring and Reporting.

3-12.6.5.1 Monitoring.

In accordance with the General Construction Permit NPDES No. CAS000002, the Contractor shall develop and implement monitoring program for Risk Level 2 and 3 sites. In addition, at Risk Level 3 sites, contractor shall perform receiving water monitoring to meet Permit requirements.

3-12.6.5.2 Reporting.

The Contractor shall ensure that all submittals and reports are prepared and submitted to the RWQCB in accordance with the applicable Permits. At minimum the reports will include Annual Report (for applicable projects due September 1st), Rain Event Action Plan (due 48 hrs prior to the rain event for the applicable projects), Numeric Action Levels (NAL) Exceedance Report (as required), Numeric Effluent Limitations (NELs) Violation Report (within 24 hours after NEL exceedance is identified). Contractor shall submit required reports to the Project Manager for review and approval prior to submittal to the RWQCB.

3-12.6.6 Dewatering Activities.

All dewatering activities shall be performed in accordance with applicable regulatory requirements issued by the Los Angeles Regional Water Quality Control Board, including specific requirements contained in the Waste Discharge Requirements (WDR) when issued for the Work.

Dewatering shall be performed by the Contractor when specifically required by the Plans or Specifications, and as necessary for construction of the Work. Dewatering shall be performed in conformance with all applicable local, state and Federal laws and permits issued by jurisdictional regulatory agencies. Permits necessary for treatment and disposal of accumulated water shall be obtained by the Contractor or the Agency as specified in the Special Provisions. Accumulated water shall be treated prior to disposal if so specified in the Special Provisions or required by a permit. The Contractor shall submit a Working Drawing and related supporting information detailing its proposed plan and methodology of dewatering and treatment and disposal of accumulated water.

The plan shall identify the location, type and size of dewatering devices and related equipment, the size and type of materials composing the collection system, the size and type of equipment to be used to retain and, if required, treat accumulated water, and the proposed disposal locations. If the proposed disposal location is a sanitary sewer, the Contractor shall submit to the Engineer written evidence of permission from the owner. If the proposed disposal location is a storm drain system or receiving body of water, the Contractor shall submit written evidence of permission from the owner of the storm drain system and, if not obtained by the Agency, original signed permits from jurisdictional regulatory agencies or written evidence that such permits are not required.

3-12.6.7 Payment.

The Contract lump sum price for water pollution control shall include full compensation for furnishing all labor, materials, tools, equipment, services and incidentals and for doing all work involved in water pollution control as specified herein. Payment for water pollution control will be made as the Work proceeds and is in compliance with the approved Water Pollution Control Plan, on the following basis.

Partial payment estimate (excluding mobilization & water pollution control payments) as a percentage of the original Contract price (excluding the mobilization & water pollution control Bid items).		Cumulative amount of water pollution control pay item earned is the lesser of the amounts as computed by these two columns.	
Equal to or greater than	Less than	Percentage of water pollution control pay item	Percentage of the original Contract total.
5	10	10	1
10	20	20	2
20	50	50	3
50	Completion of Work	75	5
Completion of Work		100	

Where no Bid item is provided for water pollution control, payment for water pollution control shall be considered to be included in the other Bid items.

3-12.7 Diversion, Control, and Removal of Water.

3-12.7.1 General.

This section covers the diversion, control and removal of all water entering into the construction area or otherwise affecting construction activities.

3-12.7.2 Requirements.

All permanent construction shall be performed in a site free from water unless otherwise provided for in the Special Provisions. The Contractor shall construct, maintain, and operate all necessary cofferdams, pumps, channels, flumes, drains, well points and/or other temporary diversion, protective, and water removal works required for diversion, control and removal of all water, whether surface or groundwater, whatever its source, during construction.

Inundation of partially completed Work due to lack of control during non-working periods will not be permitted, and may be cause for requiring removal and replacement of Work already completed.

The Contractor shall be responsible for obtaining the use of any property in addition to that provided for in the Plans and Specifications, which may be required for the diversion, protective, and water removal works so as not to create a hazard to persons or property or to interfere with the water rights of others.

It shall be understood and agreed that the Contractor shall hold the Agency and the Engineer harmless from legal action taken by any third party with respect to construction and operations of the diversion and protective works.

3-12.7.3 Diversion and Control Works.

Prior to beginning of work involving diversion, control and removal of water, the Contractor shall submit a water control plan to the Engineer in accordance with 3-8.2. In the event circumstances during the course of construction require changes to the original water control plan, a revised water control plan shall be promptly submitted to the Engineer in each instance. No responsibility shall accrue to the Engineer or the Agency as a result of the plan or as a result of knowledge of the plan.

Construction and operation of the diversion, control and removal works shall be in accordance with the water control plan submitted, except deviations therefrom may be specifically approved by the Engineer.

All works installed by the Contractor in connection with dewatering, control, and diversion of water but not specified to become a permanent part of the Work, shall be removed and the site restored, insofar as practical, to its original condition prior to completion of construction or when directed by the Engineer.

3-12.7.4 Payment.

No separate Bid item is included. Payment for this item of Work will be considered to be included in the payments made for other items of Contract Work to which water control is incidental.

3-12.8 Drainage Control.

The Contractor shall maintain drainage within and through the Work areas. Earth dams will not be permitted in paved areas. Temporary dams of sandbags, asphaltic concrete or other acceptable material will be permitted when necessary to protect the Work, provided their use does not create a hazard or nuisance to the public. Such dams shall be removed from the site as soon as their use is no longer necessary.

3-12.9 Final Cleaning.

At the completion of the Work, the Contractor shall remove all waste materials and rubbish from and about the project, as well as all tools, construction equipment, temporary facilities, machinery, and surplus materials.

At completion of construction and just prior to final inspection, the Contractor shall thoroughly clean the interior and exterior of the buildings, including hardware, floors, roofs, sills, ledges, glass, or other surfaces where debris, plaster, paint, spots, and dirt or dust may have collected. All glass shall be washed clean and polished. Remove all grease, stains, labels, fingerprints, and other foreign materials from interior and exterior surfaces. Repair, patch, and touch up marred surfaces to match adjacent finishes.

The Contractor shall use only experienced workmen or professional cleaners for final cleaning. The Contractor shall use only cleaning materials recommended by the manufacturer of the surface to be cleaned and use cleaning materials only on surfaces recommended by the cleaning material manufacturer.

The Contractor shall broom-clean all paved surfaces and rake-clean other surfaces of grounds.

The Contractor shall replace air conditioning filters if units were operated during construction, and clean all ducts, blowers, and coils if air conditioning units were operated without filters during construction.

After cleaning, the Contractor shall maintain the building in a clean condition until it is accepted by the Agency.

3-13 RECYCLABLE CONSTRUCTION & DEMOLITION WASTES.

Ventura County Ordinance Code Section, 4421 et seq, requires that if any recyclable solid wastes or marketable reusable materials will be generated on the site of the Work within the unincorporated areas of Ventura County, the Contractor shall prepare a Construction & Demolition Debris Waste Diversion Plan and submit it to the Ventura County Public Works Agency, Water & Sanitation Department - Integrated Waste Management Division (IWMD). The Contractor shall prepare and file Construction & Demolition Debris Waste Diversion Reporting Forms as required by the IWMD.

For projects within the unincorporated areas of Ventura County, the Contractor shall submit an IWMD Form B-Recycling Plan approved by IWMD prior to issuance of the Notice to Proceed as provided in 6-3.2.1.

For projects within the unincorporated areas of Ventura County, the Contractor shall submit an IWMD Form C-Reporting Form approved by IWMD prior to the Engineer preparing the final estimate as provided in 7-3.2.

If the site of the Work is within an incorporated city, the Contractor shall comply with all the recycling, solid waste diversion, and hauling requirements of that incorporated city.

3-14 COMPLETION, ACCEPTANCE AND WARRANTY.

3-14.1 Completion and Acceptance.

Acknowledgment of completion of the Work will occur prior to Acceptance by the Agency. Acceptance will only occur after all Contract requirements have been fulfilled, such as training, submission of warranties, maintenance manuals, record drawings, Release on Contract and the like. Acceptance by the Agency will occur when the Engineer signs the Notice of Completion.

The Work will be inspected by the Engineer promptly upon receipt of the Contractor's written assertion that the Work has been completed. If, in the Engineer's judgment, the Work has been completed in accordance with the Plans and Specifications, the Engineer will acknowledge completion of the Work. Completion of the Work, as used above, shall include the Contractor showing evidence of having received an occupancy clearance from Building and Safety, or other permit issuing agency, when a building, plumbing electrical, grading, or other permit is required for the Work. The Engineer will, in acknowledging completion of the Work, set forth in writing the date when the Work was completed. This will be the date when the Contractor is relieved from responsibility to protect the Work. This will also be the date to which liquidated damages will be computed.

3-14.2 Warranty and Correction.

3-14.2.1 Warranty.

The Contractor warrants to the Agency that materials and equipment furnished under the Contract will be new, unless otherwise specified in the Contract Documents, and of good quality, that the Work will be free from defects in materials and workmanship and that the Work will conform to the requirements of the Contract Documents. Work not conforming to these requirements, including substitutions not properly approved and authorized, may be considered defective by the Agency. This warranty excludes damage or defect caused by abuse (other than by the Contractor or those under the control of the Contractor), modifications not executed by the Contractor, or improper or insufficient maintenance. This warranty excludes normal wear and tear. Nothing in this warranty is intended to limit any manufacturer's warranty which provides the Agency with greater warranty rights.

3-14.2.2 Correction Period.

For a period of one (1) year from the date of acceptance of the Work by the Agency, the Contractor shall repair or replace any defective workmanship or materials or Work not in conformance with the Contract Documents after notice to do so from the Engineer, and within the time specified in the notice. If the Contractor fails to make such repair or replacement within the time specified in the notice, the Agency may perform the repair or replacement and the Contractor and the Contractor's sureties shall be liable for the cost thereof. The one (1) year period referenced in this section applies only to the Contractor's obligation to repair or replace defective workmanship or materials or Work not in conformance with the Contract Documents and is not intended to constitute a period of limitations for any other rights or remedies the Agency may have regarding the Contractor's other obligations under the Contract Documents.

3-14.3 No Waiver of Legal Rights.

The Agency shall not be precluded or estopped 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 from the Contractor or its sureties, or both, such damages as it may sustain by reason of the Contractor's failure to comply with the terms of the Contract.

Neither the Acceptance by the Engineer or by its 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 power herein reserved, 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.

3-14.4 Landscape Maintenance Period.

Final Acceptance of the Contract shall follow the satisfactory completion of all Contract Work, including the landscape maintenance period if one is specified.

3-14.5 Non-complying Work.

Neither the final certificate of payment nor any provision in the Contract Documents, nor partial or entire occupancy of the premises by the Agency, 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.

3-14.6 Written Warranties.

The Contractor shall obtain and deliver to the Engineer all written warranties required to be furnished by the Specifications. Each of such warranty shall be underwritten by the Contractor for the full period prescribed therein, and shall bear its endorsement to such effect.

SECTION 4 - CONTROL OF MATERIALS

4-1 GENERAL.

All materials, parts, and equipment furnished by the Contractor in the Work shall be new, high grade, and free from defects. Quality of work shall be in accordance with the generally accepted standards. Material and work quality shall be subject to the Engineer's approval.

Material and work quality not conforming to the requirements of the Specifications shall be considered defective and will be subject to rejection. Defective work or material, whether in place or not, shall be removed immediately from the site by the Contractor, at its expense, when so directed by the Engineer.

If the Contractor fails to replace any defective or damaged work or material after reasonable notice, the Engineer may cause such work or materials to be replaced. The replacement expense will be deducted from the amount to be paid to the Contractor.

Used or secondhand materials, parts, and equipment may be used only if permitted by the Specifications.

4-1.1 Materials Furnished by Agency.

Materials furnished by the Agency will be available at locations designated in the Special Provisions or if not designated in the Special Provisions, they will be delivered to a single location of Agency's choice within the project area. They shall be hauled to the site of installation by the Contractor at its expense, including any necessary loading and unloading that may be involved. The cost of handling and placing materials furnished by the Agency shall be considered as included in the price paid for the Contract item involving such furnished materials.

The Contractor will be held responsible for all materials furnished to it, and it shall pay all demurrage and storage charges. Furnished materials, after delivery to Contractor, lost or damaged from any cause whatsoever shall be replaced by the Contractor. The Contractor will be liable to the Agency for the cost of replacing lost or damaged furnished material and such costs may be deducted from any monies due or to become due the Contractor.

4-2 PROTECTION.

The Contractor shall provide and maintain storage facilities and employ such measures as will preserve the specified quality and fitness of materials to be used in the Work. Stored materials shall be reasonably accessible for inspection. The Contractor shall also adequately protect new and existing work and all items of equipment for the duration of the Contract.

The Contractor shall not, without the Agency's consent, assign, sell, mortgage, hypothecate, or remove equipment or materials which have been installed or delivered and which may be necessary for the completion of the Contract.

4-3 INSPECTION.

4-3.1 General.

Unless otherwise specified, inspection is required at the source for asphalt concrete pavement mixtures, structural concrete, metal fabrication, metal casting, welding, concrete pipe manufacture, protective coating application, and similar shop or plant operations. Additional materials and fabricated items which require inspection at the source shall be as specified in the Special Provisions.

Steel pipe in sizes less than 18 inches, vitrified clay and cast iron pipe in all sizes are acceptable upon certification as to compliance with the Specifications, subject to sampling and testing by the Agency. Standard items of equipment such as electric motors, conveyors, elevators, plumbing fixtures, etc., are subject to inspection at the Work site only. Special items of equipment such as designed electrical panel boards, large pumps, sewage plant equipment, etc., are subject to inspection at the source, normally only for performance testing. The Specifications may require inspection at the source for other items not typical of those listed in this section.

4-3.2 Inspection by the Agency.

The Agency will provide all inspection and testing laboratory services within 50 miles of the geographical limits of the Agency. Inspection and testing laboratory services beyond this radius or outside the continental United States shall be provided by the Contractor and approved by the Engineer.

4-3.3 Inspection of Materials Not Locally Produced.

When the Contractor intends to purchase materials, fabricated products, or equipment from sources located more than 50 miles outside the geographical limits of the Agency, an inspector or accredited testing laboratory (approved by the Engineer), shall be engaged by the Contractor at its expense, to inspect the materials, equipment, or process. This approval shall be obtained before producing any material or equipment. The inspector or representative of the testing laboratory shall evaluate the materials for conformance with the Plans and Specifications. The Contractor shall forward reports required by the Engineer. No materials or equipment shall be shipped nor shall any processing, fabrication or treatment of such materials be done without proper inspection by the approved agent. Approval by said agent shall not relieve the Contractor of responsibility for complying with the Contract requirements.

4-4 TESTING.

Before incorporation in the Work, the Contractor shall submit samples of materials, as the Engineer may require, at no cost to the Agency. The Contractor, at its own expense, shall deliver the materials for testing to the place and at the time designated by the Engineer. Unless otherwise provided, all initial testing and a reasonable amount of retesting shall be performed under the direction of the Engineer, and at no expense to the Contractor. If the Contractor is to provide and pay for testing, the Specifications will so state.

The Contractor shall notify the Engineer in writing, at least 15 Days in advance, of its intention to use materials for which tests are specified, to allow sufficient time to perform the tests. The notice shall name the proposed supplier and source of material.

If the notice of intent to use is sent before the materials are available for testing or inspection, or is sent so far in advance that the materials on hand at the time will not last but will be replaced by a new lot prior to use on the Work, it will be the Contractor's responsibility to re-notify the Engineer when samples which are representative may be obtained.

Third party independent testing and quality control testing shall be performed in United States.

4-5 CERTIFICATE OF COMPLIANCE.

The Engineer may require certificates of compliance with the Specifications for materials or manufactured items produced outside of the Work site. Such certificates will not relieve the Contractor from the requirements of providing material and manufactured items complying with the Specifications even though they have been incorporated into the Work.

The Engineer may waive materials testing requirements of the Specifications and accept the manufacturer's written certification that the materials to be supplied meet those requirements. Materials test data may be required as part of the certification.

Materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The submission of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material into the Work which conforms to the requirements of the Contract Documents, and any material not conforming to the requirements will be subject to rejection by the Engineer whether in place or not.

4-6 TRADE NAMES.

The Contractor may supply any of the materials specified or offer an equivalent. The Engineer shall determine whether the material offered is equivalent to that specified. Adequate time shall be allowed for the Engineer to make this determination.

Whenever any particular material, process, or equipment is indicated by patent, proprietary or brand name, or by name of manufacturer, such wording is used for the purpose of facilitating its description and shall be deemed to be followed by the words or equal. A listing of materials is not intended to be comprehensive, or in order of preference. The Contractor may offer any material, process, or equipment considered to be equivalent to that indicated. The substantiation of offers shall be submitted as provided in the Contract Documents.

The Contractor shall, at its expense, furnish data concerning items offered by it as equivalent to those specified. The Contractor shall have the material tested as required by the Engineer to determine that the quality, strength, physical, chemical, or other characteristics, including durability, finish, efficiency, dimensions, service, and suitability are such that the item will fulfill its intended function.

Test methods shall be subject to the approval of the Engineer. Test results shall be reported promptly to the Engineer, who will evaluate the results and determine if the substitute item is equivalent. The Engineer's findings shall be final. Installation and use of a substitute item shall not be made until approved by the Engineer.

If a substitute offered by the Contractor is not found to be equal to the specified material, the Contractor shall furnish and install the specified material.

The specified Contract completion time shall not be affected by any circumstance developing from the provisions of this section.

4-6.1 Compatibility with Design.

Where the size, configuration, weight, fastening locations, fastening strength, utility rough-in locations, and utility capacities of equipment or devices offered by the Contractor as equivalents do not conform to those provided for in the Contract Documents or those which are necessary for equipment or devices indicated by brand names, the Contractor shall bear all costs of redesign and changes in construction necessary to adapt the offered equipment or device to the Work.

Equipment or devices will not be considered "equal" where the life cycle cost of operation, utilities and maintenance of the offered alternate is greater than those listed by brand names. Life cycle costs shall mean utility charges (demand and usage charges), maintenance, operating personnel and replacement (equipment, installation and down time expenses) all reduced to an average annual rate using the current interest rate earned on funds invested by the County Treasurer.

4-6.2 Trade Names Listed.

Where the Agency has listed products by brand or trade name on the Plans or in the Specifications, or both, this shall not be construed as meaning every product may be used without furnishing shop drawings, without redesign of the facility or without a change in utility rough-in requirements.

Where use of products listed on the Plans or in the Specifications, or both, or where use of a substitute proposed as an "equal" product requires shop drawings, redesign of the facility, or revisions in the size and location of rough-in utility connections, or in connecting work, the Contractor shall provide any necessary shop drawings, or shall cause the preparation of any necessary redesign or revisions to the Plans at its own expense and shall bear the full cost of any necessary additional construction or reconstruction work. No work described in shop drawings, a redesign, or a revision to the Plans shall be undertaken until such shop drawings, redesign, or revisions have been approved by the Engineer. Any proposed redesign or revision to the Plans shall be accompanied by complete computations and details prepared by an appropriate licensed design professional.

4-7 WEIGHING AND METERING EQUIPMENT.

Scales and metering equipment used for proportioning materials shall be inspected for accuracy and certified within the past 12 months by the State of California Department of Food and Agriculture, Division of Measurement Standards, Registered Service Agency.

The accuracy of the work of a scale service agency, except as stated herein, shall meet the standards of the Business and Professions Code and the Code of Regulations pertaining to weighing devices. A Certificate of Compliance shall be presented, prior to operation, to the Engineer for approval and shall be renewed whenever required by the Engineer at no cost to the Agency.

Scales shall be arranged so they may be read easily from the operator's platform or area. They shall indicate the true net weight without the application of any factor. The figures of the scales shall be clearly legible. Scales shall be accurate to within 1 percent when tested with the plant shut down. Weighing equipment shall be so insulated against vibration or moving of other operating equipment in the plant area that the error in weighing with the entire plant running will not exceed 2 percent for any setting nor 1.5 percent for any batch.

4-8 CALIBRATION OF TESTING EQUIPMENT.

Testing equipment, such as, but not limited to pressure gages, metering devices, hydraulic systems, force (load) measuring instruments, and strain- measuring devices shall be calibrated by a testing agency acceptable to the Engineer at intervals not to exceed 12 months and following repairs, modification, or relocation of the equipment. Calibration certificates shall be provided when requested by the Engineer.

SECTION 5 – LEGAL RELATIONS AND RESPONSIBILITIES

5-1 LAWS AND REGULATIONS.

The Contractor shall keep itself fully informed of State and national laws and County and municipal ordinances and regulations which in any manner affect those employed in the Work or the materials used in the Work or in any way affect the conduct of the Work. The Contractor shall at all times observe and comply with such laws, ordinances, and regulations.

5-1.1 Mined Materials.

Mined material from California surface mines, used on the Work, shall be from a mine identified in the list published by the California Department of Conservation (referred to as 3098 List), as required by Public Contract Code 20676. This list is available on the Internet at:

<https://filerequest.conservation.ca.gov/RequestFile/79092>

5-2 SPECIAL NOTICES.

When specified or directed by the Engineer, any notice required to be served in accordance with this subsection shall be in writing, dated, and signed by the Contractor or the Engineer. Such notices shall be served by any of the following methods:

- a) Personal delivery with proof of delivery which may be made by declaration under penalty of perjury by any person over the age of 18 years. The proof of delivery shall show that delivery was performed in accordance with these provisions. Service shall be effective on the date of delivery. Notices given to the Contractor by personal delivery may be made to the Contractor's authorized representative at the Work site; or
- b) Certified mail addressed to the mailing address of the recipient postage prepaid; return receipt requested. Service shall be effective on the date of the receipt of the mailing.

Simultaneously, the Agency may send the same notice by regular mail. If a notice that is sent by certified mail is returned unsigned, then delivery shall be effective pursuant to regular mail, provided the notice that was sent by regular mail is not returned.

5-3 LABOR.

5-3.1 General.

The Contractor, its agents, and employees shall be bound by and comply with applicable provisions of the Labor Code and Federal, State, and local laws related to labor.

Any worker found by the Engineer to be incompetent, intemperate, troublesome, disorderly, or otherwise objectionable, or who fails to perform the Work properly and acceptably, shall be immediately removed from the Work site by the Contractor and shall not be reemployed in the performance on the Work.

5-3.1.1 Special Qualifications.

Where the Engineer determines certain portions of the Work require experience, training, certification or other special qualifications that may not be possessed by the average

journeyperson, such portions of the Work will be specifically identified in the Special Provisions and the special qualifications identified.

When work requiring special qualifications is being performed, a person with such qualifications must be in immediate charge of the work. The person may be a lead journeyperson, foreperson or trade superintendent. The general superintendent or a foreperson who is not specifically assigned to the area where the identified work is being performed will not be considered to be in immediate charge of the work.

Written certification of the required qualifications shall be furnished to the Engineer at least one week prior to the time work is commenced on the work requiring such qualifications. Such certification is subject to review and acceptance by the Engineer. If, during performance of work requiring special qualifications, the qualified person becomes temporarily or permanently unavailable to the Contractor, work shall not proceed until a qualified replacement has been accepted by the Engineer. The Engineer will promptly consider the certification of the replacement.

If identified work is performed without a person having the special qualifications in charge, the Engineer may, at its sole discretion, order such work removed and replaced at the Contractor's expense.

If, after certification is accepted, the Engineer finds that the certification was inaccurate, or work on the project indicates a lack of the knowledge and experience to supervise the work, the Engineer may order the work stopped until an acceptable replacement has been certified, accepted and is in charge.

5-3.2 Prevailing Wages.

Pursuant to Section 1773.2 of the Labor Code, the current prevailing rate of per diem wages at the time of the Bid as determined by the Director of the Department of Industrial Relations (DIR) are on file at the office of the Engineer. The Contractor shall post a copy of these rates at the Work site. Pursuant to Section 1774 of the Labor Code, the Contractor and any Subcontractors shall pay not less than the specified prevailing rates of wages to workers employed on the Contract. If the Contract is Federally-funded, the Contractor and any Subcontractors shall not pay less than the higher of these rates or the rates determined by the United States Department of Labor. Pursuant to Section 1775 of the Labor Code, the Contractor and any Subcontractors, shall, as a penalty to the Agency, forfeit the prescribed amounts per calendar day, or portion thereof, for each worker paid less than the prevailing wage rates. The project is subject to the compliance monitoring and enforcement by the California Department of Industrial Relations (DIR). The contractor is responsible for posting job site notices as prescribed by regulation pursuant to Labor Code section 1771.4, subdivision (a)(2). The Contractor and each Subcontractor, if any, must be registered with the DIR pursuant to Labor Code section 1725.5 and section 1771.1. The Contractor and each Subcontractor, if any, must submit certified payrolls to the Labor Commissioner pursuant to Labor Code 1771.4.

5-3.3 Payroll Records.

Pursuant to Section 1776 of the Labor Code the Contractor and each Subcontractor, if any, shall keep, make available, and submit to the Engineer within ten (10) days of receipt of a written request, certified payroll records. Pursuant to Labor Code section 1776, subsection (h), the Contractor and each Subcontractor, if any, shall, as a penalty to the Agency, forfeit the prescribed amount for each calendar day, or portion thereof, for each worker, the Contractor and each Subcontractor, if any, fails to comply with that subsection until strict compliance is effectuated. The Contractor and each Subcontractor, if any, waives any right to any notice or hearing on the forfeiture of such penalties pursuant to Labor Code sections 1726 or 1771.6. The contractor shall

include this requirement in its subcontracts as required to make this paragraph effective as to each Subcontractor. Upon written request, the Contractor shall withhold penalties forfeited by a Subcontractor pursuant to Labor Code section 1776.I subsection (h), and this paragraph from payment due to such Subcontractor and remit such penalties withheld to the Agency.

5-3.4 Hours of Labor.

Pursuant to Section 1810 of the Labor Code, 8 hours of labor shall constitute a legal day's work. Pursuant to Section 1813 of the Labor Code, the Contractor and any Subcontractors, shall, as a penalty to the Agency, forfeit the prescribed amount per calendar day for each worker required or permitted to work more than 8 hours in any 1 calendar day and 40 hours in any 1 calendar week without being compensated in accordance with Section 1815.

Contractor and each Subcontractor, if any, waives any right to any notice or hearing on the forfeiture of such penalties pursuant to Labor Code sections 1726 and 1771.6. Contractor shall include terms in its subcontracts as required to make this paragraph effective as to each Subcontractor. Upon written request, Contractor shall withhold penalties forfeited by a Subcontractor pursuant to Labor Code section 1813 and this paragraph from payments due to such Subcontractor and remit such penalties withheld to the Agency.

5-3.5 Apprentices.

Apprentices shall be employed on the Work in accordance with Labor Code Section 1777.5. The Contractor is responsible for compliance with Labor Code Section 1777.5 for all apprenticeable occupations whether employed directly or through subcontractors.

5-3.6 Contractors' Duties Concerning Labor Code Compliance.

As required by Labor Code 1775(b)(1), Labor Code Sections 1771, 1775, 1776, 1777.5, 1813 and 1815 are required to be included in the contract between the Contractor and subcontractors. The Contractor agrees to comply with these sections and all remaining provisions of the Labor Code.

5-4 INSURANCE.

5-4.1 General.

5-4.1.1 Independence of Contractor.

It is understood and agreed that Contractor is, at all times, an independent contractor and that no relationship of employer-employee exists between the parties hereto.

Contractor will not be entitled to any benefits payable to employees of County, including but not limited to overtime, retirement benefits, workers' compensation benefits, injury leave or other leave benefits. County is not required to make any tax or benefit deductions from the compensation payable to Contractor under the provisions of this Agreement. As an independent contractor, Contractor hereby holds County harmless from any and all claims that may be made against County based upon any contention by any third party that an employer-employee relationship exists by reason of the Agreement.

If, in the performance of this Agreement, any third persons are employed by Contractor, such persons will be entirely and exclusively under the direction, supervision and control of Contractor. All terms of employment, including hours, wages, working conditions, discipline, hiring and discharging or any other terms of employment or requirements of law, will be determined by Contractor. County will have no right or authority over such persons or the terms of such employment, except as provided in this Agreement.

5-4.1.2 Indemnification and Hold Harmless Clause.

All activities arising out of or relating to the performance of the Work covered by this Contract shall be at the risk of Contractor. To the fullest extent permitted by law, Contractor shall defend (at Agency's request), indemnify and hold harmless Agency, and the County of Ventura if the County of Ventura is not the entity defined as Agency under this Contract, including all of their boards, agencies, departments, officers, employees, agents and volunteers (collectively, "Indemnatee"), against any and all claims, suits, actions, legal or administrative proceedings, judgments, debts, demands, damages, including injury or death to any person or persons, and damage to any property including loss of use resulting therefrom, incidental and consequential damages, liabilities, interest, costs, attorneys' fees and expenses of whatsoever kind of nature, whether arising before, during or after commencement or completion of this Contract, whether against Contractor and Indemnatee or which are in any manner, directly, indirectly, in whole or in part, arising from any act, omission, fault or negligence, whether active or passive, of Contractor, a Subcontractor or anyone directly or indirectly employed by them or anyone for whose acts they may be liable in connection with or incident to the Contract, even though the same may have resulted from the joint, concurring or contributory negligence, or from the passive negligence, of Indemnatee or any other person or persons, unless the same be caused by the sole negligence of Indemnatee, or except to the extent caused by the active negligence or willful misconduct of Indemnatee.

The Agency will notify the Contractor of the receipt of any third-party claims.

5-4.1.3 Contamination and Pollution.

Contractor, solely at its own cost and expense, will provide clean-up of any premises, property or natural resources contaminated or polluted due to Contractor activities. Any fines, penalties, punitive or exemplary damages assigned due to contaminating or polluting activities of the Contractor will be borne entirely by the Contractor.

5-4.2 Insurance Requirements.

Contractor, at its sole cost and expense, shall obtain and maintain in full force during the term of this Contract the following types of insurance.

5-4.2.1 Workers' Compensation Insurance.

5-4.2.1.1 Coverage.

Workers' Compensation coverage, in full compliance with Labor Code 3700, for all employees of Contractor and Employer's Liability in the minimum amount of \$1,000,000. The Agency, the County of Ventura, its officers, employees, or Consultants, will not be responsible for any claims in law or equity occasioned by failure of Contractor to comply with this paragraph.

5-4.2.1.2 Certification.

Before execution of the Contract by Agency, Contractor shall file with the Engineer the following signed certification:

"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."

5-4.2.2 Commercial General Liability Insurance.

5-4.2.2.1 *Minimum Limits and Scope; Insurance Classes.*

"Occurrence" coverage in the minimum amount of:

Coverage Class	Coverage
L-A	\$ 1,000,000 combined single limit (CSL) bodily injury and property damage each occurrence and \$1,000,000 aggregate
L-B	\$ 1,000,000 CSL bodily injury and property damage each occurrence and \$2,000,000 aggregate
L-C	\$ 5,000,000 CSL bodily injury and property damage each occurrence and \$5,000,000 aggregate
L-D	\$ 10,000,000 CSL bodily injury and property damage each occurrence and \$10,000,000 aggregate

If no coverage class is specified in "Proposal", coverage class L-B shall apply.

If Contractor maintains higher limits than the minimums shown above, the Agency requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Agency.

Coverages shall include premises/operations; products/completed operations; independent contractors; underground, explosion and collapse hazards; personal and advertising injury; broad form property damage; and broad form blanket contractual.

5-4.2.2.2 *Coverage Exceptions.*

On projects where no explosives will be used and no demolition is involved, the coverage for explosion may be omitted. On projects where no excavation is involved, the coverage for underground hazard may be omitted. The omission of said coverages is at Agency's option and shall not abrogate Contractor's responsibilities for indemnification as set forth in these Specifications.

5-4.2.2.3 *Excess Liability Policies.*

All Excess Liability policies, if used, shall be on an "umbrella" or following form of the primary layer of coverage.

5-4.2.3 Commercial Automobile Liability Insurance.

Coverage in the minimum amount of \$1,000,000 CSL bodily injury and property damage, including automobile liability, any auto.

5-4.2.4 Property Insurance.

Contractor shall arrange for its own "Course of Construction" insurance on the project to protect its interests, as Agency does not have this coverage.

Contractor is responsible for delivering to Agency Work completed in accordance with the Contract except as provided in 5-4.2.4.1. Should the Work being constructed be damaged by fire or other causes during construction, it shall be replaced by Contractor in accordance with the requirements of the Plans and Specifications without additional expense to Agency.

5-4.2.4.1 *Acts of God.*

As provided in Section 7105 of the California Public Contract Code, the Contractor shall not be responsible for the cost of repairing or restoring damaged portions of the Work determined to have been proximately caused by an act of God in excess of 5 percent of the contracted amount, provided that the Work damaged was built in accordance with accepted and applicable building standards and the Specifications and Drawings. The Contractor shall obtain insurance to indemnify the Agency for any damage to the Work caused by an act of God if the premium of said insurance coverage is called for as a separate bid item in the bidding schedule for the Work. For purposes of this section, the term "acts of God" shall include only the following occurrences or conditions and effects: earthquakes in excess of a magnitude of 3.5 on the Richter Scale, and tidal waves.

5-4.3 Other Insurance Provisions.

5-4.3.1 Insurance Company Qualifications.

All insurance required shall be issued by (a) an admitted company or admitted companies authorized to transact business in the State of California which have a BEST rating of B+ or higher and a Financial Size Category (FSC) of VII or larger or (b) a California approved Surplus Line carrier or carriers which have a BEST rating of A or higher and a Financial Size Category (FSC) of VII or larger.

Workers compensation insurance not meeting the above requirements but meeting all other requirements of the specifications, will be accepted.

5-4.3.2 Primary Coverage.

All insurance required shall be primary coverage as respects Agency and any insurance or self-insurance maintained by Agency or the County of Ventura shall be in excess of Contractor's insurance coverage and shall not contribute to it.

5-4.3.3 Aggregate Limits Exceeded.

Agency shall not be notified immediately if any aggregate insurance limit is exceeded. Contractor shall purchase additional coverage to meet requirements.

5-4.3.4 Liability in Excess of Limits.

Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve Contractor for liability in excess of such coverage, nor shall it preclude Agency or the County of Ventura from taking such other actions as are available to it under any other provisions of this Contract or otherwise in law.

5-4.3.5 Additional Insured Endorsements.

The Agency, the County of Ventura (if not defined as Agency) and all special Districts governed by the County of Ventura Board of Supervisors, and their officials, employees, and volunteers shall be named as Additional Insured as respects Work done by or on behalf of Contractor under the Contract on all policies required (except workers' compensation). With respect to Contractor's commercial general Liability insurance, Additional Insured coverage shall include both ongoing and completed operations.

5-4.3.6 Waiver of Subrogation Rights.

Contractor agrees to waive all rights of subrogation against the Agency, the County of Ventura, including its boards, and all special Districts governed by the Board of Supervisors, for losses arising directly or indirectly from the activities or Work performed by Contractor under the Contract (applies only to Workers' Compensation and Commercial General Liability).

5-4.3.7 Cancellation Notice Required.

In the case of policy cancellation, Agency shall be notified by the insurance company or companies as provided for in the policy. Contractor shall notify Agency of any and all policy cancellations within three working days of the cancellation.

5-4.3.8 Documentation Required.

Prior to execution of the Contract by Agency, Contractor shall provide Agency with Certificates of Insurance for all required coverages (see Appendix A for example), all required endorsement(s) and a copy of its course of course insurance policy.

It is the responsibility of Contractor to confirm that all terms and conditions of Section 5-4.2 Insurance Requirements are complied with by any and all subcontractors that Contractor may use in the completion of the Contract.

5-5 ANTITRUST CLAIMS.

Pursuant to Section 7103.5 of the Public Contract Code:

"In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec 15) or Cartwright Act (Chapter 2 [commencing with Section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or subcontract. The assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor, without further acknowledgment by the parties."

5-6 PATENT FEES OR ROYALTIES.

The Contractor shall absorb in its Bid the patent fees or royalties on any patented article or process furnished or used in the Work. The Contractor shall indemnify and hold the Agency harmless from any legal action that may be brought for infringement of patents.

5-7 SAFETY.

5-7.1 Work Site Safety.

5-7.1.1 General.

The Contractor shall provide safety measures as necessary to protect the public and workers within, or in the vicinity of, the Work site. The Contractor shall ensure that its operations will not create safety hazards. The Contractor shall provide safety equipment, material, and assistance to Agency personnel so that they may properly inspect all phases of the Work. When asbestos is being removed, the requirements of the CCR Title 8, Div. 1, Chapter 4, Subchapter 4 and Subchapter 7 shall be implemented.

5-7.1.2 Work Site Safety Official.

The Contractor shall designate in writing a "Project Safety Official" who shall be at the Work site at all times, and who shall be thoroughly familiar with the Contractor's Injury and Illness Prevention Program (IIPP) and Code of Safe Practices (CSP). The Project Safety Official shall be available, at all times, to abate any potential safety hazards and shall have the authority and responsibility to shut down an unsafe operation, if necessary.

5-7.2 Safety Orders.

5-7.2.1 General.

The Contractor shall have at the Work site, copies or suitable extracts of Construction Safety Orders, Tunnel Safety Orders, and General Industry Safety Orders issued by the State Division of Industrial Safety. Prior to beginning any excavation 5 feet in depth or greater, the Contractor shall submit to the Engineer, the name of the "Competent Person" as defined in CCR, Title 8, Section 1504, in accordance with 3-8. The "Competent Person" shall be present at the Work site as required by Cal-OSHA.

5-7.2.2 Shoring Plan.

Before excavating any trench 5 feet or more in depth, the Contractor shall submit in accordance with 3-8.2 a detailed working drawing (shoring plan) showing the design of the shoring, bracing, sloping, or other provisions used for the workers' protection. If the shoring plan varies from the shoring system standards, the shoring plan shall be prepared by a registered Structural or Civil Engineer. The shoring plan shall accommodate existing underground utilities. No excavation shall start until the Engineer has accepted the shoring plan and the Contractor has obtained a permit from the State Division of Industrial Safety. A copy of the permit shall be submitted to the Engineer in accordance with 3-8.2. If the Contractor fails to submit a shoring plan or fails to comply with an accepted shoring plan, the Contractor shall suspend work at the affected location(s) when directed to do so by the Engineer. Such a directive shall not be the basis of a claim for Extra Work and the Contractor shall not receive additional compensation or Contract time due to the suspension.

5-7.2.3 Payment.

Payment for shoring shall be included in the Bid item provided therefor. Payment for compliance with the provisions of the safety orders and all other laws, ordinances, and regulations shall be included in the various Bid items.

5-7.3 Use of Explosives.

Explosives may be used only when authorized in writing by the Engineer, or as otherwise specified in the Special Provisions.

Explosives shall be handled, used, and stored in accordance with all applicable regulations. Prior to blasting, the Contractor shall comply with the following requirements:

- a) The jurisdictional law enforcement agency shall be notified 24 hours in advance of blasting.
- b) The jurisdictional fire department shall be notified 24 hours in advance of blasting.
- c) Blasting activities and schedule milestones shall be included in the Contractor's construction schedule per 6-1.

For a Private Contract, specific permission shall be obtained from the Agency in writing, prior to any blasting operations in addition to the above requirements.

The Engineer's approval of the use of explosives shall not relieve the Contractor from liability for claims caused by blasting operations.

5-7.4 Hazardous Substances.

An MSDS as described in CCR, Title 8, Section 5194, shall be maintained at the Work site for all hazardous material used by the Contractor. Material usage shall be accomplished with strict adherence to California Division of Industrial Safety requirements and all manufacturer warnings and application instructions listed on the MSDS and on the product container label. The Contractor shall notify the Engineer if a specified product cannot be used under safe conditions.

5-7.5 Confined Spaces.

5-7.5.1 Confined Space Entry Program (CSEP).

The Contractor shall be responsible for implementing, administering and maintaining a CSEP in accordance with CCR, Title 8, Sections 5156, 5157 and 5158.

Prior to the start of the Work, the Contractor shall prepare and submit a CSEP in accordance with 3-8.4. The CSEP shall address all potential physical and environmental hazards and contain procedures for safe entry into confined spaces such as the following:

- a) Training of personnel
- b) Purging and cleaning the space of materials and residue
- c) Potential isolation and control of energy and material inflow
- d) Controlled access to the space
- e) Atmospheric testing of the space
- f) Ventilation of the space
- g) Special hazards consideration
- h) Personal protective equipment
- i) Rescue plan provisions

The submittal shall include the names of the Contractor's personnel, including each Subcontractor's personnel, assigned to the Work that will have CSEP responsibilities, their CSEP training, and their specific assignment and responsibility in carrying out the CSEP.

5-7.5.2 Permit-Required Confined Spaces.

Entry into permit-required confined spaces as defined in CCR, Title 8, Section 5157 may be required as a part of the Work. Manholes, tanks, vaults, pipelines, excavations, or other enclosed or partially enclosed spaces shall be considered permit-required confined spaces until the pre-entry procedures demonstrate otherwise. The Contractor shall implement a permit-required CSEP prior to performing any work in a permit-required confined space. A copy of the permit shall be available, at all times, for review by the Contractor and the Engineer at the Work site.

5-7.5.3 Payment.

Payment for the CSEP shall be included in the Bid items for which the CSEP is required.

5-7.6 Flood Lighting.

5-7.6.1 General.

When work is being performed during hours of darkness, as defined in Division 1, Section 280, of the California Vehicle Code, flood lighting shall be used to illuminate the Work site, flagger stations, equipment crossings and other hazardous areas. Flood lighting shall provide visibility for a distance of 1/2 mile. Flood lights shall not shine directly into the view of oncoming traffic.

5-7.6.2 Payment.

No separate or additional payment will be made for flood lighting. Payment shall be included in the Contract Unit Price or lump sum price in the Bid for the various Bid items.

5-7.7 Security and Protective Devices.

5-7.7.1 General.

Security and protective devices shall consist of fencing, steel plates, or other devices as specified in the Special Provisions to protect open excavations.

5-7.7.2 Security Fencing.

The Contractor shall completely fence open excavations. Security fencing shall conform to 304-5. Security fencing shall remain in place unless workers are present and construction operations are in progress during which time the Contractor shall provide equivalent security.

5-7.8 Steel Plate Covers.

5-7.8.1 General.

The Contractor shall provide, install, and maintain steel plate covers as necessary to protect from accidental entry into openings, trenches, and excavations.

Surfaces exposed to pedestrian or vehicular traffic shall be non-skid.

5-7.8.2 Thickness.

Steel plate covers shall conform to Table 5-7.8.2.

TABLE 5-7.8.2

Trench Width	Steel Plate Cover Thickness
Less than 10" (250 mm)	1/2" (12.5 mm)
10" (250 mm) to 1'-11" (580 mm)	3/4" (19 mm)
2' (600 mm) to 2'-7" (790 mm)	7/8 " (22 mm)
2'-8" (820 mm) to 3'-5" (1040 mm)	1" (25 mm)
3'-6" (1070 mm) to 5'-3" (1600 mm)	1-1/4" (32 mm)
More than 5'-3" (1600 mm)	See Note 1

Notes:

The Contractor shall submit a Working Drawing and calculations based on AASHTO H20-44 bridge loading.

5-7.8.3 Installation.

Steel plate covers shall:

- a) be secured against movement by use of a holding device,
- b) be installed in such a manner as to minimize noise creation when driven over, and
- c) extend a minimum of 1 foot (300 mm) beyond trench edges.

Unless otherwise specified in the Special Provisions, steel plate covers shall be installed using either Method 1 or 2.

- d) Method 1. For posted speeds more than 40 miles per hour (64 km/hour), the pavement shall be cold milled to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate. Method 1 may also be used for speeds less than 40 miles per hour (64 km/hour).
- e) Method 2. For posted speeds less than 40 miles per hour (64 km/hour), the approach plate(s) and ending plate (in longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels drilled at the corners of the plate and drilled 2 inches (50 mm) into the pavement. Subsequent plates may be butted next to each other. When the steel plates are removed, the dowel holes shall be backfilled.

When Method 2 is used, temporary asphalt concrete (D2-SC 800) shall be used to construct tapers from the steel plate surface to the surface of the existing roadway as follows:

- f) for vehicular traffic, with a 4-inch (100 mm) run for each 1 inch (25 mm) thickness of steel plate.
- g) for bike paths or routes, with an 8-inch (200 mm) run for each 1 inch (25 mm) thickness of steel plate.
- h) the pedestrian way, including crosswalks, shall be placed with a 12-inch (300 mm) run for each 1 inch (25 mm) thickness of steel plate if the plate is installed per Method 2.

Advance traffic warning signs shall be installed as specified in the Special Provisions or shown on the TCP.

5-7.8.4 Payment.

Unless otherwise specified in the Special Provisions, no separate or additional payment will be made for steel plate covers. Payment shall be included in the Contract Unit Price or lump sum price in the Bid for the various Bid items that require steel plate covers.

5-8 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS.

The Contractor shall be responsible for the protection of public and private property adjacent to the Work and shall exercise due caution to avoid damage to such property.

The Contractor shall repair or replace all existing improvements within the right-of-way which are not designated for removal (e.g., curbs, sidewalks, driveways, fences, walls, signs, utility installations, pavement, structures, etc.) which are damaged or removed as a result of its operations. When a portion of a sprinkler system within the right-of-way must be removed, the remaining lines shall be capped. Repairs and replacements shall be at least equal to existing improvements and shall match them in finish and dimension.

Maintenance of street and traffic signal systems that are damaged, temporarily removed or relocated shall be done in conformance with 307-1.5.

Trees, lawns, and shrubbery that are not designated to be removed shall be protected from

damage or injury. If damaged or removed because of the Contractor's operations, they shall be restored or replaced in as nearly the original condition and location as is reasonably possible. Lawns shall be reseeded and covered with suitable mulch.

The Contractor shall give reasonable notice to occupants or owners of adjacent property to permit them to salvage or relocate plants, trees, fences, sprinklers and other improvements which are designated for removal and would be destroyed because of the Work.

All costs to the Contractor for protecting, removing, and restoring existing improvements shall be absorbed in its bid.

In existing buildings, all surfaces, equipment, furniture, and other property shall be protected from loss or damage by or as result of the Contractor's operations. The Contractor shall replace damaged property or shall repair and restore it to its previous condition. Patching, painting, replacement of wall, ceiling and floor covering and similar Work shall be done in such a manner that the repaired Work will not be readily noticeable.

5-9 PUBLIC CONVENIENCE AND SAFETY.

5-9.1 Access.

5-9.1.1 General.

The Contractor's operations shall cause no unnecessary inconvenience to the public or businesses in the vicinity of the Work. The Contractor shall have no greater length or quantity of Work under construction than can be properly prosecuted with a minimum of inconvenience to the public and other contractors engaged in adjacent or related work.

The Contractor shall provide continuous and unobstructed access to the adjacent properties unless otherwise specified in the Special Provisions or approved by Engineer. Work requiring traffic lane closures shall only be performed between the hours specified in the Special Provisions or shown on the TCP. Traffic shall be permitted to pass through the Work site, unless otherwise specified in the Special Provisions or shown on the TCP.

5-9.1.2 Vehicular Access.

Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access. If backfill has been completed to the extent that safe access may be provided and the street is opened to local traffic, the Contractor shall immediately clear the street and driveways and provide and maintain access.

5-9.1.3 Pedestrian Access.

Safe, adequate, and ADA compliant pedestrian access shall be maintained unless otherwise approved by the Engineer.

5-9.2 Traffic Control.

5-9.2.1 General.

Work area traffic control shall conform to the California MUTCD, WATCH, or as specified in the Special Provisions. The total length of the traffic control zone shall include a buffer space, advance signing, striping transitions in advance of the Work site, existing striping, signing, and raised medians.

5-9.2.2 Traffic Control Plan.

If so specified in the Special Provisions or on the permit, the Contractor shall submit a TCP in accordance with 3-8.2. The sheets of the TCP shall display the title, phase identification, name of the firm preparing the TCP, name and stamp of the Registered Traffic or Civil Engineer, approval block for each jurisdictional agency, north arrow, sheet number, and number of sheets comprising the TCP. General notes and symbol definitions shall be included when required. Adequate dimensioning shall be provided to allow for proper field installation. The TCP shall be drawn to a 1 inch = 40 feet scale on common size sheets, either 8-1/2 inches x 11 inches, 8-1/2 inches x 14 inches, 11 inches x 17 inches, or 2-foot x 3-foot plan sheets as dictated by the length of the Work.

The requirements in the Special Provisions shall govern the design of the proposed TCP.

5-9.2.3 Payment.

Payment for preparation of the TCP shall be included in the appropriate lump sum Bid items. If no Bid items have been provided, payment shall be included in the various Bid items unless otherwise specified in the Special Provisions.

5-10 LOSS OR DAMAGE TO THE WORK.

The Contractor is responsible for delivering to the Agency Work completed in accordance with the Contract except as provided in 5-4.2.4.1. Should the Work being constructed be damaged by fire or other causes before Acceptance by the Agency, it shall be replaced in accordance with the requirements of the Plans and Specifications without additional expense to the Agency. The Agency does not carry "Course of Construction" insurance on the Work. Contractor should arrange for its own insurance to protect its interests.

SECTION 6 – PROSECUTION AND PROGRESS OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK.

6-1.1 Construction Schedule.

The requirements of this section concerning submission of construction schedules shall not apply to projects where the time allowed to complete the Work is less than 25 Working Days or the total Contract Price bid is less than \$75,000 unless required by the special provisions.

The Contractor shall submit a construction schedule concurrently with the submittal of signed Contract, Contract bonds, and certificate of insurance. The Notice to Proceed will be delayed until the schedule is received. See 6-3.2.1.

When required by the Special Provisions, a revised schedule shall be submitted monthly prior to each progress payment closure date. Processing of the progress payment will be delayed until such revised schedule complying with this section is received.

The construction schedule shall be in the form of a Construction Element vs. Time Chart as shown in Appendix B-1 and a Work Complete vs. Time Chart as shown in Appendix B-2.

The B-1 Chart shall be in sufficient detail to show the chronological relationship of all activities of the project including, but not limited to, estimated starting and completion dates of various activities, submittal of shop drawings to the Engineer for approval, procurement of materials, and scheduling of equipment. The B-1 Chart shall recognize the requirements of 6-4.1.1. The B-1 Chart shall reflect obtaining all materials and completing all Work under the Contract within the specified time and in accordance with these Specifications. If the Contractor intends to complete the Work prior to the time for completion, the intended date of completion shall be set forth in the B-1 Chart and the Contractor shall execute a Contract Change Order that changes the number of Working Days allowed for completion to conform with such intended completion date. The Change Order shall not change the Contract Price.

The Contractor may submit a computer generated schedule in lieu of the forms in Appendix B-1 and B-2, provided all of the elements shown on that form or specified herein are included.

An updated construction schedule shall be submitted prior to the next progress payment closure date whenever the actual percent Work complete versus percent time elapsed curve falls below and to the right of the dotted line shown on Appendix B-2.

If the Contractor desires to make a major change in its method of operations after commencing construction, or if its schedule fails to reflect the actual progress, it shall submit to the Agency a revised construction schedule in advance of beginning revised operations.

Revised and updated schedules shall show actual completion to the date of the revision in the lower segmented bar for each item.

The construction schedule shall be prepared as follows (see Appendices C-1 and C-2):

1. On the B-1 Chart:
 - a. Enter the project name and Specification No. and the Contractor's name.
 - b. List the items of Work either individually or combined where items are part of the same element of the Work.
 - c. Assign a value for each horizontal space plotting interval in Working Days as follows: 1 working day for total Contract time of less than 100 working days, 2 for 100 to 200 working days and 5 for longer projects. Enter the value used in the space provided in the

lower part of the form.

- d. At the end of performance time draw a vertical line and label it "End Performance Time". Enter numbers at 10 times the plotting interval at the top of intermediate vertical lines.
 - e. Shade in a bar in the upper segmented section for each work item to indicate the period during which Work will be performed. Move-in time and delivery time for materials shall be shown if significant to the schedule.
2. On the B-2 Chart:
- a. Enter the project name and Specification No. as shown on the notice inviting bids.
 - b. At time intervals of 10 or 20 working days:
 - (1) Compute the cumulative dollar value of Work which is expected to be completed for each item of Work, including the value of the completed portion of lump-sum items.
 - (2) Divide the values computed in "b(1)" by the Total Contract Price to determine the percentage of the entire Contract planned for completion at the end of each time interval.
 - (3) Divide the days of performance time at the end of each time interval by the total Contract performance time to obtain the percentage of elapsed performance time.
 - c. Plot each percentage of completion value figure computed in "b(2)" against the corresponding percentage of completion time computed in "b(3)" using scales on the bottom and left side of chart.
 - d. Connect points plotted in "c" with a line which will show the planned progress for the entire job.

If the proposed percent Work complete versus percent time elapsed line falls below and to the right of the dotted line drawn on the B-2 Chart, the Contractor shall provide sufficient information and backup to show that the Work can be completed on time.

6-1.2 Commencement of the Work.

6-1.2.1 Beginning of Work.

The issuance of Notice to Proceed by Agency shall constitute the Contractor's authority to enter upon the site of the Work and to begin operations provided it has also notified Engineer at least 24 hours in advance. Entry upon the site without authority will be treated as trespassing.

6-1.2.2 Starting Work.

The Contractor may start work at any time after the Notice to Proceed is issued but work shall begin within 15 Days after the starting date for the Contract, or at such other time as may be indicated in the Special Provisions. The actual date on which the Contractor starts work will not affect the required time for completion as provided for in 6-3.

6-1.2.3 Work Sequence.

If required by the Special Provisions, the Contractor shall start construction operations on that part of the Work designated by the Engineer.

6-1.2.4 Resources Required.

The Work shall be conducted in such a manner and with sufficient materials, equipment, and labor to insure its completion in accordance with the Plans and Specifications within the time set forth in the Contract.

6-2 PROSECUTION OF THE WORK.

To minimize public inconvenience and possible hazard and to restore street and other work areas to their original condition and state of usefulness as soon as practicable, the Contractor shall diligently prosecute the Work to completion. If the Engineer determines that the Contractor is failing to prosecute the Work to the proper extent, the Contractor shall, upon orders from the Engineer, immediately take steps to remedy the situation. Should the Contractor fail to take the necessary steps to fully accomplish said purposes, after orders of the Engineer, the Engineer may suspend the Work in whole or part, until the Contractor takes said steps.

If the Work is suspended through no fault of the Agency, all expenses and losses incurred by the Contractor during such suspensions shall be borne by the Contractor. If the Contractor fails to properly provide for public safety, traffic, and protection of the Work during periods of suspension, the Agency may elect to do so, and deduct the cost thereof from monies due the Contractor. Such actions will not relieve the Contractor from liability.

6-3 TIME OF COMPLETION.

6-3.1 General.

The Contractor shall complete the Work within the time set forth in the Contract. The Contractor shall complete each portion of the Work within such time as set forth in the Contract for such portion. Unless otherwise specified, the time of completion of the Contract shall be expressed in Working Days.

6-3.2 Contract Time Accounting.

The Engineer will make a daily determination of each Working Day to be charged against the Contract time. These determinations will be discussed and the Contractor will be furnished a periodic statement showing the allowable number of Working Days of Contract time, as adjusted, at the beginning of the reporting period. The statement will also indicate the number of Working Days charged during the reporting period and the number of Working Days of Contract time remaining. If the Contractor does not agree with the statement, the Contractor must file a written protest within 15 Days after receipt, setting forth the facts of the protest. Otherwise, the statement will be deemed to have been accepted.

6-3.2.1 Starting Date for Contract Time and Notice to Proceed.

The starting date for Contract time accounting will be determined by adding the number of Days indicated on the Proposal form to the date the Contract is awarded, however the Agency may, at its option, delay the starting date by not more than 60 calendar Days if necessary to obtain permits, rights-of-way, or approval of federal or State authorities, or when prevented from starting the project due to causes beyond its control. Notice to Proceed will be issued within 7 calendar Days after the Contract, bonds, certificates of insurance and other documents have been returned, properly completed by the Contractor, unless the starting date is delayed as herein provided. If the Agency delays the Contract starting date, Notice to Proceed will be issued at least 7 calendar Days prior to the new starting date. Any delay caused by failure of the Contractor to properly complete or timely return the Contract Documents shall not change the Contract starting date and shall not be a cause for extending the Contract time. The Notice of Award will indicate a probable Contract starting date. The Notice to Proceed will indicate the actual Contract starting date, computed as herein described.

6-3.2.2 Contractor's Work Hours.

6-3.2.2.1 *Working Hours Limitations.*

Except as otherwise specified, no work shall be performed by the Contractor at the Work site between the hours of 7:00 p.m. and 7:00 a.m. the following day, nor shall work be performed on Saturdays, Sundays or holidays listed in 6-3.2.3.1.

6-3.2.2.2 *Regular Work Schedule.*

The Contractor shall furnish a work schedule with the Construction Schedule required by 6-1 and inform the Engineer at least two Days in advance of changing the schedule. The schedule shall include the times for starting and ending work on each day. Such starting and ending times shall not be more than 10 1/2 hours apart.

6-3.2.2.3 *Exceptions.*

The limitations on working hours and days shall not apply to emergency work made necessary by unusual conditions where such work is necessary to protect the Work, to protect the property of others, to protect life, or to ensure the orderly flow of traffic.

The limitations of this section shall not apply where work at times other than allowed by 6-3.2.2.1 and 6-3.2.2.2 is necessary in order to make utility connections or is required by other provisions contained in these Specifications in order to perform the work in the manner specified. In these cases, the Contractor shall obtain prior written approval of the Engineer at least two Days in advance of performing the work.

6-3.2.3 Working Day.

A Working Day is any day within the period between the start of the Contract time as defined in 6-3.2.1 and the date provided in the Contract for completion or upon field acceptance by the Engineer of all Work provided for in the Contract, whichever occurs first, other than:

1. Saturday,
2. Sunday,
3. any day designated as a holiday by the Agency,
4. any other day designated as a holiday in a Master Labor Agreement entered into by the Contractor or on behalf of the Contractor as an eligible member of a Contractor Association,
5. any day the Contractor is prevented from working at the beginning of the workday for cause as defined in 6-4.1,
6. any day the Contractor is prevented from working during the first 5 hours of the workday with at least 60 percent of the normal work force for cause as defined in 6-4.1.

6-3.2.3.1 Holidays.

Solely for the purposes of paragraph (3) of 6-3.2.3, the following days are designated as holidays by the Agency.

MONTH	A AGENCY EMPLOYEE HOLIDAYS	B OTHER DESIGNATED HOLIDAYS
January	1st day; 3rd Monday	None
February	3rd Monday	12th day
March	None	31st day
March-April	None	One Friday between March 21 and April 23 designated as Good Friday
May	Last Monday	None
June	19 th day	None
July	4 th day	None
August	None	None
September	1 st Monday	9 th day
October	None	2 nd Monday
November	11 th day; 4 th Thursday; The Friday following the 4 th Thursday	The Friday following the 4 th Thursday
December	25 th day	23 rd day, only if Thursday or Friday; 24 th day; 31 st day

If any day listed above falls on Saturday, the preceding Friday is the holiday. If any day listed above falls on Sunday, the succeeding Monday is the holiday.

No extra holiday shall result when such Friday or Monday is already designated as a holiday.

A copy of a Working Day calendar incorporating the above-listed holidays and used by the Agency for Contract time accounting purpose will be furnished to the Contractor upon request.

The Contractor may perform work on the holidays designated in Column A above provided it has obtained prior written approval of the Engineer at least two Days in advance of performing the work. The Contractor may perform work on the holidays designated in Column B above provided the Contractor notifies the Engineer two Days in advance of the holiday.

6-3.2.3.2 Landscape Maintenance Period.

Where a landscape maintenance period is specified, the portion of the time in such period that follows the completion of all other Work required by the Contract shall not be Working Days for Contract time accounting.

6-4 DELAYS AND EXTENSIONS OF TIME.

6-4.1 General.

If delays are caused by unforeseen events beyond the control of the Contractor, such delays will entitle the Contractor to an extension of time as provided herein, but the Contractor will not be entitled to damages or additional payment due to such delays, except as provided in 6-4.3. Such unforeseen events may include war, government regulations, labor disputes, strikes, fires, floods, adverse weather necessitating cessation of work, other similar action of the elements, inability to obtain materials, equipment or labor, required Extra Work, or other specific events as may be further described in the Specifications.

No extension of time will be granted for a delay caused by the Contractor's inability to obtain materials unless the Contractor furnishes to the Engineer documentary proof of the inability to obtain such materials in a timely manner in accordance with the sequence of the Contractor's operations and the approved construction schedule.

If delays beyond the Contractor's control are caused by events other than those mentioned above, but substantially equal in gravity to those enumerated, and an extension of time is deemed by the Engineer to be in the best interests of the Agency, an extension of time may be granted, but the Contractor will not be entitled to damages or additional payment due to such delays, except as provided in 6-4.3.

If delays beyond the Contractor's control are caused solely by action or inaction by the Agency, such delays will entitle the Contractor to an extension of time as provided in 6-4.2.

6-4.1.1 Cooperation During Utility Relocation.

When utilities are to be relocated during construction, the Contractor shall cooperate and coordinate with the respective utility owners so they may relocate their facilities to clear the Work. Delays in relocation of utilities which result from the failure to cooperate and coordinate will not be a cause for an extension of time or Non-Working Days.

6-4.2 Extensions of Time.

Extensions of time, when granted, will be based upon the effect of delays to the Work as a whole and will not be granted for noncontrolling delays to minor included portions of Work unless it can be shown that such delays did, in fact, delay the progress of the Work, as a whole.

6-4.3 Payment for Delays to Contractor.

Pursuant to Section 7102 of the Public Contract Code, the Contractor will be compensated for damages incurred due to delays for which the Agency is responsible if such delays are unreasonable in the circumstances involved and were not within the contemplation of the parties when the Contract was awarded to the Contractor and delay the Work as a whole. Such actual costs will be determined by the Engineer. The Agency will not be liable for, and in making this determination the Engineer will exclude, all damages which the Engineer determines the Contractor could have avoided by any reasonable means including, without limitation, the judicious handling of forces, equipment, or plant.

6-4.4 Written Notice and Report.

If the Contractor desires payment for a delay as specified in 6-4.3 or an extension of time, it shall, within 30 Days after the beginning of the delay, file with the Agency a written request and report as to the cause and extent of the delay. The request for payment or extension must be made at least 15 Days before the specified completion date. Failure by the Contractor to file these items within the time specified will be considered grounds for refusal by the Agency to consider such request.

6-4.4.1 Documentation of Delays.

When the Contractor requests an extension of time for delay due to inability to obtain materials or equipment, the documentary proof required by 6-4.1 shall include the following:

1. Date Engineer was notified of delay.
2. Date the delay began.
3. Exact description of material or equipment causing delay.

4. Documentation showing when and from whom ordered.
5. Documentation of promise to deliver.
6. Documentation of actual delivery date.
7. Description of how late delivery caused delay (include construction schedule).
8. Documentation of measures taken to get prompt delivery.
9. Documentation of attempts to get delivery from other sources.
10. Description of steps taken in project scheduling to minimize effects of late delivery.
11. Description of steps taken to get project back on schedule after actual delivery.
12. Statement of actual time lost as a result of late delivery.

6-5 USE OF IMPROVEMENT DURING CONSTRUCTION.

The Agency reserves the right to take over and utilize all or part of any completed facility or appurtenance. The Contractor will be notified in writing in advance of such action. Such action by the Agency will relieve the Contractor of responsibility for injury or damage to said completed portions of the improvement resulting from use by public traffic or from the action of the elements or from any other cause, except injury or damage resulting from the Contractor's operations or negligence. The Contractor will not be required to reclean such portions of the improvement before field completion, except for cleanup made necessary by its operations. Nothing in this section shall be construed as relieving the Contractor from full responsibility for correcting defective work or materials.

In the event the Agency exercises its right to place into service and utilize all or part of any completed facility or appurtenance, the Agency shall assume the responsibility and liability for injury to persons or property arising out of or resulting from the utilization of the facility or appurtenance so placed into service, except for any willful or negligent act or omission by the Contractor, Subcontractor, their officers, employees or agents.

6-5.1 Use of Improvements - Exceptions.

The provisions of 6-5 shall not apply to projects for the repair, modification, enlargement or improvement of existing facilities that are to remain in use during construction except where a portion of the project which is completely independent from the rest of the Work can be completed and put into use by the Agency.

On projects on public roads, after satisfactory completion of an isolated section of the Work involving roadway improvements or repairs, when all temporary signs and other temporary Contractor facilities have been removed, the section is not being used as a detour, the section is no longer under the Contractor's control, and the section is opened to public traffic through the end of the Contract period, that section of the Work shall be taken over by the Agency as provided in 6-5. The Contractor shall indicate to the Engineer in writing when the conditions of this paragraph have been complied with and shall specify the limits of the section involved. Any taking over of the Work by the Agency shall be effective only when formal written notification is issued by the Agency.

6-6 SUSPENSION OF WORK.

6-6.1 General.

The Work may be suspended in whole or in part when determined by the Engineer that the suspension is necessary in the interest of the Agency. The Contractor shall comply immediately with any written order of the Engineer. Such suspension shall be without liability to the Contractor on the part of the Agency except as otherwise specified in 6-4.3.

6-6.2 Archaeological and Paleontological Discoveries.

If discovery is made of items of archaeological or paleontological interest, the Contractor shall immediately cease excavation in the area of discovery and shall not continue until ordered by the Engineer. When resumed, excavation operations within the area of discovery shall be as directed by the Engineer.

Discoveries which may be encountered may include, but not be limited to, dwelling sites, stone implements or other artifacts, animal bones, human bones and fossils.

Contractor shall be entitled to an extension of time and compensation in accordance with 6-4.

6-6.3 Temporary Suspension of Work.

Should suspension of Work be ordered by reason of the failure of the Contractor to carry out orders or to perform any provisions of the Contract; or by reason of weather conditions being unsuitable for performing any item or items of Work; the Contractor, at its expense, shall do all the work necessary to provide a safe, smooth, and unobstructed passageway through construction for use by public traffic during the period of such suspension. In the event that the Contractor fails to perform the work above specified, the Agency may perform such work and the cost thereof will be deducted from monies due or to become due the Contractor.

If the Engineer orders a suspension of all the Work, or a portion of the Work which is the current controlling operation or operations, due to unsuitable weather or to such other conditions as are considered unfavorable to the suitable prosecution of the Work, the days on which the suspension is in effect shall not be considered Working Days.

If a portion of Work at the time of such suspension is not a current controlling operation or operations, but subsequently does become the current controlling operation or operations, the determination of Working Days will be made on the basis of the then current controlling operation or operations.

If a suspension of Work is ordered by the Engineer due to the failure on the part of the Contractor to carry out orders given or to perform any provision of the Contract, the Days on which the suspension order is in effect shall be considered Working Days if such days are Working Days as defined.

6-7 TERMINATION OF THE CONTRACT FOR DEFAULT.

6-7.1 General.

If, prior to the acceptance of the Work, the Contractor:

- a) becomes insolvent, assigns its assets for the benefit of its creditors, is unable to pay its debts as they become due, or is otherwise financially unable to complete the Work,
- b) abandons the Work by failing to report to the Work site and diligently prosecute the Work to completion,
- c) disregards written instructions from the Agency or materially violates provisions of the Contract Documents,
- d) fails to prosecute the Work according to the schedule approved by the Engineer,
- e) disregards laws or regulations of any public body having jurisdiction, or
- f) commits continuous or repeated violations of regulatory or statutory safety requirements,

then the Agency will consider the Contractor in default of the Contract.

Notices, and other written communications regarding default between the Contractor, the Agency, and the Surety shall be transmitted in accordance with 5-2.

6-7.2 Notice to Cure.

The Agency will issue a written notice to cure the default to the Contractor and its Surety. The Contractor shall commence satisfactory corrective actions within 5 Working Days after receipt.

6-7.3 Notice of Termination for Default.

If the Contractor fails to commence satisfactory corrective action within 5 Working Days after receipt of the notice to cure, or to diligently continue satisfactory and timely correction of the default thereafter, then the Agency will consider the Contractor in default of the Contract and:

- a) will terminate the Contractor's right to perform under the Contract by issuing a written notice of termination for default to the Contractor and its Surety,
- b) may use any materials, equipment, tools or other facilities furnished by the Contractor to secure and maintain the Work site, and
- c) may furnish labor, equipment, and materials the Agency deems necessary to secure and maintain the Work site. The provisions of this subsection shall be in addition to all other legal rights and remedies available to the Agency.

6-7.4 Responsibilities of the Surety.

Upon receipt of the written notice of termination for default, the Surety shall immediately assume all rights, obligations and liabilities of the Contractor under the Contract. If the Surety fails to protect and maintain the Work site, the Agency may do so, and may recover all costs incurred. The Surety shall notify the Agency that it is assuming all rights, obligations and liabilities of the Contractor under the Contract and all money that is due, or would become due, to the Contractor shall be payable to the Surety as the Work progresses, subject to the terms of the Contract.

Within 15 Working Days of receipt of the written notice of termination for default, the Surety shall submit to the Agency a written plan detailing the course of action it intends to take to remedy the default. The Agency will review the plan and notify the Surety if the plan is satisfactory. If the Surety fails to submit a satisfactory plan, or if the Surety fails to maintain progress according to the plan accepted by the Agency, the Agency may, upon 48 hours written notice, exclude the Surety from the premises, take possession of all material and equipment, and complete the Work in any way the Agency deems to be expedient. The cost of completing the Work by the Agency shall be charged against the Surety and may be deducted from any monies due, or which would become due, the Surety. If the amounts due under the Contract are insufficient for completion, the Surety shall pay to the Agency, within 30 days after the Agency submits an invoice, all costs in excess of the remaining Contract Price.

6-7.5 Payment.

The Surety will be paid for completion of the Work in accordance with 7-3 less the value of damages caused to the Agency by acts of the Contractor.

6-8 TERMINATION OF CONTRACT FOR CONVENIENCE.

The Board may terminate the Contract at its own discretion or when conditions encountered during the Work make it impossible or impracticable to proceed, or when the Agency is prevented from proceeding with the Contract by act of God, by law, or by official action of a public authority.

The Agency will issue a written notice of termination for convenience in accordance with 5-2. Upon receipt, the Contractor shall immediately cease work, except work the Contractor is directed

to complete by the Engineer or required to complete for public safety and convenience. The Contractor shall immediately notify Subcontractors and suppliers to immediately cease their work.

The Contractor will be paid without duplication for:

- a) work completed in accordance with the Contract Documents prior to the effective date of termination for convenience;
- b) reasonable costs incurred in settlement of terminated contracts with Subcontractors, suppliers and others; and
- c) reasonable expenses directly attributable to termination.

The Contractor shall submit a final termination settlement proposal to the Agency no later than 90 days from the effective date of termination, unless extended, in writing, by the Agency upon written request by the Contractor.

If the Contractor fails to submit a proposal, the Agency may determine the amount, if any, due the Contractor as a result of the termination. The Agency will pay the Contractor the amount it determines to be reasonable. If the Contractor disagrees with the amount determined by the Agency as being reasonable, the Contractor shall provide notice to the Agency within 30 days of receipt of payment. Any amount due shall be as later determined by arbitration, if the Agency and the Contractor agree thereto, or as fixed in a court of law.

6-9 LIQUIDATED DAMAGES.

Failure of the Contractor to complete the Work within the time allowed will result in damages being sustained by the Agency. Such damages are, and will continue to be, impracticable and extremely difficult to determine. For each consecutive calendar day in excess of the time specified, as adjusted in accordance with 6-6, for completion of the Work the Contractor shall pay to the Agency, or have withheld from monies due it, the sum of \$250, unless otherwise provided in the Contract Documents.

Execution of the Contract under these Specifications shall constitute agreement by the Agency and Contractor that \$250 per day is the minimum value of the costs and actual damage caused by failure of the Contractor to complete the Work within the allotted time, that such sum is liquidated damages and shall not be construed as a penalty, and that such sum may be deducted from payments due the Contractor if such delay occurs.

6-10 NOTICE OF POTENTIAL CLAIM FOR ADDITIONAL COMPENSATION.

Procedures for notice of claims in specific situations and circumstances are provided in the following sections:

2-9 Changed Conditions

6-4 Delays and Extensions of Time

6-3.2 Contract Time Accounting

Compliance with this section is not prerequisite to assertion of a claim involving those sections or based on differences in measurements or errors of computation as to Contract quantities.

Compliance with the provisions of this section is required in all other situations and circumstances.

It is the intention of this section that differences arising between the parties under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action taken to resolve such differences.

The Contractor shall give the Engineer written notice of a potential claim, setting forth: (1) the reasons for which the Contractor believes additional compensation will or may be due; (2) the nature of the costs involved; and (3) insofar as possible, the amount of the potential claim.

If the claim is based upon an act or failure to act by the Engineer, the said notice must be given to the Engineer prior to the date when the work giving rise to the potential claim is commenced; in all other cases the said notice must be given to the Engineer within 15 Days after the happening of the event, thing or occurrence giving rise to the potential claim.

The Contractor shall not be entitled to the payment of any additional compensation where the written notice of potential claim has not been given to the Engineer in the manner required by and within the time limitations of this section.

6-11 DISPUTES AND CLAIMS; PROCEDURE.

6-11.1 General.

Any and all decisions made on appeal pursuant to this section shall be in writing. Any "decision" purportedly made pursuant to this section which is not in writing shall not be binding upon the Agency and should not be relied upon by the Contractor.

Filing or giving the notices required under 2-9, 6-4.4.1, 6-3.2, and 6-10 is prerequisite to recovery under a Contractor's claim for additional compensation; nothing in this section shall excuse the Contractor from its duty to file or give the required notices, or from performing other duties required by the Contract Documents.

6-11.2 Administrative Review.

Prior to proceeding under 6-11.3 or filing a Complaint in Arbitration, the Contractor shall exhaust its administrative remedies by submitting its claim for review and decision by the following Agency staff in the following sequence:

- Project Manager, responsible for the project.
- Department Director (Public Works Agency), responsible for the project.
- Director of the Public Works Agency (the Engineer)

If the Contractor disputes the Project Manager's decision on its claim, the Contractor shall submit the claim to the Department Director. If the Contractor disputes the Department Director's decision on its claim, the Contractor shall submit the claim to the Engineer. Agency staff decisions shall state the portion of the claim that is undisputed, if any.

The Project Manager may elect to forward a claim submitted by the Contractor directly to the Department Director. The Project Manager must give the Contractor notice of that election and the Contractor may supplement its claim within 7 Days of such notice (unless the parties agree in writing to a different time) and its claim will be deemed submitted on the earlier of the day it supplements its claim, the day it states in writing that it will not supplement its claim or the day time to supplement expires. The Department Director may forward a claim timely submitted by the Contractor directly to the Engineer instead of making a decision on the claim, in which case no notice or opportunity to supplement the claim is required, and the claim shall be deemed timely submitted to the Engineer.

The Engineer's decision on the claim shall be the Agency's final decision.

Claims submitted to the Department Director and the Engineer shall be submitted in writing and shall include:

- a. A copy of the disputed decision.
- b. A statement as to why the Contractor believes the decision is in error.
- c. All information, argument, documents, and evidence (collectively, materials) that the Contractor wishes to have considered in the review. Where the request for review is made to the Engineer, in lieu of resubmitting materials which have already been submitted to the Department Director, the Contractor may include with the request a list of the materials the Contractor wants the Engineer to consider. Any additional materials and evidence not previously submitted to the Department Director shall be included with the request to the Engineer, if the Contractor wishes them to be considered. If relevant evidence is not available at the time the request is made to the Department Director or the Engineer, the Contractor shall identify such evidence and include a statement as to when such evidence will be submitted.

The Project Manager shall issue a decision on a claim within 10 Days of receipt; if the Project Manager does not do so, then the Project Manager will be deemed to have decided to reject the claim in its entirety as of the conclusion of the 10th Day after receipt. The Contractor shall submit a claim to the Department Director for review and decision within 7 Days of receipt of the Project Manager's decision or of the time the Project Manager is deemed to have decided to reject the claim, whichever is applicable. The Department Director shall issue a decision on a claim within 10 Days of the timely submission of the claim; if the Department Director does not do so, then the Department Director will be deemed to have decided to reject the claim in its entirety as of the conclusion of the 10th Day after timely submission. The Contractor shall submit a claim to the Engineer for review and decision within 7 Days of receipt of the Department Director's decision or of the time the Department Director is deemed to have decided to reject the claim, whichever is applicable. If a claim is timely submitted to the Engineer and the Engineer fails to issue a decision on that claim within the time limits prescribed for issuing a written statement under Public Contract Code, section 9204, subdivision (d)(1), the Engineer shall be deemed to have decided to reject the claim in its entirety. At any time after the Project Manager receives a claim, the Agency and Contractor may agree in writing to different time limits than those set forth in this paragraph.

6-11.3 Meet and Confer; Mediation.

If the Contractor disputes the Agency's final decision, the Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the Agency shall schedule a meet and confer conference within 30 Days for settlement of the dispute.

Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the Agency shall provide the Contractor a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 Days after the Agency issues its written statement. Any disputed portion of the claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the Agency and the Contractor sharing the associated costs equally. The Agency and Contractor shall agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the Agency and Contractor cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

Failure by the Agency to meet the time requirements of this section shall result in the portion of the claim that remains in dispute being deemed rejected in its entirety.

The parties may agree to waive, in writing, mediation under this section.

6-11.4 Arbitration.

Claims and disputes arising under or related to the performance of the Contract, except for claims which have been released by execution of the "Release on Contract" as provided in 6-12, shall be resolved by arbitration unless the Agency and the Contractor agree in writing, after the claim or dispute has arisen, to waive arbitration and to have the claim or dispute litigated in a court of competent jurisdiction. Arbitration shall be pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2 of the Public Contract Code and the regulations promulgated thereto, Chapter 4 (commencing with Section 1300) of Division 2 of Title 1 of the California Code of Regulations. The arbitration decision shall be decided under and in accordance with California law, supported by substantial evidence and, in writing, contain the basis for the decision, findings of fact, and conclusions of law.

Arbitration shall be initiated by a Complaint in Arbitration made in compliance with the requirements of said Chapter 4. A Complaint in Arbitration by the Contractor shall be filed not later than 90 calendar Days after receipt of the final written decision of the Agency on the claim or dispute or within 300 Days after Acceptance of the Work by the Agency if no written decision has been issued. For the purposes of this section, "Acceptance of the Work by the Agency" shall be defined as the date the Notice of Completion is filed.

Where an election is made by either party to use the Simplified Claims Procedure provided under Sections 1340-1346 of said Chapter 4, the parties may mutually agree to waive representation by counsel.

All contracts valued at more than \$25,000 between the Contractor and its subcontractors and suppliers shall include a provision that the subcontractors and suppliers shall be bound to the Contractor to the same extent that the Contractor is bound to the Agency by all terms and provisions of the Contract, including this arbitration provision.

6-12 TERMINATION OF AGENCY LIABILITY.

After completion of all work required by the contract, Agency will furnish Contractor a Release on Contract form, in the form in Appendix E, hereto, stating the amount of total authorized payments for the project. Contractor shall execute and return said form within 21 days of receipt. Said form shall release and discharge the Agency from all claims of and liability to the Contractor for all manner of debts, demands, accounts, claims, and causes of action under or by virtue of said Contract except:

- a. The claim against the Agency for the remainder, if any, of the amounts retained as provided in 7-3.2, and any amounts retained as required by Stop Notices or Labor Code provisions.
- b. Any unsettled claims or disputes listed on the Release on Contract form which has been processed in compliance with the requirements for making claims under the Contract, including given timely notice pursuant to the applicable provisions of the Contract and following the procedure set forth in 6-11.

Acceptance of the Release on Contract by the Agency shall not be deemed a waiver or release of the Agency's right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

When executing the Release on Contract, the Contractor shall certify that each unsettled claim or dispute listed thereon has been processed in compliance with the requirements for making claims under the Contract, including giving timely notice pursuant to the applicable provisions of the Contract and following the procedures for resolution of disputes or claims set forth in 6-11 and that acceptance of the Release on Contract by the Agency shall not be deemed a waiver or release of the Agency's right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

If Contractor fails to execute and submit a Release on Contract within the 21 day time period set forth above, the Release on Contract shall be deemed to have been submitted with no unsettled claims or disputes listed on the Release on Contract. A payment of \$1.00 will be made to the Contractor for such Release on Contract and waiver.

SECTION 7 – MEASUREMENT AND PAYMENT

7-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK.

7-1.1 General.

Unless otherwise specified, quantities of work shall be determined from measurements or dimensions in horizontal planes. However, linear quantities of pipe, piling, fencing, and timber shall be considered as being the true length measured along longitudinal axis.

Unless otherwise provided in Specifications, volumetric quantities shall be the product of the mean area of vertical or horizontal sections and the intervening horizontal or vertical dimension.

7-1.2 Methods of Measurement.

Materials and items of Work which are to be paid for on the basis of measurement shall be measured in accordance with the methods stipulated in the particular sections involved.

7-1.3 Certified Weights.

When payment is to be made on the basis of weight, the weighing shall be done on certified platform scales or, when approved by the Engineer, on a completely automated weighing and recording system. The Contractor shall furnish the Engineer with duplicate licensed weighmaster's certificates showing actual net weights. The Agency will accept the certificate as evidence of weights delivered.

7-2 LUMP SUM WORK.

Items for which quantities are indicated as "Lump Sum", "L.S." or "Job" shall be paid for at the price indicated in the Proposal. Such payment shall be full compensation for the items of Work and all Work appurtenant thereto.

When required by the Specifications or requested by the Engineer, the Contractor shall submit to the Engineer within 15 Days after award of Contract, a detailed schedule in triplicate, to be used only as a basis for determining progress payments on a lump sum contract or any designated lump sum bid item. This schedule should equal in total the lump sum bid 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 Mobilization or Water Pollution Control are included in the detailed schedule, those items will be paid for as provided in 7-3.4.2 and 3-12.6.7, respectively.

7-3 PAYMENT.

7-3.1 General.

The quantities listed in the Bid schedule will not govern final payment unless identified by Agency on the Proposal as [F]. The symbol "[F]" indicates that the quantities shown on the Proposal form are the final pay quantities. Payment to the Contractor (except those items identified as [F]) will be made only for the actual quantities of Contract items constructed in accordance with the Plans and Specifications. Upon completion of construction, if the actual quantities show either an increase or decrease from the quantities given in the Bid schedule, the Contract Unit Prices will prevail subject to the provisions of 7-3.5. Payment for those items identified as [F] will be based on the quantities shown on the Proposal unless changed as provided in 7-3.5.

The unit and lump sum prices to be paid shall be full compensation for the items of work and all appurtenant work, including furnishing all materials, labor, equipment, tools and incidentals.

Payment for items shown on the Plans or required by the Specifications, for which no pay item is

provided, shall be considered included in the prices named for the other items shown on the Proposal.

Payment will not be made for materials wasted or disposed of in a manner not called for under the Contract. This includes rejected material not unloaded from vehicles, material rejected after it has been placed and material placed outside of the Plan lines. No compensation will be allowed for disposing of rejected or excess material.

Whenever any portion of the Work is performed by the Agency at the Contractor's request, the cost thereof shall be charged against the Contractor, and may be deducted from any amount due or becoming due from the Agency.

Whenever immediate action is required to prevent injury, death, or property damage, and precautions which are the Contractor's responsibility have not been taken and are not reasonably expected to be taken, the Agency may, after reasonable attempt to notify the Contractor, cause such precautions to be taken and shall charge the cost thereof against the Contractor, or may deduct such cost from any amount due or becoming due from the Agency. Agency action or inaction under such circumstances shall not be construed as relieving the Contractor or its Surety from liability.

Payment shall not relieve the Contractor from its obligations under the Contract; nor shall such payment be construed to be Acceptance of any of the Work. Payment shall not be construed as the transfer of ownership of any equipment or materials to the Agency. Responsibility of ownership shall remain with the Contractor who shall be obligated to store, protect, repair, replace, rebuild, or otherwise restore any fully or partially completed work or structure for which payment has been made; or replace any materials or equipment required to be provided under the Contract which may be damaged, lost, stolen or otherwise degraded in any way prior to completion of the Work under the Contract, except as provided in 6-5.

Warranty periods shall not be affected by any payment but shall commence on the date equipment or material is placed into service at the written direction of the Engineer. In the event such items are not placed into service prior to partial or final completion of the Work, the warranty periods will commence on the date set forth as the date of field completion in the Engineer's acknowledgement of completion.

If, within the time fixed by law, a properly executed notice to stop payment is filed with the Agency, due to the Contractor's failure to pay for labor or materials used in the Work, all money due for such labor or materials will be withheld from payment to the Contractor in accordance with applicable laws.

At the expiration of 35 Days from the date of recording of the Notice of Completion, or as prescribed by law, the amount deducted from the final estimate and retained by the Agency will be paid to the Contractor except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be authorized by the Contract to be further retained.

7-3.2 Partial and Final Payment.

The Engineer will, after award of Contract, establish a closure date for the purpose of making monthly progress payments. The Contractor may request in writing that such monthly closure date be changed. The Engineer may approve such request when it is compatible with the Agency's payment procedure.

Each month, the Engineer will make an approximate measurement of the Work performed to the closure date and, as a basis for making monthly payments, estimate its value based on the Contract Unit Prices or as provided for in 7-2. When the Work has been satisfactorily completed, the Engineer will determine the quantity of Work performed and prepare the final estimate.

Work not conforming to the Contract Documents shall not be measured for payment.

Conformance with the Contract Documents shall be, in addition to constructing the Work in accordance with the Contract Documents, the Contractor's compliance with those portions of the Contract Documents not directly related to the completed Work, including but not limited to: construction and maintenance of detours; diversion and control of water; protection and repair of existing facilities of the Agency and adjacent owners; site maintenance; coordination with utilities and other contractors on the site; proper survey procedures and records; obtaining required permits and inspections; complying with working hour limitations; providing a Contractor's representative while Work is being performed; complying with environmental requirements; maintaining access and safety for users of facilities that are to remain in service during construction; and obeying all laws affecting the Work.

Payment for Extra Work will be made only on approved Daily Extra Work Reports with supporting documentation as required in 7.4.

From each progress estimate, not less than five (5) percent will be deducted and retained by the Agency, and the remainder, less the amount of all previous payments, will be paid to the Contractor until acceptance of the performance of the Contract or otherwise stated in the Specifications.

No progress payment made to the Contractor or its sureties will constitute a waiver of the liquidated damages under 6-9.

As provided for in Sections 22300 of the California Public Contract Code, the Contractor may substitute securities for any monies withheld by the Agency to ensure performance under the Contract. In substituting securities, the Contractor may either:

- a. Deposit qualifying securities already owned by the Contractor with the Escrow prior to the Contract payment date, or
- b. Direct the Agency to send retained funds to the Escrow to be invested by the Escrow in qualifying securities as directed by the Contractor.

7-3.2.1 Release of Withheld Contract Funds.

Pursuant to Public Contract Code Section 22300, Contractor has the option to deposit securities with an Escrow Agent as a substitute for retention earnings required to be withheld by Agency pursuant to the construction Contract between the Agency and the Contractor. A form of Escrow Agreement for Security Deposits in Lieu of Retention has been adopted by the Agency as one of the Contract Documents; procedures for implementing the provisions of the Escrow Agreement are contained in (see Appendix D, hereto) Instructions which shall become effective upon exercise of the option by the Contractor.

The Contractor shall take the following steps if it desires to substitute securities:

- a. Execute the Escrow Agreement for Security Deposits in Lieu of Retention.
- b. Furnish to the Escrow Agent a power of attorney and other forms necessary to empower the Escrow Agent to convert the securities to cash.
- c. Furnish to the Escrow Agent the securities described.
- d. Pay the Escrow Agent's fees and costs.

When the Contractor deposits with the Escrow Agent securities in lieu of money required to be withheld from progress payments, a sum of money equivalent to the current cash value of the securities as determined by the Escrow Agent shall be released to the Contractor by, or upon the direction of, the Agency.

If the total of the money plus the current cash conversion value of securities on deposit should fall below the aggregate amount of the sums required to be withheld from progress payments pursuant to 7-3.1 and 7-3.2, an amount equal to the difference shall be withheld from the next regular progress payment in addition to the amount which would ordinarily be withheld pursuant to 7-3.1 and 7-3.2. If the next regular progress payment is less than the total of the amounts to be withheld therefrom, the Contractor shall immediately either deposit with the Agency cash in the amount of the difference or deposit with the Escrow Agent additional securities having a current cash conversion value equal to or greater than the difference.

The Contractor shall be the beneficial owner of any such securities on deposit with the Escrow Agency and shall be entitled to any interest earned thereon prior to conversion. The Agency may direct the Escrow Agency to convert securities with the Escrow Agency into cash, and to deliver the cash to the Agency, in any case where the Contractor is in default, including the following:

- a. where the Agency would be entitled to use funds withheld pursuant to 7-3.1 and 7-3.2 to satisfy claims of workers, materials suppliers or subcontractors, or to complete or correct work which the Contractor has failed or refused to complete or correct, or
- b. where the Contractor has failed to comply with the requirements of this section respecting the deposit of additional cash or securities to make up for a fall in the value of securities already on deposit with the Escrow Agency.

The Agency may hold and use cash resulting from such a conversion of securities in the same manner as it would be entitled to hold and use funds withheld pursuant to 7-3.1 and 7-3.2.

7-3.2.2 Timely Progress Payments.

As required by Public Contract Code Section 20104.50, the Contractor is informed that should a progress payment not be made within 30 Days after receipt of an undisputed and properly submitted payment request from the Contractor, the Agency shall pay interest to the Contractor on the unpaid amount at the rate set forth in the Code of Civil Procedures, Section 685.010(a). Agency shall promptly review payment requests, and if not determined to be proper, document to the Contractor, within 7 Days, the reasons why the request is not proper.

7-3.3 Delivered Materials.

When provided for in the Special Provisions, and subject to the limitation and conditions therein, the cost of materials and equipment delivered but not incorporated into the Work will be included in the progress estimate.

7-3.4 Mobilization.

7-3.4.1 Scope.

Mobilization includes preliminary services, work and operations, including but not limited to, furnishing required bonds, obtaining necessary permits and work areas, providing a specified field office, the movement of labor, supplies, equipment and incidentals to the Work site, and for all other work, services and operations which must be performed or for which costs are incurred prior to performing work of the other Contract items.

7-3.4.2 Payment.

The Contract lump sum price bid for mobilization shall include full compensation for furnishing all labor, materials, tools, equipment, services and incidentals and for doing all work involved in mobilization as specified herein. Payment for mobilization will be made as the Work proceeds on the following basis except that where a field office is required by the Specifications, no payment for mobilization will be made until the specified field office has been provided:

Partial payment estimate (excluding mobilization & water pollution control payments) as a percentage of the original Contract price (excluding the mobilization & water pollution control Bid items).		Cumulative amount of mobilization pay item earned is the lesser of the amounts as computed by these two columns.	
Equal to or greater than	Less than	Percentage of mobilization pay item	Percentage of the original Contract total
5	10	50	5
10	20	75	7.5
20	50	95	9.5
50	Completion of Work	100	10
Completion of Work		100	

Where no Bid item is provided for mobilization, payment for mobilization shall be considered to be included in the other Bid items.

7-3.5 Contract Unit Prices.

7-3.5.1 General.

The quantities listed in the Proposal will not govern final payment. Payment to the Contractor will be made only for actual quantities of Contract items constructed in accordance with the Contract Documents.

If a change is ordered in an item of work covered by a Contract Unit Price, and such change does not involve a substantial change in the character of the work from that shown on the Plans or specified in the Specifications, then an adjustment in payment will be made. This adjustment will be based upon the increase or decrease in quantity and the Contract Unit Price.

If the actual quantity of an item of work covered by a Contract Unit Price and constructed in conformance with the Plans and Specifications varies from the Bid quantity by 25 percent or less, payment will be made at the Contract Unit Price. If the actual quantity of said item of work varies from the Bid quantity by more than 25 percent, payment will be made per 7-3.5.2 or 7-3.5.3, as appropriate.

If a change is ordered in an item of work covered by a Contract Unit Price, and such change does involve a substantial change in the character of the work from that shown on the Plans or specified in the Specifications, an adjustment in payment will be made per 7-3.7.

7-3.5.2 Increases of More Than 25 Percent.

Should the actual quantity of an item of work covered by a Contract Unit Price and constructed in conformance with the Plans and Specifications, exceed the Bid quantity by more than 25 percent, payment for the quantity in excess of 125 percent of the Bid quantity will be made on the basis of an adjustment in the Contract Unit Price mutually agreed to by the Contractor and the Agency, or at the option of the Engineer, on the basis of Extra Work.

The Extra Work basis of payment shall not include fixed costs. Fixed costs shall be deemed to have been recovered by the Contractor through payment for 125 percent of the Bid quantity at the Contract Unit Price.

7-3.5.3 Decreases of More Than 25 Percent.

Should the actual quantity of an item of work covered by a Contract Unit Price, and constructed in conformance with the Plans and Specifications, be less than 75 percent of the Bid quantity, an adjustment in payment will not be made unless so requested in writing by the Contractor. If the Contractor so requests, payment will be made on the basis of an adjustment in the Contract Unit Price mutually agreed to by the Contractor and the Agency, or at the option of the Engineer, on the basis of Extra Work; however, in no case will payment be less than would be made for the actual quantity at the Contract Unit Price nor more than would be made for 75 percent of the Bid quantity at the Contract Unit Price.

7-3.6 Stipulated Unit Prices.

Stipulated unit prices are those established by the Agency in the Contract Documents, as distinguished from Contract unit prices submitted by the Contractor. Stipulated unit prices may be used for the adjustment of Contract changes.

7-3.7 Non-Agreed Prices.

Agency may issue a change order directing the Contractor to proceed at a price set by the Agency or on the basis of Extra Work. If the Agency sets a price for the work covered by the change order, Contractor is entitled to payment for such work in accordance with 7-4 to the extent payment in accordance with 7-4 exceeds the price set by the Agency.

7-3.8 Eliminated Items.

Should any Bid item be eliminated in its entirety, payment will be made to the Contractor for its actual costs incurred in connection with the eliminated item prior to notification in writing from the Engineer so stating its elimination.

If material conforming to the Plans and Specifications is ordered by the Contractor for use in the eliminated item prior to the date of notification of elimination by the Engineer, and if the order for that material can not be canceled, payment will be made to the Contractor for the actual cost of the material. In this case, the material shall become the property of the Agency. Payment will be made to the Contractor for its actual costs for any further handling. If the material is returnable, the material shall be returned and payment will be made to the Contractor for the actual cost of charges made by the supplier for returning the material and for handling by the Contractor.

Actual costs, as used herein, shall be computed on the basis of Extra Work.

7-4 PAYMENT FOR EXTRA WORK.

7-4.1 General.

When the cost for Extra Work cannot be agreed upon, the Agency will pay for Extra Work based on the accumulation of costs as provided herein.

7-4.2 Basis for Establishing Costs.

7-4.2.1 Labor.

The cost of labor shall be the actual cost for wages of workers performing the Extra Work at the time the Extra Work is done, plus employer payments of payroll taxes, workers compensation insurance, liability insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs, resulting from Federal, State, or local laws, as well as assessments or benefits required by lawful collective bargaining agreements.

The use of a labor classification which would increase the Extra Work cost will not be permitted unless the Contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental. The labor cost for foremen shall be proportioned to all of their assigned work and only that applicable to the Extra Work will be paid.

Nondirect labor costs, including superintendence, shall be considered part of the markup specified in 7-4.3.

7-4.2.2 Materials.

The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available and delivered to the Work site in the quantities involved, plus sales tax, freight, and delivery. The Agency reserves the right to approve materials and sources of supply, or to supply materials to the Contractor if necessary for the progress of the Work. No markup shall be applied to any material provided by the Agency.

7-4.2.3 Tool and Equipment Rental.

No payment will be made for the use of tools which have a replacement value of \$200 or less.

Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors, at the time the Extra Work is performed.

The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. Necessary loading and transportation costs for equipment used on the Extra Work shall be included.

If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the Agency than holding it at the Work site, it shall be returned, unless the Contractor elects to keep it at the Work site, at no expense to the Agency.

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

The reported rental time for equipment already at the Work site shall be the duration of its use on the Extra Work. This time shall begin when the equipment is first used on the Extra Work, plus the time required to move it from its previous site and back, or to a closer site.

7-4.2.4 Other Items.

The Agency may authorize other items which may be required on the Extra Work, including labor, services, material, and equipment. These items must be different in their nature from those required for the Work, and be of a type not ordinarily available from the Contractor or Subcontractors.

7-4.2.5 Invoices.

Vendors' invoices for material, equipment rental and other expenditures shall be submitted with the daily report per 7-4.4. If the daily report is not substantiated by invoices or other documentation, the Agency may establish the cost of the item involved at the lowest price which was current at the time of the report.

7-4.3 Markup.

7-4.3.1 Work by the Contractor.

Unless otherwise specified in the Special Provisions, a reasonable allowance for overhead and profit shall be added to the Contractor's costs as determined in accordance with 7-4.2 and shall constitute the markup for all overhead and profit on Extra Work done by the Contractor. The Contractor shall also be compensated as specified in the Special Provisions for the actual increase in the Contractor's bond premium caused by the Extra Work.

7-4.3.2 Work by a Subcontractor.

When any of the Extra Work is performed by a Subcontractor, the markup established in 7-4.3.1 shall be applied to the Subcontractor's costs as determined in accordance with 7-4.2. Unless otherwise specified, a reasonable allowance for the Contractor's overhead and profit shall be added to the sum of the Subcontractor's costs and markup and shall constitute the markup for all overhead and profit for the Contractor on Extra Work done by the Subcontractor.

7-4.4 Daily Reports.

When the cost for the Extra Work cannot be agreed upon, the Contractor shall submit a daily report to the Engineer on forms approved by the Agency. Applicable delivery tickets, listing all labor, materials, and equipment involved for that day, and other services and expenditures when authorized shall be included. Failure to submit the daily report by the close of the next Working Day may waive any rights for that day. An attempt shall be made to reconcile the report daily, and it shall be signed by the Engineer and the Contractor. In the event of a disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the report. Reports by Subcontractors or others shall be submitted through the Contractor.

The report shall:

- a) List the names of workers, classifications, and hours worked.
- b) Describe and list quantities of materials used.
- c) List the type of equipment, size, identification number, and hours of operation, including loading and transportation, if applicable.
- d) Describe other services and expenditures in such detail as the Agency may require.

7-5 Payment for Changes Requested by the Contractor.

If such changes are approved by the Engineer pursuant to 2-6, approval will only be made based upon a reduction in cost or no additional cost to the Agency. All costs to the Agency in reviewing the proposed change, or testing materials involved therein, shall be paid for by the Contractor, whether or not the change is approved.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

8-1 GENERAL.

Facilities provided for Agency personnel shall be at locations approved by the Engineer. Such facilities must be in a room, building, or trailer provided for this purpose with acceptable means for locking.

A Class "A" Field Office conforming to 8-2.1 shall be provided at any offsite plant facility furnishing pipe subject to Agency inspection during manufacture. A field laboratory conforming to 8-3.1 shall be provided at any offsite or Work site plant facility furnishing Portland cement concrete or asphalt concrete pavement. Any other facilities for Agency personnel shall be provided only when required by the Contract Documents.

Offices and laboratories at plants may be used concurrently by inspection personnel of other agencies provided such use does not seriously conflict with Agency use. When facilities are shared in this manner, at least one locker provided with a hasp for a padlock must be available for the exclusive use of the Agency. Otherwise, any facilities furnished are for the exclusive use of the Agency.

Facilities shall conform to the applicable codes, ordinances, and regulations of the local jurisdiction and of the State of California and shall conform to current practice. The interior shall be paneled or suitably lined to provide a facility of good appearance.

The Contractor shall provide janitorial and other maintenance services in all types of facilities provided. Such services shall include the supply of the appropriate paper products and dispensers. Trash receptacles shall be provided and emptied by the Contractor at weekly intervals or sooner as required. The trash shall be removed from the Work site.

8-2 FIELD OFFICE FACILITIES.

8-2.1 Class "A" Field Office.

The office shall have a minimum floor space of 175 square feet (16 m²), at least one door, and window area of not less than 22 square feet (2 m²). All doors and windows shall be provided with screens.

Furniture shall be provided as follows: one plan table, one standard 5-foot (1.5 m) long double-pedestal desk with a drawer suitable for holding files, 2 chairs, one drafting stool, and one plan rack.

Electric power shall be provided to include a minimum of 4 duplex convenience outlets. The office shall be illuminated at the tables and desk. An outdoor lighting fixture with a 300W bulb shall be installed.

Heating and air conditioning of sufficient capacity shall be provided at no expense to the Agency. The Contractor shall provide drinking water within the office and integral sanitary facilities directly adjoining. Sanitary facilities shall include a toilet and wash basin with hot and cold running water.

Extended area, non-coin-operated telephone service shall be provided within the office area. The installation shall include sufficient extension cord to serve the plan table and desk.

8-2.2 Class "B" Field Office.

The office shall be the same as class "A" except that integrated sanitary facilities and air conditioning are not required. A chemical toilet facility shall be provided adjacent to the office.

8-2.3 Class "C" Field Office.

The office shall have a minimum floor space of 120 square feet (11 m²) of floor area. It shall be equipped with one 3-foot x 5-foot (0.9 m x 1.5 m) table, 4 chairs and one plan rack. It shall be adequately heated, ventilated, and lighted and 2 duplex convenience outlets shall be provided. Air conditioning, telephones, and sanitary facilities are not required.

8-3 FIELD LABORATORIES.

8-3.1 Offsite at Manufacturing Plant.

Field laboratories shall conform to the requirements for a Class "C" Field Office specified in 8-2.3 except for the following:

- a) Telephone service as specified in 8-2.1.
- b) Chair.
- c) Work table, 4 feet x 10 feet (1.2 m x 3 m), 3 feet (0.9 m).
- d) Sieves per 203-6.
- e) Scales and weights.
- f) Burner plate for heating samples.
- g) Thermometer, with 200 to 400°F (90 to 260°C) degree range (asphalt concrete plants only).
- h) Air meter for concrete in accordance with ASTM C231 of the type that indicates the percentage of air directly (precast concrete plants only).

Sampling and testing equipment shall be maintained in satisfactory operating condition by the Contractor or the plant owner. Laboratories shall be located immediately adjacent to and with full view of batching and loading operations.

8-3.2 At the Work Site.

Field laboratories shall conform to 8-3.1, except that sieves, scales, weights, burner plates, sampling devices, pans, and thermometers will be furnished by the Agency at no expense to the Contractor. If air entraining admixtures are being used in the concrete on the Work, an air meter of the type specified in 8-3.1 shall be furnished by the Contractor.

8-4 BATHHOUSE FACILITIES.

When the Special Provisions require bathhouse facilities, the following shall be provided:

- a) One lavatory with hot and cold water.
- b) One toilet in a stall.
- c) One 3-foot (1 m) trough-type urinal.
- d) One enclosed shower at least 3 feet x 3 feet (1 m x 1 m) with hot and cold water.
- e) One bench, 6 feet (2 m) long.
- f) Soap dispensers.
- g) Toilet paper holders.
- h) Paper towel cabinet.
- i) Wastepaper receptacle.

These facilities shall be serviced and provided with necessary sanitary supplies.

These facilities shall be for the exclusive use of Agency personnel. However, a separate building

need not be provided for this purpose if such facilities are located in a separate room in a building which includes other facilities.

8-5 REMOVAL OF FACILITIES.

Field offices, laboratories, and bathhouse facilities at the Work site shall be removed upon completion of the Work. Buildings and equipment furnished by the Contractor at the Work site under the provisions of this subsection shall remain the property of the Contractor.

8-6 BASIS OF PAYMENT.

Payment for furnishing, maintaining, servicing, and removing field offices laboratories, or bathhouse facilities required at the Work site shall be included in the Bid item for furnishing such facilities. If such facilities are required by the Plans in the Special Provisions and no Bid item is provided in the Proposal, the costs shall be payment will be considered as included in other Bid items. Such costs incurred in connection with offices and laboratories at plants shall be borne by the plant owners.

The first progress payment will not be approved until all facilities are in place and fully comply with the Specifications.

Appendices

Appendix A ACORD Certificate of Liability Insurance



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

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

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

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	
	NAIC #	
	INSURER A:	
INSURED	INSURER B:	
	INSURER C:	
	INSURER D:	
	INSURER E:	
	INSURER F:	

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

INBR LTR	TYPE OF INSURANCE	ADDL INBR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY						EACH OCCURRENCE \$ See VCSS 5-4.2.2
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
	<input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR						MED EXP (Any one person) \$
							PERSONAL & ADV INJURY \$
							GENERAL AGGREGATE \$ See VCSS 5-4.2.2
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG \$
	<input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC						
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per accident) \$ 1,000,000
	<input type="checkbox"/> SCHEDULED AUTOS						PROPERTY DAMAGE (Per accident) \$ 1,000,000
	<input type="checkbox"/> HIRED AUTOS						
	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR						EACH OCCURRENCE \$
	EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE						AGGREGATE \$
	DED <input type="checkbox"/> RETENTION \$						
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/ MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/>	N/A <input type="checkbox"/>				E.L. EACH ACCIDENT \$
							E.L. DISEASE - EA EMPLOYEE \$
							E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
 Agency) -(Project Name) (Project Specification Number)
 The Agency and the County of Ventura, including its boards, all special Districts governed by the Board of Supervisors, agencies, departments, officers, Consultants, employees, agents and volunteers, is named as Additional Insured as respects work done by the Contractor under terms of the contract on General Liability and Auto Liability Policies. Waiver of Subrogation is applicable to the Agency and the County of Ventura, its boards, agencies, Departments, officers, employees, agents and volunteers for Work Comp and General Liability. Endorsements required for reference contract will be Issued by the Insurance Company.

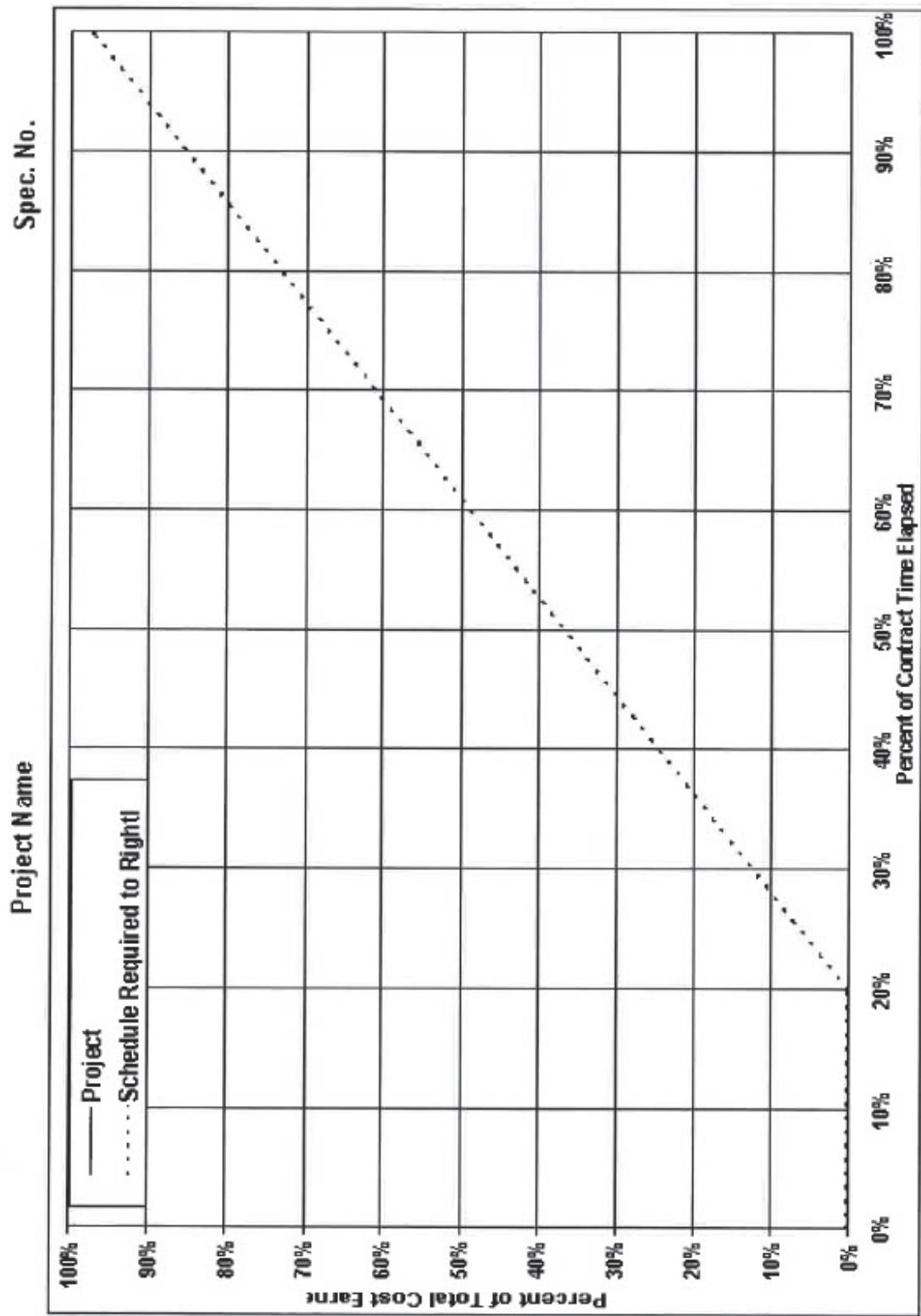
CERTIFICATE HOLDER	CANCELLATION
County of Ventura Public Works Agency L-1670 800 South Victoria Avenue Ventura, CA 93009-1670	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

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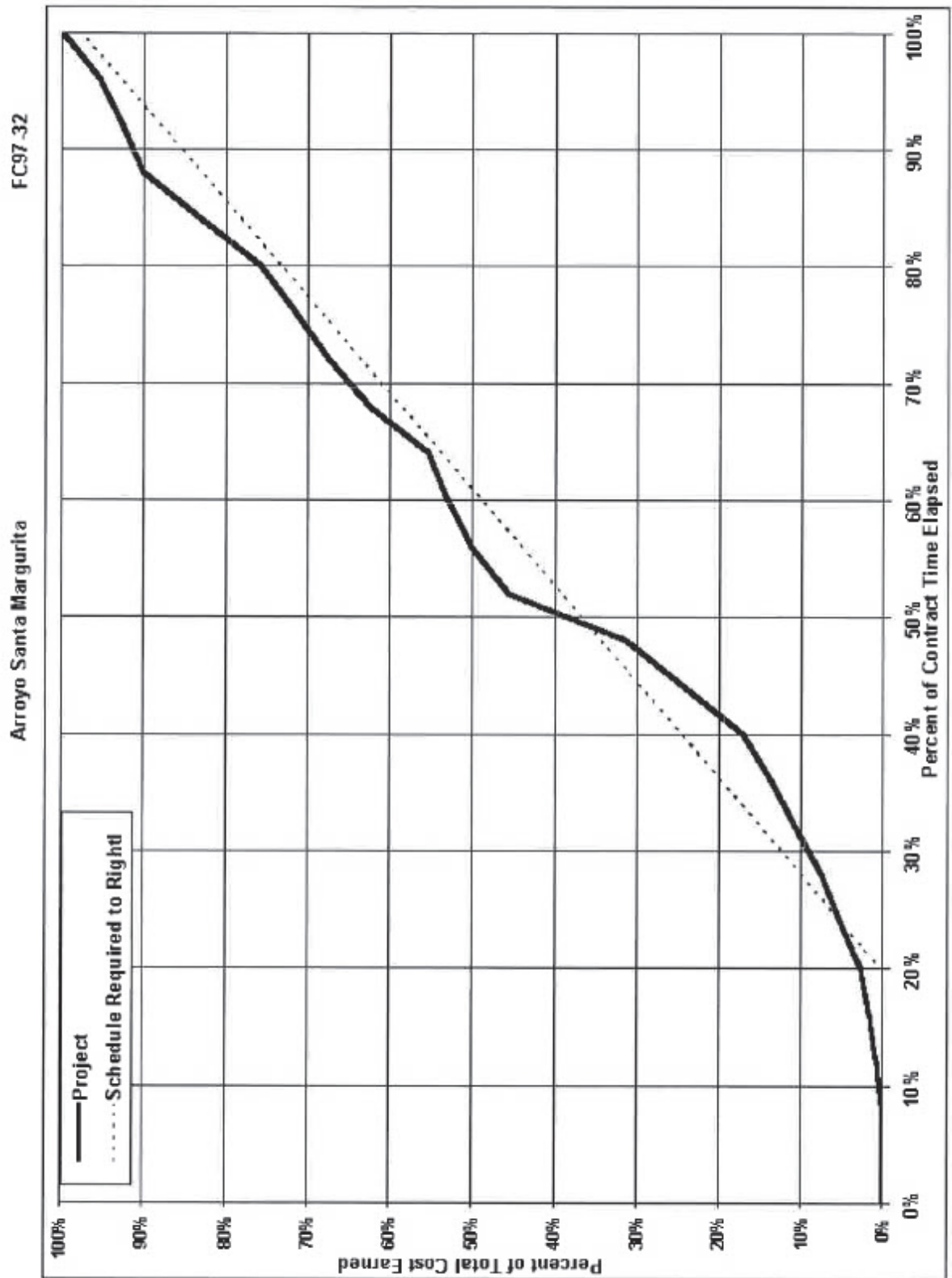
ACORD 25 (2010/05)

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Project:		Contractor:		Specification No:									
Item No.	Work or Material	WORKING DAYS OF CONSTRUCTION CONTRACT TIME											
		EACH HORIZONTAL INTERVAL EQUALS _____ WORKING DAYS OF CONTRACT TIME											
		Sub mitted _____											
		By _____											
		Title _____											
		Date _____											



[illegible]



Appendix D Escrow Agreement Form Sample

ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between _____ ("**Agency**",
per the Contract) whose address is _____ and
_____ ("**Contractor**") whose
address is _____
and _____ ("**Escrow Agent**") whose address is
_____.

For the consideration hereinafter set forth, the Agency, Contractor and Escrow Agent agree as follows:

- (1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Agency pursuant to the Construction Contract entered into between the Agency and Contractor for the construction of Name in the amount of _____ dated _____, (hereinafter referred to as the "Contract") which Contract is identified by Spec. No. _____ and Auditor Controller's Contract No. _____. Alternatively, on written request of the Contractor, the Agency shall make payments of the retention earnings directly to the Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Agency within ten days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Agency and Contractor. Securities shall be held in the name of "**Agency**", _____, and shall designate the Contractor as the beneficial owner.
- (2) The Agency shall make progress payments to the Contractor for those funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.
- (3) When the Agency makes payments of retention earned directly to Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until such time as the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Agency pays the Escrow Agent directly.
- (4) Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the escrow account. These expenses and payment terms shall be determined by the Agency, Contractor and Escrow Agent.
- (5) The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the Agency.
- (6) Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from Agency to the Escrow Agent that Agency consents to the withdrawal of the amount sought to be withdrawn by Contractor.
- (7) The Agency shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days' written notice to the Escrow Agent from the Agency of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Agency.
- (8) Upon receipt of written notification from the Agency certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, the Escrow Agent shall release to the Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.
- (9) Escrow Agent shall rely on the written notifications from the Agency and the Contractor pursuant to Sections (1) to (8), inclusive, of this Agreement and the Agency and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

(10) The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Agency and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of Agency:

_____, Director,
Public Works Agency

_____, Director
Central Services

_____, Director
Engineering Services

Address for all of the above:
Public Works Agency-ESD L1670
800 South Victoria Avenue
Ventura, CA 93009-1670

SAMPLE FORM
Form used for escrow will have names and
signatures of persons authorized in accordance
with paragraph 10.

On behalf of Contractor:

Title

Name

Signature

Street Address

City & State

Zip Code

On behalf of Escrow Agent:

Title

Name

Signature

Street Address

City & State

Zip Code

At the time the Escrow Account is opened, the Agency and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

Agency:
(Agency name)

Title

Name

Signature

Contractor:
(Contractor company name)

Title

Name

Signature

EXHIBIT "A"
ESCROW INSTRUCTIONS

The parties to this escrow are _____ ("Agency") and _____ ("Contractor") and _____ ("Escrow Agent"). Agency and Contractor have entered into a contract for the construction of _____ which contract is identified by Spec. No. _____ and Auditor-Controller's Contract No. _____ and was entered into by and between Agency and Contractor ("Construction Contract"). Pursuant to Public Contract Code Section 22300, Contractor may substitute certain securities for an equivalent amount of money required to be withheld from progress payments by Agency to Contractor pursuant to the Construction Contract.

The Escrow Agent is hereby instructed as follows:

1. Contractor may deliver to Escrow Agent:
 - (a) Securities of the types specified in Sections 22300 of the Public Contract Code and Section 16430 of the Government Code.
 - (b) Such other documents as are necessary to enable Escrow Agent to convert such securities into cash.
2. Upon receipt of such securities and other documents, Escrow Agent shall notify Agency within ten days of the deposit, and shall examine them to determine whether they are in a form sufficient to effect conversion of the securities into cash. Escrow Agent shall thereupon send written notice of its determination to Agency.
3. Escrow Agent shall hold such securities as trustee for Agency. The right of Agency to such securities is superior to any other lien or claim of lien; provided, however, that Contractor shall be entitled to any interest earned by such securities prior to their conversion to cash pursuant to section 5 hereof, and further provided that such interest may be withdrawn by Contractor at any time and from time to time without notice to Agency.

Securities may be substituted by Contractor, but any securities substituted for securities previously deposited shall not reduce the current cash value of securities held below that last reported to Agency by Escrow Agent.
4. Escrow Agent shall determine the current cash value of such securities held by it as of the close of business on the first business day following the _____ day of each month and, in addition, on any other days which the Agency may from time to time specify in a written notice to Escrow Agent. Current cash value shall be determined as follows:
 - (a) For securities traded over-the-counter or on a stock exchange:
 - (1) Determine either the current bid price for the securities as of the close of business or the face value of the securities, whichever is less.
 - (2) Subtract the cost of sale (broker commission).
 - (3) Subtract all unpaid escrow fees and costs associated therewith.
 - (b) For certificates of deposit:
 - (1) Determine the face amount.
 - (2) Subtract the potential interest penalty for immediate conversion.
 - (3) Subtract all unpaid escrow fees and costs associated therewith.
 - (c) Determine the value of other securities by procedures calculated to determine net realizable value. Promptly upon making each such determination, Escrow Agent shall notify Agency of the securities held and current cash value of such securities.
5. At any time or times that Agency believes it has a right to do so under the provisions of the Construction Contract, Agency may, without the consent of Contractor, deliver to Escrow Agent a written demand that Escrow Agent convert to cash all or any part of such securities. Upon seven days' written notice from Agency of such demand,

Escrow Agent shall convert to cash all or part of such securities as demanded and shall distribute the cash as instructed by the Agency.

6. When the Construction Contract has been satisfactorily completed on the part of Contractor and any stop notices filed against the Construction Contract have been released, Agency shall give written notice to Escrow Agent that such securities may be returned to Contractor. Upon receipt of such written notice and payment of all escrow fees and costs, the Escrow Agent shall deliver to Contractor all money, interest, securities and other documents remaining in escrow and the escrow shall terminate.
7. Contractor, and not Agency, shall be liable to Escrow Agent for all of Escrow Agent's fees and costs associated with this escrow.
8. The Director of the Ventura County Public Works Agency, a Deputy Director of said Agency, or other person authorized in writing by such Director or Deputy Director is authorized to give written notice and to make written demands on behalf of Agency pursuant to sections 4, 5 and 6 hereof.
9. All written notices and demands pursuant to the escrow agreement and these Instructions shall be addressed as follows:

(a) To Agency:

Director, Ventura County Public Works Agency
Engineering Services Department
800 South Victoria Avenue
Ventura, California 93009-1670

(b) To Contractor:

(c) To Escrow Agent:

DATED: _____

By _____

By _____

By _____

Title _____

Title _____

Title _____

Note: lines above By_____ is the signature line

AGENCY

CONTRACTOR

ESCROW AGENT

Bank Charter: State []
Federal []

Escrow Agent's Address:

Appendix E Release on Contract Form

RELEASE ON CONTRACT

Project Name: _____

Specification No. _____; Project No. _____

WHEREAS, by the terms of the contract dated _____ entered into by _____ and the undersigned CONTRACTOR,

undersigned CONTRACTOR agreed to perform certain work for the compensation specified in said contract; and

WHEREAS, the CONTRACTOR represents that said work is fully completed and that final payment is due to the CONTRACTOR under terms of said contract,

NOW, THEREFORE, in consideration of the promises and the payment by _____ to the CONTRACTOR of the amount due under the contract, to wit, the sum of \$_____ and the additional consideration of \$1.00, receipt of which is hereby acknowledged by the CONTRACTOR, the CONTRACTOR hereby releases and forever discharges _____ of and from all manner of debts, dues, demands, sum or sums of money, accounts, claims and causes of action, in law and in equity, under or by virtue of said contract except the claim against the Agency for the remainder, if any, of the amounts retained as provided in 7-3.2, any amounts retained as required by Stop Notices or Labor Code provisions, and any unsettled claims or disputes as follows: (If none, leave blank)

<u>Description of Claim or Dispute</u>	<u>Amount</u>	<u>Date of Claim</u>	<u>Date of Notice of potential Claim</u>
--	---------------	--------------------------	--

The CONTRACTOR certifies that each unsettled claim or dispute listed hereon has been processed in compliance with the requirements for making claims under the contract, including giving notice pursuant to the applicable provisions of the contract, and following the procedures for resolution of disputes or claims set forth in subsection 6-12 of the contract. Acceptance of this Release on Contract by the _____ shall not be deemed as a waiver or release of its right to contest either the substantive or procedural validity of any listed unsettled claims or disputes.

IN WITNESS WHEREOF, the hand and seal of the CONTRACTOR have been hereunto set this ____ day of _____, 20__.

THIS FORM MUST BE ACCOMPANIED
by a proper acknowledgement form
(See Civil Code Section 1189)

Contractor

By _____

Title _____

Appendix F Performance and Payment Bond – Sample Showing Wording

Bond No. _____

SURETY BONDS PERFORMANCE BOND

Whereas, the «Agency», hereinafter called "Agency", and «Contr», hereinafter called "principal", have entered into a contract dated «ContrDate» whereby principal agrees to complete certain designated work identified as project «ProjName» (Spec. No. «SpecNo»), and to perform other duties and obligations as described in said contract, which is incorporated herein by this reference and made a part hereof; and

Whereas, principal is required under the terms of said contract to furnish a bond to guarantee principal's faithful performance of the work and all terms and conditions of the contract;

Now, therefore, we the principal and the undersigned, as corporate surety, are held and firmly bound unto Agency in the penal sum of «CostText» (\$«OrigCostFmtd») lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors, executors and administrators, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the principal, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and provisions in the said contract and any alteration thereof made as therein provided, on principal's part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless Agency, 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 and effect.

The above obligation shall continue after Agency's acceptance of the work for the duration of the warranty period as specified in the contract during which time if principal fails to make full, complete, and satisfactory repair or replacement to the work and/or fails to protect Agency from loss or damage resulting from or caused by defective materials or faulty workmanship, the obligation of surety hereunder shall continue so long as any obligation of principal remains.

PAYMENT BOND

And, whereas, under the terms of said contract, principal is required before entering upon the performance of the work, to file a good and sufficient payment bond with the Agency to secure the claims to which reference is made in Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code of the State of California.

Now, therefore, said principal and the undersigned, as corporate surety, are held firmly bound unto the Agency and all contractors, subcontractors, laborers, material suppliers and other persons employed in the performance of the aforesaid contract and referred to in the aforesaid Civil Code in the like sum of «CostText» (\$«OrigCostFmtd») for materials furnished or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, or for any amounts required to be deducted, withheld and paid over to the Franchise Tax Board from the wages of employees of the contractor and the contractor's subcontractors, that said surety will pay the same in an amount not exceeding the amount hereinabove set forth, and also in case suit is brought upon this bond, will pay, in addition to the face amount thereof, costs and reasonable expenses and fees including reasonable attorney's fees incurred in successfully enforcing such obligation, to be awarded and fixed by the court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Title 3 (commencing with Section 9000) of Part 6 of Division 4 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should this condition of this bond be fully performed, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

GENERAL TERMS

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of said contract or the plans and specifications accompanying the same shall in any manner affect its obligations on these bonds, and it does hereby waive notice of any such change, extension, alteration or addition.

Nothing herein shall limit the Agency's rights or surety's obligations under the contract or applicable law, including, without limitation, California Code of Civil Procedure section 337.15.

In witness whereof, this instrument has been duly executed by the principal and surety above named

on _____, 202__

«Contr»
Name of Principal

By _____

Title _____

Name of Surety

By _____

Attorney-in-Fact

Address _____

City _____ State _____ Zip _____

INDICATE COMPLETE ADDRESS OF SURETY TO WHICH CORRESPONDENCE CONCERNING THIS BOND SHOULD BE DIRECTED.

SAMPLE BOND FORM

Agency will prepare the bond in this format and transmit it to the Contractor along with the Contract and the Notice of Award letter.

Surety shall fill in the Bond No., date identification, and signature of surety in places provided.

Contractor shall sign and indicate title in place provided.

Telephone No. _____

A-467/9-Tmpl

Contractors are required by law to be licensed and regulated by the contractors' state license board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within 10 years of the date of the alleged violation. Any questions concerning a contractor may be referred to the registrar, contractors' state license board, P.O. Box 26000, Sacramento, California 95826. Per B&P Code §7030(a)

CONTRACT

PROJECT: «ProjName»

SPECIFICATION NO.«SpecNo»; PROJECT NO. «ProjNo»

The names and addresses of the parties to this contract, who shall be referred to as "Agency" and "Contractor" respectively, are as follows:

AGENCY: «Agency»
800 South Victoria Avenue
Ventura, CA 93009

CONTRACTOR: «Contractor Name»
«Contractor Street Address»
«Contractor City» «Contractor Zip»

The Agency and the Contractor mutually agree on «Date» as follows:

1. CONTRACT DOCUMENTS

This contract consists of the Contract Documents as defined in Standard Specification 1-2, which include the following documents and represents the complete agreement between Agency and Contractor:

- (a) Notice Inviting Bids
- (b) Proposal form and Notice to Bidders.
- (c) Plans and Specifications identified by Specification No__.
- (d) Addenda, by number and date -
- (e) Award of Contract
- (f) Performance and Payment Bond
- (g) Prevailing Wage Requirements.
- (h) W-9 form

2. DESCRIPTION OF WORK

The Contractor shall perform and complete in strict conformity with this contract, the work as described and shown in, and reasonably inferable from, the Contract Documents, consisting generally of:

3. CONTRACT PRICE

The contract price, which is the amount which Contractor shall accept as full payment for the work above agreed to be done, are the amounts determined in accordance with the contract documents for the prices stated for lump sum items completed plus the total number of each of the units of work completed at the unit prices stated. The prices named in the proposal form are as follows:

4. The time for the completion of the Work is «NumWD» working days from the contract starting date as provided in the contract documents and shown in the Notice to Proceed.

IN WITNESS WHEREOF, the parties hereto have executed this agreement.

Contractor's Firm Name _____

Address _____

Contractor's License No. _____ Expiration Date _____

Social Security No. or Taxpayer I.D. No. _____

Type of Contractor's organization _____
(Corporation / Partnership / Individual)

List names of all persons who have authority to bind firm (List at least one name):

IF OTHER THAN CORPORATION, EXECUTE HERE

Signature _____

IF CORPORATION, FILL OUT FOLLOWING AND EXECUTE

Name of President of Corporation _____

Name of Secretary of Corporation _____

Corporation is organized under the laws of State of _____

Signature _____

Title of Office _____

«Agency», Agency

By _____

Public Works Agency Director

SPECIAL PROVISIONS

COUNTY OF VENTURA

EL RIO PEDESTRIAN IMPROVEMENTS

SPECIFICATION NO.: RD24-05 PROJECT NO.: 50616

STATE PROJECT NO.: ATPSB1L-5952 (208)

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SPECIAL PROVISIONS

1000 GENERAL REQUIREMENTS

1000-1 DESCRIPTION OF WORK

Work under this contract consists of PCC sidewalk construction including public access and notice, traffic control and construction signing, water pollution prevention, bracing & shoring, RCP storm drains, slurry cement backfill, storm drain manholes, curb opening catch basins, sidewalk & pavement widening preparation, tree removal, fence relocation, gate adjustment, curb & gutter, curb & gutter with opening, curb & trench drains, driveway approaches, PCC curb ramps, AC pavement widening & repairs, miscellaneous paving, Type II emulsion-Aggregate slurry, ladder type crosswalks, pavement delineation & striping, cluster box & roadside mailboxes, and appurtenant work.

All work shall be performed in accordance with the Plans, the Standard Specifications and these Special Provisions.

1000-2 REFERENCE SPECIFICATIONS & STANDARD PLANS

1000-2.1 SPECIFICATIONS

The Standard Specifications for this project are the Ventura County Standard Specifications (106 pages with VCSS typed at the bottom) supplemented by the Standard Specifications for Public Works Construction (SSPWC, commonly known as the Greenbook), 2021 Edition, published by BNI Publications, Inc.

Where used herein, SSS shall mean the State Standard Specifications, being the State of California, Department of Transportation Standard Specifications, 2023 Edition. Where required by the Special Provisions, work shall conform to the requirements of said SSS except that where reference is made in the SSS to other sections thereof which are not specifically referred to in these Special Provisions, such reference shall be deemed to be reference to the applicable sections of the VCSS (herein referred to as Standard Specifications), and all references to "State" shall mean County of Ventura.

1000-2.2 STANDARD PLANS

The contract drawings utilize and make reference to the State Standard Plans (SSP), which is that document published by the State of California, Department of Transportation, dated 2023, and the Standard Plans for Public Works Construction (SPPWC) published by BNI Publications Inc., 2021 Edition.

1000-2.3 MODIFICATIONS TO STANDARD SPECIFICATIONS

Section 6-1.2 is amended to include the following:

A Preconstruction Meeting will be scheduled by the Agency prior to the beginning of contract time. The meeting will be held at the Administration Building of the County of Ventura Government Center on a date and time established by the Engineer. Attendance at the Pre-construction Meeting by the Contractor's Representative as described in 3-6 of the Standard Specifications is mandatory prior to starting work. Subcontractors' representatives as required by the Engineer shall also attend the Pre-construction Meeting.

Section 3-10.1 shall only apply to Ventura County Standard Monuments (centerline well monuments). All other survey monuments, including nails, iron pipes, and any other objects in the public right-of-way referenced on recorded maps and Ventura County Field Notes will be replaced or reestablished by the Agency following construction.

Work Sequence is amended to include the following:

The first construction operation shall be to rough grade the locations for the new utility pole relocations.

1000-3 GENERAL GUARANTEE

Section 3-14.2 of the Standard Specifications is hereby deleted, and the following is substituted:

The Contractor shall obtain and assign to the Agency such warranties or guarantees given as customary trade practice for any material or product purchased for use in the project constructed under this contract.

The last sentence of the third paragraph of 1-7.2, is hereby deleted and the following is substituted:

The material and labor bond must remain in effect until the expiration of six months after the period in which verified claims may be filed as provided in the Civil Code.

1000-4 PROMPT PAYMENT TO SUBCONTRACTORS

A prime contractor or subcontractor shall pay any subcontractor no later than 7 days of receipt of each payment. Any contractor who violates prompt payment shall pay a penalty of 2% of the amount due per month for every month that payment is not made.

Prompt payment verification shall be submitted to the Agency on the 15th of each month.

The contractor shall notify the Agency in writing in the event that for some reason timely payment is not made to a subcontractor. Disputes shall be resolved in accordance with the contract and state law.

This provision applies to both DBE and non-DBE prime contractors and subcontractors.

1000-5 LABOR COMPLIANCE SOFTWARE

The County of Ventura has implemented, and maintains, a labor compliance software service program called "LCP Tracker".

Contractors and subcontractors shall keep accurate payroll records in accordance with Labor Code Section 1776 and shall furnish weekly certified payrolls for their workers and shall input their certified payroll records electronically using LCP Tracker within 7 days following the end of the preceding week.

NOTE: This requirement is in addition to the State of California requirement to upload payrolls into the State DIR electronic system. However, LCP Tracker has the functionality to upload the submitted payrolls directly to the State DIR electronic system.

In bidding on the project, it shall be the bidder's responsibility to evaluate the cost of complying with the above-referenced LCP Tracker requirements.

Agency will provide materials and information to assist the Contractor with using LCP Tracker.

1000-6 PERMITS

In accordance with Section 2-2, the Contractor shall obtain and keep in force during the term of this contract all necessary permits required by the County of Ventura or any other permits necessary to perform the work.

1000-7 REQUIRED DOCUMENTS FOR WORK AREAS

The Contractor shall submit to the Engineer, for review and approval, the following documents at least three working days prior to beginning work in any specified area indicated on the vicinity maps shown on the Plans.

- A. Order of Work and Traffic Control Plan, including map(s) and descriptions indicating the locations of work areas, construction signing, text used for changeable message signs and timing of advance notice. The Traffic Control

Plan shall be updated and re-submitted for approval as necessary to accurately reflect the Contractor's planned operations.

- B. As-Built Plan of existing striping and marking. The plan shall be prepared by the Contractor.
- C. Plans documenting ties to the existing location of any facility planned for relocation, adjustment, or replacement including, but not limited to, survey monuments, manholes, valves, clean-outs, signs, roadside markers, and guardrails.
- D. A map or written description of material haul routes.
- E. A copy of the Notice to Resident/Business/Institution.
- F. Copies of any required encroachment permits.
- G. Underground Service Alert confirmation number.
- H. Name and phone number of person(s) responsible for 24-hour maintenance of construction signing and traffic control.

1000-8 CONSTRUCTION AREA

The Contractor shall protect property and facilities adjacent to the construction area. Upon completion of the project, the construction area shall be cleaned. All public and privately-owned improvements and facilities shall be restored to their original condition and location.

1000-9 STORMWATER TRAINING CERTIFICATION

Ventura County Public Works Agency requires that all Public Works Contractors self-certify that they have received all applicable training in stormwater pollution prevention and best management practices to ensure proper installation and maintenance of BMP's during construction. This certification will be required to be submitted before a Notice to Proceed can be issued.

For the Contractor's convenience, the Agency has developed a series of ten (10) training videos averaging between 15 to 20 minutes long and are made available on the Agency's website at:

<https://www.vcpbublicworks.org/wp/waterresourcesdivision/countystormwaterprogram.>

These videos shall be considered acceptable to satisfy the annual stormwater training requirements.

The Ventura County Stormwater Program oversees the areas of unincorporated Ventura County for the Federally mandated stormwater management program. The Program implements requirements and ensures compliance under Ventura Municipal Stormwater Permit Order No. R4-2010-0108. The program addresses activities including development of project conditioning, construction site inspections, illicit discharge investigations and enforcement, business compliance inspection, public outreach/education and employee and contractor training.

1000-10 MEASUREMENT & PAYMENT

Payment for complying with these General Requirements Special Provisions shall be considered included in the prices paid for other items of work and no additional compensation will be made.

1001 PUBLIC ACCESS & NOTICE

1001-1 SCOPE

This work consists of notifying the public and maintaining access during construction.

1001-2 NOTICE TO RESIDENT/BUSINESS/INSTITUTION

The Contractor shall notify all adjacent residents, businesses and institutions four days prior to starting any work, using "door-knob" type notices. These notices will notify affected people in the area of impending work. The notice shall be worded as shown in the appendices.

1001-3 PARKING RESTRICTIONS

The Contractor shall furnish and place "No Parking" signs, 12" x 18" minimum size approved by the Engineer, along the street, in front of every residence affected by the work, three working days in advance of any work. In rural areas, the signs shall be placed at a spacing not exceeding 400 feet. The signs shall include the day and the time during which parking is not permitted.

Parking restrictions shall be limited to periods of up to five calendar days at a time when work requires it. Parking restrictions shall not be posted for the entire duration of the project or for periods longer than five days between work activities. Parking restrictions shall be limited to the interval between 7:00 a.m. and 5:00 p.m. to allow for parking during the night. Parking restrictions for night work shall allow for parking during non-working hours. The Contractor shall remove these signs immediately when they are no longer needed.

If the work is delayed or rescheduled for any reason after placement of "No Parking" signs, the Contractor shall re-date the signs affected. If the work is delayed more than five days, the Contractor shall notify local authorities, remove the signs, and place re-dated signs two days in advance of the work.

1001-4 ACCESS

The Contractor shall always provide property owners and residents with access to their properties except when paving operations make access to properties impractical or unsafe, in accordance with the Plans, the Standard Specifications and these Special Provisions.

1001-5 MEASUREMENT & PAYMENT

Payment for Public Access and Notice shall be considered included in the prices paid for other items of work and no additional compensation will be made.

1002 MOBILIZATION

1002-1 SCOPE

In addition to the work specified in 7-3.4.1, Mobilization includes work, services and operations necessary to establish access to the project site, restoration of such areas to their original conditions or to a condition approved by the Engineer, the movement of labor, supplies, equipment and incidentals to and from the project site, and for all other work for which costs are incurred prior to or after performing work of other Contract items.

1002-3 MEASUREMENT & PAYMENT

Payment for Mobilization will be made in accordance with 7-3.4.2 of VCSS. The contract lump sum price shall be considered full compensation for all materials, labor, tools and equipment necessary to mobilize and completely demobilize.

1003 TRAFFIC CONTROL & CONSTRUCTION SIGNING

1003-1 SCOPE

Contractor shall place a Changeable Message Signs (CMS) on Rose Avenue and Vineyard Avenue on the approach to the work in each direction at least three days before traffic disruptions begin. The CMS signs shall remain in place until paving is completed. The Engineer will indicate the message for the CMS.

The Contractor shall be responsible for maintaining Traffic Control in accordance with the provisions of 5-9 of the Standard Specifications, 12-3 and 56-2 of the SSS, SSP T11, T12, or T13, the current requirements set forth in the California Manual on Uniform Traffic Control Devices (California MUTCD latest edition).

The Contractor shall notify the Engineer and County Traffic Engineer at (805) 654-2063 of its intention to begin work at least ten working days before starting any work.

The contractor shall keep at least one (1) lane of traffic open at all times during working hours and one (1) lane in each direction open at all other times. Contractor's equipment and personal vehicles of the Contractor's employees shall not be parked on the traveled way, or on any section where traffic is restricted at any time. Overnight parking of construction equipment on adjacent county roads is not permitted.

No work shall be performed on Saturday, Sunday and any day designated by the Agency as a holiday unless approved at least two (2) days in advance by the Engineer. Days designated by the Agency as holidays are listed in 6-3.2.3.1.

The Contractor shall replace all STOP bars the same day they are removed by grinding or paving, as indicated in Pavement Delineation and Striping of these Special Provisions.

1003-2 TRAFFIC CONTROL

The Contractor shall be responsible for handling vehicular and pedestrian traffic in accordance with 5-9 of the Standard Specifications and these Special Provisions. The Contractor shall submit in writing, for approval by the Engineer, an Order of Work and Traffic Control Plan (graphic form) at least five working days prior to beginning work on the project site. No work on site shall begin until such approval is obtained.

The Traffic Control Plan shall include map(s) and descriptions indicating the location of work areas, intersecting streets, construction signing, and text used for changeable message signs, and timing of advance notice. The Plan shall be updated and re-submitted for approval as necessary to accurately reflect the Contractor's planned operations.

Traffic control signs shall be covered or removed when not in use.

In areas of high-volume pedestrian traffic, such as schools and shopping centers, the Contractor shall schedule the work to avoid peak pedestrian volumes. Crossings shall provide pedestrians with a means of passing over or through the work without tracking tack coat or hot asphalt concrete.

At intersections, if a crossroad needs to be temporarily closed when work is in progress through the intersection and the anticipated traffic delay is more than five minutes, a detour sign shall be installed on the cross road and shall include the installation of a changeable message sign displaying the anticipated delay time. The signing shall be approved by the Engineer.

When two-way traffic is restricted to one lane, and when applying the overlay past intersecting roads, traffic shall be controlled as shown on SSP T13. A pilot car and driver will be required at various locations if control by flaggers proves deficient in the opinion of the Engineer.

Overnight parking of construction equipment on adjacent County roads is not permitted. If construction equipment is parked on the shoulder area overnight, barricades and other suitable warning devices shall be placed around the equipment. No part of the equipment shall be less than 4 feet from the edge of pavement.

1003-3 CONSTRUCTION SIGNING

Construction Signing shall consist of furnishing, installing, maintaining and removing construction signs and barricades.

A "Road Work Ahead" sign (W20-1) mounted on either a 4" x 4" wood post or a Type III barricade shall be installed at each approach in accordance with SSP T11, T12, or T13. The signs for each road shall be installed prior to starting work on that road and shall not be removed until all work has been completed on that road.

When locations are changed, the full traffic control system shall be in place at the new location prior to starting any work and shall not be removed until all work has been completed at that location.

Barricades and warning devices shall be provided by the Contractor to delineate the edge of traversable road and shall conform to the MUTCD. Barricades shall be installed around all open traffic areas when no work is in progress.

Advance warning signs shall be provided with orange warning flags in advance of temporary stop signs. Temporary stop signs are required any time a traffic signal is dark. Temporary stop signs shall be mounted at 7 feet high.

The Contractor shall post standard "NO PARKING" construction zone signs 72 hours prior to construction, not more than 50 feet apart within the work area, showing the date and time of construction.

1003-4 ACCESS

Access to street intersections, parking lots, commercial businesses, residences, and other public and private properties shall be always maintained. When access must be restricted, as determined by the Engineer, it shall occur only for the period required to accomplish the particular item of work.

1003-5 TEMPORARY GUIDE MARKERS

Temporary Guide Markers shall be portable delineators as specified in SSS 12-3.04 and these Special Provisions. Only one type of Temporary Guide marker shall be used on any road at any one time.

Temporary Guide Markers shall be placed adjacent to the edge of all overlays 1-1/2 inches in thickness or greater, at such locations as called for elsewhere in this Section, and as directed by the Engineer. Spacing of Temporary Guide Markers shall not exceed 30 feet on tangents or 15 feet on curves.

Temporary Guide Markers shall be placed at the required locations prior to sundown on the same day the overlay is placed. Temporary Guide Markers shall be left in place along the completed edges of pavement and maintained, repaired, and replaced as required until the shoulder backing has been completed. If the Temporary Guide Markers are damaged, displaced, or are not in an upright

position, from any cause, said markers shall immediately be replaced or restored to their original locations, in an upright position by the Contractor. Upon completion of the shoulder backing, all components of the traffic control system shall be removed from the work site.

1003-6 GENERAL WORK SEQUENCE & RESTRICTIONS ON CLOSURE OF TRAFFIC LANES

The full width of the traveled way on all roads shall be open for use by public traffic on Saturday, Sunday and any day designated by the Agency as a holiday, after 3:00 p.m. on Friday, after 3:00 p.m. on the day preceding an Agency-designated holiday, and when construction operations are not actively in progress on working days. Days designated by the Agency as holidays are listed in 6-3.2.3.1 of the Standard Specifications.

The contractor shall always keep at least one lane of traffic open during working hours and one lane in each direction open at all other times. Contractor's equipment and personal vehicles of the Contractor's employees shall not be parked on the traveled way, or on any section where traffic is restricted at any time. Overnight parking of construction equipment on adjacent county roads is not permitted.

1003-7 ROAD CLOSURES

Except as provided herein, road closures are generally not allowed, and the Contractor shall always maintain one lane of traffic through the work area. Limited road closures may be allowed under unusual circumstances, subject to advance approval by the Engineer and public notice.

If in the Engineer's opinion, the Contractor demonstrates that a 12-foot-wide lane cannot be maintained through the work area or demonstrates that a partial closure would be in the best interests of the Agency and minimizes public inconvenience, a limited road closure may be approved. Prior to approval of any limited road closure, the Contractor shall prepare a site-specific traffic control (detour) plan 10 days prior to the intended date of the road closure for approval by the Engineer. The traffic control (detour) plan shall include notice to the public with placement of changeable message signs at least 72 hours prior to physically closing the road.

1003-8 MEASUREMENT & PAYMENT

Payment for Traffic Control and Construction Signing will be made at the contract lump sum price. Such payment shall be considered full compensation for furnishing all materials, labor, equipment, and all incidentals necessary to complete the work in accordance with the Standard Specifications and these Special Provisions.

1004 WATER POLLUTION PREVENTION

1004-1 SCOPE

This item shall consist of preventing, controlling, and abating discharges of pollutants from the construction site, and shall be performed in accordance with the Standard Specifications and these Special Provisions. A National Pollutant Discharge Elimination System (NPDES) Small Construction Waiver has been obtained for the project. Although NPDES Construction Stormwater Permit will not be required, the Contractor shall implement the required Stormwater Pollution Prevention Best Management Practices per Regional Water Quality Control Board.

1004-2 CONSTRUCTION METHODS

All work for Water Pollution Prevention proposed by the Contractor shall be approved by the Engineer. All work shall be performed in accordance with 3-12.6 of the Standard Specifications.

1004-3 MEASUREMENT & PAYMENT

Payment for Water Pollution Prevention will be made in accordance with 3-12.67. The contract lump sum price for Water Pollution Prevention shall be considered full compensation for obtaining and complying with all necessary permits and installation and removal of Water Pollution Prevention works, including all labor, materials, tools and equipment and all other necessary incidental items required to complete the work.

1005 EXISTING UTILITY & ROADWAY FACILITIES

1005-1 SCOPE

Work shall conform to the provisions of the Standard Specifications and these Special Provisions.

Prior to placing a pavement overlay on a street, the Contractor shall document or mark the location of each utility valve box, lid, cover, manhole, vault, cleanout, or any other utility access at the road surface that will be covered by the new pavement with two swing ties or perpendicular offsets to a marker or fixed feature at the side of the road. These swing ties or offset measurements shall be written in an organized manner and provided to the Engineer. The Contractor shall demonstrate the utility markings to the Engineer and receive acceptance prior to paving any street. Immediately after paving, the Contractor shall indent the new pavement at each location while the pavement is still hot and paint a white "X" at each location on the asphalt overlay. The indentation shall be clearly visible after rolling and compacting.

Except as otherwise included in these Special Provisions, it will be the responsibility of the owner of these facilities to adjust their facilities to grade.

The Contractor shall remove wasted material from the interior and exterior of manholes, valve boxes, storm drains, gutters or other facilities.

All manholes, valve covers and cleanouts shall be covered with roofing paper prior to applying the tack coat to permit easy removal of the materials. Covers that are partially exposed shall be cleaned to the satisfaction of the Engineer.

The Contractor shall contact Underground Service Alert and the respective utility companies at least two working days prior to starting any work on each road by which those companies are affected.

The Contractor shall always provide access to utility owners during the construction life of the project. The Contractor shall coordinate work by others in accordance with the Standard Specifications.

1005-2 UTILITY CONTACTS

Utility contacts sorted by service area are included in the appendices.
See Appendix H – Utility Company Directory.

1005-3 ROADWAY FACILITIES

The Contractor shall protect existing Roadway Facilities, including but not limited to, curbs, curb and gutters, cross gutters, spandrels, traffic striping, from being disfigured by overspray of materials or by tracking of materials by equipment used in the project. If such overspray or tracking does occur, the contractor shall, at its own expense, clean, restore, or replace disfigured items to the satisfaction of the Engineer.

Existing Signs, Clearance Markers and Delineators within the existing pavement area or which interfere with the Contractor's work on any road to be rehabilitated, shall be removed, and re-installed at their original locations after completion of work on that road. The Contractor shall exercise extreme caution when removing the markers or delineators. Damaged markers or delineators shall be replaced at the expense of the Contractor.

1005-4 PROTECTION OF UTILITY POLES

Existing power, telephone and utility poles shown on the plans shall remain in place and always remain in service and shall be always protected.

Contractor shall not operate equipment under any utility lines with less than 18 feet of vertical clearance from the overhead line to the ground. Contractor shall place traffic barriers to restrict construction traffic movement between the utility poles with the nonstandard clearance.

Proposed power, telephone, and utility poles shown on the plans as work by others shall be installed by others and connected with power, telephone, cable TV, and other cables, wires, and underground conduits during construction of this project. These power, telephone, and utility poles and their connecting cables, wires, and underground conduits shall be always protected.

1005-5 MEASUREMENT & PAYMENT

Payment for costs incurred in protecting and marking existing utility and roadway facilities and including all the requirements set forth in this section, shall be considered included in the prices paid for other items of work and no additional compensation will be made.

1006 TRENCH EXCAVATION & BACKFILL

1006-1 SCOPE

Trench Excavation shall include the removal of all materials or obstructions to construct storm drain manholes, RCP culvert pipes, and catch basins in trenches and shall follow the minimum and maximum trench width requirements as shown on the Plans or specified in the contract.

Trench Backfill material may be native material excavated at the work site. Such material must be free of organic or other unsuitable materials as determined by the Engineer that may cause voids or depressions to develop after placement of the backfill. Trench backfills material shall be compacted to a relative compaction of not less than 90%.

1006-2 MEASUREMENT & PAYMENT

Payment for Trench Excavation & Backfill to construct storm drain manholes, RCP culvert pipes, and catch basins in trenches, will be made at the contract lump sum price. Such payment shall be considered full compensation for furnishing all labor, materials, equipment, tools and incidentals necessary to complete the work.

Payment for trench sections that are required to provide adequate sheeting, shoring or equivalent method for protection of life is included in Section 1007, Bracing & Shoring.

Payment for 6" thick granular bedding for RCP is included in Section 1008, Reinforced Concrete Pipe.

Payment for filling the haunch area for RCP is included in Section 1012, Slurry Cement Backfill.

1007 BRACING & SHORING

1007-1 SCOPE

This item pertains to shoring and bracing that are required to construct storm drain manholes, reinforced concrete pipes, and catch basins, in trenches over 5 feet in depth, as shown on the Plans. Pursuant to the provisions of California Labor Code Section 6707, each bid submitted in response to this Invitation to Bid shall contain, as a bid item, adequate sheeting, shoring, and bracing, or equivalent method for protection of life and limb in trenches and open excavation, which shall conform to applicable safety orders. The Contractor is required to submit a Bracing & Shoring Plan.

1007-2 MEASUREMENT & PAYMENT

Payment for Bracing and Shoring to construct storm drain manholes, reinforced concrete pipes, and catch basins in trenches over 5 feet in depth, will be made at the contract lump sum price. Such payment shall be considered full compensation for furnishing all labor, materials, equipment, tools, submittal of Bracing & Shoring plan and incidentals necessary to complete the work.

1008 REINFORCED CONCRETE PIPE

1008-1 SCOPE

This item shall consist of construction of Reinforced Concrete Pipe (RCP) storm drains including trench preparation and all related joints and connection to the manholes and catch basins, and other appurtenances as shown on the Plans and shall conform to provisions in Section 207-2, "Reinforced Concrete Pipe" and Section 306, "Open Trench Conduit Construction" of the Standard Specifications and these Special Provisions

1008-3 CONSTRUCTION MATERIALS

66", 54", 36", 30", 24", & 18" RCP, Class II as shown on the Plans.

1008-4 CONSTRUCTION METHODS

Reinforced Concrete Pipe culvert installations shall comply with special bedding and backfill requirements as shown on the Plans, and these Special Provisions.

1008-4.1 TRENCHING & BEDDING

The RCP culvert sections may be placed in an open cut. All trenches shall have a combination of slopes conforming to CAL/OSHA requirements. Trench bottoms shall be prepared immediately preceding the installation of the RCP culvert. The minimum thickness of bedding or base material is 6-inches. The bedding, comprised of $\frac{3}{4}$ " crushed rock, should be constructed to provide uniform support for the full length and width of each section.

1008-4.2 REINFORCED CONCRETE PIPE LAYING

RCP culvert shall be laid to the lines and grades as shown on the plan. RCP culvert shall not be placed in water or when the trench or weather is unsuitable for such work. Grades and alignment shall be established in the trench by conventional survey techniques, or by use of a laser. A laser or string line shall be established in the trench along the centerline of the proposed RCP culvert, said line being used to determine the horizontal and vertical location of each joint of RCP culvert.

1008-5 MEASUREMENT & PAYMENT

Payment for constructing 66", 54", 36", 30", 24, & 18" RCP storm drains, complete in place, will be made at the contract unit price per linear foot. Such payment shall be considered full compensation for furnishing all labor, equipment, materials including placement of 6" thick granular bedding, and incidentals necessary to complete the work.

Payment for trench sections that are required to provide adequate sheeting, shoring or equivalent method for protection of life is included in Section 1006, Bracing & Shoring.

Payment for trench excavation and backfilling is included in Section 1007, Excavation & Backfill.

Payment for filling the haunch area of the RCP is included in Section 1010, Slurry Cement Backfill.

1009 REMOVAL OF EXISTING MANHOLE & RCP

1009-1 SCOPE

This item shall consist of removal and disposal of existing manhole and reinforced concrete pipes to construct storm drain at Alvarado Street near Orange Drive as shown on the Plans.

1009-2 MEASUREMENT & PAYMENT

Payment for Removal of Existing Manhole & RCP will be made at the contract lump sum price. Such payment shall be considered full compensation for furnishing all labor, materials, equipment, including backfilling trench and incidentals necessary to complete the work.

Payment for reconstructing pavement section is included in Section 1048, AC Pavement Widening & Repair.

1010 RCP TIE-INTO EXISTING MANHOLE

1010-1 SCOPE

This item shall consist of reinforced concrete pipe tie into existing manhole at the intersections of Orange Drive and Alvarado Street as shown on the Plans.

1010-2 MEASUREMENT & PAYMENT

Payment for RCP tie-into existing manhole will be made at the contract lump sum price. Such payment shall be considered full compensation for furnishing all labor, materials, equipment, tools and incidentals necessary to complete the work.

1011 RCP CONCRETE COVER

1011-1 SCOPE

Concrete Cover for RCP tie-in to existing storm drain as shown on the Plans shall conform to provisions in Section 306, "Open Trench Conduit Construction" of the Standard Specifications, SSPWC 306-7.3.2.1 and these Special Provisions.

If the tie-ins do not overlap, and the resulting clear space between the extreme ends does not exceed 1 inch, the space shall be filled with Class "C" mortar for the full thickness of the pipe wall.

If the clear space between the extreme ends is more than 1 inch but less than 3 inches, the joint shall be covered using Class 520-C-2500 concrete to a minimum depth of 6 inches for a width of 15 inches centered about the joint. Sandbags or dirt sacks may be used as side forms. The inside of the joint shall be mortared.

1011-2 MEASUREMENT & PAYMENT

Payment for RCP Concrete Cover will be made at the contract unit price for each tie-in with concrete cover installed at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, equipment, tools, and incidentals necessary to complete the work.

1012 SLURRY CEMENT BACKFILL

1012-1 SCOPE

This work consists of cement slurry backfill of pipe, from pipe's bottom to spring line, in trench as shown on Plans and shall be performed in accordance with the Standard Specifications and these Special Provisions.

Slurry cement shall be a mix of sand and water with 2 bags of cement added per

yard.

Slurry cement backfill shall be placed in a manner that will prevent floating or shifting of the pipe.

1012-2 MEASUREMENT & PAYMENT

Payment for Slurry Cement Backfill will be made at the contract unit price per cubic yard. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to complete the work.

1013 STORM DRAIN MANHOLE

1013-1 SCOPE

Construction of Storm Drain Manhole as shown on the Plans shall conform to Standard Plan 321-2, Manhole Pipe-To-Pipe, and other applicable subsections of the Standard Specifications, and these Special Provisions.

Manhole frame and cover shall conform to SPPWC Standard Plan 630. Concrete Class shall be 560-C-3250.

Connections to manhole shall be made in a workmanlike manner. The invert shall be brought into manhole at the elevation shown on the Plans. After connections are made to a manhole and the mortar holding the pipe in place has set, cut the pipe off evenly so that no more than two inches of the pipe protrudes into the manhole.

MANHOLE PIPE-TO-PIPE PER SPPWC 320-2			
ID No.	LOCATION/STATION	H + F + M	PIPE DIA.
MH1	Cortez/Sta.14+24	9.5'	66", 54"
MH2	Cortez/Sta.14+83	9.5'	54", 54"
MH4	Walnut/east of Cortez	7.5'	36", 36"
MH5	Alvarado/Sta.1+55	6'	36", 36"
MH6	Alvarado/Sta 4+78	5.5'	36", 36"
MH7	Alvarado/Sta.5+20	5.5'	36", 36"
MH8	Alvarado/Sta.5+81	5.5'	36", 36"
MANHOLE PIPE-TO-PIPE PER SPPWC 321-2			
ID No.	LOCATION/STATION	H + 8" + M	PIPE DIA.
MH3	Walnut/west of Cortez	5.5'	30", 30"
MH9	Walnut/west of Alvarado	5.5'	24", 24"
MH10	Walnut/east of Alvarado	5.5'	24", 24"

1013-2 MEASUREMENT & PAYMENT

Payment for Storm Drain Manhole will be made for each manhole installed at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and for doing all the work involved to construct manhole including excavating, preparing the subgrade, connecting to drainpipes, backfilling and compaction, and all incidentals necessary to complete the work.

1014 CURB OPENING CATCH BASIN

1014-1 SCOPE

Construction of Curb Opening Catch Basin as shown on the Plans shall conform to Standard Plan 300-4 and other applicable subsections of the Standard Specifications, and these Special Provisions.

Concrete Class shall be 560-C-3250.

The existing soil material directly below the proposed catch basin shall be over-excavated and re-compacted to 90% compaction to provide a firm, uniform bearing layer.

Connections to curb opening catch basin shall be made in a workmanlike manner. The invert shall be brought into a catch basin at the elevation shown on the Plans. After connections are made to a catch basin and the mortar holding the pipe in place has set, cut the pipe off evenly so that no more than two inches of the pipe protrudes into the catch basin.

CURB OPENING CATCH BASIN WITH MH PER SPPWC 300-4					
ID No.	LOCATION	V	W	B	t
CB1	Cortez/Walnut	4'	7'	3'-2"	6"
CB2	Cortez/Walnut	4.5'	7'	3'-2"	6"
CB3	Walnut/Cortez	4'	7'	3'-2"	6"
CB4	Walnut/Cortez	4'	7'	3'-2"	6"
CB5	Walnut/Cortez	7'	7'	3'-2"	8"
CB6	Walnut/Cortez	6'	7'	3'-2"	6"
CB7	W Alvarado South of Walnut	4'	7'	3'-2"	6"
CB8	E Alvarado South of Walnut	4'	7'	3'-2"	6"
CB9	W Alvarado North of Walnut	4'	7'	3'-2"	6"
CB10	E Alvarado North of Walnut	4'	7'	3'-2"	6"

CB11	Walnut/Alvarado	4.5'	7'	3'-2"	6"
CB12	Walnut/Alvarado	4.5'	7'	3'-2"	6"
CB13	Walnut/Alvarado	4.5'	7'	3'-2"	6"
CB14	Walnut/Alvarado	4.5'	7'	3'-2"	6"

1014-2 MEASUREMENT & PAYMENT

Payment for Curb Opening Catch Basin will be made for each catch basin installed at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and for doing all the work involved to construct catch basin including excavating, preparing the subgrade, connecting to drainpipes, backfilling and compaction, and all incidentals necessary to complete the work.

1015 LOCAL DEPRESSION AT CATCH BASIN

1015-1 SCOPE

The work consists of construction of a monolithic curb and local depression at catch basin as shown on the Plans and as marked in the field. The concrete shall be Class 520-C-2500. Work shall be performed in accordance with Section 303-5 of the Standard Specifications, the Plans and these Special Provisions. All curb and local depression construction shall be performed prior to AC pavement widening.

Curb and local depression at catch basin shall be constructed in accordance with the Plans and SPPWC, Standard Plan 120-3, Type A2 - 6 and Standard Plan 313-4, Case B and F. "CF" and "W" tie-in shall match the dimensions of the adjacent facilities.

1015-2 MEASUREMENT & PAYMENT

Local Depression at Catch Basin will be measured by the linear foot. Payment will be made at the contract unit price per linear foot of local depression at catch basin installed. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and all incidentals necessary to complete the work.

1016 SIDEWALK & PAVEMENT WIDENING PREPARATION

1016-1 SCOPE

The work under this section consists of PCC sidewalk and AC pavement widening

preparation including curb & gutter, curb ramp, driveway approach, and other work that require preparations. Such work shall include the removal of interfering fence and hedges, removal and disposal of dirt, cement concrete, asphalt concrete and other foreign materials, removal of trees 12" wide and smaller, removal of trees 25' tall and shorter, trimming of trees, preparation of sub-grade, removal of curbs at 3070 Cortez Street, removal of retaining wall at 914 Walnut Drive, removal of drop inlet at 2835 Balboa Street, and other unwanted materials as shown on the plans and as directed by the Engineer.

Removed unwanted materials shall become the property of the Contractor and be disposed of outside of County right of way.

This work includes saw cutting of existing driveways to the full depth and AC pavement to the depth shown on Plans.

The material below the proposed paving surface shall be graded and compacted to receive asphalt concrete pavement directly over it. The sub-grade preparation shall be per SSPWC 301-1 and these Special Provisions.

1016-2 MEASUREMENT & PAYMENT

Payment for Sidewalk and Pavement Widening Preparation will be made at the contract lump sum price. Such payment shall be considered full compensation for furnishing all labor, equipment, and all incidentals necessary to complete the work including grading and compaction of sub-grade of the proposed pavement widening, disposal of AC, PCC, tree trimmings, stumps removal, garden hedges, chain link fence and other unwanted material that will be removed, saw cutting of existing driveway approach and AC pavement, preparation of sub-grade and other incidentals necessary to complete the work.

Payment for removal of existing manhole and reinforced concrete pipe is included in Section 1009, Removal of Existing MH & RCP.

Payments for removal of trees that are higher than 25' and wider than 12" are included in Section 1017, Tree Removal.

Payments for removal and re-installation of chain link fence are included in Section 1018, Chain Link Fence Relocation.

Payment for removal and re-installation of masonry block with chain link fence is included in Section 1019, Masonry Block with Chain Link Fence Relocation.

1017 TREE REMOVAL

1017-1 SCOPE

This work consists of tree removal including removal of its stump as listed in these Special Provisions and shown in the Plans.

Tree Removal shall include cutting, stump grinding and removal of roots to a depth of 12" below the existing grade. All parts of the tree, including grindings, shall be disposed of by the Contractor and void filled with unclassified materials necessary to match the existing surface.

1017-2 LOCATION

Tree Removal shall be accomplished at the following locations:

LOCATION	TYPE	HEIGHT	WIDTH
1155 Stroube Street	Pepper tree	40'	36"
811 Stroube Street	Chinese Pistache tree	30'	30"
643 Stroube Street	Palm tree	>50'	20"
483 Stroube Street	Palm trees (11)	>50'	20"
292 Walnut Drive	Deciduous tree	25'	18"
511 Walnut Drive	Cluster of Yucca trees (2)	40'	60"
3171 Cortez Street	Cypress tree	25'	18"

1017-3 MEASUREMENT & PAYMENT

Payment for Tree Removal will be made at the contract unit price for each tree removed. Such payment shall be considered full compensation for furnishing all labor, material, tools and equipment, including stump and all incidentals necessary to complete the work.

Payment for removal of trees that are smaller than 25' high and 12" wide is

included in Section 1016, Sidewalk and Pavement Widening Preparation.

1018 CHAIN LINK FENCE RELOCATION

1018-1 SCOPE

This work consists of removal and re-installation, using the existing material for chain link fence and vinyl fence, to a new location as shown on the Plans and listed in these Special Provisions.

New post shall be installed when used as an end post or connecting to an existing chain link fence and shall be installed in accordance with SPPWC Standard Plan 600-4.

1018-2 LOCATION

Chain Link & Vinyl Fence Relocation shall be accomplished at the following locations:

LOCATION	APPROX. LENGTH (FEET)
218 Stroube Street (Chain link)	30'
716 Stroube Street (Chain link)	80'
1177 Stroube Street (Chain link)	55'
1238 Stroube Street (Chain link)	25'
2780 Cortez Street (Chain link)	50'
3070 Cortez Street (Chain link)	20'
3171 Cortez Street (Chain link)	80'
512 Corsicana Drive (Vinyl)	50'
Length Adjustments	60'

1018-3 MEASUREMENT & PAYMENT

Payment for Chain Link & Vinyl Fence Relocation (removal & re-installation) will be made at the contract unit price per linear foot of fence re-installed. Such payment shall be considered full compensation for furnishing all labor, tools, equipment, and incidentals necessary to complete the work including installation of new post when connecting to existing chain link fence or used as an end post.

1019 MASONRY BLOCK WITH CHAIN LINK FENCE RELOCATION

1019-1 SCOPE

This work consists of removal and replacement of 3 layers of masonry block with chain link fence on top, at 316 Walnut Drive, as shown on the Plan.

1019-2 MEASUREMENT & PAYMENT

Payment for Masonry block with Chain Link Fence Relocation (removal & re-installation) will be made at the contract unit price per linear foot of fence re-installed. Such payment shall be considered full compensation for furnishing masonry blocks, all labor, tools, equipment, and incidentals necessary to complete the work.

1020 DRIVEWAY GATE ELEVATION ADJUSTMENT

1020-1 SCOPE

This work consists of adjusting the elevation of driveway gates as shown on the Plans and included in these Special Provisions. Driveway gates to be adjusted are sliding and swing gates with approx. 12' to 20' opening.

1020-2 LOCATION

Driveway Gate Elevation Adjustment shall be accomplished at the following locations:

ID No.	LOCATION	GATE TYPE	
1	356 Walnut Drive	Slide	
2	376 Walnut Drive	Slide	
3	574 Walnut Drive 1		Swing
4	574 Walnut Drive 2	Slide	

5	593 Walnut Drive	Slide	
6	593 Walnut Drive	Slide	
7	611 Walnut Drive		Swing
8	633 Walnut Drive	Slide	
9	633 Walnut Drive		Swing
10	634 Walnut Drive		Swing
11	733 Walnut Drive		Swing
12	733 Walnut Drive		Swing
13	1025 Walnut Drive	Slide	
14	1025 Walnut Drive	Slide	
15	285 Stroube Street		Swing
16	318 Stroube Street	Slide	
17	348 Stroube Street		Swing
18	388 Stroube Street	Slide	
19	417 Stroube Street	Slide	
20	524 Stroube Street	Slide	
21	525 Collins Street		Swing
22	536 Collins Street 1		Swing
23	536 Collins Street 2		Swing

24	536 Collins Street 3		Swing
25	555 Stroube Street 1		Swing
26	555 Stroube Street 2		Swing
27	564 Stroube Street	Slide	
28	593 Stroube Street 1	Slide	
29	593 Stroube Street 2	Slide	
30	680 Stroube Street	Slide	
31	792 Stroube Street	Slide	
32	804 Stroube Street		Swing
33	882 Stroube Street	Slide	

1020-3 MEASUREMENT & PAYMENT

Payment for Driveway Gate Elevation Adjustment will be made for each driveway gate adjusted at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to complete the work.

1021 ACCESS GATE ELEVATION ADJUSTMENT

1021-1 SCOPE

This work consists of adjusting the elevation of pedestrian access gates as shown on the Plans and included in these Special Provisions.

Pedestrian access gates to be adjusted are swing gates with approx. 3' to 6' opening.

1021-2 LOCATION

Access Gate Elevation Adjustment shall be accomplished at the following locations:

ID No.	LOCATION	TYPE
1	1176 Stroube Street	Swing Gate
2	1276 Stroube Street	Swing Gate
3	1378 Stroube Street	Swing Gate
4	1400 Stroube Street	Swing Gate
5	524 Stroube Street	Swing Gate
6	612 Stroube Street	Swing Gate
7	994 Stroube Street	Swing Gate
8	532 Walnut Street	Swing Gate
9	593 Walnut Street	Swing Gate
10	988 Walnut Street	Swing Gate

1021-3 MEASUREMENT & PAYMENT

Payment for Access Gate Elevation Adjustment will be made for each access gate adjusted at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to complete the work.

1022 IRRIGATION LINE REPAIR AND/OR ADJUSTMENT

1022-1 SCOPE

The work consists of irrigation line repair and/or adjustment that may be encountered in the field. All irrigation line repair and/or adjustment shall be performed to the satisfaction of the engineer.

1022-2 MEASUREMENT & PAYMENT

Payment for irrigation line repair and/or adjustment will be made at the contract lump sum price. Such payment shall be considered full compensation for furnishing all labor, materials, and incidentals necessary to complete the work.

1023 CURB & GUTTER

1023-1 SCOPE

The work consists of construction of 4" & 6" Curb and Gutter as shown on the Plans and as marked in the field. The concrete shall be Class 520-C-2500. Work shall be performed in accordance with Section 303-5 of the Standard Specifications, the Plans and these Special Provisions. All curb and gutter construction shall be performed prior to AC pavement widening. Any existing yard drains shall be protected and reinstalled.

Curb and Gutter shall be constructed in accordance with the Plans and SPPWC, Standard Plan 120-3, Type A2-6. "W" is 18" unless otherwise specified; "CF" and "W" shall match the dimensions of the adjacent facilities.

1023-2 MEASUREMENT & PAYMENT

Curb and Gutter will be measured by the linear foot. Payment will be made at the contract unit price based on actual measured quantities completed in accordance with these Special Provisions. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and all incidentals necessary to complete the work.

Payment for 3" PVC curb drain is included in Section 1026, PVC Pipe Drain to Gutter.

1024 CURB & GUTTER WITH OPENING

1024-1 SCOPE

The work consists of construction of 4" & 6" Curb and Gutter with opening as shown on the Plans and as marked in the field. The concrete shall be Class 520-C-2500. Work shall be performed in accordance with Section 303-5 of the Standard Specifications, the Plans and these Special Provisions. All curb and gutter construction shall be performed prior to AC pavement widening. Any existing yard drains shall be protected and reinstalled.

4" & 6" Curb shall have an opening of 6" wide-bottom and 12" wide-top at 5'- on center spacing. Curb and Gutter shall be constructed in accordance with the Plans and SPPWC, Standard Plan 120-3. "CF" and "W" shall match the dimensions of the adjacent facilities.

1024-2 MEASUREMENT & PAYMENT

PCC Curb and Gutter with Opening will be measured by the linear foot. Payment will be made at the contract unit price based on actual measured quantities completed in accordance with these Special Provisions. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and all incidentals necessary to complete the work.

1025 PCC CURB

1025-1 SCOPE

The work consists of construction of 6" and 8" PCC Curbs as shown on the Plans and as marked in the field. Concrete shall be Class 520-C-2500. Work shall be performed in accordance with Section 303-5 of the Standard Specifications, the Plans and these Special Provisions. All curb construction shall be performed prior to AC pavement widening. Any existing yard drains shall be protected and reinstalled.

Curb shall be constructed in accordance with the Plans and SPPWC Standard Plan 120-3, Type A1-6 and Type A1-8. "CF" shall match the dimensions of the adjacent facilities.

1025-2 MEASUREMENT & PAYMENT

6" PCC Curb and 8" PCC Curb will be measured by the linear foot. Payment will be made to the contract unit prices based on actual measured quantities completed in accordance with these Special Provisions. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and all incidentals necessary to complete the work.

1026 PVC PIPE DRAIN TO GUTTER

1026-1 SCOPE

The work consists of installing a PVC pipe drain beneath the sidewalk from the property line to the curb outlet. Opening shall be provided in the new curb for all drainpipes. Pipe drain to gutter shall be 3-inch PVC schedule 40 and outlet shall be laid on a straight grade from the property to 1-inch back of the curb face. The outlet invert shall be 3/8-inch above the gutter flow line. Curb drainpipe shall be installed at locations shown on the Plans and additional locations may be added by the Engineer.

1026-2 MEASUREMENT & PAYMENT

Payment for 3" PVC Pipe Drain to Gutter will be made at the contract unit price per each curb drain installed. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and other incidentals necessary to complete the work.

1027 PVC PIPE DRAIN TO TRENCH

1027-1 SCOPE

The work consists of installing a PVC pipe drain beneath the sidewalk from property line to the percolation trench. Pipe drain to trench shall be 3-inch PVC schedule 40 and outlet shall be laid on a straight grade from the property to 1-foot into the trench. Drainpipe shall be installed at locations shown on the Plans and additional locations may be added by the Engineer.

1027-2 MEASUREMENT & PAYMENT

Payment for 3" PVC Pipe Drain to Trench will be made at the contract unit price per each drain installed. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and other incidentals necessary to complete the work.

1028 PCC DWARF WALL

1028-1 SCOPE

The work consists of construction of PCC Dwarf Wall as shown on the Plans and as marked in the field. Concrete shall be Class 520-C-2500. Work shall be performed in accordance with Section 303-5 of the Standard Specifications, the Plans and these Special Provisions. All PCC dwarf wall construction shall be performed prior to 4" thick PCC sidewalk and AC pavement widening. Any existing yard drains shall be protected or reinstalled.

1028-2 MEASUREMENT & PAYMENT

PCC Dwarf Wall will be measured by the linear foot. Payment will be made at the contract unit price based on actual measured quantities completed in accordance with these Special Provisions. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and all incidentals necessary to complete the work.

1029 PCC THICKENED EDGE SIDEWALK

1029-1 SCOPE

This work consists of placing a 6" to 18" thick PCC thickened edge as shown on the Plans. Work shall be performed in accordance with Section 303-5 of the Standard Specifications and these Special Provisions. The concrete shall be Class 520-C-2500.

1029-2 MEASUREMENT & PAYMENT

PCC Thickened Edge Sidewalk construction will be measured by the linear foot

and payment will be made at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to complete the work.

1030 PCC SIDEWALK & WALKWAY

1030-1 SCOPE

This work consists of constructing a 4" thick Portland Cement Concrete (PCC) Sidewalk and Walkway as shown on the Plans. The concrete shall be Class 520-C-2500. The work shall be performed in accordance with SPPWC Standard Plan 112-2, Section 303-5 of the Standard Specifications, and these Special Provisions.

1030-2 MEASUREMENT & PAYMENT

PCC Sidewalk and Walkway construction will be measured by the square foot and payment will be made at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to complete the work.

Payment for costs incurred in protecting and/or adjusting the water meter boxes, valve box covers, and sewer cleanout covers within the sidewalk and walkway areas shall be included in the contract unit price and no additional compensation will be made.

1031 PCC DRIVEWAY APPROACH

1031-1 SCOPE

This work consists of constructing a 6" thick PCC Driveway Approach as shown on the Plans. The concrete shall be Class 520-C-2500. Work shall be performed in accordance with Section 303-5 of the Standard Specifications, the Plans and these Special Provisions. All driveway approach construction shall be performed prior to AC pavement widening.

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN*	WALKWAY PCC (SF)
1	2810 Vineyard Av	178	AC tie-in	(79)	
2	217 Stroube St	129	PMB tie-in	(24)	14
3	267 Stroube St	200	PCC tie-in	-	
4	273 Stroube St	187	PCC tie-in	32	
5	285 Stroube St	164	Driveway 1 PCC tie-in	96	
6	285 Stroube St	183	Driveway 2 PCC tie-in	54	
7	317 Stroube St	197	Driveway 1 AC tie-in	(59)	
8	317 Stroube St	183	Driveway 2 PMB tie-in	(54)	
9	351 Stroube St	135	Driveway 1 PCC tie-in	267	
10	351 Stroube St	127	Driveway 2 PMB tie-in	(159)	
11	361 Stroube St	138	Driveway 1 AC tie-in	(65)	
12	361 Stroube St	138	Driveway 2 PCC tie-in	65	
13	417 Stroube St	281	Driveway 1 PMB tie-in	(145)	
14	417 Stroube St	112	Driveway 2 PMB tie-in	(81)	
15	451 Stroube St	116	Driveway 1 PMB tie-in	(53)	

***Driveway tie-in in parenthesis () is not PCC, typical this table**

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
16	451 Stroube St	111	Driveway 2 PCC tie-in	324	
17	465 Stroube St	111	PMB tie-in	(50)	42
18	2778 Vineyard Av	151	Driveway 1 AC tie-in	(60)	
19	2778 Vineyard Av	89	Driveway 2 AC tie-in	(18)	
20	2778 Vineyard Av	104	Driveway 3 AC tie-in	(40)	
21	218 Stroube St	191	Driveway 1 PMB tie-in	(95)	
22	218 Stroube St	201	Driveway 2 PMB tie-in	(60)	
23	250 Stroube St	125	Driveway 1 PCC tie-in	-	
24	250 Stroube St	170	Driveway 2 PCC tie-in	-	
25	288 Stroube St	141	AC tie-in	(40)	
26	318 Stroube St	127	PCC tie-in	136	
27	348 Stroube St	111	Driveway 1 PMB tie-in	(159)	
28	348 Stroube St	448	Driveway 2 PCC tie-in	267	
	388 Stroube St		Driveway 1 PMB tie-in	(270)	
29	388 Stroube St	116	Driveway 2 PMB tie-in	(53)	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
30	388 Stroube St	111	Driveway 3 PCC tie-in	80	
31	418 Stroube St	170	AC tie-in	(132)	
32	448 Stroube St	282	PCC tie-in	324	
33	2795 Cortez St	174	PCC tie-in	135	
34	555 Stroube St	199	Driveway 1 PMB tie-in	(198)	17
35	555 Stroube St	111	Driveway 2 PMB tie-in	(80)	
36	593 Stroube St	125	Driveway 1 PCC tie-in	116	
37	593 Stroube St	123	Driveway 1 PMB tie-in	(57)	
38	643 Stroube St	146	Driveway 1 PCC tie-in	158	
39	643 Stroube St	153	Driveway 2 PCC tie-in	243	
40	675 Stroube St	137	Driveway 1 PCC tie-in	77	
41	675 Stroube St	123	Driveway 2 PCC tie-in	45	
42	524 Stroube St	159	PCC tie-in	123	
43	564 Stroube St	152	PCC tie-in	145	
44	612 Stroube St	240	PCC tie-in	122	31

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
45	622 Stroube St	192	PMB tie-in	(95)	
46	644 Stroube St	134	PMB tie-in	(25)	
47	680 Stroube St	207	PCC tie-in	21	
48	763 Stroube St	166	Driveway 1 PMB tie-in	(48)	
49	763 Stroube St	361	Driveway 2 PCC tie-in	22	
	773 Stroube St		Driveway 1 PCC tie-in	64	
50	773 Stroube St	246	Driveway 2 PCC tie-in	61	
51	811 Stroube St	193	Driveway 1 PMB tie-in	(39)	
52	811 Stroube St	129	Driveway 2 PMB tie-in	(24)	
53	821 Stroube St	164	PCC tie-in	16	25
54	823 Stroube St	201	PCC tie-in	80	
55	885 Stroube St	219	AC tie-in	(120)	
56	716 Stroube St	118	PMB tie-in	(22)	
57	722 Stroube St	111	Driveway 2 PCC tie-in	28	
58	762 Stroube St	191	PCC tie-in	-	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
59	766 Stroube St	183	PCC tie-in	36	
60	792 Stroube St	156	PCC tie-in	105	
61	804 Stroube St	238	PCC tie-in	91	55
62	838 Stroube St	218	PCC tie-in	152	
63	854 Stroube St	139	PCC tie-in	53	15
64	882 Stroube St	148	Driveway 1 PCC tie-in	42	
65	882 Stroube St	322	Driveway 2 PMB tie-in	(23)	
66	917 Stroube St	111	Driveway 1 PMB tie-in	(70)	
67	917 Stroube St	111	Driveway 2 PCC tie-in	9	
68	917 Stroube St	124	Driveway 3 PCC tie-in	23	
69	979 Stroube St	184	Driveway 1 PCC tie-in	91	
70	979 Stroube St	184	Driveway 2 PMB tie-in	(90)	
71	979 Stroube St	186	Driveway 3 PCC tie-in	86	
72	1001 Stroube St	235	Dwy 1; PCC tie-in Custom diagonal jnt.	310	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
73	1001 Stroube St	271	Driveway 2 PMB tie-in	(55)	
	1021 Stroube St		Driveway 1 PMB tie-in	(71)	
74	1021 Stroube St	113	Driveway 2 PCC tie-in	51	
75	1085 Stroube St	111	Driveway 1 PMB tie-in	(40)	
76	1085 Stroube St	261	Driveway 2 PMB tie-in	(37)	
77	1085 Stroube St	111	Driveway 3 PMB tie-in	(42)	
78	1127 Stroube St	144	PMB tie-in	(109)	
79	1155 Stroube St	111	Driveway 1 PMB tie-in	(100)	
80	1155 Stroube St	206	Driveway 2 PCC tie-in	205	
81	1177 Stroube St	111	Driveway 1 PCC tie-in	98	
82	1177 Stroube St	237	Driveway 2 PMB tie-in	(168)	
83	1177 Stroube St	111	Driveway 3 PMB tie-in	(89)	
84	1225 Stroube St	138	Driveway 1 PCC tie-in	135	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
85	1225 Stroube St	478	Driveway 2 PCC tie-in	94	
	1225 Stroube St		Driveway 3 AC tie-in	(135)	
	1277 Stroube St		PMB tie-in	(110)	
86	1289 Stroube St	138	Driveway 1 PCC tie-in	136	
87	1289 Stroube St	176	Driveway 2 AC tie-in	(172)	
88	1347 Stroube St	219	Driveway 1 PCC tie-in	298	
89	1347 Stroube St	180	Driveway 2 AC tie-in	(176)	
90	1347 Stroube St	195	Driveway 3 AC tie-in	(194)	
91	2784 Alvarado St	197	PCC tie-in	58	
92	976 Stroube St	181	Driveway 1 PCC tie-in	18	
93	976 Stroube St	156	Driveway 2 PCC tie-in	15	
94	994 Stroube St	173	PCC tie-in	86	
95	1024 Stroube St	208	Driveway 1 PCC tie-in	42	
96	1024 Stroube St	111	Driveway 2 PMB tie-in	(27)	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
97	1076 Stroube St	201	Driveway 1 AC tie-in	(100)	
98	1076 Stroube St	219	Driveway 2 AC tie-in	(220)	
99	1138 Stroube St	138	PCC tie-in	93	
100	1176 Stroube St	170	PCC tie-in	132	11
101	1238 Stroube St	189	PCC tie-in	112	
102	1276 Stroube St	177	Driveway 1 PCC tie-in	173	
103	1276 Stroube St	173	Driveway 2 PMB tie-in	(169)	
104	1330 Stroube St	154	PCC tie-in	147	
105	1336 Stroube St	309	PCC tie-in	320	
106	1378 Stroube St	360	PCC tie-in	170	54
	1400 Stroube St		PCC tie-in	212	20
	913 Walnut Dr		Walkway		18
107	913 Walnut Dr	143	PCC tie-in	342	
108	913 Walnut Dr	144	PCC tie-in	230	
109	913 Walnut Dr	181	Driveway 1 PCC tie-in	271	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
110	987 Walnut Dr	133	Driveway 2 PMB tie-in	(75)	
111	1025 Walnut Dr	111	Driveway 1 PCC tie-in	120	
112	1025 Walnut Dr	539	Driveway 2 PCC tie-in	203	
	1025 Walnut Dr		Driveway 1 PCC tie-in	231	
113	1105 Walnut Dr	164	Driveway 2 PCC tie-in	96	
114	1105 Walnut Dr	276	Driveway 3 PCC tie-in	170	
115	1125 Walnut Dr	272	PCC tie-in	42	
	1139 Walnut Dr		Driveway 1 PCC tie-in	57	
116	1139 Walnut Dr	96	Driveway 2 PCC tie-in	30	
117	1167 Walnut Dr	170	PCC tie-in	40	
118	1187 Walnut Dr	299	AC tie-in	(30)	
	1213 Walnut Dr		PMB tie-in	(16)	
	1213 Walnut Dr		PCC tie-in	13	
119	1237 Walnut Dr	141	Driveway 1 PCC tie-in	128	
120	1237 Walnut Dr	111	Driveway 2 PCC tie-in	120	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
	914 Walnut Dr		Walkway		23
121	914 Walnut Dr	136	PCC tie-in	251	
122	964 Walnut Dr	251	Driveway 1 PCC tie-in	138	
	964 Walnut Dr		Driveway 2 PCC tie-in	93	
123	964 Walnut Dr	96	Driveway 3 PCC tie-in	100	
124	988 Walnut Dr	291	PCC tie-in	149	
	1014 Walnut Dr		PCC tie-in	349	
125	1034 Walnut Dr	162	PCC tie-in	226	
126	1064 Walnut Dr	96	PCC tie-in	100	
127	1074 Walnut Dr	183	Driveway 1 PCC tie-in	265	
128	1074 Walnut Dr	351	Driveway 2 PCC tie-in	30	
	1102 Walnut Dr		PCC tie-in	87	
129	1146 Walnut Dr	156	PMB tie-in	(36)	
130	1188 Walnut Dr	96	PCC tie-in	19	
131	1226 Walnut Dr	96	PCC tie-in	19	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY (SF)
132	1238 Walnut Dr	224	PCC tie-in	92	
	1238 Walnut Dr		Driveway 1 PMB tie-in	(58)	
	1238 Walnut Dr		Driveway 2 PCC tie-in	81	
133	733 Walnut Dr	96	Driveway 1 PMB tie-in	(20)	
134	733 Walnut Dr	340	Driveway 2 PCC tie-in	66	
	753 Walnut Dr		PCC tie-in	116	
135	773 Walnut Dr	190	Driveway 1 PCC tie-in	113	
136	773 Walnut Dr	96	Driveway 2 PMB tie-in	(50)	
137	793 Walnut Dr	156	PMB tie-in	(54)	
138	811 Walnut Dr	141	PCC tie-in	64	
139	833 Walnut Dr	174	Driveway 1 PCC tie-in	90	
140	833 Walnut Dr	164	Driveway 2 PCC tie-in	38	
141	853 Walnut Dr	194	Driveway 1 PCC tie-in	34	10
142	853 Walnut Dr	284	Driveway 2 PCC tie-in	25	
	873 Walnut Dr		Driveway 1 PCC tie-in	42	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
143	873 Walnut Dr	346	Driveway 2 PCC tie-in	41	
	893 Walnut Dr		PCC tie-in	40	
144	732 Walnut Dr	96	Driveway 1 PCC tie-in	20	
145	732 Walnut Dr	141	Driveway 2 PMB tie-in	(32)	
146	752 Walnut Dr	171	PCC tie-in	31	
147	774 Walnut Dr	104	PCC tie-in	44	
148	794 Walnut Dr	98	Driveway 1 PCC tie-in	21	
149	794 Walnut Dr	145	Driveway 2 PCC tie-in	99	
150	794 Walnut Dr	297	Driveway 3 PCC tie-in	167	
	834 Walnut Dr		Driveway 1 PCC tie-in	247	
151	834 Walnut Dr	171	Driveway 2 PCC tie-in	199	17
152	852 Walnut Dr	141	Driveway 1 PCC tie-in	64	
153	852 Walnut Dr	231	Driveway 2 PCC tie-in	30	
	874 Walnut Dr		Driveway 1 PCC tie-in	37	
154	874 Walnut Dr	134	Driveway 2 PCC tie-in	33	13

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
155	884 Walnut Dr	182	PCC tie-in	22	
156	533 Walnut Dr	206	PCC tie-in	82	21
157	573 Walnut Dr	168	PCC tie-in	229	
158	593 Walnut Dr	128	Driveway 1 PCC tie-in	189	32
159	593 Walnut Dr	203	Driveway 2 PMB tie-in	(91)	
	611 Walnut Dr		PCC tie-in	100	12
160	633 Walnut Dr	320	PCC tie-in	136	
	653 Walnut Dr		Driveway 1 PMB tie-in	(50)	6
161	653 Walnut Dr	340	Driveway 2 PCC tie-in	110	
	673 Walnut Dr		PCC tie-in	36	
162	3131 Balboa St	96	PMB tie-in	(20)	
163	913 Walnut Dr	125	PCC tie-in	173	9
164	552 Walnut Dr	290	PMB tie-in	(59)	15
	574 Walnut Dr		PMB tie-in	(59)	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
165	574 Walnut Dr	228	Driveway 2 PCC tie-in	267	
	594 Walnut Dr		Driveway 1 PMB tie-in	(90)	
166	594 Walnut Dr	143	Driveway 2 PCC tie-in	196	
167	594 Walnut Dr	204	Driveway 3 PCC tie-in	49	
168	634 Walnut Dr	104	Driveway 1 PMB tie-in	(44)	
169	634 Walnut Dr	326	Driveway 2 PCC tie-in	36	
	654 Walnut Dr		PCC tie-in	65	23
170	674 Walnut Dr	159	Driveway 1 PCC tie-in	28	14
171	674 Walnut Dr	96	Driveway 2 PCC tie-in	15	
	301 Walnut Dr		Walkway		30
172	317 Walnut Dr	112	PCC tie-in	24	4
173	335 Walnut Dr	179	PCC tie-in	42	12
174	355 Walnut Dr	135	PCC tie-in	34	
175	375 Walnut Dr	176	PCC tie-in	102	11
176	395 Walnut Dr	163	PCC tie-in	142	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
177	407 Walnut Dr	94	PCC tie-in		
178	423 Walnut Dr	166	PCC tie-in	193	
179	439 Walnut Dr	134	Driveway 1 PCC tie-in	146	
180	439 Walnut Dr	216	Driveway 2 PCC tie-in	453	
181	455 Walnut Dr	111	Driveway 1 PMB tie-in	(60)	12
182	455 Walnut Dr	263	Driveway 2 PCC tie-in	35	
	473 Walnut Dr		Driveway 1 PMB tie-in	(17)	
183	473 Walnut Dr	141	Driveway 2 PCC tie-in	112	6
	495 Walnut Dr		Walkway		25
	3040 Citrus St		Walkway		48
184	316 Walnut Dr	674	PCC tie-in	126	
	334 Walnut Dr		Driveway 1 AC tie-in	(77)	
	334 Walnut Dr		Driveway 2 PCC tie-in	121	
185	356 Walnut Dr	97	Driveway 1 PCC tie-in	115	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
186	356 Walnut Dr	285	Driveway 2 PCC tie-in	367	
	376 Walnut Dr		PCC tie-in	184	
187	386 Walnut Dr	104	PCC tie-in	110	
188	408 Walnut Dr	141	PMB tie-in	(80)	
189	424 Walnut Dr	360	PCC tie-in	149	
	440 Walnut Dr		PCC tie-in	49	
190	456 Walnut Dr	186	Driveway 1 PMB tie-in	(37)	
	456 Walnut Dr		Driveway 2 PCC tie-in	64	
191	462 Walnut Dr	208	Driveway 1 PMB tie-in	(26)	
	462 Walnut Dr		Driveway 2 PCC tie-in	33	
192	462 Walnut Dr	119	Driveway 3 PCC tie-in	23	
193	Walnut/Vineyard APN 145-0-012-20	168	AC tie-in	(208)	
194	121 Walnut Dr	138	Driveway 1 PCC tie-in	50	
195	121 Walnut Dr	128	Driveway 2 PCC tie-in	65	
196	139 Walnut Dr	162	PCC tie-in	50	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
197	159 Walnut Dr	104	PCC tie-in	34	
198	177 Walnut Dr	102	Driveway 1 PCC tie-in	30	
199	177 Walnut Dr	118	Driveway 2 PCC tie-in	28	
200	217 Walnut Dr	204	Driveway 1 PCC tie-in	47	
201	217 Walnut Dr	134	Driveway 2 PCC tie-in	32	
202	251 Walnut Dr	134	PCC tie-in	34	
203	140 Walnut Dr	240	PCC tie-in	108	
	164 Walnut Dr		Driveway 1 PCC tie-in	28	
204	164 Walnut Dr	166	Driveway 2 PCC tie-in	33	
	198 Walnut Dr	280	PCC tie-in	75	
205	208 Walnut Dr		Driveway 1 PCC tie-in	32	
206	208 Walnut Dr	144	Driveway 2 PCC tie-in	36	
207	224 Walnut Dr	130	Driveway 1 PCC tie-in	34	
208	224 Walnut Dr	236	Driveway 2 PCC tie-in	23	
209	242 Walnut Dr		PCC tie-in	34	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
210	264 Walnut Dr	148	PCC tie-in	34	
211	272 Walnut Dr	82	PCC tie-in		
212	2848 Cortez St	186	PMB tie-in	(92)	
213	2840 Cortez St	129	Driveway 1 PMB tie-in	(24)	
214	2840 Cortez St	129	Driveway 2 PMB tie-in	(24)	
215	536 Collins	111	Driveway 1 PCC tie-in	39	
216	536 Collins	111	Driveway 2 PCC tie-in	29	
217	536 Collins	144	Driveway 3 PCC tie-in	60	
218	536 Collins	144	Driveway 4 PMB tie-in	(41)	
219	525 Collins	128	PCC tie-in	24	
220	2930 Cortez St	169	Driveway 1 PCC tie-in	25	
221	2930 Cortez St	265	Driveway 2 PCC tie-in	158	
222	2940 Cortez St	142	Driveway 1 PCC tie-in	65	
223	2940 Cortez St	127	Driveway 2 PCC tie-in	28	
224	2970 Cortez St	116	Driveway 1 PCC tie-in	26	

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
225	2970 Cortez St	223	Driveway 2 PCC tie-in	54	
226	483 Stroube	229	Driveway 1 PCC tie-in	47	
227	483 Stroube St	237	Driveway 2 AC tie-in	(219)	
228	2857 Cortez St	237	Driveway 1 AC tie-in	(180)	
229	2857 Cortez St	237	Driveway 2 AC tie-in	(136)	
230	487 Collins	149	Driveway 1 PMB tie-in	(142)	
231	487 Collins	125	Driveway 2 PCC tie-in	115	
232	2921 Cortez St	470	Driveway 1 PCC tie-in	658	
	2921 Cortez St		Driveway 2 PMB tie-in	(196)	
233	2941 Cortez St	290	PCC tie-in	229	
	494 Orange		Driveway 1 PCC tie-in	214	
234	494 Orange	171	Driveway 2 PCC tie-in	233	18
235	3070 Cortez St	121	Driveway 1 PMB tie-in	(40)	20
236	3070 Cortez St	152	Driveway 2 PCC tie-in	88	
237	512 Walnut	118	Driveway 1 PCC tie-in	30	12

6" THICK PCC DRIVEWAY APPROACH (Dwy 1 west side of property)					
ADDRESS		AREA PCC (SF)	REMARKS	AREA (SF) TIE-IN	WALKWAY PCC (SF)
238	512 Walnut	329	Driveway 2 PCC tie-in	82	
239	511 Walnut	111	Driveway 1 PMB tie-in	(36)	
240	511 Walnut	129	Driveway 2 PCC tie-in	29	
241	512 Corsicana	108	Driveway 1 PCC tie-in	23	
242	512 Corsicana	139	Driveway 2 PCC tie-in	33	
243	512 Corsicana	289	Driveway 3 PCC tie-in	71	
244	501 Corsicana	167	Driveway 4 PCC tie-in	39	
245	495 Orange	295	Driveway 1 PCC tie-in	236	
	\$95 Orange		Driveway 2 PMB tie-in	(53)	
246	APN 145-0-062-12	155	Driveway 1 PMB tie-in	(53)	
247	APN 145-0-062-12	192	Driveway 2 PCC tie-in	46	
248	495 Walnut	255	Driveway 3 PCC tie-in	63	25
249	495 Walnut	96	PMB tie-in	(20)	
250	495 Walnut	171	PCC tie-in	40	
251	APN 145-0-022-11	138	PCC tie-in	78	

1031-2 MEASUREMENT & PAYMENT

PCC Driveway Approach construction will be measured by square foot and payment will be made at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to complete the work.

1032 AC DRIVEWAY APPROACH TIE-IN

1032-1 SCOPE

This work consists of repairing a 4" thick Asphalt Concrete (AC) driveway approach tie-in as shown on the Plans. AC shall be B-PG64-10.

All driveway approach construction shall be performed prior to AC pavement widening.

1032-2 MEASUREMENT & PAYMENT

AC Driveway Approach Tie-In will be measured by square foot and payment will be made at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to complete the work.

1033 PMB DRIVEWAY APPROACH TIE-IN

1033-1 SCOPE

This work consists of repairing a 4" thick Processed Miscellaneous Base (PMB) driveway approach tie-in as shown on the Plans.

All driveway approach construction shall be performed prior to AC pavement widening.

1033-2 MEASUREMENT & PAYMENT

PMB Driveway Approach Tie-In will be measured by square foot and payment will be made at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to complete the work.

1034 COLORED CONCRETE DRIVEWAY TIE-IN

1034-1 SCOPE

This work consists of repairing and adjusting a colored concrete approach tie-in as shown on the Plans. Match the color of concrete of the existing driveway. All driveway approach construction shall be performed prior to AC pavement widening.

1034-2 LOCATION

ID No.	LOCATION	TYPE
1	250 Stroube Street	Colored Concrete
2	524 Stroube Street	Colored Concrete
3	495 Walnut Drive	Colored Concrete
4	533 Walnut Drive	Colored Concrete
5	733 Walnut Drive	Colored Concrete
6	874 Walnut Drive	Colored Concrete
7	938 Walnut Drive	Colored Concrete
8	963 Walnut Drive	Colored Concrete

1034-3 MEASUREMENT & PAYMENT

Colored Concrete Driveway Tie-In will be measured by the square foot and payment will be made at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to complete the work.

1035 COLORED STAMPED DRIVEWAY TIE-IN

1035-1 SCOPE

This work consists of repairing and adjusting a colored stamped driveway approach tie-in as shown on the Plans. All driveway approach construction shall be performed prior to AC pavement widening.

1035-2 LOCATION

ID No.	LOCATION	TYPE
1	1024 Stroube Street	Colored Stamped Concrete
2	Walnut Drive (APN145-62-12)	Colored Stamped Concrete
3	853 Walnut Drive	Colored Stamped Concrete
4	1014 Walnut Drive	Colored Stamped Concrete
5	1025 Walnut Drive	Colored Stamped Concrete

1035-3 MEASUREMENT & PAYMENT

Colored Stamped Driveway Approach Tie-In will be measured by square foot and payment will be made at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to complete the work.

1036 PAVER DRIVEWAY APPROACH TIE-IN

1036-1 SCOPE

This work consists of repairing and adjusting a paver driveway approach tie-in as shown on the Plans. All driveway approach construction shall be performed prior to AC pavement widening.

1036-2 LOCATION

Paver driveway approach repair/adjustment shall be accomplished at the following locations:

ID No.	LOCATION	TYPE
1	773 Walnut Drive	Paver
2	852 Walnut Drive	Paver
3	1105 Walnut Drive	Paver

1036-3 MEASUREMENT & PAYMENT

Paver Driveway Approach Tie-In will be measured by square foot and payment will be made at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to complete the work.

1037 BRICK DRIVEWAY APPROCH TIE-IN

1037-1 SCOPE

This work consists of repairing and adjusting a brick driveway approach tie-in as shown on the Plans. All driveway approach construction shall be performed prior to AC pavement widening.

1037-2 LOCATION

Brick driveway approach repair/adjustment shall be accomplished at the following locations:

ID No.	LOCATION	TYPE
1	792 Stroube Street	Brick
2	1378 Stroube Street	Brick
3	395 Walnut Drive	Brick
4	439 Walnut Drive	Brick
5	753 Walnut Drive	Brick
6	794 Walnut Drive	Brick
7	1167 Walnut Drive	Brick
8	2930 Cortez Street	Brick

1037-3 MEASUREMENT & PAYMENT

Brick Driveway Approach Tie-In will be measured by square foot and payment will

be made at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, and all incidentals necessary to complete the work.

1038 REINFORCED CONCRETE STEPS

1038-1 SCOPE

The work consists of installing one, two or three reinforced concrete steps as shown on the Plans. Additional locations may be added by the Engineer.

1038-2 MEASUREMENT & PAYMENT

Payment for Reinforced Concrete Steps will be made at the contract unit price per each location installed. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and other incidentals necessary to complete the work.

1039 REINFORCED CONCRETE STEPS WITH HAND RAILING

1039-1 SCOPE

The work consists of installing a reinforced concrete step with hand railing as shown on the Plans. Additional locations may be added by the Engineer.

1039-2 MEASUREMENT & PAYMENT

Payment for Reinforced Concrete Steps with Hand Railing will be made at the contract unit price per each location installed. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and other incidentals necessary to complete the work.

1040 PCC RAMPS

1040-1 SCOPE

This work consists of construction of PCC Ramps as shown on Plans. The concrete shall be Class 520-C-2500. Work shall be performed in accordance with Section 303-5 of the Standard Specifications, SPPWC Standard Plan 111-5, the Plans and these Special Provisions. All PCC ramps construction shall be performed prior to AC pavement widening.

PCC Ramps includes curb extension (bulb-out), curb & gutter, sidewalk, curb ramps, truncated domes, and spandrels, and to match adjacent improvements as shown in the plans (purple hatch) and as directed by the Engineer.

PCC RAMPS PER SPPWC 111-5			
ID No.	LOCATION	AREA (SF)	ADA DOME PAD(S)
R01	NW Stroube/Jordan	165	1
R02	NW Stroube/Cortez	911	2
R03	SW Stroube/Cortez	930	2
R04	NE Stroube/Cortez	897	2
R05	SE Stroube/Cortez	920	2
R06	NW Stroube/Balboa	689	2
R07	SW Stroube/Balboa	775	2
R08	NE Stroube/Balboa	704	2
R09	SE Stroube/Balboa	701	1
R10	NW Stroube/Alvarado	733	2
R11	SW Stroube/Alvarado	662	2
R12	NE Stroube/Alvarado	884	2
R13	SE Stroube/Alvarado	910	2
R14	SW Stroube/Kenney	1239	1
R15	SE Stroube/Kenney	1097	2
R16	NE Stroube/Kenney	637	1

PCC RAMPS PER SPPWC 111-5			
ID No.	LOCATION	AREA (SF)	ADA DOME PAD(S)
R17	NW Cortez/Collins	655	2
R18	SW Cortez/Collins	624	2
R19	NE Cortez/Collins	623	2
R20	SE Cortez/Collins	623	2
R21	NW Cortez/Orange	816	2
R22	SW Cortez/Orange	764	2
R23	NE Cortez/Orange	817	2
R24	SE Cortez/Orange	776	2
R25	NW Cortez/Walnut	1019	2
R26	SW Cortez/Walnut	1023	2
R27	NE Cortez/Walnut	981	2
R28	SE Cortez/Walnut	1012	2
R29	NW Cortez/Corsicana	708	2
R30	SW Cortez/Corsicana	693	2
R31	NE Cortez/Corsicana	720	2
R32	SE Cortez/Corsicana	693	2

PCC RAMPS PER SPPWC 111-5			
ID No.	LOCATION	AREA (SF)	ADA DOME PAD(S)
R33	NE Walnut/Vineyard	593	2
R34	SE Walnut/Vineyard	482	1
R35	NW Walnut/Citrus	1038	2
R36	SW Walnut/Citrus	598	2
R37	NE Walnut/Citrus	716	2
R38	SE Walnut/Citrus	611	2
R39	NW Walnut/Balboa	578	2
R40	SW Walnut/Balboa	578	2
R41	NE Walnut/Balboa	578	2
R42	SE Walnut/Balboa	578	2
R43	NW Walnut/Alvarado	632	2
R44	SW Walnut/Alvarado	539	2
R45	NE Walnut/Alvarado	600	2
R46	SE Walnut/Alvarado	522	2
R47	NW Walnut/Rose	585	3
R48	SW Walnut/Rose	310	2

1040-2 MEASUREMENT & PAYMENT

Payment for PCC Ramps will be made for each location at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment, placement of detectable warning surface, and all incidentals necessary to complete the work.

Payment for preliminary subgrade preparation of the PCC Ramps is included in Section 1016, Sidewalk & Pavement Repair Preparation.

1041 TRUNCATED DOMES ADA TILE

1041-1 SCOPE

This work consists of surface applied Truncated Domes ADA tile installation, safety yellow tile color, a minimum dimension of 3 feet x 4 feet that can be applied directly to an existing curb ramp, as marked in the field, shown on Plans, and in accordance with these Special Provisions. The installation area should be cleaned of all debris, oil and grease, and completely free of moisture, Truncated Domes ADA surface applied tile shall be installed with an adhesive plus anchors and sealant placed around the perimeter of the tiles.

1041-2 MEASUREMENT & PAYMENT

Truncated Domes ADA Tile installation will be measured per each unit and payment will be made at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, material, tools and equipment, and all incidentals necessary to complete the work.

1042 PCC CROSS GUTTER

1042-1 SCOPE

Work includes construction of 6'-wide Portland Cement Concrete (PCC) cross gutter as shown on the Plans and as marked in the field. Construct Cross gutter to maintain positive flow and shall comply with SPPWC Standard Plan 123-3 and these Special Provisions. All material beneath the concrete shall be compacted and Concrete shall be Class 520-C-2500.

1042-2 MEASUREMENT & PAYMENT

Payment for PCC Cross Gutter will be made at the contract unit price per linear foot. Such payment shall be considered full compensation for furnishing all materials, labor, equipment including saw cutting of AC pavement, removal and disposal of existing materials, subgrade preparation, tack coat, AC repairs and all incidentals necessary to complete the work.

1043 RETAINING WALL

1043-1 SCOPE

Work includes construction of reinforced concrete retaining wall at 914 Walnut Drive as shown on the Plans, as marked in the field, and shall comply with Caltrans Standard Plan B3-7A, Retaining Wall Type 6A (Case1), Design H = 3'-4",

and these Special Provisions.

1043-2 MEASUREMENT & PAYMENT

Payment for Retaining Wall Type 6A will be made at the contract unit price per linear foot. Such payment shall be considered full compensation for furnishing all materials, labor, equipment including removal and disposal of dirt to be removed, and all incidentals necessary to complete the work.

Payment for removal and disposal of the existing retaining wall at 914 Walnut Drive is included in Section 1016, Sidewalk & Pavement Widening Preparation.

1044 INFILTRATION TRENCH

1044-1 SCOPE

This item of work consists of constructing infiltration trenches as shown on the plans. Work includes drainage trench excavation and construction of storm water detention trenches which consist of cobble stones with impermeable sheeting, as shown on the Plan.

Trench excavation shall include the removal of all material and obstructions. The trench width shall be 4 feet and the depth shall be 4 feet and filled with 1.5"- 4" cobble stones with specific gravity of 2.5 minimum.

PVC impermeable sheeting shall be 30 mil PVC flexible geomembrane or approved equal.

1044-2 MEASUREMENT & PAYMENT

Payment for Infiltration Trench will be made at the contract unit price per linear foot, complete in place. Such payment shall be considered full compensation for furnishing all labor, materials and equipment including removal and disposal of dirt, placement of impermeable sheeting and cobble stones, and incidentals necessary to complete the work.

Payment for 3" PVC pipe drain from property line to infiltration trench is included in Section 1027, PVC Pipe Drain to Trench.

1045 AC PAVEMENT MICRO-MILLING

1045-1 SCOPE

AC Pavement Micro-milling shall be performed in accordance with the Standard Specifications at location shown on the plans, and as specified in these Special Provisions. The limits of micro-milling will be marked in the field by a single dashed line or as directed by the engineer.

Utility covers within the milling area shall be ramped with temporary AC pavement as specified in 306-1.5.1. Ramps shall be constructed the same day as milling and removed the same day as permanent paving. Ramps shall be constructed as soon as practicable for the maximum convenience of the public.

1045-2 MEASUREMENT & PAYMENT

AC Pavement Micro-milling will be measured by the square foot of ground pavement to the depth specified on the Plans or in these Special Provisions. Payment will be made at the contract unit price based on actual measured quantities completed. Such payment shall be considered full compensation for furnishing all labor, materials and equipment including disposal of material removed, constructing temporary AC ramps, dust control, and incidentals necessary to complete the work.

1046 TACK COAT

1046-1 SCOPE

Tack Coat shall be placed on existing asphalt pavement whenever new asphalt pavement will be placed over it, to improve adhesion.

1046-2 MATERIAL

Tack Coat shall be Thermoplastic Polymer Modified High Performance Seal, also known as HPS No-Track Tack, manufactured by Paramount Petroleum, no known equal.

1046-3 CONSTRUCTION METHODS

The tack coat shall not be applied until the preparation of the existing surface has been completed, and then only so far in advance of placing the asphalt concrete overlay as permitted by the Engineer. Tack coat shall not be applied when the temperature of the surface to be tacked is below 50 degrees F in the shade. No tack coat shall be applied when rain is imminent.

No tack coat shall be left exposed overnight. Immediately in advance of placing the asphalt concrete, additional tack coat shall be applied as directed by the Engineer to areas where the tack coat has been destroyed or otherwise rendered ineffective, and no additional compensation will be allowed for such work.

The tack coat shall be heated slowly to temperatures between 325-425 degrees F. At no time shall the product be heated to above 450 degrees F. The product shall be applied through a distributor truck equipped with a heating unit. It shall be equipped with a full circulating spreader bar and pumping system capable of applying the tack coat material within 0.05 gallons per square yard tolerance of the

specified application rate and give a uniform covering of the surface to be treated. The distributor shall also include a tachometer, pressure gauge, volume measuring device and thermometer.

The application rate shall be between 0.12 to 0.15 gallons per square yard and the rate to be determined by the prevailing surface conditions or as approved by the Engineer.

The Tack Coat shall not be applied until the preparation of the existing surface has been completed, and then only so far in advance of placing the asphalt concrete overlay as permitted by the Engineer. The Engineer will determine if the pavement is sufficiently clean and dry for the application of a Tack Coat.

Existing concrete surfaces shall be protected against disfigurement from the asphalt. Residue of the material shall be removed by sandblasting to the extent required by the Engineer.

1046-4 MEASUREMENT & PAYMENT

Payment for the Tack Coat shall be considered included in the prices paid for other items of work and no additional compensation will be made.

1047 AC PAVEMENT LEVELING COURSE

1047-1 SCOPE

Roads shall include AC pavement leveling course to the thickness and limits as shown on the Plans or marked on the field. Prior to placing the AC leveling course, a tack coat shall be applied to the existing pavement as specified in other sections of these Special Provisions.

Asphalt concrete for leveling course shall be in accordance with 203-6 of the Standard Specifications, and these Special Provisions. Asphalt concrete for leveling course shall be D2-PG 64-10.

1047-2 MEASUREMENT & PAYMENT

Payment for the AC Pavement Leveling Course will be made at the contract unit price per ton. Such payment shall be considered full compensation for furnishing all labor, materials and equipment, and all incidentals necessary to complete the work.

1048 AC PAVEMENT WIDENING & REPAIR

1048-1 SCOPE

This section covers Asphalt Concrete Pavement Widening & Repair as shown on the

Plans, marked in the field, and as specified in these Special Provisions.

This work includes saw cutting of existing pavement, removal of existing AC pavement and sub-base and placement and 6 inches thick of AC as shown on the Plans.

The material below the proposed paving surface to receive asphalt concrete pavement directly over it shall be graded and compacted. The sub-grade preparation shall be per SSPWC 301-1. Preparation of areas and placing materials shall be in accordance with 300-4 of the SSPWC and these Special Provisions.

The base and/or sub-grade material shall be compacted to 95 percent relative compaction. The structural section removed shall be replaced with 6" thick asphalt concrete hot mix placed in two equal lifts and compacted, as specified in Section 302-5.5 and 302-5.6 of the Standard Specifications.

1048-2 JOINING EXISTING PAVEMENT

Where new asphalt concrete pavement for widening is placed against existing pavement, the pavement shall be removed in a manner that will not result in ragged and loose edges of the existing pavement. Tack coat shall be applied to exposed edges of the existing pavement per Section 302-5.4 of the Standard Specifications.

1048-3 MATERIAL

Asphalt concrete used in AC pavement widening shall be B-PG64-10.

1048- 4 DISPOSAL SITE

All material designated for removal and disposal shall be lawfully disposed of at the site in accordance with local ordinances and all applicable laws.

1048-5 MEASUREMENT & PAYMENT

Payment for AC Pavement Widening & Repair, complete in place, will be made at the contract unit price per ton in accordance with 302-5.9 of the Standard Specifications and these Special Provisions. Such payment shall be considered full compensation for furnishing all labor, materials, equipment, tools and incidentals necessary to complete the work.

1049 AC MISCELLANEOUS PAVING

1049-1 SCOPE

AC Miscellaneous Paving shall include resurfacing existing asphalt drainage aprons and swales contiguous to the resurfacing, repairing existing roadway as directed by the Engineer, filling of milled or grinded areas, extending speed humps, and feathering asphalt concrete to maintain surface drainage patterns at

locations directed by Engineer. The work shall include Roadway Preparation and shall be in accordance with the Plans, the Standard Specifications and these Special Provisions.

1049-2 MATERIAL

Asphalt concrete for Miscellaneous Paving shall be D2-PG 64-10 in accordance with 203-6 of the Standard Specifications. The Contractor may substitute a paving asphalt mix upon approval of the Engineer. A minimum of 5.5% Asphalt Binder content is set for this project.

1049-3 CONSTRUCTION METHOD

Prior to placing the AC Hot Mix course, a Tack coat shall be applied to exposed edges of the existing pavement per 302-5.4 of the Standard Specifications and as specified in other sections of these Special Provisions.

AC Hot Mix shall be evenly placed over the milled area to such a depth that, after rolling, it will be of the specified cross-section and grade of the course being constructed or is flush with adjoining existing pavement.

AC Hot Mix shall be compacted and rolled per 302-5.6.

1049-4 MEASUREMENT & PAYMENT

Payment for AC Miscellaneous Paving, complete in place, will be made at the contract unit price per Ton placed in accordance with 302-5.9 of the Standard Specifications and these Special Provisions. Such payment shall be considered full compensation for furnishing all labor, materials equipment, tools and incidentals necessary to complete the work.

1050 TYPE II EMULSION-AGGREGATE SLURRY

1050-1 SCOPE

This work shall consist of Type II Slurry construction in accordance with 203-5 and 302-4 of the SSPWC, the Plans, the Standard Specifications and these Special Provisions.

1050-2 MATERIALS

The Aggregate shall be Type II. Emulsified asphalt shall be Polymer modified quick-set type PMCQS-1h. The amount and type of accelerator used shall be approved by the Engineer.

Prior to a change of emulsion, Contractor shall thoroughly clean all emulsion tanks and mixing units to prevent any chemical reaction between any two emulsions.

Contractor shall schedule and coordinate the delivery of aggregate to the stockpile(s) such that: (1) deliveries originate at the plant and arrive at the stockpile site within normal work hours on the same calendar day, (2) delivery site and project name are explicitly stated on each delivery ticket, (3) successive deliveries on the same calendar day show the cumulative total for that day, (4) copies of all delivery tickets are delivered to the Engineer before the end of the working day, whereas any delivery tickets not so delivered may be rejected by the Engineer. Any deviation from this process must have the prior approval of the Engineer.

1050-3 POLYMER MODIFIED EMULSION

The emulsion-aggregate slurry must include elastomeric polymer and meet the requirements of 37-3.02B(3). The polymer used in the manufacture of polymer modified asphaltic emulsion shall be, at the option of the Contractor, either neoprene, ethylene vinyl acetate, or a blend of butadiene and styrene.

The emulsion supplier shall certify that the asphalt residue contains at least 2.5 percent polymer (dry weight) and that the polymer has either been added as a solid polymer to the base asphalt or has been added in the form of a latex at the time of emulsion manufacture.

Polymer modified emulsified asphalt shall be kept in a suspended state by an agitating mixer operated every 3 days.

1050-4 TEST REPORTS & CERTIFICATION

A certification of compliance shall be provided at least 48 hours prior to delivery of emulsion to the project.

1050-5 EQUIPMENT

The Contractor shall provide the slurry application equipment for inspection at the site or other location acceptable to the Engineer of least two working days prior to beginning work. Any equipment requiring repair or replacement as determined by the Engineer shall not be used on the work until its condition is accepted by the Engineer.

All equipment must be maintained in a good state of repair, i.e., no excessive oil leaks that could damage existing asphalt, concrete or landscaped areas. All equipment safety guards shall be in place, hydraulic hoses shall be in good condition. No equipment shall show potential danger to the crews, passing pedestrians and motorists. Failure to comply with this provision will cause us to have the equipment removed from the job. Equipment considered by the Engineer to be critical to the operation, including monitoring equipment such as meters and scales shall be always operational.

All emulsion storage facilities shall have temperature measuring devices. Temperature measuring devices shall be always operational when the storage facility is in use.

Transit trucks shall not be used. The Contractor shall furnish and continuously operate a minimum of three (3) trucks with approximately fourteen (14) ton capacity for each scheduled workday. The number of trucks used each day shall be as shown on the approved schedule unless otherwise approved in advance by the Engineer. Failure by the Contractor to adhere to this requirement will cause the Agency to sustain additional inspection costs to be determined by the Engineer which will be deducted from any compensation due to the Contractor. All trucks which the Contractor proposes to use that exceed the legal limit are required to have overweight permits.

Prior to the beginning of slurry operations, Contractor shall furnish, at no cost to the Engineer, a licensed weighmaster's certificate indicating the net weight capacity of the aggregate bin for each truck. The certificate shall be dated no more than 60 days prior to construction.

The Slurry Spreader Box shall be equipped with a steering device and suitable drag to erase ridges. The drag rubber shall be new at the beginning of the contract and shall be maintained in a good state of repair throughout the contract. A minimum 2-foot length of burlap material shall be attached to the entire width of the drag. Continuous flow mixers shall conform to SSPWC 302-4.3 and shall be equipped with a fine's feeder for addition of accelerator and a thermometer for indicating emulsion temperature.

Street sweepers for pre-slurry application cleaning shall be air-vacuum type. Post application cleaning may be performed by broom type sweepers approved.

Support equipment such as front-end loaders and emulsion storage tank shall be in good working order and sized adequately to maintain the slurry seal work without interruption. Emulsion storage tanks shall have a thermometer for indicating emulsion temperature.

1050-6 APPLICATION

Except where otherwise indicated herein slurry seal application shall be in accordance with 302-4.6.

Contractor shall arrange with the Engineer for appropriate areas for stockpiling and batching. The stockpile areas shall be thoroughly cleaned, removing all excess material and all material contaminated by spilled oil, and left with a neat, orderly appearance upon completion of slurry operations. Any damage done to these areas as determined by the Engineer shall be corrected by the Contractor to the satisfaction of the Engineer prior to final payment.

The contractor shall supply the Engineer with licensed weighmaster's certificates of weights for all aggregate delivered to the job during the course of each day. The

aggregate so certified as being delivered for use in the contract shall be used only in the slurry mixture for this contract. Contractor shall present weighmaster's certificates for the amount of such aggregate remaining unused at the completion of the contract at no cost to the Agency. The certificates shall be presented to the Engineer on the same day the aggregate is delivered.

The Contractor shall stockpile all slurry constituents at the same site for the work in each area.

1050-7 PREPARATION

The Contractor shall fill cracks, clean the surface, removing existing thermoplastic striping prior to placing Type II Slurry.

1050-8 MIXING & SPREADING

Slurry seal shall be placed only when the ambient temperature is above 55 degrees and rising. No slurry will be placed during inclement weather or the threat thereof. The contractor shall bear the responsibility for cancellation of work on these days and shall be responsible for any damages which may arise from non-cancellation.

Each slurry crew shall be always composed of a coordinator at the project site, a competent quick set mixing man, a competent driver, sufficient traffic control personnel and sufficient laborers for any handwork and cleanup.

No slurry seal shall be placed on a wet street or crossing without the Engineer's consent. Intersections and commercial driveways shall be completed in two or more parts to allow ingress and egress to traffic.

When necessary to provide vehicular or pedestrian crossing over the fresh slurry, the Engineer will direct the Contractor to spread sufficient sand or rock dust on the affected area to eliminate tracking or damage to the slurry. Sand or rock dust used for this purpose shall be at the Contractor's expense. Slurry aggregate is not acceptable for this application. The texture and appearance of the sanded areas shall sufficiently match adjacent work, or the area shall be repaired as required by the Engineer at the Contractor's expense.

Contractors shall provide barricades and other traffic control devices as necessary to eliminate traffic on areas of fresh slurry that might sustain damage from such traffic. Any tracking of slurry seal on private property will be the responsibility of the Contractor to correct.

The cost of cleanup and/or damage caused by vehicles tracking through the slurry seal shall be borne solely by the Contractor.

Slurry shall be applied with an overlap of the concrete gutter of 2"(two inches). Any slurry material exceeding the 2" shall be removed by the contractor prior to completion of the project. The overlap dimension of the longitudinal lap joint shall

not exceed 6" (six inches) unless directed otherwise by the Engineer.

Where the completed slurry is not uniform in color, the street shall be treated to eliminate the color variation at the Contractor's expense. The method of treatment shall be approved by the Engineer.

Contractor shall sweep all streets including gutters after slurry application. Additional sweeping may be required by the Engineer at the Contractor's expense if the Engineer determines that sufficient loose material is accumulating after the initial sweeping.

The application rate shall not exceed 200,000 square feet per day on residential streets and 300,000 square feet per day on commercial streets. After 10 consecutive working days of operation, the Contractor may request that these spread rates be increased. In consideration of the Contractor's performance and in the interest of the project, the Engineer may elect to allow this change.

Type II slurry shall be applied at a rate between 1,400 square feet per Extra-Long Ton (ELT) on very smooth surfaces and 1,200 square feet per ELT on extremely coarse surfaces.

An extra-long ton of slurry is made up of 2000 pounds of dry aggregate plus emulsified asphalt, accelerator, or retardant, and water.

1050-9 TEST SECTIONS

At least five (5) working days prior to commencement of work and prior to issuing notifications to property owners, Contractor shall perform test sections for review and approval by the Agency for each type of slurry to be used in the contract. The area of the test sections shall be at least 5,000 square feet. The test section locations shall be in the area of the work and shall be completed prior to 11:00 a.m. to allow for minimum delay of test results. Test section locations shall be approved by the Engineer prior to placing slurry.

If the tested materials and workmanship do not meet specifications, the Contractor shall arrange with the Agency for subsequent test section locations, sampling, testing and monitoring. All expenses to the Agency for subsequent test sections shall be reimbursed by the contractor in a deduction from the contract price.

The Contractor shall not begin slurry application until the test sections have received written approval by the Agency. The approved mix design and test section results shall determine the mixing parameters for this project.

1050-10 MONITORING

The Contractor shall facilitate the following testing and monitoring activities to be performed by the Agency:

- A. Obtaining load tickets for materials delivered to the stockpile sites (to be given to the Agency the same day the material is received).
- B. Obtaining tare and loaded weights for each load on each truck at the stockpile site. (Note: If the Contractor agrees to fill oil and water prior to weighing loaded trucks, the tare weight need only be taken as required by the Agency.)
- C. Obtaining measurements of emulsion and water added for each truck at the stockpile site.
- D. Obtaining volumetric measurements of rubberized slurry for each truck.
- E. Sampling for Wet Track Abrasion Testing at the work sites.
- F. Measurement of street area covered.
- G. Monitoring of work quality and traffic control.

1050-11 MEASUREMENT & PAYMENT

Payment for Type II Emulsion-Aggregate Slurry, complete in place, will be made at the contract unit price per Square Yard. Such payment shall include payment for dry aggregate, emulsified asphalt, accelerator, or retardant, and water, full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in constructing the slurry seal, complete in place, including testing for and furnishing the mix design, and protecting the seal until it has set, as shown on the plans, as specified in the standard specifications and these special provisions, and as directed by the Engineer, and other incidentals necessary to complete the work.

1051 LADDER TYPE CROSSWALK STRIPING

1051-1 SCOPE

Crosswalk Striping shall be high-visibility color yellow, thermoplastic with reflective glass beads crosswalk with a ladder design marking pattern at locations shown on the Plans and shall be performed in accordance with SPPWC Standard Plan 174-0, CAMUTCD and these Special Provisions.

10' WIDE LADDER TYPE THERMOPLASTIC CROSSWALK PER SPPWC STANDARD PLAN 174-0	
ID No.	LOCATION
1	Stroube / Vineyard
2	Stroube / Jourdan
3	Stroube / Cortez (West)
4	Stroube / Cortez (East)
5	Stroube / Cortez (North)

6	Stroube / Cortez (South)
7	Stroube / Balboa (West)
8	Stroube / Balboa (East)
9	Stroube / Balboa (North)
10	Stroube / Balboa (South)
11	Stroube / Alvarado (West)
12	Stroube / Alvarado (East)
13	Stroube / Alvarado (North)
14	Stroube / Alvarado (South)
15	Stroube / Kenny (East)
16	Stroube / Kenny (South)
17	Cortez / Collins (West)
18	Cortez / Collins (East)
19	Cortez / Collins (North)
20	Cortez / Collins (South)
21	Cortez / Orange (West)
22	Cortez / Orange (East)
23	Cortez / Orange (North)
24	Cortez / Orange (South)
25	Cortez / Corsicana (West)
26	Cortez / Corsicana (East)

27	Cortez / Corsicana (North)
28	Cortez / Corsicana (South)
29	Walnut / Vineyard
30	Walnut / Citrus (West)
31	Walnut / Citrus (East)
32	Walnut / Citrus (North)
33	Walnut / Citrus (south)
34	Walnut / Cortez (West)
35	Walnut / Cortez (East)
36	Walnut / Cortez (North)
37	Walnut / Cortez (South)
38	Walnut / Balboa (West)
39	Walnut / Balboa (East)
40	Walnut / Balboa (North)
41	Walnut / Balboa (South)
42	Walnut / Alvarado (West)
43	Walnut / Alvarado (East)
44	Walnut / Alvarado (North)
45	Walnut / Alvarado (South)
46	Walnut / Rose

1051-2 MEASUREMENT & PAYMENT

Payment for Ladder Type Crosswalk Striping will be made at the contract unit price per square foot of striping placed. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to complete the work.

1052 PAVEMENT DELINEATION & STRIPING

1052-1 SCOPE

Pavement Delineation shall consist of installing thermoplastic striping and markings, lane symbols, and pavement markers as shown on Striping Plan. The Contractor shall tie down existing pavement striping and markings prior to starting any work. The overlaid pavement shall be delineated in the manner modified as shown on the Plans, as specified in these Special Provisions, or as directed by the Engineer. Pavement markings shall be of the same color, size, pattern and location as previously existed except as shown on the Plans or herein modified.

On roads to be delineated, prior to removing traffic control, temporary markings shall be placed. Permanent pavement delineation on each road to be delineated shall be completed within 14 calendar days following completion of the overlay on that road unless otherwise specified in these Special Provisions.

Temporarily relocate existing signs to be visible during construction and re-install roadside edge 12" behind curb face, after completion of sidewalks, as shown on Striping and Sign Relocation Plan.

1052-2 TEMPORARY MARKINGS

STOP bars: On roads to be delineated and on which permanent delineation will not be applied before public traffic is allowed on the freshly ground or paved surface, Temporary Stop bars shall be placed at all signals and stop signs the same day that paving or grinding occurs. Temporary Stop Bars shall be 12 inches wide.

Temporary Markings shall be placed at the centerline of pavement and on multi-lane roads at each lane line the same day that grinding occurs or overlay is placed. Temporary centerline markings shall consist of temporary raised pavement markers (Davidson Plastics Co., M. V. Plastics, or approved equal) at 25-foot maximum intervals. Temporary lane line markings shall be reflective tape or painted spots (cat-tracking) at 50-foot maximum intervals or a painted dribble line.

Temporary Markings shall be maintained, replaced, restored or augmented as directed by the Engineer until permanent pavement delineation is completed. When the Engineer determines Temporary Markings as specified herein do not provide adequate temporary delineation, the Contractor shall install Temporary Markings as specified for permanent delineation. All Temporary Markings shall be removed prior to the installation of permanent markings and striping.

1052-3 PAVEMENT MARKERS

Pavement Markers shall be placed in accordance with SSS Section 85, SSP A20A through A20D and these Special Provisions. Markers shall be placed in the same pattern and locations as previously existed or modified as shown on the Plans and these Special Provisions. Pavement markers shall include placement of blue fire hydrant markers. The Contractor shall replace any damaged Pavement Markers, without cost to the Agency, prior to the Agency's acceptance of the project.

1052- 4 THERMOPLASTIC TRAFFIC STRIPING & PAVEMENT MARKINGS

Thermoplastic Traffic Striping and Pavement Markings shall be 90 mils in thickness and shall conform to the provisions of 84-2 of the SSS, SSP, and these Special Provisions. Striping and markings shall be reapplied in the original pattern on all roads, except as shown on the Plans and as specified herein. The size, color, and spacing of the striping shall conform to the requirements of Section 310 of the Standard Specifications and the State Standard Specifications, State of California, Department of Transportation Standard Plans as shown on SSP A20A, A20B, A20C and A20D.

1052-5 MEASUREMENT & PAYMENT

Payment for Pavement Delineation and Striping will be made at the contract lump sum price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to complete the work including relocation and re-installation of existing signs and no additional compensation will be made.

1053 TEMPORARY CLUSTER BOX UNIT MAILBOX

1053-1 SCOPE

This work consists of installation of cluster box unit mailboxes with mailbox numbers including its pedestal and concrete pad to temporary locations as marked in the field, or as directed by the Engineer.

Where relocation is necessary to clear the work area, the contractor shall temporary place the mailbox in such a location where service is unrestricted to the U.S. Postal Service and resident.

Cluster Box Unit Mailbox shall be 16 mailbox units with 2 parcel lockers and postal grey color. The dimension shall be 30-1/2" W x 62" H x 17-7/8" D and made of aluminum. Mailbox Numbers shall be 2"H Black Vinyl Silhouette adhesive numbers.

Parcel Box Dimensions shall be 12" W x 15" H x 15" D and 2nd Parcel Box Dimensions shall be 12" W x 18" H x 15" D.

Collection Box Dimensions shall be 12" W x 3-1/4" H x 15" D.

Pedestal mounted cluster box unit mailboxes are commercially available.

1053-2 MEASUREMENT & PAYMENT

Payment for Temporary Cluster Box Unit Mailbox will be made for each mailbox installed at the contract price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment including its pedestal and concrete pad, and incidentals necessary to complete the work.

1054 CLUSTER BOX MAILBOX RELOCATION

1054-1 SCOPE

This work consists of relocation of Cluster Box Unit Mailboxes with mailbox numbers including its pedestal and concrete pad installation to its permanent location as shown on the Plans, marked in the field, or as directed by the Engineer. The permanent locations are shown below.

PEDESTAL MOUNTED CLUSTER MAILBOX UNIT		
ID No.	ADJACENT LOCATION	DESCRIPTION
CMB1	2801 JORDAN ST.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB2	285 STROUBE ST.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB3	417 STROUBE ST.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB4	555 STROUBE ST.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB5	643 STROUBE ST.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB6	717 STROUBE ST.	16 Mailboxes, 2 Parcel Lockers, Postal Grey

CMB7	823 STROUBE ST.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB8	979 STROUBE ST.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB9	1127 STROUBE ST.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB10	1347 STROUBE ST.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB11	159 WALNUT DR.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB12	289 WALNUT DR.	16 Mailboxes, 2 Parcel Lockers, Postal Grey

CMB13	334 WALNUT DR.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB14	440 WALNUT DR.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB15	532 WALNUT DR.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB16	654 WALNUT DR.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB17	752 WALNUT DR.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB18	852 WALNUT DR.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB19	988 WALNUT DR.	16 Mailboxes, 2 Parcel Lockers, Postal Grey
CMB20	1146 WALNUT DR.	16 Mailboxes, 2 Parcel Lockers, Postal Grey

1054-2 MEASUREMENT & PAYMENT

Payment for Cluster Box Unit Mailbox and its pedestal relocation will be made for each mailbox relocated at the contract price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment including its concrete pad, and incidentals necessary to complete the work.

Payment for furnishing the cluster box unit mailbox and its pedestal is included in Section 1053, Temporary Cluster Box Unit Mailbox.

1055 ROADSIDE MAILBOX

1055-1 SCOPE

This work consists of replacement and relocation of mailboxes with mailbox numbers including its pedestal as shown on the Plans, marked in the field, or as directed by the Engineer.

Where relocation is necessary to clear the work area, the contractor shall temporarily place the mailbox in such a location where service is unrestricted to the U.S. Postal Service and resident.

Roadside mailbox dimension shall be 12.5" W x 13.625" H x 18.25" D and made of aluminum. Mailbox Numbers shall be 2" H White Vinyl Silhouette adhesive numbers.

Roadside Mailbox Spreader shall be 34" W x 1" H x 9" D and holds 2 boxes and shall be used to mount 2 mailboxes on one post.

Mailbox shall be mounted on bolt mounted mailbox posts. Bolt Mounted Post overall size shall be 3-1/2" W x 3-1/2" D x 32" H with 6" W x 12" D top & base. Post baser shall be fastened using four 1/2" diameter x 6" long stainless-steel anchors.

Mailboxes, Spreaders, and Bolt Mounted Posts shall be black with powder-coated finish. These mailboxes, spreaders, and bolt mounted posts are commercially available.

ROADSIDE LOCKING MAILBOX		
ID No.	ADJACENT LOCATION	DESCRIPTION
RMB1	CORTEZ ST.	Roadside Locking Bolt Mounted Black Color

RMB2	CORTEZ ST.	Roadside Locking Bolt Mounted Black Color
RMB3	CORTEZ ST.	Roadside Locking Bolt Mounted Black Color
RMB4	2921 CORTEZ ST.	Roadside Locking Bolt Mounted Black Color
RMB5	2941 CORTEZ ST.	Roadside Locking Bolt Mounted Black Color
RMB6	CORTEZ ST.	Roadside Locking Bolt Mounted Black Color
RMB7	2848 CORTEZ ST.	Roadside Locking Bolt Mounted Black Color
RMB8	2840 CORTEZ ST.	Roadside Locking Bolt Mounted Black Color
RMB9	CORTEZ ST.	Roadside Locking Bolt Mounted Black Color
RMB10	525 COLLINS ST.	Roadside Locking Bolt Mounted Black Color
RMB11	2930 CORTEZ ST.	Roadside Locking Bolt Mounted Black Color
RMB12	2940 CORTEZ ST.	Roadside Locking Bolt Mounted Black Color
RMB13	2970 CORTEZ ST.	Roadside Locking Bolt Mounted Black Color

1055-2 MEASUREMENT & PAYMENT

Payment for Roadside Mailbox will be made for each mailbox installed at the contract price. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to complete the work.

1056 RECTANGULAR RAPID FLASHING BEACON (RRFB)

1056-1 SCOPE

This work shall consist of furnishing and installing Rectangular Rapid Flashing Beacons (RRFB) system at the locations and as indicated on the Plans. The RRFB system shall include an audible pedestrian push button, signage per CAMUTCD standards and the Plans, 12' Telespar post with standard Telespar foundation per County of Ventura Road Standards Plate F-3, installation of new conduit/wiring/pull boxes and all other items necessary for the operation of the RRFB.

Each RRFB shall be from TrafficCalm, Carmanah and Tapco or equivalent.

Each RRFB shall consist of two rapidly and alternately flashing rectangular yellow indications having LED-array-based pulsing light sources and shall be designed with the detailed requirements specified on the Plans. Each RRFB shall be a complete assembly, consisting of but not limited to: Signage, sign mounting, indications, down arrow signage, Telespar post and electrical components (wiring, solid-state circuit boards, etc.).

1. Each RRFB shall use a 20-watt solar panel aluminum mounting bracket for 2.5-inch post set at 40° or 60°, with a waterproof rating of IP-67.
2. Each RRFB shall be activated by an ADA compliant push button.
3. The RRFB shall be normally dark, shall initiate operation only upon pedestrian actuation, and shall cease operation after a predetermined time limit (based on CAMUTCD procedures).
4. Each remote RRFB shall be wirelessly activated using 900Mhz.
5. When activated, the RRFB unit indications shall flash in a rapidly alternating "wigwag" flashing sequence (left light on, then right light on).
6. All RRFB light indications shall be wirelessly synchronized. (All lights will turn on within 120msec and remain synchronized throughout the duration of the flashing cycle.
7. Each of the RRFB's indications shall flash 70 to 80 times per minute.
8. The activation length of the flashing lights shall be programmable.
9. System shall provide actuation counter which can be downloaded at site to a PC using standard cables.
10. RRFB shall conform to MUTCD requirements 1A-21.
11. Each RRFB shall be locked and secured. Three sets of keys shall be delivered to the Engineer.

The Contractor shall salvage the removed signs, posts, and foundations that are replaced with new RRFBs. The Contractor shall deliver the existing signs and posts to the County Saticoy Yard at 11251 -A Riverbank Drive, Ventura, CA 93004. Contact John Bryson at 805-672-2150 prior to delivery.

1056-2 MATERIALS

Furnish a complete RRFB assembly, consisting of but not limited to, the signage, sign mounting, indications, down arrow signage, Telespar post and electrical components (wiring, solid-state circuit boards, etc.). The RRFB assembly includes the following items:

1. RRFB Indications:

- a. Each RRFB indication shall be a minimum size of 7" wide x 3" high.
- b. The two RRFB indications shall be aligned horizontally, with the longer dimension of the indication horizontal, and a minimum space between the two indications of approximately 7" measured from inside edge of one indication to inside edge of second indication.
- c. The outside edges of the two indications, including any housing, shall not protrude beyond the outside edges of the integral signage of the RRFB.
- d. The light intensity of the RRFB's indications shall be Society of Automotive Engineers (SAE) standard J595 Class 1 certified.
- e. Each RRFB must be supplied with all the required hardware to install assembly. All exposed hardware shall be anti-vandal.
- f. Each RRFB shall be located between the bottom of the crossing warning sign and the top of the supplemental downward diagonal arrow plaque.

2. Signs:

- a. All signs shall conform to CAMUTCD standards.
- b. All sign blanks shall be .080- or .100-gauge aluminum.
- c. Sheeting used shall be 3M DG3 diamond grade or similar prismatic sheeting, with anti-graffiti overlay unless required with a lower grade of reflectivity.
- d. All sign assemblies shall use anti-vandal fasteners to mount components to sign and sign to fixture.
- e. All sign assemblies shall be S1-1 30" X 30" as shown on the Plans.
- f. The W16-7P 24" x 12" Arrow sign shall be installed on the location of the RRFB as shown on the Plans.

3. Control Circuit

- a. The control circuit shall have the capability of independently flashing up to two independent outputs. The LED light outputs, and flash pattern shall be completely programmable and able to flash RRFB, beacons or LED signs.
- b. The flashing output shall have 70 to 80 periods of flashing per minute with a 100 – millisecond duration on time. The output shall reach the output current as programmed for the duration of the pulse. The flashing output shall be programmable.
- c. The control circuit shall be installed in a NEMA rated enclosure.
- d. Control circuit shall be capable of storing input count data stored in preset intervals using a Windows based pc software program and standard RS232 programming cable.

4. Power Supply

- a. Solar-assisted Battery Powered System (12V, 40AH sealed gel battery)
- b. 20 W solar panel conforming to IP-67.

5. Locks – Three copies of skeleton key to be given to the Engineer

6. Audible Pedestrian Push Buttons.

7. Pedestal Shaft

- a. Must mount on standard 2.5-inch x 12 feet 10-gauge Telespar Post. The anchors shall be 3 inches x 3 feet 7-gauge Telespar post.

1056-3 WARRANTY

The County shall receive one (1) warranty from the manufacturer.
The warranty shall cover the following:

1. RRFB: One-year warranty, including coverage for all electronic components, signage, and metal posts (including connections). The Warranty shall commence on the date of County's Notice of Completion.

1056-4 PEDESTRIAN CROSSING TIME

The Contractor shall program the RRFB as directed by the Engineer.

1056-5 MEASUREMENT & PAYMENT

Measurement and payment for furnishing and installing Rectangular Rapid Flashing Beacons will be made at the contract unit price for each. Such payment shall be considered full compensation for removing existing crosswalk signage and posts, furnishing and installing new RRFB systems and posts, furnishing all labor, materials, equipment, tools, transportation and all other incidentals necessary to

provide and install the RRFB's, to complete the work in accordance with the Plans, Standard Specifications and these Special Provisions.

1057 RRFB RELOCATION

1057-1 SCOPE

The work consists of relocation of Rectangular Rapid Flashing Beacon (RRFB) as shown on the Plans, marked in the field, or as directed by the Engineer.

1057-2 MEASUREMENT & PAYMENT

Payment for RRFB Relocation will be made at the contract unit price per each RRFB relocated. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and other incidentals necessary to complete the work.

1058 TRAFFIC SIGNAL LOOP DETECTOR REPLACEMENT

1058-1 SCOPE

The work consists of abandoning existing traffic signal loop detectors and installing new Type D or E Traffic Signal Loop Detectors.

All work shall be performed in accordance with Section 86, "Signals, Lighting, and Electrical Systems" of the SSS, the Standard Specifications, and these Special Provisions.

1058-2 MEASUREMENT & PAYMENT

Payment for Traffic Signal Loop Detector Replacement will be made at the contract unit price per each traffic loop detector replaced. Such payment shall be considered full compensation for furnishing all labor, materials, tools, equipment and other incidentals necessary to complete the work.

1059 MANHOLE FRAME & COVER ADJUSTMENT

1059-1 SCOPE

The work consists of adjusting sewer manhole frames and covers of facilities maintained by the County of Ventura as shown on the Plans. Manhole frames and covers shall be adjusted to the finished asphalt concrete surface by the Contractor in accordance with 302-5.8 of the SSPWC and these Special Provisions.

1059-2 MEASUREMENT & PAYMENT

Sewer Manhole Frame Adjustment and cover adjustment will be measured per

each unit and payment made at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, equipment and incidentals necessary to complete the work.

1060 SEWER CLEANOUT ADJUSTMENT

1060-1 SCOPE

The work consists of adjusting sewer cleanouts and covers of facilities maintained by the County of Ventura as shown on the Plans. Sewer cleanout covers shall be adjusted to the finished asphalt concrete surface by the Contractor in accordance with 302-5.8 of the SSPWC and these Special Provisions.

1060-2 MEASUREMENT & PAYMENT

Sewer Cleanout Adjustment will be measured per each unit and payment made at the contract unit price. Such payment shall be considered full compensation for furnishing all labor, materials, equipment and incidentals necessary to complete the work.

APPENDIX H
UTILITY COMPANY DIRECTORY

Utility Company Directory

El Rio

Electric	So. Calif. Edison Company Attn: Planning	10060 Telegraph Road	Phone: (714) 796-9932
E-Mail: MapRequests@sce.com		Ventura CA 93004-	Fax: (714) 973-5735

Comments: Use to request facilities maps

Electric	So. Calif. Edison Company SCE Planning Supervisor	10060 Telegraph Road	Phone: (805) 654-7444
E-Mail: MapRequests@sce.com		Ventura CA 93004-	Fax: (805) 654-7275

Comments: For review of preliminary or final plans

Gas	The Gas Company - Distribution Peggy Li, Planning Associate	P.O. Box 2300, SC9331	Phone: (818) 701-3319
E-Mail: NorthwestDistributionUtilityRequest@semprautilities.com		Chatsworth CA 91313-	Fax: (818) 701-3380

Comments:

Pipeline	Venoco, Inc. Utility Coordinator - Ventura County	Closed	Phone: (805) 745-5556
E-Mail:		Carpenteria CA 93013-	Fax:

Comments: +- Oct 2012, Venoco closed Santa Clara Ave office.

Telecom	Verizon Business/MCI Attn: Chuck Czumak	1701 Ringling Blvd.	Phone:
E-Mail: investigations@verizon.com; ASG.Investigationsteam@ASGInc.us		Sarasota, FL FL 94240-	Fax:

Comments:

Water	California American Water Company Village District	2439 W. Hillcrest Drive, #A	Phone: (805) 498-6770
E-Mail: Jacob.Quick@amwater.com		Newbury Park CA 91320-	Fax:

Comments:

Water	Cloverdale Mutual Water Company	PO Box 6442	Phone: (805) 278-9992
E-Mail:		Oxnard CA 93031-6442	Fax:

Comments:

Water	Mutual Water Company of Vineyard Ave Estates	P.O. Box 5065	Phone: (805) 485-8449
E-Mail:		Oxnard CA 93030-	Fax:

Comments:

Utility Company Directory

El Rio

Water	Rio Plaza Water Company, contact CalAm	2439 W Hillcrest Drive		Phone: (805) 482-6119 (805) 485-6378
E-Mail:	Jacob.Quick@amwater.com	Newbury Park	CA 91320-	Fax:

Comments: Acquired by CalAm

Water	Strickland Mutual Water Company	4952 Joan Way		Phone: (805) 644-1066 (805) 647-1569
E-Mail:		Oxnard	CA 93036-	Fax:

Comments:

Water	United Water Conservation District James Grisham	106 North 8th Street		Phone: (805) 525-4431
E-Mail:	erikz@unitedwater.org	Santa Paula	CA 93060-	Fax:

Comments: jamesg@unitedwater.org

Water	Vineyard Ave. Acres Mutual Water Co.	PO Box 6293		Phone:
E-Mail:	VineyardAveAcresMWC@gmail.com	Oxnard	CA 93031-6293	Fax:

Comments:

Water	Vineyard Estates Mutual Water Company	4908 Strickland Dr		Phone: (805) 647-7783
E-Mail:	mwcvae110@yahoo.com	Oxnard	CA 93036-	Fax:

Comments:

Water	Vineyard Mutual Water Company (Status: Dissolve	5725 Ralston Street #200		Phone: (805) 654-1077
E-Mail:	vmw5725@gmail.com	Ventura	CA 93003-	Fax:

Comments: New address as of Oct. 2011 per Tammy @ VMW

Utility Company Directory

Oxnard

Electric	So. Calif. Edison Company SCE Planning Supervisor	10060 Telegraph Road	Phone: (805) 654-7444
E-Mail: MapRequests@sce.com		Ventura CA 93004-	Fax: (805) 654-7275

Comments: For review of preliminary or final plans

Electric	So. Calif. Edison Company Attn: Planning	10060 Telegraph Road	Phone: (714) 796-9932
E-Mail: MapRequests@sce.com		Ventura CA 93004-	Fax: (714) 973-5735

Comments: Use to request facilities maps

Gas	The Gas Company - Distribution Peggy Li, Planning Associate	P.O. Box 2300, SC9331	Phone: (818) 701-3319
E-Mail: NorthwestDistributionUtilityRequest@semprautilities.com		Chatsworth CA 91313-	Fax: (818) 701-3380

Comments:

Gas	The Gas Company - Transmission Rosalyn Squires, Planning Associate	9400 Oakdale Avenue P.O. Box 2300, M.L. 9314	Phone: (818) 701-4546
E-Mail: SoCalGasTransmissionUtilityRequest@semprautilities.com		Chatsworth CA 91313-2300	Fax: (818) 701-3441

Comments:

Misc.	Oxnard Drainage District #1 Attn. Bill Smith	c/o Ferguson, Case, Orr, Patterson & Cunnin 1050 S. Kimball Road	Phone: (805) 659-6800
E-Mail:		Ventura CA 93004-	Fax: (805) 659-6813

Comments:

Misc.	Oxnard Drainage District #2 Attn. John Orr, Secretary	c/o Ferguson, Case, Orr, Patterson & Cunnin 1050 S. Kimball Road	Phone: (805) 659-6800
E-Mail:		Ventura CA 93004-	Fax: (805) 659-6813

Comments: Jim Naumann, President & Director; Jesse DeBusschere, Director; Jurgen Gramckow, Director

Pipeline	Bentley-Simonson, Inc.	1746-F S. Victoria Ave #382	Phone: (805) 650-2794
E-Mail:		Ventura CA 93003-	Fax:

Comments:

Pipeline	Shell Pipeline Company LLC Utility Coordinator	20945 S. Wilmington Ave.	Phone: (310) 816-2063 (888) 257-0877
E-Mail: SPLC-Encroachments@shell.com		Carson CA 90810-1039	Fax:

Comments: Formerly Equilon Pipeline

Utility Company Directory

Oxnard

Pipeline	Venoco, Inc. Utility Coordinator - Ventura County	Closed			Phone: (805) 745-5556
E-Mail:		Carpenteria	CA	93013-	Fax:

Comments: +- Oct 2012, Venoco closed Santa Clara Ave office.

Sewer	Naval Base Ventura County Attn: Amanda Fagan	Public Works Dept. 311 Main Rd., Bldg. 66 Point Mugu			Phone: (805) 989-9752
E-Mail:	Amanda.Fagan@navy.mil		CA	93042-	Fax:

Comments:

Telecom	AT & T California Attn: Cathy Hurtado	Right of Way 600 E. Green Street #300 Pasadena			Phone: (626) 817-4263
E-Mail:	ma2797@att.com		CA	91101-2020	Fax:

Comments: AT & T leasehold entity

Telecom	AT&T Long Distance Inquiries Attn: Joe Forkert	22311 Brookhurst Street #203 Huntington Beach			Phone: (714) 963-7964
E-Mail:	joef@forkertengineering.com		CA	92646-	Fax:

Comments: AT & T (Long Distance)

Telecom	NextG Network c/o Crown Castle Attn: Delfin Guerzon	2216 O'Toole Avenue San Jose			Phone: (877) 746-3984
E-Mail:	delfin.guerzon@crowncastle.com		CA	95131-	Fax:

Comments: Leo Comoda, Fiber Dig Facilities Coordinator @ napoleon.comoda@crowncastle.com

Telecom	Qwest/CenturyLink Juan Del Castillo	4090 E. Leaverton Court Anaheim			Phone: (805) 701-4157
E-Mail:	CenturylinkNationalOSPRElocations@centurylink.com / relocations		CA	92807-	Fax: (562) 777-2235

Comments: Alternate Michael Garrison or William Peterson. Corporate: George McElvain, Mgr. Of Operations: 1860 Lincoln St #200, Denver, CO 80202 (303) 827-3026

Telecom	Sprint - Fiber Operations Attn: Tibor Laky, Outside Plant Engineer	2592 Dupont Drive Irvine			Phone: (949) 225-2931
E-Mail:	tibor.x.laky@t-mobile.com		CA	92612-	Fax: (949) 225-2950

Comments: Tibor Laky - Ericsson Contractor for Sprint, E-mail: Tibor.X.Laky@sprint.com

Telecom	Time Warner Cable, Owned by Charter Attn: Joe Maysick	2525 Knoll Drive Ventura			Phone: (805) 477-4439
E-Mail:	Joe.Maysick@adelphia.com		CA	93003-	Fax: (805) 644-9324

Comments: Data Operations - West Region, 750 Canyon Drive, Coppell, TX 75019 - west-engineering-relo@twcable.com

Utility Company Directory

Oxnard

Telecom	Verizon Business/MCI Attn: Chuck Czumak	1701 Ringling Blvd.			Phone:
E-Mail:	investigations@verizon.com; ASG.Investigationsteam@ASGInc.us	Sarasota, FL	FL	94240-	Fax:

Comments:

Water	Dempsey Road Mutual Water Co.	2265 Samuel Avenue			Phone: (805) 483-9014 (805) 486-9944
E-Mail:		Oxnard	CA	93030-	Fax:

Comments:

Water	Rio Manor Mutual Water Company Pamela Romich, Secretary	P.O. Box 6366			Phone: (805) 482-2001
E-Mail:	reranio@hotmail.com	Oxnard	CA	93031-6366	Fax:

Comments: North of Gonzales Rd between Oxnard Blvd & Snow Road

Water	Saviers Road Mutual Water Company	P.O. Box 56			Phone: (805) 982-2687
E-Mail:	rosalinda.romo@navy.mil	Port Hueneme	CA	93044-	Fax:

Comments:

Water	United Water Conservation District James Grisham	106 North 8th Street			Phone: (805) 525-4431
E-Mail:	erikz@unitedwater.org	Santa Paula	CA	93060-	Fax:

Comments: jamesg@unitedwater.org

Water	Vineyard Ave. Acres Mutual Water Co.	PO Box 6293			Phone:
E-Mail:	VineyardAveAcresMWC@gmail.com	Oxnard	CA	93031-6293	Fax:

Comments:

Water	Vineyard Mutual Water Company (Status: Dissolve	5725 Ralston Street #200			Phone: (805) 654-1077
E-Mail:	vmw5725@gmail.com	Ventura	CA	93003-	Fax:

Comments: New address as of Oct. 2011 per Tammy @ VMW

Water/Sewer	Channel Island Beach Community Service Dist. Superintendent	353 Santa Monica Drive			Phone: (805) 985-6021
E-Mail:		Channel Islands Beach	CA	93030-	Fax:

Comments:

Utility Company Directory

Oxnard

Water/Sewer

City of Oxnard
Asitha Withanage

305 W. Third Street

Phone: (805) 385-7820

E-Mail: timothy.beaman@oxnard.org

Oxnard

CA 93030-

Fax: (805) 385-7907

Comments:

APPENDIX I
NOTICE TO RESIDENT/BUSINESS/INSTITUTION

NOTICE TO RESIDENT/ BUSINESS/ INSTITUTION

Date _____

In approximately _____, the Transportation Department of the Public Works Agency, County of Ventura, will construct a sidewalk improvement project in your area. The work will be done by _____.

The sidewalk improvement project consists of miscellaneous concrete work, storm drain installation and asphalt concrete pavement repairs. It will be necessary to partially close your street on the days the work is done. We will post temporary "No Parking" signs at least 48 hours in advance of the scheduled work. This will prohibit parking on the pavement between 7:30 AM and 5:30 PM. In case of inclement weather, it may be necessary to reschedule the contractor's operations.

We ask your cooperation by not parking your automobile in the street during the short construction period. You can drive in and out of your garage or driveway almost anytime during construction operations as one lane will be kept open to traffic.

We ask that during the time we are working that you **DO NOT**:

1. Park on the street.
2. Allow water to run onto the street.
3. Allow children to play in the street.
4. Overwater your front lawn and landscaping in the vicinity of the new sidewalk.

We regret any inconvenience that this work may cause you. We thank you for your cooperation in assisting us to maintain your street in the most efficient way possible.

If you have any questions regarding the project, please call:

General Contractor

Tel. _____

Ariel Braza, Project Manager
County of Ventura, Public Works Agency

Tel. (805) 654-2058

Si necesita esta informacion traducida en español, por favor contacte al Departamento de Obras Publicas, del Condado de Ventura al 805-654-2049.

APPENDIX I

APPENDIX J
APPLICABLE STANDARD PLANS

US UNITS	REVISION:	PLATE E-1
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1. CONCRETE CURBS & GUTTERS

1.1 Where Required
The requirements for installing curbs and gutters are shown on B-Series plates.

1.2 Design
Curbs and gutters shall be constructed per SPPWC Standard Plan 120, types A1-6 and A2-6. W = 18" or to match adjacent gutter. Where a sidewalk crosses a driveway the thickness of the sidewalk must be at least 6 inches.

1.3 PCC Class
Concrete class and construction shall be as specified in Plate A-7. Permeable concrete can be used for gutters beside an A1-6 curb where a moisture barrier is used to prevent water from infiltrating into the road base and subgrade under the pavement. The moisture barrier shall be single-ply, 30 mil thick PVC, and be placed between the edge of pavement and the gutter. It must be a minimum of 5 feet in depth extending vertically from the top of the permeable concrete gutter. Excess water that cannot infiltrate must be drained into a storm drain system or a dry well system separated from the roadway.

1.4 Base Required
Where roadway subgrade has an R-value of ≤ 14 , min 4" thickness of PMB shall be placed under curbs and gutters. Where permeable concrete is used as the gutter place 1 foot of open graded aggregate wrapped in geotextile filter fabric as the base layer.

2. CROSS GUTTERS

2.1 Where Required
Cross gutters shall be installed wherever surface drainage is to be carried across a road.

2.2 Where Prohibited
No surface drainage is to be carried across a road and no cross gutters are permitted across the following road sections:

- a) Primary or Secondary roads (Plates B-2 & B-3 [A]).
- b) Collector roads (Plates B-3 [A], B-4 [A], B-5 [A] and B-7 [A]) except at locations where vehicular traffic is required to stop or where through traffic movement is precluded such as at the single leg of a T-intersection.

2.3 Design
Cross gutters shall be constructed per SPPWC Standard Plan 122 and 123.

2.4 PCC Class
Concrete class and construction shall be as specified in Plate A-7.

2.5 Base Required
Cross gutters and spandrels shall be constructed over 6 " thickness of PMB.

ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017			COUNTY OF VENTURA PUBLIC WORKS AGENCY ROAD STANDARDS CURBS & GUTTERS
REVISION DATE:	DESCRIPTION:	APPROVED BY:	
		J P	
		RECOMMENDED BY:	
		D F	

US UNITS		REVISION:	PLATE E-2
2. DRIVEWAYS 2.1 Residential Residential driveways shall be constructed according to Std. Plate E-2b with the following limitations: 2.1.1 $W \geq 10$ feet and $W \leq 27$ feet. 2.1.2 The sum of W's for all driveways shall not exceed 40% of the property frontage, however at least one $W = 10$ feet driveway is allowed on each lot. 2.1.3 No driveway shall be constructed in the curb return area at intersections or within 5 feet of the BCR or ECR. 2.1.4 No driveway or driveway apron shall be constructed in the area occupied by a catch basin's local depression. 2.1.5 The outer edge of the driveway warp shall be 2 feet clear of obstructions in the R/W such as fire hydrants, utility poles, street light standards, signs and mailboxes. 2.1.6 No driveway is allowed unless there is space on the private property for parking an 18 feet long vehicle. 2.1.7 Where the road grade exceeds 5% and there is no sidewalk next to the curb, an L-shaped deflector curb shall be installed on the downslope side of the driveway. The curb shall be SPPWC 120, Type A1-6, 6" high above the roadway curb, extending 5 feet along the driveway and 2 feet along the roadway curb. 2.1.8 PCC may be colored or textured or both. Texturing shall not reduce the required thickness and shall not be either so smooth or so rough as to be hazardous to pedestrians. 2.1.9 Driveways shall be PCC class 520-C-2500, 6" thick. Where the existing road does not have PCC curbs, driveways may be constructed of AC C1 or C2-PG 64-10, either 6" thick or 2" thick over 4" of PMB. Sidewalks over driveway and driveway aprons must be 6" thick. 2.2.0 Where the existing road does not have PCC curbs, driveways shall be constructed at an elevation compatible with future construction of curbs and gutters. 2.2.1 Minimum distance between outer edges of adjacent driveway slopes: On same lot $\geq 22'$ On adjacent lots $\geq 1'$			
ADOPTED BY BOARD OF SUPERVISORS: 02-04-2020			COUNTY OF VENTURA PUBLIC WORKS AGENCY ROAD STANDARDS RESIDENTIAL DRIVEWAYS
REVISION DATE:	DESCRIPTION:	APPROVED:	
01/15/2020	Changed driveway standard to Plate E-2b	J P	
		RECOMMENDED:	
		D F	

US UNITS	REVISION:	PLATE E-2a
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2. DRIVEWAYS (continued)

2.2. Commercial
Commercial driveways shall be constructed according to Std. Plate E-2b with the following limitations:

2.2.1 Minimum W = 10 feet.
The sum of all W's shall not exceed 60% of lot frontage.

<u>Lot width</u>	<u>Maximum W</u>
< 100'	20 feet
100' to 150'	30 feet
> 150'	20% of lot frontage but ≤ 60 feet

2.2.2 Minimum distance between outer edges of adjacent driveway slopes:
On same lot ≥ 22'
On adjacent lots ≥ 1'

2.2.3 No driveway shall be constructed in the curb return area at intersections or within 5 feet of the BCR or ECR.

2.2.4 No driveway is allowed where there is any obstacle that prevents any vehicle entering the driveway from completely clearing the public right-of-way when parked on the lot.

2.2.5 Driveways shall be PCC class 520-C-2500, 9" thick over 4" of PMB (Rvalue=78). Where the existing road does not have PCC curbs, driveways may be constructed of AC C1 or C2 PG-64-10, 7" thick or 3" thick over 8" of PMB.

2.2.6 The outer edge of the driveway warp shall be 5 feet clear of obstructions in the R/W such as fire hydrants, utility poles street light standards, signs and mailboxes.

2.2.7 Where the road grade exceeds 5% and there is no sidewalk next to the curb, a L-shaped deflector curb shall be installed on the downslope side of the driveway. The curb shall be SPPWC 120, Type A1-6, 6" high above the roadway curb, extending 5 feet along the driveway and 2 feet along the roadway curb.

2.2.8 Where the existing road does not have PCC curbs, when requested by the County, driveways shall be constructed at an elevation compatible with future construction of curbs and gutters.

ADOPTED BY BOARD OF SUPERVISORS: 02-04-2020			COUNTY OF VENTURA PUBLIC WORKS AGENCY	
REVISION DATE:	DESCRIPTION:	APPROVED:	ROAD STANDARDS COMMERCIAL DRIVEWAYS	
01/15/2020	Changed driveway standard to Plate E-2b	J P		
		RECOMMENDED:		
		D F		

US UNITS	REVISION:	PLATE E-3
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3. SIDEWALKS
The requirements for installing sidewalks are shown on B-Series plates.

3.1 Design & Construction

3.1.1 Sidewalks shall be constructed per SPPWC Standard Plan 112.

3.1.2 Sidewalks shall be constructed of PCC, 4 inches thick. At driveways, sidewalks shall meet the requirements of Plates E-2 and E-2a.

3.1.3 Where roadway subgrade has a R-value ≤ 14 , 4 inches of PMB shall be placed under the sidewalks.

3.1.4 Concrete class and construction shall be as specified in Plate A-7.

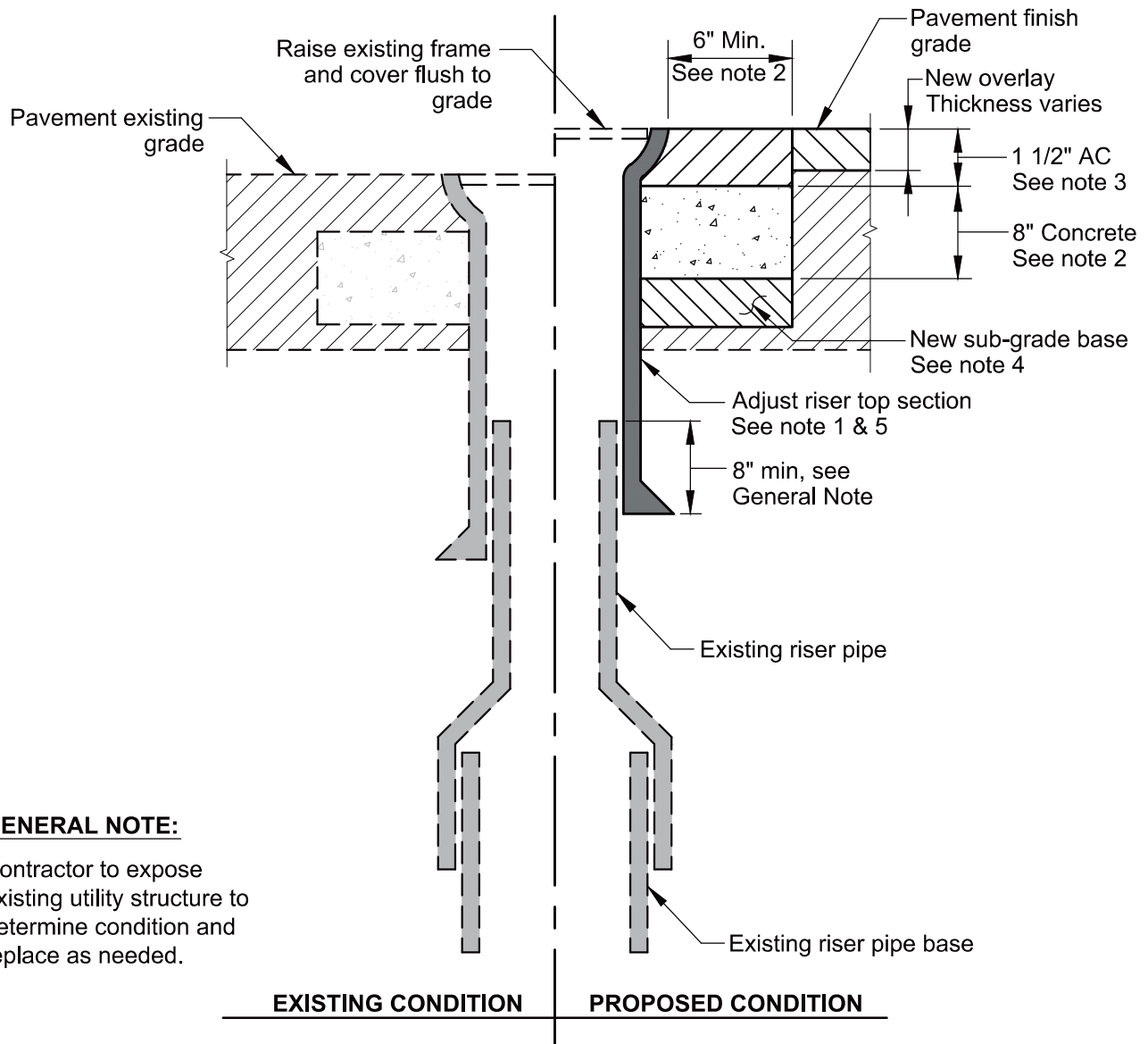
3.2 Curb Ramps
Curb ramps, as required by the Americans With Disabilities Act and state law, shall be installed at all intersections. Construction shall be per SPPWC Standard Plan 111-5, Case A. Sidewalks, sidewalk flares at intersections and right-of-way widths may have to be increased to accommodate ramp design.

4. SURFACE ACCESS TO UNDERGROUND FACILITIES (MANHOLES, etc.):
All surface accesses to underground facilities located within a sidewalk, side path or a marked or unmarked (Vehicle Code 275) crosswalk area of a roadway, shall meet the following requirements:

- 1 Covers shall support a load of 500 lbs. applied to a 1 in. diameter area at any location on the cover. The deflection, when so loaded, shall not exceed 1% of the longest dimension of the cover. There shall be no residual deflection after the load is removed. Plastic covers shall be ultraviolet resistant. Covers located in roadways, driveways or other locations to which vehicles have access, shall be designed for traffic loading.
- 2 No variation in the surface of the access closure shall exceed 1/8" from the surrounding surface.
- 3 No opening in the access closure shall exceed 1/2 in. in width nor 2 1/2" in length. Circular openings shall not exceed 3/4 in. in diameter.
- 4 Hold down fastenings shall be flush with the surface of the access closure.
- 5 The exposed surface of the access closure shall have a permanent slip resistant surface.
- 6 The resultant finished access closure, as installed, shall not result in a significant variation in the sidewalk, side path or crosswalk surface that will cause a hazard to pedestrian use.

ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017			COUNTY OF VENTURA PUBLIC WORKS AGENCY	
REVISION DATE:	DESCRIPTION:	APPROVED BY:	ROAD STANDARDS SIDEWALKS AND SURFACE ACCESS CLOSURES	
		J P		
		RECOMMENDED BY:		
		D F		

SURVEY MONUMENT

**GENERAL NOTE:**

Contractor to expose existing utility structure to determine condition and replace as needed.

NOTES:

1. All necessary portions of the subgrade base and pavement shall be neatly removed. Utility cover shall be raised and the utility riser top sections set to be backfilled to within 1 1/2 inch of the final grade with portland cement concrete. The remaining 1 1/2 inch shall be backfilled with an asphalt concrete wearing surface mixture to match the project surface course. The material shall be placed and compacted in a workmanlike manner to conform to the appearance of the surrounding pavement.
2. Install concrete collar around utility structure, concrete shall be Class 560-C-3250 with maximum 3 inch slump.
3. Asphalt concrete shall be C2-PG 64-10, placed in accordance with Section 302-5.8 of the SSPWC.
4. Backfill compaction shall be a minimum of 95% prior to placing concrete collar.
5. Existing utility installations that do not meet standards must be constructed in compliance with current standard.

ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION
DATE:

DESCRIPTION:

APPROVED BY:

J P

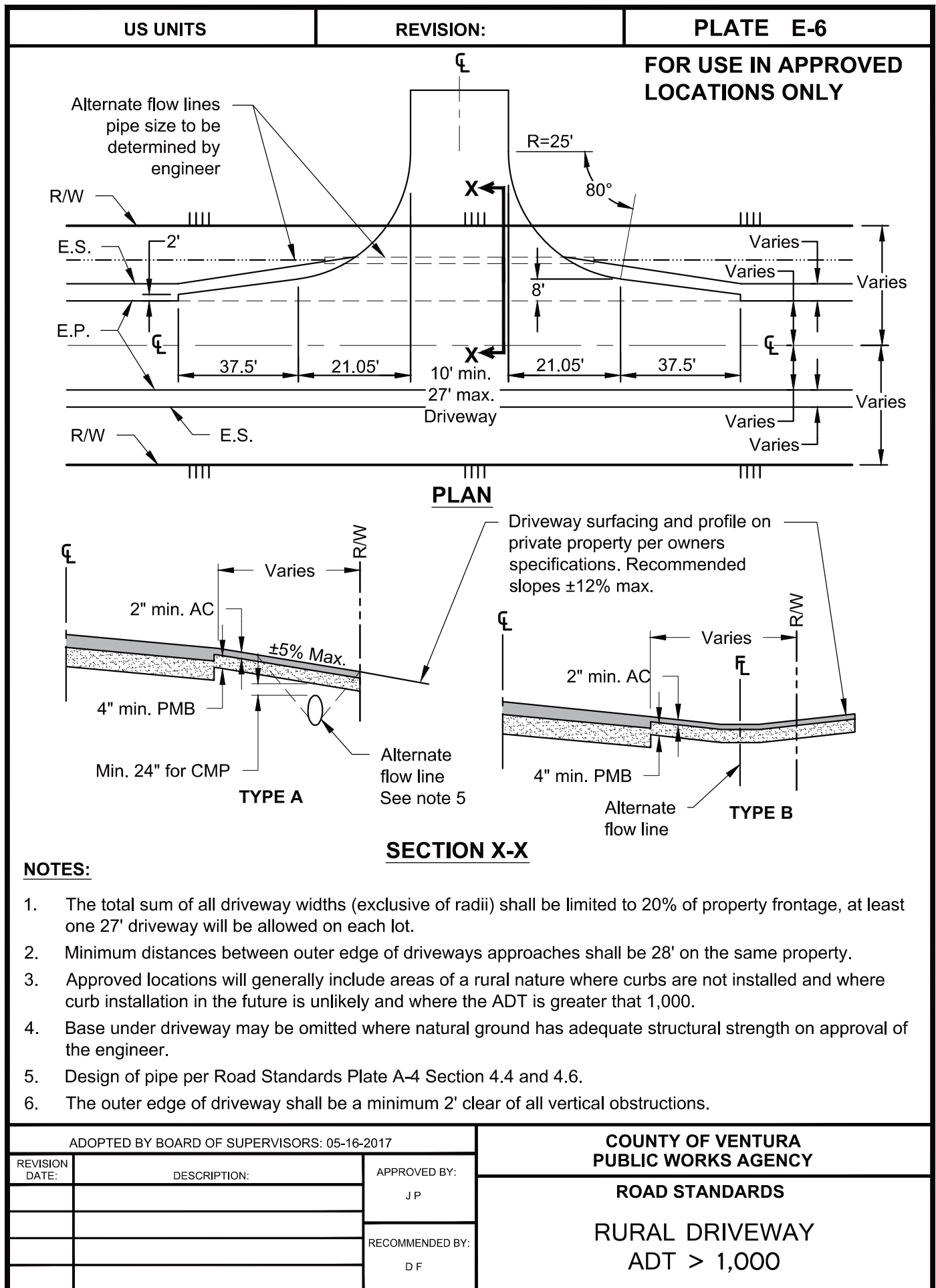
RECOMMENDED BY:

D F

COUNTY OF VENTURA
PUBLIC WORKS AGENCY

ROAD STANDARDS

RAISE EXISTING
UTILITY COVER



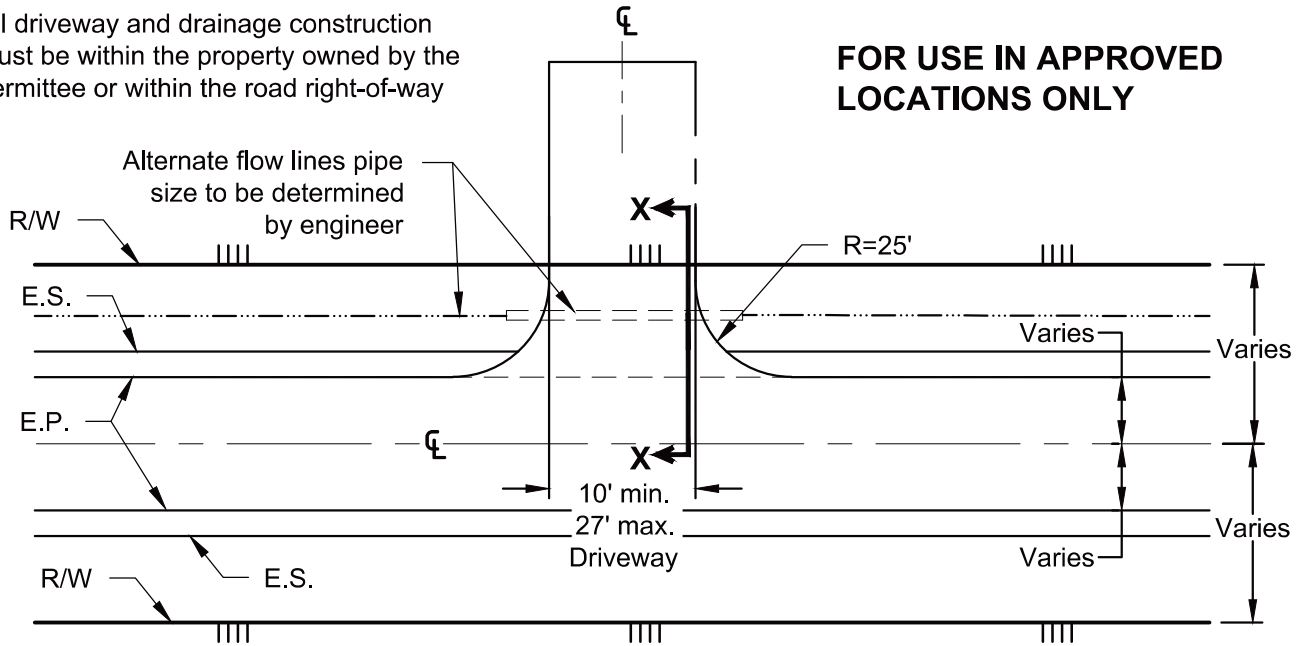
US UNITS

REVISION:

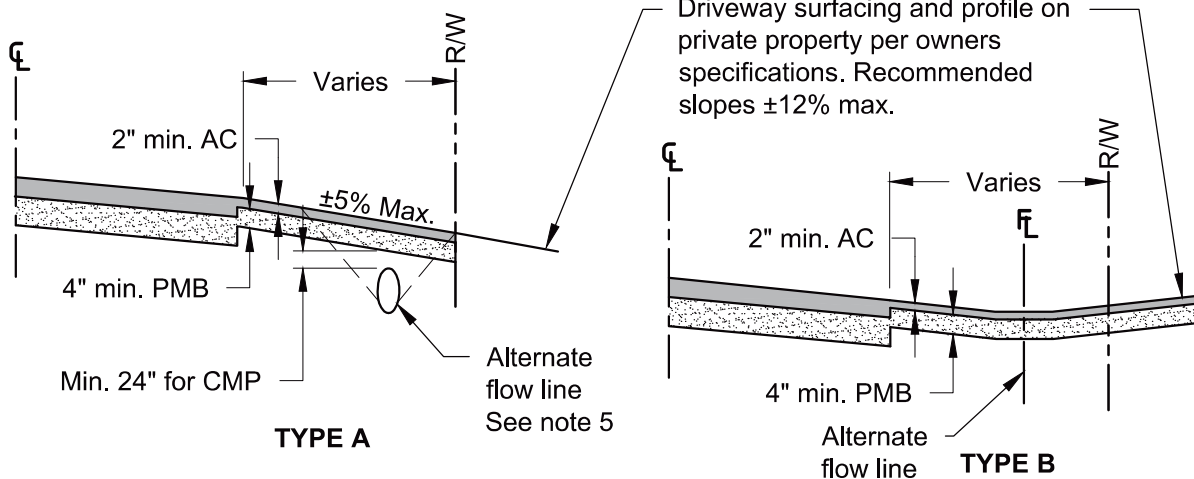
PLATE E-7

All driveway and drainage construction must be within the property owned by the permittee or within the road right-of-way

FOR USE IN APPROVED LOCATIONS ONLY



PLAN



NOTES:

1. The total sum of all driveway widths (exclusive of radii) shall be limited to 20% of property frontage, at least one 27' driveway will be allowed on each lot.
2. Minimum distances between outer edge of driveways approaches shall be 28' on the same property. Approved locations will generally include areas of a rural nature where curbs are not installed and where curb installation in the future is unlikely and where the ADT $\leq 1,000$.
3. Base under driveway may be omitted where natural ground has adequate structural strength on approval of the engineer.
5. Design of pipe per Road Standards Plate A-4 Section 4.4 and 4.6.
6. The outer edge of driveway shall be a minimum 2' clear of all vertical obstructions.

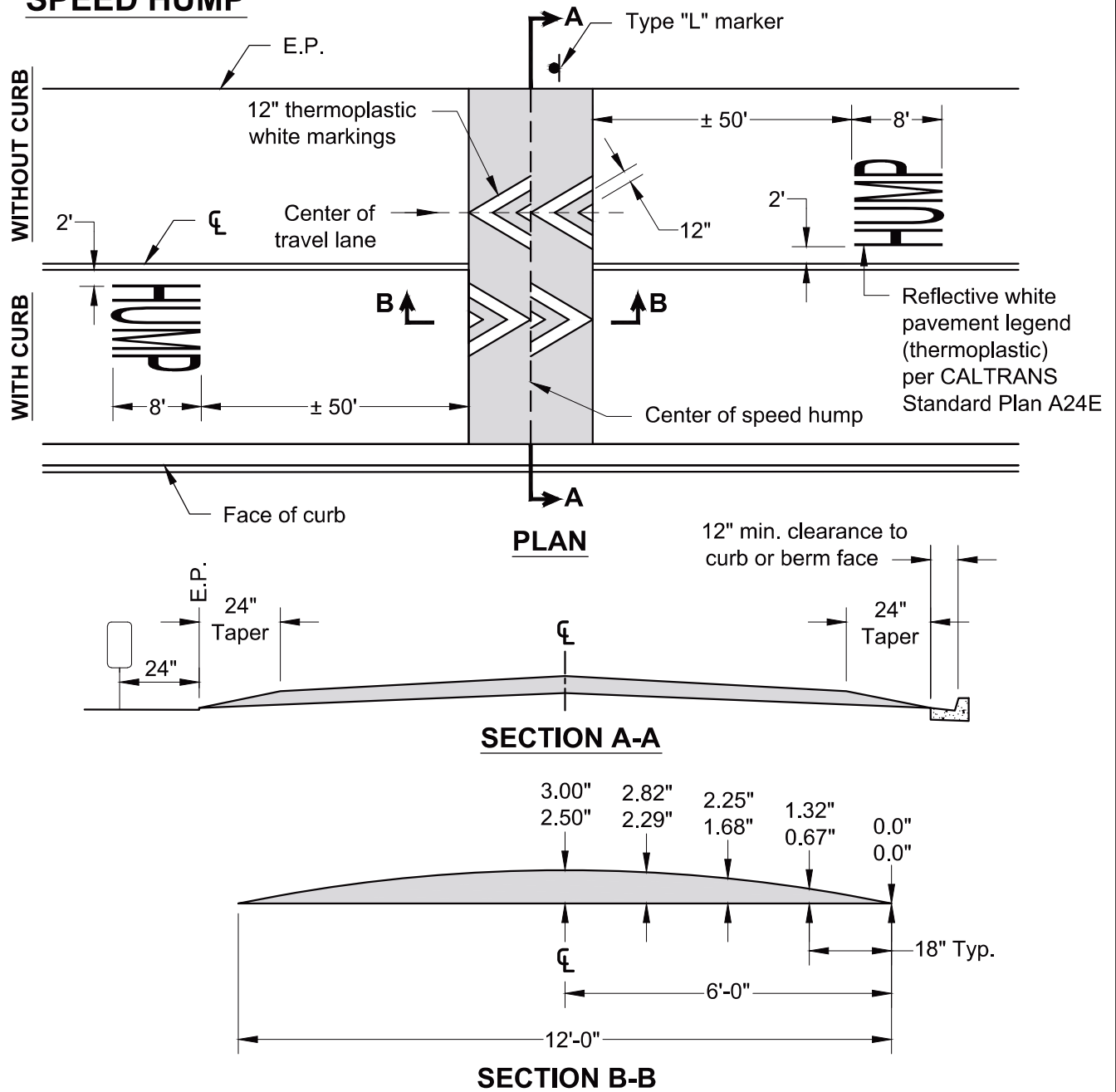
ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION DATE:	DESCRIPTION:	APPROVED BY:
		J P
		RECOMMENDED BY:
		D F

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY**

ROAD STANDARDS

**RURAL DRIVEWAY
ADT $\leq 1,000$**

SPEED HUMP**NOTES:**

1. Speed humps may be installed only if approved by the Road Commissioner or his designee.
2. Speed hump height greater than 3" requires Board of Supervisors approval for design & height.
3. A warning sign stating "Speed Hump" (W17-1) shall be placed at the approach to the first hump. Signs shall be of high intensity sheeting (30"x30"). Co-mount a W13-1 "10 MPH" (24"x24") warning sign per CALTRANS standards.

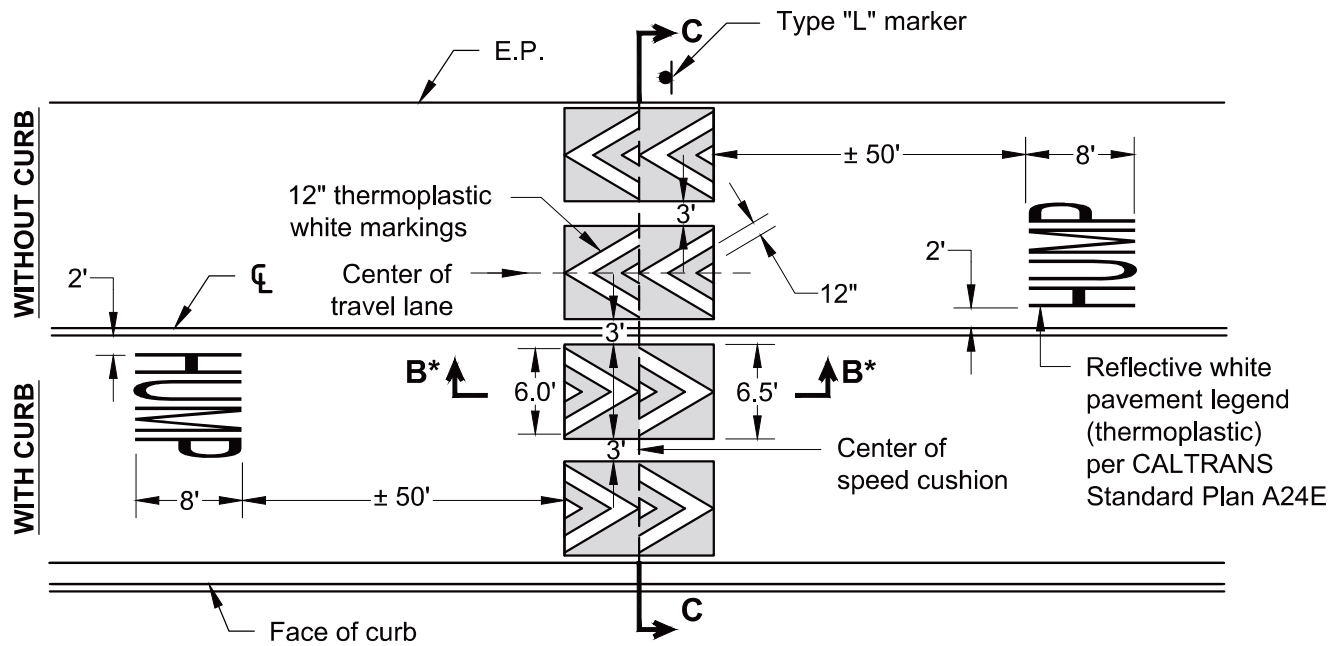
ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION DATE:	DESCRIPTION:	APPROVED BY:
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		RECOMMENDED BY:
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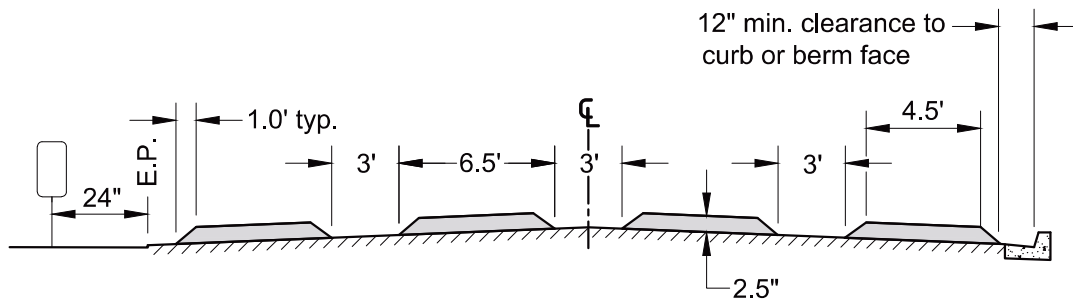
COUNTY OF VENTURA
PUBLIC WORKS AGENCY

ROAD STANDARDS

SPEED HUMP / CUSHION

SPEED CUSHION**PLAN**

B* See Section B-B on
Speed Hump Road Standard
Plate E-9, sheet 1 of 4

**SECTION C-C****NOTES:**

1. Speed cushions may be installed only if approved by the Road Commissioner or his designee.
2. A warning sign stating "Speed Hump" (W17-1) shall be placed at the approach to the first cushion. Signs shall be of high intensity sheeting (30"x30"). Co-mount a W13-1 "10 MPH" (24"x24") warning sign per CALTRANS standards.
3. For two-lane roads with a traveled way width of 24' or less, use the design shown above while omitting the two outer speed cushions.

ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION DATE:	DESCRIPTION:	APPROVED BY:
		J P
		RECOMMENDED BY:
		D F

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY**

ROAD STANDARDS**SPEED HUMP/CUSHION**

US UNITS	REVISION:	PLATE E-9
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WARRANTS FOR SPEED HUMPS / CUSHIONS

1. The road must be either a residential road or a local road defined as follows:

a. A residential road, or "residence district," as defined in California Vehicle Code Section 515 is that portion of a highway and the property contiguous thereto, other than a business district, (a) upon one side of which highway, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses or business structures, or (b) upon both sides of which highway, collectively, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 16 or more separate dwelling houses or business structures. A residence district may be longer than one-quarter of a mile if the above ratio of separate dwelling houses or business structures to the length of the highway exists. The "residence district" determination must be consistent with California Vehicle Code Section 240.

Buildings must be located within 75 feet of the roadway curb face or edge of pavement and they must face and gain access from the road, to be considered as "fronting" on the road.

b. A local road is defined for the purpose of this guideline as a road intended primarily to provide direct access to abutting residential buildings. Residential buildings include separate dwelling houses, apartment buildings, or multiple dwelling houses.

2. The speed limit on the road must be 25 miles per hour or less, established in accordance with State law or Board of Supervisors' action.

3. A speed survey must show that 67 percent of the motorists exceed the 25- miles-per-hour speed limit.

4. The road must have a paved width of 40 feet or less and no more than two traffic lanes.

5. The average traffic volume must be greater than 1,000 vehicles in a 24-hour period.

6. No speed hump/cushion may be installed on any street where the Road Commissioner or his designee determines it cannot be safely installed due to:

a. Severe horizontal or vertical curves

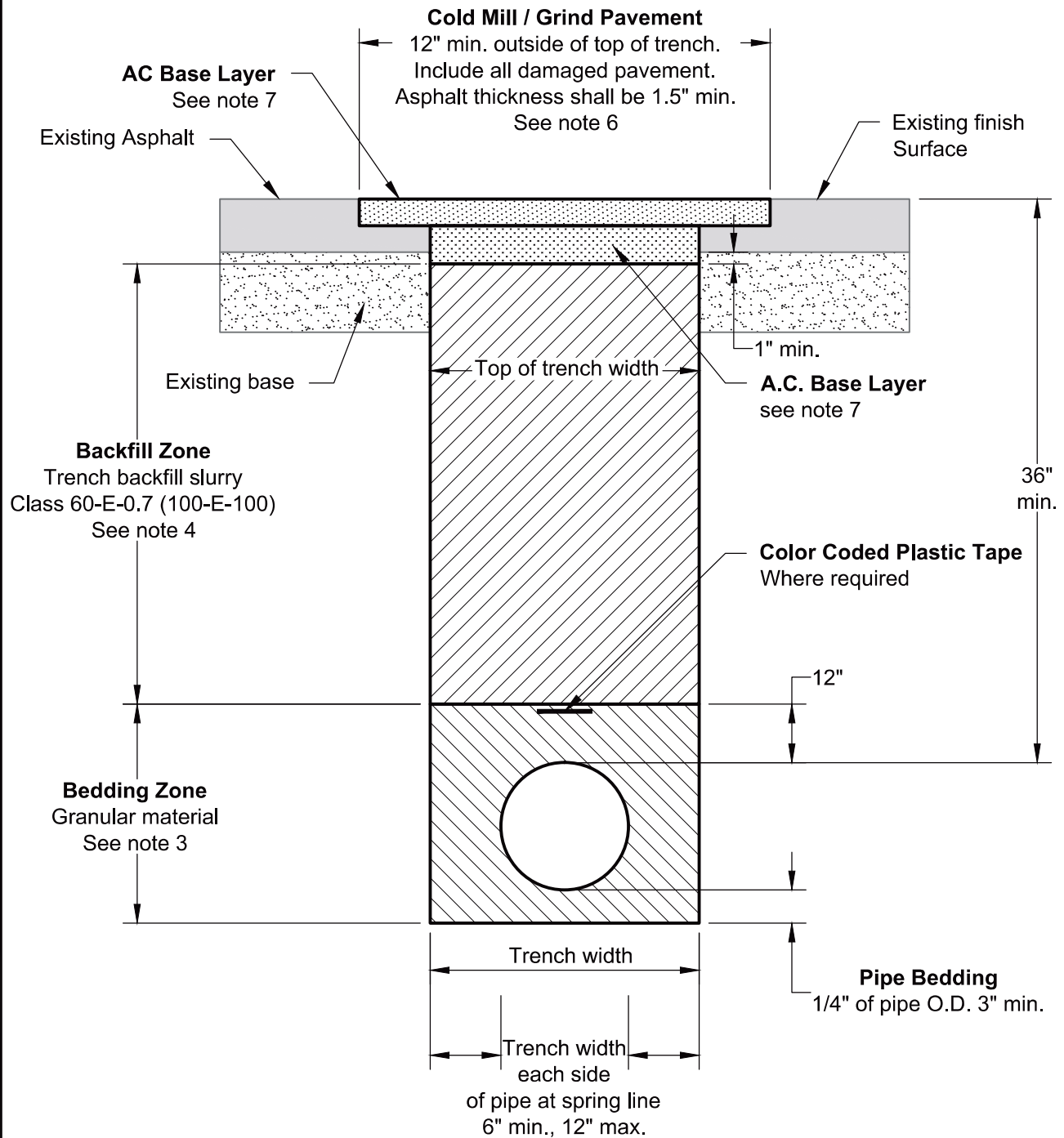
b. Inadequate sight distance to the humps/cushions

c. Excessive street downgrades

7. No speed hump/cushion may be installed on any street where the Road Commissioner or his designee determines it will create equal or greater traffic problems by causing traffic diversion to a nearby residential or local road.

ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017			COUNTY OF VENTURA PUBLIC WORKS AGENCY	
REVISION DATE:	DESCRIPTION:	APPROVED BY:	ROAD STANDARDS SPEED HUMP/CUSHION WARRANTS <div style="text-align: right; font-weight: normal;">SHEET 3 OF 4</div>	
		J P		
		RECOMMENDED BY:		
		D F		

US UNITS	REVISION:	PLATE E-9
<p>SPEED HUMP/CUSHION INSTALLATION POLICY</p> <p>1. Speed humps/cushions will be installed only:</p> <ul style="list-style-type: none"> • If the location meets the warrants established by the Board of Supervisors. • Upon receipt of the required petition or when the Road Commissioner or his designee initiates the proposal -and- • The Board of Supervisors or the Road Commissioner or his designee approves the request -and- • In conformance with the standard design in effect at the time of installation. <p>A petition for installation of speed humps/cushions must be signed by a minimum of 67% of the property owners on the street or the portion of the street affected concurring in the proposed installation. The petition must contain language to the effect that, if the petition is approved, the petitioners must deposit with the Public Works Agency funds in the estimated amount of the cost of installation of the speed humps/cushions before work will be authorized.</p> <p>2. Since speed humps/cushions are located in the travelway, additions, alterations, or removals of any or all speed humps/cushions may be directed at any time.</p> <p>3. Prior to the approval of new speed humps/cushions on any street, the County Traffic Engineer must request concurrence from the Ventura County Fire Protection District, the Sheriff's Department, and the California Highway Patrol within 20 calendar days.</p> <p>4. Speed-hump/cushion construction costs must be paid by the property owners who sign the required petition. If the Road Commissioner or his designee originates a proposal and the property owners concur, construction costs will be paid by the County.</p> <p>5. The Transportation Department will reassess the speed-hump/cushion program and report to the Board of Supervisors at approximately five-year intervals. Critical program issues that require Board action prior to the five-year review will be scheduled for policy guidance.</p>		
ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017		COUNTY OF VENTURA PUBLIC WORKS AGENCY ROAD STANDARDS SPEED HUMP/CUSHION INSTALLATION POLICY SHEET 4 OF 4
REVISION DATE:	DESCRIPTION:	
APPROVED BY: J P		
RECOMMENDED BY: D F		



ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

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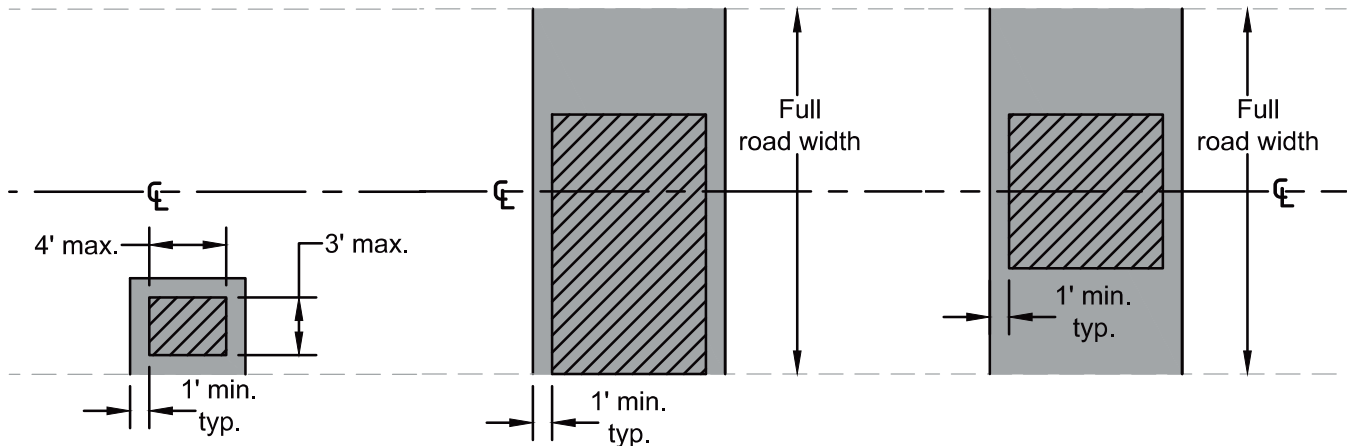
COUNTY OF VENTURA
PUBLIC WORKS AGENCY

ROAD STANDARDS

PAVEMENT REPAIRS FOR
TRENCHING

SHEET 1 OF 2

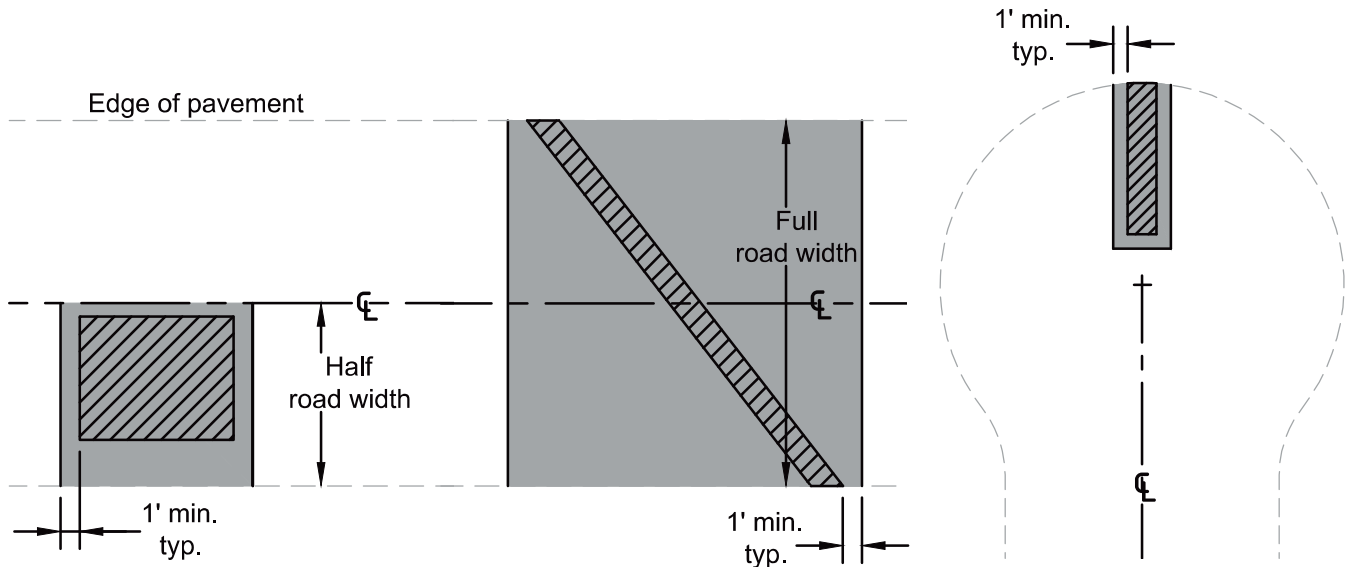
US UNITS	REVISION:	PLATE E-11
<p>PLATE E-11 NOTES:</p> <ol style="list-style-type: none"> 1. Construction shall conform to Standard Specifications for Public Works Construction (SSPWC) except as noted. 2. Trench width shall be as shown unless otherwise shown on the approved plans. 3. Bedding material shall be granular with 100% passing 3/4" sieve, 90 to 100% passing the 3/8" sieve and not more than 4% passing No. 200 sieve. 4. Backfill between the bedding zone and subgrade shall be Trench Backfill Slurry Class 60-E-0.7 (100-E-100). The Director of Public Works may approve the substitution of one of the following: <ol style="list-style-type: none"> a. Controlled Low Strength Material (SSPWC 201-6), provided that laboratory control is provided to insure compliance with the specifications. b. Non-cementitious backfill, provided that the backfill is tested and certified to meet the approved specifications for the material by an independent testing laboratory (SSPWC 217-2). A Quality Control Plan shall be submitted for approval. 5. Compaction shall not use flooding, ponding or jetting unless directed by Soils Engineer. 6. A.C. Overlay shall be C1 or C2 PG 64-10, 1.5" minimum. 7. AC Base Layer <ol style="list-style-type: none"> a. Where existing pavement surface is AC the AC Base Layer thickness shall be equal to or greater than the existing AC thickness plus 1" with a minimum of 3" and a maximum of 8". For roads where Traffic Index is 7.0 or greater (Plates B-2, B-3 & B-7a), the AC Base layer thickness shall be 4" min. b. Where existing pavement surface is PCC pavement, saw cut 2" into the existing pavement at the outer edge of the trench and break the remaining thickness. Replace the PCC and base to the same depth as the existing pavement. The PCC shall be 560-C-3250. 		
ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017		COUNTY OF VENTURA PUBLIC WORKS AGENCY ROAD STANDARDS PAVEMENT REPAIRS FOR TRENCHING SHEET 2 OF 2
REVISION DATE:	DESCRIPTION:	
APPROVED BY:		
J P		
RECOMMENDED BY:		
D F		



OUTSIDE OF TRAVEL LANE

OVER HALF OF ROAD WAY

OVER BOTH TRAVEL LANES



WITHIN TRAVEL LANE

SKEWED TRENCH ACROSS ROAD

WITHIN BULB OF
CUL-DE-SAC

MORATORIUM ROAD: a county roadway that has received a pavement treatment as follows:

- Greater than one half inch (1/2") in thickness within the last five years
- Half inch (1/2") or less in thickness, within the last 3 years, excluding slurry seal

LEGEND:

Trench Area



Area to be cold milled and paved with 1 1/2" min thickness.

ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION
DATE:

DESCRIPTION:

APPROVED BY:

J P

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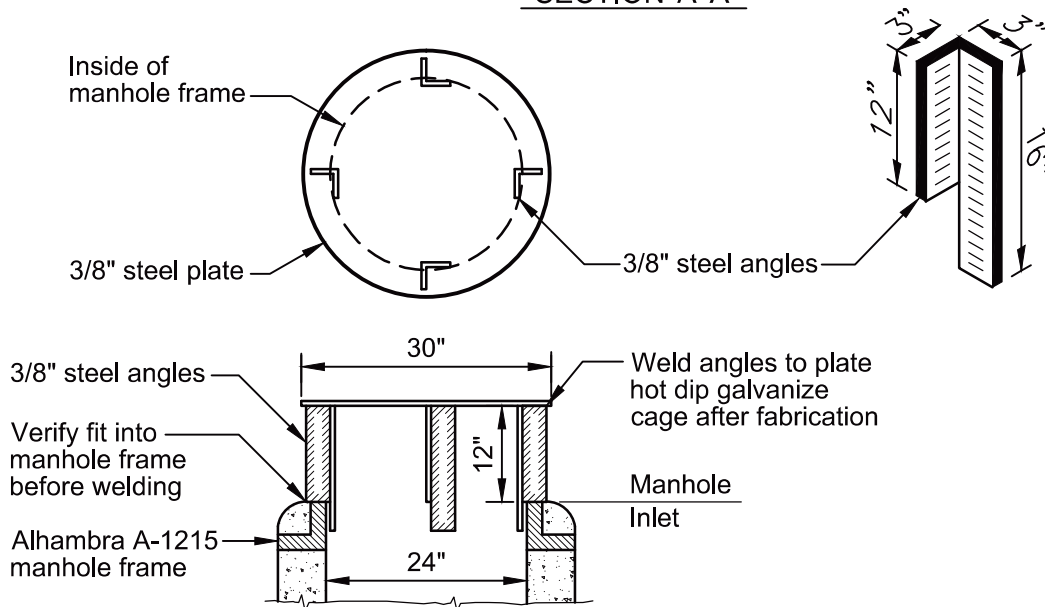
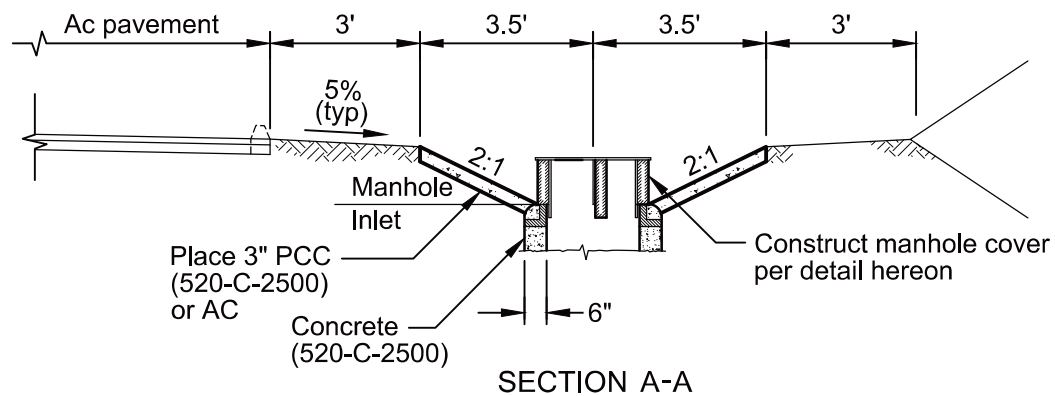
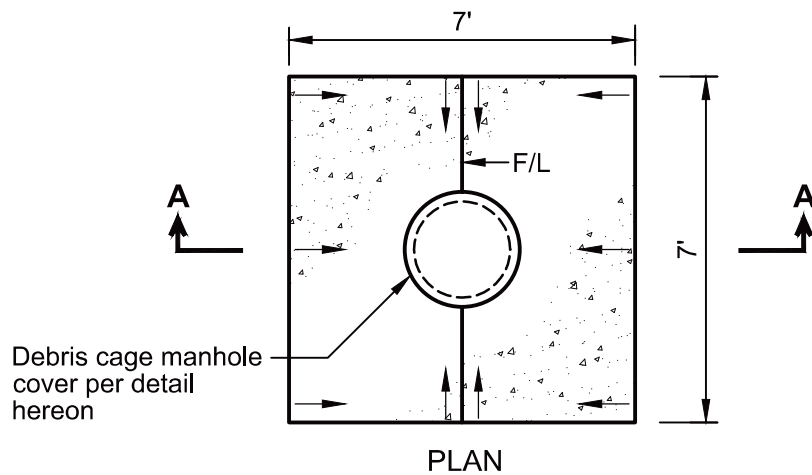
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**COUNTY OF VENTURA
PUBLIC WORKS AGENCY**

ROAD STANDARDS

**PAVEMENT REPAIR FOR TRENCHING
ON MORATORIUM ROADS**

US UNITS	REVISION:	PLATE E-13																		
<p>1. ABOVE GROUND UTILITY EQUIPMENT</p> <p>1.1 Where required It is the preference of the County of Ventura that all equipment and structures for utility company facilities be placed underground when located within the road right-of-way, or be located outside of the road right-of-way. However, the County recognizes undergrounding is not always operationally or economically practical and, therefore, establishes the following policy for the placement of poles, equipment, and structures above ground.</p> <p>1.2 Categories For the purpose of these policies, equipment will be broken into two categories, "small" and "large." Small equipment is defined as being less than 24" in height and less than 24" by 36" in area. Large equipment is defined as all others. Equipment must be located as close to the right-of-way boundary as possible.</p> <p>1.3 Design</p> <p>1.3.1 Where curb, gutter, and/or sidewalk exists, all above-ground small equipment or poles, when located in the road right-of-way, shall be located per SPPWC standard plan 101-2.</p> <p>1.3.2 Where no curb, gutter, and/or sidewalk exists, poles, equipment, and accessory structures must meet the minimum setback of ten (10) feet from the edge of pavement where feasible. No above-ground equipment may be placed within five feet of edge of pavement.</p> <p>1.4 Exceptions Exceptions, waivers, or variances to these policies may be granted on a case-by-case basis with review and approval by the Road Commissioner or his authorized representative.</p>																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="3" style="text-align: center; padding: 2px;">ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017</td> </tr> <tr> <td style="width: 15%; padding: 2px;">REVISION DATE:</td> <td style="width: 45%; padding: 2px;">DESCRIPTION:</td> <td style="width: 40%; padding: 2px;">APPROVED BY:</td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td style="text-align: center; padding: 2px;">J P</td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td style="text-align: center; padding: 2px;">RECOMMENDED BY:</td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td style="text-align: center; padding: 2px;">D F</td> </tr> </table>		ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017			REVISION DATE:	DESCRIPTION:	APPROVED BY:			J P						RECOMMENDED BY:			D F	<p>COUNTY OF VENTURA PUBLIC WORKS AGENCY</p> <hr/> <p>ROAD STANDARDS</p> <p>ABOVE GROUND UTILITIES IN ROAD RIGHT-OF-WAY</p>
ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017																				
REVISION DATE:	DESCRIPTION:	APPROVED BY:																		
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ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

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DATE:

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APPROVED BY:

J P

RECOMMENDED BY:

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COUNTY OF VENTURA
PUBLIC WORKS AGENCY

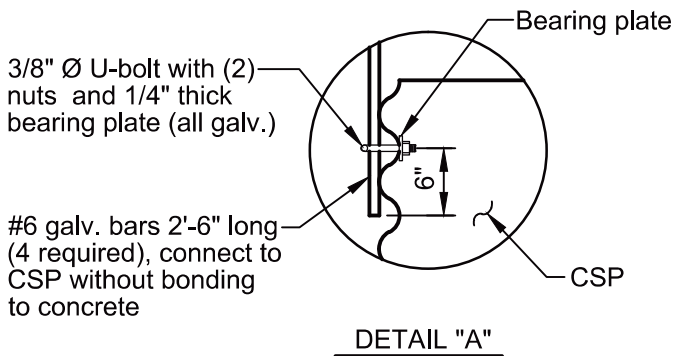
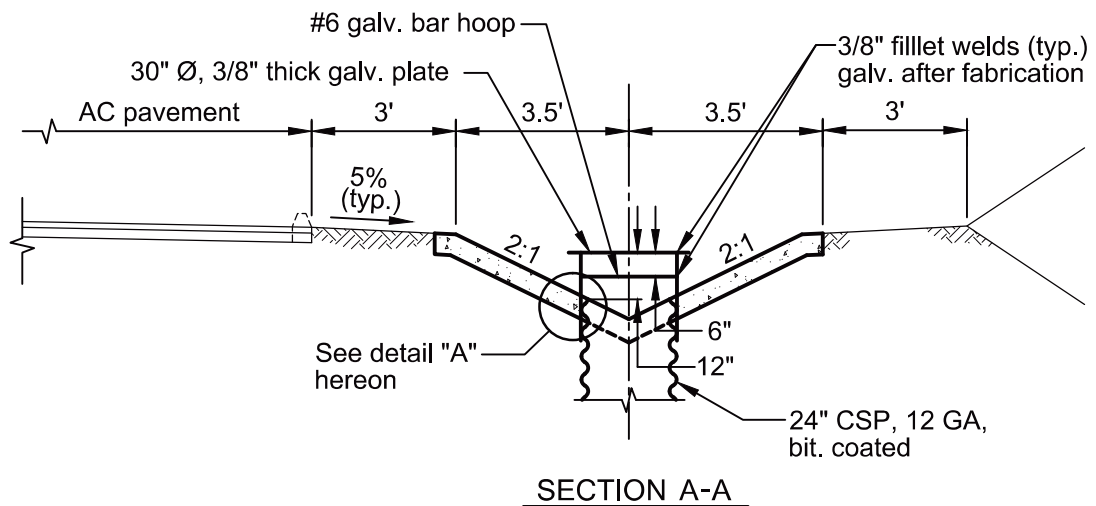
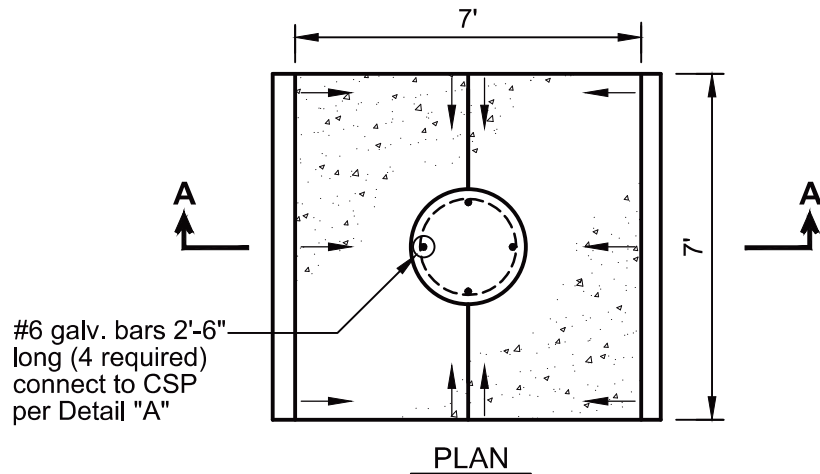
ROAD STANDARDS

DROP INLET FOR
CONCRETE PIPE

US UNITS

REVISION:

PLATE E-14a



ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION
DATE:

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APPROVED BY:

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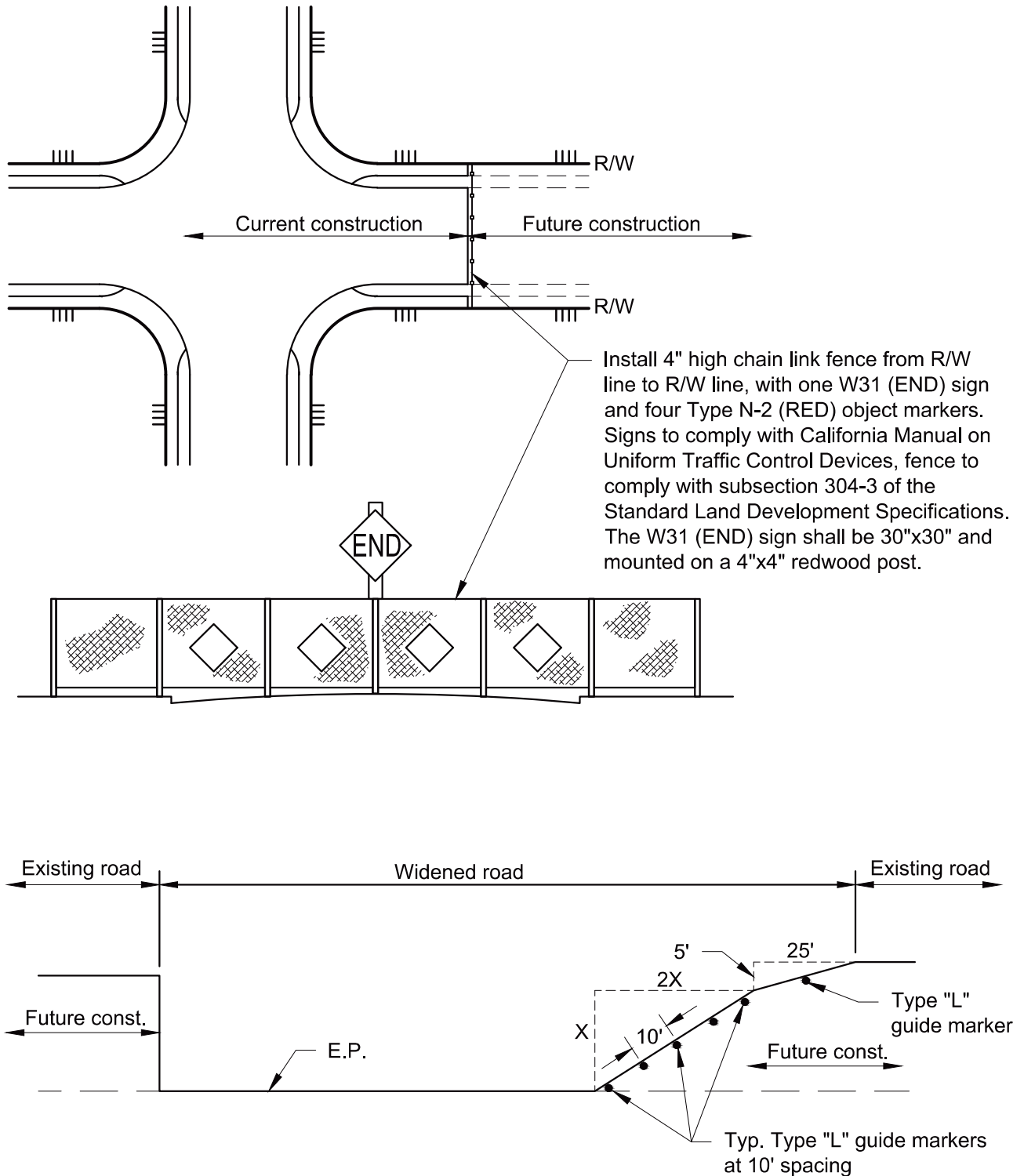
RECOMMENDED BY:

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COUNTY OF VENTURA
PUBLIC WORKS AGENCY

ROAD STANDARDS

DROP INLET FOR
CORRUGATED STEEL PIPE



ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION
DATE:

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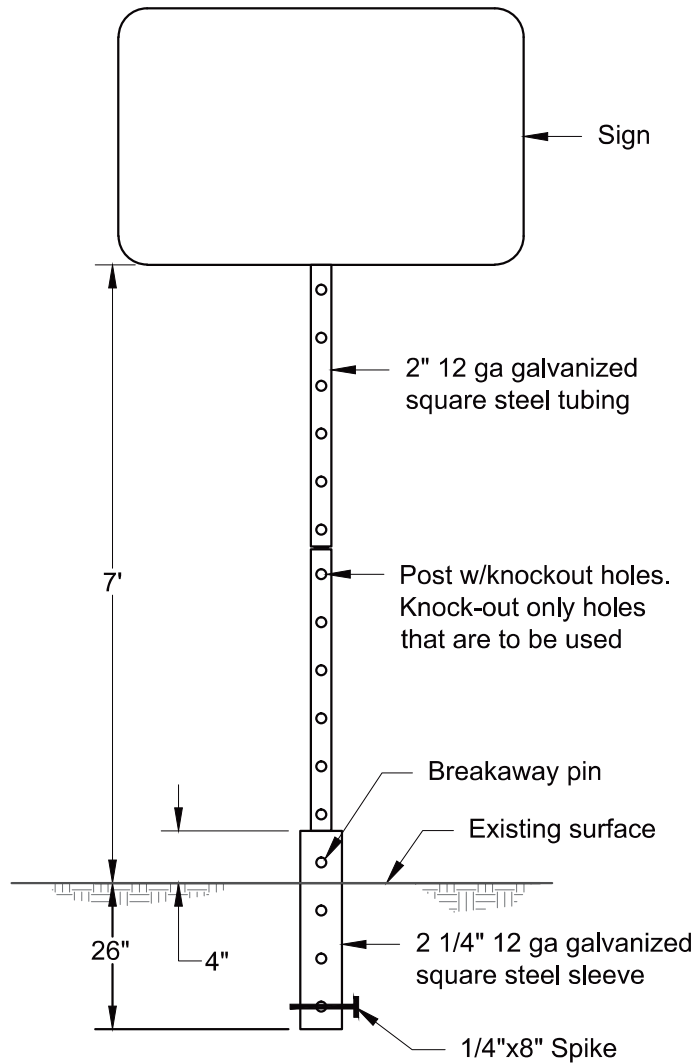
RECOMMENDED BY:

D F

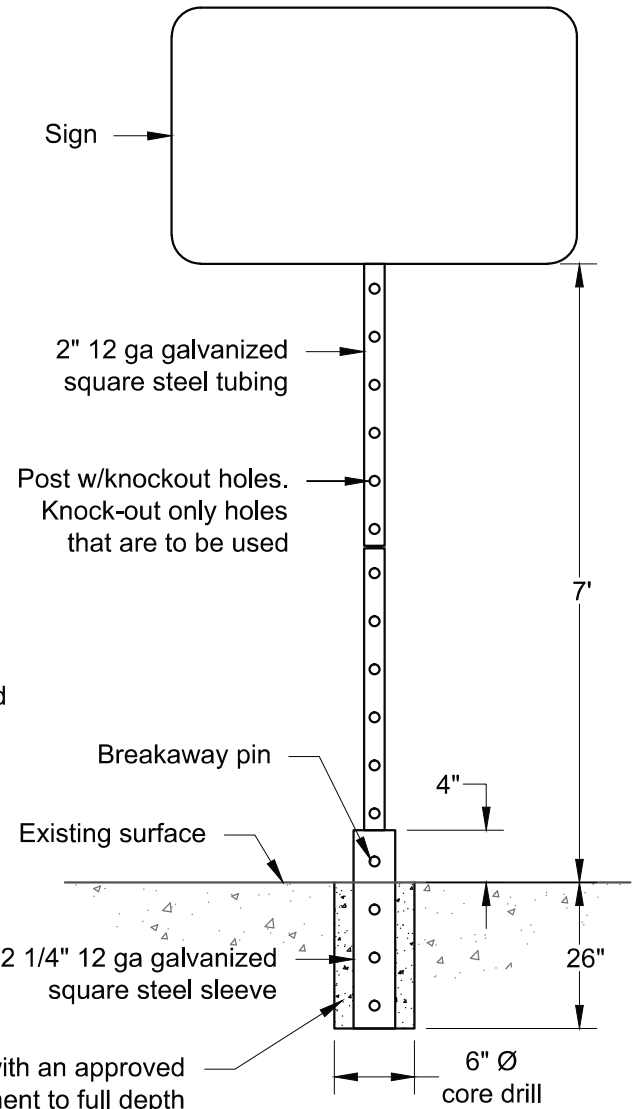
COUNTY OF VENTURA
PUBLIC WORKS AGENCY

ROAD STANDARDS

TEMPORARY TERMINATION
OF ROAD IMPROVEMENTS

**SIGN INSTALLATION**

In dirt area

**SIGN INSTALLATION**

In sidewalk area

NOTE:

No concrete is required for sign posts installed in dirt areas.
Maintain 7' clearance to bottom of lowest sign.

ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION
DATE:

DESCRIPTION:

APPROVED BY:

J P

RECOMMENDED BY:

D F

COUNTY OF VENTURA
PUBLIC WORKS AGENCY

ROAD STANDARDS

SIGN POST INSTALLATION

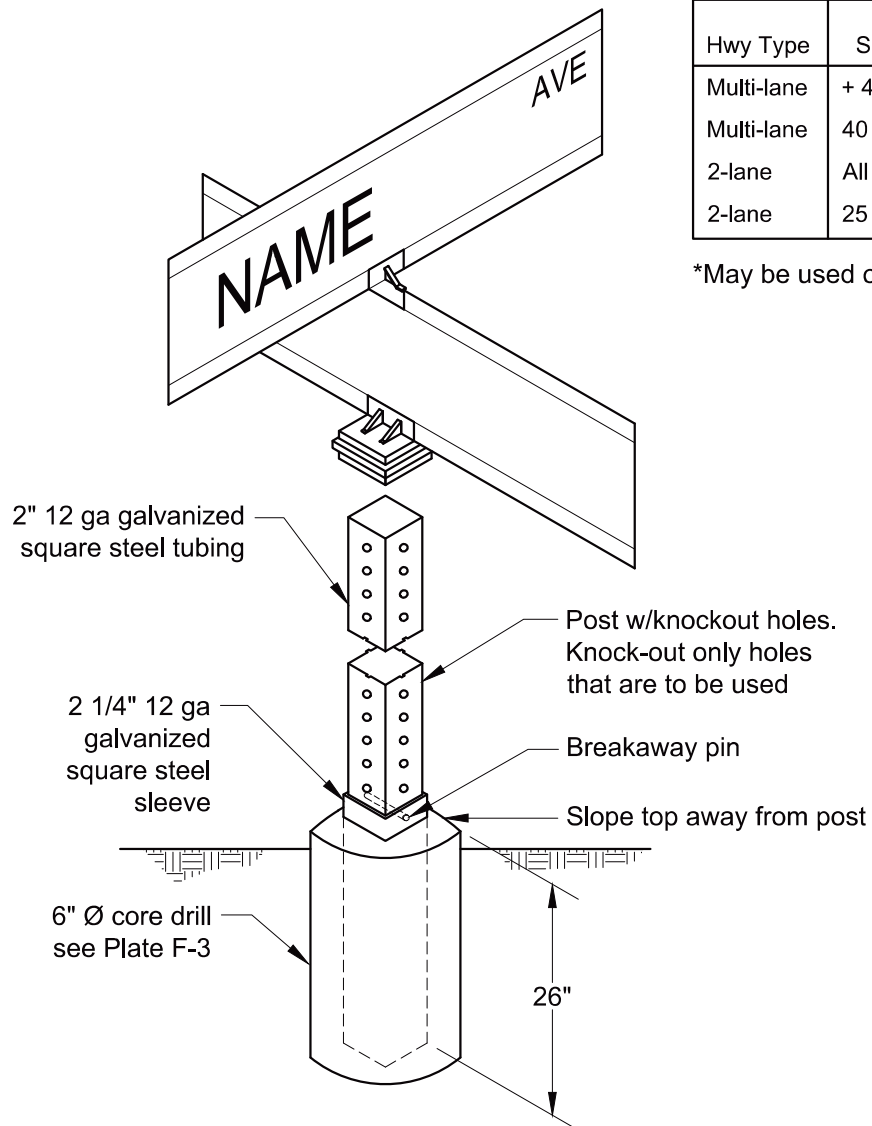
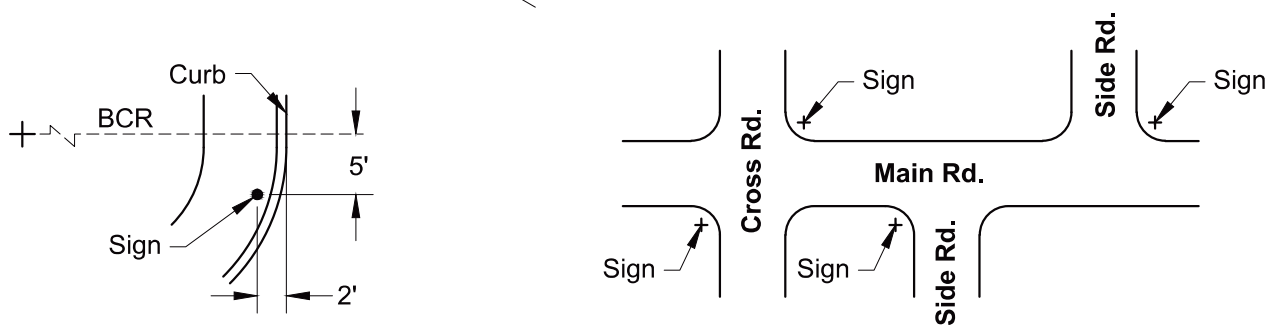


TABLE A

Hwy Type	Speed Limit	Initial Uppercase	Lowercase
Multi-lane	+ 40 mph	8 inches	6 inches
Multi-lane	40 mph or less	6 inches	4.5 inches
2-lane	All speed limits	6 inches	4.5 inches
2-lane	25 mph or less	4 inches*	3 inches*

*May be used on two-lane local roads



TYPICAL LOCATION

ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION DATE:	DESCRIPTION:	APPROVED BY:
		J P
		RECOMMENDED BY:
		D F

COUNTY OF VENTURA
PUBLIC WORKS AGENCY

ROAD STANDARDS

ROAD INTERSECTION
NAME SIGN

PRIVATE ROAD NAME SIGNS

**ROAD NAME
PRIVATE**

Where a private road intersecting a county road is designed in accordance with Plate D-5 or D-6, a private road name sign may be installed on the same post with a county road name sign.

In all other cases, the private road name sign shall not be within the road right-of-way.

SPECIFICATIONS

DESIGN: Signs shall consist of two double face signs and have a positive locking device which will keep the signs mounted at right angles. The road name shall appear on the sign as shown on the official Record Map.

MATERIAL: Signs shall be commercially available signs meeting the State of California Department of Transportation (CALTRANS) specifications and the California Manual on Uniform Traffic Control Devices. Signs and fittings shall be made of aluminum, anodized or processed, to prevent corrosion.

FINISH: Signs shall have retroreflective high intensity sheeting applied per CALTRANS and CAMUTCD specifications. Background to be green, letters and numerals to be white.

LETTERING: Road name letter height shall be as shown in Table A, Plate F-4. The letter style shall conform to the CAMUTCD.

GUARANTEE: All road signs shall be guaranteed for seven years against chalking and/or fading due to normal atmospheric corrosion.

ADOPTED BY BOARD OF SUPERVISORS: 05-16-2017

REVISION DATE:	DESCRIPTION:	APPROVED BY:
		J P
		RECOMMENDED BY:
		D F

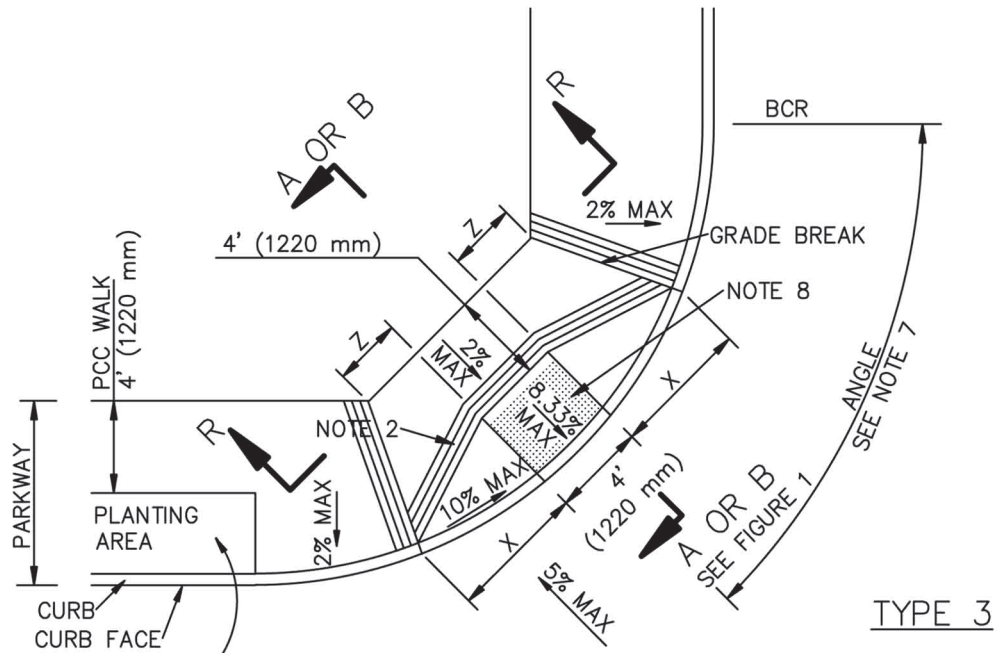
**COUNTY OF VENTURA
PUBLIC WORKS AGENCY**

ROAD STANDARDS

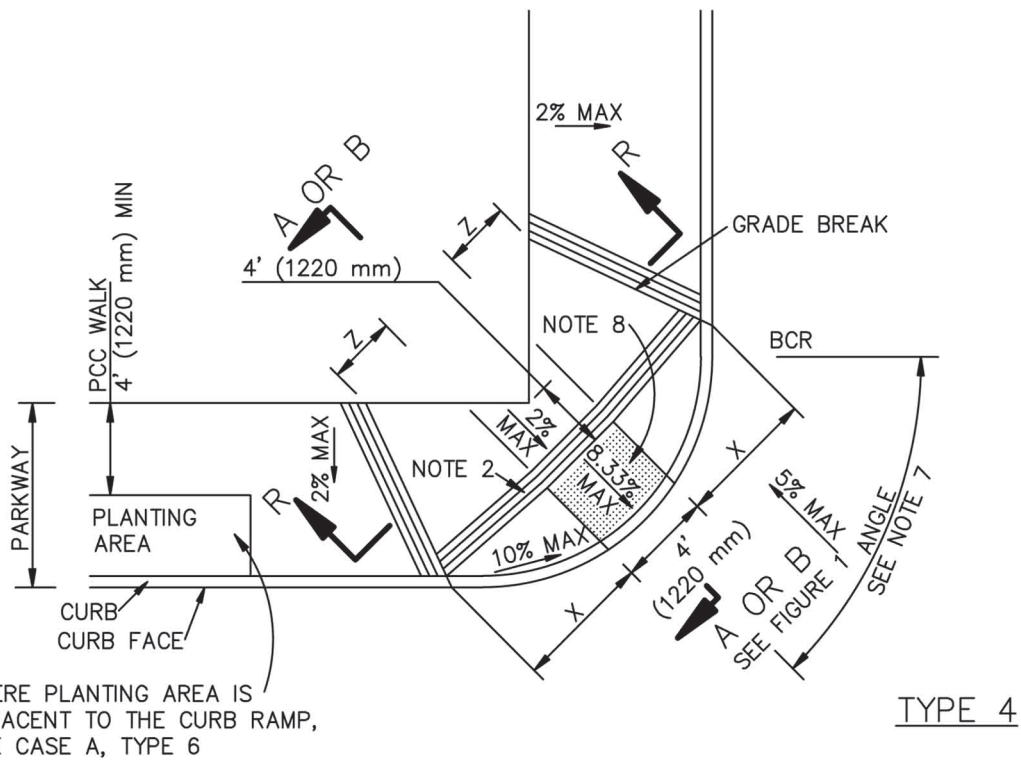
**ROAD INTERSECTION
NAME SIGN SPECIFICATIONS**



SHEET 1 OF 10

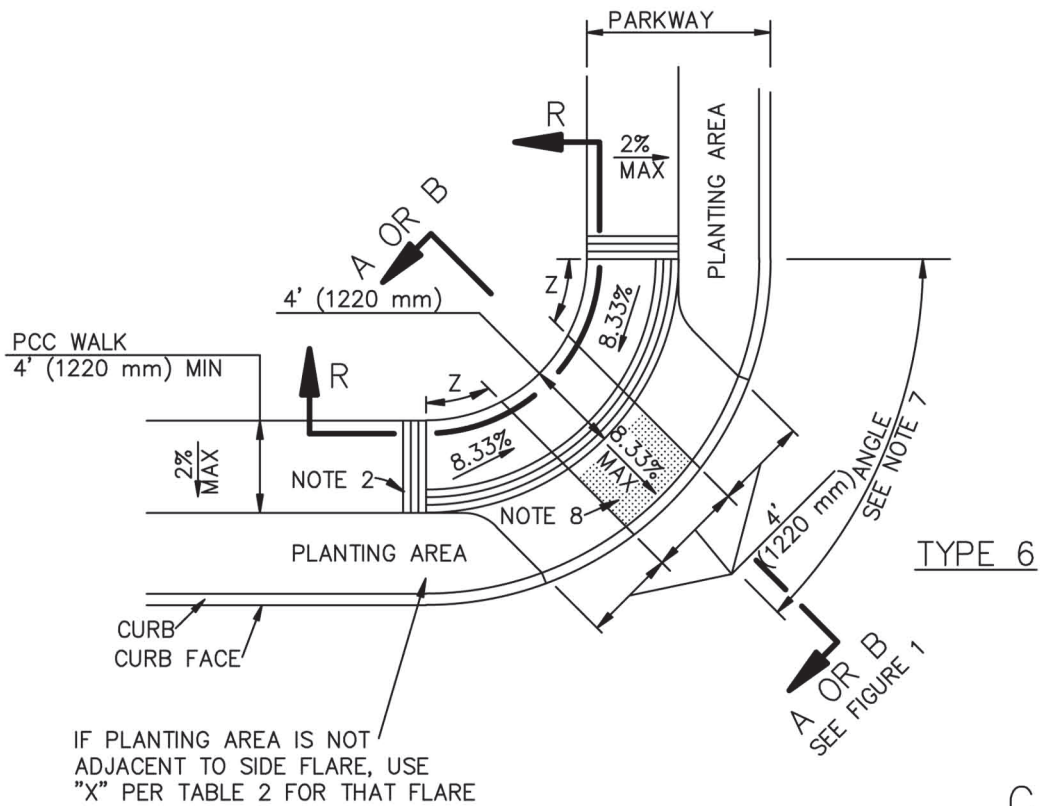
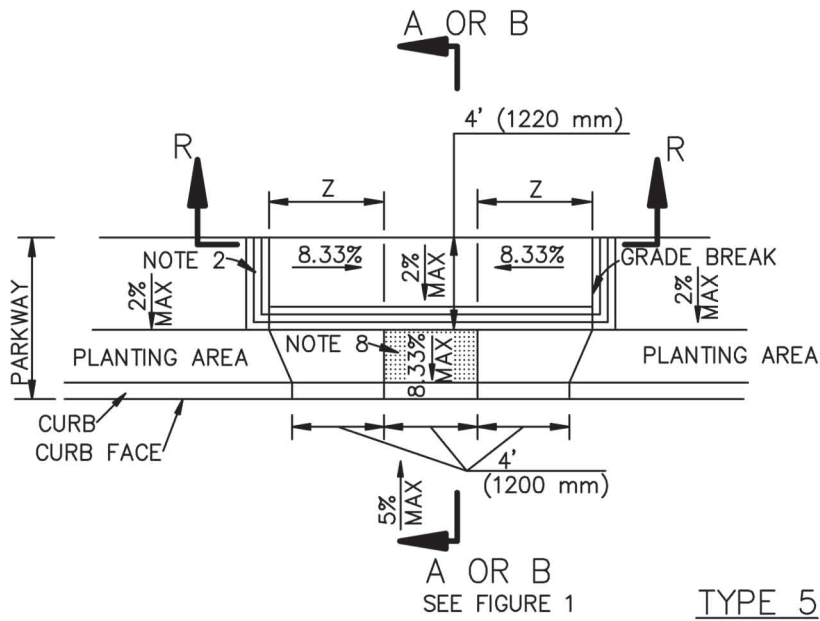


WHERE PLANTING AREA IS
ADJACENT TO THE CURB RAMP,
USE CASE A, TYPE 6



WHERE PLANTING AREA IS /
ADJACENT TO THE CURB RAMP,
USE CASE A, TYPE 6

CASE A



STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

CURB RAMP

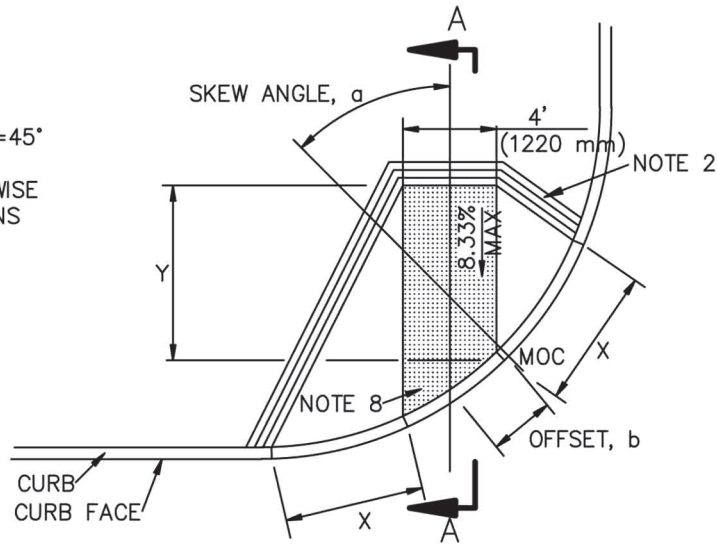
STANDARD PLAN

111-5

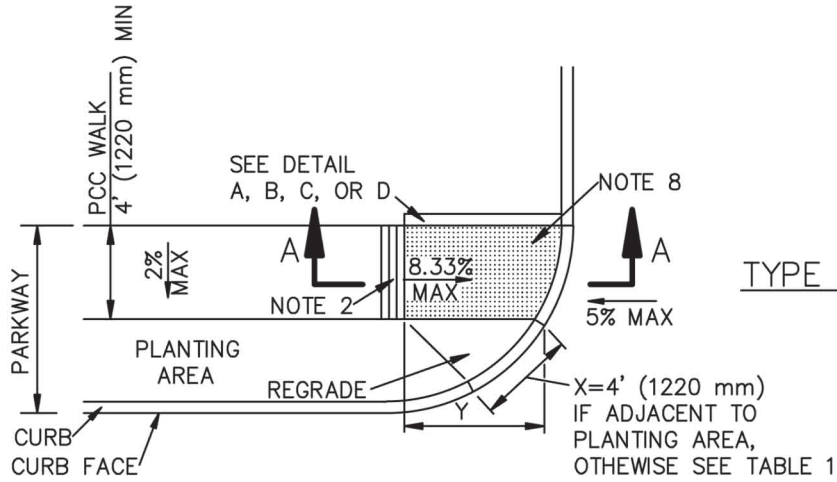
SHEET 3 OF 10



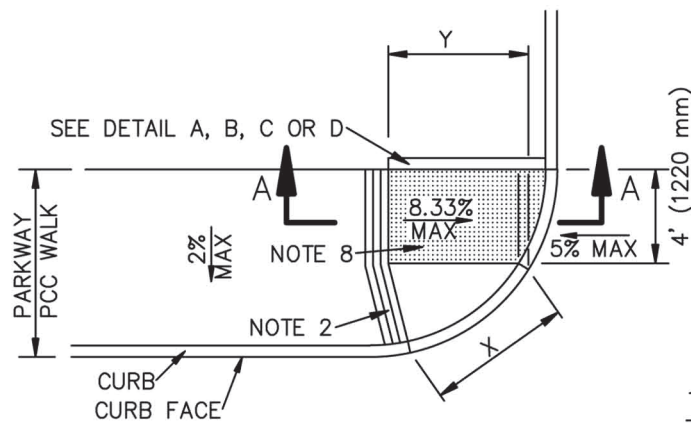
SKEW ANGLE $\alpha=45^\circ$
 OFFSET $b=0$
 UNLESS OTHERWISE
 NOTED ON PLANS



CASE C

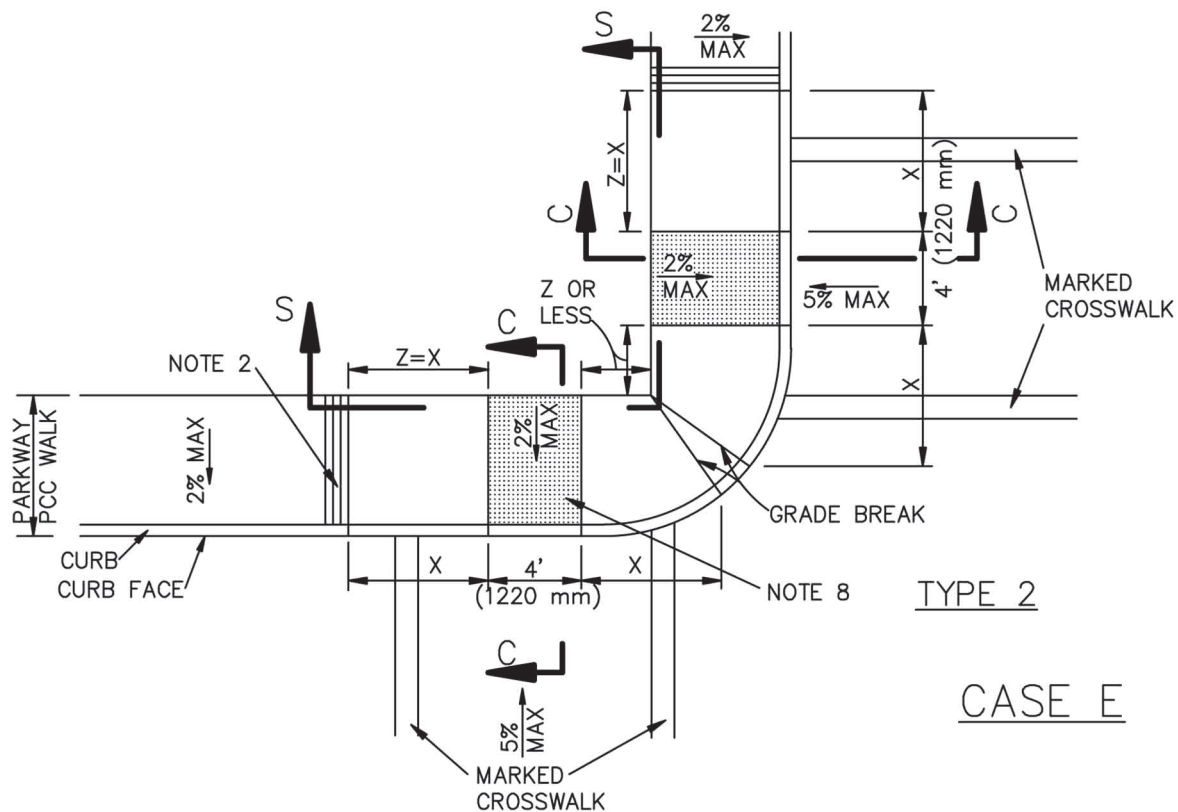
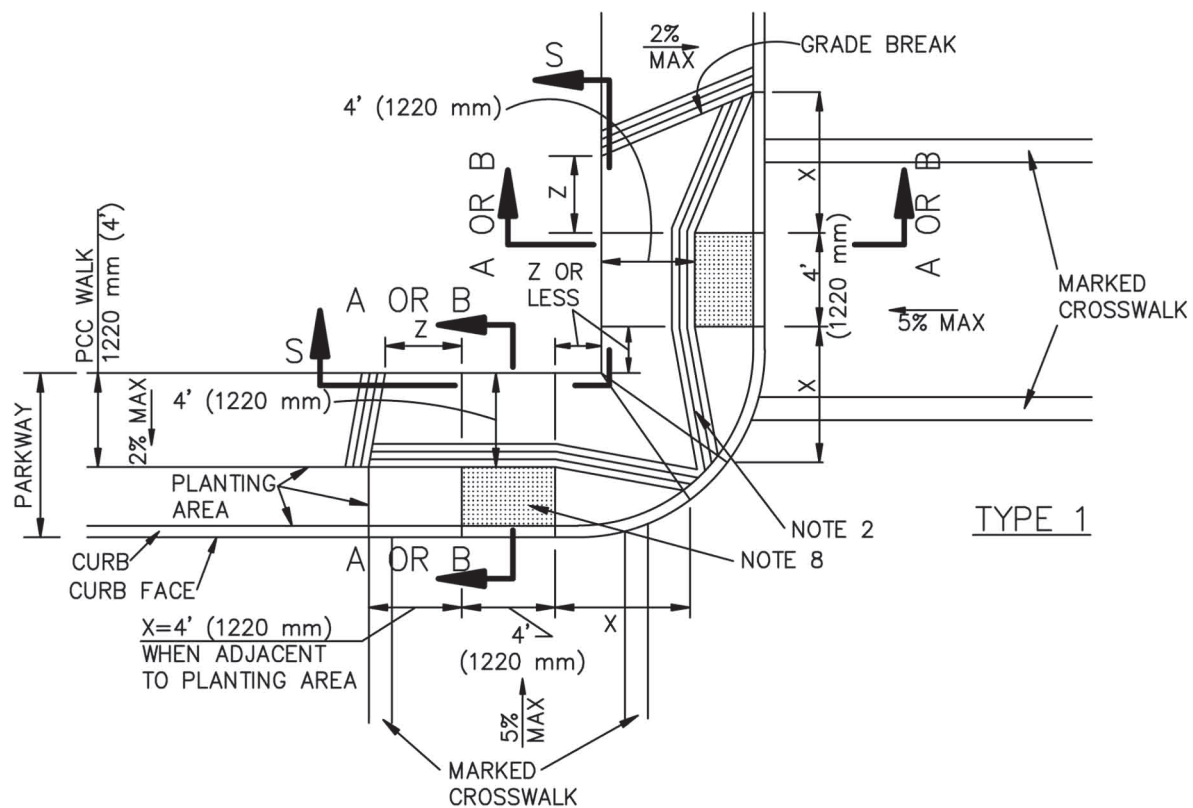


TYPE 1

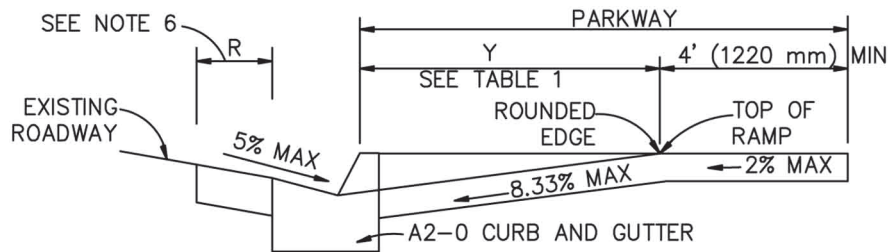


TYPE 2

CASE D

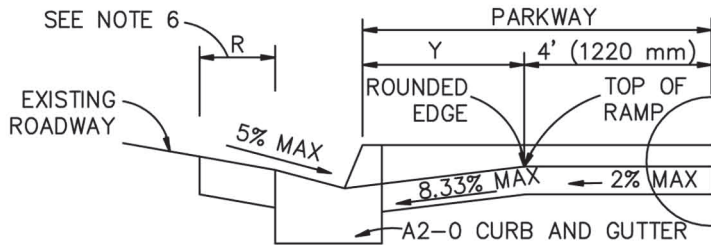


CASE E



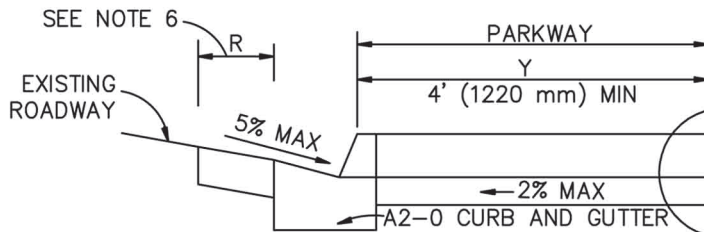
SECTION A-A

USE FIGURE 1 TO DETERMINE WHICH OF SECTIONS A-A, B-B OR C-C IS APPROPRIATE.



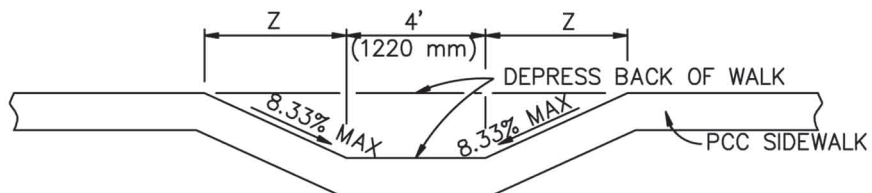
SECTION B-B

DEPRESS BACK OF WALK
SEE DETAIL A, B, C OR D,
SHEET 10.

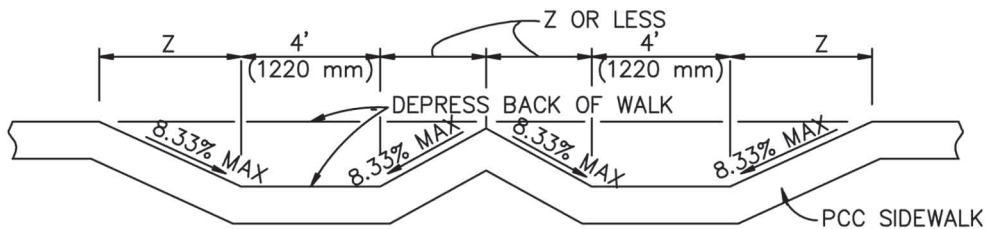


SECTION C-C

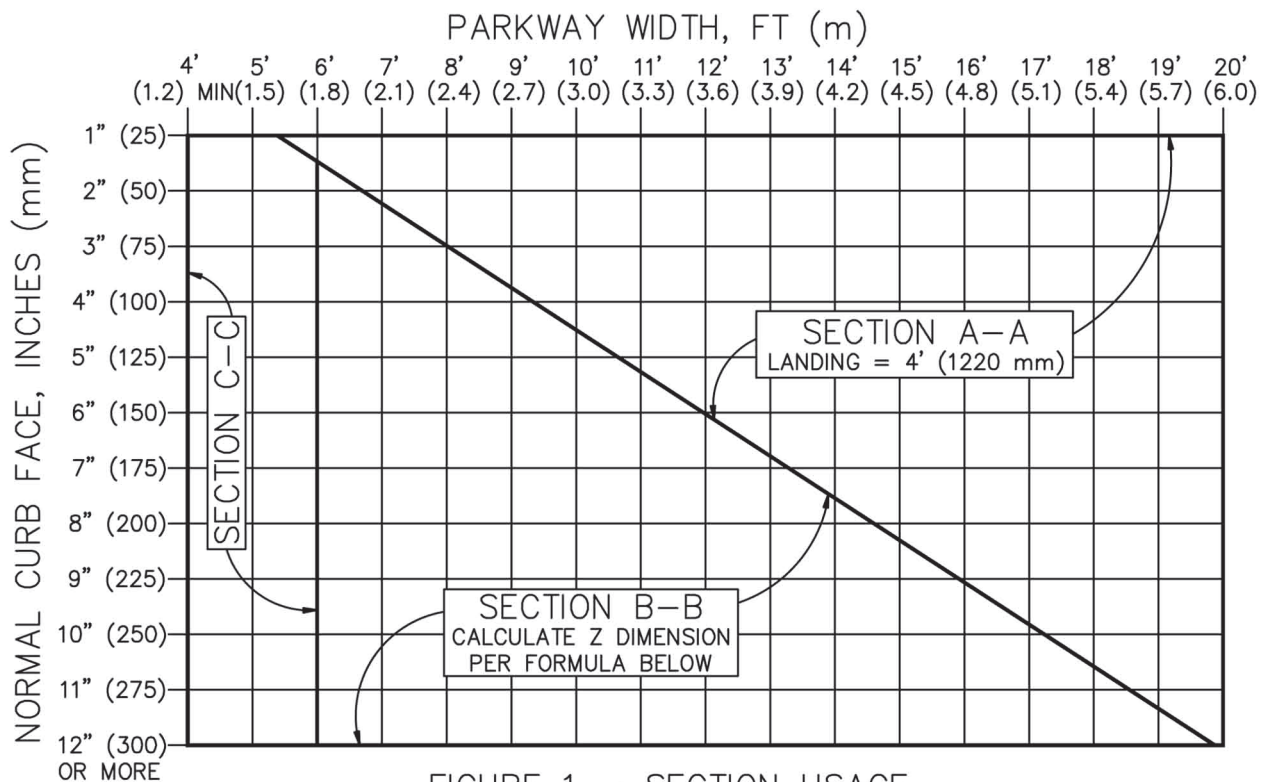
DEPRESS BACK OF WALK
SEE DETAIL A, B, C OR D,
SHEET 10.



SECTION R-R



SECTION S-S



NORMAL CURB FACE, INCHES (mm)	X, FT (mm)	SECTION Y-Y Y, FT (mm)
2" (50)	4.00' (1220) MIN	2.63' (790)
3" (75)	4.00' (1220) MIN	3.95' (1185)
4" (100)	4.00' (1220) MIN	5.26' (1580)
5" (125)	4.17' (1275)	6.58' (1975)
6" (150)	5.00' (1525)	7.90' (2370)
7" (175)	5.83' (1775)	9.21' (2765)
8" (200)	6.67' (2035)	10.53' (3160)
9" (225)	7.50' (2285)	11.84' (3555)
10" (250)	8.33' (2540)	13.16' (3950)
11" (275)	9.17' (2795)	14.47' (4340)
12" (300)	10.00' (3050)	15.79' (4735)

WHERE FIGURE 1 SHOWS USE OF SECTION B-B, FIGURE Z DIMENSION AS FOLLOWS:

W = PARKWAY WIDTH
L = LANDING WIDTH, 4' (1220 mm) TYP
 $Z = [(Y+L)-W] \times 0.760$

IF $(Y+L) < W$, THEN $Z = 0$

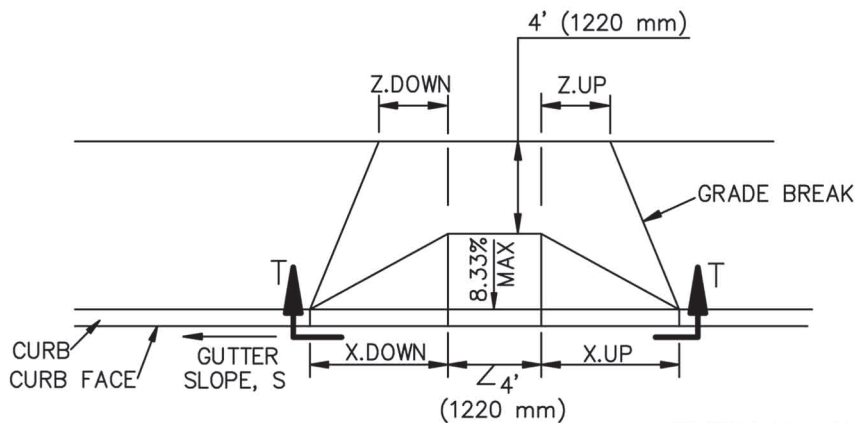
SEE SHEET 9 FOR STREET SLOPE
ADJUSTMENT FACTORS, ALL STREETS

TABLE 1 – X AND Y VALUES

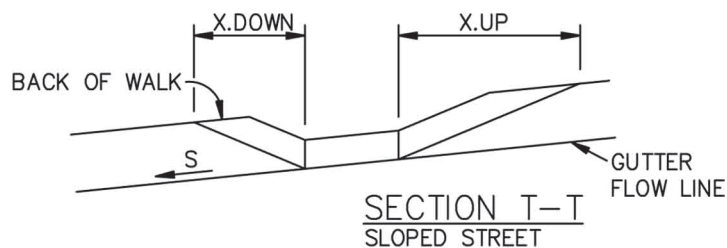
TABLE 1 REFERENCE FORMULAS:

$X = CF / 8.333\%$

$Y = CF / (8.333\% - 2\% \text{ WALK CROSS SLOPE})$



TYPICAL CURB RAMP



SECTION T-T
SLOPED STREET

FOR SLOPED STREETS, MULTIPLY THE DIMENSIONS PARALLEL TO THE STREET, X AND Z, UPSTREAM AND DOWNSTREAM OF THE RAMP, BY THE FACTORS IN THE FOLLOWING TABLE.

FOR EXAMPLE, $X.DOWN = X \times K.DOWN$

S	K.DOWN	K.UP
0%	1.000	1.000
0.2%	0.977	1.025
0.5%	0.943	1.064
1%	0.893	1.136
2%	0.806	1.316
3%	0.735	1.563
4%	0.676	1.923
5%	0.625	2.500

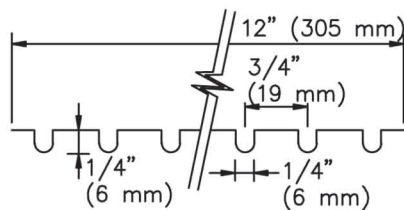
TABLE 2 – SLOPE ADJUSTMENTS

TABLE 2 REFERENCE FORMULAS:

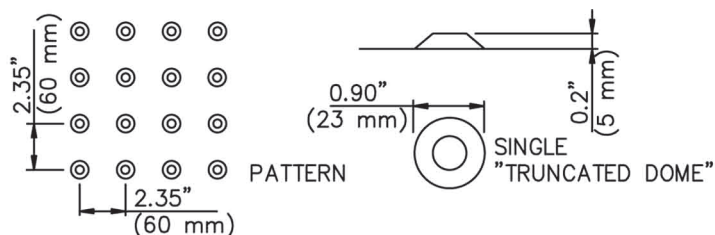
$$K.DOWN = 8.333\% / (8.333\% + S)$$

$$K.UP = 8.333\% / (8.333\% - S)$$

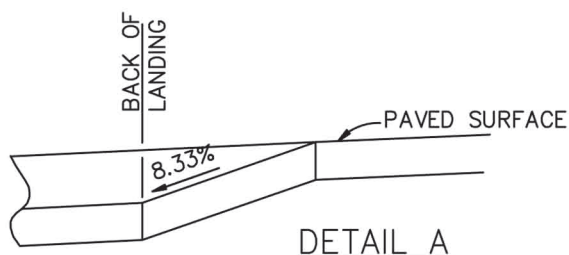
STREET SLOPE ADJUSTMENTS



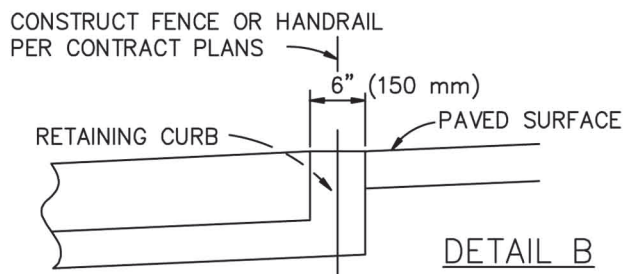
GROOVING DETAIL



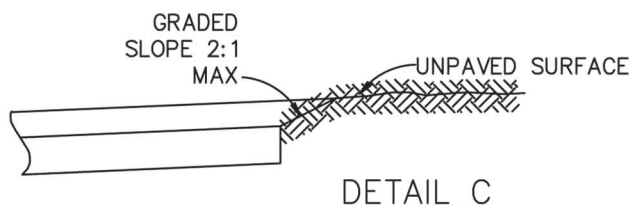
DETECTABLE WARNING DETAIL



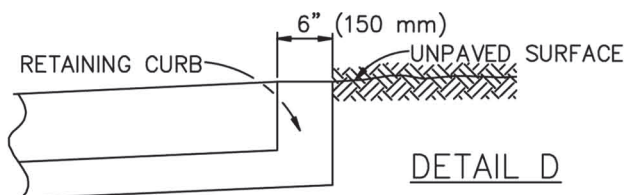
DETAIL A



DETAIL B



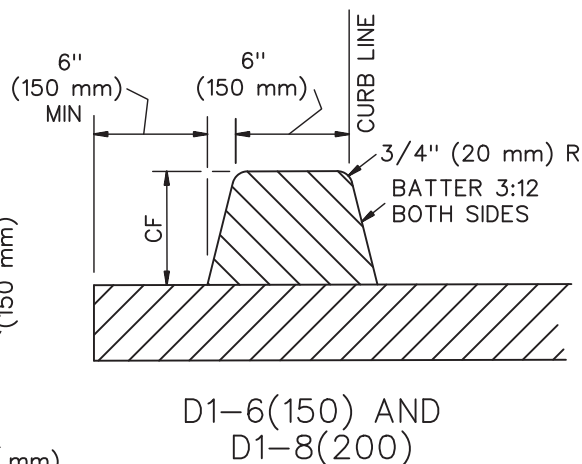
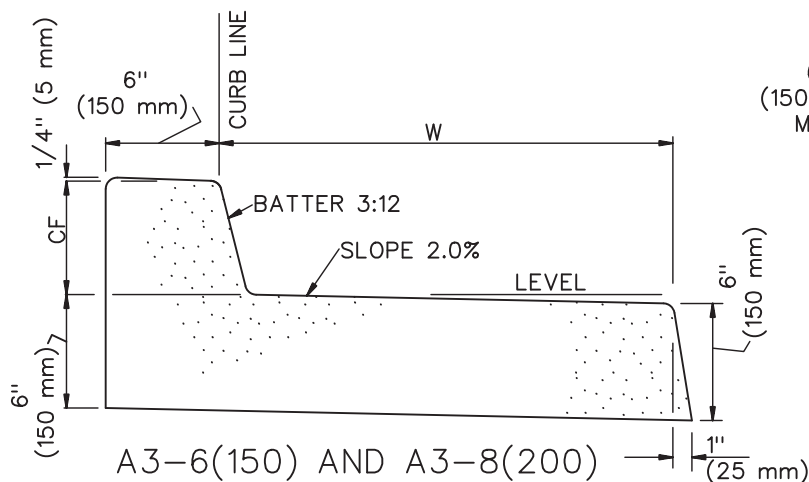
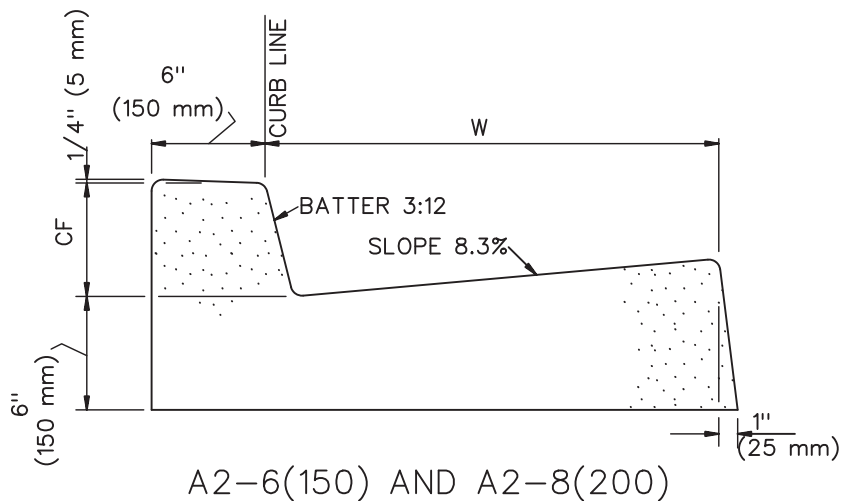
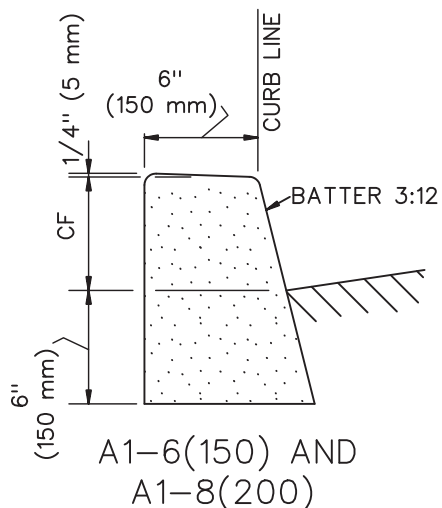
DETAIL C



DETAIL D

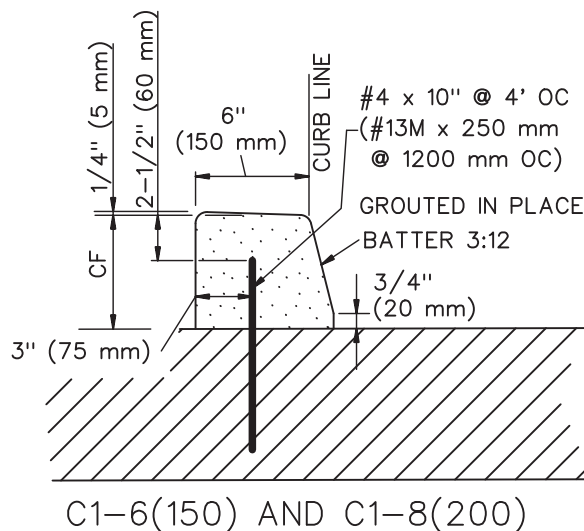
GENERAL NOTES:

1. CONCRETE SHALL BE CLASS 520-C-2500 (310-C-17) CONFORMING TO SSPWC 201-1.1.2 AND SHALL BE 4" (100 mm) THICK.
2. THE RAMP SHALL HAVE A 12" (305 mm) WIDE BORDER WITH 1/4" (6 mm) GROOVES APPROXIMATELY 3/4" (19 mm) OC. SEE GROOVING DETAIL.
3. THE RAMP SURFACE SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE CONFORMING TO SSPWC 303-1.9.
4. USE DETAIL "A" OR "B" IF EXISTING SURFACE BEHIND LANDING IS PAVED.
5. USE DETAIL "C" OR "D" IF EXISTING SURFACE BEHIND LANDING IS UNPAVED.
6. $R = 3'$ (900 mm) UNLESS OTHERWISE SHOWN ON PLAN. SEE SHEET 7.
7. $ANGLE = \Delta/2$ UNLESS OTHERWISE SHOWN ON PLAN.
8. CONSTRUCT DETECTABLE WARNING SURFACE PER DETAIL THIS SHEET. MATERIALS SHALL BE PER CONTRACT DOCUMENTS.



NOTES:

1. THE LAST NUMBER IN THE DESIGNATION IS THE CURB FACE (CF) HEIGHT, INCHES (mm). IF SHOWN AS 'VAR' THE CURB FACE VARIES.
2. GUTTER WIDTH, W, IS 24" (600 mm) UNLESS OTHERWISE SPECIFIED.
3. TYPES A1, A2, A3 AND C1 SHALL BE CONSTRUCTED OF CONCRETE.
4. TYPE D1 CURB SHALL BE CONSTRUCTED OF ASPHALT CONCRETE.
5. TYPE C1 CURB SHALL BE ANCHORED WITH STEEL DOWELS AS SHOWN OR WITH AN EPOXY APPROVED BY THE ENGINEER.
6. ALL EXPOSED CORNERS ON CONCRETE CURBS AND GUTTERS SHALL BE ROUNDED WITH A 1/2" (15 mm) RADIUS.



STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1984
REV. 1986, 2009, 2021

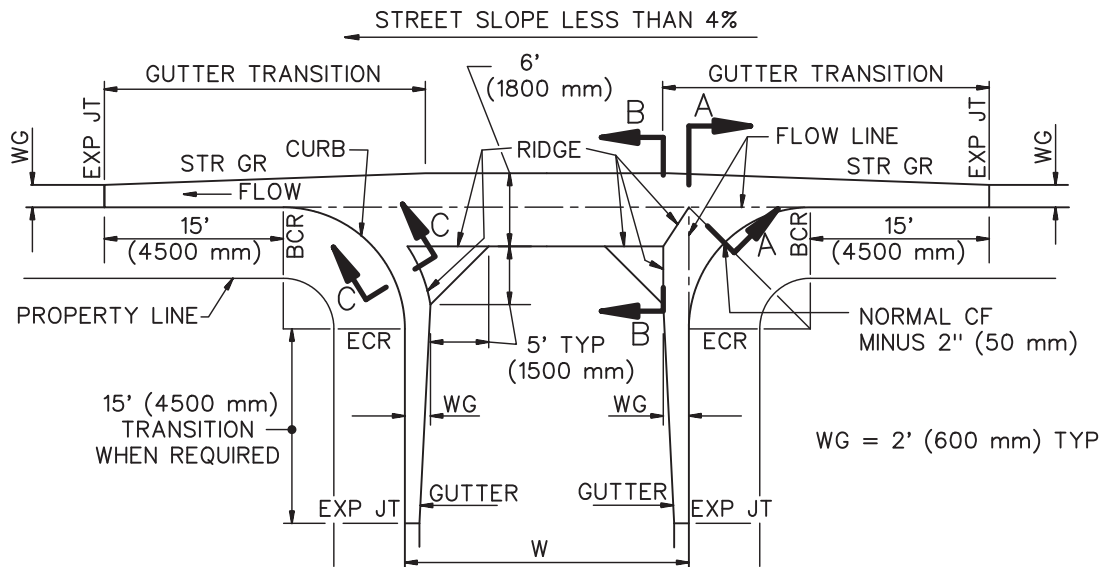
CURB AND GUTTER – BARRIER

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

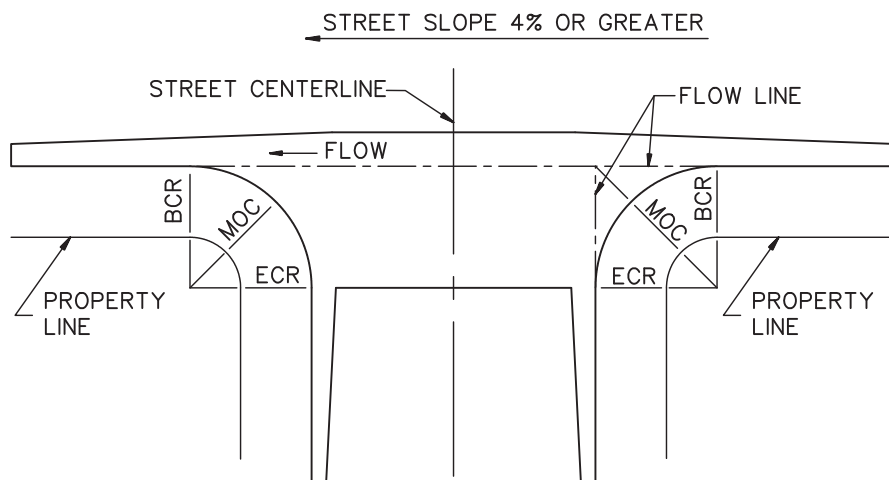
STANDARD PLAN

120-3

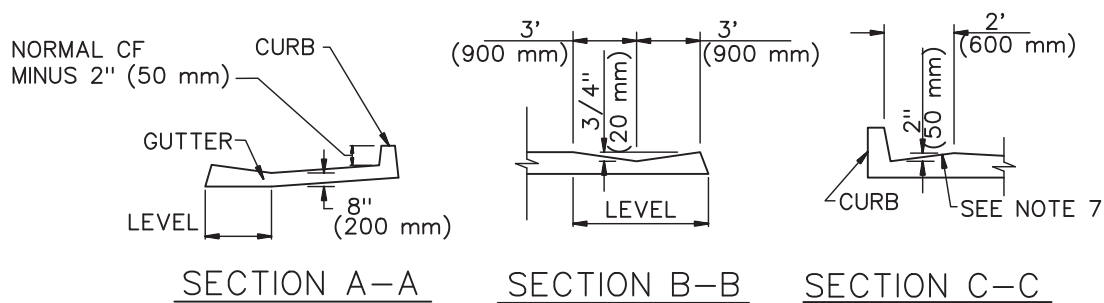
SHEET 1 OF 1



TYPICAL CROSS GUTTER PLAN
STREET SLOPE LESS THAN 4%



TYPICAL CROSS GUTTER PLAN
STREET SLOPE 4% OR GREATER



STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1984
REV. 1993, 2009, 2021

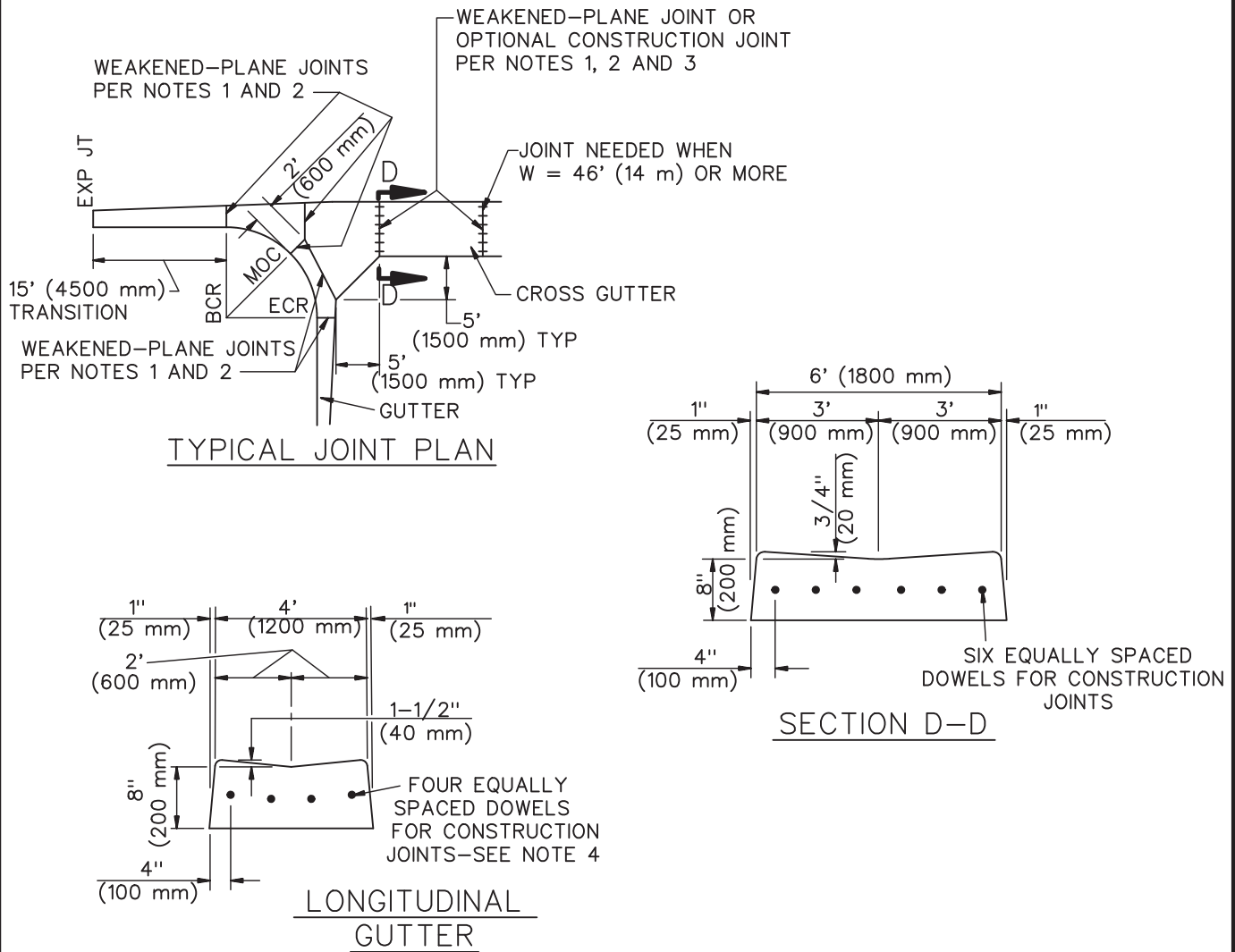
CROSS AND LONGITUDINAL GUTTERS

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

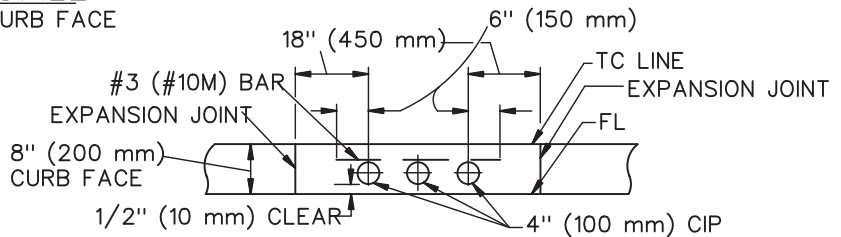
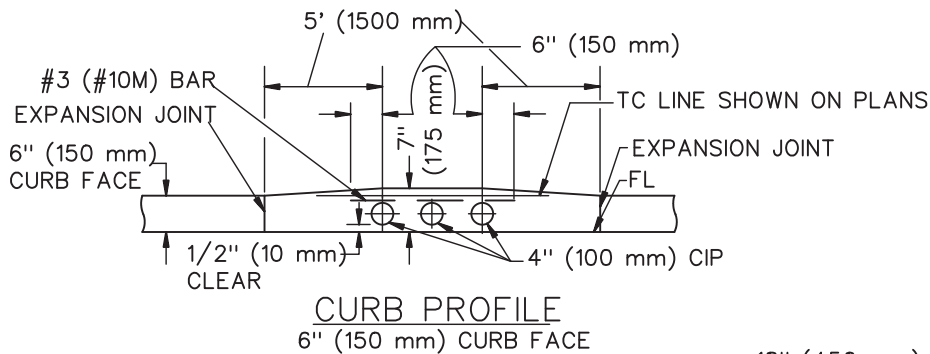
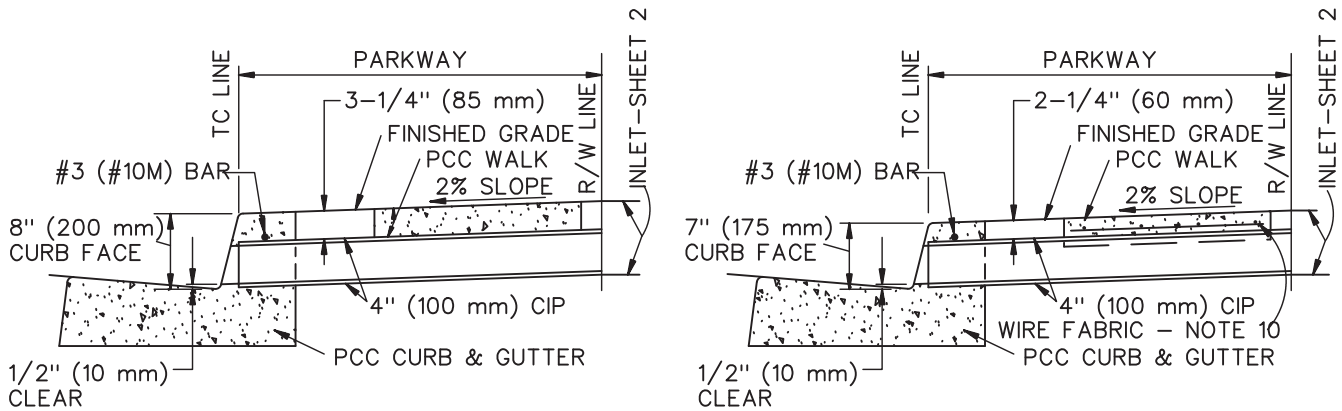
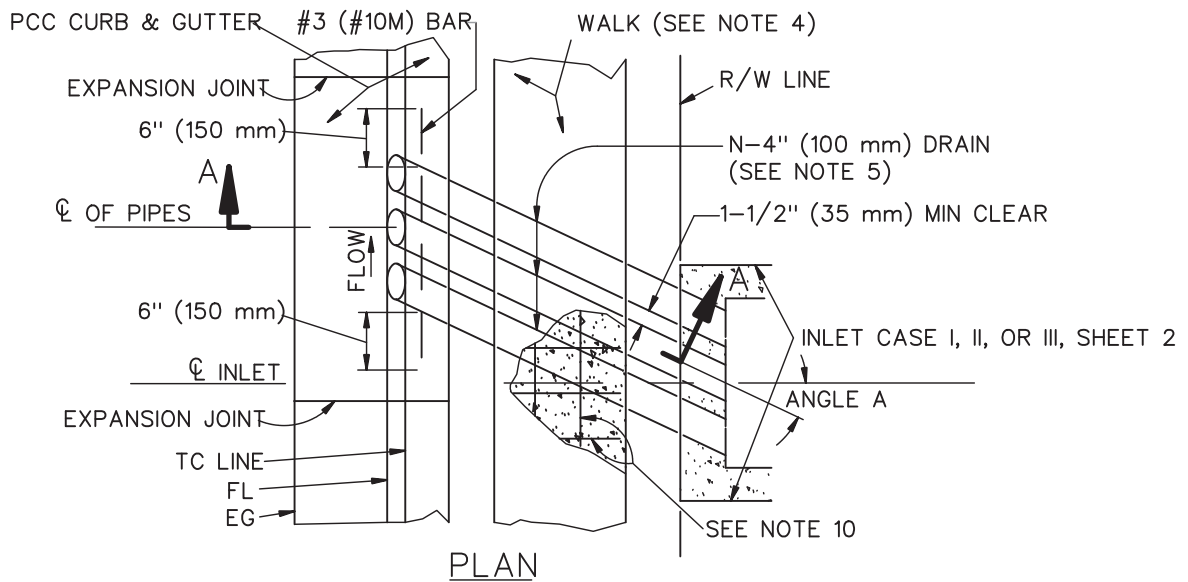
122-3

SHEET 1 OF 2



NOTES:

1. WEAKENED-PLANE AND/OR CONSTRUCTION JOINTS SHALL BE PLACED IN CURB AND GUTTER AT LOCATIONS SHOWN ON THE TYPICAL JOINT PLAN HEREON.
2. WEAKENED-PLANE JOINTS SHALL BE PLASTIC CONTROL JOINTS OR 1-1/2" (40 mm) DEEP SAW CUTS. CONCRETE SAWING SHALL TAKE PLACE WITHIN 24 HOURS AFTER CONCRETE IS PLACED.
3. DOWELS FOR CONSTRUCTION JOINTS SHALL BE #4 BARS 18" LONG (#13M BARS 450 mm LONG).
4. PLACE A WEAKENED-PLANE OR CONSTRUCTION JOINT WHERE LONGITUDINAL ALLEY GUTTER JOINS CONCRETE ALLEY INTERSECTION.
5. ALL EXPOSED CORNERS ON PCC CURBS AND GUTTERS SHALL BE ROUNDED WITH 1/2" (15 mm) RADIUS.
6. CONCRETE SHALL BE INTEGRAL WITH CURB UNLESS OTHERWISE SPECIFIED.
7. ADJACENT TO CURB RAMPS, CONCRETE SLOPE SHALL BE 5% MAXIMUM FOR A DISTANCE OF 5 FEET (1525 mm) FROM THE CURB FACE FOR THE WIDTH OF THE WIDTH OF THE RAMP, NOT INCLUDING SIDE TRANSITION CURBS.



NOTE: PROFILES APPLY TO ANY NUMBER OF PIPES

CURB PROFILE
8" (200 mm) CURB FACE

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1984
REV. 1992, 1996, 2009, 2021

CURB DRAIN

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

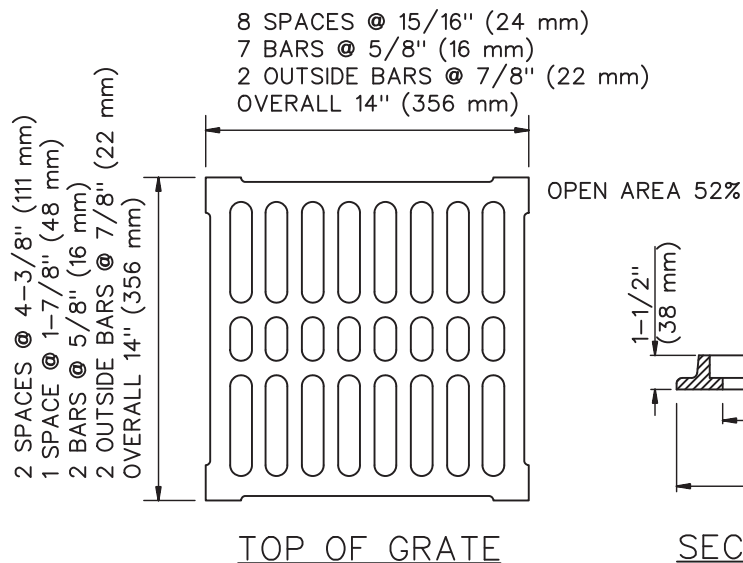
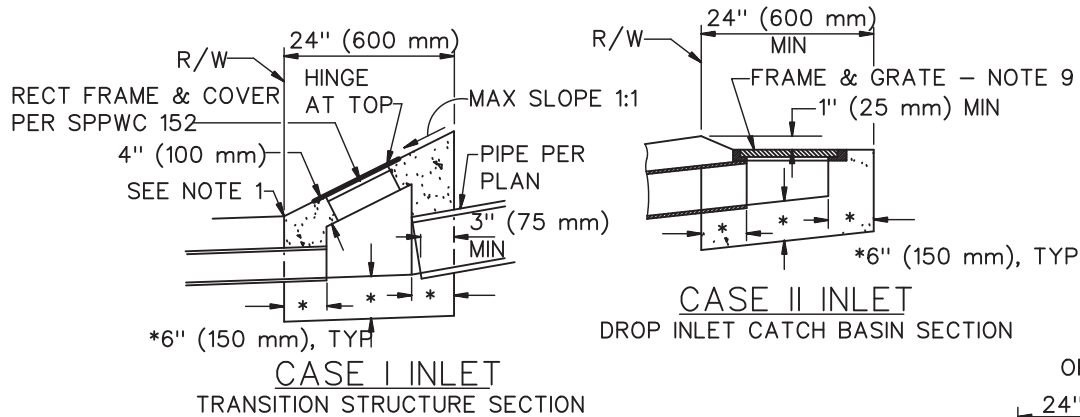
STANDARD PLAN

150-4

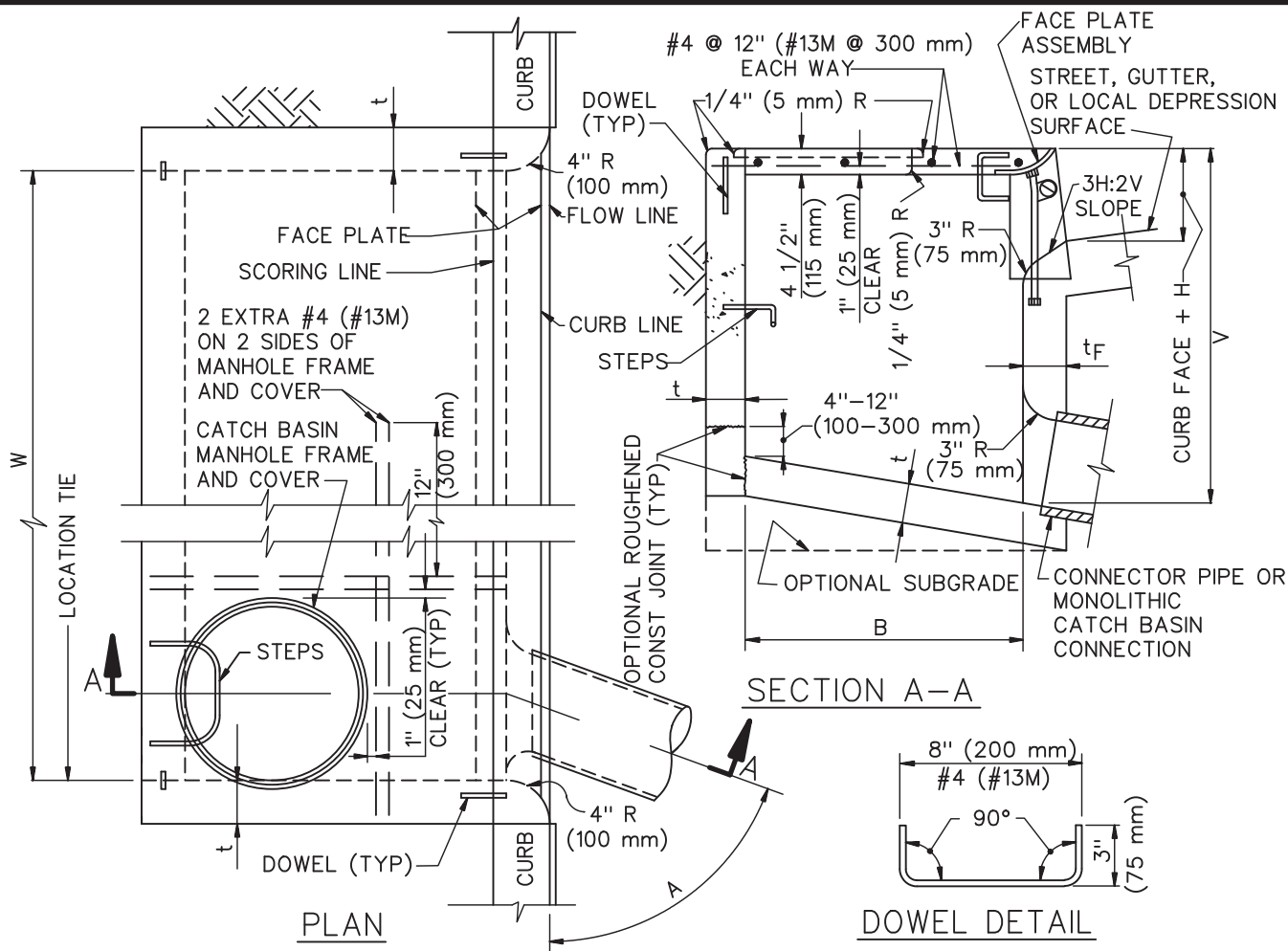
SHEET 1 OF 2

NOTES

1. IF THE TOE OF SLOPE IS ALLOWED WITHIN THE R/W, CASE I INLET BEGINS AT THE TOE RATHER THAN THE R/W LINE.
2. FOR OPEN DITCH (CASE III INLET), THE 24" (600 mm) EXTENSION BEYOND THE R/W LINE IS NOT REQUIRED WHEN BACK OF WALK IS 24" (600 mm) OR MORE FROM THE R/W LINE; HOWEVER, PIPE SHALL EXTEND TO R/W LINE.
3. TOP OF INLET STRUCTURE (CASE I AND II) SHALL BE FLUSH WITH ADJACENT SURFACE WHERE PRACTICAL.
4. CONSTRUCT PCC WALK WHEN SPECIFIED ON PLAN.
5. "N" EQUALS NUMBER OF PIPES (MAXIMUM OF THREE) AS SPECIFIED ON PLAN.
6. INLET CASE TO BE SPECIFIED ON PLAN.
7. ANGLE A EQUALS 0°, UNLESS OTHERWISE SPECIFIED.
8. TYPE, DIMENSIONS AND ELEVATIONS OF PCC. CURB AND GUTTER PER PLAN.
9. UNLESS OTHERWISE SPECIFIED, FRAME AND GRATE FOR CASE II INLET SHALL BE GALVANIZED CAST IRON. WEIGHT OF FRAME AND GRATE SHALL BE 80 LBS (36 kg).
10. AT LOCATIONS WITH LESS THAN 8" (200 mm) CURB FACE, USE 6x6-W1.4xW1.4 (152x152-MW9.1xMW9.1) GALVANIZED WIRE FABRIC. WIRE FABRIC SHALL EXTEND 8" (200 mm) BEYOND THE EDGE OF CAST IRON PIPES.



GRATE FOR CASE II INLET



STRUCTURAL DATA							
WALL AND SLAB DIMENSIONS AND REINFORCEMENT REQUIREMENTS							
MAX W	MAX V	t	t _F	REINFORCEMENT REQUIRED IN			
				FRONT WALL	REAR WALL	BOTTOM SLAB	END WALL
3.5' (1.0 m)	8' (2.4 m)	6" (150 mm)	6" (150 mm)	NO	REINFORCEMENT	REQUIRED	
3.5' (1.0 m)	12' (3.6 m)	8" (200 mm)	8" (200 mm)				
7' (2.0 m)	6' (1.8 m)	6" (150 mm)	6" (150 mm)				
7' (2.0 m)	12' (3.6 m)	8" (200 mm)	8" (200 mm)				
14' (4.0 m)	4' (1.2 m)	6" (150 mm)	6" (150 mm)	REINFORCEMENT	REQUIRED	REQUIRED	
	8' (2.4 m)	6" (150 mm)	8" (200 mm)				
	12' (3.6 m)	8" (200 mm)	10" (250 mm)				
21' (6 m) AND 28' (9 m)	4' (1.2 m)	6" (150 mm)	6" (150 mm)				
	6' (1.8 m)	6" (150 mm)	8" (200 mm)				
	8' (2.4 m)	8" (200 mm)	8" (200 mm)				
	10' (3.0 m)	8" (200 mm)	10" (250 mm)				
	12' (3.6 m)	8" (200 mm)	10" (250 mm)				

FOR W > 28' (9 m), V > 12' (3.6 m) OR B > 4' (1.2 m), SEE PLANS

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1984
REV. 1992, 1996, 2009, 2021

CURB OPENING CATCH BASIN

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

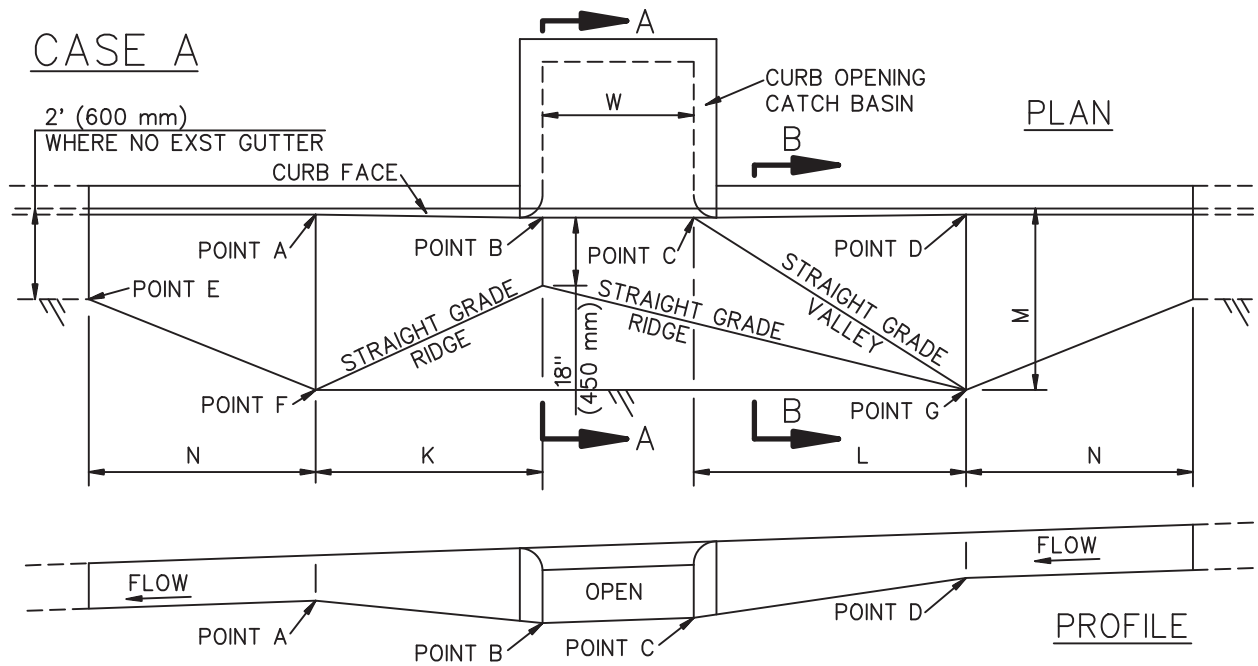
300-4

SHEET 1 OF 2

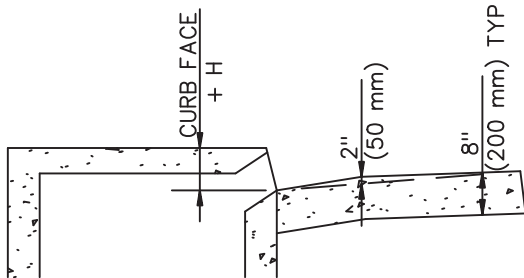
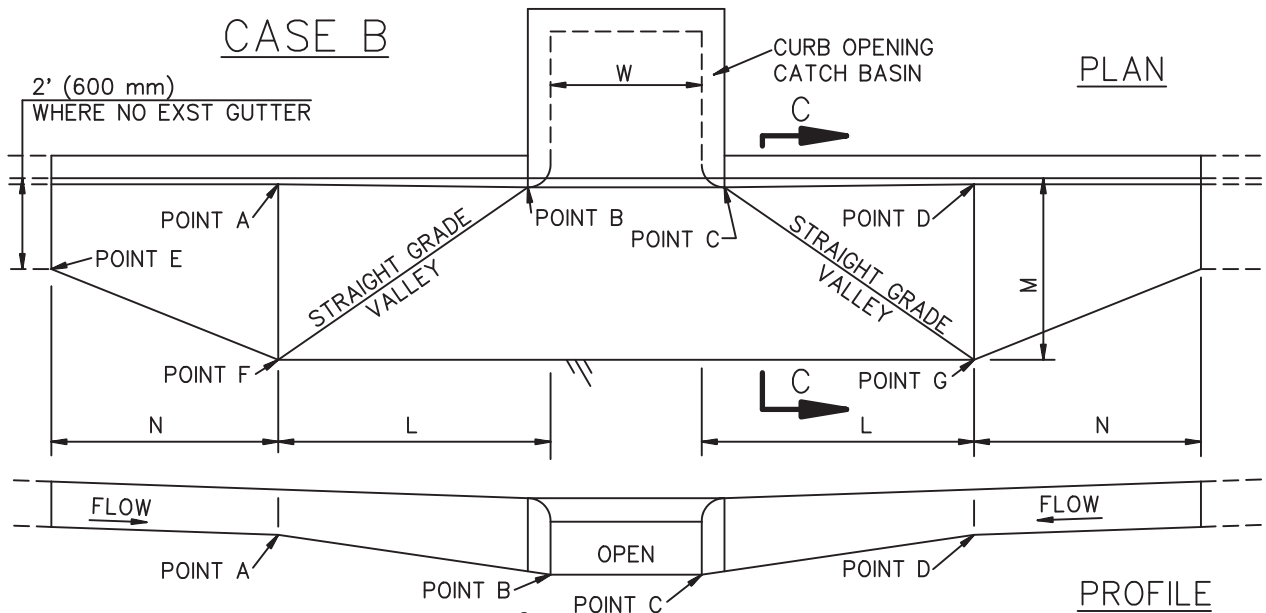
NOTES:

1. WHERE THE BASIN IS TO BE CONSTRUCTED WITHIN THE LIMITS OF EXISTING OR PROPOSED SIDEWALK OR IS CONTIGUOUS TO SUCH SIDEWALK, THE TOP SLAB OF THE BASIN MAY BE POURED EITHER MONOLITHIC WITH THE SIDEWALK OR SEPARATELY, USING THE SAME CLASS OF CONCRETE AS IN THE BASIN. WHEN POURED MONOLITHICALLY, THE SIDEWALK SHALL BE PROVIDED WITH A WEAKENED PLANE OR A 1" (25 mm) DEEP SAWCUT CONTINUOUSLY AROUND THE EXTERNAL PERIMETER OF THE CATCH BASIN WALLS, INCLUDING ACROSS THE FULL WIDTH OF THE SIDEWALK. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SLOPE, GRADE, COLOR, FINISH, AND SCORING TO EXISTING OR PROPOSED CURB AND WALK ADJACENT TO THE BASIN.
2. ALL CURVED CONCRETE SURFACES SHALL BE FORMED BY CURVED FORMS, AND SHALL NOT BE SHAPED BY PLASTERING.
3. FLOOR OF BASIN SHALL BE GIVEN A STEEL TROWEL FINISH AND SHALL HAVE A LONGITUDINAL AND LATERAL SLOPE OF 1V:12H MINIMUM AND 1V:3H MAXIMUM, EXCEPT WHERE THE GUTTER GRADE EXCEEDS 8%, IN WHICH CASE THE LONGITUDINAL SLOPE OF THE FLOOR SHALL BE THE SAME AS THE GUTTER GRADE. SLOPE FLOOR FROM ALL DIRECTIONS TO THE OUTLET.
4. DIMENSIONS:
B = 3'-2" (970 mm) UNLESS OTHERWISE NOTED.
V = THE DIFFERENCE IN ELEVATION BETWEEN THE TOP OF THE CURB AND THE INVERT OF THE CATCH BASIN AT THE OUTLET. 4.5' (1.35 m) UNLESS OTHERWISE NOTED).
 V_U = THE DIFFERENCE IN ELEVATION BETWEEN THE TOP OF THE CURB AND THE INVERT AT THE UPSTREAM END OF THE BASIN. IT SHALL BE DETERMINED BY THE REQUIREMENTS OF NOTE 3, BUT SHALL NOT BE LESS THAN CURB FACE PLUS 12" (300 mm).
 V_I = THE DIFFERENCE IN ELEVATION BETWEEN THE TOP OF THE CURB AND THE INVERT OF THE INLET, NOTED ON THE PLANS.
H = 2" (50 mm) UNLESS OTHERWISE NOTED.
W = NOTED ON THE PLANS.
A = THE ANGLE, IN DEGREES, INTERCEPTED BY THE CENTERLINE OF THE CONNECTOR PIPE AND THE CATCH BASIN WALL TO WHICH THE CONNECTOR PIPE IS ATTACHED.
5. PLACE CONNECTOR PIPES AS INDICATED ON THE PLANS. UNLESS OTHERWISE SPECIFIED, THE CONNECTOR PIPE SHALL BE LOCATED AT THE DOWNSTREAM END OF THE BASIN. WHERE THE CONNECTOR PIPE IS SHOWN AT A CORNER, THE CENTERLINE OF THE PIPE SHALL INTERSECT THE INSIDE CORNER OF THE BASIN. THE PIPE MAY BE CUT AND TRIMMED AT A SKEW NECESSARY TO ENSURE MINIMUM 3" (75 mm) PIPE EMBEDMENT, ALL AROUND, WITHIN THE CATCH BASIN WALL, AND 3" (75 mm) RADIUS OF ROUNDING OF STRUCTURE CONCRETE, ALL AROUND, ADJACENT TO PIPE ENDS. A MONOLITHIC CATCH BASIN CONNECTION SHALL BE USED TO JOIN THE CONNECTOR PIPE TO THE CATCH BASIN WHENEVER ANGLE "A" IS LESS THAN 70° OR GREATER THAN 110°, OR WHENEVER THE CONNECTOR PIPE IS LOCATED IN A CORNER. THE OPTIONAL USE OF A MONOLITHIC CATCH BASIN CONNECTION IN ANY CASE IS PERMITTED. MONOLITHIC CATCH BASIN CONNECTIONS MAY BE CONSTRUCTED TO AVOID CUTTING STANDARD LENGTHS OF PIPE.
6. STEPS SHALL BE LOCATED AS SHOWN. IF THE CONNECTOR PIPE INTERFERES WITH THE STEPS, THEY SHALL BE LOCATED AT THE CENTERLINE OF THE DOWNSTREAM END WALL. STEPS SHALL BE SPACED 12" (300 mm) APART. THE TOP STEP SHALL BE 7" (175 mm) BELOW THE TOP OF THE MANHOLE AND PROJECT 2-1/2" (65 mm). ALL OTHER STEPS SHALL PROJECT 5" (125 mm).
7. DOWELS ARE REQUIRED AT EACH CORNER AND AT 7' (2.0 m) ON CENTER (MAXIMUM) ALONG THE BACKWALL.
8. THE FOLLOWING SPPWC ARE INCORPORATED HEREIN:
308 MONOLITHIC CATCH BASIN CONNECTION
309 CATCH BASIN REINFORCEMENT
310 CATCH BASIN FACE PLATE ASSEMBLY AND PROTECTION BAR
312 CATCH BASIN MANHOLE FRAME AND COVER
635 STEEL STEP 636 POLYPROPYLENE PLASTIC STEP

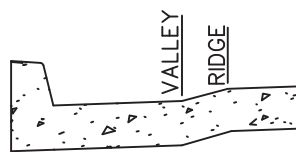
CASE A



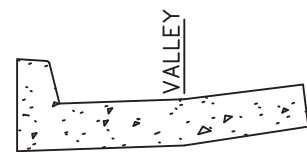
CASE B



SECTION A-A



SECTION B-B



SECTION C-C

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1984
REV. 1996, 2005, 2009, 2021

LOCAL DEPRESSIONS AT CATCH BASINS

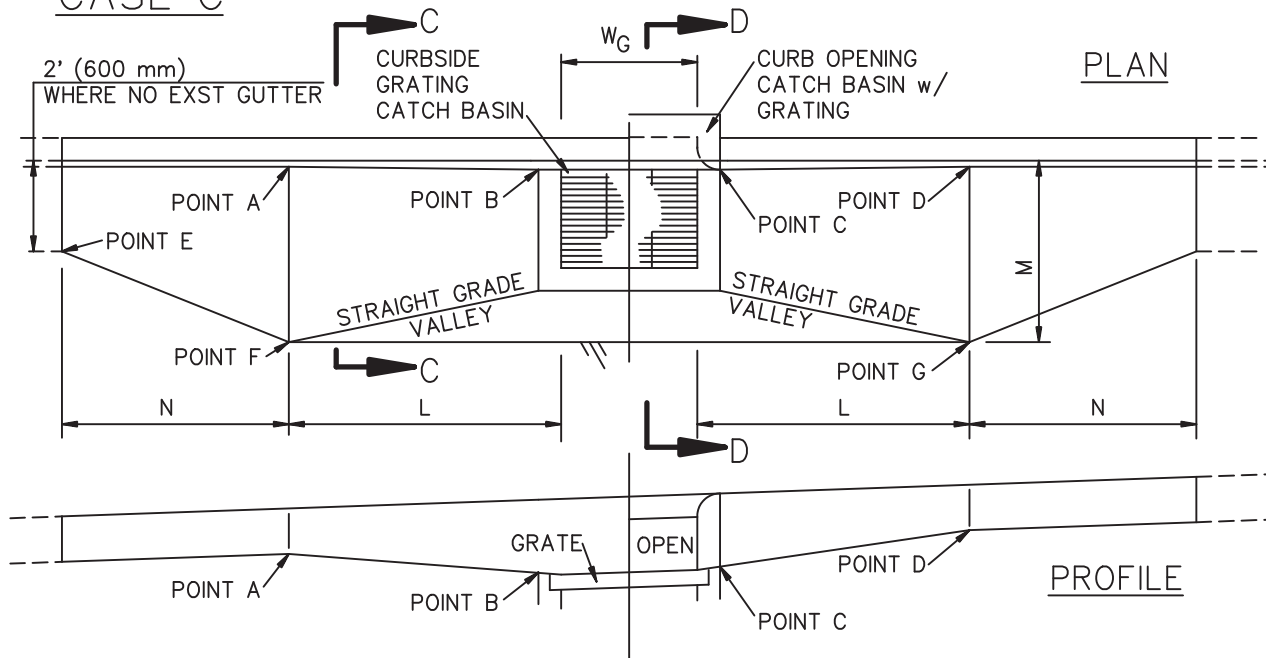
USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

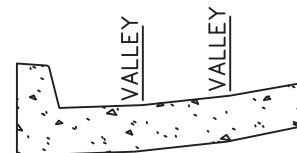
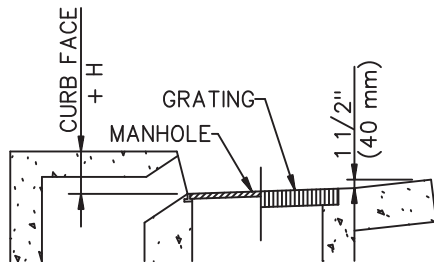
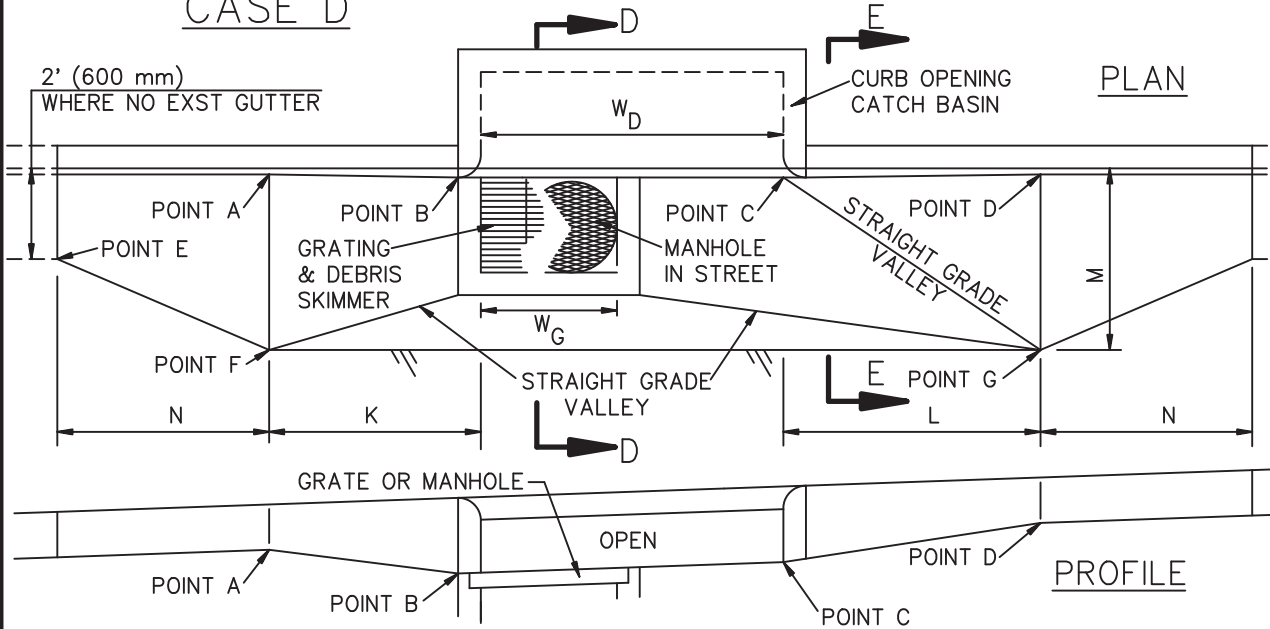
313-4

SHEET 1 OF 4

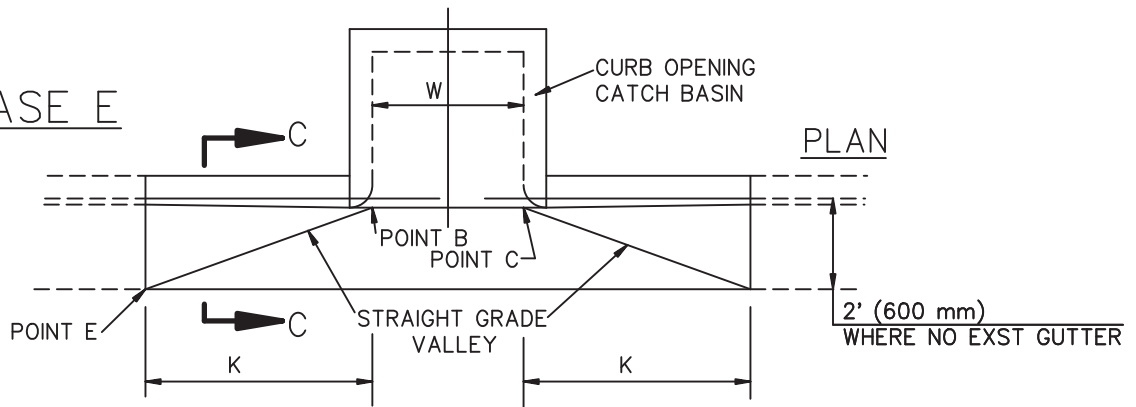
CASE C



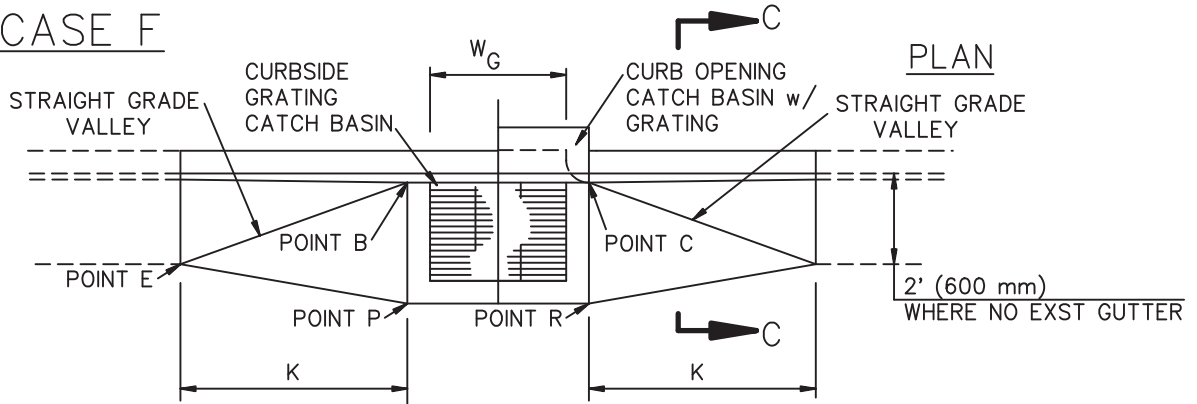
CASE D



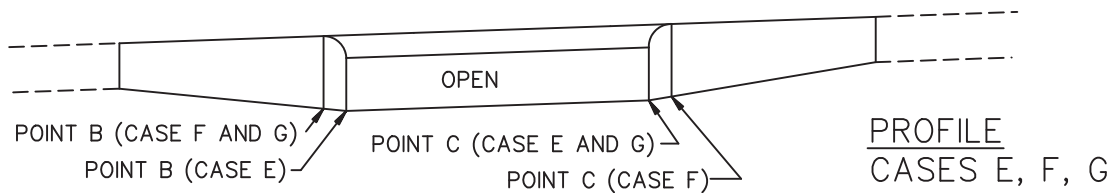
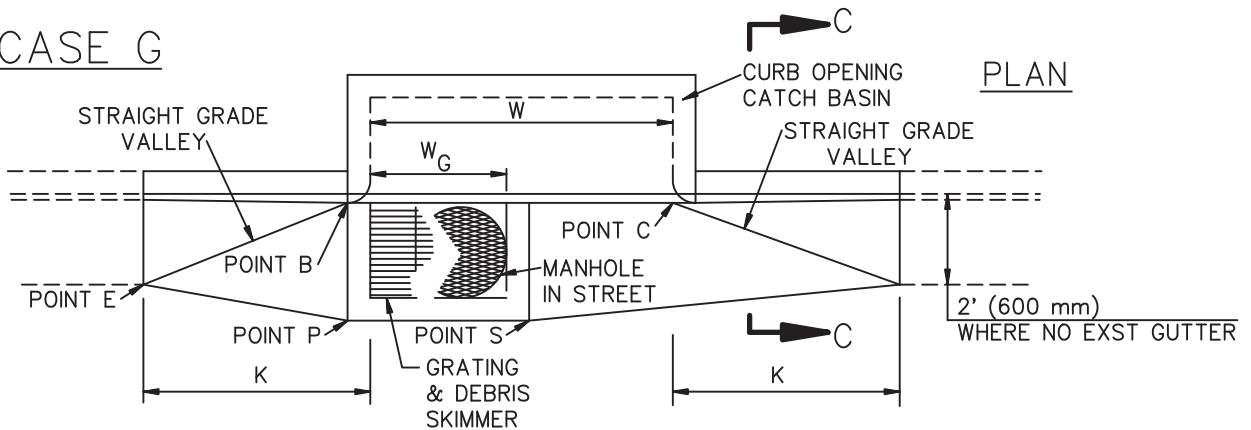
CASE E



CASE F



CASE G



NOTES:

1. ALL EXPOSED EDGES SHALL BE ROUNDED TO A 1/2" (15 mm) RADIUS.
2. THE CURB FACE AT POINTS A AND D SHALL BE THE NORMAL CURB FACE OF THE ADJACENT CURB AT THE ENDS OF THE LOCAL DEPRESSION. THE CURB FACE AT POINTS B AND C SHALL BE THE NORMAL CURB FACE OF THE ADJACENT CURB AT THE ENDS OF THE LOCAL DEPRESSION PLUS H (SEE APPLICABLE CATCH BASIN STANDARD PLAN.)
3. IN EXISTING STREETS WHERE NO PAVEMENT RECONSTRUCTION IS SPECIFIED ON THE PLANS, THE ELEVATION OF THE OUTER EDGE OF THE LOCAL DEPRESSION SHALL MEET THE FINISHED STREET SURFACE.
4. IN NEW STREETS OR IN EXISTING STREETS WHERE PAVEMENT RECONSTRUCTION IS SPECIFIED ON THE PLANS:

THE ELEVATIONS OF POINTS F AND G SHALL BE SET H1 HIGHER THAN THE GUTTER FLOW LINE ELEVATIONS AT POINTS A AND D, RESPECTIVELY.

THE ELEVATIONS OF POINTS P AND R SHALL BE SET H2 HIGHER THAN THE GUTTER FLOW LINE ELEVATIONS AT POINTS B AND C, RESPECTIVELY.

THE ELEVATION OF POINT S SHALL BE SET H2 HIGHER THAN THE ELEVATION AT THE NEAREST GUTTER FLOW LINE.

WHERE THERE IS NO GUTTER ADJACENT TO THE LOCAL DEPRESSION, THE ELEVATION OF POINT E SHALL BE SET H3 HIGHER THAN THE ELEVATION AT THE NEAREST TOE OF CURB.

5. DIMENSIONS:

H, H1, H2 AND H3 SHALL BE AS NOTED ON THE PLANS.

G = 24" (600 mm)

K = 5'-0" (1500 mm)

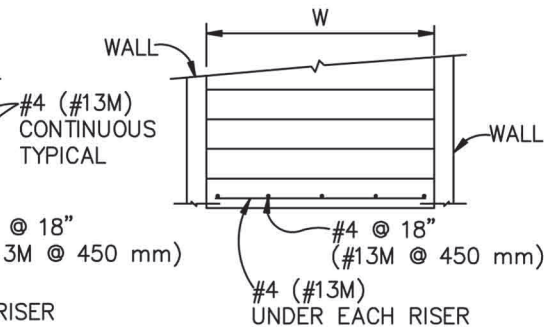
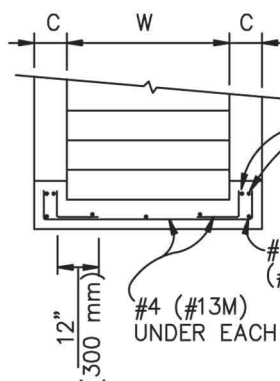
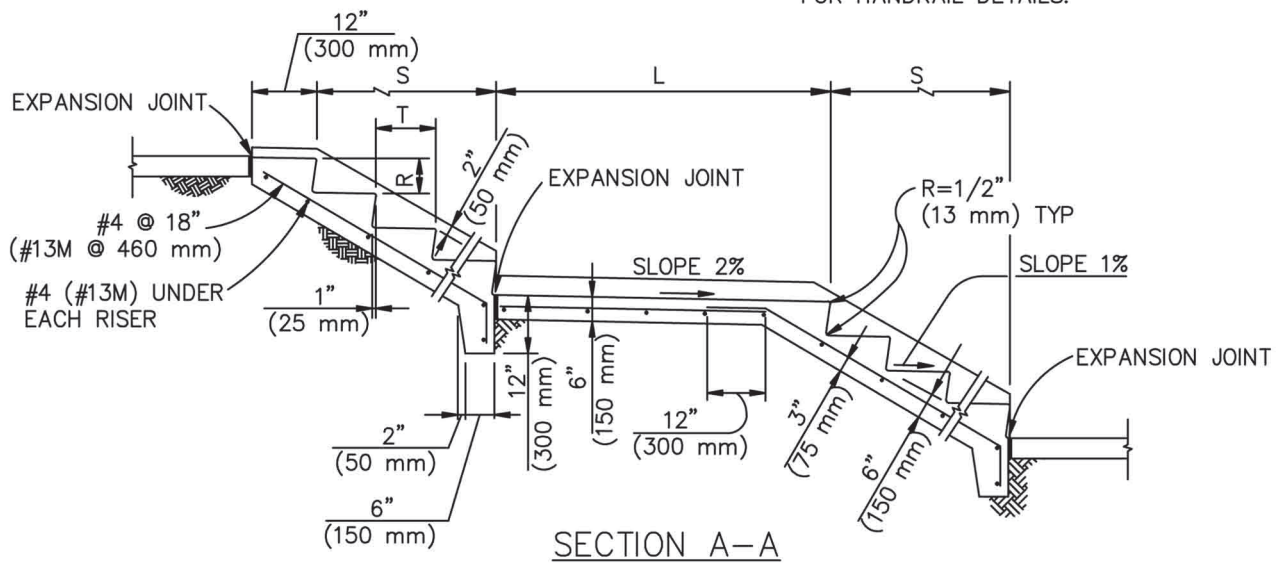
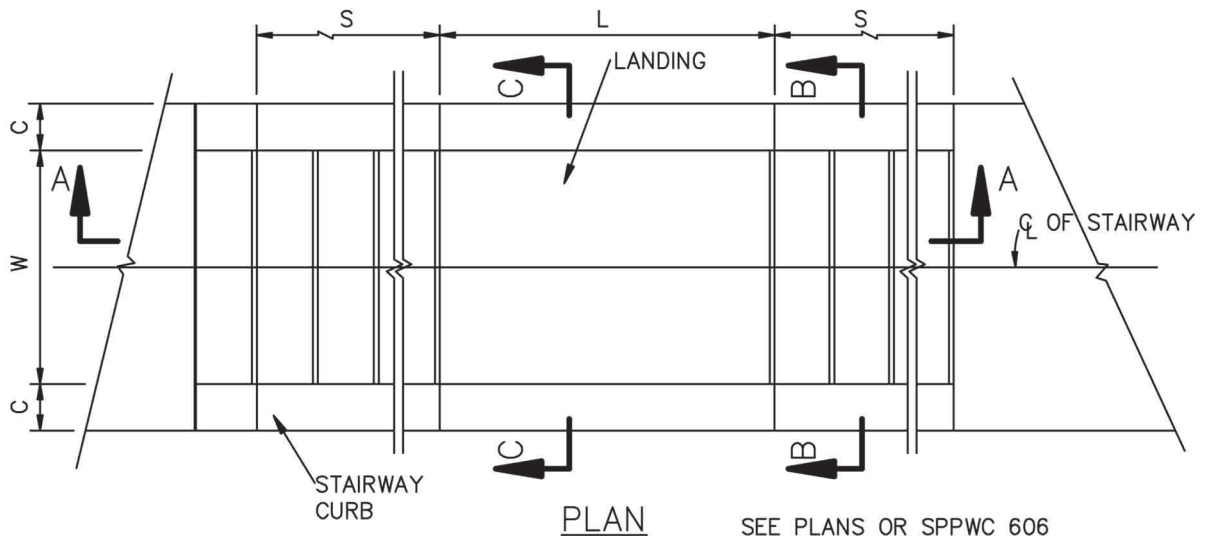
L = 6'-0" (1800 mm)

M = 4'-0" (1200 mm)

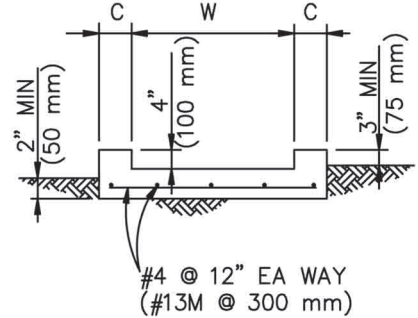
N = 5'-0" (1500 mm)

W = WIDTH OF CURB OPENING FOR CATCH BASIN

W_G = WIDTH OF GRATING(S) FOR CATCH BASIN



SECTION B-B



STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1993
REV. 1996, 2006, 2009, 2013

REINFORCED CONCRETE STAIRWAY

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

640-4

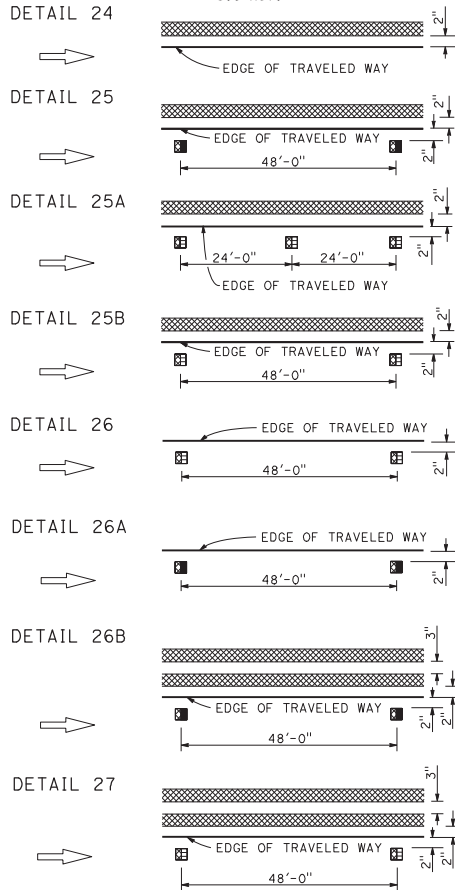
SHEET 1 OF 2

NOTES:

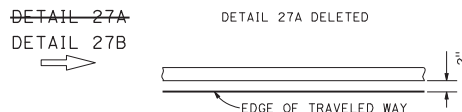
1. SEE THE PLANS FOR THE FOLLOWING INFORMATION:
TYPE OF STAIRWAY AND LOCATION
W = WIDTH OF STAIRWAY
L = LENGTH OF LANDINGS
T = LENGTH OF TREAD, 11" (280 mm) MIN
R = HEIGHT OF RISER, 4" TO 7" (100 TO 180 mm)
C = WIDTH OF CURB
S = LENGTH OF STAIRWAY FLIGHT
2. CONCRETE FINISH FOR EXPOSED SURFACES SHALL BE CLASS I, EXCEPT THAT TREADS AND LANDINGS SHALL BE TROWELLED SMOOTH AND GIVEN A FINE BROOM FINISH IN A DIRECTION PERPENDICULAR TO THE CENTERLINE OF THE STAIRWAY. THE BROOM FINISH SHALL BE BROUGHT TO THE NOSE OF THE TREADS AND LANDINGS.
3. ONE HANDRAIL ON EACH SIDE IS REQUIRED FOR STAIRWAYS 4' (1.22 m) WIDE OR LESS. THREE HANDRAILS ARE REQUIRED FOR WIDER STAIRWAYS.

LEFT EDGE LINES

(DIVIDED HIGHWAYS)
See Note

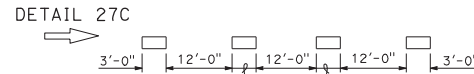


RIGHT EDGE LINES

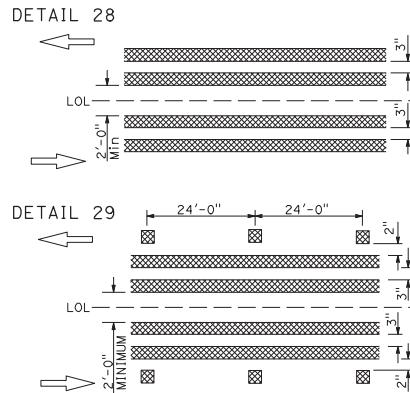


LEFT EDGE LINES NOTE:
On freeways use traffic stripe details with Type RY markers.

RIGHT EDGE LINE EXTENSION THROUGH INTERSECTIONS

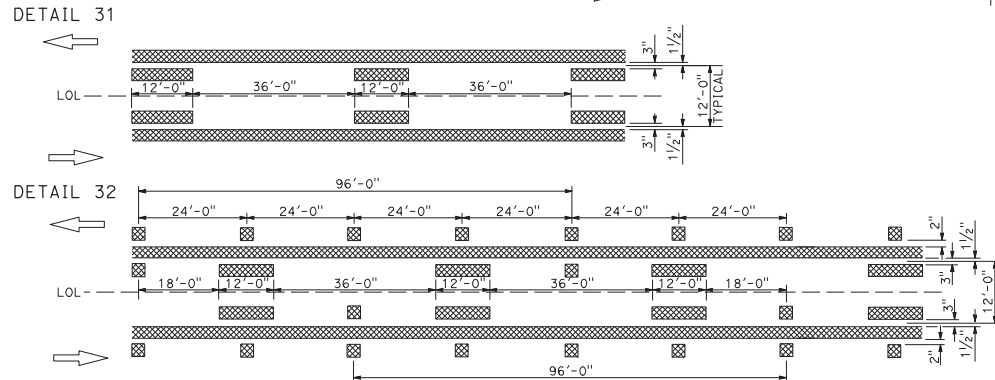


MEDIAN ISLANDS



~~DETAIL 30~~ DETAIL 30 DELETED

TWO-WAY LEFT TURN LANES

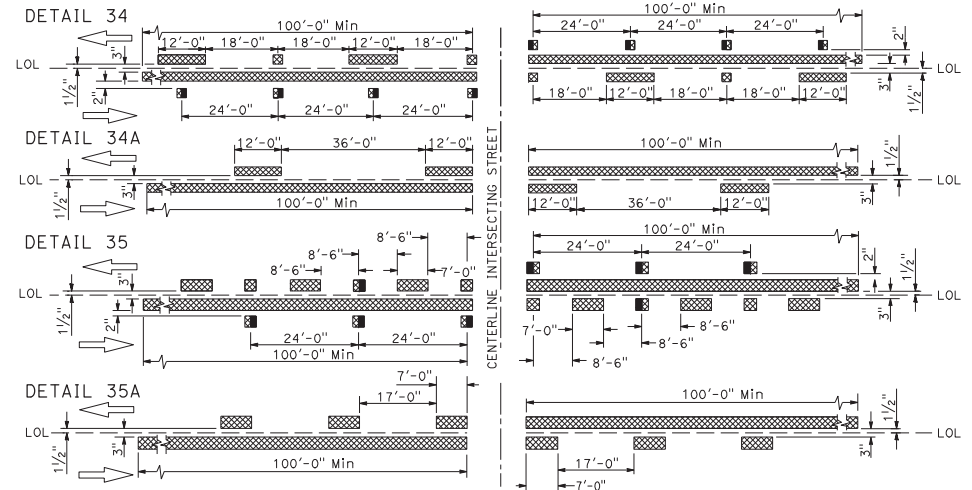


~~DETAIL 33~~ DETAIL 33 DELETED

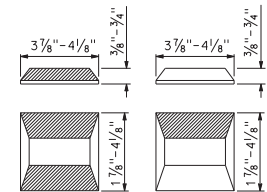
LEGEND:

- TYPE D TWO-WAY YELLOW RETROREFLECTIVE MARKER
- TYPE H ONE-WAY YELLOW RETROREFLECTIVE MARKER
- TYPE RY RED-YELLOW RETROREFLECTIVE MARKER
- 6" WHITE LINE
- 6" YELLOW LINE

INTERSECTION TREATMENTS



MARKER DETAILS



TYPE RY
AND TYPE D

RETROREFLECTIVE FACE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

RSP A20B DATED JANUARY 22, 2024 SUPERSEDES STANDARD PLAN A20B
DATED MAY 1, 2023 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2023.

REVISED STANDARD PLAN RSP A20B

2023 REVISED STANDARD PLAN RSP A20B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

REGISTERED CIVIL ENGINEER

May 1, 2023

DATE

YOUR MUDR

NO. CBE0065

THE STATE OF CALIFORNIA OR ITS OFFICERS

ON AGENTS SHALL NOT BE RESPONSIBLE FOR

THE ACCURACY OR COMPLETENESS OF ANY

COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER

YOUR MUDR

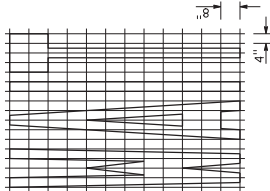
NO. CBE0065

THE STATE OF CALIFORNIA OR ITS OFFICERS

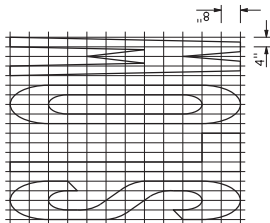
ON AGENTS SHALL NOT BE RESPONSIBLE FOR

THE ACCURACY OR COMPLETENESS OF ANY

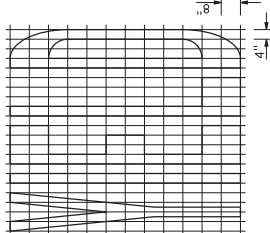
COPIES OF THIS PLAN SHEET.



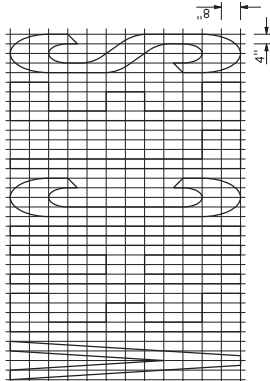
A=19 f+2



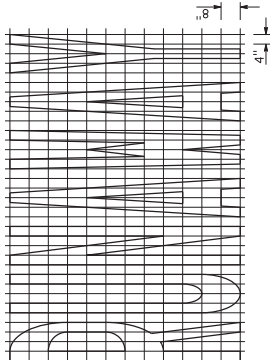
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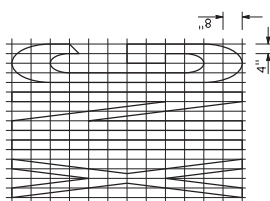
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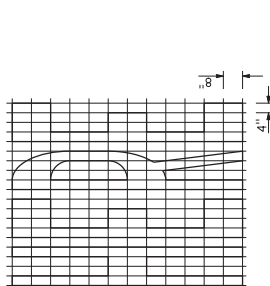
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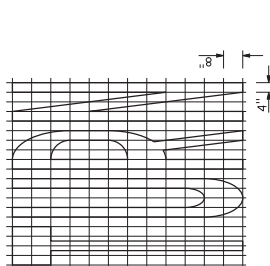
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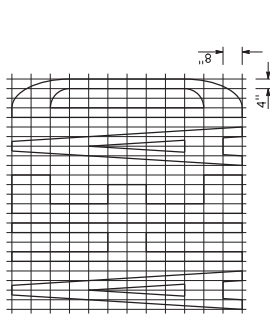
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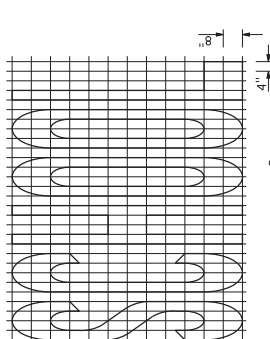
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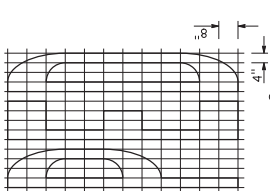
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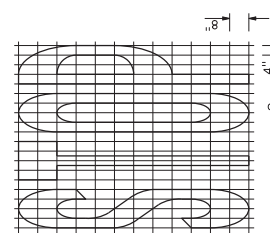
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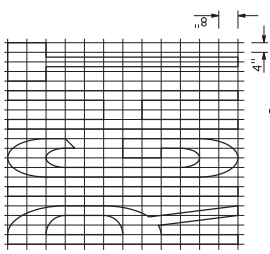
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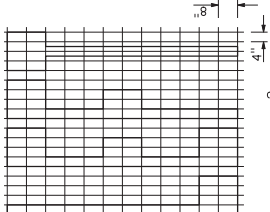
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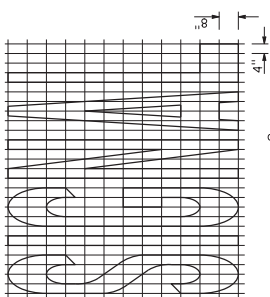
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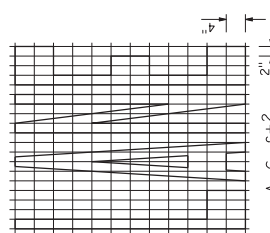
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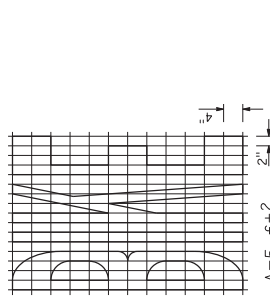
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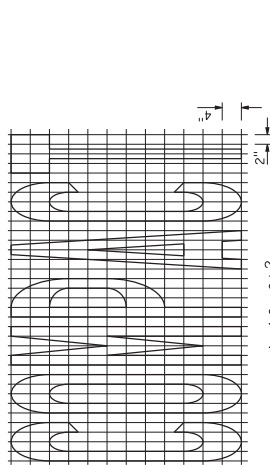
A=32 f+2



A=6 f+2



A=5 f+2



A=10 f+2

NOTES:

1. If a message consists of more than one word, it must read "up", i.e., the first word must be nearest the driver.
2. The space between words must be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.


WORD MARKINGS									
ITEM	f+2	ITEM	f+2	ITEM	f+2	ITEM	f+2	ITEM	f+2
XING	21	YIELD	24	BIKE	5	PEO	18		
AHEAD	31	SCHOOL	35	SLOW	23	COMPACT	10		
WAIT	19	SIGNAL	32	STOP	22	RUNAWAY	43		
LANE	6	TURN	24	LEFT	19	VEHICLES	42		
RIGHT	26	HERE	26						

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKINGS
WORDS
NO SCALE

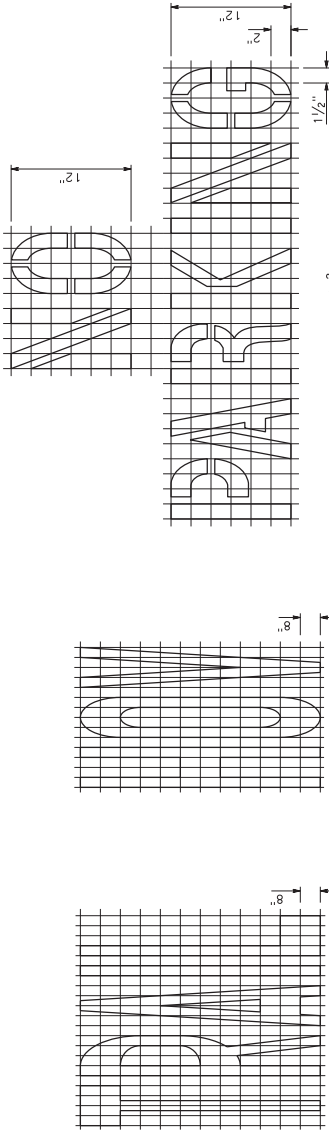
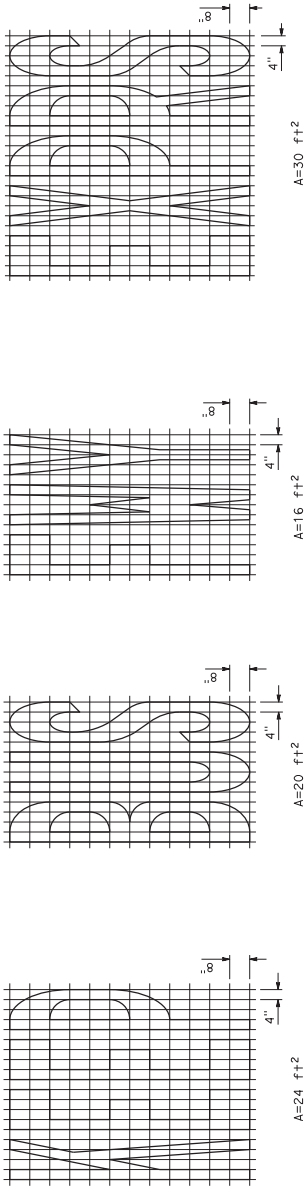
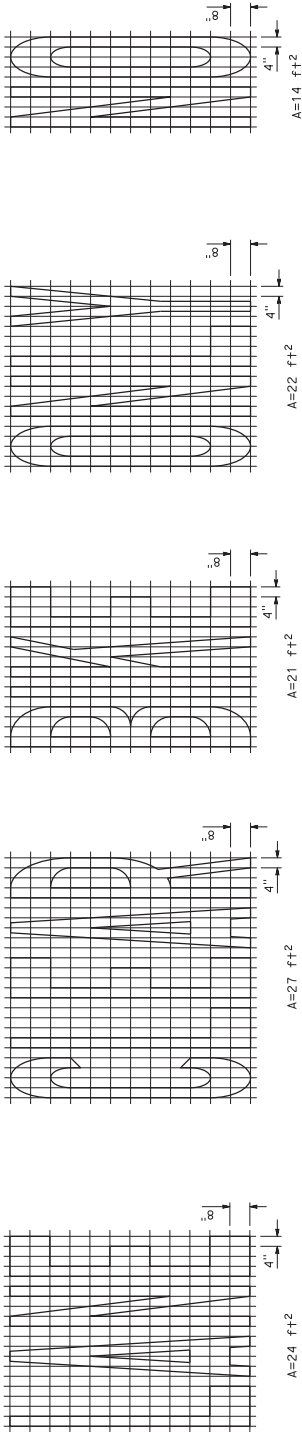
A 24D

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

REGISTERED CIVIL ENGINEER



MAY 1, 2023
DATE
NO. CBE005
THE STATE OF CALIFORNIA OR ITS OFFICERS
OR AGENTS SHALL NOT BE RESPONSIBLE FOR
THE ACCURACY OR COMPLETENESS OF ANY
COPIES OF THIS PLAN SHEET.



- NOTES:**
1. If a message consists of more than one word, it must read "up", i.e., the first word must be nearest the driver.
 2. The space between words must be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
 3. Minor variations in dimensions may be accepted by the Engineer.
 4. Portions of a letter, number, or symbol may be separated by connecting segments not to exceed 2" in width.
 5. The words "NO PARKING" pavement marking is to be used for parking facilities. For typical applications of markings, see Standard Plans A30A and A30B.
 6. The words "NO PARKING", shall be painted in white letters no less than 1'-0" high on a contrasting background and located so that it is visible to traffic enforcement officials.

WORD MARKINGS			
ITEM	SOFT	ITEM	SOFT
LANE	24	NO	14
CLEAR	27	BIKE	21
KEEP	24	BUS	20
HOV	18	ONLY	22
TRAIL	23	FWY	16
EXPRS	30		

See Notes 5 and 6

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKINGS
WORDS
NO SCALE

A 24E

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

REGISTERED CIVIL ENGINEER

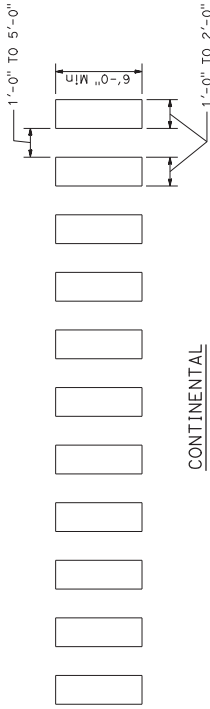
MOY 1, 2023

DATE

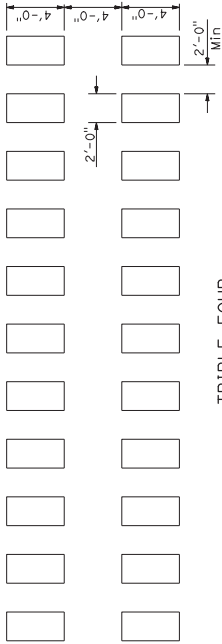
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OR AGENTS SHALL NOT BE RESPONSIBLE FOR
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NOTES:

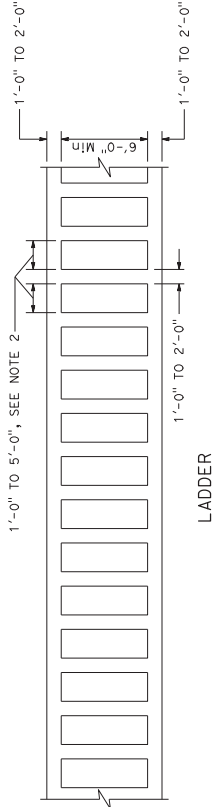
- 1. Spaces between markings must be placed in wheel tracks of each lane.
- 2. Spacings not to exceed 2.5 x width of longitudinal line.
- 3. All crosswalk markings must be white except those near schools must be yellow.



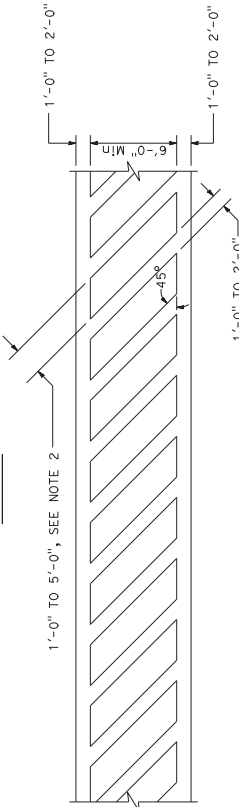
CONTINENTAL
See Note 1



TRIPLE FOUR
See Note 1

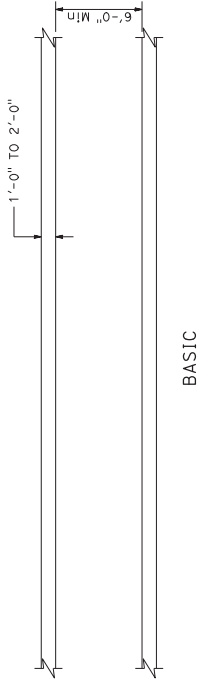


LADDER



DIAGONAL

HIGHER VISIBILITY CROSSWALKS

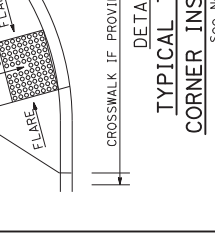
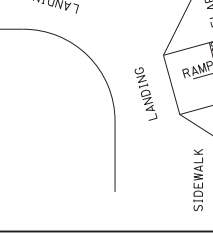
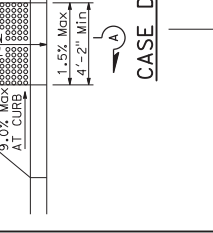
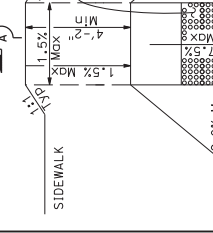
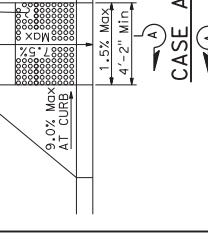
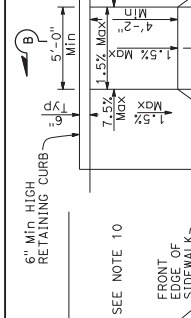


BASIC

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
CROSSWALKS**
NO SCALE

A 24F

Technical drawing of a raised truncated dome. The drawing includes three views: a top view, a side view, and an end view. The top view shows a circular base with a diameter dimension of 0.9" Min AND 0.92" Max. The side view shows a dome with a height dimension of 0.45" Min AND 0.47" Max. The end view shows a circular cross-section with a diameter dimension of 0.2".



See Notes 1 and 3

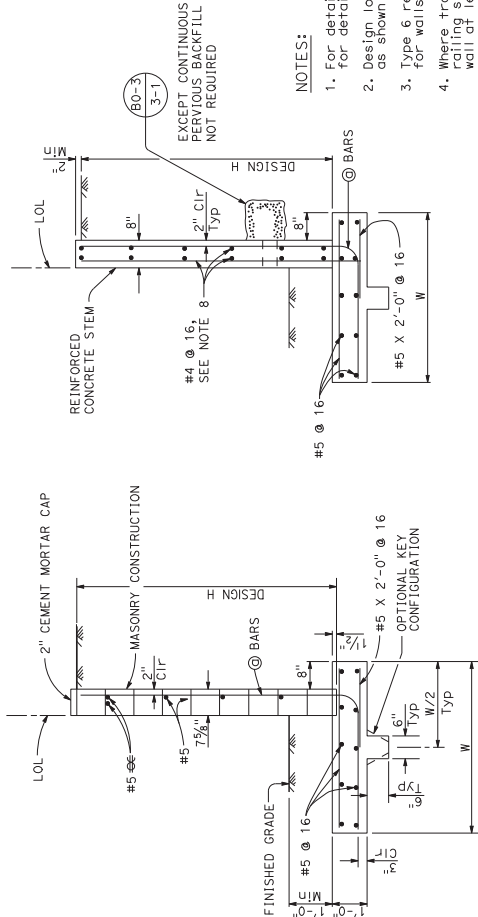
See Note 1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

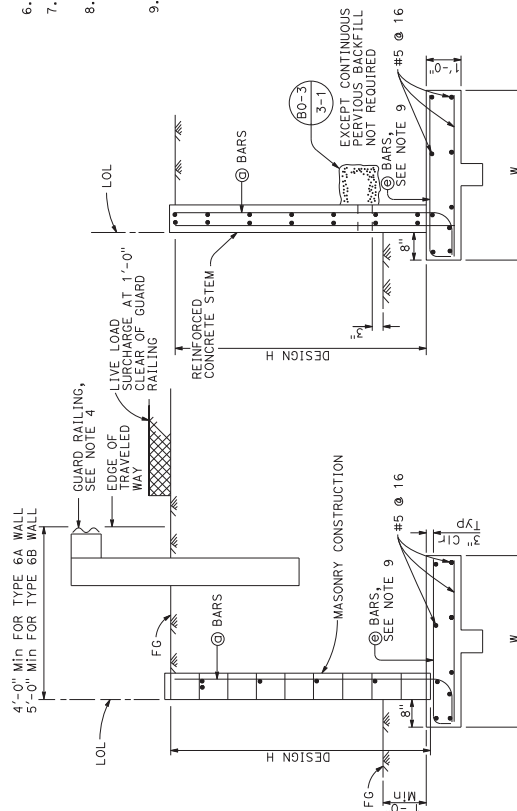
REGISTERED CIVIL ENGINEER <i>Gary Wong</i> No. C8288 DATE MAY 1, 2023 THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS THIS DRAWING IS THE PROPERTY OF THE STATE OF CALIFORNIA AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION OF THE STATE OF CALIFORNIA	
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SYMBOLS:

- Ser - service limit state I
 Str - strength limit state I
 Ext I - extreme event limit state I
 B' - effective footing width (ft)
 qo - net bearing stress (ksf), qo assumed to be FG at toe
 qo - gross uniform bearing stress (ksf)



TYPE 6A WALL



TYPE 6B WALL

DESIGN NOTES:

DESIGN: AASHTO LRFD Bridge Design Specifications, 8th Edition with California Amendments, Preface dated April 2019.
 Building Code Requirements and Specification for Masonry Structures (TMS 402/602-16)

LS: 240 psf live load surcharge on level ground surface as limited by Guard Railing location

SEISMIC: $k_h = 0.2$
 $k_v = 0.0$

SOIL BACKFILL: $\phi = 34^\circ$
 BASE FRICTION: $\gamma = 120$ pcf

REINFORCED CONCRETE: $f'_c = 3,600$ psi
 $f_y = 60,000$ psi

REINFORCED MASONRY: $f_m' = 1,500$ psi
 $f_y = 60,000$ psi

LOAD COMBINATIONS AND LIMIT STATES:
 Service: $S = 1.00D + 1.00EH + 1.00LS$
 Extreme I: $S = 1.00D + 1.00EH + 1.00LS$
 Extreme II: $S = 1.00D + 1.00EH + 1.00LS + 1.00E$

Where:
 q : Force Effects
 q_1 : 1.25 or 0.90, whichever Controls Design
 q_2 : 1.35 or 1.00, whichever Controls Design
 n : 1.50 or 0.90, whichever Controls Design
 DC : Dead Load of Structure Components
 EH : Earth Pressure from Earth Fill Weight
 LS : Live Load Surcharge
 E : Seismic Earth Pressure
 EOD : Soil and Structural and Nonstructural Components Inertia

TYPE 6A WALL - TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA

DESIGN H	3'-4"	4'-0"	4'-8"	5'-4"	6'-0"
W	3'-2"	3'-6"	3'-10"	4'-2"	4'-6"
© BARS	#5 @ 16	#5 @ 16	#5 @ 16	#5 @ 16	#5 @ 16
Ser: B', qo	3.1, 0.2	3.4, 0.2	3.6, 0.3	3.8, 0.3	4.0, 0.3
Str: B', qo	3.0, 0.6	3.2, 0.6	3.4, 0.7	3.6, 0.7	3.8, 0.7
Ext I: B', qo	2.6, 0.6	2.8, 0.6	3.1, 0.7	3.4, 0.7	3.7, 0.7

TYPE 6B WALL - TABLE OF REINFORCING STEEL, DIMENSIONS AND DATA

DESIGN H	3'-4"	4'-0"	4'-8"	5'-4"	6'-0"
W	2'-8"	3'-0"	3'-4"	4'-2"	4'-6"
© BARS	#5 @ 16	#5 @ 16	#5 @ 16	#5 @ 16	#5 @ 16
© BARS	#5 @ 16	#5 @ 16	#5 @ 16	#5 @ 16	#5 @ 16
Ser: B', qo	2.2, 0.4	2.5, 0.5	2.7, 0.6	2.9, 0.9	2.9, 1.1
Str: B', qo	2.2, 0.8	2.4, 1.0	2.6, 1.1	2.8, 1.4	2.8, 2.2
Ext I: B', qo	1.5, 1.0	1.7, 1.2	1.9, 1.4	2.1, 1.4	2.1, 1.6

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION

RETAINING WALL TYPE 6 (CASE 1)

NO SCALE

B3-7A

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APPENDIX K
UNLISTED SUBCONTRACTOR'S LIST

UNLISTED SUBCONTRACTORS LIST

Name of Contractor: _____

NAME OF SUBCONTRACTOR	CONTRACTOR'S LICENSE No.	BUSINESS ADDRESS	CATEGORY OF WORK

The California Department of Industrial Relations (DIR) requires that all construction contractors and tiered subcontractors performing prevailing wage work is to be registered with the DIR pursuant to Labor Code Section 1725.5.

Contractors and Subcontractor who are required to register but fail to do so are ineligible to bid or work on a public works contract.

Note: The Unlisted Subcontractors List is required to be submitted to the Project Engineer for approval prior to the issuance of the Notice to Proceed.

APPENDIX L
CALTRANS ENCROACHMENT PERMIT

STANDARD ENCROACHMENT PERMIT APPLICATION

DOT TR-0100 (REV 05/2023)

Complete ALL fields, write "N/A" if not applicable. Type or print clearly.

This application is not complete until all requirements have been approved.

Permission is requested to encroach on the State Highway right-of-way as follows:

1. COUNTY Ventura		2. ROUTE 232	3. POST MILE VEN 1.19	FOR CALTRANS USE TRACKING NO. DIST/CO/RTE/PM SIMPLEX STAMP	
4. ADDRESS OR STREET NAME Walnut Drive		5. CITY Oxnard			
6. CROSS STREET (Distance and direction from project site) Intersection Walnut Drive and Vineyard Avenue (Hwy 232)				DATE OF SIMPLEX STAMP	
7. WORK TO BE PERFORMED BY <input type="checkbox"/> APPLICANT <input checked="" type="checkbox"/> CONTRACTOR		8. IS THIS APPLICATION FOR A RIDER? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES. If "YES", provide the Parent Permit Number			
9. ESTIMATE START DATE May, 6 2024		10. ESTIMATED COMPLETION DATE January, 24 2025			
11. ESTIMATED NUMBER OF WORKING DAYS WITHIN STATE HIGHWAY RIGHT-OF-WAY 20 DAYS					
12. ESTIMATED CONSTRUCTION COSTS WITHIN STATE HIGHWAY RIGHT-OF-WAY \$45,000					
13. HAS THE PROJECT BEEN REVIEWED BY ANOTHER CALTRANS BRANCH? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES. If "YES", which branch?					
14. FUNDING SOURCE(S) <input type="checkbox"/> FEDERAL <input checked="" type="checkbox"/> STATE <input checked="" type="checkbox"/> LOCAL <input type="checkbox"/> PRIVATE <input type="checkbox"/> SB 1 (ROAD REPAIR AND ACCOUNTABILITY ACT OF 2017)					
15. CALTRANS PROJECT CODE (ID) ATP FUNDING NUMBER: ATPSB1L-5952(208)			16. APPLICANT'S REFERENCE / UTILITY WORK ORDER NUMBER P6050616		
17. DESCRIBE WORK TO BE DONE WITHIN STATE HIGHWAY RIGHT-OF-WAY (in 20 lines or less) Attach 6 complete sets of plans (folded to 8.5" x 11") and any applicable specifications, calculations, maps, traffic control plans, etc. Pedestrian improvements consisting of construction of sidewalk, curb ramps, crosswalk, curb & gutter.					

18 (a). PORTION OF STATE HIGHWAY RIGHT-OF-WAY WHERE WORK IS BEING PROPOSED (check all that apply)

- ☐ Traffic lane ☐ Shoulder ☒ Sidewalk ☐ Median ☒ At or near an intersection ☐ Mobile work
☐ Outside of the shoulder, _____ feet from edge of pavement ☐ Other _____

18 (b). PROPOSED TRAFFIC CONTROL PLANS AND METHOD

- ☐ No traffic control needed ☒ State Standard Plans (T-Sheets) # T32 Temporary Pedestrian Access Routes
☐ Project specific Traffic Control Plans included ☐ To be submitted by contractor

STANDARD ENCROACHMENT PERMIT APPLICATION

DOT TR-0100 (REV 05/2023)

TRACKING NO.

19. EXCAVATION	MAX. DEPTH (in) 6	MIN. DEPTH (in) 4	AVG. WIDTH (in) 120	LENGTH (ft) 30	SURFACE TYPE (e.g. Asphalt, concrete, soil, etc.) Concrete, native soil
20. PIPES	PRODUCT BEING TRANSPORTED N/A		CARRIER PIPE DIAMETER N/A (in.) MATERIAL N/A		CASING PIPE DIAMETER N/A (in.) MATERIAL N/A
PROPOSED INSTALLATION METHOD (e.g. HDD, Bore & Jack, Open Cut, etc.) N/A					VOLTAGE / PSIG N/A

DOES THE PROPOSED PROJECT INVOLVE THE REPLACEMENT AND/OR ABANDONMENT OF AN EXISTING FACILITY?

☒ NO ☐ YES. If "YES", provide a description

21. IS A CITY, COUNTY OR OTHER PUBLIC AGENCY INVOLVED IN THE APPROVAL OF THIS PROJECT?

☒ YES (if "YES", check the type of project AND attach the environmental documentation and conditions of approval)☐ COMMERCIAL DEVELOPMENT ☐ BUILDING ☐ GRADING ☐ OTHER☒ CATEGORICALLY EXEMPT ☐ NEGATIVE DECLARATION ☐ ENVIRONMENTAL IMPACT REPORT ☐ OTHER☐ NO (if "NO", check the category below which best describes the project AND answer questions A-K)☐ DRIVEWAY OR ROAD APPROACH, RECONSTRUCTION,
MAINTENANCE OR RESURFACING☐ FENCE ☐ EROSION CONTROL☐ PUBLIC UTILITY MODIFICATION, EXTENSIONS, HOOKUPS☐ MAILBOX ☐ LANDSCAPING☐ FLAGS, SIGNS, BANNERS, DECORATIONS, PARADES AND CELEBRATIONS ☐ OTHER**The following questions must be answered when a City, County or other public agency IS NOT involved in the approval of this project.**

Your answers to these questions will assist Caltrans staff in identifying any physical, biological, social or economic resources that may be affected by your proposed project within State Highway right-of-way and to determine which type of environmental studies may be required to approve your application for an encroachment permit. It is the applicant's responsibility for the production of all required environmental documentation and supporting studies and in some cases this may be costly and time consuming. If possible, attach photographs of the location of the proposed project. Answer these questions to the best of your ability. Provide a description of any "YES" answers (type, name, number, etc.).

A. Will any existing vegetation and/or landscaping within State Highway right-of-way be disturbed?

No

B. Are there waterways (e.g. river, creek, pond, natural pool or dry streambed) adjacent to or within the limits of the proposed project?

No

C. Is the proposed project located within five miles of the coast line?

No

D. Will the proposed project generate construction noise levels greater than 86 decibels (dBA) (e.g. Jack-hammering, pile driving)?

No

E. Will the proposed project incorporate land from a public park, recreation area or wildlife refuge open to the public?

No

F. Are there any recreational trails or paths within the limits of the proposed project?

No

G. Will the proposed project impact any structures, buildings, rail lines or bridges within State Highway right-of-way?

No

H. Will the proposed project impact access to any businesses or residences?

No

I. Will the proposed project impact any existing public utilities or public services?

No

J. Will the proposed project impact any existing pedestrian facilities, such as sidewalks, crosswalks or overcrossings?

Yes. the project will provide pedestrian improvements such as sidewalks and ADA ramps. Currently there are crosswalks, no sidewalks.

K. Will new lighting be constructed within or adjacent to State Highway right-of-way?

No

STANDARD ENCROACHMENT PERMIT APPLICATION

DOT TR-0100 (REV 05/2023)

TRACKING NO.

22. Will the proposed project cause a substantial change in the significance of a historical resource (45 years or older), or cultural resource? ☐ YES ☒ NO (if "YES", provide a description)
23. Will the proposed project be on an existing State Highway or street where the activity involves removal of a scenic resource? (e.g. A significant tree or stand of trees, a rock outcropping or a historic building) ☐ YES ☒ NO (if "YES", provide a description)
24. Is work being done on the applicant's property in addition to State Highway right-of-way? ☒ YES ☐ NO
(If "YES", attach 6 complete sets of site and grading plans)
25. Will the proposed project require the disturbance of soil? ☐ YES ☒ NO
If "YES", estimate the area of disturbed soil within State Highway right-of-way in acres: _____
and estimate the area of disturbed soil outside State Highway right-of-way in acres: _____
26. Will the proposed project require dewatering? ☐ YES ☒ NO
If "YES", estimate Total gallons AND gallons/month. _____ (Total gallons) AND _____ (gallons/month)
SOURCE*: ☐ STORMWATER ☐ NON-STORMWATER
(*See Caltrans SWMP for definition of non-storm water discharge:
<https://www.dot.ca.gov/programs/environmental-analysis/stormwater-management-program>)
27. How will any storm water or ground water be disposed?
☐ Storm Drain System ☐ Combined Sewer / Stormwater System ☐ Stormwater Retention Basin ☒ N/A
☐ Other (explain) _____

TRACKING NO.

READ THE FOLLOWING CLAUSES PRIOR TO SIGNING THIS ENCROACHMENT PERMIT APPLICATION.

The applicant's submission of this application to the California Department of Transportation constitutes the applicant's agreement and representation that the work or other activity contemplated by the encroachment permit application shall comply with all applicable standards, specifications, policies, requirements, conditions, and regulations of the California Department of Transportation, and the applicant understands the application may be denied if there is non-compliance with any of the above. An exception process exists and may result in approval of a non-compliant encroachment, in the discretion of the California Department of Transportation, but the exception process may require additional time to complete. The applicant understands and agrees all work or other activity contemplated by the encroachment permit application is subject to inspection and oversight by the California Department of Transportation. The applicant understands and agrees encroachment permit fees must still be paid if an application is withdrawn or denied. The applicant understands a denial may be appealed, in accordance with California Streets and Highways Code, Section 671.5, and the related regulations found in California Code of Regulations, Title 21, Division 2, Chapter 8, Article 2.

The applicant understands and agrees that immediately upon issuance of the encroachment permit the applicant is bound by, subject to, and must comply with the "Encroachment Permit General Provisions" (TR-0045), "Stormwater Special Provisions" (TR-0400) and any other applicable Special Provisions and Conditions of the encroachment permit. The "Encroachment Permit General Provisions" (TR-0045), and the Stormwater Special Provisions (TR-0400) are available at: <https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/encroachment-permits/appendix-k-ada-a11y.pdf>. If a paper copy is needed of the "Encroachment Permit General Provisions" (TR-0045) and/or "Stormwater Special Provisions" (TR-0400), please contact the District Office of Encroachment Permits. Their contact information is available at: <https://dot.ca.gov/programs/traffic-operations/ep/district-contacts>. The "Encroachment Permit General Provisions" (TR-0045) and any other applicable Special Provisions and Conditions will be provided as part of the encroachment permit. Information about Stormwater requirements is available at the Internet address: <https://dot.ca.gov/programs/environmental-analysis/stormwater-management-program>.

The applicant understands an encroachment permit may be denied, revoked, and/or a bond may be required, for non-payment of prior or present encroachment permit fees. An encroachment permit is not a property right and does not transfer with the property to a new owner.

Each of the persons purporting to execute this application on behalf of the applicant and/or on behalf of the applicant's authorized agent or engineer represents and warrants such person has full and complete legal authority to do so and to thereby bind applicant to the terms and conditions herein and to the terms and/or conditions of the encroachment permit. Applicant understands and agrees this application may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Executed copies of this application and/or its counterparts may be reproduced and/or exchanged by copy machine, mailing, facsimile, or electronic means (such as e-mail), and such copies shall be deemed to be effective as originals.

28. NAME OF APPLICANT (Project or Property Owner or Organization)

County of Ventura - PWA Roads & Transportation

ADDRESS OF APPLICANT (Include City, State and Zip Code)

800 S. Victoria Avenue, Ventura CA 93003

E-MAIL ADDRESS

joeann.heredia@ventura.org

PHONE NUMBER

805-672-2130

FAX NUMBER

29. NAME OF AUTHORIZED AGENT / ENGINEER

(A "Letter of Authorization" is required if different from #28)

IS A LETTER OF AUTHORIZATION ATTACHED?

☐ YES ☒ NO

ADDRESS OF AUTHORIZED AGENT / ENGINEER (Include City, State and Zip Code)

E-MAIL ADDRESS

PHONE NUMBER

FAX NUMBER

30. NAME OF BILLING CONTACT (Same as #28 ☐ Same as #29 ☐)

BILLING ADDRESS WHERE INVOICE(S) IS / ARE TO BE MAILED (Include City, State and Zip Code)

E-MAIL ADDRESS

PHONE NUMBER

FAX NUMBER

* I hereby certify under penalty of perjury under the laws of the State of California that the information in this application and any document submitted with or in support of this application are true and correct to the best of my knowledge and belief, and that copies of any documents submitted with or in support of this application are true and correct copies of unaltered original documents. I further understand that if I have provided information that is false, intentionally incomplete, or misleading I may be charged with a crime and subjected to fine or imprisonment, or both fine and imprisonment. (Penal Code Section 72)

31. SIGNATURE OF APPLICANT OR AUTHORIZED AGENT*



32. PRINT OR TYPE NAME

JoeAnn Heredia

33. TITLE

Engineering Technician IV

34. DATE

2/1/2024

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION
STANDARD ENCROACHMENT PERMIT APPLICATION
DOT TR-0100 (REV 05/2023)

INSTRUCTIONS

Complete ALL fields, write "N/A" if not applicable. Type or print clearly. All dimensions must be in U.S. Customary (English) units.

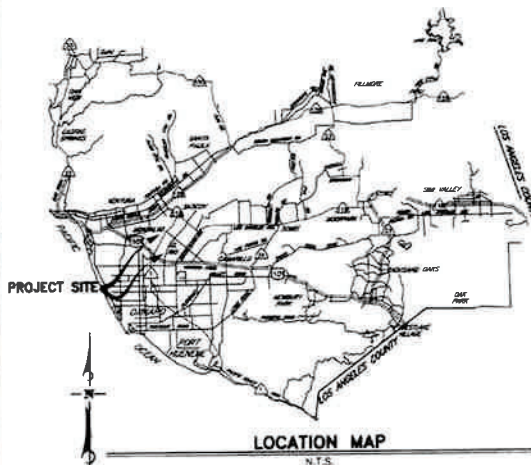
Print your application single sided and submit all of the required attachments (See Section VII A&B of the "Encroachment Permit Application Guide Booklet" found at: <https://dot.ca.gov/programs/traffic-operations/ep/guidelines>).

1. County (e.g. Fresno, San Francisco, Los Angeles, etc.)
2. State Highway Route Number (e.g. I-5, SR-99, etc.)
3. Highway Postmile: (location of work, see <https://postmile.dot.ca.gov/>)
If unable to determine, contact the appropriate District Encroachment Permits Office for assistance at: <https://dot.ca.gov/programs/traffic-operations/ep/district-contacts>
4. Address of project site (if the property has a physical address with a Number and Street/Road Name)
5. City (e.g. Sacramento, Redding, Irvine, etc.)
6. Distance and the direction from the nearest cross street to the project site (e.g. 500 ft. north of "C" Street).
7. Indicate whether the work will be performed by the applicant (your own forces) or by a contractor.
8. Indicate if you are applying for a "Rider Permit" (Time extension, change in scope of work, etc. and provide the "Parent Permit Number".
9. Estimated start date for the proposed work. (Allow a minimum of 60 calendar days from the submittal date of your application for processing)
10. Estimated completion date for the proposed work.
11. Estimated number of working days within State Highway right-of-way.
12. Estimated construction costs for all work to be done within State Highway right-of-way.
13. Has another Caltrans' branch seen or reviewed your project? Which branch? (e.g. Design, Project Management, Right-of-Way, Environmental, etc.)
14. Identify funding source(s) for the proposed work.
15. Caltrans' Project Code (ID) if this is a State project, capital project, or joint venture project.
16. Your company's reference number or utility work order number for this project.
17. Describe the proposed work to be done entirely. If applicable, attach six (6) complete sets of FOLDED plans (folded 8-1/2" X 11") and any applicable specifications, calculations, maps, etc.
18. (a) Identify portion(s) of State right-of-way where work will occur and (b) proposed traffic control plans to be used if any.
19. Maximum and minimum depth, average width, and length of the excavation area. Existing surface type (e.g. Asphalt, concrete, soil, etc.)
20. Product being transported (e.g. water, natural gas, etc.)
Carrier pipe, diameter (inches) and material (e.g. Steel, HDPE, etc.)
Casing pipe (if any), diameter and material Proposed installation method, Voltage of electrical current or pressure of liquid or gas.
21. Check "YES", if you are getting a permit or approval from another agency (City, County, etc.), and an environmental determination has been made. Then check the Categorically Exempt, Negative Declaration, Environmental Impact Report box or Other if one has been prepared. Attach a copy of the approved document and a copy of the Notice of Determination. Skip questions A-K.

If you checked "NO", check the box of the appropriate type of work to be done, or check "other" and fill in the type of work to be done. Also answer questions A-K.
22. A Historical Resource includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that has historical or archaeological significance, or significance in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.
23. In this context a Scenic Resource includes, but is not limited to, trees that display outstanding features of form or age; unique, massive rock formations; historic buildings that are rare examples of their period, style, design, or which have special architectural features and details of importance.
24. Is there any work being done on the applicant's property?
25. Indicate if the proposed project will require the disturbance of soil. If "YES," estimate the area within AND outside of State Highway right-of-way in acres.
26. Indicate if the proposed project will require dewatering. If "YES," estimate volume in total gallons AND gallons per month. Also indicate the source: Stormwater or Non-Stormwater (see Caltrans Stormwater Management Plan for definitions of non-stormwater discharge at: <https://dot.ca.gov/programs/environmental-analysis/stormwater-management-program>).
27. Indicate how any stormwater or ground water will be disposed of from or near the limits of the proposed project.
28. Name of the applicant or organization applying for the permit. List the mailing address, e-mail address, phone and fax numbers.
29. Name of the authorized agent or engineer acting on behalf of the applicant or organization. Attach a letter of authorization signed by the applicant or organization. List the mailing address, e-mail address, phone and fax numbers.
30. Name of the billing contact. List the mailing address where invoices are to be mailed, email address, phone and fax numbers.
31. Signature of the applicant or applicant's authorized agent.
32. Name of the applicant or applicant's authorized agent.
33. Title (owner, president, etc.) of the applicant or applicant's authorized agent.
34. Date of the signature.

APPENDIX M
SEWER RECORD DRAWINGS

**EL RIO FOREBAY
GROUNDWATER CONTAMINANT
ELIMINATION PROJECT (GCEP)**



(ALVARADO ST, CITRUS ST, COLLINS ST, CORSICANA DR,
CORTEZ ST, HELSAM AVE, KENNEY ST, MINNA ST,
ORANGE DR, RIO SCHOOL LANE, ROSE AVE, SALEM AVE,
STROUBE ST, VINEYARD AVE, & WALNUT DR)



3. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS AND PROFILES WERE DERIVED FROM THE BEST AVAILABLE RECORDS AS PROVIDED BY THE COUNTY, AND BY FIELD RECONNAISSANCE OF VISIBLE SURFACE FEATURES.
4. THE CONTRACTOR SHALL MAINTAIN HIS/HER OWN SURFACE AND SUBSURFACE EXPLORATIONS.
5. PROTECT AND MAINTAIN ALL EXISTING UTILITIES IN PLACE. UTILITIES DAMAGED OR OTHERWISE IMPAIRED BE REPAIRED TO A CONDITION EQUAL TO OR BETTER THAN EXISTED PRIOR TO START OF THE WORK, AND TO THE SATISFACTION OF THE OWNER OF SAID UTILITY.
6. A MINIMUM OF 48 HOURS PRIOR TO STARTING ANY WORK WITHIN WORK, THE CONTRACTOR SHALL NOTIFY THE CALIFORNIA HIGHWAY PATROL (CHP), ALSO KNOWN AS DIALERT, OF THE INTENT TO PERFORM WORK. IN THE EVENT A FIELD MEETING IS REQUESTED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF THE DATE AND TIME OF SUCH MEETING. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING THE LOCATION MARKS MADE BY THE USA PROCESS IN A CLEAR, READABLE CONDITION UNTIL THE WORK HAS PASSED THAT LOCATION.
7. THE CONTRACTOR SHALL PROCURE AND HAVE ON SITE AT ALL TIMES ALL PERMITS REQUIRED FOR THE WORK. THIS INCLUDES THE CAL-OSHA PERMITS AND CONSTRUCTION PERMITS.
8. THE CONTRACTOR SHALL MAINTAIN A NEAT AND READABLE RECORD OF ALL WORK PERFORMED TO DATE. ANY CHANGES OR DEVIATIONS FROM THE PLANS, DRAWINGS, SPECIFICATIONS OR OTHER DOCUMENTS ASSOCIATED WITH THIS PROJECT SHALL BE SHOWN IN RED INK, NEAT, CLEAR SET OF DIAZO PROCESS PRINTS OF THE PLANS, THE RECORDS SHALL, AT THE COMPLETION OF THE PROJECT, BE TURNED OVER TO THE AGENCY'S REPRESENTATIVE FOR THE AGENCY'S USE IN PREPARATION OF THE FINAL RECORD DRAWING OF WORK PERFORMED.
9. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ON THE WORK SITE SUITABLE SANITATION FACILITIES AND SHALL HAVE SAID FACILITIES READILY ACCESSIBLE TO ALL WORKERS AT ALL TIMES. THE OWNER'S SEPARATION OF WATER AND SEWER SHALL BE IN CONFORMANCE WITH THE LATEST REQUIREMENTS OF THE STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES.
10. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR EQUIPMENT, MATERIAL, STORAGE & YARD SECURITY.
11. ELEVATIONS INDICATED ON THE PLANS AND PROFILES WERE INVERT ELEVATIONS MEASURED AT THE INSIDE FACE OF MANHOLES.
12. LENGTHS SHOWN IN THE PROFILE ARE HORIZONTAL FEET MEASURED FROM INSIDE FACE OF ONE END OF THE GRADE TO THE OTHER END.
13. ALL EXISTING IMPROVEMENTS DISTURBED OR DAMAGED DURING THE COURSE OF SENIOR CONSTRUCTION SHALL BE REPLACED IN-KIND OR BETTER.
14. LENGTHS SHOWN IN PLAN ARE HORIZONTAL FEET MEASURED TO CENTER OF MANHOLE.
15. LOCATIONS OF LATERSALS SHOWN HEREON ARE APPROXIMATE. ACTUAL LOCATIONS SHALL BE DETERMINED BY FIELD SURVEY.
16. TRAFFIC CONTROL PLANS SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE COUNTY OF VENTURA TRAFFIC ENGINEERING DIVISION FOR REVIEW AND APPROVAL. A MINIMUM OF 48 HOURS ADVANCE NOTICE OF THE TRAFFIC CONTROL PLAN SHALL BE GIVEN FOR MAJOR STREETS. NO WORK IN TRAFFIC CONTROL MAY BE SET UP PRIOR TO COUNTY APPROVAL.
17. TRAFFIC CONTROL PLANS FOR WORK ON VINEYARD AVE. SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO CALTRANS PRIOR TO OBTAINING PERMIT.
18. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM OF 800 LF WORK ZONE DURING THE COURSE OF TWO MILES REACH PER DAY WHICHEVER IS LESS.

	FIRE HYDRANT	PROPOSED SEWER W/ MH
	EXIST. MANHOLE	EX. GAS LINE
	POWER POLE	EX. SEWER LINE
	GUY	EX. WATER LINE
	STREET LIGHT	EX. STORM DRAIN
	STREET LIGHT	STORM DRAIN (FUTURE)
	POLE	EX. ELECTRIC
	LIGHT	EX. TELEPHONE
	WATER VALVE	EX. OVERHEAD WIRE
	GAS VALVE	EXISTING GROUND ELEVATION
	ELECTRICAL VAULT	INDEX COVER
	WATER METER	INTERFERING CONTOUR
	WATER VAULT	EX. VEGETATION
	GAS METER	F.L.O.T. / PROPERTY LINE
	SIGN	PROPOSED SEWER LATERAL
	CATCH BASIN	EX. SEWER LATERAL
	(FUTURE)	STREET CENTERLINE

NO.	DATE	REVISIONS	APPRO.	 Penfield & Smith ENGINEERS & SURVEYORS 1307 DEL NORTE ROAD CAMARILLO, CA 93010 (805) 941-5708	DESIGN: JC/MLA CHECKED: <i>[Signature]</i> DRAWS: S. CHASE DATE: 6/27/09 PROJECT ENGINEER DATE: 6/27/09 I.C.E. 67-604 (EXP. 12/31/09)	REVIEWED BY: <i>[Signature]</i> DATE: 5-27-09 REVIEWED BY: <i>[Signature]</i> DATE: 6/22/09 APPROVED BY: DIRECTOR OF PUBLIC WORKS DATE: 6/22/09	COUNTY OF VENTURA PUBLIC WORKS AGENCY	SPEC. NO. NW09-05 PROJ. NO. 28236	EL RIO FOREBAY (GCEP) PHASES 5B, 5C & 5D TITLE SHEET, GENERAL NOTES & LEGEND	SHEET OF 42 DRAWING NO. 57601
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APPENDIX M

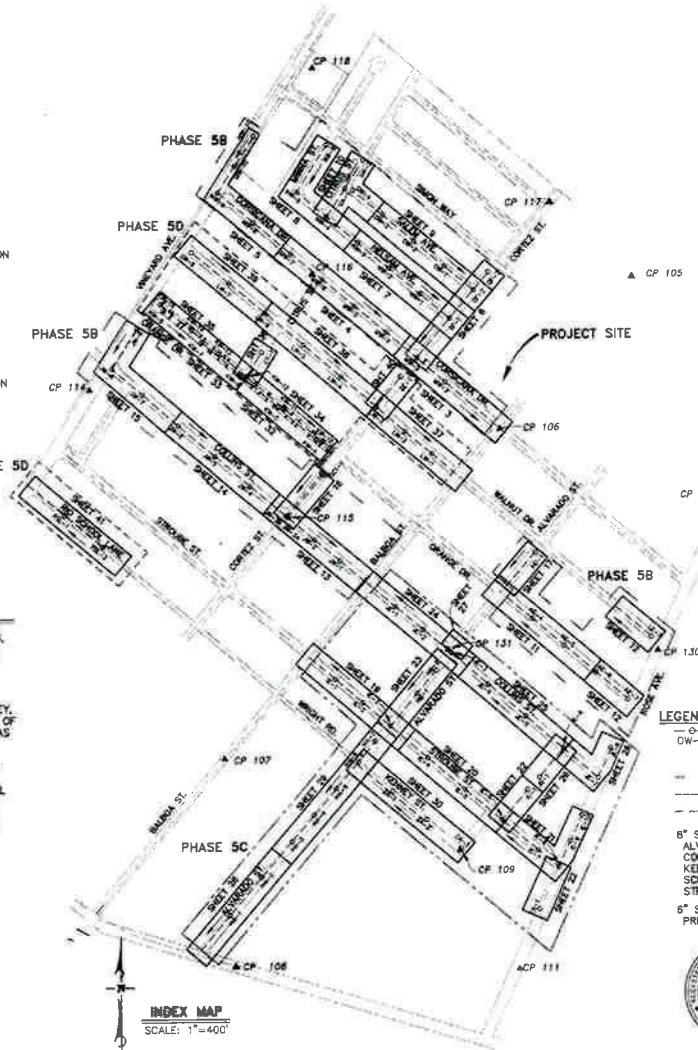
ABBREVIATIONS (SUPPLEMENT TO SSPWC)

AC OR ASPH. ASPHALT CONCRETE	MFR	MANUFACTURER		
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	MH	MANHOLE	
AWWA	AMERICAN WATER WORKS ASSOCIATION	MN	MINIMUM	
BLDG.	BUILDING	N	NORTH	
CB	CATCH BASIN	NTS	NOT TO SCALE	
CLR.	CLEAR/CLEARANCE	O.C.	ON CENTER	
COMP.	CORRUGATED METAL PIPE	O.D.	OUTSIDE DIAMETER	
CONC.	CONCRETE	P.E.	PLAIN END	
CONT.	CONTROL OR CONTINUOUS	PLT.	PLATE	
CPUG'S	Coupling(s)	PSI	POUNDS PER SQUARE INCH	
DI	DROP INLET OR DUCTILE IRON	PSV	PRESSURE SEWER VALVE	
E	EAST	PT.	POINT	
EA	EACH	PVC	POLYVINYL CHLORIDE	
EC	END OF CURVE	RAD.	RADIUS	
ELEC.	ELECTRIC	RCB	REINFORCED CONCRETE BOX	
ELEV. OR EL.	ELEVATION	REL	RELATIVE	
ELL	ELBOW	REQ'D	REQUIRED	
EMH	ELECTRIC MANHOLE	R.O.W.	RIGHT OF WAY	
ENTC	END NON-TANGENT CURVE	RT	RIGHT	
EP	EDGE OF PAVEMENT	S.C.E.	SOUTHERN CALIFORNIA EDISON	
EXIST.	EXISTING	SCH	SCHEDULE	
F.F.	FINISHED FLOOR	SCO	SEWER CLEANOUT	
FI	FIRE HYDRANT	SCP	SEWER CONTROL PANEL	
FIG.	FIGURE	SDMH	STORM DRAIN MANHOLE	
FL	FLOW LINE	S.E.	SAND EQUIVALENT	
FLG.	FLANGED	SEW.	SEWER	
FM	FORCE MAIN	SMH	SEWER MANHOLE	
FT.	FEET	SPECs	SPECIFICATIONS	
GAL	GALLON	SPFMC	STANDARD PLANS FOR	
GM	GAS METER		PUBLIC WORKS CONSTRUCTION	
G.N.V.	GROUND NOT VISIBLE		(LATEST EDITION)	
GPM	GALLONS PER MINUTE	S.S.	STAINLESS STEEL	
GPS	GLOBAL POSITIONING SYSTEM	STA.	STATION	
GV	GAS VALVE	STD	STANDARD	
HDPE	HIGH DENSITY POLYETHYLENE PIPE	TEL	TELEPHONE	
HP GAS	HIGH PRESSURE GAS PIPELINE	THK.	THICK	PHASE
ICV	IRRIGATION CONTROL VALVE	TIN	TACK	
LD	INSIDE DIAMETER	TMH	TELEPHONE MANHOLE	
INV.	INVERT	TYP.	TYPICAL	
IRR.	IRRIGATION	UBC	UNIFORM BUILDING CODE	
LAT	LATERAL	UPC	UNIFORM PLUMBING CODE	
L.F.	LOAD FACTOR	W/	WITH	
LT	LEFT	WM	WATER METER	
MAX.	MAXIMUM	WV	WATER VALVE	
		WW	WASTEWATER	

SURVEYOR NOTES

- THIS MAP WAS COMPILED BY AERIAL PHOTOGRAMMETRIC METHODS BY ARROWHEAD MAPPING, INC. FROM PHOTOGRAPHY DATED DECEMBER 2, 2002.
- TOPOGRAPHIC INFORMATION SHOWN HEREON MEETS OR EXCEEDS NATIONAL MAP ACCURACY STANDARDS FOR A MAPPING SCALE OF 1"=40' AND A ONE FOOT CONTOUR INTERVAL.
- HORIZONTAL COORDINATES SHOWN HEREON ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), ZONE V, IN U.S. SURVEY FEET, EPOCH 1995.00. THE CITY OF OXNARD SURVEY MONUMENTS 1013, 1221, AND 1533 AS DEPICTED ON A RECORD OF SURVEY, RECORDED MARCH 25, 1999 IN BOOK 51 PAGE 93 OF RECORDS OF SURVEY IN THE OFFICE OF THE COUNTY RECORDER FOR THE COUNTY OF VENTURA, STATE OF CALIFORNIA WAS USED AS THE BASIS OF BEARINGS FOR THIS MAP.
- ADDITIONAL HORIZONTAL CONTROL FOR THIS PROJECT WAS ESTABLISHED USING GPS FAST STATIC AND REAL TIME KINEMATIC METHODS. ELEVATIONS FOR ALL CONTROL POINTS WERE ESTABLISHED USING DIFFERENTIAL LEVELING.
- VERTICAL ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88). VENTURA COUNTY ADJUSTED PUBLICATION 1992. PUBLISHED ELEVATIONS FOR COUNTY OF VENTURA BENCHMARKS E1442, 20-204 RM1, LANTANA, 1-14 RM1, 1-15 RM1, 1-17 RM1, 100-13, 2-36, 2-35, 2-34, 2-33, 2-32, 2-30, 2-21 RESET, 2-24, 47-5 RM1, AND OX-VINE WERE ACCEPTED AND HELD DURING THE DIFFERENTIAL LEVELING ADJUSTMENT FOR THIS PROJECT.

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
105	1911876.914	6212333.806	97.01	ASC PANEL PK & TIN
106	1910832.979	6211394.538	92.91	ASC PANEL PK & TIN
107	1908835.682	6209445.620	85.62	ASC PANEL PK & TIN
108	1907076.630	6209518.020	86.53	ASC PANEL PK & TIN
109	1907875.185	6211101.959	88.39	ASC PANEL PK & TIN
110	1910355.075	6213008.263	102.51	ASC PANEL PK & TIN
111	1907038.987	6211518.915	101.54	ASC PANEL PK & TIN
114	1911121.391	6208506.313	93.79	ASC PANEL PK & TIN
115	1910228.136	6209897.550	88.95	ASC PANEL PK & TIN
116	1910228.323	6210079.450	93.41	ASC PANEL PK & TIN
117	1912416.015	6211754.238	95.25	ASC PANEL PK & TIN
118	1913763.646	6210278.587	100.84	ASC PANEL PK & TIN
130	1909254.907	6212504.038	99.09	ASC PANEL PK & TIN
131	1909274.239	6211024.557	90.61	ASC PANEL PK & TIN



- LEGEND:**
- SEWER PIPELINE W/ MANHOLES (MH).
 - MH NO. AS SHOWN.
 - PHASE 5B BOUNDARY
 - PHASE 5C BOUNDARY
 - PHASE 5D BOUNDARY

8" SEWER PIPELINE:
 ALVARADO ST., CITRUS ST., COLLINS ST.,
 CORNICANA DR., CORTEZ ST., HELSAM AVE.,
 KENNEY ST., MINNA ST., ORANGE DR., RIO
 SCHOOL LANE, ROSE AVE., SALEM AVE.,
 STROUBE ST., VINEYARD AVE., WALNUT AVE.

6" SEWER PIPELINE:
 PRIVATE EASEMENTS



SHEET INDEX

SHEET NO.	TITLE
1	TITLE SHEET, GENERAL NOTES, & LEGEND
2	SHEET INDEX, INDEX MAPS, SURVEYOR NOTES & ABBREVIATIONS
PHASE 5B	
3	PLAN AND PROFILE - LINE-A(W) STA: 1+42 TO 10+00
4	PLAN AND PROFILE - LINE-B(W) STA: 10+00 TO 21+00
5	PLAN AND PROFILE - LINE-M(W) STA: 21+00 TO 31+65.00
6	PLAN AND PROFILE - LINE-QF STA: 1+00 TO 8+77.50
7	PLAN AND PROFILE - LINE-N(W) STA: 1+15 TO 10+00
8	PLAN AND PROFILE - LINE-M(W) STA: 10+00 TO 19+05.93
9	PLAN AND PROFILE - LINE-O(W) STA: 1+15 TO 10+00
10	PLAN AND PROFILE - LINE-O(W) STA: 10+00 TO 11+72.84
11	PLAN AND PROFILE - LINE-UA STA: 1+00 TO 05+16.13
12	PLAN AND PROFILE - LINE-K(E) STA: 9+02 TO 17+00
13	PLAN AND PROFILE - LINE-L(E) STA: 15+39 TO 18+56.00
14	PLAN AND PROFILE - LINE-J(W) STA: 1+42 TO 10+00
15	PLAN AND PROFILE - LINE-J(W) STA: 10+00 TO 19+00
16	PLAN AND PROFILE - LINE-J(W) STA: 19+00 TO 27+94.86
17	PLAN AND PROFILE - LINE-GCA STA: 1+01.14 TO 4+90.23
18	SECTIONS, DETAILS, & MANHOLE SCHEDULE STA: 1+58 TO 4+74.13
PHASE 5C	
19	PLAN AND PROFILE - LINE-(E) STA: 1+05.50 TO 10+00
20	PLAN AND PROFILE - LINE-(E) STA: 10+00 TO 18+00
21	PLAN AND PROFILE - LINE-(E) STA: 19+00 TO 28+08
22	PLAN AND PROFILE - LINE-C STA: 1+00 TO 3+78.00
23	PLAN AND PROFILE - LINE-IA STA: 1+00 TO 3+55.00
24	PLAN AND PROFILE - LINE-HB STA: 1+00 TO 5+89.00
25	PLAN AND PROFILE - LINE-J(E) STA: 1+42 TO 10+00
26	PLAN AND PROFILE - LINE-J(E) STA: 10+00 TO 19+00
27	PLAN AND PROFILE - LINE-J(E) STA: 19+00 TO 24+18.61
28	PLAN AND PROFILE - LINE-JB STA: 1+00 TO 3+59.00
29	PLAN AND PROFILE - LINE-HC STA: 1+01.14 TO 14+57.00
30	PLAN AND PROFILE - LINE-HA STA: 1+40 TO 10+00
31	PLAN AND PROFILE - LINE-HA STA: 1+00 TO 20+41.00
32	SECTIONS, DETAILS, & MANHOLE SCHEDULE STA: 1+00 TO 8+01.00
PHASE 5D	
33	PLAN AND PROFILE - LINE-K(W) STA: 9+14 TO 17+00
34	PLAN AND PROFILE - LINE-K(W) STA: 17+00 TO 21+08.00
35	PLAN AND PROFILE - LINE-K(W) STA: 1+81.66 TO 10+00
36	PLAN AND PROFILE - LINE-K(W) STA: 10+00 TO 17+46.21
37	PLAN AND PROFILE - LINE-CT STA: 1+00 TO 2+75.24
38	PLAN AND PROFILE - LINE-L(W) STA: 1+42 TO 10+00
39	PLAN AND PROFILE - LINE-L(W) STA: 10+00 TO 19+00
40	PLAN AND PROFILE - LINE-L(W) STA: 19+00 TO 25+45.19
41	PLAN AND PROFILE - LINE-GE STA: 1+00 TO 3+70.58
42	SECTIONS, DETAILS, & MANHOLE SCHEDULE STA: 10+00 TO 17+07.72

RECORD DRAWING

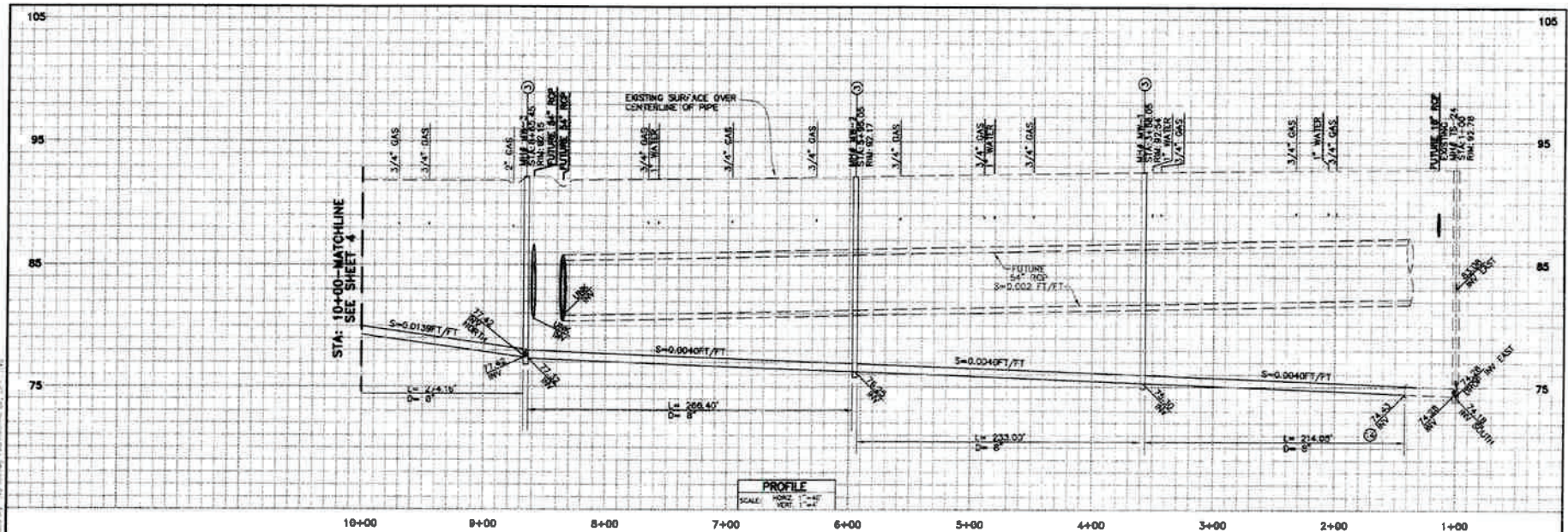
Date project completed 4/19/11
 Record Changes Submitted by
 Original Drawings Revised by Phoenix Civil Engineering



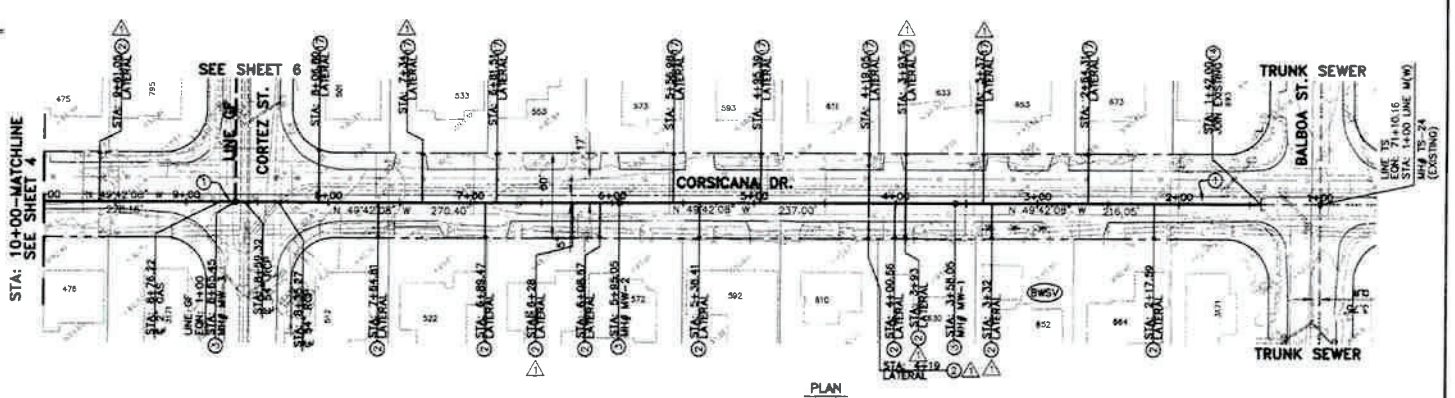
Under ground
 Surveyor Alert
 of Caltrans District
 Call TOLL FREE
 1-800
 422-4533
 TWO WORKING DAYS BEFORE YOU DIG

NO. DATE	REVISIONS	APPROVED	DESIGN, SC/ANA, CHECKED	REVIEWED BY	DATE	SPEC. NO.	EL RIO FOREBAY (GCEP)	SHEET 2
						W009-05	PHASES 5B, 5C & 5D	OF 42
						28236	INDEX, SURVEYOR NOTES, & ABBREVIATIONS	DRAWING NO. 67602

EL RIO FOREBAY (GCEP) - PHASE 5B
LINE-M(W)
P&P STA 1+42 TO 10+00



- CONSTRUCTION NOTES**
- FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 18.
 - FURNISH & INSTALL 4" LATERAL PER SPPWC STD PLAN 222, Y=6' UNLESS OTHERWISE SHOWN.
 - FURNISH & INSTALL 48" MANHOLE PER DETAIL B, SHEET 18.
 - REMOVE ENDCAP & JOIN EXISTING, A MINIMUM OF 2 WEEKS PRIOR TO START OF PIPE LAYING, POT HOLE LOCATION AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF PIPE.
 - FURNISH & INSTALL 4" LATERAL PER SPPWC STD PLAN 222-0 (TYPE D), Y=6' UNLESS OTHERWISE SHOWN.

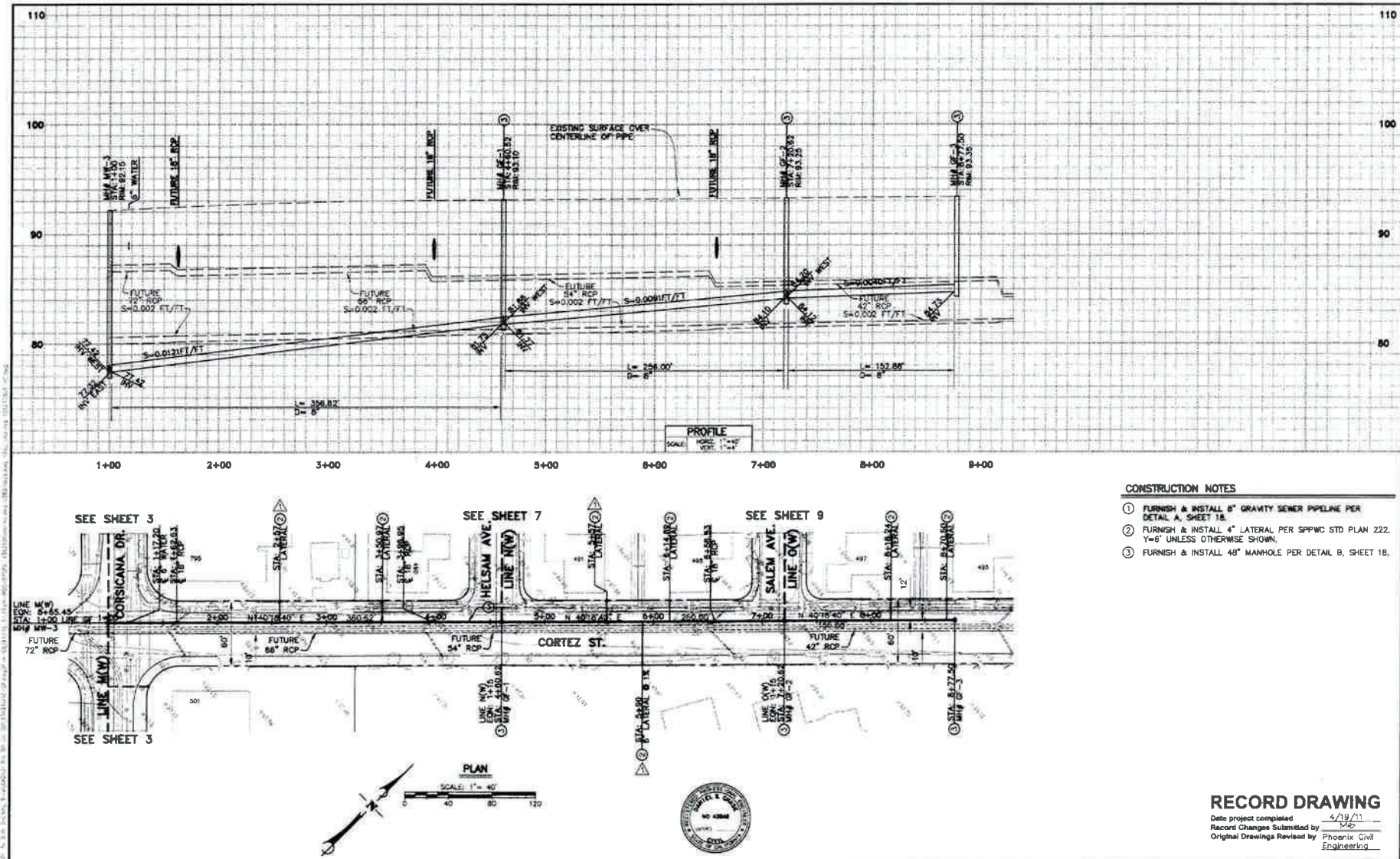


PLAN
SCALE: 1" = 40'

RECORD DRAWING
Date project completed: 4/19/11
Record Changes Submitted by: MS
Original Drawings Revised by: Phoenix Civil Engineering

NO.	DATE	REVISIONS	APPROVED	DESIGNED	CHECKED	REVIEWED	DATE	SPEC. NO.	EL RIO FOREBAY (GCEP) - PHASE 5B	SHEET 3
1	12/18/11	RECORD DRAWING ADJUSTMENTS					5-27-12	WW09-05	LINE-M(W)	OF 42
Penfield & Smith ENGINEERS & SURVEYORS 1327 DEL NORTE ROAD SUITE 200 CARROLLVILLE, CA 93003 (925) 361-2706									COUNTY OF VENTURA PUBLIC WORKS AGENCY PROJECT NO. 28236 P&P STA 1+42 TO 10+00	DRAWING NO. 67803

DATE: 4/18/17
 BY: [Signature]
 CHECKED BY: [Signature]

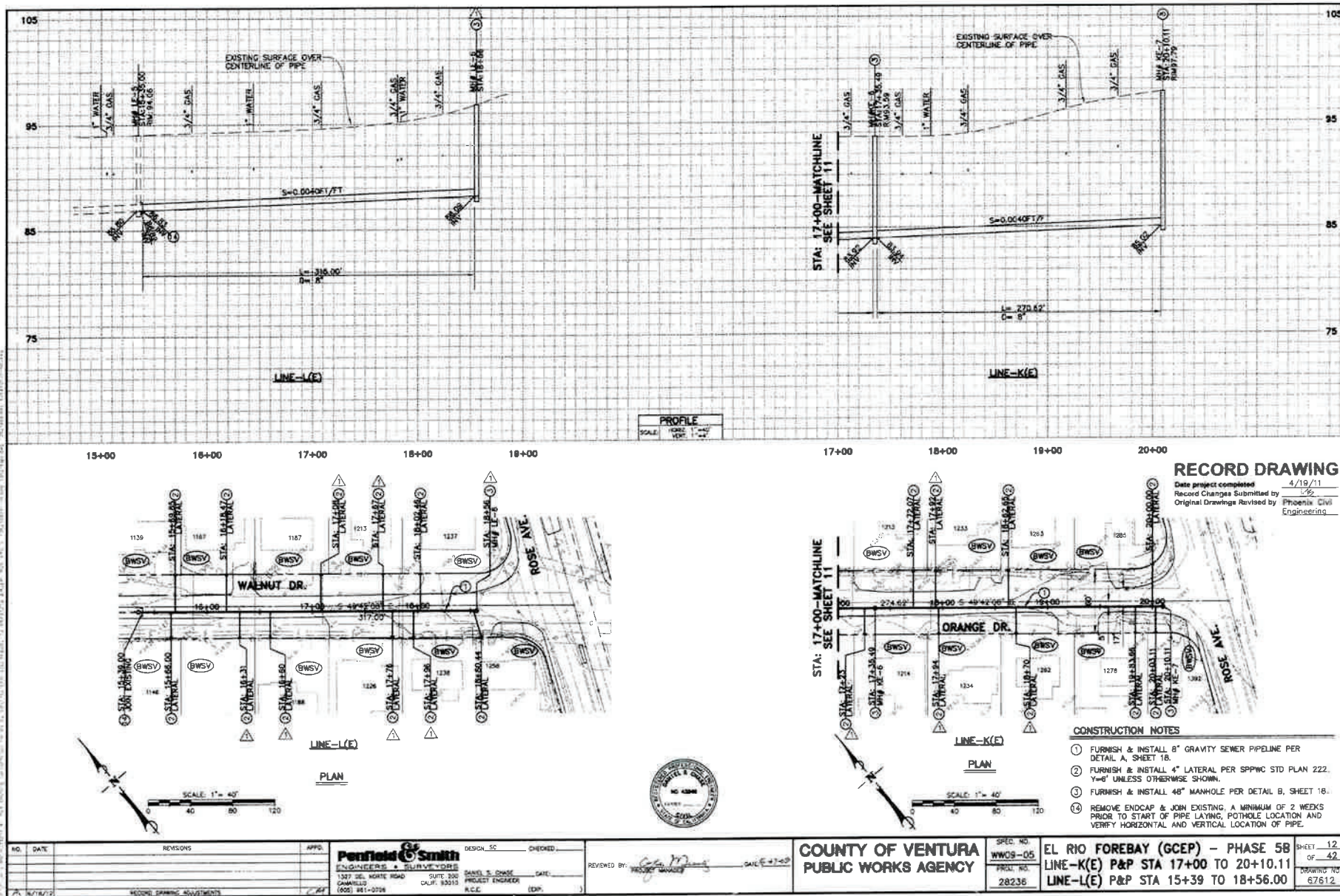


- CONSTRUCTION NOTES**
- 1 FURNISH & INSTALL 6\"/>

RECORD DRAWING
 Date project completed: 4/19/11
 Record Changes Submitted by: [Signature]
 Original Drawings Revised by: Phoenix Civil Engineering

NO.	DATE	REVISIONS	APP.	DESIGN BY	CHECKED	REVIEWED BY	DATE	SPEC. NO.	PROJECT NO.	SHEET
1	4/18/17	RECORD DRAWING ADJUSTMENTS	[Signature]	Pontfield & Smith ENGINEERS & ARCHITECTS 1327 DEL NORTE ROAD CARMELITO CALIF. 93015 (800) 361-0754	SANDEE S. CHASE PROJECT ENGINEER R.C.E.	[Signature]	5/27/09	WW08-05	28236	6
COUNTY OF VENTURA PUBLIC WORKS AGENCY									EL RIO FOREBAY (GCEP) - PHASE 5B LINE-GF P&P STA 1+00 TO 8+77.50	OF 42 DRAWING NO. 67606

6/7/12
 12 of 11
 EL RIO FOREBAY (GCEP) - PHASE 58
 LINE-K(E) P&P STA 17+00 TO 20+10.11
 LINE-L(E) P&P STA 15+39 TO 18+56.00



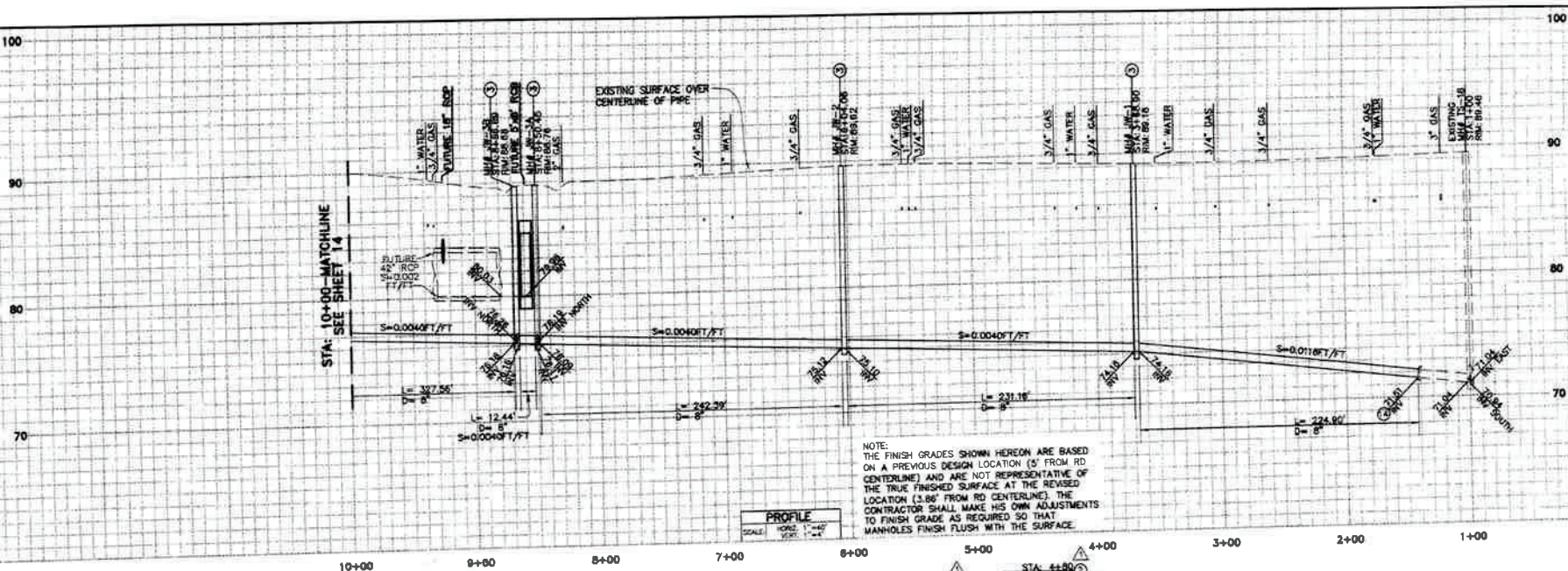
RECORD DRAWING
 Date project completed 4/19/11
 Record Changes Submitted by 6/2
 Original Drawings Revised by Phoenix Civil Engineering

- CONSTRUCTION NOTES**
1. FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 18.
 2. FURNISH & INSTALL 4" LATERAL PER SPPWC STD PLAN 222, Y=6" UNLESS OTHERWISE SHOWN.
 3. FURNISH & INSTALL 48" MANHOLE PER DETAIL B, SHEET 18.
 4. REMOVE ENDCAP & JOIN EXISTING, A MINIMUM OF 2 WEEKS PRIOR TO START OF PIPE LAYING, POTHOLE LOCATION AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF PIPE.



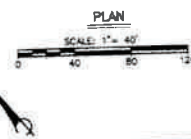
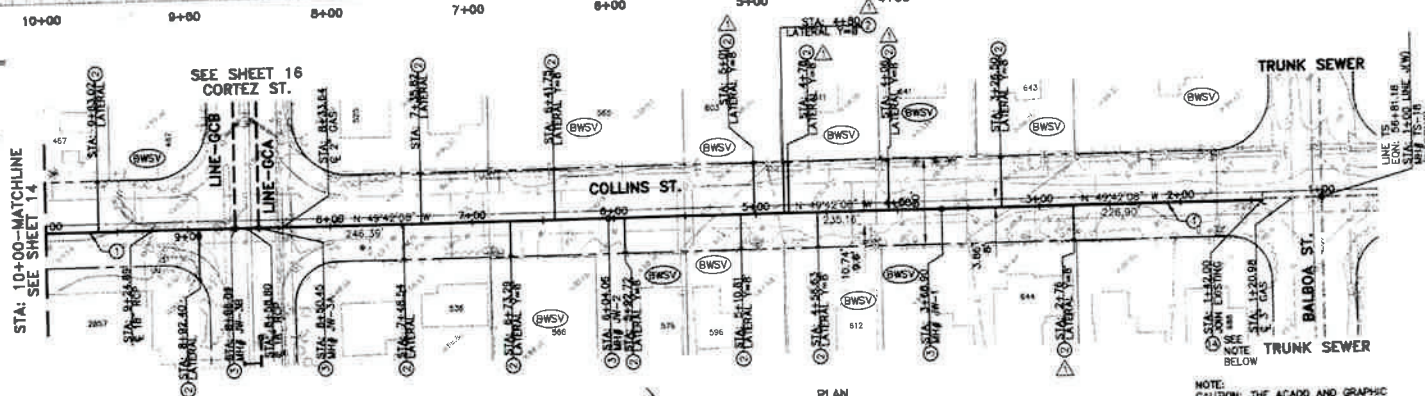
NO.		DATE	REVISIONS	APPD.	Penfield & Smith ENGINEERS & SURVEYORS 1307 JEL. MCATE ROAD CAMARILLO CALIF. 93015 (805) 881-0718		DESIGN: SC	CHECKED:	REVIEWED BY: <i>[Signature]</i> DATE: 6/7/12		COUNTY OF VENTURA PUBLIC WORKS AGENCY		SPEC. NO. WW09-05 PROJ. NO. 28236	EL RIO FOREBAY (GCEP) - PHASE 58 LINE-K(E) P&P STA 17+00 TO 20+10.11 LINE-L(E) P&P STA 15+39 TO 18+56.00	SHEET 12 OF 42 DRAWING NO. 67612
PK 1678.62		SECOND DRAWING ADJUSTMENTS			[Signature]		DANIEL S. CHADE PROJECT ENGINEER R.C.E. (E.P.)								

1. EL RIO FOREBAY (GCEP) - PHASE 5B
2. LINE-J(W)
3. STA 1+42 TO 10+00
4. P&P
5. 1/4" = 1'-0"



CONSTRUCTION NOTES

- FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 18.
- FURNISH & INSTALL 4" LATERAL PER SPPWC STD PLAN 222, Y=6' UNLESS OTHERWISE SHOWN.
- FURNISH & INSTALL 48" MANHOLE PER DETAIL B, SHEET 18.
- REMOVE ENDCAP & JOIN EXISTING, A MINIMUM OF 2 WEEKS PRIOR TO START OF PIPE LAYING, POTHOLE LOCATION AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF PIPE.
- FURNISH & INSTALL 4" LATERAL PER SPPWC STD PLAN 222-D (TYPE D), Y=6' UNLESS OTHERWISE SHOWN.



RECORD DRAWING

Date project completed 4/19/11
Record Changes Submitted by [Signature]
Original Drawings Revised by Phoenix Civil Engineering

NO.	DATE	REVISIONS	APP'D.	DESIGN	CHECKED
1					
2					
3					
4					
5					

Penfield & Smith
ENGINEERS & ARCHITECTS
1137 DO. NORTH ROAD SUITE 200
CAMPBELL, CALIF. 95009
(925) 961-2706

DESIGNED BY: [Signature]
CHECKED BY: [Signature]
DATE: 5/2/11

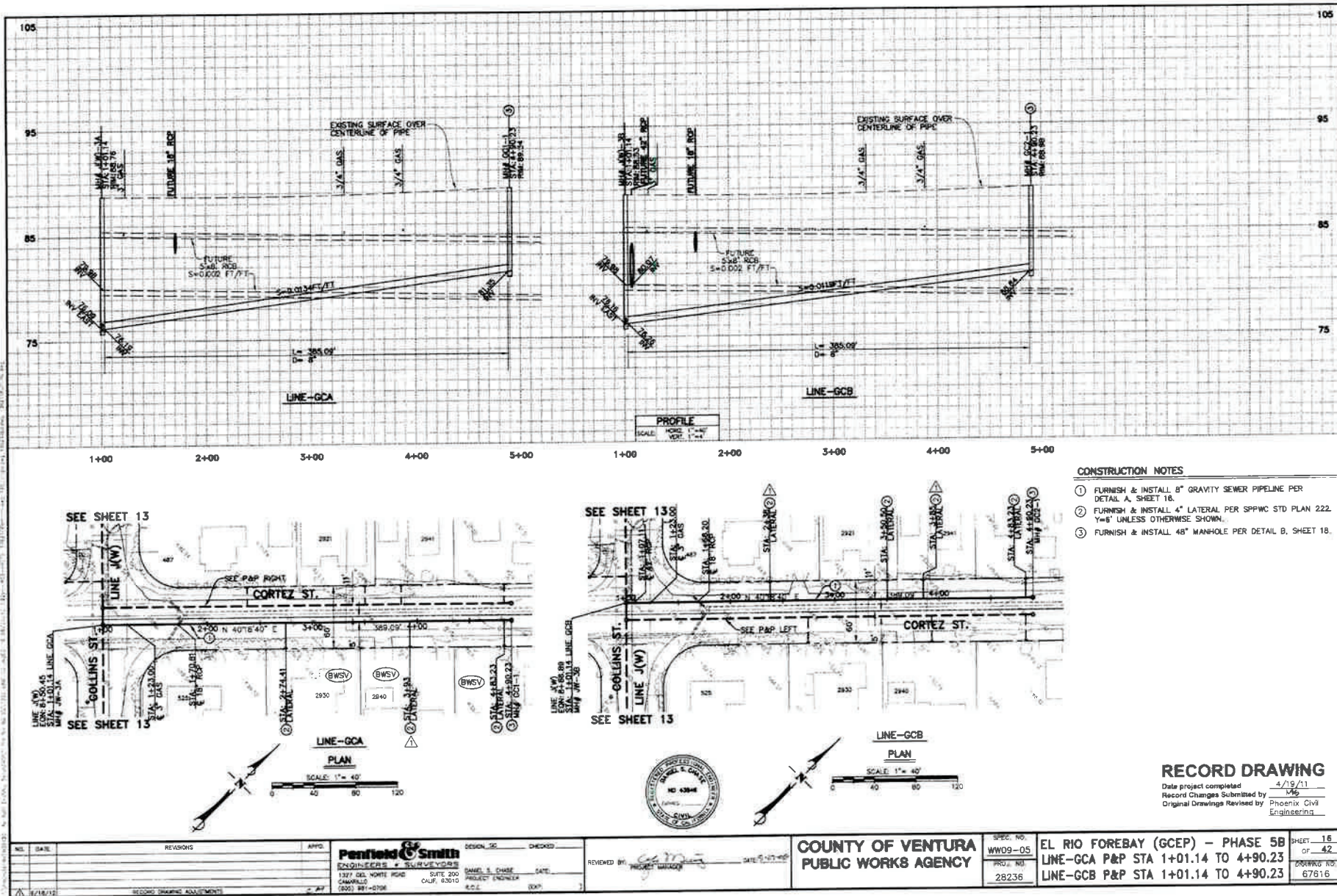
COUNTY OF VENTURA
PUBLIC WORKS AGENCY

SPEC. NO. WW09-05
PROJECT NO. 28236

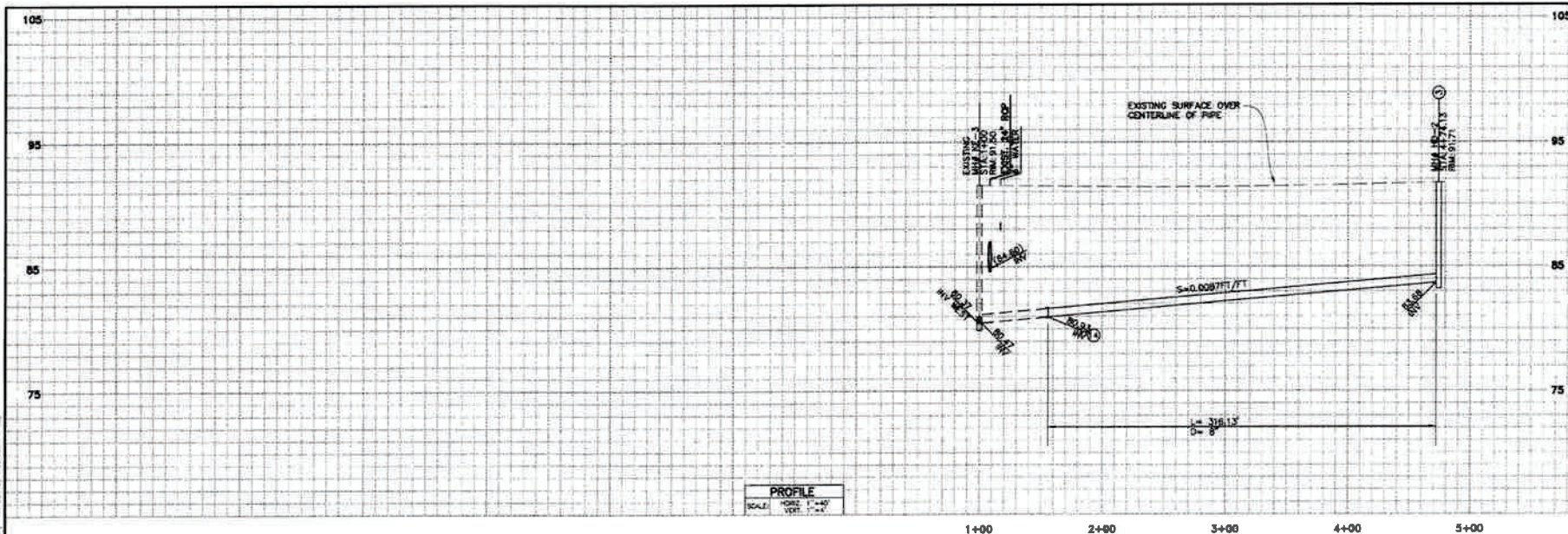
EL RIO FOREBAY (GCEP) - PHASE 5B
LINE-J(W)
P&P STA 1+42 TO 10+00

SHEET 13
OF 42
DRAWING NO. 67813

DATE: 10/18/12
 BY: J. S. CHASE
 CHECKED: J. S. CHASE
 SCALE: 1" = 40'



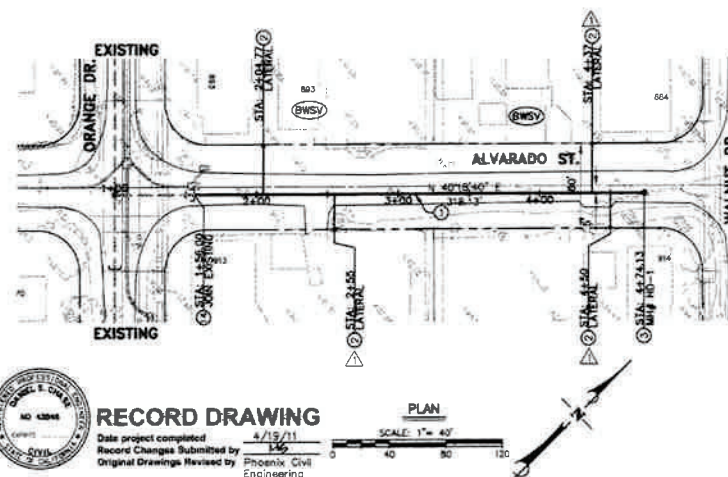
11/15/11
 11/15/11
 11/15/11



PROFILE
 SCALE: HORIZ 1"=40'
 VERT 1"=4'

CONSTRUCTION NOTES

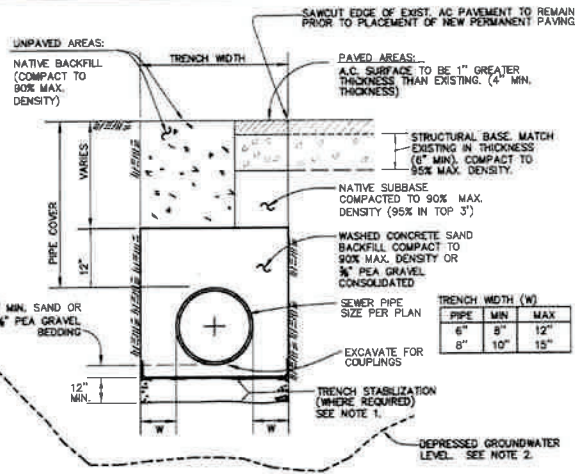
- ① FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 18.
- ② FURNISH & INSTALL 4" LATERAL PER SPPWC STD PLAN 222, PROFILE TYPE A, Y=6" UNLESS OTHERWISE SHOWN.
- ③ FURNISH & INSTALL 48" MANHOLE PER DETAIL B, SHEET 18.
- ④ REMOVE ENDCAP & JOIN EXISTING, A MINIMUM OF 2 WEEKS PRIOR TO START OF PIPE LAYING, POT HOLE LOCATION AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF PIPE.



RECORD DRAWING

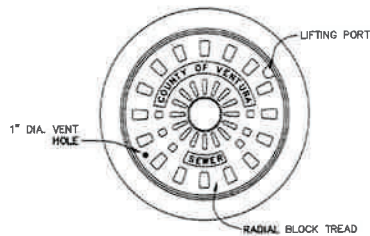
Date project completed: 4/15/11
 Record Changes Submitted by: 146
 Original Drawings Revised by: Phoenix Civil Engineering

NO.	DATE	REVISIONS	APPRO.	DESIGN: 30	CHECKED:	REVIEWED BY: <i>Chris M...</i>	DATE: 5/1/11	COUNTY OF VENTURA PUBLIC WORKS AGENCY	SPEC. NO. WW09-05	EL RIO FOREBAY (GCEP) - PHASE 5B LINE-HD P&P STA 1+56 TO 4+74.13	SHEET 17 OF 42 DRAWING NO. 67617
1	10/18/11	RECORD CHANGES ADJUSTMENTS		1327 3RD NORTH ROAD CARMELITO, CALIF. 93015 (805) 581-0706	DANIEL F. O'NEIL PROJECT ENGINEER P.E.				28236		



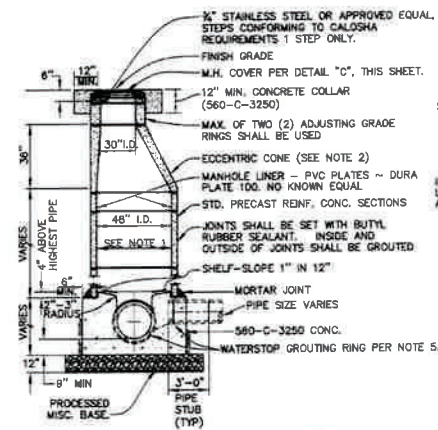
- NOTES**
1. PLACE GEOTEXTILE FABRIC OVER ROCK BASE BEFORE PLACING SAND.
 2. GROUNDWATER TO BE KEPT DEPRESSED A MINIMUM OF 2 FEET BELOW BOTTOM OF TRENCH UNTIL END OF BACKFILLING OPERATION.

TRENCH DETAIL
N.T.S.



- NOTES**
1. FRAME AND COVER SHALL BE MADE OF DUCTILE IRON MATERIAL AND BE ABLE TO WITHSTAND H-20 LOADS.
 2. THE COVER TO BE MARKED AS SHOWN (LETTERS SHALL BE 2" IN HEIGHT).

MANHOLE COVER MARKING
N.T.S.



48" MANHOLE
N.T.S.

MANHOLE DIMENSIONS

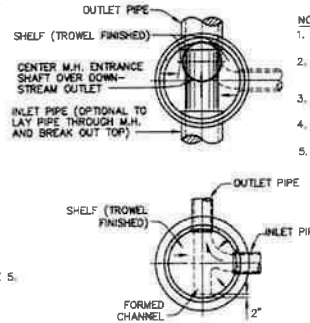
MANHOLE	CONNECTING PIPES	DIA.	NOTE
MW-1	LINE M(W)	48"	CORSICANA DR.
MW-2	LINE M(W)	48"	CORSICANA DR.
MW-3	LINE M(W)	48"	CORSICANA DR./CORTEZ ST.
MW-4	LINE M(W)	48"	CORSICANA DR.
MW-5	LINE M(W)	48"	CORSICANA DR.
MW-6	LINE M(W)	48"	CORSICANA DR.
MW-7	LINE M(W)	48"	CORSICANA DR.
MW-8	LINE M(W)	48"	CORSICANA DR.
MW-9	LINE M(W)	48"	CORSICANA DR./VINEYARD AVE.
MW-10	LINE M(W)	48"	VINEYARD AVE.
MW-11	END LINE M(W)	48"	VINEYARD AVE.
GF-1	LINE GF @ N(W)	48"	CORTEZ ST./HELSAM AVE.
GF-2	LINE GF @ C(W)	48"	CORTEZ ST./SALEM AVE.
GF-3	END LINE GF	48"	CORTEZ ST.
NW-1	LINE N(W)	48"	HELSAM AVE.
NW-2	LINE N(W)	48"	HELSAM AVE.
NW-3	LINE N(W)	48"	HELSAM AVE.
NW-4	LINE N(W) @ UA	48"	HELSAM AVE./CITRUS ST.
NW-5	LINE N(W)	48"	HELSAM AVE./MINNA ST.
NW-6	END LINE N(W)	48"	MINNA ST.
OW-1	LINE O(W)	48"	SALEM AVE.
OW-2	LINE O(W)	48"	SALEM AVE.

- NOTES**
1. 48" DIAMETER MANHOLES SHALL BE PER DETAIL "B", THIS SHEET. INSTALL TOP STEP ONLY. STEP SHALL BE 6" BELOW FINISHED GRADE. MH COVER LETTERING PER DETAIL "C", THIS SHEET.
 2. ALL MANHOLE BASES AND PMB SUBBASES SHALL BE PER DETAIL "B", THIS SHEET.

MANHOLE SCHEDULE
N.T.S.

NOTES

1. PLATTOP COVERS SHALL BE USED WHEN MANHOLES ARE LESS THAN 4' IN DEPTH.
2. CHANNELS, IN THE BASE OF A MANHOLE LOCATED ON A 90° TURN IN A SEWER LINE, SHALL BE FORMED AS SHOWN ABOVE TO ALLOW BETTER ACCESS FOR TV INSPECTION UNITS AND OTHER TYPES OF MAINTENANCE EQUIPMENT.
3. FORM & TROWEL CHANNELS TO PROVIDE SMOOTH TRANSITION THROUGH MANHOLE.
4. FOR TYPE 2 MANHOLES OUTSIDE OF PAVED AREAS OR TRAVELED WAYS - OMIT COLLAR & FINISH MH 18" ABOVE FINISHED GRADE.
5. PRESS-SEAL GASKET CORPORATION, USE WS-25 FOR 8"-10" PIPE, WS-30 FOR 12"-24" PIPE, OR EQUAL.



MANHOLE DIMENSIONS (CONT)

MANHOLE	CONNECTING PIPES	DIA.	NOTE
OW-3	LINE O(W)	48"	SALEM AVE.
OW-4	END LINE O(W)	48"	SALEM AVE.
UA-1	LINE UA	48"	CITRUS ST.
UA-2	END LINE UA	48"	CITRUS ST.
KE-4	LINE K(E)	48"	ORANGE DR.
KE-5	LINE K(E)	48"	ORANGE DR.
KE-6	LINE K(E)	48"	ORANGE DR.
KE-7	END LINE K(E)	48"	ORANGE DR.
LE-6	END LINE L(E)	48"	WALNUT DR.
JW-1	LINE J(W)	48"	COLLINS ST.
JW-2	LINE J(W)	48"	COLLINS ST.
JW-3A	LINE J(W) @ GCA	48"	COLLINS ST.
JW-3B	LINE J(W) @ GCB	48"	COLLINS ST.
JW-4	LINE J(W)	48"	COLLINS ST.
JW-5	LINE J(W)	48"	COLLINS ST.
JW-6	LINE J(W)	48"	COLLINS ST.
JW-7	LINE J(W)	48"	COLLINS ST.
JW-8	LINE J(W)	48"	VINEYARD AVE.
JW-9	END LINE J(W)	48"	VINEYARD AVE.
GC1-1	END LINE GCA	48"	CORTEZ ST.
GC2-1	END LINE GCB	48"	CORTEZ ST.
HD-1	END LINE HD	48"	ALVARADO ST.

RECORD DRAWING

Date project completed 4/19/11
Record Changes Submitted by 146
Original Drawings Revised by Phoenix Civil Engineering

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY**

SPEC. NO.
WW09-05
PROJECT NO.
28236

**EL RIO FOREBAY (GCEP) - PHASE 5B
SECTIONS, DETAILS, &
MANHOLE SCHEDULE**

SHEET 18
OF 42
DRAWING NO.
67618

NO.	DATE	REVISIONS	APPROVED
1	10/18/10	RECORD CHANGES, ADJUSTMENTS	CPT

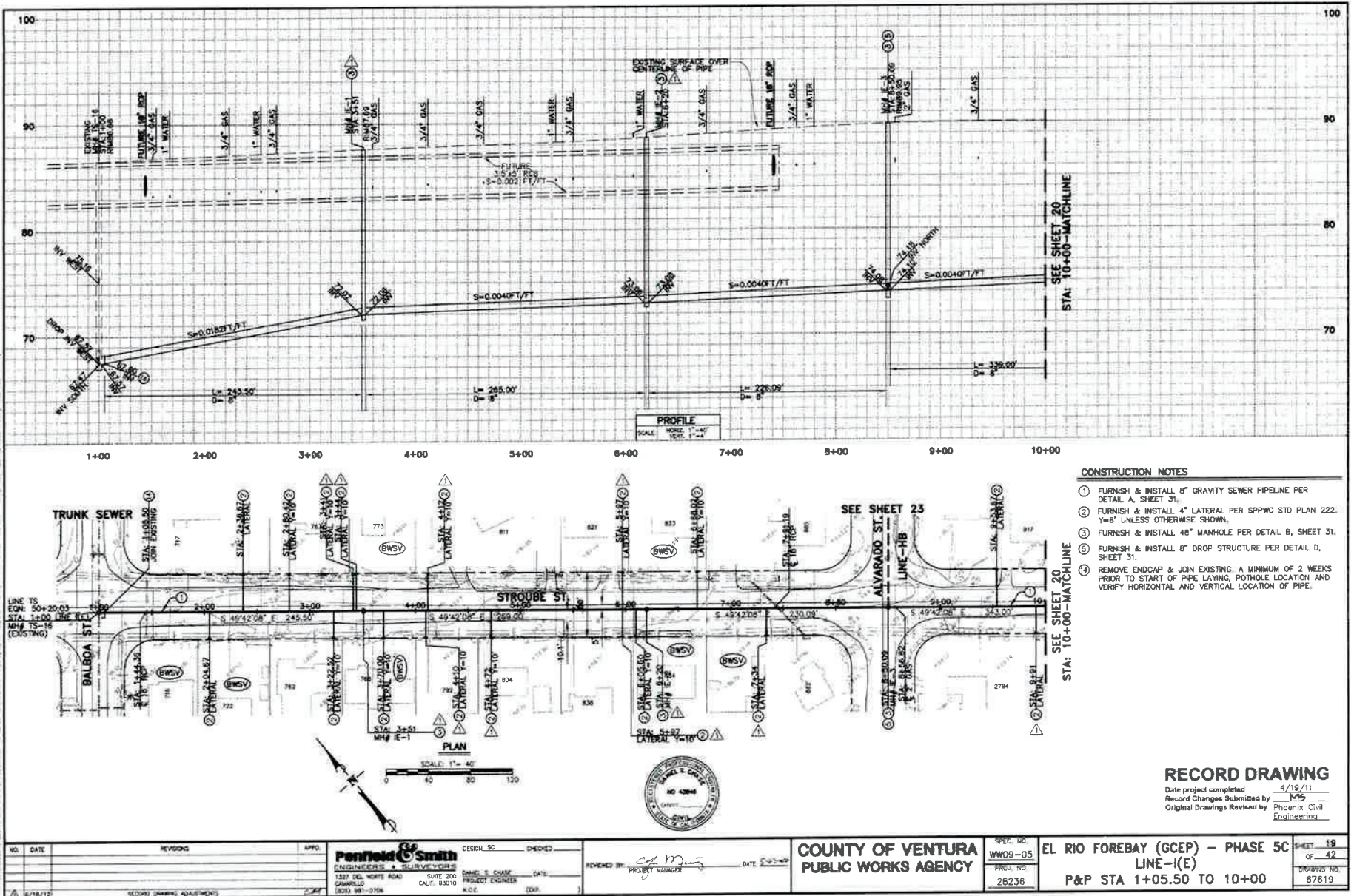
Penfield & Smith
ENGINEERS & SURVEYORS
1322 DEL NORTE ROAD SUITE 200
CARMARILLO CA 93015
(805) 981-0706

DESIGN: JLA CHECKED: [Signature]
DATE: 10/18/10
PROJECT ENGINEER: R.G.C.
DATE: 10/18/10

REVIEWED BY: [Signature] PROJECT MANAGER: [Signature] DATE: 10/18/10



DATE: 11/19/11
 BY: J. M. WOODWARD
 CHECKED: P. E. D. C. D.
 11/19/11

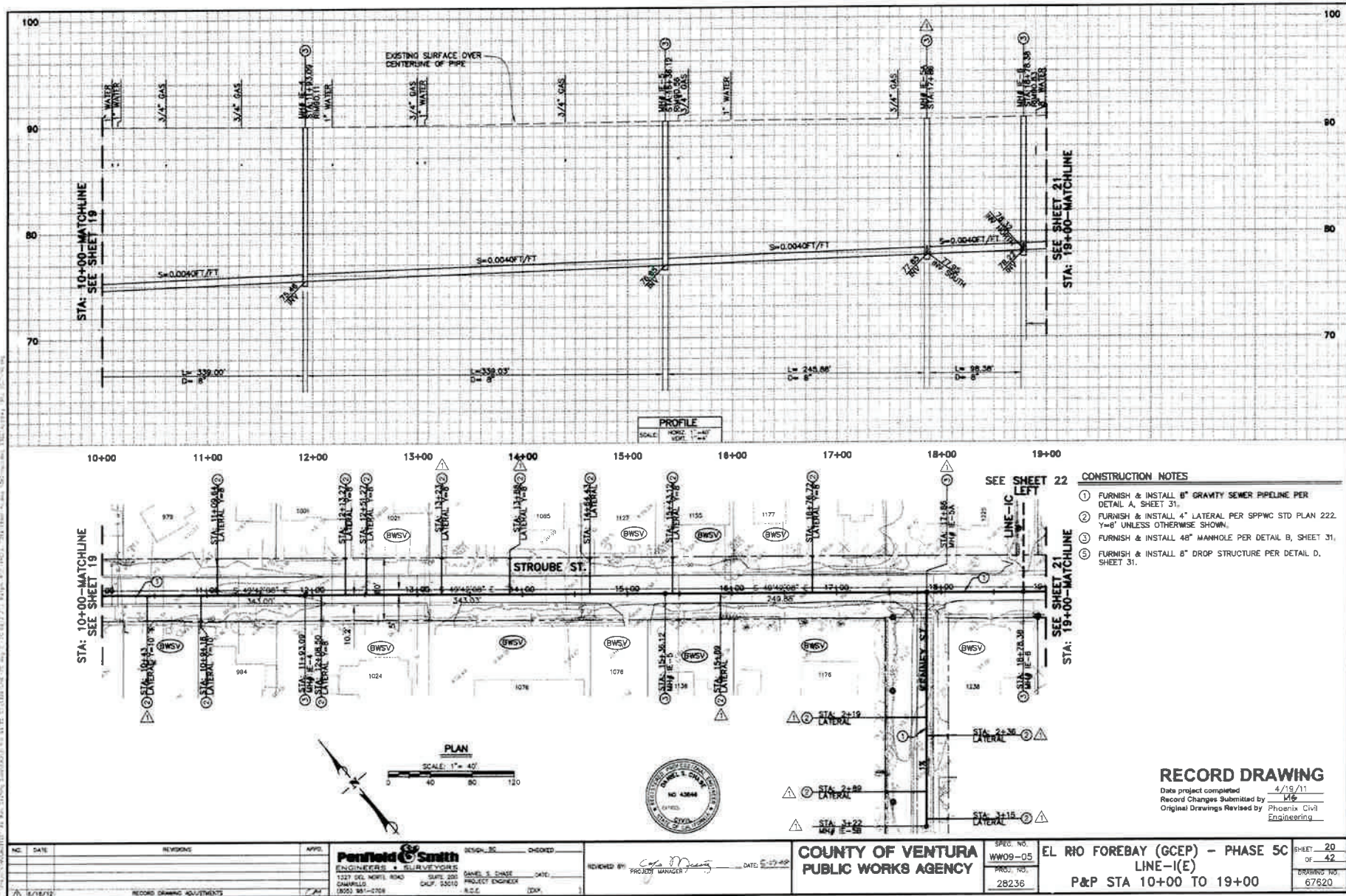


- CONSTRUCTION NOTES**
1. FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 31.
 2. FURNISH & INSTALL 4" LATERAL PER SPPWC STD PLAN 222. Y=8" UNLESS OTHERWISE SHOWN.
 3. FURNISH & INSTALL 48" MANHOLE PER DETAIL B, SHEET 31.
 4. FURNISH & INSTALL 8" DROP STRUCTURE PER DETAIL D, SHEET 31.
 5. REMOVE ENDCAP & JOIN EXISTING A MINIMUM OF 2 WEEKS PRIOR TO START OF PIPE LAYING. POTHOLE LOCATION AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF PIPE.

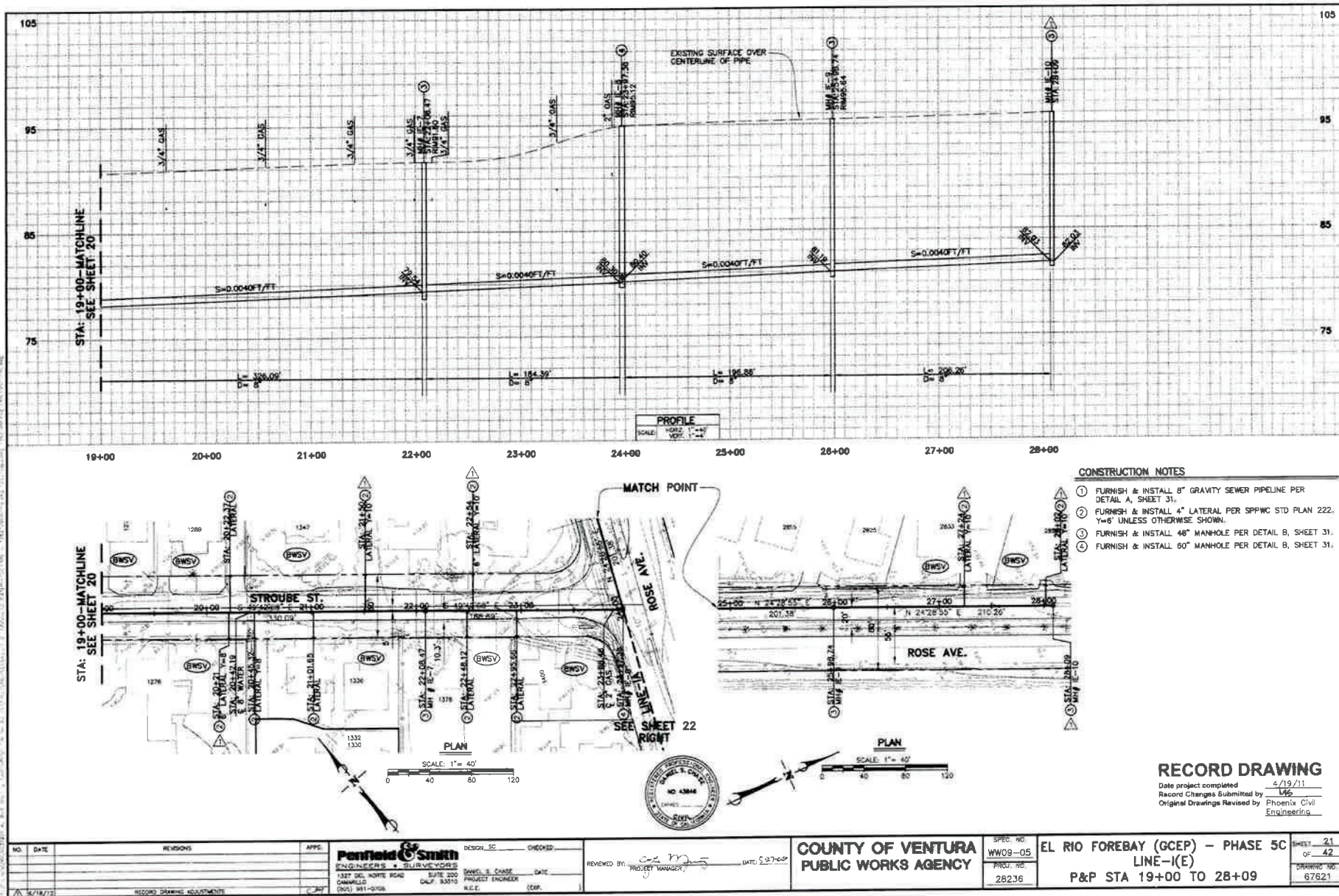
RECORD DRAWING
 Date project completed: 4/19/11
 Record Changes Submitted by: JMS
 Original Drawings Revised by: Phoenix Civil Engineering

NO.		DATE	REVISIONS	APPROVED	Penfield & Smith ENGINEERS • SURVEYORS 1327 DEL NORTE ROAD SUITE 200 GARDEN GROVE, CALIF. 92610 (949) 441-2706		DESIGN: SG	CHECKED:	REVIEWED BY: <i>cf mms</i>		DATE: 5-18-12	COUNTY OF VENTURA PUBLIC WORKS AGENCY		SPEC. NO. WW09-05	EL RIO FOREBAY (GCEP) - PHASE 5C LINE-1(E) P&P STA 1+05.50 TO 10+00		SHEET 19 OF 42 DRAWING NO. 67619
1		5/18/12	SECOND DRAINING ADJUSTMENTS	JMS			SUITE 200 CALIF. 92610	DANIEL S. CHASE	DATE:					26236			

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100.



DATE: 10/10/2009
BY: J. M. J.
CHECKED: M. J.



CONSTRUCTION NOTES

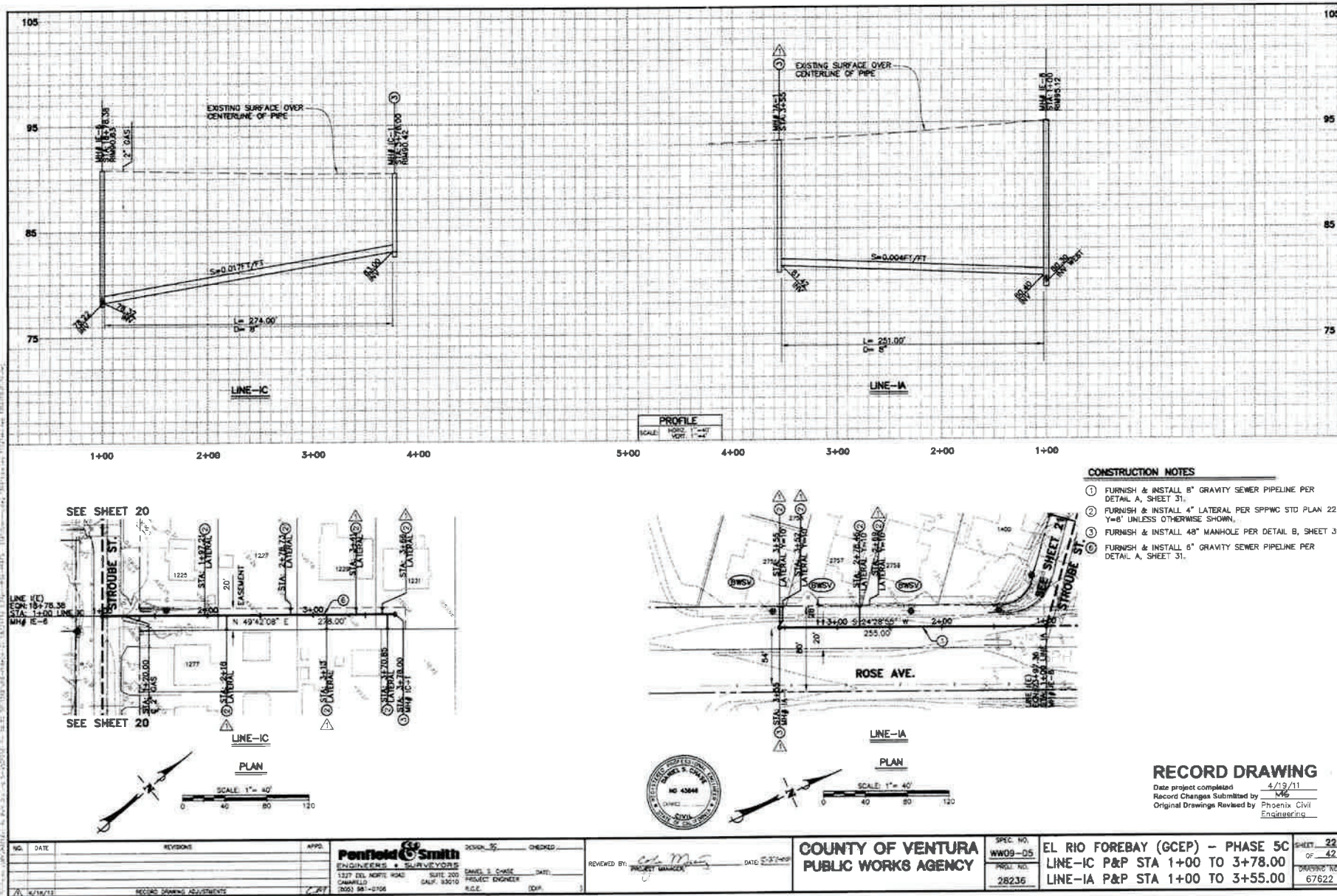
1. FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 31.
2. FURNISH & INSTALL 4" LATERAL PER SPPWC STD PLAN 222. Y=6" UNLESS OTHERWISE SHOWN.
3. FURNISH & INSTALL 48" MANHOLE PER DETAIL B, SHEET 31.
4. FURNISH & INSTALL 60" MANHOLE PER DETAIL B, SHEET 31.

RECORD DRAWING

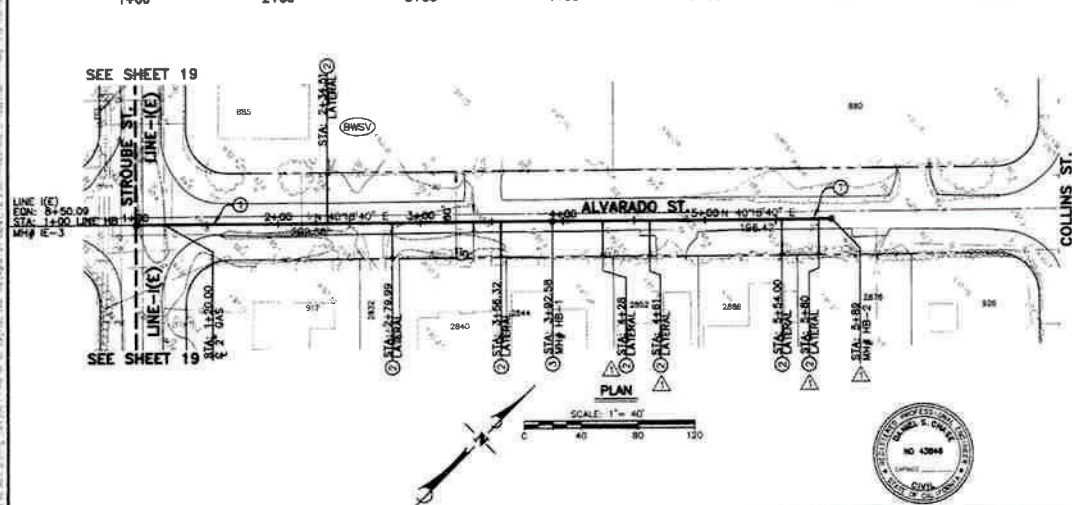
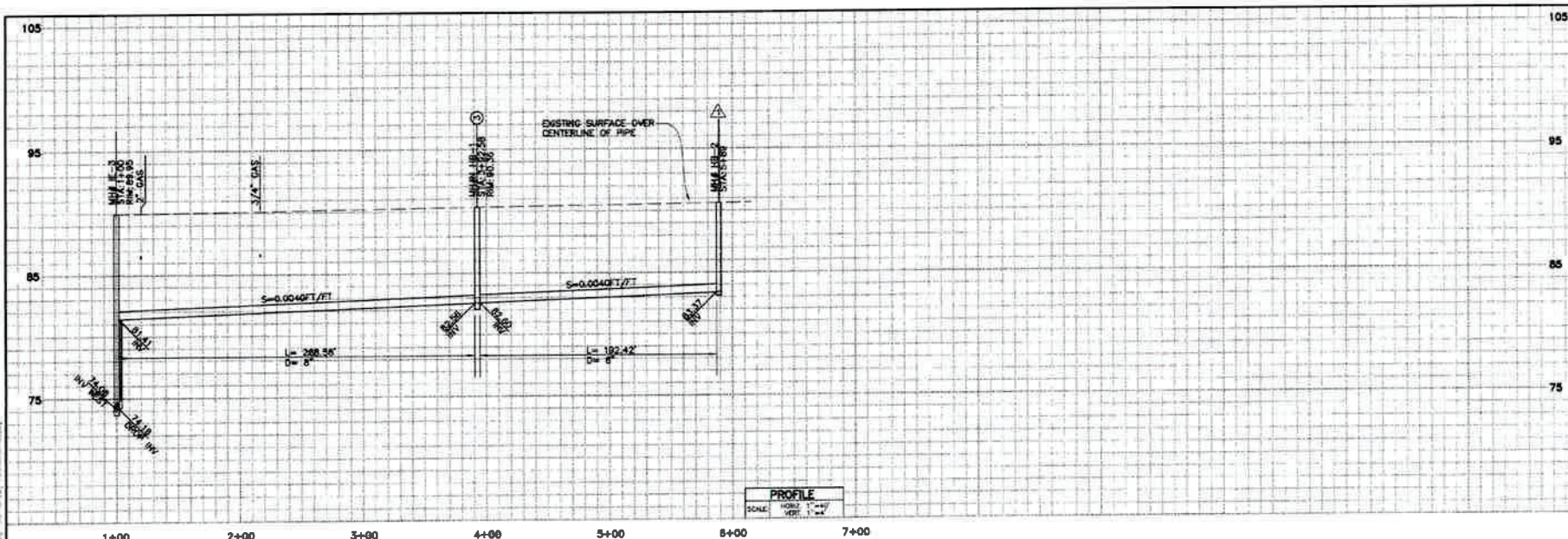
Date project completed: 4/19/11
 Record Changes Submitted by: LJS
 Original Drawings Revised by: Phoenix Civil Engineering

| | | | | | | | | | | | | |
|-----|----------|----------------------------|----------|------------------|----|---------|-------------|---------|--|----------------------|--|---|
| NO. | DATE | REVISIONS | APPROVED | DESIGN | SC | CHECKED | REVIEWED BY | DATE | COUNTY OF VENTURA
PUBLIC WORKS AGENCY | SPEC. NO.
WW09-05 | EL RIO FOREBAY (GCEP) - PHASE 5C
LINE-(E)
P&P STA 19+00 TO 28+09 | SHEET 21
OF 42
DRAWING NO.
67621 |
| 1 | 10/10/09 | RECORD DRAWING ADJUSTMENTS | | Penfield & Smith | | | | 5/27/09 | | 28236 | | |

DATE: 10/11/11
 BY: J. B. J.
 CHECKED: M. S. J.
 TITLE: P&P



DATE: 10/11/11
 BY: J. S. CHASE
 CHECKED: J. S. CHASE
 SCALE: 1" = 40'



CONSTRUCTION NOTES

- FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 31.
- FURNISH & INSTALL 4" LATERAL PER SPWC STD PLAN 222. Y=6" UNLESS OTHERWISE SHOWN.
- FURNISH & INSTALL 48" MANHOLE PER DETAIL B, SHEET 31.

RECORD DRAWING

Date project completed: 4/19/11
 Record Changes Submitted by: J. S. CHASE
 Original Drawings Revised by: Phoenix Civil Engineering

| | | | | | | | | | | |
|-----|------|-----------|----------|----------|---------|-------------|------|-----------|----------------------------------|-------------------|
| NO. | DATE | REVISIONS | APPROVED | DESIGNER | CHECKED | REVIEWED BY | DATE | SPEC. NO. | EL RIO FOREBAY (GCEP) - PHASE 5C | SHEET 23 |
| | | | | | | | | WW09-05 | LINE-HB | OF 42 |
| | | | | | | | | 28236 | P&P STA 1+00 TO 5+89.00 | DRAWING NO. 67623 |

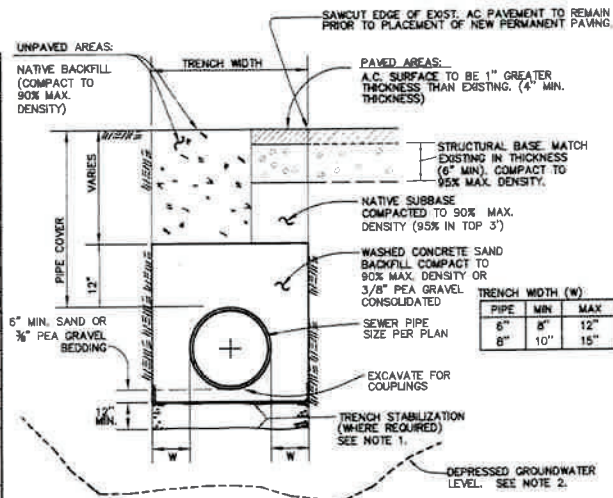
Pentfield & Smith
 ENGINEERS & ARCHITECTS
 1327 DEL NORTE ROAD
 CARPENTERSVILLE, CA 95006
 (925) 841-0706

DESIGNER: J. S. CHASE
 CHECKED: J. S. CHASE
 REVIEWED BY: J. S. CHASE
 DATE: 4/19/11

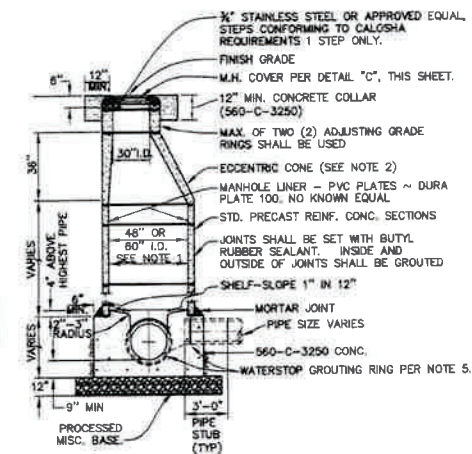
**COUNTY OF VENTURA
 PUBLIC WORKS AGENCY**

PROJECT NO. 28236
 DRAWING NO. 67623

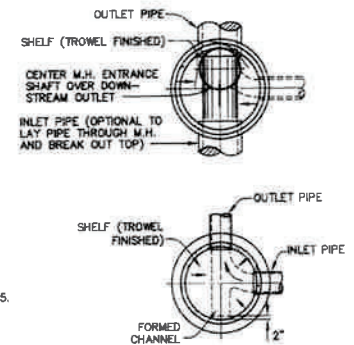
| MANHOLE | CONNECTING
PIPES | DIA. | NOTE |
|---------|---------------------|------|---|
| TS-1C | LINE 1(E) @ 40' | 48" | BRANCH ST./STROUBE ST.
DROPT. DROPT. M.H. |
| IE-1 | LINE 1(E) | 48" | STROUBE ST. |
| IE-2 | LINE 1(E) | 48" | STROUBE ST. |
| IE-3 | LINE 1(E) @ HB | 48" | STROUBE ST./ALVARADO ST.,
DROPT. M.H. |
| IE-4 | LINE 1(E) | 48" | STROUBE ST. |
| IE-5 | LINE 1(E) | 48" | STROUBE ST. |
| IE-6 | LINE 1(E) @ IC | 48" | STROUBE ST./PRIVATE,
DROPT. M.H. |
| IE-7 | LINE 1(E) | 48" | STROUBE ST. |
| IE-8 | LINE 1(E) @ 1A | 60" | STROUBE ST./ROSE AVE. |
| IE-9 | LINE 1(E) | 48" | ROSE AVE. |
| IE-10 | END LINE 1(E) | 48" | ROSE AVE. |
| IC-1 | END LINE IC | 48" | BRANCH FROM STROUBE |
| 1A-1 | END LINE 1A | 48" | ROSE AVE. |
| HB-1 | LINE HB | 48" | ALVARADO ST. |
| HB-2 | END LINE HB | 48" | ALVARADO ST. |
| TS-1B | LINE 2(E) @ 40' | 60" | BRANCH ST./COLLINS ST.
DROPT. |
| JE-1 | LINE 2(E) | 48" | COLLINS ST. |
| JE-2 | LINE 2(E) | 48" | COLLINS ST. |
| JE-3 | LINE 2(E) @ HC | 48" | COLLINS ST./ALVARADO ST. |
| JE-4 | LINE 2(E) | 48" | COLLINS ST. |
| JE-5 | LINE 2(E) | 48" | COLLINS ST. |
| JE-6 | LINE 2(E) @ JB | 48" | COLLINS ST./PRIVATE |
| JE-7 | LINE 2(E) | 48" | COLLINS ST./ROSE AVE. |
| JE-8 | END LINE 2(E) | 48" | ROSE AVE. |
| JB-1 | END LINE JB | 48" | BRANCH FROM COLLINS |
| HA-1 | LINE HA @ 40' | 48" | KENNEY ST./ALVARADO ST.
DROPT. DROPT. M.H. |
| HA-1 | LINE HA | 48" | ALVARADO ST. |
| HA-2 | LINE HA | 48" | ALVARADO ST. |
| HA-3 | LINE HA | 48" | ALVARADO ST. |
| HA-4 | LINE HA | 48" | ALVARADO ST. |
| HA-5 | LINE HA | 48" | ALVARADO ST. |
| HA-6 | LINE HA @ ZA | 48" | ALVARADO ST./KENNEY ST. |
| HA-7 | END LINE HA | 48" | ALVARADO ST. |
| ZA-1 | LINE ZA | 48" | KENNEY ST. |
| ZA-2 | LINE ZA | 48" | KENNEY ST. |
| ZA-3 | END LINE ZA | 48" | KENNEY ST. |



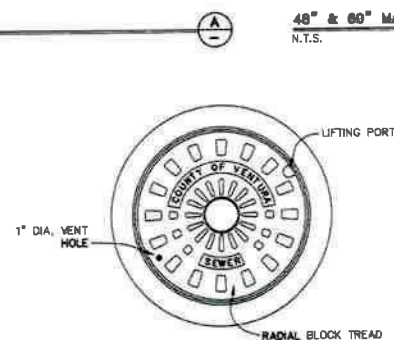
1. PLACE GEOTEXTILE FABRIC OVER ROCK BASE BEFORE PLACING SAND.
2. GROUNDWATER TO BE KEPT DEPRESSED A MINIMUM OF 2 FEET BELOW BOTTOM OF TRENCH UNTIL END OF BACKFILLING OPERATION.



1. PLATTOP COVERS SHALL BE USED WHEN MANHOLES ARE LESS THAN 4" IN DEPTH.
2. CHANNELS, IN THE BASE OF A MANHOLE LOCATED ON A 90° TURN IN A SEWER LINE, SHALL BE FORMED AS SHOWN ABOVE TO ALLOW BETTER ACCESS FOR INSPECTION, CLEANING AND OTHER TYPES OF MAINTENANCE EQUIPMENT.
3. FORM & TROMEL CHANNELS TO PROVIDE SMOOTH TRANSITION THROUGH MANHOLE.
4. FOR TYPE 2 MANHOLES OUTSIDE OF PAVED AREAS OR TRAVELED WAYS- OMIT COLLAR & FINISH MIN 18" ABOVE FINISHED GRADE.
5. PRESS-SEAL GASKET CORPORATION, USE WS-25 FOR 8" PIPE, OR EQUAL.

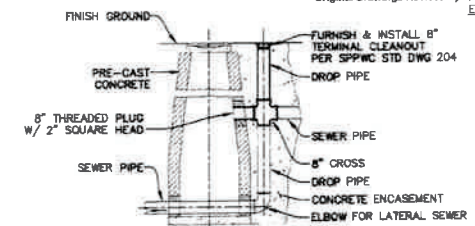


N.T.S.



1. FRAME AND COVER SHALL BE MADE OF DUCTILE IRON MATERIAL AND BE ABLE TO WITHSTAND H-20 LOADS.
2. THE COVER TO BE MARKED AS SHOWN (LETTERS SHALL BE 2" IN HEIGHT).

N.T.S.



1. DROP MANHOLE SHALL BE PER SPPWC STD
PLAN 202 EXCEPT AS MODIFIED HEREON.

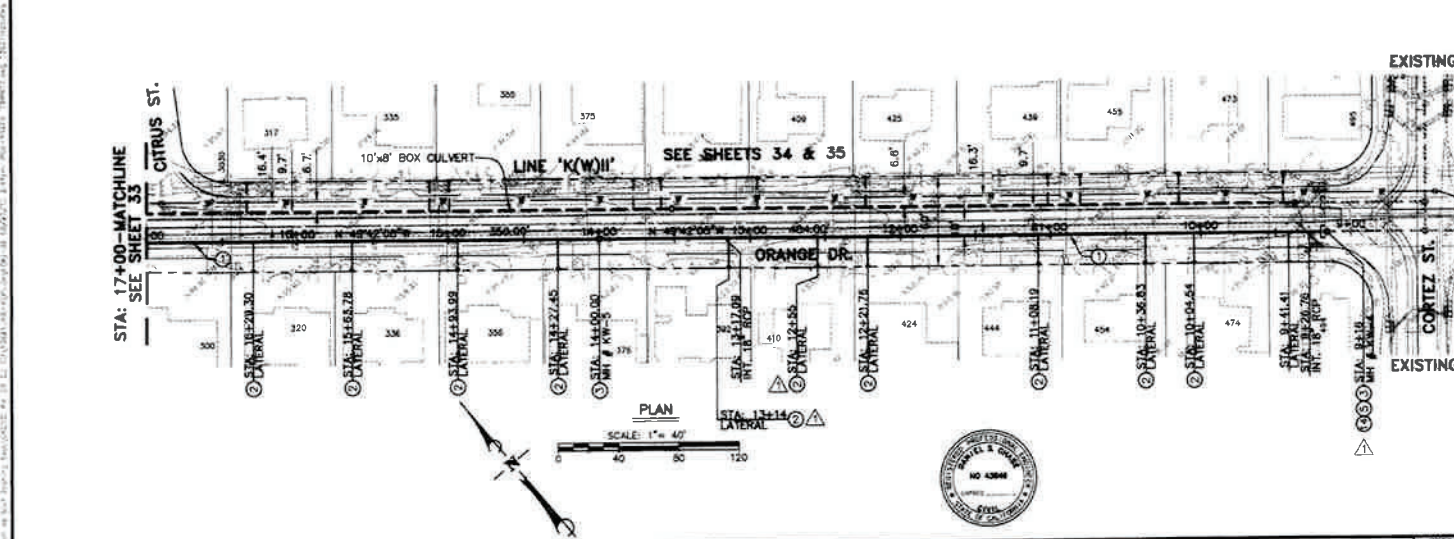
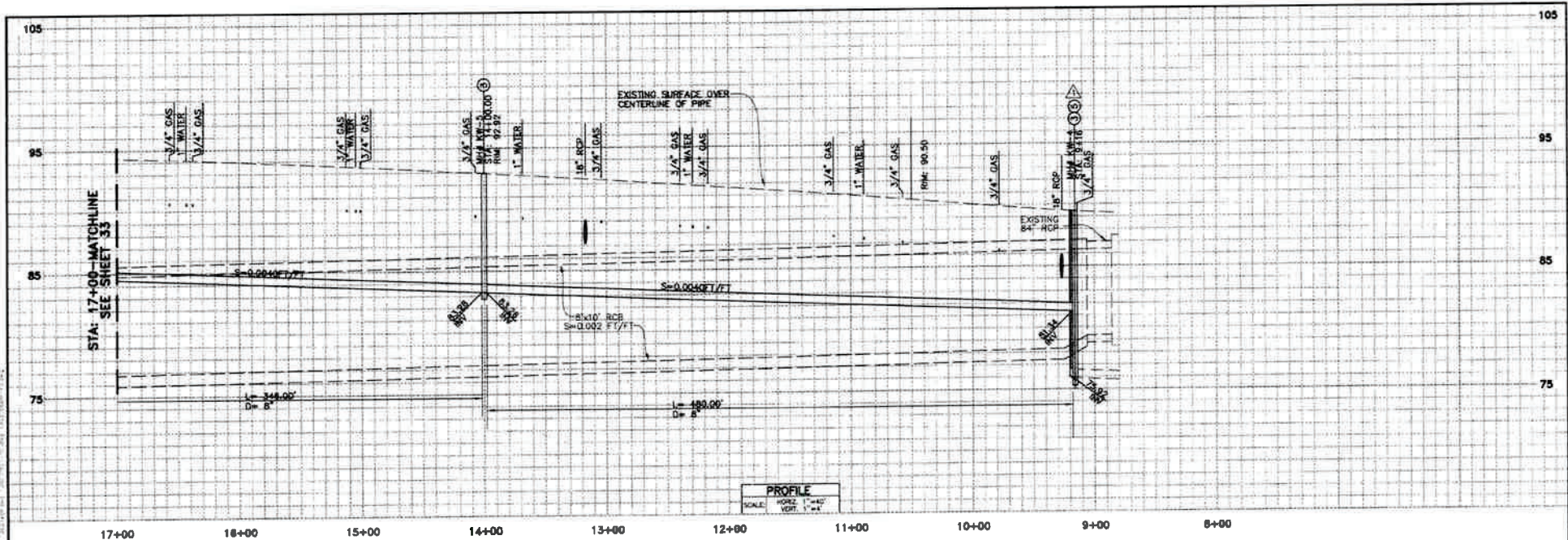
N.T.S.



- NOTES:
1. MANHOLES SHALL BE PER DETAIL "B", THIS SHEET. INSTALL TOP STEP ONLY. STEP SHALL BE 6" BELOW FINISHED GRADE. MH COVER LETTERING PER DETAIL "C", THIS SHEET.
 2. ALL MANHOLE BASES AND PWB SUBBASES SHALL BE PER DETAIL "B", THIS SHEET.
 3. ALL DROP MANHOLES SHALL BE PER DETAIL "D", THIS SHEET.

N.T.S.

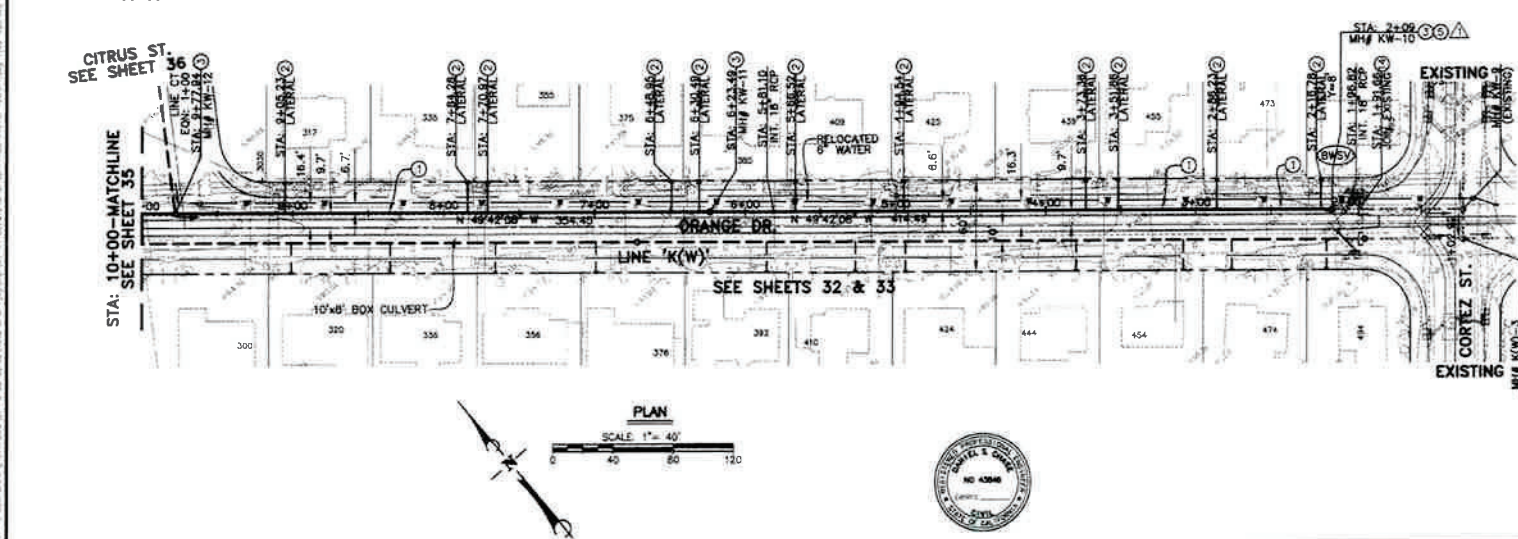
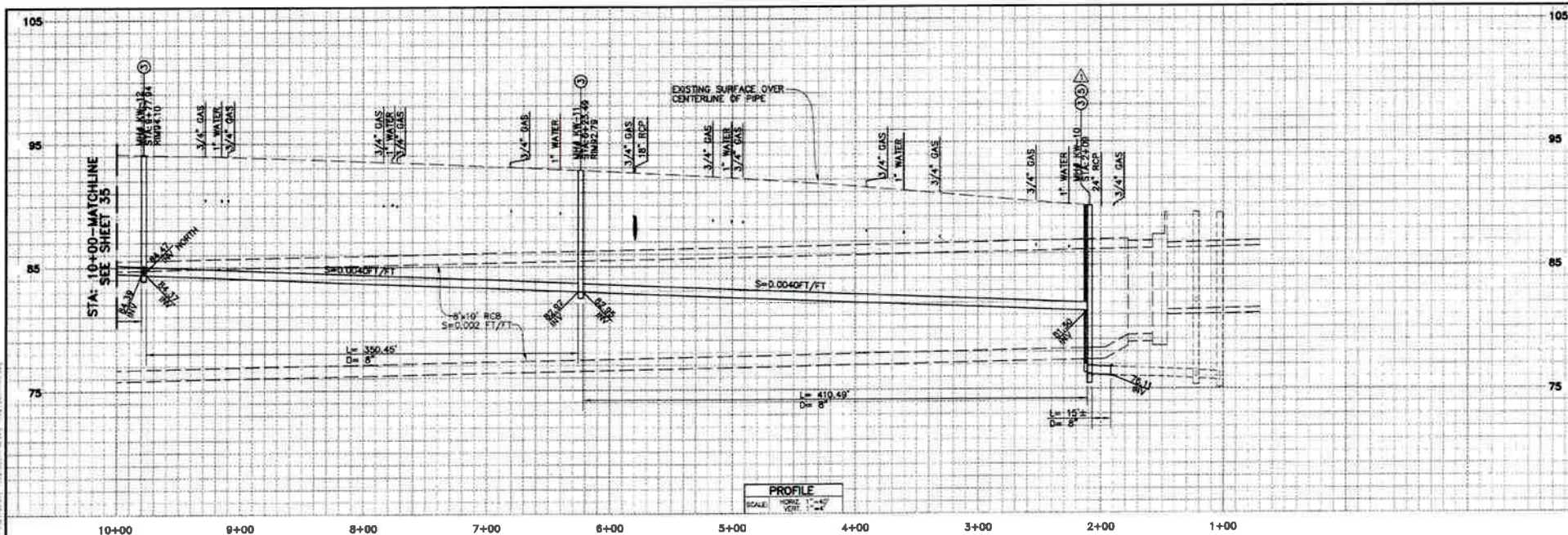




- CONSTRUCTION NOTES**
- ① FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 42.
 - ② FURNISH & INSTALL 4" LATERAL PER SPPWC STD PLAN 222, 1/4" R UNLESS OTHERWISE SHOWN.
 - ③ FURNISH & INSTALL 48" MANHOLE PER DETAIL B, SHEET 42.
 - ⑤ FURNISH & INSTALL 8" DROP STRUCTURE PER DETAIL D, SHEET 42.
 - ⑭ REMOVE ENDCAP & JOIN EXISTING.

RECORD DRAWING
 Date project completed 4/19/11
 Record Changes Submitted by M
 Original Drawings Revised by Phoenix Civil Engineering

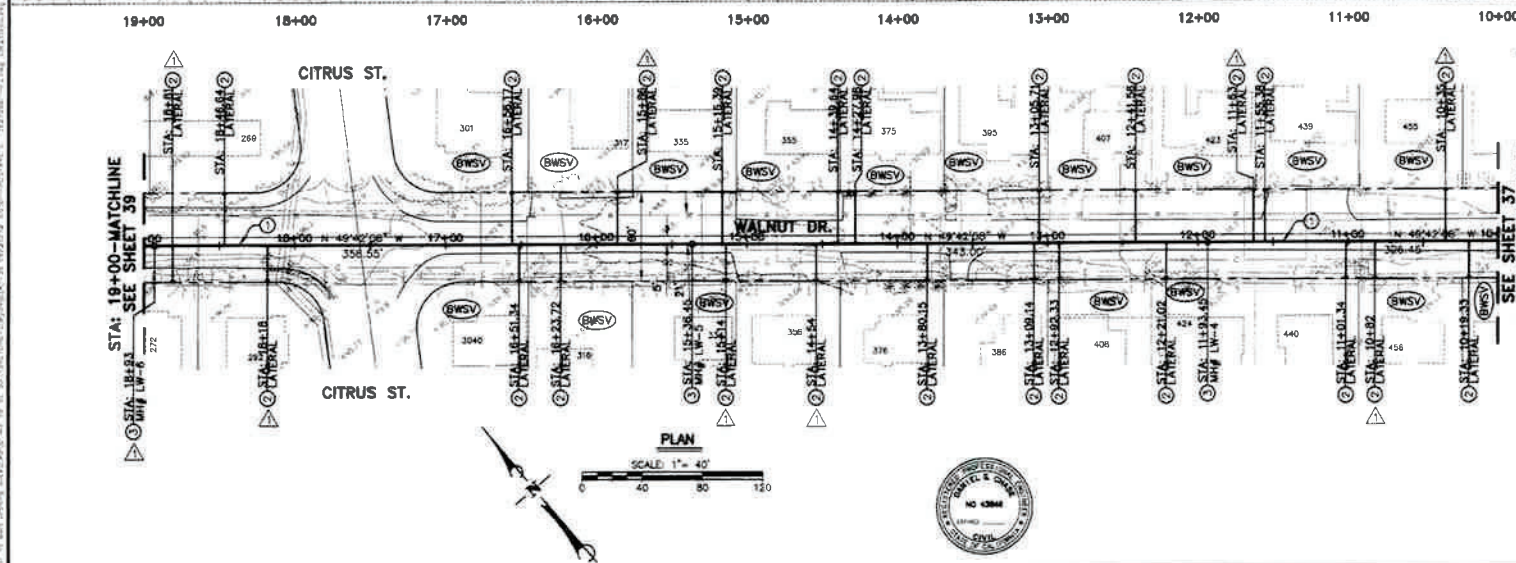
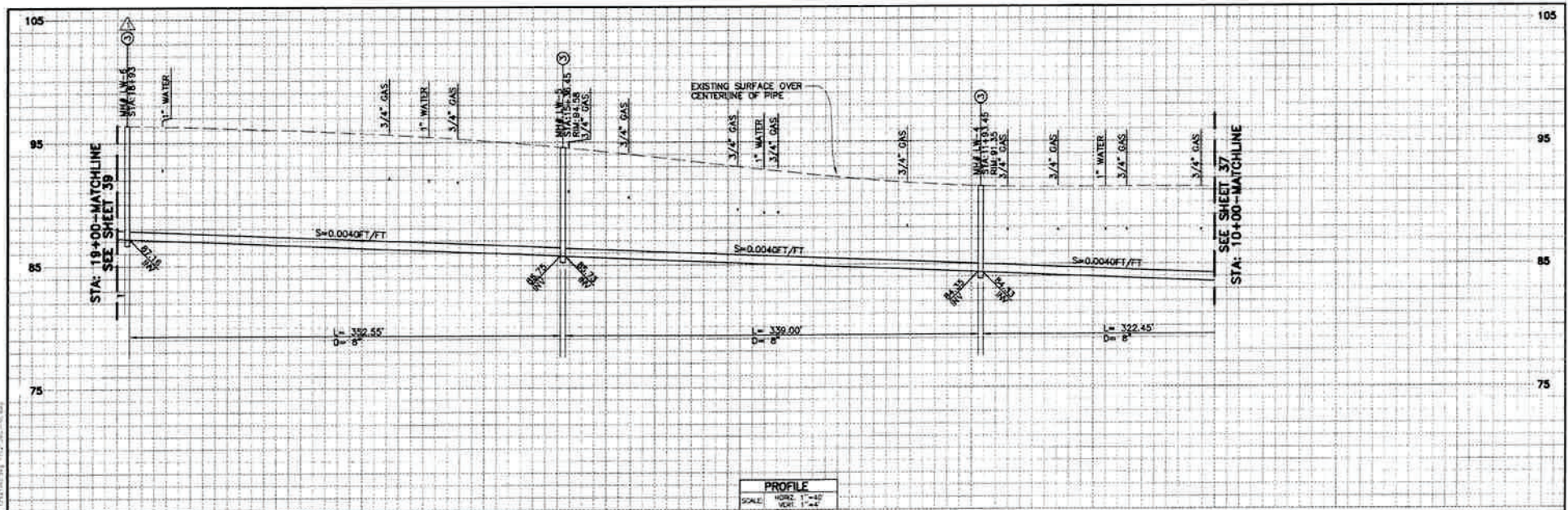
| | | | | | | | | |
|----------------------|---|--|---|--|--|---|--|--|
| NO. DATE
12/19/11 | REVISIONS
RECORD DRAWING ADJUSTMENTS | APP'D.
Ponfield & Smith
ENGINEERS & SURVEYORS
1327 DEL NORTE ROAD
CAMARILLO, CALIF. 93015
(805) 961-0700 | DESIGN BY
DANIEL S. CHASE
PROJECT ENGINEER
DATE: 5-17-10 | CHECKED
DATE: 5-17-10
REVIEWED BY: <i>[Signature]</i>
PROJECT MANAGER | COUNTY OF VENTURA
PUBLIC WORKS AGENCY | SPEC. NO.
WWS09-05
PROJ. NO.
28236 | EL RIO FOREBAY (GCEP) - PHASE 5D
LINE-K(W)
P&P STA 9+14 TO 17+00 | SHEET
OF 42
DRAWING NO.
57632 |
|----------------------|---|--|---|--|--|---|--|--|



- CONSTRUCTION NOTES**
- FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 42.
 - FURNISH & INSTALL 4" LATERAL PER SPPWC STD PLAN 222. Y= 6" UNLESS OTHERWISE SHOWN.
 - FURNISH & INSTALL 48" MANHOLE PER DETAIL B, SHEET 42.
 - FURNISH & INSTALL 8" DROP STRUCTURE PER DETAIL D, SHEET 42.
 - REMOVE ENDCAP & JOIN EXISTING. A MINIMUM OF 2 WEEKS PRIOR TO START OF PIPE LAYING, POTHOLE LOCATION AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF PIPE.

RECORD DRAWING
 Date project completed 4/19/11
 Record Changes Submitted by [Signature]
 Original Drawings Revised by Phoenix Civil Engineering

| | | | | | | | | | | |
|-----|------|-----------|--------|--|---|---|--|--|---|---|
| NO. | DATE | REVISIONS | APPRO. | PENFIELD & SMITH
ENGINEERS & SURVEYORS
1327 OO. NORTH ROAD
CARMELLO
(805) 981-0706 | DESIGN: SC
CHECKED: [Signature]
DATE: 5-27-09
PROJECT ENGINEER
P.E. | REVIEWED BY: [Signature]
PROJECT MANAGER | COUNTY OF VENTURA
PUBLIC WORKS AGENCY | SPEC. NO.
WW09-05
PROJ. NO.
28236 | EL RIO FOREBAY (GCEP) - PHASE 5D
LINE-K(W)II
P&P STA 1+91.66 TO 10+00 | SHEET 34
OF 42
DRAWING NO.
67634 |
|-----|------|-----------|--------|--|---|---|--|--|---|---|



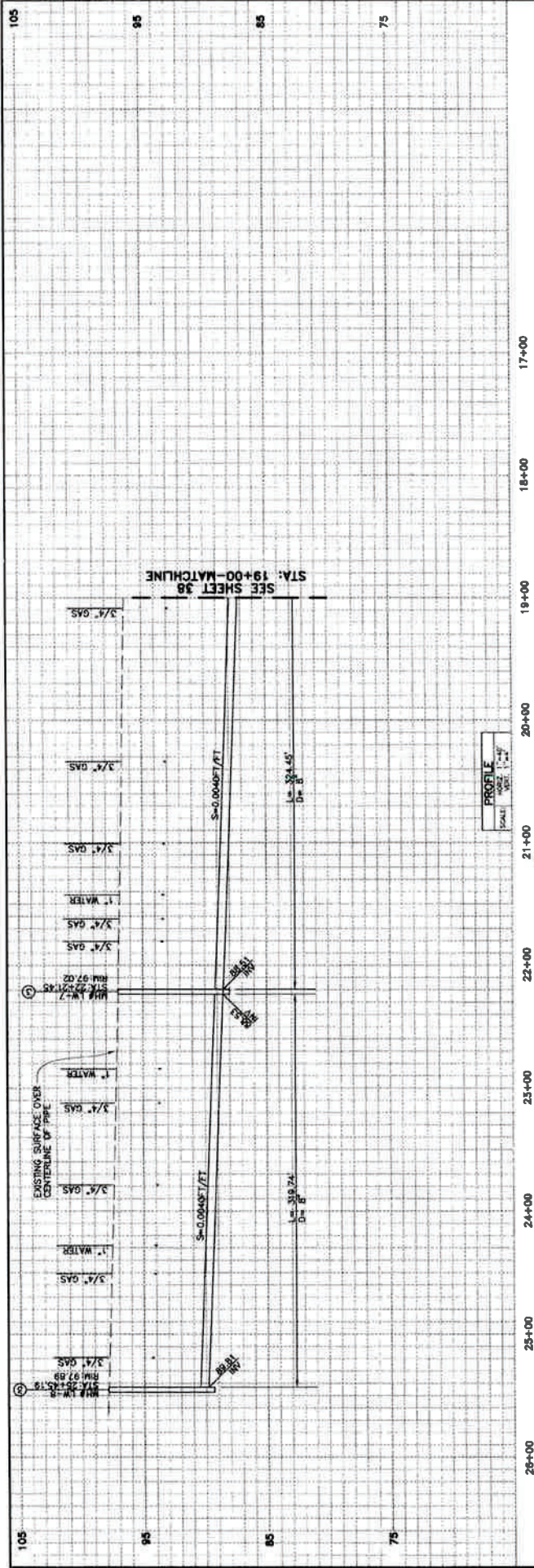
CONSTRUCTION NOTES

- ① FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 42
- ② FURNISH & INSTALL 4" LATERAL PER SPPWC STD PLAN 222. Y=6' UNLESS OTHERWISE SHOWN.
- ③ FURNISH & INSTALL 48" MANHOLE PER DETAIL B, SHEET 42.

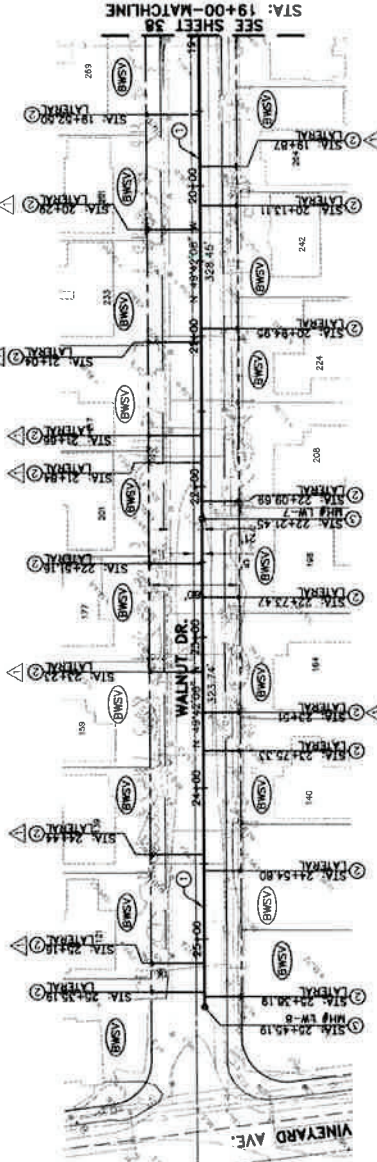
RECORD DRAWING

Date project completed 4/19/11
 Record Changes Submitted by MLB
 Original Drawings Revised by Phoenix Civil Engineering

| | | | | | | | | | | | | |
|-----|----------|----------------------------|-------|--|---|---------|-------------|---------|--|----------------------|---|---|
| NO. | DATE | REVISIONS | APPD. | DESIGN | SC | CHECKED | REVIEWED BY | DATE | COUNTY OF VENTURA
PUBLIC WORKS AGENCY | SPEC. NO.
WW09-05 | EL RIO FOREBAY (GCEP) - PHASE 5D
LINE-L(W)
P&P STA 10+00 TO 19+00 | SHEET 38
OF 42
DRAWING NO.
67638 |
| 1 | 10/18/12 | RECORD DRAWING ADJUSTMENTS | MLB | Penfield & Smith
ENGINEERS & SURVEYORS
1327 DEL NORTE ROAD
CANBERRA
(916) 361-0726 | DANIEL E. CHASE
PROJECT ENGINEER
P.E. | | MLB | 5-17-11 | | 28236 | | |

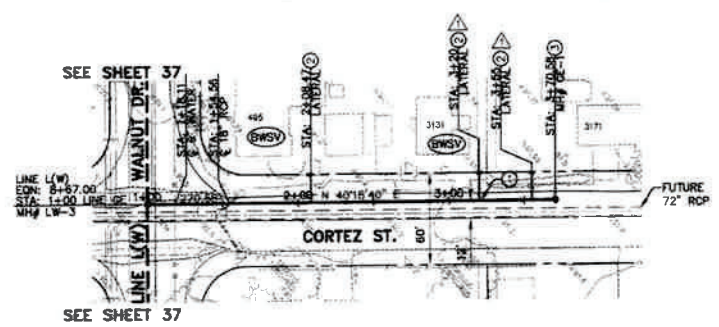
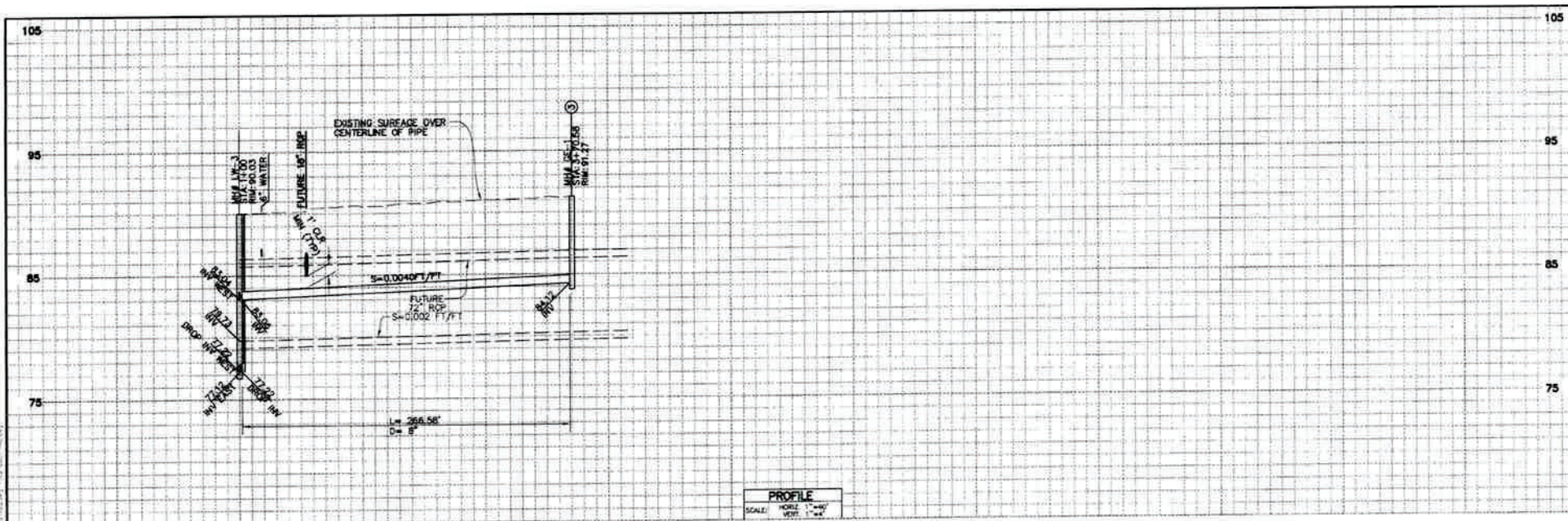


- CONSTRUCTION NOTES**
- 1 FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 42.
 - 2 FURNISH & INSTALL 4" LATERAL PER SPWC STD PLAN 222, Y=6" UNLESS OTHERWISE SHOWN.
 - 3 FURNISH & INSTALL 48" MANHOLE PER DETAIL B, SHEET 42.



RECORD DRAWING
 Date Project completed: 4/19/11
 Drawn by: JAC
 Original Drawings Revised by: Phoenix Civil Engineering

| | | | | | | | | | | | | | | | | | | | |
|-----|------|-----------|----------|----------|---------|-------------|------|-----------------|------|-------------|-------|-----------|---------|----------------------------------|--|----|-------|-------------|-------|
| NO. | DATE | REVISIONS | APPROVED | DESIGNER | CHECKED | REVIEWED BY | DATE | PROJECT MANAGER | DATE | PROJECT NO. | 28236 | SPEC. NO. | WWS9-05 | EL RIO FOREBAY (GCEP) - PHASE 5D | SHEET NO. | 42 | OF 42 | PROJECT NO. | 57639 |
| | | | | | | | | | | | | | | | COUNTY OF VENTURA
PUBLIC WORKS AGENCY | | | | |
| | | | | | | | | | | | | | | | P&P STA 19+00 TO 25+45.19 | | | | |



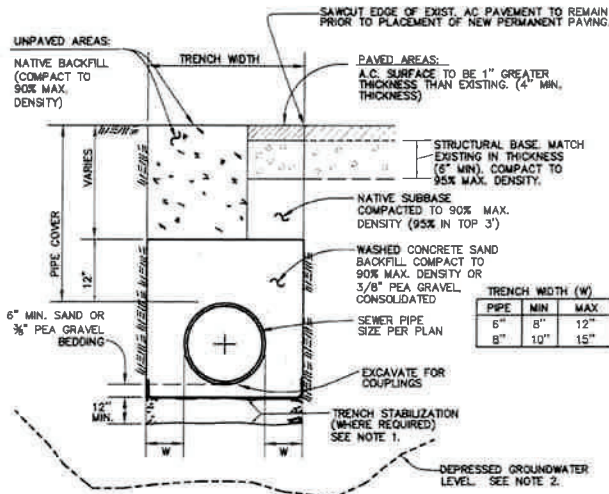
- CONSTRUCTION NOTES**
- 1 FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 42
 - 2 FURNISH & INSTALL 4" LATERAL PER SPPWC STD PLAN 222, V=6" UNLESS OTHERWISE SHOWN.
 - 3 FURNISH & INSTALL 48" MANHOLE PER DETAIL B, SHEET 42.

RECORD DRAWING
 Date project completed 4/19/11
 Record Changes Submitted by M
 Original Drawings Revised by Phoenix Civil Engineering

| | | | | | | | |
|-----------------------|---|--|--|---|--|---|---|
| NO. DATE
1 5/18/11 | REVISIONS
RECORD DRAWING ADJUSTMENTS | APP'D. Penfield & Smith
ENGINEERS & SURVEYORS
1327 E. MONTE ROAD
CARPENTERSVILLE, CALIF. 93010
(905) 981-0706
DESIGN: SC
CHECKED: DANIEL S. CHASE
DATE: 5-27-11
PROJECT ENGINEER
R.C.E. (EXP.) | REVIEWED BY: [Signature]
PROJECT MANAGER
DATE: 5-27-11 | COUNTY OF VENTURA
 PUBLIC WORKS AGENCY | SPEC. NO.
WW09-05
PROJ. NO.
28236 | EL RIO FOREBAY (GCEP) - PHASE 5D
LINE-GE
P&P STA 1+00 TO 3+70.58 | SHEET 40
OF 42
DRAWING NO.
67640 |
|-----------------------|---|--|--|---|--|---|---|

MANHOLE DIMENSIONS

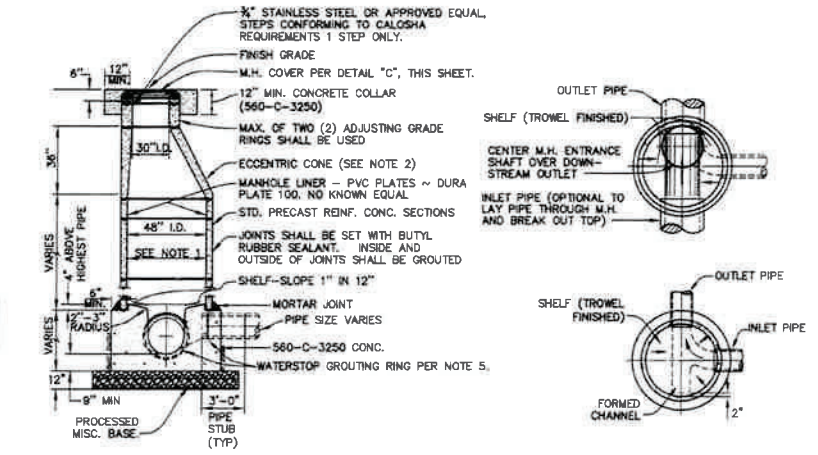
| MANHOLE | CONNECTING PIPES | DIA. | NOTE |
|---------|---------------------|-------|---------------------------------|
| KW-2 | LINE K(W) & K(W) | 48" | ORANGE DR./CORTEZ ST. DROP M.H. |
| KW-4 | LINE K(W) | 48" | ORANGE DR., DROP M.H. |
| KW-5 | LINE K(W) | 48" | ORANGE DR. |
| KW-6 | LINE K(W) | 48" | ORANGE DR. |
| KW-7 | LINE K(W) | 48" | ORANGE DR. |
| KW-8 | END LINE K(W) | 48" | ORANGE DR. |
| KW-9 | LINE K(W) & GE | 48" | ORANGE DR./CORTEZ ST. DROP M.H. |
| KW-10 | LINE K(W) | 48" | ORANGE DR., DROP M.H. |
| KW-11 | LINE K(W) | 48" | ORANGE DR. |
| KW-12 | LINE K(W) | 48" | ORANGE DR. |
| KW-13 | LINE K(W) | 48" | ORANGE DR. |
| KW-14 | LINE K(W) | 48" | ORANGE DR. |
| KW-15 | END LINE K(W) | 48" | ORANGE DR. |
| CO | END LINE CT | 6" CO | CTRUS ST. |
| LW-1 | LINE L(W) | 48" | WALNUT DR., DROP M.H. |
| LW-2 | LINE L(W) | 48" | WALNUT DR. |
| LW-3 | LINE L(W) & GE | 48" | WALNUT DR./CORTEZ ST. DROP M.H. |
| LW-4 | LINE L(W) | 48" | WALNUT DR. |
| LW-5 | LINE L(W) | 48" | WALNUT DR. |
| LW-6 | LINE L(W) | 48" | WALNUT DR. |
| LW-7 | LINE L(W) | 48" | WALNUT DR. |
| LW-8 | END LINE L(W) | 48" | WALNUT DR. |
| GE-1 | END LINE GE | 48" | CORTEZ ST. |
| RSL-1 | RIO SCHOOL LANE | 48" | |
| RSL-2 | END RIO SCHOOL LANE | 48" | |



NOTES

1. PLACE GEOTEXTILE FABRIC OVER ROCK BASE BEFORE PLACING SAND.
2. GROUNDWATER TO BE KEPT DEPRESSED A MINIMUM OF 2 FEET BELOW BOTTOM OF TRENCH UNTIL END OF BACKFILLING OPERATION.

TRENCH DETAIL
N.T.S.



NOTES

1. FLATTOP COVERS SHALL BE USED WHEN MANHOLES ARE LESS THAN 4' IN DEPTH.
2. CHANNELS, IN THE BASE OF A MANHOLE LOCATED ON A 90° TURN IN A SEWER LINE, SHALL BE FORMED AS SHOWN ABOVE TO ALLOW BETTER ACCESS FOR TV INSPECTION UNITS AND OTHER TYPES OF MAINTENANCE EQUIPMENT.
3. FORM & TROWEL CHANNELS TO PROVIDE SMOOTH TRANSITION THROUGH MANHOLE.
4. FOR TYPE 2 MANHOLES OUTSIDE OF PAVED AREAS OR TRAVELED WAYS- OMIT COLLAR & FINISH MH 18" ABOVE FINISHED GRADE.
5. PRESS-SEAL GASKET CORPORATION, USE WS-25 FOR 8" PIPE, OR EQUAL.

RECORD DRAWING

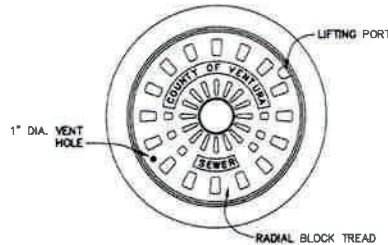
Date project completed 4/19/11
Record Changes Submitted by 140
Original Drawings Revised by Phoenix Civil Engineering

48" MANHOLE
N.T.S.

E MANHOLE SCHEDULE N.T.S.

NOTES:

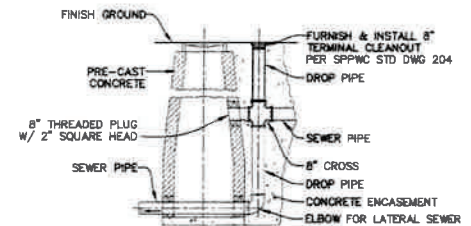
1. MANHOLES SHALL BE PER DETAIL "B", THIS SHEET. INSTALL TOP STEP ONLY. STEP SHALL BE 8" BELOW FINISHED GRADE. MH COVER LETTERING PER DETAIL "C", THIS SHEET.
2. ALL MANHOLE BASES AND PWB SUBBASES SHALL BE PER DETAIL "B", THIS SHEET.
3. ALL DROP MANHOLES SHALL BE PER DETAIL "D", THIS SHEET.



NOTES:

1. FRAME AND COVER SHALL BE MADE OF DUCTILE IRON MATERIAL AND BE ABLE TO WITHSTAND H-20 LOADS.
2. THE COVER TO BE MARKED AS SHOWN (LETTERS SHALL BE 2" IN HEIGHT).

MANHOLE COVER MARKING
N.T.S.

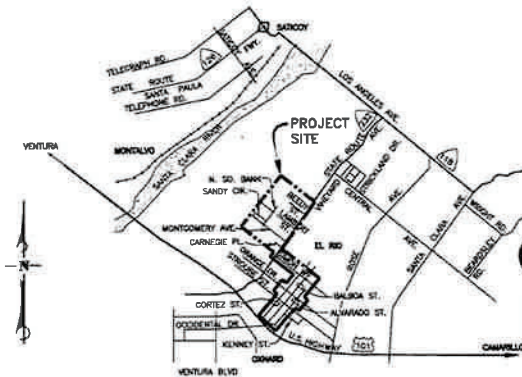


NOTES:

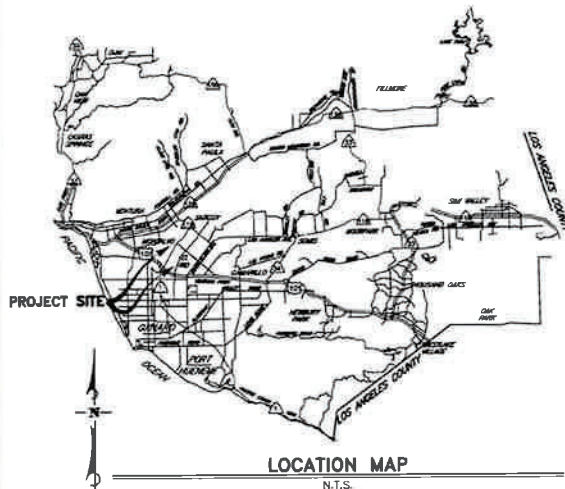
1. DROP MANHOLE SHALL BE PER SPPWC STD PLAN 202 EXCEPT AS MODIFIED HEREON.
2. FOR RIDER PIPE - SEE EXHIBIT C OF THE SPECIFICATIONS.

DROP MANHOLE WITH TERMINAL CLEAN OUT
N.T.S.

| | | | | | | | | | | |
|-----|---------|----------------------------|--------|--|---------------------------------------|-----------------|--|-----------|-------------------|-------|
| NO. | DATE | REVISIONS | APPRO. | DESIGN | CHECKED | REVIEWED BY | DATE | SPEC. NO. | PROJ. NO. | SHEET |
| 1 | 8/18/11 | RECORD DRAWING ADJUSTMENTS | P. J. | PENFIELD & SMITH ENGINEERS + SURVEYORS | DANIEL S. CHAFF | PROJECT MANAGER | 8/27/11 | WW09-05 | 28236 | 42 |
| | | | | 1527 DEL NORTE ROAD SUITE 200 CAMARILLO, CALIF. 92010 (805) 381-0706 | COUNTY OF VENTURA PUBLIC WORKS AGENCY | | EL RIO FOREBAY (GCEP) - PHASE 5D SECTIONS, DETAILS, & MANHOLE SCHEDULE | | DRAWING NO. 67642 | |



VICINITY MAP
N.T.S.



LOCATION MAP
N.T.S.

IN PARTNERSHIP WITH:



**VENTURA
COUNTY
WATERSHED
PROTECTION
DISTRICT**



**EL RIO SEWER COLLECTION SYSTEM
PHASE 5A
INDUSTRIAL AREA & PORTION OF EL RIO:
(ALVARADO ST, BALBOA ST, CORTEZ ST, MINNA ST,
ORANGE DR, SIMON WAY, & VINEYARD AVE)**

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY**

**EL RIO FOREBAY
GROUNDWATER CONTAMINANT
ELIMINATION PROJECT (GCEP)**

GENERAL NOTES

1. THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE PLANS AND PROFILES WERE DERIVED FROM THE BEST AVAILABLE RECORDS AS PROVIDED BY THE COUNTY, AND BY FIELD RECONNAISSANCE OF VISIBLE SURFACE FEATURES.
2. THE CONTRACTOR SHALL PERFORM HIS/HER OWN SURFACE AND SUBSURFACE EXPLORATIONS.
3. PROTECT AND MAINTAIN ALL EXISTING UTILITIES IN PLACE. UTILITIES DAMAGED OR BROKEN SHALL IMMEDIATELY BE REPAIRED TO A CONDITION EQUAL TO OR BETTER THAN EXISTED PRIOR TO START OF THE WORK AND TO THE SATISFACTION OF THE OWNER OF SAID UTILITY.
4. A MINIMUM OF 48 HOURS PRIOR TO STARTING ANY EXCAVATION WORK, THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA), ALSO KNOWN AS DIGALERT, OF THE INTENT TO PERFORM WORK. IN THE EVENT A FIELD MEETING IS REQUESTED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF THE DATE AND TIME OF SUCH MEETING. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MAINTAINING THE LOCATION MARKS MADE BY THE USA PROCESS IN A CLEAR READABLE CONDITION UNTIL THE WORK HAS PASSED THAT LOCATION.
5. THE CONTRACTOR SHALL PROCURE AND HAVE ON SITE AT ALL TIMES ALL PERMITS REQUIRED FOR THE WORK. THIS INCLUDES THE CAL-OSHA PERMITS AND OWNER OBTAINED PERMITS.
6. THE CONTRACTOR SHALL MAINTAIN A NEAT AND READABLE RECORD OF ALL WORK PERFORMED TO DATE. ANY CHANGES OR DEVIATIONS FROM THE PLANS, DRAWINGS, SPECIFICATIONS OR OTHER DOCUMENTS ASSOCIATED WITH THE PROJECT SHALL BE NOTED IN RED ON A NEAT, CLEAN SET OF DIAZO PROCESS PRINTS OF THE PLANS. THE RECORDS SHALL, AT THE COMPLETION OF THE PROJECT, BE TURNED OVER TO THE AGENCY'S REPRESENTATIVE FOR THE AGENCY'S USE IN PREPARATION OF FINAL RECORD DRAWINGS OF THE WORK PERFORMED.
7. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ON THE WORK SITE SUITABLE SANITATION FACILITIES AND SHALL MAKE SAID FACILITIES READILY ACCESSIBLE TO THE WORKERS, THE OWNER AND THE OWNER'S REPRESENTATIVE AT ALL TIMES WHILE WORK IS IN PROGRESS.
8. SEPARATION OF WATER AND SEWER SHALL BE IN CONFORMANCE WITH THE LATEST REQUIREMENTS OF THE STATE OF CALIFORNIA DEPARTMENT OF HEALTH SERVICES.
9. THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR EQUIPMENT, MATERIAL STORAGE & YARD SECURITY.
10. ELEVATIONS INDICATED ON GRAVITY SEWER MAINS ARE INVERT ELEVATIONS MEASURED AT THE INSIDE FACE OF MANHOLES.
11. LENGTHS SHOWN IN THE PROFILE ARE HORIZONTAL FEET MEASURED FROM INSIDE FACE OF MANHOLE TO INSIDE FACE OF MANHOLE.
12. ALL EXISTING IMPROVEMENTS DISTURBED OR DAMAGED DURING THE COURSE OF SEWER CONSTRUCTION SHALL BE REPLACED IN-KIND OR BETTER.
13. LENGTHS SHOWN IN PLAN ARE HORIZONTAL FEET MEASURED TO CENTER OF MANHOLE.
14. LOCATIONS OF LATERALS SHOW HEREON ARE APPROXIMATE, ACTUAL LOCATION SHALL BE DETERMINED IN THE FIELD.
15. TRAFFIC CONTROL PLANS SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE COUNTY OF VENTURA TRAFFIC ENGINEERING DIVISION FOR REVIEW AND APPROVAL A MINIMUM OF 48 HOURS IN ADVANCE FOR MINOR STREETS AND 96 HOURS IN ADVANCE FOR MAJOR STREETS. NO WORK IN TRAFFIC CONTROL MAY BE SET UP PRIOR TO COUNTY APPROVAL.
16. TRAFFIC CONTROL PLANS FOR WORK ON VINEYARD AVE. SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO CALTRANS PRIOR TO OBTAINING PERMIT.
17. THE CONTRACTOR SHALL MAINTAIN A MAXIMUM OF 600 LF WORK ZONE OR A MAXIMUM OF TWO MANHOLE REACH PER DAY WHICHEVER IS LESS.



RECORD DRAWING

Date project completed 3/12/10
Record Changes Submitted by
Original Drawings Revised by Phoenix Civil Engineering

| NO. | DATE | REVISIONS | APPRO. |
|-----|----------|----------------------------|--------|
| 1 | 10/11/12 | RECORD DRAWING ADJUSTMENTS | |

Penfield & Smith
ENGINEERS & SURVEYORS
1327 EOL NORTE ROAD
CANANVILLE
(805) 921-0708

DESIGN: SC/ALA
CHECKED: DANIEL S. CHASE
DATE: 10/11/12
PROJECT ENGINEER: R.C.E.
(DGP)

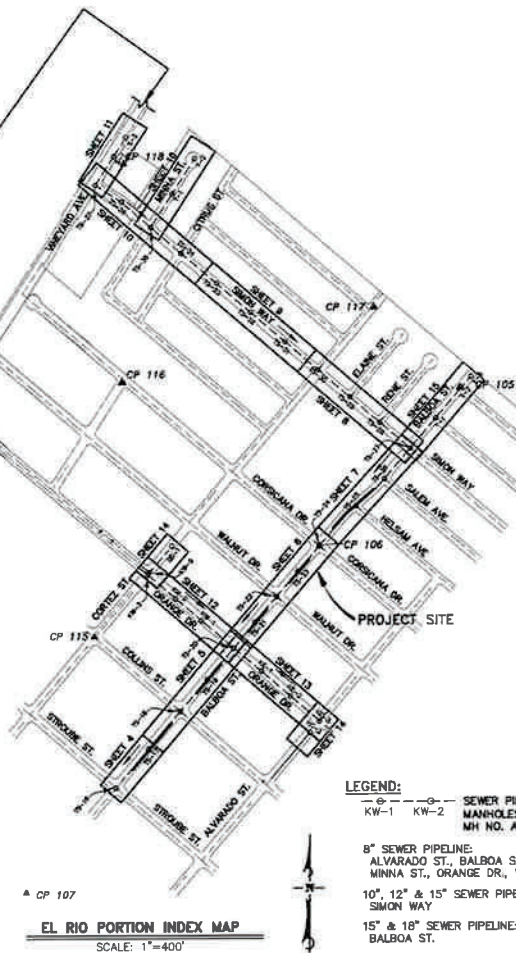
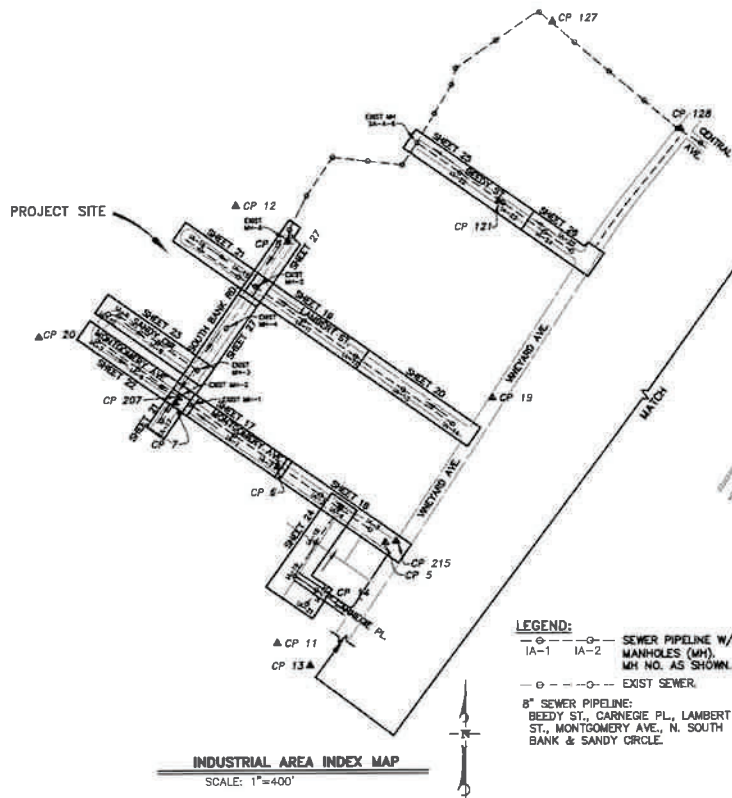
REVIEWED BY: PROJECT MANAGER
DATE: 10/11/12
REVIEWED BY: DIRECTOR, WATER AND SANITATION, DEPT.
DATE: 10/11/12
APPROVED BY: DIRECTOR OF PUBLIC WORKS
DATE: 10/11/12

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY**

SPEC. NO.
WW08-01
PROJ. NO.
21033

**EL RIO FOREBAY (GCEP)
PHASE 5A
TITLE SHEET & GENERAL NOTES**

SHEET 1
OF 29
DRAWING NO.
66968



| SHEET NO. | TITLE |
|--|--|
| 1 | TITLE SHEET AND GENERAL NOTES |
| 2 | SHEET INDEX AND INDEX MAPS |
| 3 | SURVEYOR NOTES, LEGEND AND LIST OF ABBREVIATIONS |
| EL RIO PORTION | |
| 4 | PLAN AND PROFILE - TRUNK SEWER - REACH 2 STA: 50+00 TO 54+00 |
| 5 | PLAN AND PROFILE - TRUNK SEWER - REACH 2 STA: 54+00 TO 63+00 |
| 6 | PLAN AND PROFILE - TRUNK SEWER - REACH 2 STA: 63+00 TO 72+00 |
| 7 | PLAN AND PROFILE - TRUNK SEWER - REACH 2 STA: 72+00 TO 81+00 |
| 8 | PLAN AND PROFILE - TRUNK SEWER - REACH 2 STA: 81+00 TO 88+50 |
| 9 | PLAN AND PROFILE - TRUNK SEWER - REACH 2 STA: 88+50 TO 98+00 |
| 10 | PLAN AND PROFILE - TRUNK SEWER - REACH 2 STA: 98+00 TO 107+97.35 |
| 11 | PLAN AND PROFILE - LINE-S STA: 1+00 TO 5+52.67 |
| 12 | PLAN AND PROFILE - LINE-K(W) STA: 1+00 TO 9+20 |
| | BALBOA TO CORTEZ STA: 1+02.93 TO 1+81.66 |
| 13 | PLAN AND PROFILE - LINE-K(E) STA: 1+00 TO 9+02 |
| 14 | PLAN AND PROFILE - LINE-HC STA: 4+33 TO 5+55.25 |
| 15 | PLAN AND PROFILE - LINE-GO STA: 1+00 TO 3+00 |
| 16 | PLAN AND PROFILE - LINE-Y STA: 1+00 TO 7+50.00 |
| 16 | PLAN AND PROFILE - LINE-T STA: 1+00 TO 1+40 |
| INDUSTRIAL AREA | |
| 17 | PLAN AND PROFILE - MONTGOMERY AVE. (E) STA: 1+00 TO 8+50 |
| 18 | PLAN AND PROFILE - MONTGOMERY AVE. (E) STA: 8+50 TO 17+00.00 |
| 19 | PLAN AND PROFILE - LAMBERT STREET (E) STA: 1+00 TO 9+50 |
| 20 | PLAN AND PROFILE - LAMBERT STREET (E) STA: 9+50 TO 17+00.00 |
| 21 | PLAN AND PROFILE - LAMBERT STREET (W) STA: 1+00 TO 6+81.41 |
| 22 | PLAN AND PROFILE - N. SOUTH BANK (S) STA: 1+00 TO 2+98.36 |
| 23 | PLAN AND PROFILE - MONTGOMERY AVE. (W) STA: 1+00 TO 7+52.32 |
| 24 | PLAN AND PROFILE - SANDY CIRCLE STA: 1+00 TO 8+07 |
| 25 | PLAN AND PROFILE - CARNEGIE PLACE STA: 1+00 TO 9+26.59 |
| 26 | PLAN AND PROFILE - BEEDY STREET STA: 1+00 TO 10+00 |
| 27 | PLAN AND PROFILE - PROPOSED LATERALS ON EXIST. SEWER STA: 10+00 TO 13+57 |
| SECTIONS, DETAILS AND SCHEDULES | |
| 28 | MANHOLE SCHEDULE |
| 29 | SECTIONS AND DETAILS |



| | | | | | | | | | | | | | |
|-----|----------|----------------------------|--------|--|---|---------|-------------|-----------------|------|--|----------------------|---|--|
| NO. | DATE | REVISIONS | APPRO. | DESIGN | SC/HA | CHECKED | REVIEWED BY | PROJECT MANAGER | DATE | COUNTY OF VENTURA
PUBLIC WORKS AGENCY | SPEC. NO.
WW08-01 | EL RIO FOREBAY (GCEP)
PHASE 5A
SHEET INDEX & INDEX MAPS | SHEET
2
OF
29
DRAWING NO.
66989 |
| 1 | 12/11/12 | RECORD DRAWING ADJUSTMENTS | | PENFIELD & SMITH
ENGINEERS & SURVEYORS
1327 DEL MONTE ROAD
CAMPBELL, CALIF. 95010
(925) 881-0706 | DANIEL S. CHASE
PROJECT ENGINEER
R.C.E. | | | | | | | | |

ABBREVIATIONS (SUPPLEMENT TO SSPWC)

| | | |
|------------------------------|--------------------|----------------------------|
| AC OR ASPH. ASPHALT CONCRETE | MFR | MANUFACTURER |
| ASTM | MH | MANHOLE |
| | MIN. | MINIMUM |
| AWWA | NTS | NOT TO SCALE |
| BLDG. | O.C. | ON CENTER |
| CB | O.D. | OUTSIDE DIAMETER |
| CLR. | P.L.T. | PLAIN END |
| CMP | PLT. | PLATE |
| CONC. | PSI | POUNDS PER SQUARE INCH |
| CONT. | PSV | PRESSURE SEWER VALVE |
| CPG'S | PT. | POINT |
| DI | PVC | POLYVINYL CHLORIDE |
| E | RAD. | RADIUS |
| EA. | RCB | REINFORCED CONCRETE BOX |
| EC | RCP | REINFORCED CONCRETE PIPE |
| ELEC | REL | RELATIVE |
| ELEV. OR EL. | REQ'D | REQUIRED |
| EL. | R.O.W. | RIGHT OF WAY |
| EMH | RT | RIGHT |
| ENTC | S.C.E. | SOUTHERN CALIFORNIA EDISON |
| EP | SCH | SCHEDULE |
| EXIST. | SCO | SEWER CLEANOUT |
| F.F. | SCP | SEWER CONTROL PANEL |
| F.H. | SDMH | STORM DRAIN MANHOLE |
| FIG. | S.E. | SAND EQUIVALENT |
| FL | SEW. | SEWER |
| FLG. | SMH | SEWER MANHOLE |
| FM | SPECS | SPECIFICATIONS |
| FT. | STANDARD PLANS FOR | STANDARD PLANS FOR |
| GAL. | SPFWC | PUBLIC WORKS CONSTRUCTION |
| GM | | (LATEST EDITION) |
| G.N.V. | S.S. | STAINLESS STEEL |
| GPM | STA. | STATION |
| GPS | STD | STANDARD |
| GV | TEL | TELEPHONE |
| HDPE | THK. | THICK |
| HP GAS | TIN | TACK |
| ICV | TMH | TELEPHONE MANHOLE |
| ID. | TYP. | TYPICAL |
| INV. | UBC | UNIFORM BUILDING CODE |
| IRR. | UPC | UNIFORM PLUMBING CODE |
| LAT | W/ | WITH |
| L.F. | WM | WATER METER |
| LT | WV | WATER VALVE |
| MAX. | WW | WASTEWATER |

LEGEND

| | | | |
|--|------------------|--|---------------------------|
| | FIRE HYDRANT | | PROPOSED SEWER W/ MH |
| | EXST. MANHOLE | | EX. GAS LINE |
| | POWER POLE | | EX. SEWER LINE |
| | GUY | | EX. WATER LINE |
| | STREET LIGHT | | EX. STORM DRAIN |
| | POLE | | EX. ELECTRIC |
| | LIGHT | | EX. TELEPHONE |
| | WATER VALVE | | EX. OVERHEAD WIRE |
| | GAS VALVE | | EXISTING GROUND ELEVATION |
| | ELECTRICAL VAULT | | INDEX CONTOUR |
| | WATER METER | | INTERMEDIATE CONTOUR |
| | WATER VAULT | | EX. VEGETATION |
| | GAS METER | | R.O.W. / PROPERTY LINE |
| | SIGN | | PROPOSED SEWER LATERAL |

SURVEYOR NOTES (SHEET 27 ONLY)

- TOPOGRAPHIC INFORMATION SHOWN HEREON WAS COMPILED BY AERIAL PHOTOGRAMMETRIC METHODS BY C&C AERIAL SURVEYING FROM PHOTOGRAPHY DATED FEBRUARY 8, 2001. THIS MAPPING MEETS NATIONAL MAP ACCURACY STANDARDS FOR A HORIZONTAL SCALE OF 1" = 40' AND A CONTOUR INTERVAL OF 1'.
- BASIS OF BEARING AND HORIZONTAL CONTROL DATUM:
CCS83, ZONE 5, U.S. SURVEY FEET, EPOCH 1995.00 AS DETERMINED FROM TIES TO POINTS 1219 AND 1221 AS SHOWN ON THE MAP FILED IN BOOK 51, PAGE 93 OF RECORDS OF SURVEY.
NOTE: POINT 200 WAS ESTABLISHED BY RAPID STATIC GPS TIES TO SAID POINTS 1219 AND 1221. CONTROL WAS ESTABLISHED ONSITE USING REAL TIME KINEMATIC GPS WITH THE BASE STATION AT POINT 200. THE DISTANCES SHOWN HEREON ARE CCS83, ZONE 5, GRID DISTANCES. TO CONVERT TO GROUND, MULTIPLY THE DISTANCES BY 1.00003983.
- BENCH MARK AND VERTICAL DATUM:
NAVD88, VEN CO ADJ PUG 1992, U.S. SURVEY FEET, AS DETERMINED FROM A TIE TO BM 110-4 RM 1: 258 FEET NORTHERLY ALONG VINEYARD AVENUE FROM ITS INTERSECTION WITH LAMBERT STREET, 44.5 FEET NORTHWESTERLY FROM THE CENTER OF VINEYARD AVENUE, 21.0 FEET SOUTHERLY FROM THE NORTHERLY END OF A CONCRETE CURB. ELEVATION 107.17 U.S. SURVEY FEET.
- SURVEY CONTROL:
POINTS LISTED BELOW WERE SURVEYED USING CONVENTIONAL TOTAL STATION SURVEY TECHNIQUES UNLESS OTHERWISE NOTED.

| POINT | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|-------|------------|------------|-----------|-----------------|
| 207 | 1918503.87 | 6209889.47 | 93.45 | 8TH IN MON WELL |
| 215 | 1915552.24 | 6211316.09 | 104.01 | BM 110-5 |

SURVEYOR NOTES (SHEETS 17 THRU 24 ONLY)

- MAPPING
TOPOGRAPHIC MAPPING WAS COMPILED AT A SCALE OF 1"=40'. WITH A 1 FOOT CONTOUR INTERVAL. USING STANDARD PHOTOGRAMMETRIC METHODS AND PROCEDURES BY ARROWHEAD MAPPING CORPORATION FROM AERIAL PHOTOGRAPHY DATED FEBRUARY 9, 2006.
AERIAL PHOTOGRAPHY
THE AERIAL PHOTOGRAPHY USED AS THE BACKGROUND FOR THIS MAP WAS OBTAINED ON FEBRUARY 9, 2006 BY ARROWHEAD MAPPING CORPORATION. THE PHOTOGRAPHY HAS BEEN CONVERTED INTO A DIGITAL FORMAT AND CORRECTED FOR HORIZONTAL AND VERTICAL DISTORTION USING STANDARD PHOTOGRAMMETRIC METHODS.
- BOUNDARY AND EASEMENT INFORMATION
BOUNDARY, EASEMENT AND RIGHT OF WAY INFORMATION SHOWN HEREON WAS COMPILED FROM VARIOUS RECORDED MAPS AND DEEDS (AS NOTED) AND IS FOR INFORMATIONAL PURPOSES ONLY. THIS MAP DOES NOT REPRESENT A BOUNDARY RESOLUTION SURVEY AND ALL LINES AND POINTS ARE APPROXIMATE ONLY.
A TITLE REPORT IDENTIFYING ALL RECORD INTERESTS OF THE CITY OF OXNARD WAS NOT PROVIDED TO PENFIELD & SMITH, EASEMENTS AND PARCELS BELONGING TO THE CITY OF OXNARD WERE IDENTIFIED DURING THE RECORD MAP AND DEED RESEARCH PROCESS AND IT IS POSSIBLE THAT NOT ALL TITLE INTERESTS ARE REPRESENTED ON THIS MAP.

3. BASIS OF BEARINGS AND COORDINATES

THE BASIS OF BEARINGS FOR THIS SURVEY IS CALIFORNIA COORDINATE SYSTEM, ZONE 5, NAD83 BASED ON COORDINATES HELD FOR CONTROL POINTS 5 AND 7.

4. ELEVATIONS

THE VERTICAL DATUM FOR THIS SURVEY IS NAVD88 BASED ON ELEVATIONS TAKEN FROM CONTROL POINTS 5 AND 7 FROM W.G. 13983 AND DIFFERENTIAL LEVEL TIES TO A 2" BRASS CAP MARKED "VEN CO. 110-4 RM-1 1989" (VCPID 459) LOCATED 255.0 FEET NORTHERLY ALONG VINEYARD AVENUE FROM ITS INTERSECTION WITH LAMBERT STREET, SET IN THE CURB 21.0 FEET SOUTHWESTERLY FROM THE NORTHEASTERLY END OF A CONCRETE CURB HAVING AN ELEVATION OF 107.1717 FEET (32.666 METERS).

5. UTILITIES

SURFACE UTILITY FEATURES SHOWN HEREON HAVE BEEN LOCATED BY PHOTOGRAMMETRIC METHODS PERFORMED BY ARROWHEAD MAPPING CORPORATION BASED ON VISIBILITY ON FEBRUARY 9, 2006.

THE SUBSURFACE UTILITIES SHOWN HEREON HAVE BEEN COMPILED FROM RECORD INFORMATION GATHERED FROM VARIOUS PUBLIC AND PRIVATE UTILITY PROVIDERS, IN CONJUNCTION WITH AERIAL LOCATED SURFACE UTILITIES. THE SUBSURFACE INFORMATION, INCLUDING LOCATION, SIZES, AND CAPACITIES IS AN ESTIMATION BASED ON AVAILABLE DATA MAY NOT REPRESENT ACTUAL FIELD CONDITIONS. PENFIELD AND SMITH DOES NOT WARRANT THE ACCURACY OF COMPLETENESS OF SAID RECORD INFORMATION.

| POINT | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|-------|-------------|-------------|-----------|-------------|
| 5 | 1915541.560 | 6211243.860 | 103.10 | MAG & SHNR |
| 6 | 1916048.885 | 6210525.709 | 97.36 | MAG & SHNR |
| 7 | 1916472.230 | 6209849.450 | 94.60 | MAG & SHNR |
| 8 | 1917535.067 | 6210593.521 | 98.29 | MAG & SHNR |
| 11 | 1914872.889 | 6210525.099 | 101.80 | MAG & SHNR |
| 12 | 1917775.658 | 6210244.174 | 96.34 | MAG & SHNR |
| 13 | 1914722.689 | 6210748.082 | 104.91 | ACS |
| 14 | 1915185.801 | 6210866.900 | 99.62 | ACS |
| 19 | 1916498.687 | 6211952.439 | 107.00 | ACS |
| 20 | 1916910.978 | 6209836.933 | 96.21 | ACS |

SURVEYOR NOTES (SHEETS 25 AND 26 ONLY)

- THIS MAP WAS COMPILED BY AERIAL PHOTOGRAMMETRIC METHODS BY ARROWHEAD MAPPING, INC. FROM PHOTOGRAPHY DATED DECEMBER 2, 2002.
- TOPOGRAPHIC INFORMATION SHOWN HEREON MEETS OR EXCEEDS NATIONAL MAP ACCURACY STANDARDS FOR A MAPPING SCALE OF 1"=40' AND A ONE FOOT CONTOUR INTERVAL.
- HORIZONTAL COORDINATES SHOWN HEREON ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), ZONE V, IN U.S. SURVEY FEET, EPOCH 1995.00. THE CITY OF OXNARD SURVEY MONUMENTS 1013, 1221, AND 9533 AS DEPICTED ON A RECORD OF SURVEY, RECORDED MARCH 25, 1989 IN BOOK 51, PAGE 93 OF RECORDS OF SURVEY IN THE OFFICE OF THE COUNTY RECORDER FOR THE COUNTY OF VENTURA, STATE OF CALIFORNIA WAS USED AS THE BASIS OF BEARINGS FOR THIS MAP.
- ADDITIONAL HORIZONTAL CONTROL FOR THIS PROJECT WAS ESTABLISHED USING GPS FAST STATIC AND REAL TIME KINEMATIC METHODS. ELEVATIONS FOR ALL CONTROL POINTS WERE ESTABLISHED USING DIFFERENTIAL LEVELING.
- VERTICAL ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) VENTURA COUNTY ADJUSTED PUBLICATION 1992. PUBLISHED ELEVATIONS FOR COUNTY OF VENTURA BENCHMARKS E1442, 20-204 RM1, LANTANA, 1-14 RM1, 1-15 RM1, 1-17 RM1, 100-13, 2-36, 2-35, 2-34, 2-33, 2-32, 2-31, 2-21, 2-20, 2-21 RESET, 2-24, 47-5 RM1, AND OX-VINE WERE ACCEPTED AND HELD DURING THE DIFFERENTIAL LEVELING ADJUSTMENT FOR THIS PROJECT.

| POINT | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|-------|--------------|--------------|-----------|------------------|
| 121 | 1917799.5580 | 6211892.5850 | 102.8240 | PK NAIL IN PANEL |
| 127 | 1918957.2900 | 6212348.4280 | 106.1340 | PK NAIL IN PANEL |
| 128 | 1918277.6272 | 6213203.3688 | 115.9439 | PK NAIL IN PANEL |

SURVEYOR NOTES (SHEETS 4 THRU 16)

- THIS MAP WAS COMPILED BY AERIAL PHOTOGRAMMETRIC METHODS BY ARROWHEAD MAPPING, INC. FROM PHOTOGRAPHY DATED DECEMBER 2, 2002.
- TOPOGRAPHIC INFORMATION SHOWN HEREON MEETS OR EXCEEDS NATIONAL MAP ACCURACY STANDARDS FOR A MAPPING SCALE OF 1"=40' AND A ONE FOOT CONTOUR INTERVAL.
- HORIZONTAL COORDINATES SHOWN HEREON ARE BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), ZONE V, IN U.S. SURVEY FEET, EPOCH 1995.00. THE CITY OF OXNARD SURVEY MONUMENTS 1013, 1221, AND 9533 AS DEPICTED ON A RECORD OF SURVEY, RECORDED MARCH 25, 1989 IN BOOK 51, PAGE 93 OF RECORDS OF SURVEY IN THE OFFICE OF THE COUNTY RECORDER FOR THE COUNTY OF VENTURA, STATE OF CALIFORNIA WAS USED AS THE BASIS OF BEARINGS FOR THIS MAP.
- ADDITIONAL HORIZONTAL CONTROL FOR THIS PROJECT WAS ESTABLISHED USING GPS FAST STATIC AND REAL TIME KINEMATIC METHODS. ELEVATIONS FOR ALL CONTROL POINTS WERE ESTABLISHED USING DIFFERENTIAL LEVELING.
- VERTICAL ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) VENTURA COUNTY ADJUSTED PUBLICATION 1992. PUBLISHED ELEVATIONS FOR COUNTY OF VENTURA BENCHMARKS E1442, 20-204 RM1, LANTANA, 1-14 RM1, 1-15 RM1, 1-17 RM1, 100-13, 2-36, 2-35, 2-34, 2-33, 2-32, 2-31, 2-21, 2-20, 2-21 RESET, 2-24, 47-5 RM1, AND OX-VINE WERE ACCEPTED AND HELD DURING THE DIFFERENTIAL LEVELING ADJUSTMENT FOR THIS PROJECT.

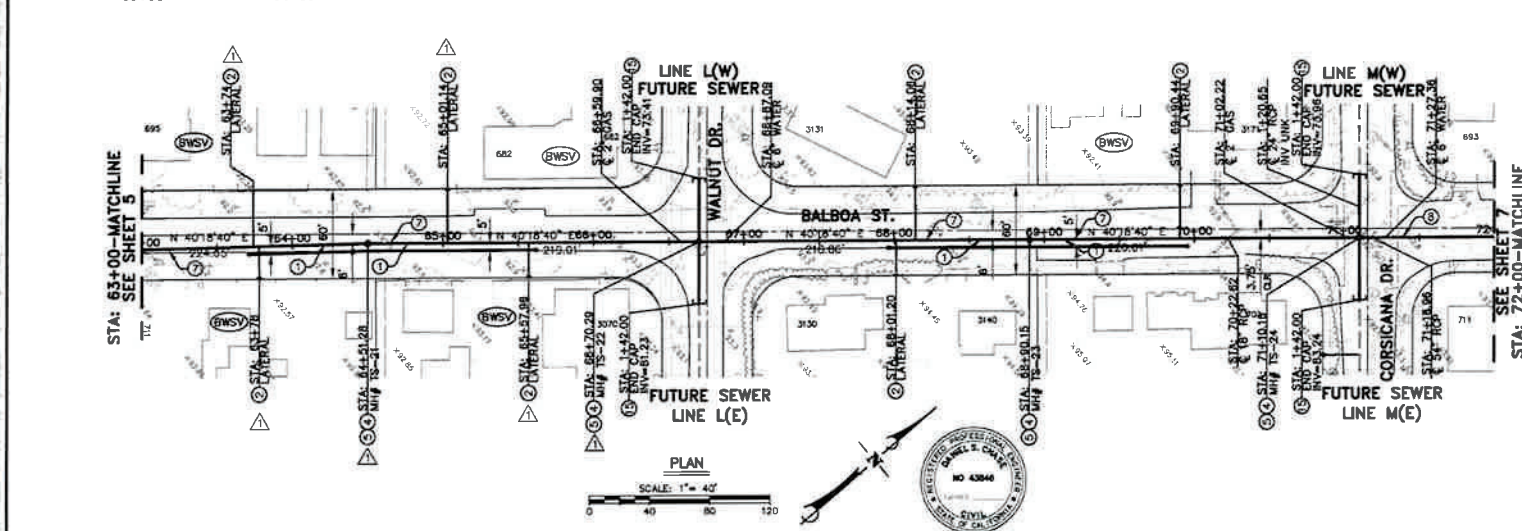
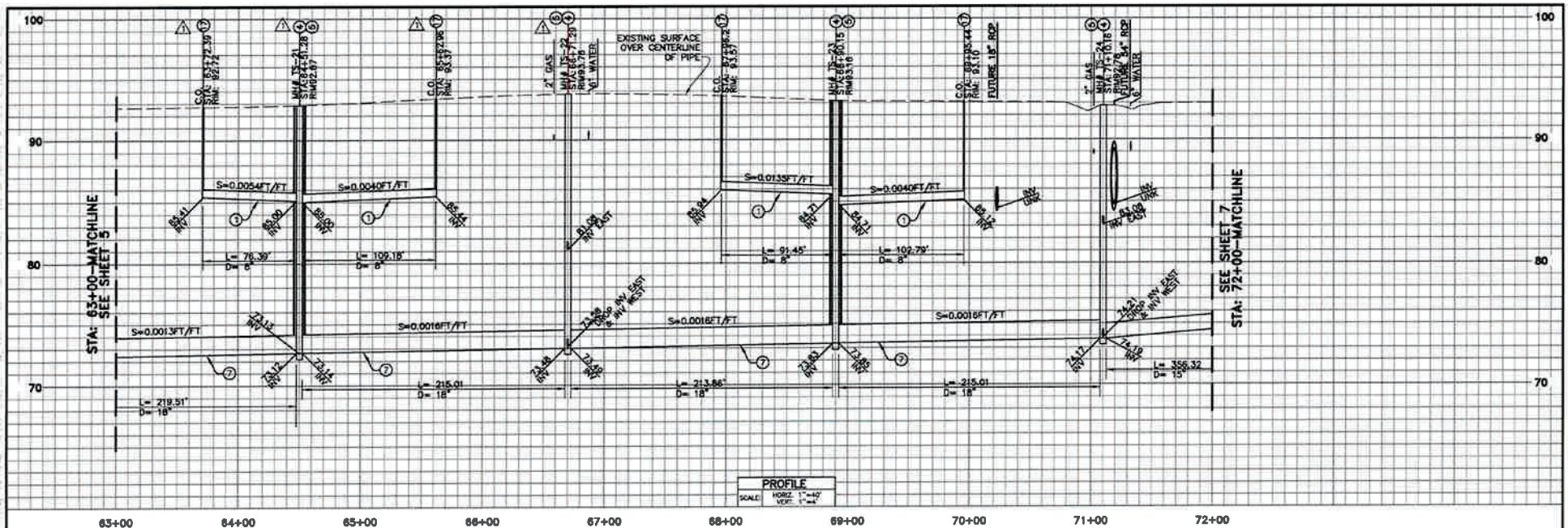
| POINT | NORTHING | EASTING | ELEVATION | DESCRIPTION |
|-------|-------------|-------------|-----------|--------------------|
| 105 | 1911878.814 | 6212333.806 | 97.01 | ASC PANEL PK & TIN |
| 106 | 1910832.979 | 6211394.538 | 92.91 | ASC PANEL PK & TIN |
| 107 | 1908535.682 | 6209445.620 | 85.82 | ASC PANEL PK & TIN |
| 108 | 1907076.530 | 6209518.070 | 86.53 | ASC PANEL PK & TIN |
| 109 | 1907875.185 | 6211101.959 | 89.39 | ASC PANEL PK & TIN |
| 110 | 1910355.075 | 6213008.263 | 102.51 | ASC PANEL PK & TIN |
| 111 | 1907038.897 | 6211518.915 | 101.54 | ASC PANEL PK & TIN |
| 114 | 1911211.391 | 6208506.313 | 93.79 | ASC PANEL PK & TIN |
| 115 | 1910228.136 | 6209867.550 | 88.65 | ASC PANEL PK & TIN |
| 116 | 1911920.323 | 6210079.450 | 93.41 | ASC PANEL PK & TIN |
| 117 | 1912418.015 | 6210754.238 | 95.25 | ASC PANEL PK & TIN |
| 118 | 1913783.646 | 6210276.587 | 100.84 | ASC PANEL PK & TIN |
| 120 | 1909754.307 | 6212504.335 | 95.09 | ASC PANEL PK & TIN |
| 131 | 1909274.239 | 6211024.557 | 90.81 | ASC PANEL PK & TIN |



RECORD DRAWING

Date project completed 3/12/10
Record Changes Submitted by
Original Drawings Revised by Phoenix Civil Engineering

| | | | | | | | | | | | |
|--|------|-----------|-------|--------|---------|-----------------|------|--|----------------------------------|--|----|
| NO. | DATE | REVISIONS | APPD. | DESIGN | CHECKED | PROJECT MANAGER | DATE | SPEC. NO. | EL RIO FOREBAY (GCEP) - PHASE 5A | SHEET | 3 |
| | | | | | | | | WW08-01 | | OF | 29 |
| | | | | | | | | 21033 | | | |
| PENFIELD & SMITH
ENGINEERS & SURVEYORS
1327 OLD NORTH ROAD, SUITE 200
OXNARD, CALIF. 93010
(805) 361-0708 | | | | | | | | COUNTY OF VENTURA
PUBLIC WORKS AGENCY | | SURVEYOR NOTES, LEGEND, & ABBREVIATIONS | |
| RECORDED DRAWING ADJUSTMENTS | | | | | | | | DRAWING NO. 66970 | | | |



- CONSTRUCTION NOTES**
- 1 FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 29.
 - 2 FURNISH & INSTALL 4" LATERAL PER SPPWC STD DWG 222, PROFILE TYPE A, Y=6' UNLESS OTHERWISE SHOWN.
 - 3 FURNISH & INSTALL 60" MANHOLE PER DETAIL A, SHEET 28.
 - 4 FURNISH & INSTALL 8" DROP STRUCTURE PER DETAIL D, SHEET 29.
 - 5 FURNISH & INSTALL 18" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 29.
 - 6 FURNISH & INSTALL 15" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 29.
 - 7 FURNISH & INSTALL 8" PVC SEWER & END CAP.
 - 8 FURNISH & INSTALL 8" CLEANOUT PER SPPWC STD DWG 204.

RECORD DRAWING
Date project completed 3/12/10
Record Changes Submitted by
Original Drawings Revised by Phoenix Civil Engineering

| | | | | | | | | | | | | |
|-----|------|-----------|-------|--------|----|---------|------------|-----------------|------|-----------|----------------------------------|-------------------|
| NO. | DATE | REVISIONS | APPR. | DESIGN | SC | CHECKED | REMOVED BY | PROJECT MANAGER | DATE | SPEC. NO. | EL RIO FOREBAY (GCEP) - PHASE 5A | SHEET 6 |
| | | | | | | | | | | WW08-01 | TRUNK SEWER - REACH 2 | OF 29 |
| | | | | | | | | | | PROJ. NO. | P&P STA 63+00 TO 72+00 | DRAWING NO. 66973 |
| | | | | | | | | | | 21033 | | |

Pentfield & Smith
ENGINEERS & ARCHITECTS
1327 201 NORTH ROAD
CARMELLO CALIF. 93010
(805) 981-3708

DESIGN: SC
CHECKED: [Signature]
DATE: [Blank]
PROJECT ENGINEER: [Blank]
R.G.C. (DOP)

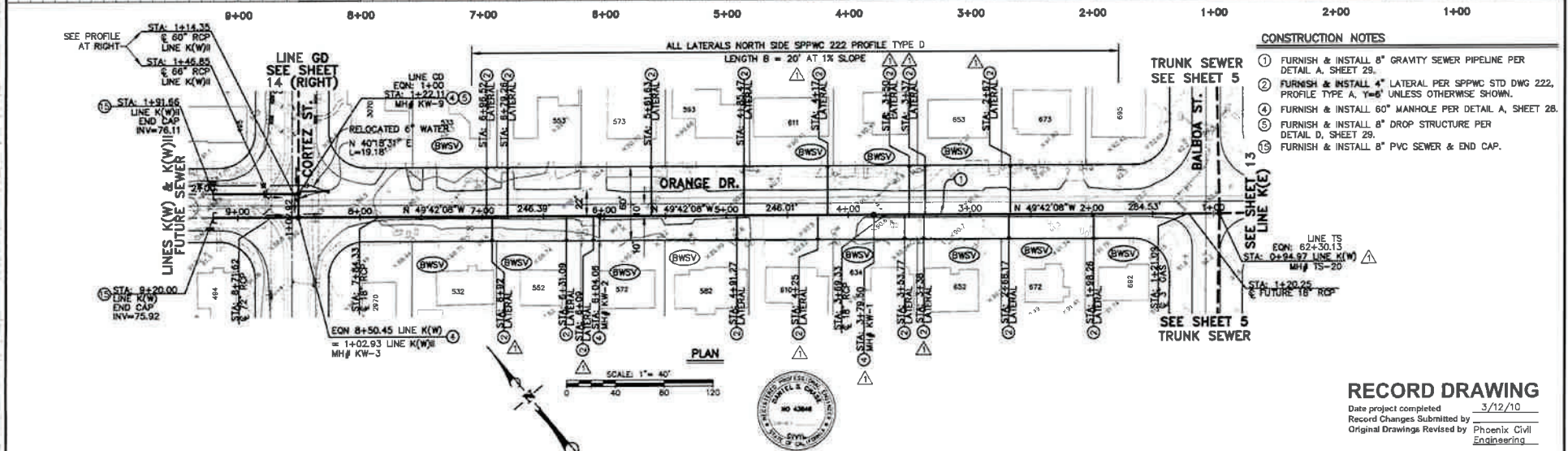
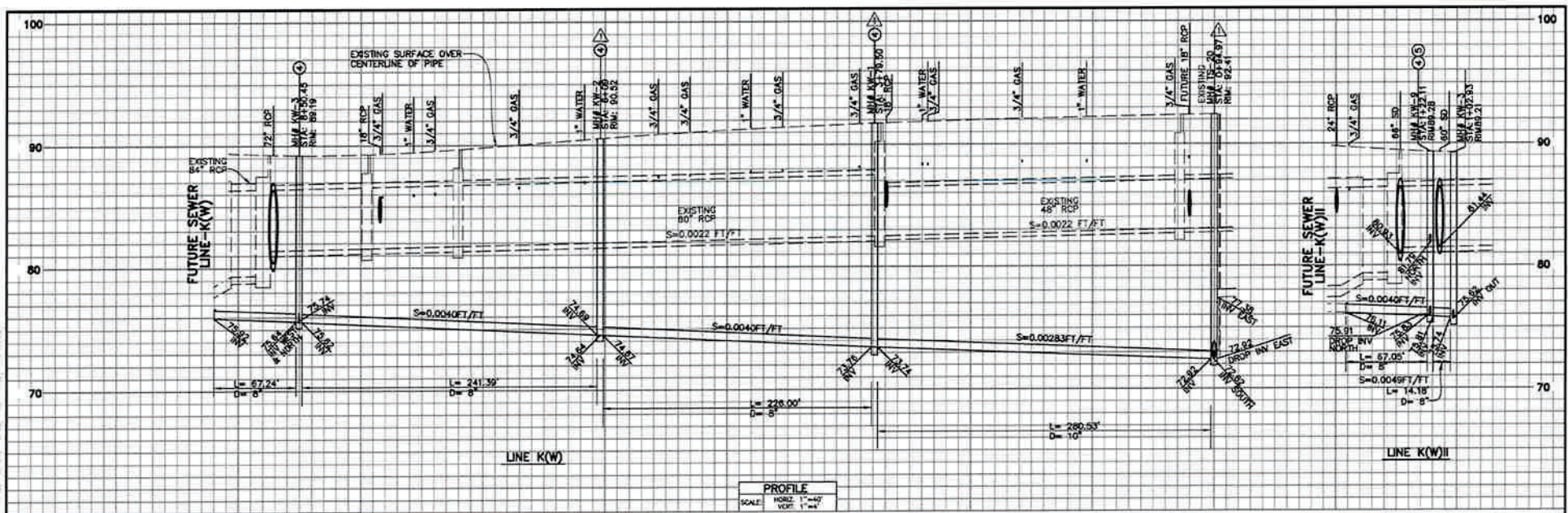
REMOVED BY: [Blank]
PROJECT MANAGER: [Blank]
DATE: [Blank]

**COUNTY OF VENTURA
PUBLIC WORKS AGENCY**

SPEC. NO.
WW08-01
PROJ. NO.
21033

**EL RIO FOREBAY (GCEP) - PHASE 5A
TRUNK SEWER - REACH 2
P&P STA 63+00 TO 72+00**

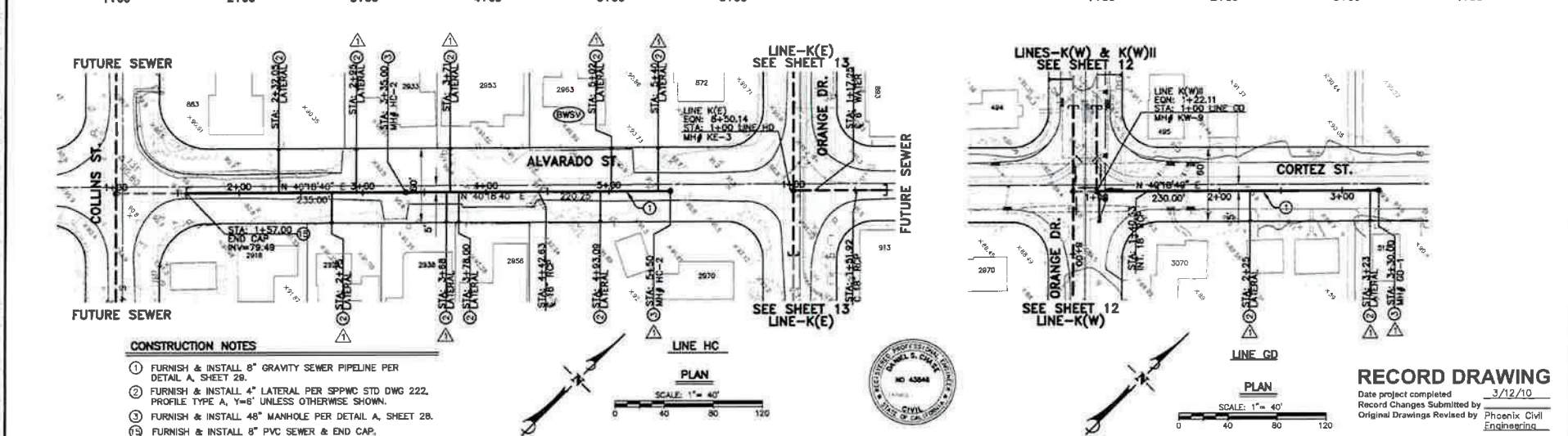
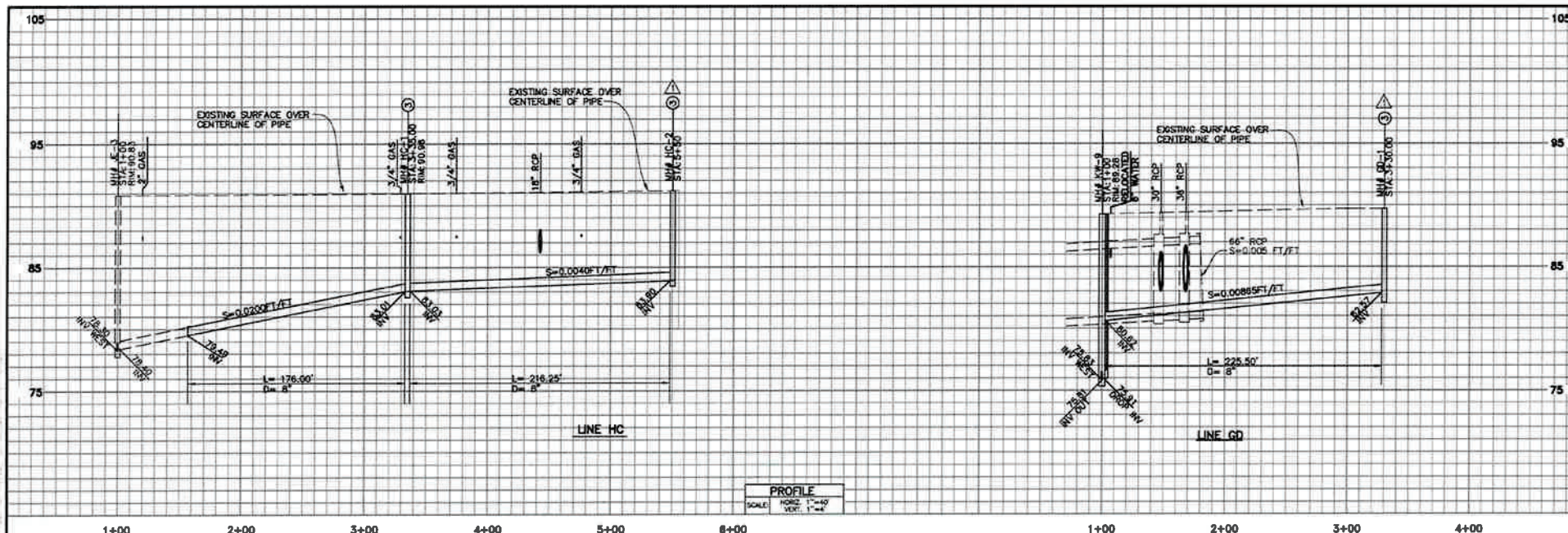
SHEET 6
OF 29
DRAWING NO. 66973



- CONSTRUCTION NOTES**
- 1 FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 29.
 - 2 FURNISH & INSTALL 4" LATERAL PER SPPWC STD DWG 222, PROFILE TYPE A, Y=8" UNLESS OTHERWISE SHOWN.
 - 4 FURNISH & INSTALL 60" MANHOLE PER DETAIL A, SHEET 28.
 - 5 FURNISH & INSTALL 6" DROP STRUCTURE PER DETAIL D, SHEET 29.
 - 6 FURNISH & INSTALL 8" PVC SEWER & END CAP.

RECORD DRAWING
 Date project completed 3/12/10
 Record Changes Submitted by
 Original Drawings Revised by Phoenix Civil Engineering

| | | | | | | | | | | | |
|-----|----------|----------------------------|--------|--|---|-------------|------|--|----------------------|---|---|
| NO. | DATE | REVISIONS | APPRO. | DESIGN | CHECKED | REVIEWED BY | DATE | COUNTY OF VENTURA
PUBLIC WORKS AGENCY | SPEC. NO.
WW08-01 | EL RIO FOREBAY (GCEP)-PHASE 5A
LINE-K(W) BALBOA TO CORTAZ P&P STA 1+00 TO 9+20
LINE-K(W) P&P STA 1+02.93 TO 1+91.86 | SHEET 12
OF 29
DRAWING NO.
66999 |
| 1 | 10/11/12 | RECORD DRAWING ADJUSTMENTS | | PENFIELD & SMITH
1327 DEL NORTE ROAD
CARROLLWOOD
(805) 981-0706 | DANIEL S. CHASE
PROJECT ENGINEER
R.C.C. | | | | 21033 | | |



CONSTRUCTION NOTES

- FURNISH & INSTALL 8" GRAVITY SEWER PIPELINE PER DETAIL A, SHEET 28.
- FURNISH & INSTALL 4" LATERAL PER SPPWC STD DWG 222, PROFILE TYPE A, Y=6" UNLESS OTHERWISE SHOWN.
- FURNISH & INSTALL 48" MANHOLE PER DETAIL A, SHEET 28.
- FURNISH & INSTALL 8" PVC SEWER & END CAP.

RECORD DRAWING

Date project completed 3/12/10
 Record Changes Submitted by Phoenix Civil Engineering
 Original Drawings Revised by Phoenix Civil Engineering

| NO. | DATE | REVISIONS | APPRO. | DESIGN | CHECKED | PROJECT MANAGER | DATE | SPEC. NO. | EL RIO FOREBAY (GCEP) - PHASE 5A | SHEET 14 |
|-----|----------|----------------------------|--------|---|-----------------|-----------------|------|-----------|----------------------------------|-------------------|
| 1 | 12/11/10 | RECORD DRAWING ADJUSTMENTS | | PENFIELD & SMITH ENGINEERS & SURVEYORS | DANIEL S. CHASE | | | WW08-01 | LINE-HC P&P ST 4+33 TO 5+55.25 | OF 29 |
| | | | | 1327 DEL MONTE ROAD, SUITE 200, CAMARILLO, CALIF. 93010 | DANIEL S. CHASE | | | 21033 | LINE-GD P&P STA 1+00 TO 3+00 | DRAWING NO. 67010 |

APPENDIX N
STORM DRAIN RECORD DRAWINGS

COUNTY OF VENTURA PUBLIC WORKS AGENCY TRANSPORTATION DEPARTMENT PHASE 1 EL RIO LOCAL DRAINAGE IMPROVEMENTS OXNARD, CALIFORNIA

SHEET INDEX

| DWG# | DESCRIPTION |
|--------|---|
| SD-1 | GENERAL PLAN AND NOTES |
| SD-2 | STORM DRAIN REHABILITATION PLAN |
| SD-3 | STORM DRAIN LINE 1502 87+52.22 THRU STA 104+17.00 |
| SD-4 | STORM DRAIN LINE 1502 87+52.22 THRU STA 104+17.00 |
| SD-5 | STORM DRAIN LINE 1501, 1503 AND LATERALS |
| SD-6 | STORM DRAIN LATERALS |
| SD-7 | STORM DRAIN LATERALS |
| SD-8 | STORM DRAIN DETAILS |
| SD-9 | STORM DRAIN DETAILS |
| SD-10 | STORM DRAIN DETAILS |
| SD-11 | STORM DRAIN DETAILS |
| SD-12 | STORM DRAIN DETAILS |
| SD-13 | STORM DRAIN DETAILS |
| SD-14 | STORM DRAIN DETAILS |
| SD-15 | STORM DRAIN DETAILS |
| SD-16 | STORM DRAIN DETAILS |
| SD-17 | STORM DRAIN DETAILS |
| SD-18 | STORM DRAIN DETAILS |
| SD-19 | STORM DRAIN DETAILS |
| SD-20 | STORM DRAIN DETAILS |
| SD-21 | STORM DRAIN DETAILS |
| SD-22 | STORM DRAIN DETAILS |
| SD-23 | STORM DRAIN DETAILS |
| SD-24 | STORM DRAIN DETAILS |
| SD-25 | STORM DRAIN DETAILS |
| SD-26 | STORM DRAIN DETAILS |
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| SD-30 | STORM DRAIN DETAILS |
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| SD-96 | STORM DRAIN DETAILS |
| SD-97 | STORM DRAIN DETAILS |
| SD-98 | STORM DRAIN DETAILS |
| SD-99 | STORM DRAIN DETAILS |
| SD-100 | STORM DRAIN DETAILS |

CONSTRUCTION NOTES

- CONSTRUCT 84" RCP (PIPE CLASS PER PLAN).
- CONSTRUCT 80" RCP (PIPE CLASS PER PLAN).
- CONSTRUCT 80" RCP (PIPE CLASS PER PLAN).
- CONSTRUCT 48" RCP (PIPE CLASS PER PLAN).
- CONSTRUCT 42" RCP (PIPE CLASS PER PLAN).
- CONSTRUCT 36" RCP (PIPE CLASS PER PLAN).
- CONSTRUCT 24" RCP (PIPE CLASS PER PLAN).
- CONSTRUCT 18" RCP (PIPE CLASS PER PLAN).
- CONSTRUCT SINGLE INLET GRATING CATCH BASIN PER STD PLAN PLATE 304-2.
- CONSTRUCT DOUBLE INLET GRATING CATCH BASIN PER STD PLAN PLATE 304-2.
- CONSTRUCT CATCH BASIN W/GRATING AND DEBRIS SHOWER PER STD PLAN PLATE 301-2.
- CONSTRUCT JUNCTION STRUCTURE PER STD PLAN PLATE 322-1.
- CONSTRUCT TRANSITION STRUCTURE RCB PER STD PLAN PLATE 342-1.
- CONSTRUCT BRICK & MORTAR PLUG.
- CONSTRUCT 72" RCP (PIPE CLASS PER PLAN).
- CONSTRUCT 30" RCP (PIPE CLASS PER PLAN).
- SAWCUT, REMOVE AND REPLACE EXISTING AC PAVEMENT PER DETAIL 1, SHT. SD-5.
- CONSTRUCT LOCAL DEPRESSION (CASE F) PER STD PLAN 313-1.
- SAWCUT AND REPLACE EXISTING CONCRETE GUTTER.
- REMOVE AND REPLACE EXISTING CROSS AND SPANDRELS GUTTER PER APWA PLAN 122-1.
- REMOVE EXISTING AC BEAM & CONSTRUCT TYPE A2-6 POC CURB & GUTTER PER APWA STD PLAN 120-1.
- REGRADE AREA TO DRAIN TO INLET.

- PROVIDE TEMP GAS SERVICE AS NEEDED PER GAS COMPANY STANDARDS. RESTORE SERVICE CONNECTION UPON COMPLETION OF RCP CONSTRUCTION.
- RELOCATE WATER SERVICE AS NEEDED PER WATER COMPANY STANDARDS.

NOTE: AN ENCROACHMENT PERMIT IS REQUIRED FROM VENTURA COUNTY PRIOR TO ANY CONSTRUCTION WITHIN COUNTY R/W



VICINITY MAP
N.T.S.

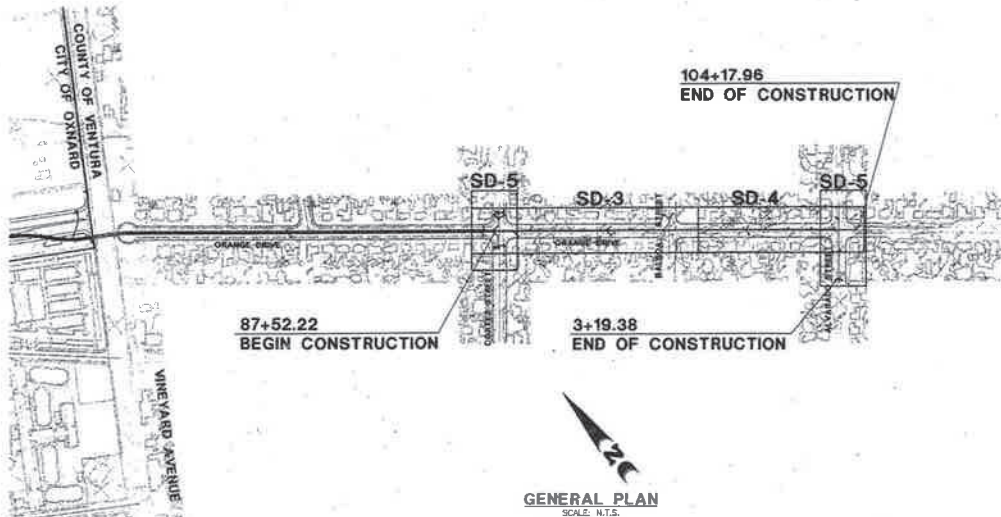
GENERAL NOTES

- ELEVATIONS SHOWN ARE IN FEET, NATIONAL GEODETIC SURVEY SEA LEVEL DATUM OF 1988.
- STATIONS SHOWN ON DRAWINGS ARE ALONG CENTERLINE OF STRUCTURE.
- H.C.L. IS SHOWN FOR FUTURE REFERENCE BY THE DISTRICT ONLY.
- TOPOGRAPHY AND CROSS SECTIONS FOR THIS PROJECT WERE TAKEN FROM SURVEYS PERFORMED IN 06/02.
- SOIL TEST BORINGS FOR THE PROJECT WERE MADE IN 09/03, AND THEIR LOCATION IS MARKED BY THE SYMBOL. SUBSURFACE SOIL INVESTIGATION RESULTS ARE FURNISHED FOR INFORMATION ONLY, IN ACCORDANCE WITH SUBSECTION 2-7 OF THE STANDARD SPECIFICATIONS, AND NO WARRANTY IS MADE THEREOF.
- EXISTING IMPROVEMENTS WITHIN THE RIGHT OF WAY AND WORK AREAS SHALL REMAIN AND SHALL BE PROTECTED UNLESS OTHERWISE NOTED. DAMAGED IMPROVEMENTS SHALL BE REPLACED IN KIND TO A CONDITION EQUAL TO OR BETTER THAN THAT WHICH EXISTED PRIOR TO CONSTRUCTION.
- UTILITIES ARE SHOWN AS KNOWN TO EXIST AT TIME OF SURVEY. UTILITIES MAY HAVE BEEN OBTAINED, MISPLACED, AND/OR RELOCATED. CONTRACTOR SHALL EXERCISE CARE IN EXCAVATION AND SHALL PROTECT ALL UTILITIES.
- ALL ELECTRICAL AND PHONE UTILITIES OVERHEAD.
- CONTRACTOR SHALL NOTIFY UTILITY OWNERS A MINIMUM OF 48 HOURS PRIOR TO STARTING WORK IN AREAS AFFECTING THEIR FACILITIES.

| | | |
|---|-------------------------|------------------------|
| VERIZON | TEL. NO. (805) 388-2240 | MR. ROBBIE MUSGROVE |
| SOUTHERN CALIFORNIA EDISON CO. | TEL. NO. (805) 654-7291 | MR. JAY OLSENWOOD |
| SOUTHERN CALIFORNIA GAS CO., DIST. | TEL. NO. (805) 385-4829 | MR. LARRY PALAK |
| CHEVRON-TEXACO, INC. | TEL. NO. (661) 654-7074 | MS. DARLENE MCGLOTHLIN |
| CITY OF OXNARD (WATER AND SEWER) | TEL. NO. (805) 385-7925 | MR. ROB ROSHANIAN |
| ADELPHI (CATV) | TEL. NO. (805) 485-3888 | MR. PAUL OLIVARES |
| MUTUAL WATER COMPANY OF VINEYARD AVE. ESTATES | TEL. NO. (805) 485-8449 | |

UNDERGROUND SERVICE ALERT

1-800-422-4133
CALL USA/SC
FOR UNDERGROUND LOCATION
2 WORKING DAYS BEFORE YOU DIG
FOR BEST RESPONSE, PROVIDE AS MUCH NOTICE
AS POSSIBLE, UP TO TEN (10) WORKING DAYS.



COUNTY OF VENTURA - PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT

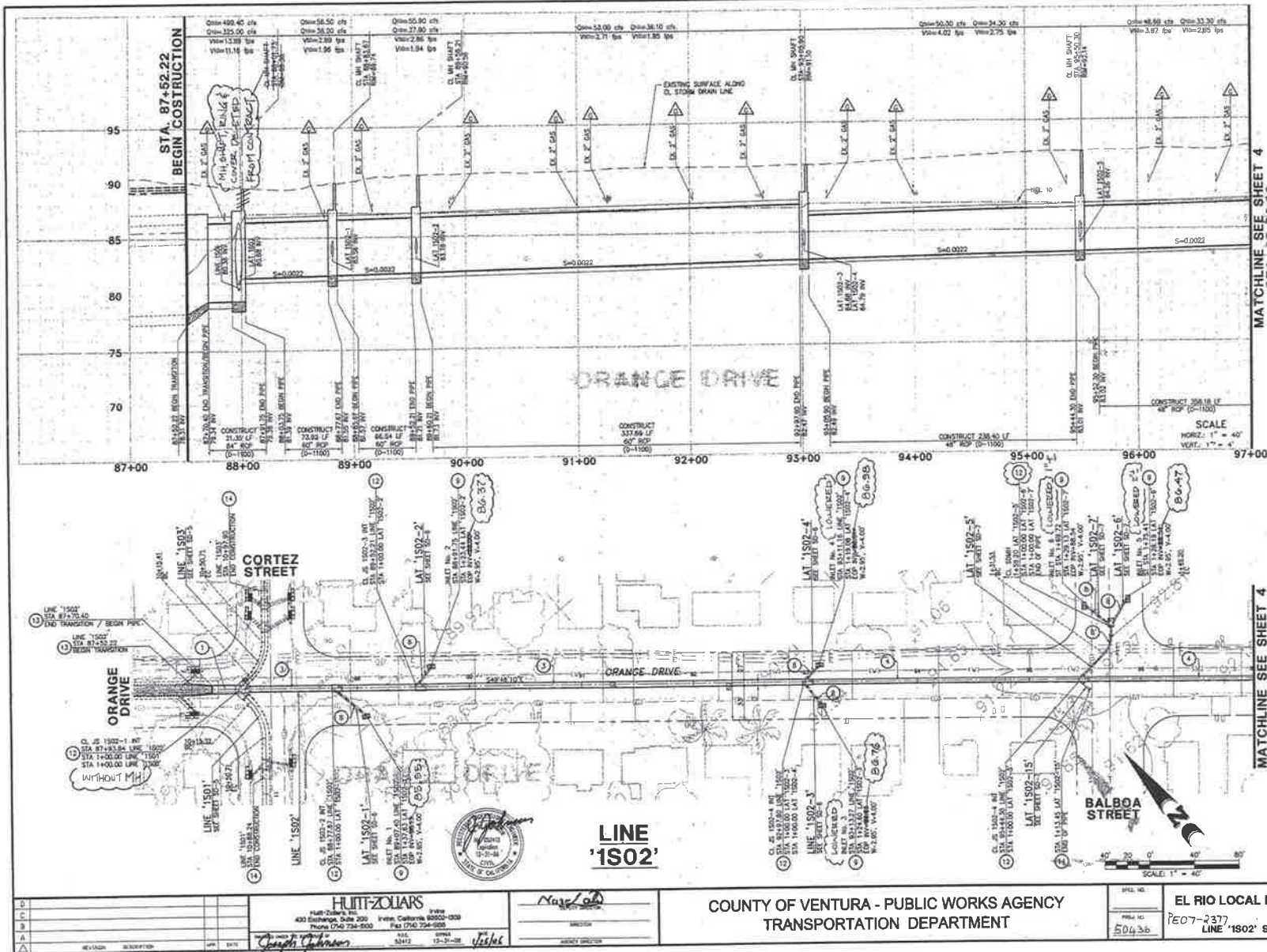
EL RIO LOCAL DRAINAGE IMPROVEMENTS

SPEC. NO.
504-36

PE07-2377 GENERAL PLAN AND NOTES

SD-1
10
10

APPENDIX N



CONSTRUCTION NOTES

1. CONSTRUCT 84" RCP (PIPE CLASS PER PLAN).
2. CONSTRUCT 66" RCP (PIPE CLASS PER PLAN).
3. CONSTRUCT 60" RCP (PIPE CLASS PER PLAN).
4. CONSTRUCT 48" RCP (PIPE CLASS PER PLAN).
5. CONSTRUCT 42" RCP (PIPE CLASS PER PLAN).
6. CONSTRUCT 36" RCP (PIPE CLASS PER PLAN).
7. CONSTRUCT 24" RCP (PIPE CLASS PER PLAN).
8. CONSTRUCT 18" RCP (PIPE CLASS PER PLAN).
9. CONSTRUCT SINGLE INLET GRATING CATCH BASIN PER STD PLAN PLATE 304-2.
10. CONSTRUCT DOUBLE INLET GRATING CATCH BASIN PER STD PLAN PLATE 304-2.
11. CONSTRUCT CATCH BASIN W/GRATING AND DEBRIS SKIMMER PER STD PLAN PLATE 301-2.
12. CONSTRUCT JUNCTION STRUCTURE PER STD PLAN PLATE 301-1.
13. CONSTRUCT TRANSITION STRUCTURE RCB PER STD PLAN PLATE 345-1.
14. CONSTRUCT BRICK & MORTAR PLUG.
15. CONSTRUCT 72" RCP (PIPE CLASS PER PLAN).
16. CONSTRUCT 30" RCP (PIPE CLASS PER PLAN).

GENERAL NOTES

- △ PROVIDE TEMP GAS SERVICE AS NEEDED PER GAS COMPANY STANDARDS. RESTORE SERVICE CONNECTION UPON COMPLETION OF RCP CONSTRUCTION.
- △ RELocate WATER SERVICE AS NEEDED PER WATER COMPANY STANDARDS.

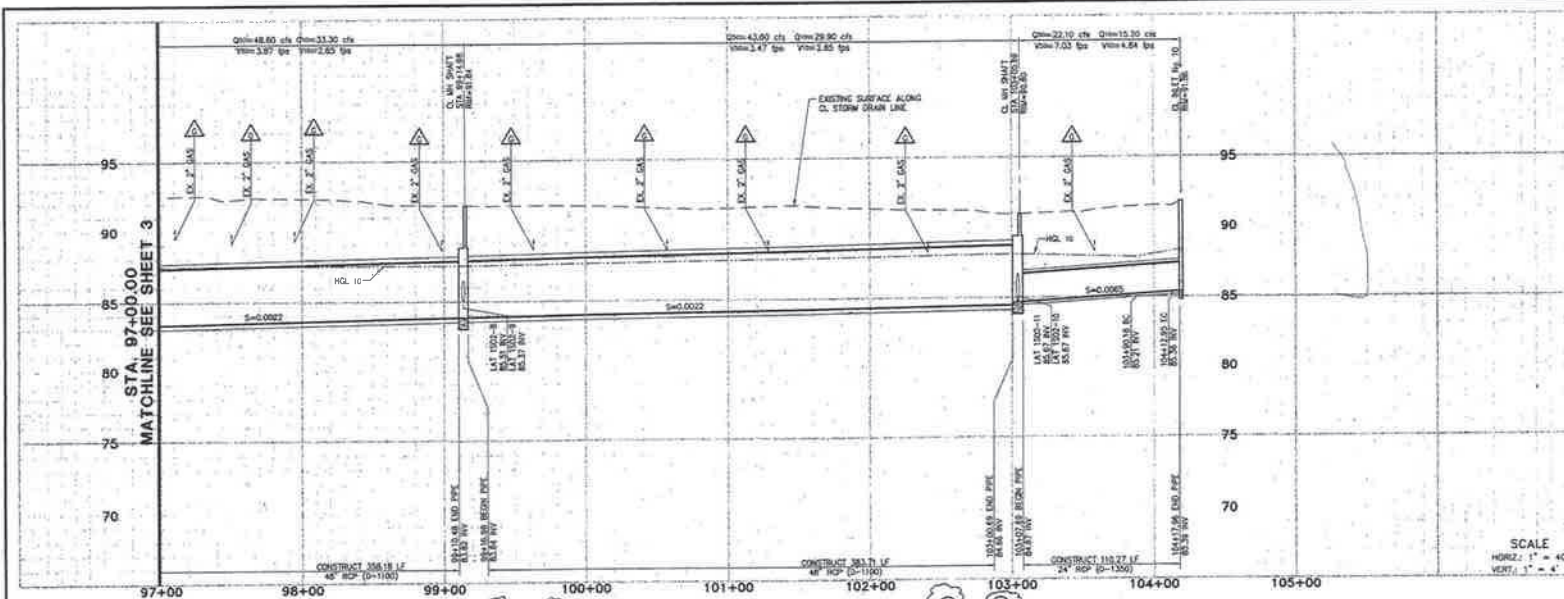
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DRAWING SUBMITTED BY: SCOTT LINDSEY
DRAWING REVIEWED BY: J. LINDSEY
APPROVED BY: J. LINDSEY DATE: 2/10/19



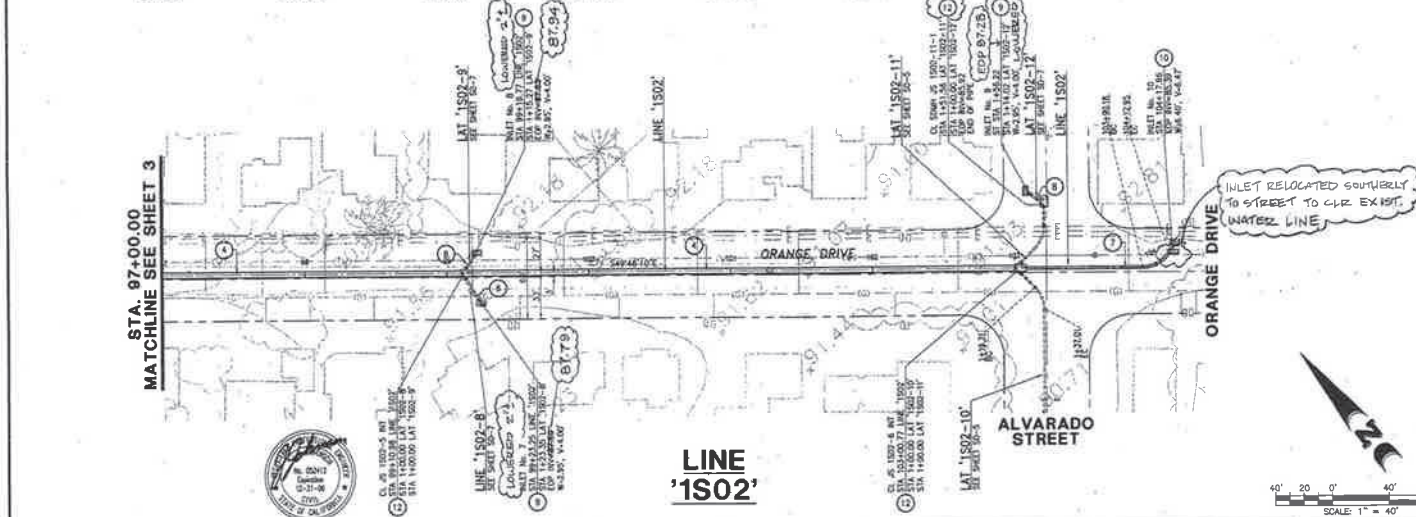
COUNTY OF VENTURA - PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT

EL RIO LOCAL DRAINAGE IMPROVEMENTS
STORM DRAIN
LINE 'IS02' STA 87+52.22 THRU 97+00.00

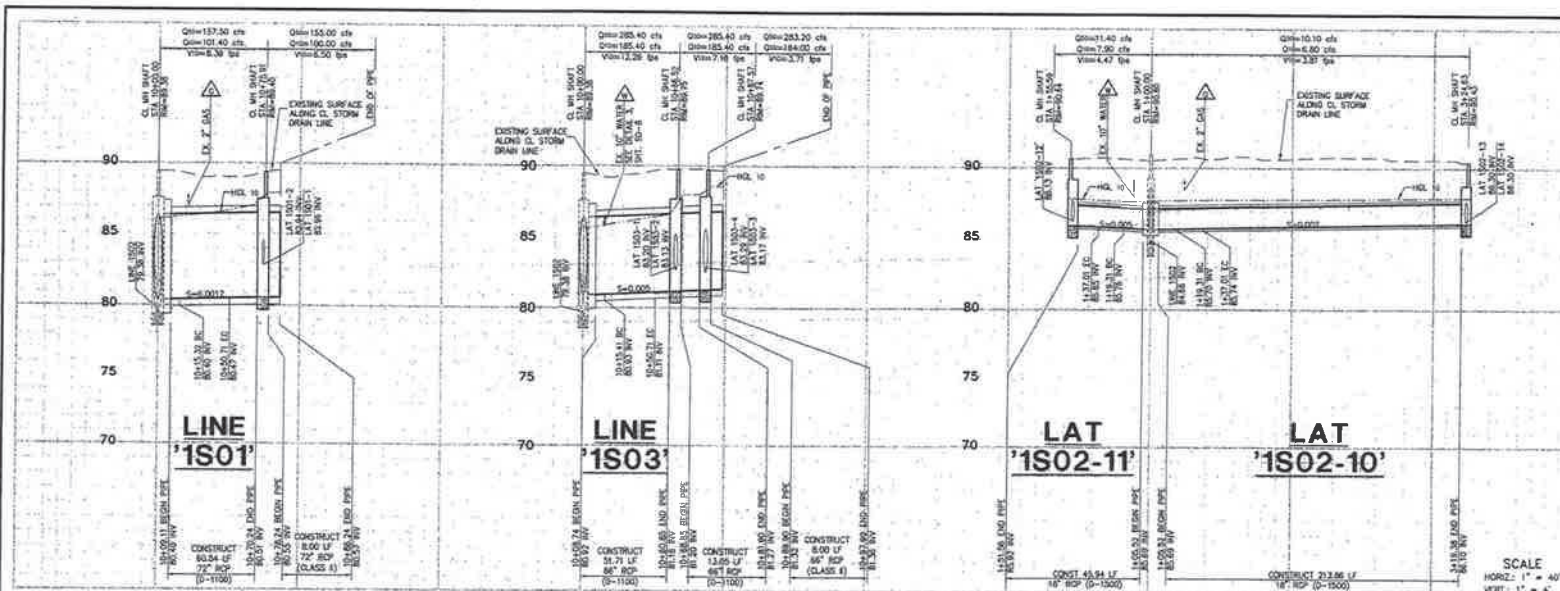
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|----------|-------------|----------|
| DATE | DESCRIPTION | DATE |
| 12-13-08 | 12-13-08 | 12-13-08 |
| 12-13-08 | 12-13-08 | 12-13-08 |
| 12-13-08 | 12-13-08 | 12-13-08 |



- ### CONSTRUCTION NOTES
1. CONSTRUCT 84" RCP (PIPE CLASS PER PLAN).
 2. CONSTRUCT 60" RCP (PIPE CLASS PER PLAN).
 3. CONSTRUCT 48" RCP (PIPE CLASS PER PLAN).
 4. CONSTRUCT 48" RCP (PIPE CLASS PER PLAN).
 5. CONSTRUCT 48" RCP (PIPE CLASS PER PLAN).
 6. CONSTRUCT 36" RCP (PIPE CLASS PER PLAN).
 7. CONSTRUCT 24" RCP (PIPE CLASS PER PLAN).
 8. CONSTRUCT 18" RCP (PIPE CLASS PER PLAN).
 9. CONSTRUCT SADDLE INLET GRATING CATCH BASIN PER STD PLAN PLATE 304-2.
 10. CONSTRUCT DOUBLE INLET GRATING CATCH BASIN PER STD PLAN PLATE 304-2.
 11. CONSTRUCT CATCH BASIN W/GRATING AND DEBRIS SKIMMER PER STD PLAN PLATE 301-2.
 12. CONSTRUCT ANTI-SUCK STRUCTURE PER STD PLAN PLATE 302-1.
 13. CONSTRUCT ANTI-SUCK STRUCTURE PER STD PLAN PLATE 302-1.
 14. CONSTRUCT BRICK & MORTAR PLUG.
 15. CONSTRUCT 72" RCP (PIPE CLASS PER PLAN).
 16. CONSTRUCT 30" RCP (PIPE CLASS PER PLAN).
- ### GENERAL NOTES
- △ PROVIDE TEMP. GAS SERVICE AS NEEDED PER GAS COMPANY STANDARDS. RESTORE SERVICE CONNECTION UPON COMPLETION OF RCP CONSTRUCTION.
 - △ RELOCATE WATER SERVICE AS NEEDED PER WATER COMPANY STANDARDS.



| | | | | | | |
|---|--|---|--|---------------------|---|---------------------------------------|
| HUNT-ZOLARS
Multi-Disciplinary Engineers
430 Exchange, Suite 200 Irvine, California 92610-0001
Phone (714) 754-5500 Fax (714) 754-5501 | | County of Ventura - Public Works Agency
Transportation Department | | SHEET NO.
504.36 | EL RIO LOCAL DRAINAGE IMPROVEMENTS
PE07-2377
STORM DRAIN
LINE '1502' STA 97+00.00 THRU 104+17.96 | INDEX MAP
GRAPHIC SCALE 1" = 1500' |
| DATE PROJECT COMPLETED: 07/08/08
REVISIONS SUBMITTED BY: GUSTY ANDERSON
REVISIONS REVIEWED BY: J. GUSTY ANDERSON
APPROVED BY: J. GUSTY ANDERSON DATE: 02/04/09 | COUNTY OF VENTURA - PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT | | | | | |

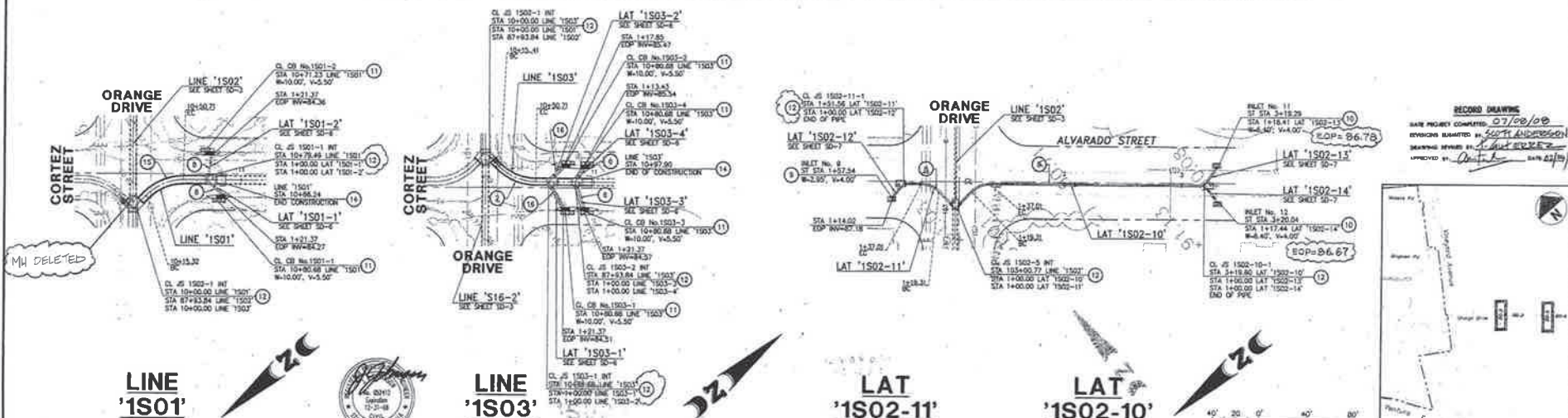


CONSTRUCTION NOTES

1. CONSTRUCT 64" RCP (PIPE CLASS PER PLAN)
2. CONSTRUCT 66" RCP (PIPE CLASS PER PLAN)
3. CONSTRUCT 60" RCP (PIPE CLASS PER PLAN)
4. CONSTRUCT 48" RCP (PIPE CLASS PER PLAN)
5. CONSTRUCT 42" RCP (PIPE CLASS PER PLAN)
6. CONSTRUCT 36" RCP (PIPE CLASS PER PLAN)
7. CONSTRUCT 24" RCP (PIPE CLASS PER PLAN)
8. CONSTRUCT 18" RCP (PIPE CLASS PER PLAN)
9. CONSTRUCT SINGLE INLET GRATING CATCH BASIN FOR STD PLAN PLATE 304-2
10. CONSTRUCT DOUBLE INLET GRATING CATCH BASIN FOR STD PLAN PLATE 304-2
11. CONSTRUCT CATCH BASIN W/GRATING AND DEBRIS SHOWER FOR STD PLAN PLATE 301-2
12. CONSTRUCT JUNCTION STRUCTURE FOR STD PLAN PLATE 302-1
13. CONSTRUCT TRANSITION STRUCTURE FOR STD PLAN PLATE 340-1
14. CONSTRUCT BRICK & MORTAR PLUG
15. CONSTRUCT 72" RCP (PIPE CLASS PER PLAN)
16. CONSTRUCT 30" RCP (PIPE CLASS PER PLAN)

GENERAL NOTES

1. PROVIDE TEMP GDE SERVICE AS NEEDED PER GAS COMPANY STANDARDS. RESTORE SERVICE CONNECTION UPON COMPLETION OF RCP CONSTRUCTION.
2. RELOCATE WATER SERVICE AS NEEDED PER WATER COMPANY STANDARDS.

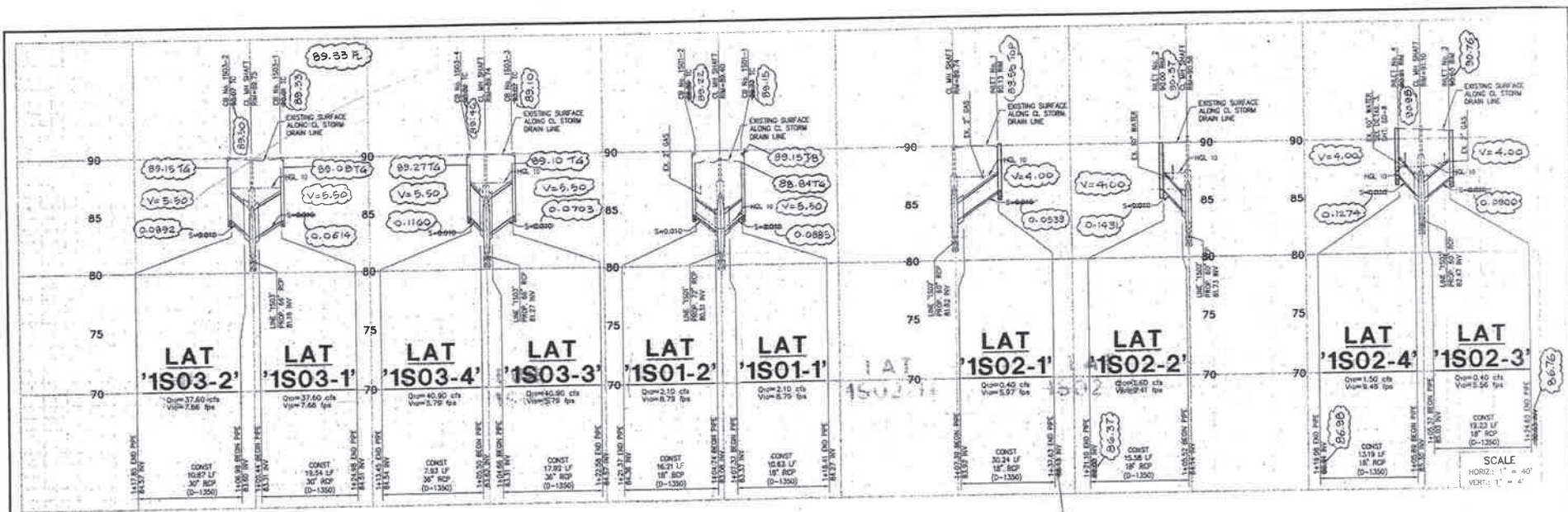


RECORD DRAWING

DATE PROJECT COMPLETED: 07/08/00
DESIGNING REVISIONS BY: SOUTH AUSTIN
DRAWING REVISIONS BY: SOUTH AUSTIN
APPROVED BY: SOUTH AUSTIN



| | | | | |
|--|---|--|---|-------------------------------------|
| <p>REVISION</p> <p>DESCRIPTION</p> <p>DATE</p> | <p>HUTT-ZOLIARS</p> <p>400 Exchange, Suite 300, Irvine, California 92612-0300</p> <p>Phone: (714) 754-5500 Fax: (714) 754-5555</p> | <p>County of Ventura - Public Works Agency</p> <p>TRANSPORTATION DEPARTMENT</p> | <p>EL RIO LOCAL DRAINAGE IMPROVEMENTS</p> <p>PE07-2377</p> <p>LINE '1S01', '1S03' AND LATERALS</p> | <p>50436</p> <p>11/19/97</p> |
|--|---|--|---|-------------------------------------|



RECORD DRAWING

BASE PROJECT COMPLETED: 07/09/09
 REVISIONS SUBMITTED BY: SCOTT ANDERSON
 DRAWING REVISED BY: SCOTT ANDERSON
 APPROVED BY: DATE 02/19/19



HUNT-ZOLARS

Hunt-Zolars, Inc.
 400 Exchange, Suite 200 Irvine, California 92612-0509
 Phone (714) 754-9900 Fax (714) 754-9905

DATE 02/19/19 BY Scott Anderson

COUNTY OF VENTURA - PUBLIC WORKS AGENCY
 TRANSPORTATION DEPARTMENT

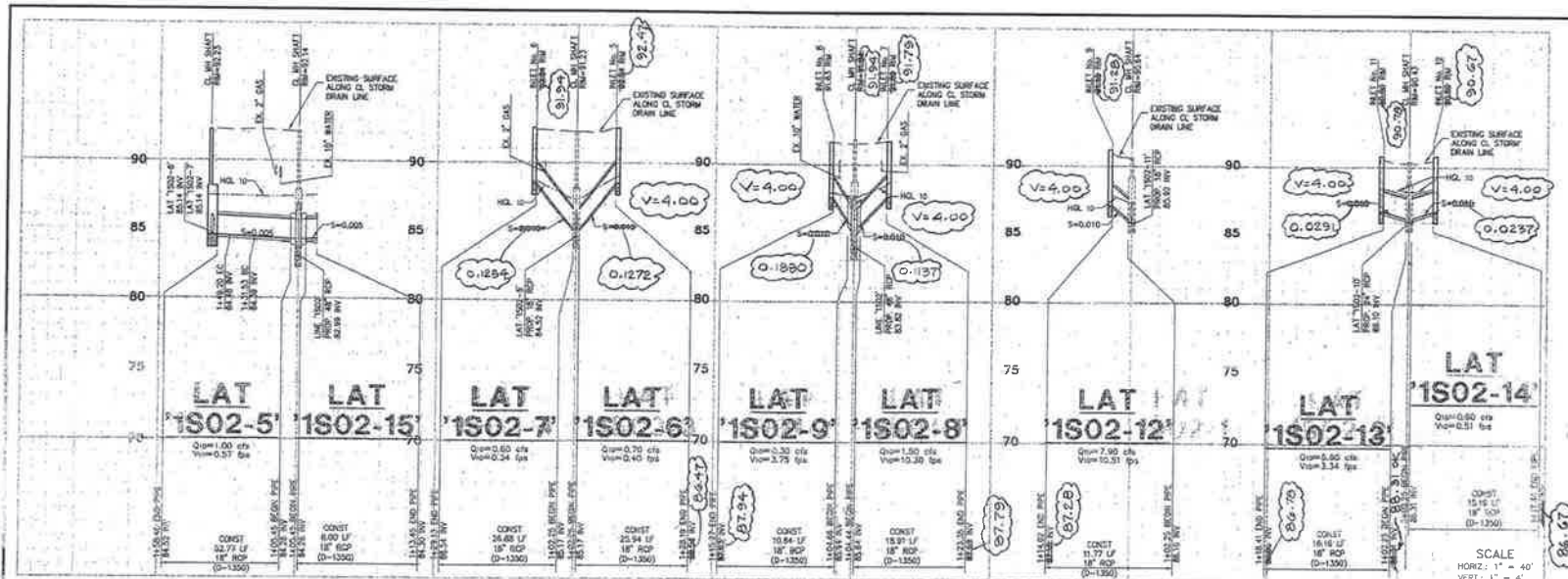
EL RIO LOCAL DRAINAGE IMPROVEMENTS
 STORM DRAIN
 LATERALS

PEL NO.
 50436

PE07-2377

HEET 50-6
 10-6

11/04/05-11/07/11



HUNT-ZOLARS

1400-24th St., Suite 200
400 Broadway, Suite 200
Palo Alto, CA 94301
Phone (650) 734-0000
Fax (650) 734-0005

Scott Anderson
Professional Engineer

DESIGNER

AGENCY DIRECTOR

COUNTY OF VENTURA - PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT

PROJECT NO.

50436

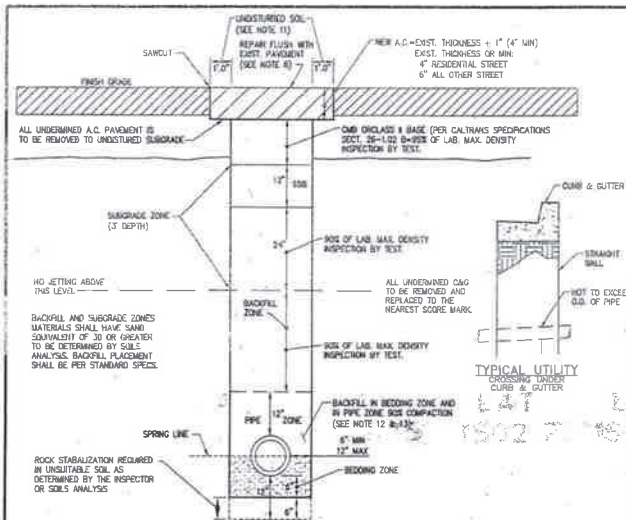
EL RIO LOCAL DRAINAGE IMPROVEMENTS
STORM DRAIN
LATERALS

SD7

10

11/20/05

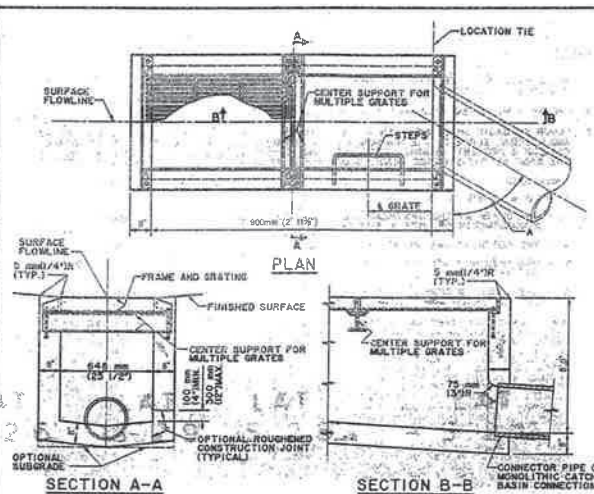
RECORD DRAWING
DATE PROJECT COMPLETED: 07/08/08
REVISIONS SUBMITTED BY: SCOTT ANDERSON
DRAWING REVIEWED BY: SCOTT ANDERSON
APPROVED BY: *Scott Anderson* DATE: 02/04/09



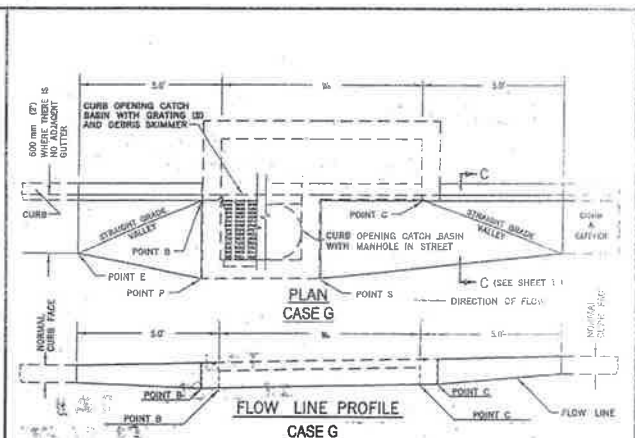
NOTES

1. NO ROCKS OVER 1 1/2" DIAMETER AND CLOS NOT TO EXCEED 3" DIAMETER IN BOTH SUBGRADE AND BACKFILL ZONES.
 2. JETTING PERMITTED IN SUITABLE SOIL (SE-75) & NO GROUNDWATER CONDITION.
 3. A. C. TO BE MECHANICALLY COMPACTED, WHEEL ROLLING NOT PERMITTED.
 4. A.C. COLD MAY TO BE ON SITE PRIOR TO BREAKING PAVEMENT.
 5. SHORING REQUIRED WHEN TRENCH DEPTH IS 5' OR OVER, SHEET SHORING IS REQUIRED IN UNSTABLE SOILS.
 6. ALL TRENCHES PARALLEL TO THE CENTER LINE OF THE STREET SHALL BE PAVED WITH A ASPHALT PAVING MACHINE FLUSH WITH THE EXISTING PAVEMENT.
 7. BACKFILL SHALL BE IN ACCORDANCE WITH THIS PLATE EXCEPT THAT THE BACKFILL OF UTILITY CUTS ON ALL MAJOR ARTERIAL STREETS AND AREAS WITH HIGH GROUNDWATER TABLE AND UNSUITABLE BACKFILL MATERIAL SHALL BE A TWO SACK CEMENT SLURRY.
 8. HYDRO-HAMMER, OR STOMPERS, ARE PERMITTED SUBJECT TO PRIOR APPROVAL. THEY ARE NOT PERMITTED WITHIN 3' OF EXIST. CITY UTILITIES.
 9. IF TRENCH IS 60" OR LESS FROM THE EDGE OF A GUTTER, OR OTHER EXISTING TRENCH REPAIR, THEN REMOVE THE INTERVENING ASPHALT BETWEEN THE GUTTER EDGE OR EXISTING TRENCH REPAIR AND REPAVE IT AS PART OF THE TRENCH RESURFACING.
 10. THE EXTENT OF SAW CUT OF EXISTING PAVEMENT BEYOND TRENCH WALL DEPENDS UPON THE UNDERGROUND SOIL ENCOUNTERED IN THE TRENCH. FOR SHALLOW UTILITY TRENCHES IN FIRM COHESIVE SOIL, REMOVAL OF 6" UNDISTURBED SOIL (AS SHOWN ON THE PLATE) IS ACCEPTABLE. IN SANDY - COHESIONLESS SOIL WHERE CAVING OF TRENCH WALL IS PREDOMINANT, THE EXTENT OF SAW CUT MAY BE 2' TO 3' BEYOND THE INITIAL TRENCH WALL. THE ACTUAL EXTENT OF SAW CUT WILL BE DETERMINED BY THE FIELD INSPECTOR. THE INTENT IS TO OBTAIN PROPER DENSIFICATION OF BACKFILL MATERIAL IN SUBGRADE ZONE AND REESTABLISH THE SOUND FOUNDATION FOR THE RESURFACING. FOLLOWING IS A GUIDE LINE FOR THE EXTENT OF SAW CUT WIDTH OF UNDISTURBED SOIL BEYOND THE TRENCH WALLS.
- | TRENCH DEPTH | MIN. SAW CUT WIDTH |
|----------------|--------------------|
| 3' OR LESS | 6" |
| 3' TO 10' | 12" |
| 10' TO 15' | 18" |
| 15' AND DEEPER | 24" |
12. FOR FLEXIBLE P.V.C. DRAINAGE LINES (STORM DRAINS AND SINKS), PEA GRAVEL, COARSE SAND AND GRAVELS WITH MAXIMUM PARTICLE SIZE OF 3/4" INCH AND SAND ANGULAR 1/4" TO 3/4" GRADED STONES ARE REQUIRED IN PIPE ZONE. BECAUSE OF VARIABLE INTERNAL PRESSURES WITHIN P.V.C. PRESSURE LINES (WATER MAINS) COARSE SAND WITH SAND EQUIVALENT OF 70 OR GREATER IS REQUIRED IN PIPE ZONE. NO ANGULAR STONES OR PEA GRAVELS WILL BE ALLOWED IN PIPE ZONE FOR P.V.C. PRESSURE LINES.
 13. FOR RIGID WALL PIPES (V.C.P., A.C.P. AND R.C.P.) COARSE SAND WITH SAND EQUIVALENT OF 75 OR GREATER OR CLASS 2 AGGREGATE BASE MATERIAL BACKFILL IS ACCEPTABLE. FOR PIPES WITHIN GROUND WATER TABLE ZONE CLEAN GRANULAR MATERIAL BEDDING IS REQUIRED FOR FREE PASSAGE OF SUB-SURFACE WATER.

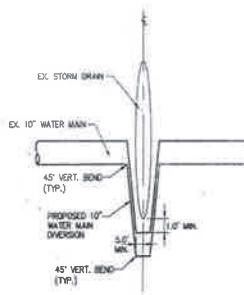
TYPICAL TRENCH BACKFILL SECTION NTS 1



GRATING CATCH BASIN-ALLEY (LONGITUDINAL) NTS 2



LOCAL DEPRESSIONS AT CATCH BASINS NTS 4



WATER MAIN DIVERSION NTS 3

| REV | DESCRIPTION | DATE |
|-----|-------------|----------|
| 1 | REVISED | 11/15/08 |

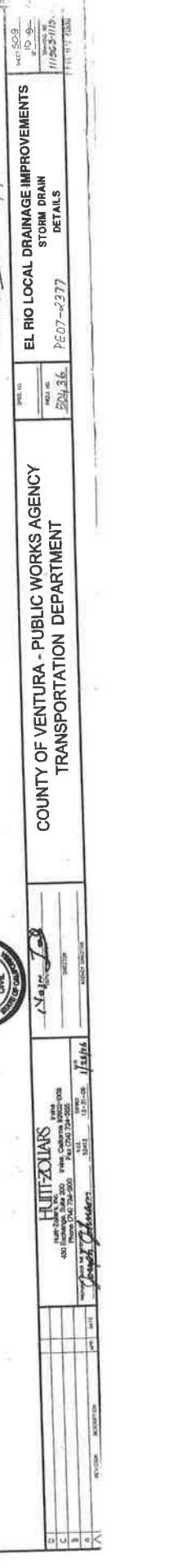
HUTT-ZOLIARS
1148-ZOLIARS, INC.
420 Exchange, Suite 200 Irvine, California 92602-0209
Phone (714) 754-9000 Fax (714) 754-9005

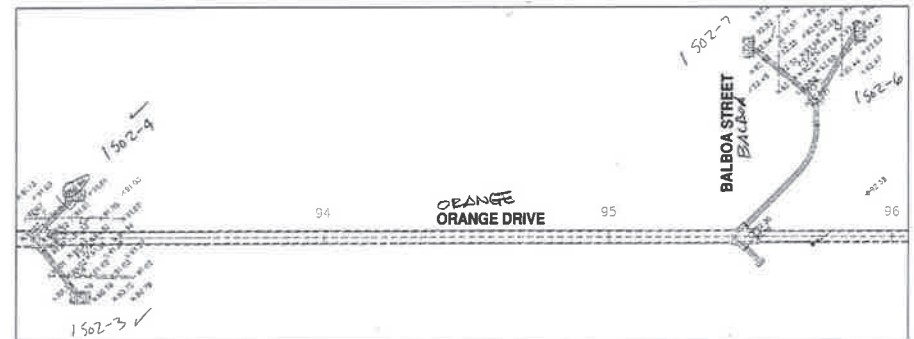
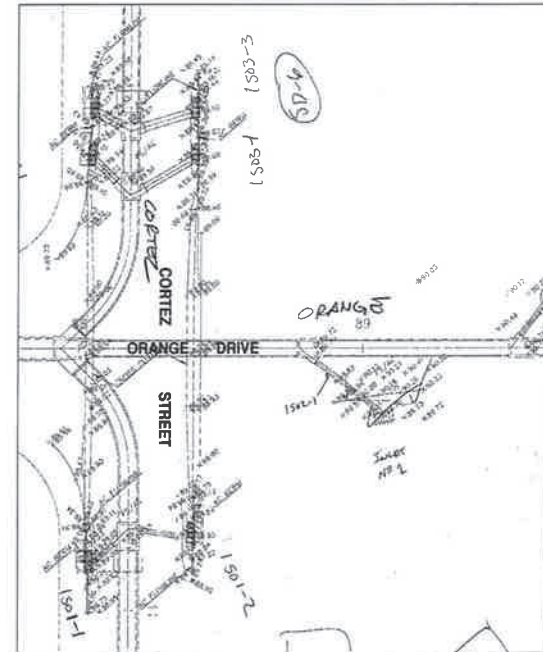
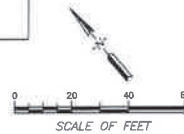
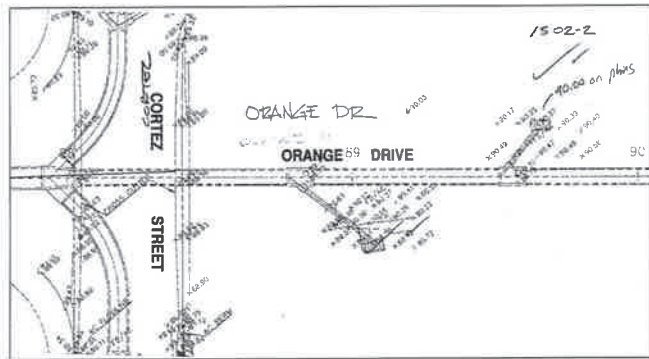
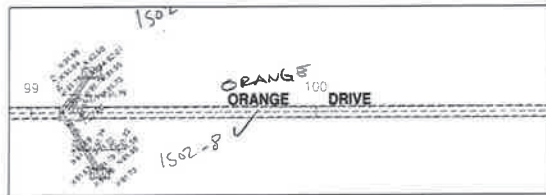


COUNTY OF VENTURA - PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT

| PROJECT NO. | FILE NO. | EL RIO LOCAL DRAINAGE IMPROVEMENTS |
|-------------|-----------|------------------------------------|
| 52436 | PE07-R377 | STORM DRAIN DETAILS |

RECORD DRAWING
DATE PROJECT COMPLETED: 07/08/08
REVISIONS SUBMITTED BY: Scott Anderson
DRAWING REVISED BY: Scott Anderson
APPROVED BY: [Signature] DATE: 02/14/09





RECORDS DELIVERED
DATE PROJECT COMPLETED 07/08/08
REVISIONS SUBMITTED BY SCOTT ANDERSON
DRAWING REVISED BY J. ANDERSON
APPROVED BY [Signature] DATE 02/26/09

NOTE:
THIS SHEET ADDED AFTER CONSTRUCTION FOR RECORD DRAWING.

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
TRANSPORTATION DEPARTMENT

EL RIO DRAINAGE IMPROVEMENTS
AFTER CONSTRUCTION SURVEY

50436 PE07-2377

SD-8A
10
111971A

PLANS

**(71 FULL SIZE SHEETS – SEPARATE FROM
THE YELLOW BOOK)**