

CITY OF LAFAYETTE

3675 Mt. Diablo Boulevard, Suite 210
(925) 284-1951
www.ci.lafayette.ca.us



NOTICE TO CONTRACTORS BID PROPOSAL CONTRACT AGREEMENT CONTRACT SPECIAL PROVISIONS

FOR

CITY OF LAFAYETTE PLEASANT HILL ROAD & OLYMPIC BOULEVARD ROUNDBOUT PROJECT

Project No. 014-9707

**Bid Opening Date
Thursday, June 16, 2016, 2:00 p.m.**

TABLE OF CONTENTS

	<u>Page No.</u>
NOTICE TO CONTRACTORS	N-1
BID PROPOSAL	P-1
BID SCHEDULE	P-2
NONCOLLUSION DECLARATION	P-6
PROPOSAL GUARANTEE	P-7
PROPOSAL SIGNATURE SHEET	P-8
PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION	P-9
CONTRACT AGREEMENT FOR CONSTRUCTION	C-1
PAYMENT BOND	C-5
PERFORMANCE BOND	C-6
SPECIAL PROVISIONS¹	
GENERAL PROVISIONS	SP-2
SECTION SP-1 - TERMS, DEFINITIONS AND ABBREVIATIONS	SP-2
SECTION SP-2 - BID PROPOSAL REQUIREMENTS	SP-3
SECTION SP-3 - AWARD AND EXECUTION OF CONTRACT	SP-3
SECTION SP-4 - PLANS AND SPECIFICATIONS (GENERAL)	SP-3
SECTION SP-5 - CONTROL OF WORK AND MATERIALS	SP-4
SECTION SP-6 - LEGAL RELATIONS AND RESPONSIBILITIES	SP-6
SECTION SP-7 - EXISTING UTILITIES	SP-6
SECTION SP-8 - PROGRESS OF WORK	SP-7
SECTION SP-9 - MOBILIZATION	SP-8
SECTION SP-10 - CONSTRUCTION AREA SIGNS	SP-9
SECTION SP-11 - TRAFFIC CONTROL AND TEMPORARY PAVEMENT DELINEATION	SP-9
SECTION SP-12 - CLEARING AND GRUBBING	SP-12
SECTION SP-13 - EXISTING FACILITIES	SP-12
SECTION SP-14 - EXCAVATIONS	SP-19
SECTION SP-15 - DUST CONTROL AND WATERING	SP-20
SECTION SP-16 - AGGREGATE BASE	SP-20
SECTION SP-17 - ASPHALT CONCRETE	SP-21

SECTION SP-18 - COLD PLANING.....	SP-22
SECTION SP-19 - PAVEMENT STRIPING, MARKERS AND DELINEATION	SP-23
SECTION SP-20 - TRAFFIC SIGNS AND STREET NAME SIGNS.....	SP-24
SECTION SP 21 - CONCRETE CONSTRUCTION	SP-24
SECTION SP-22 - STORM DRAINS.....	SP-26
SECTION SP-23 - LANDSCAPE IRRIGATION	SP-27
SECTION SP-24 - LANDSCAPING	SP-35
SECTION SP-25 - PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS	SP-40
SECTION SP-26 - WOOD FENCE.....	SP-40
SECTION SP-27 - WIRE FENCE	SP-41
SECTION SP-28 - SURVEY MONUMENT	SP-41
SECTION SP-29 - STONE PAVING	SP-42
SECTION SP-30 - STREET LIGHT AND ELECTRICAL SYSTEMS	SP-44
SECTION SP-31 - ROCK DRAIN WELL	SP-50

APPENDIX A: STANDARD PLANS

APPENDIX B: STREET LIGHT ASSEMBLY CUT SHEET

APPENDIX C: OTHER DETAILS

APPENDIX D: UTILITY POT HOLE LOG

APPENDIX E: CROSS SECTIONS

NOTICE TO CONTRACTORS

Sealed proposals will be accepted at the office of the City Clerk, 3675 Mt. Diablo Boulevard, Suite 210, Lafayette, California until 2:00 P.M., Thursday, June 16, 2016, at which time they will be publicly opened and read, for construction of **City of Lafayette, Pleasant Hill Road & Olympic Boulevard Roundabout Project, Project No. 014-9707**, including, but not limited to, the construction of a single-lane roundabout with adjacent shared use path at the intersection of Pleasant Hill Road and Olympic Blvd. Work generally includes, but is not limited to, mobilization; traffic control and construction signage; potholing utilities; clearing and grubbing including tree protection, tree removal, and trimming; removal and disposal of asphalt concrete pavement and subgrade, concrete curb ramp, curb, gutter, sidewalk, and miscellaneous roadway appurtenances; excavating, grading and compacting pavement subgrade and base materials; construction of asphalt concrete pavement, concrete curb, gutter, medians, stone facing truck apron, shared use path, drainage facilities, street lighting system, landscape planting and irrigation, traffic signs, stripes, markers, and markings; installation of agency-furnished street name signs; adjustment of utility covers; installation of survey monuments; and all other miscellaneous work as shown on the Plans and as described in the Specifications to provide a complete project.

The Engineer's cost estimate is \$1,490,000.

Beginning May 24, Contract Documents, including the Plans and Specifications, may be obtained through the City of Lafayette Engineering Services Division by contacting tkain@lovelafayette.org or (925)284-1951.

This project shall be constructed in accordance with the March 2013 edition of the City of Lafayette Standard Specifications, which may be obtained at the City of Lafayette Engineering Services Division. The cost of the Standard Specifications is \$20 per set. The cost of mailing is an additional \$8.

Bids shall be submitted in a sealed envelope titled "**Proposal: Pleasant Hill Road & Olympic Boulevard Roundabout Project, Project No. 014-9707.**" The Contractor shall possess a Class "A" license at the time this contract is awarded.

Bidder's attention is directed to requirements in Sections 2 and 3 of the Standard Specifications General Provisions. All bids shall be accompanied by a cashier's or certified check, or a bidder's bond executed by a corporate surety insurer. The bidder's guarantee shall be in the amount equal to at least ten (10) percent of the total bid and shall be made payable to the City of Lafayette. The successful bidder shall furnish a payment bond and a performance bond.

The City Council has ascertained the General Prevailing Rates of Wages applicable to this work, and these rates are on file in the office of the City of Lafayette Engineering Services Division.

Time of completion allowed for this project will be one hundred fifteen (115) working days. Bidder's attention is directed to the order of work stated in Section 5 of the Special Provisions.

The City of Lafayette reserves the right to waive any informalities or to reject any or all bids. Questions regarding the project Plans or Specifications may be directed to Senior Engineer Farzaneh Sanders at FSanders@ci.lafayette.ca.us or (925)299-3209.

The plan holders list, as well as the City Standard Specifications, the Project Special Provisions and the General Prevailing Rates of Wages applicable to this work may be downloaded free of charge from the City of Lafayette web page at <http://www.ci.lafayette.ca.us> (click on *Public Works and Construction* under Quick Links on the homepage, then *City Construction Projects*). Or you may contact the Engineering Assistant at (925) 284-1951.

CITY OF LAFAYETTE

Date: May 13, 2016

By: 
Tony Coe, City Engineer

**CITY OF LAFAYETTE
CALIFORNIA**

BID PROPOSAL

**PLEASANT HILL ROAD AT OLYMPIC BOULEVARD ROUNDABOUT PROJECT
Project No. 014-9707**

TO THE CITY COUNCIL OF THE CITY OF LAFAYETTE:

In compliance with the annexed notice inviting sealed proposals, the undersigned bidder hereby proposes and agrees to perform the work therein described and to furnish all labor, materials and equipment necessary therefor, in accordance with the Plans and Specifications therefor, and further agrees to enter into a contract therefor, at the following prices:

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>UNIT OF MEASURE</u>	<u>ESTIMATED QUANTITY</u>	<u>ITEM PRICE</u>	<u>TOTAL</u>
-----------------	-------------------------	------------------------	---------------------------	-------------------	--------------

(SEE ATTACHED BID SCHEDULE)

- NOTES:
- All unit prices shall be considered the prices for providing a complete, in-place facility.
 - In the event of a discrepancy between the unit price and item total on the Bid Schedule, the unit price shall be used.

o o o

Bidder acknowledges the receipt of the following addenda to the drawings and specifications.

<u>Addendum No.</u>	<u>Date</u>	<u>Addendum No.</u>	<u>Date</u>
_____	_____	_____	_____
_____	_____	_____	_____

o o o

BID SCHEDULE

Item No.	Item Description	Unit	Estimated Quantity	Unit Price	Total
1	Mobilization (SP-9)	LS	1		
2	Project Identification Sign (SP-9)	EA	3		
3	Construction Area Sign (SP-10)	EA	7		
4	Changeable Message Sign (SP-10)	EA	5		
5	Traffic Control (SP-11)	LS	1		
6	Temporary Traffic Striping & Pavement Markings (SP-11)	LS	1		
7	Clearing & Grubbing, Tree & Shrub Trimming or Removal, & Tree Protection (SP-12)	LS	1		
8	Remove Tree - 6" Diameter & Greater (SP-12)	EA	4		
9	Remove & Salvage Flashing Signals, Poles & Signs (SP-13)	LS	1		
10	Remove Cobra Head Street Light (SP-13)	LS	1		
11	Lower Existing Manhole or Rodding Inlet Frame (SP-13)	EA	1		
12	Lower Existing Utility Valve Frame & Cover (SP-13)	EA	2		
13	Adjust Manhole or Rodding Inlet Frame & Cover to Grade (SP-13)	EA	7		
14	Remove Thermoplastic Traffic Stripe, Marking & Markers (SP-13)	LS	1		
15	Remove Roadside Sign & Post (Salvage Sign) (SP-13)	EA	27		
16	Remove Asphalt Concrete Dike (SP-13)	LF	28		
17	Remove Concrete Curb (SP-13)	LF	1,365		
18	Remove Concrete Curb & Gutter (SP-13)	LF	1,484		
19	Remove Concrete Surfacing & Base Material (SP-13)	SF	2,145		
20	Remove Asphalt Concrete Sidewalk & Base Material (SP-13)	SF	5,354		
21	Remove Reinforced Concrete Pipe (SP-13)	LF	48		
22	Remove Inlet (SP-13)	EA	1		
23	Relocate Existing Traffic Sign onto New Post (SP-13)	EA	4		
24	Adjust Water Meter Box to Grade (SP-13)	EA	3		
25	Adjust Water Valve to Grade (SP-13)	EA	2		
26	Adjust Utility Box to Grade (SP-13)	EA	1		
27	Remove Bollard (SP-13)	EA	11		
28	Roadway Excavation (F) (SP-14)	CY	1,950		
29	Aggregate Base (Class 2) (SP-16)	CY	740		
30	Asphalt Concrete Pavement (SP-17)	TON	1,200		
31	Asphalt Concrete Dike (SP-17)	LF	47		
32	Temporary Asphalt Concrete Pavement at Medians (SP-17)	SF	3,560		
33	Cold Plane Asphalt Concrete Pavement (Variable Depths) (F) (SP-18)	SY	1,590		
34	4" Thermoplastic Traffic Stripe (SP-19)	LF	258		
35	6" Thermoplastic Traffic Stripe (SP-19)	LF	2,146		
36	18" Thermoplastic Traffic Stripe (SP-19)	LF	128		

Item No.	Item Description	Unit	Estimated Quantity	Unit Price	Total
37	Detail 25A (SP-19)	LF	2473		
38	Detail 38 (SP-19)	LF	462		
39	Pavement Marker Array (SP-19)	EA	4		
40	Thermoplastic Pavement Marking (SP-19)	SF	1,574		
41	Green Skid Resistant Surface Marking (4 Coats) (SP-19)	SF	628		
42	Object Marker (Type K) (SP-19)	EA	6		
43	Install New Traffic Sign & Post (One Post) (SP-20)	EA	58		
44	Install New Street Name Sign & Post (Two Posts) (SP-20)	EA	6		
45	Install New Traffic Sign (Strap & Saddle Bracket Method) (SP-20)	EA	15		
46	Concrete Retaining Curb (SP-21)	LF	200		
47	Concrete Curb & Gutter (SP-21)	LF	935		
48	Concrete Curb (SP-21)	LF	1,352		
49	Concrete Median Curb-Dowel/Epoxy (SP-21)	LF	1,133		
50	Concrete Curb at Truck Apron (SP-21)	LF	220		
51	Concrete Curb at Truck Blister (SP-21)	LF	83		
52	Concrete Truck Apron (SP-21)	SF	2,096		
53	Concrete Sidewalk (SP-21)	SF	5,786		
54	Concrete Curb Ramp With Detectable Panel (SP-21)	SF	2,409		
55	Install Type "G" Inlet (SP-21)	EA	4		
56	Install Type "J" Inlet (SP-21)	EA	1		
57	15" Reinforced Concrete Pipe (SP-22)	LF	345		
58	Irrigation System (SP-23)	LS	1		
59	Irrigation Trenches (SP-23)	LF	890		
60	Tree Planting & Staking (24" box) (SP-24)	EA	23		
61	Tree Planting & Staking (15-gallon) (SP-24)	EA	9		
62	Shrub Planting (5-gallon) (SP-24)	EA	163		
63	Shrub Planting (1-gallon) (SP-24)	EA	750		
64	Root Barriers (SP-24)	LF	1,069		
65	Bark Mulch (SP-24)	CY	170		
66	Rock Mulch (SP-24)	CY	4		
67	Boulders (SP-24)	TON	9		
68	Place Imported Topsoil (F) (SP-24)	CY	1,432		
69	Soil Preparation (SP-24)	SF	8,849		
70	Landscape & Irrigation Maintenance Period – 60 days (SP-23, SP-24)	LS	1		
71	Split Rail Wood Fence (SP-26)	LF	208		
72	Wire Fence (SP-27)	LF	72		
73	Install Survey Monument (SP-28)	EA	3		
74	Stone Paving (SP-29)	SF	2,096		
75	Service Enclosure (SP-30)	EA	1		
76	Install Street Light Assembly (Type B) (SP-30)	EA	10		
77	Install Street Light Assembly (Type C) (SP-30)	EA	2		

Item No.	Item Description	Unit	Estimated Quantity	Unit Price	Total
78	Pull Box (No. 2) (SP-30)	EA	1		
79	Pull Box (No. 5(E)) (SP-30)	EA	10		
80	Pull Box (No. 6) (SP-30)	EA	6		
81	Electrical Conduits & Conductors (SP-30)	LF	910		
82	Rock Drain Well (SP-31)	LS	1		

Base Bid Total

--

(F) Denotes Final Pay Quantity

Bidder agrees that in case of default in executing and returning the required contract and bonds within ten (10) calendar days after having received the contract, proceeds of the guarantee accompanying his bid will become the property of the City of Lafayette.

o o o

In conformance with Subsection 2-13 "Listing of Proposed Subcontractors" of the Standard Specifications, the name and location of the place of business of each subcontractor is as follows:

	<u>NAME</u>	<u>DIR NUMBER</u>	<u>ADDRESS</u>	<u>WORK TO BE PERFORMED</u>
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____

o o o

Bidder certifies that he is licensed in accordance with an act providing for the registration of Contractors as follows:

License No. _____ Class _____

o o o

Bidder certifies that he has not, nor have any of his or its agents, officers, representatives, or employees, been guilty of collusion with any officer or representative of the City of Lafayette or with any other party or parties in the submission of this Proposal; nor has said bidder received any preferential treatment by any officer or employee of the City of Lafayette in the matter of making or submitting this proposal. The undersigned declares under penalty of perjury that the foregoing is true and correct.

o o o

Bidder certifies that there will be no discrimination in employment with regard to race, color, religion, sex, sexual orientation, or national origin; that all Federal, State, and local directives and executive orders regarding nondiscrimination in employment will be complied with and that the principle of equal opportunity in employment will be demonstrated positively and aggressively.

All bidders that have not had a contract with the City of Lafayette during the past three (3) years shall list below previous jobs that they have successfully completed and shall also show the amount of the contract therefor.

Name and Address of Agency or Individual for Whom Work was Done	Phone Number	Date Completed	Contract Price
1.			
2.			
3.			
4.			
5.			
6.			

NONCOLLUSION DECLARATION

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.
Title Firm

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

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

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

_____, _____.
City State

By: _____
Signature

Name: _____
Printed or Typed

Date: _____

Title: _____

**PROPOSAL GUARANTEE
BID BOND**

Pleasant Hill Road at Olympic Boulevard Roundabout

PROJECT NO. 014-9707

KNOW ALL PERSONS BY THESE PRESENTS that _____, as BIDDER, and _____, as SURETY, are held and firmly bound unto City of Lafayette, as Owner, in the penal sum of _____ dollars (\$) which is ten percent of the total amount bid by BIDDER to Owner for the above stated project, for the payment of which sum, BIDDER and SURETY agree to be bound, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas BIDDER is about to submit a bid to Owner for the above stated project, if said bid is rejected, or if said bid is accepted and a contract is awarded and entered into by BIDDER in the manner and time specified, then this obligation shall be null and void, otherwise it shall remain in full force and effect in favor of Owner.

IN WITNESS WHEREOF the parties hereto have set their names, titles, hands, and seals this ____ day of _____, 2016.

BIDDER _____

SURETY _____

Subscribed and sworn to this ____ day of _____, 2016.

NOTARY PUBLIC _____

PROPOSAL SIGNATURE SHEET

The completed proposal submitted herewith includes all sheets numbered "P-1 through P-10" at the bottom. The following required attachments have been executed and are included:

- a. Bid Proposal (with Addenda acknowledgement)
- b. Bid Schedule
- c. Noncollusion Declaration
- d. Proposal Guarantee "Bid Bond" with Notarized Signatures
- e. Proposal Signature Sheet
- f. Public Works Contractor Registration Certification

Legal Name of Firm: _____

Business Address: _____

Telephone Number: () _____

Type of Organization: () Individual () Partnership () Corporation

Joint Venture Proposal?: () Yes () No

Authorized Signature: _____

Name: _____

Position: _____

Date of Execution: _____

For a partnership, name all co-partners below,
For a corporation, name president, secretary, treasurer and manager.

NAME

TITLE

Corporate Seal:

PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See <http://www.dir.ca.gov/Public-Works/PublicWorks.html> for additional information.

No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Contractor hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.

Name of Contractor: _____

DIR Registration Number: _____

Contractor further acknowledges:

1. Contractor shall maintain a current DIR registration for the duration of the project.
2. Contractor shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.
3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Signature: _____

Name and Title: _____

Dated: _____

CITY OF LAFAYETTE
CONTRACT AGREEMENT
FOR
CONSTRUCTION

THIS AGREEMENT is made and entered into as of _____, 2016, by and between the CITY OF LAFAYETTE ("City") and _____ ("Contractor").

RECITALS

- A. City desires to retain the services of Contractor to provide services for construction of **Pleasant Hill Road & Olympic Boulevard Roundabout Project, Project No. 014-9707**, ("Project") including, but not limited to, the construction of a single-lane roundabout with adjacent shared use path at the intersection of Pleasant Hill Road and Olympic Blvd. Work generally includes, but is not limited to, mobilization; traffic control and construction signage; potholing utilities; clearing and grubbing including tree protection, tree removal, and trimming; removal and disposal of asphalt concrete pavement and subgrade, concrete curb ramp, curb, gutter, sidewalk, and miscellaneous roadway appurtenances; excavating, grading and compacting pavement subgrade and base materials; construction of asphalt concrete pavement, concrete curb, gutter, medians, stone facing truck apron, shared use path, drainage facilities, street lighting system, landscape planting and irrigation, traffic signs, stripes, markers, and markings; installation of agency-furnished street name signs; adjustment of utility covers; installation of survey monuments; and all other miscellaneous work as shown on the Plans and as described in the Specifications to provide a complete project
- B. Contractor has represented to City that it has the expertise, experience and qualifications to perform the services described in Paragraph A, above, and those services which are more fully described below.

NOW, THEREFORE, in consideration of the foregoing and the covenants and agreements set forth below, City and Contractor agree as follow:

1. Contract Documents. The contract documents for the aforesaid project shall consist of the Notice to Contractors, Bid Proposal, General Provisions, Technical Provisions, Special Provisions including appendices, Design Drawings, and all referenced specifications, details, standard drawings, and their appendices; together with this Contract Agreement and all required bonds, insurance certificates, permits, notices and affidavits; and also including any and all addenda or supplemental agreements clarifying, amending, or extending the work contemplated as may be required to insure its completion in an acceptable manner. All of the provisions of said contract documents are made a part hereof as though fully set forth herein.

1. Services. For and in consideration of the payments and agreements to be made and performed by City, Contractor agrees to furnish all materials and perform all work required for the above-stated project, and to fulfill all other obligations as set forth in the aforesaid contract documents. Contractor agrees to receive and accept the prices set forth in the Proposal as full compensation

for furnishing all materials, performing all work, and fulfilling all obligations hereunder. Said compensation shall cover all expenses, losses, damages, and consequences arising out of the nature of the work during its progress or prior to its acceptance including those for well and faithfully completing the work and the whole thereof in the manner and time specified in the aforesaid contract documents; also including those arising from actions of the elements, unforeseen difficulties or obstructions encountered in the prosecution of the work, suspension or discontinuance of the work, and all other unknowns or risks of any description connected with the work.

3. Employment by City. City hereby promises and agrees to employ, and does hereby employ, Contractor to provide the materials, do the work, and fulfill the obligations according to the terms and conditions herein contained and referred to, for the prices aforesaid, and hereby contracts to pay the same at the time, in the manner, and upon the conditions set forth in the contract documents.
4. Worker's Compensation. Contractor acknowledges the provisions of the State Labor Code requiring every employer to be insured against liability for worker's compensation, or to undertake self-insurance in accordance with the provisions of that Code, and certifies compliance with such provisions. Limits shall be not less than those specified in the insurance requirements contained in the General Provisions of the Standard Specifications, and as modified in these Special Provisions.
5. Insurance. With respect to performance of work under this contract, Contractor shall maintain and shall require all of its subcontractors to maintain insurance as required in the General Provisions of the Standard Specifications, and as modified in these Special Provisions.
6. Indemnity. Contractor shall comply with the indemnification requirements contained in the General Provisions of the Standard Specifications.
7. Assignment. This contract is not assignable nor the performance of either party's duties delegable without the prior written consent of the other party. Any attempted or purported assignment or delegation of any of the rights or obligations of either party without the prior written consent of the other shall be void and of no force and effect.
8. Non-discrimination. Contractor shall not discriminate in the hiring of employees or the employment of subcontractors on any basis prohibited by law.
9. Independent Contractor. Contractor is and shall at all times remain as to City, a wholly independent contractor. Neither City nor any of its agents shall have control of the conduct of Contractor or any of the Contractor's employees, except as herein set forth. Contractor shall not at any time or in any manner represent that it or any of its agents or employees are in any manner agents or employees of City.
10. Contractor and Subcontractor Registration. Effective March 1, 2015, pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public works must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of

Industrial Relations to perform public work. Contractor is directed to review, fill out and execute the Public Works Contractor Registration Certification contained in the Bid Proposal prior to contract execution.

- 11. Labor Compliance. This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be the Contractor's sole responsibility to evaluate and pay the cost of complying with all labor compliance requirements under this Contract and applicable law.
- 12. Notices. All notices and communications shall be sent to the parties at the following addresses:

CITY: City Engineer
 City of Lafayette
 3675 Mount Diablo Boulevard, Suite 210
 Lafayette, California 94549

CONTRACTOR: _____

- 13. Authorized Signature. Contractor affirms that the signatures, titles, and seals set forth hereinafter in execution of this contract agreement represent all individuals, firm members, partners, joint ventures, and/or corporate officers having a principal interest herein.
- 14. Entire Agreement; Modification. This contract supersedes any and all other agreements either oral or written, between the parties and contains all of the covenants and agreements between the parties pertaining to the work of improvements described in Paragraph A of the Recitals herein above. Each party to this contract acknowledges that no representations, inducements, promises, or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein, and that any other agreement, statements or promise not contained in this contract shall not be valid or binding. Any modification of this contract will be effective only if signed by the party to be charged.
- 15. Claims Procedure. In the event of a dispute between the parties regarding a) a time extension demand, b) payment arising for work performed by or on behalf of the contractor which is not otherwise expressly provided for, or c) an amount the payment of which is disputed by the City, the procedure in Section 10 of the City of Lafayette Standard Specifications shall be used.

IN WITNESS WHEREOF the parties hereto for themselves, their heirs, executors, administrators, successors, and assigns do hereby agree to the full performance of the covenants herein contained and have caused this Contract Agreement to be executed in duplicate by setting hereunto their names, titles, hands, and seals this ____ day of _____ 2016.

Contractor: _____
<Type Business Name Here>

Name: _____

Title: _____

Contractor's License No. _____

Agency Business License No. _____

Federal Tax Identification No. _____

Subscribed and sworn to this ____ day of _____ 2016.

Notary Public _____

Agency: _____
City Manager of the City of Lafayette

Attested: _____
City Clerk of the City of Lafayette

Date: _____

PAYMENT BOND

(TO BE EXECUTED WITHIN TEN [10] CALENDAR DAYS OF CONTRACT AWARD)

WHEREAS, the City of Lafayette (Owner) has awarded to _____, as Contractor, a contract for the work described as follows: Construction of **Pleasant Hill Road & Olympic Boulevard Roundabout Project, Project No. 014-9707**, ("Project") including, but not limited to, the construction of a single-lane roundabout with adjacent shared use path at the intersection of Pleasant Hill Road and Olympic Blvd. Work generally includes, but is not limited to, mobilization; traffic control and construction signage; potholing utilities; clearing and grubbing including tree protection, tree removal, and trimming; removal and disposal of asphalt concrete pavement and subgrade, concrete curb ramp, curb, gutter, sidewalk, and miscellaneous roadway appurtenances; excavating, grading and compacting pavement subgrade and base materials; construction of asphalt concrete pavement, concrete curb, gutter, medians, stone facing truck apron, shared use path, drainage facilities, street lighting system, landscape planting and irrigation, traffic signs, stripes, markers, and markings; installation of agency-furnished street name signs; adjustment of utility covers; installation of survey monuments; and all other miscellaneous work as shown on the Plans and as described in the Specifications to provide a complete project.

AND WHEREAS, said Contractor is required to furnish a bond in connection with said contract, to secure the payment of claims of laborers, mechanics, materials persons, and other persons as provided by law;

NOW, THEREFORE, we, the undersigned Contractor and surety, are held firmly bound unto the Owner in the sum of _____ Dollars (\$_____), for which payment well and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH:

That if said Contractor, its heirs, executors, administrators, successors, or assigns, or subcontractors, shall fail to pay any of the persons named in Civil Code Section 3282, or amounts due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant, or any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and its subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, that the surety or sureties herein will pay for the same in any amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. In case suit is brought upon this bond, the said surety will pay a reasonable attorney's fee to the Owner in an amount to be fixed by the court.

This bond shall insure to the benefit of any of the persons named in Civil Code Section 3181 as to give a right of action to such persons or their assigns in any suit brought upon this bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this ____ day of _____, 2016.

CONTRACTOR: _____	SURETY _____
Print Name: _____	NAME _____
Title: _____	ADDRESS _____
	TELEPHONE _____

PERFORMANCE BOND
(TO BE EXECUTED WITHIN TEN [10] CALENDAR DAYS OF CONTRACT AWARD)

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the City of Lafayette (Owner) has awarded to _____, as Contractor, a contract for the work described as follows: Construction of **Pleasant Hill Road & Olympic Boulevard Roundabout Project, Project No. 014-9707**, ("Project") including, but not limited to, the construction of a single-lane roundabout with adjacent shared use path at the intersection of Pleasant Hill Road and Olympic Blvd. Work generally includes, but is not limited to, mobilization; traffic control and construction signage; potholing utilities; clearing and grubbing including tree protection, tree removal, and trimming; removal and disposal of asphalt concrete pavement and subgrade, concrete curb ramp, curb, gutter, sidewalk, and miscellaneous roadway appurtenances; excavating, grading and compacting pavement subgrade and base materials; construction of asphalt concrete pavement, concrete curb, gutter, medians, stone facing truck apron, shared use path, drainage facilities, street lighting system, landscape planting and irrigation, traffic signs, stripes, markers, and markings; installation of agency-furnished street name signs; adjustment of utility covers; installation of survey monuments; and all other miscellaneous work as shown on the Plans and as described in the Specifications to provide a complete project.

AS WHEREAS, the Contractor is required to furnish a bond in connection with said contract guaranteeing the faithful performance thereof;

NOW, THEREFORE, we, the undersigned Contractor and surety, are held firmly bound unto the Owner in the sum of _____ Dollars (\$ _____), to be paid to the Owner, its successors and assigns, for which payment well and truly to be made we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH:

That if said Contractor, 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 agreements in the foregoing contract and any alteration thereof made as therein provided on its or their 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 the Owner, its officers, and agents, as therein stipulated, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and effect. In case suit is brought upon this bond, the said surety will pay a reasonable attorney's fee to the Owner in an amount to be fixed by the court. Surety, for value received, hereby stipulates and agrees that no amendment, change, extension of time, alteration, or addition to said contract, and of any feature or item or items of performance required therein or thereunder, shall in any manner affect its obligations on or under this bond; and said surety does hereby waive notice of any such amendment, change, extension of time, alteration, or addition to said contract, and of any feature or item or items of performance required therein or thereunder, shall in any manner affect its obligations on or under this bond; and said surety does hereby waive notice of any such amendment, change extension of time, alteration, or addition to said contract, and of any feature or item or items of performance required therein or thereunder.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this ____ day of _____,
2016.

CONTRACTOR: _____ SURETY _____
Print Name: _____ NAME _____
Title: _____ ADDRESS _____
TELEPHONE _____

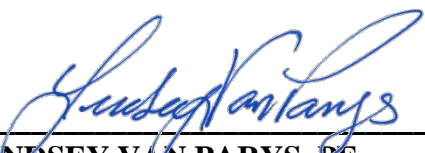
CITY OF LAFAYETTE

SPECIAL PROVISIONS

**PLEASANT HILL ROAD AT OLYMPIC BOULEVARD
ROUNDBOUT PROJECT**

Project No. 014-9707

The special provisions contained herein have been prepared by or under the direction of the following Registered Person:



LINDSEY VAN PARYS, PE
REGISTERED CIVIL ENGINEER

DATE



SPECIAL PROVISIONS

GENERAL (NO BID ITEM)

The work to be done under this contract, except as modified or supplemented herein, shall conform to the following:

- The City of Lafayette General Provisions of the Standard Specifications dated March 2013, herein referred to as the "General Provisions of the Standard Specifications".
- The City of Lafayette Technical Provisions of the Standard Specifications dated March 2013, herein referred to as the "Technical Provisions of the Standard Specifications".

Where specifically referred to, the work shall also conform to the following:

- The State of California Department of Transportation (Caltrans) Standard Specifications, For Construction of Local Streets and Roads, 2010 Edition, herein referred to as the "State Specifications" or "State Standard Specifications".
- The State of California Department of Transportation (Caltrans) Standard Plans, 2010 Edition, herein referred to as the "State Standard Plans".
- The Contra Costa County Public Works Department Standard Plans, most current edition, herein referred to as the "County Standard Plans".

These Special Provisions are additions, modifications, or clarifications to the referenced Standard Specifications and generally supersede the referenced or applicable sections of said Standard Specifications. Refer to Section 5-4, "Precedence of Contract Documents", of the General Provisions of the Standard Specifications for the order of precedence of Contract Documents. Where ambiguity or conflict exist in the interpretation of precedence, the provision resulting in the highest quality or most expensive grade of construction or product shall govern.

SPECIAL PROVISIONS SECTION SP-1

TERMS, DEFINITIONS AND ABBREVIATIONS

(NO BID ITEM)

The provisions of Section 1- Terms, Definitions and Abbreviations, of the General Provisions of the Standard Specifications, shall apply in their entirety.

SPECIAL PROVISIONS SECTION SP-2

BID PROPOSAL REQUIREMENTS

(NO BID ITEM)

SP2-01 GENERAL

The provisions of Section 2 – “Bid Proposal Requirements,” of the General Provisions of the Standard Specifications, shall apply in their entirety.

SPECIAL PROVISIONS SECTION SP-3

AWARD AND EXECUTION OF CONTRACT

(NO BID ITEM)

SP3-01 GENERAL

The provisions of Section 3 - Award Execution of Contract, of the General Provisions of the Standard Specifications, shall apply in their entirety.

SPECIAL PROVISIONS SECTION SP-4

PLANS AND SPECIFICATIONS (GENERAL)

(NO BID ITEM)

The provisions of Section 4 – “Plans and Specifications (General),” of the General Provisions of the Standard Specifications, shall apply in their entirety.

SP4-01 SCOPE OF WORK

Work shall include, but is not limited to, the construction of a single lane roundabout with adjacent shared use path at the intersection of Pleasant Hill Road and Olympic Blvd. Work generally includes, but is not limited to, mobilization; traffic control and construction signage; potholing utilities; clearing and grubbing including tree protection, tree removal, and trimming; removal and disposal of asphalt concrete pavement and subgrade, concrete curb ramp, curb, gutter, sidewalk, and miscellaneous roadway appurtenances; excavating, grading and compacting pavement subgrade and base materials; construction of asphalt concrete pavement, concrete curb, gutter, medians, stone facing truck apron, shared use path, drainage facilities, street lighting system, landscape planting and irrigation, traffic signs, stripes, markers, and markings; installation of agency-furnished street name signs; adjustment of utility covers; installation of survey monuments; and all other miscellaneous work as shown on the Plans and as described in the Specifications to provide a complete project.

SP4-02 PAYMENT

No separate payment will be made for preparing and submitting “As-Built Drawings.” Full compensation for preparing and submitting “As-Built Drawings” shall be considered as included in the prices paid for various contract items of work, and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-5
CONTROL OF WORK AND MATERIALS
(NO BID ITEM)

The provisions of Section 5 – “Control of Work And Materials,” of the General Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP5-01 CONSTRUCTION SURVEY STAKING

The City will provide construction survey staking for basic controls and alignment and grades of curb, gutter, and other items which, in the opinion of the Engineer, require survey staking. The Contractor shall submit staking requests in writing at least five (5) working days in advance of beginning work that requires construction survey staking. The Contractor will be responsible for providing traffic control for the City’s survey crew as necessary for any required offset stakes which will need to be set in the roadway, including providing a lane closure and/or flaggers when required. The Engineer will notify the Contractor a minimum of 48 hours prior to the required survey staking in order to coordinate traffic control. The Contractor shall be responsible for paying the cost of resetting survey stakes which are damaged or obliterated by the Contractor’s operations.

Where applicable, survey stakes for roadway alignment and grade will be set on one side of the roadway only. These stakes will provide offset distances, and cuts or fills to the new grades at key points on the roadway cross-section, such as curbs. The Engineer will provide paint markings for limits of removal and replacement of pavement, curb, gutter, pathways, and similar flatwork.

Contractor shall provide an experienced and competent grade setter to establish controls for the variable-depth cold plane and roadway paving operations. Controls shall be based on elevation grid using existing and finished grades as shown on the Plans to accurately determine the depth of cold plane and base course paving that result in a uniform finish paving course within the tolerances established by the Contract Documents.

SP5-02 MATERIAL SAMPLING AND TESTING

Compaction tests and/or material sampling and testing may be performed by the City’s representatives on roadway subgrade, aggregate base, portland cement concrete, asphalt concrete, and other work and materials, which in the opinion of the Engineer, require sampling or testing. Test locations shall be determined by the Engineer. The Contractor shall coordinate and cooperate with the Engineer and testing personnel, and no claims of delays or inconvenience due to testing and/or sampling shall be allowed.

SP5-03 SUBMITTALS

At a minimum the Contractor shall provide the following submittals to the Engineer

1. Water Pollution Control Plan
2. Waste Management Plan
3. Traffic Control Plan and certification of "Qualified Personnel"
4. CAL/OSHA Excavation Permit
5. Shop drawing for temporary access ramps through work zones
6. Material Source for asphalt concrete and aggregate base
7. Asphalt concrete mix design
8. Portland Concrete Cement (PCC) mix designs for all items requiring PCC

9. Storm drain pipe, inlet and manhole frames, grates and covers
10. Pavement markers
11. Thermoplastic striping and marking material
12. Skid resistant surface
13. Detectable warning surfaces
14. Stone Facing
15. All landscape and irrigation materials and components as required by the Technical Provisions of the Standard Specifications and these Special Provisions
16. Sign and Post Materials
17. Street lighting system
18. Service enclosure
19. Survey Monument Frames and Covers
20. Additional submittals as notes in each section of these Special Provisions

SP5-04 ORDER OF WORK

Unless otherwise directed by the Engineer, the following major items of work shall be performed in the following general order and as shown on the construction staging plans. Not every item of Contract Work is shown. Contractor shall accordingly coordinate miscellaneous and coincidental work related to or associated with major work items in order to avoid out-of-sequence construction and conflicts. Not all stages of work apply to every location within the Project.

- 1) Notify Underground Service Alert (USA) to have utilities marked.
- 2) Install construction area signs and project identification signs.
- 3) Install water pollution control measures.
- 4) Install tree protection.
- 5) Submit waste management plan prior to commencing any demolition work.
- 6) Perform utility potholing work to confirm depths of existing utility lines. No additional excavation work will be permitted until Contractor's Utility Pothole Log (Appendix to Standard Specifications) is submitted to the Engineer.
- 7) Clearing, grubbing, tree trimming and tree removal.
- 8) Reference utility boxes of all kinds. Initiate coordination of necessary relocations and adjustments with various utilities.
- 9) Construct intersection improvements per the construction staging plans provided. Coordinate all underground installations within each stage, including storm drain, irrigation, and lighting systems.
- 10) Install landscape and irrigation system.
- 11) Raise/adjust all existing utility frames and covers to final grade. Install new monuments.
- 12) Place permanent striping, markers and legends.
- 13) Complete all other construction work and punch list items.
- 14) Remove tree protection, construction area signs and project identification signs.
- 15) Submit completed waste assessment summary report form.
- 16) Submit as-built plans.

SP5-05 PAYMENT

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

SPECIAL PROVISIONS SECTION SP-6
LEGAL RELATIONS AND RESPONSIBILITIES
(NO BID ITEM)

The provisions of Section 6 – “Legal Relations and Responsibilities,” of the General Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP6-01 PUBLIC NOTIFICATIONS

Notification requirements in Section 6-10, 6-12.3 and 6-13 of the General Provisions of the Standard Specifications shall apply. **Notices of closures must be issued each time access is restricted and must indicate the specific date and time of the anticipated restricted access.**

SP6-02 PAYMENT

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

SPECIAL PROVISIONS SECTION SP-7
EXISTING UTILITIES
(NO BID ITEM)

The provisions of Section 7 – “Existing Utilities,” of the General Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP7-01 UTILITY COORDINATION

Pacific Gas & Electric’s (PG&E) gas transmission facilities are located within the project limits. The transmission line runs along Olympic Blvd as shown on the plans. Work adjacent to this facility requires coordination with PG&E’s Gas transmission division and the following conditions shall apply to construction adjacent to this facility:

1. A PG&E Gas Transmission Standby Inspector must be present during any demolition or construction activity within 10 feet of the gas pipeline. This includes but is not limited to all grading, cold planning, paving and gas line depth verifications (potholes). This inspection can be coordinated through the Underground Service Alert (USA) service at 811. A minimum notice of four (4) working days is required.

2. To prevent damage to the buried gas pipeline, the following allowable wheel loading limits must be adhered to:

Allowable Wheel Loads		
Depth (FT)	1/2 Axle (LBS)	Full Axle (LBS)
2	11,000	22,000
3	23,000	46,000
4	36,000	72,000
5	52,000	104,000
6	72,000	144,000
7	89,000	178,000
8	98,000	196,000

3. Any excavation within 2 feet of the gas pipeline must be done by hand.
 4. Subgrade shall be compacted using a jumping-jack-style compactor not exceeding 200 pounds and the asphalt concrete base lifts shall be compacted with a small roller not exceeding 6200 pounds, unless otherwise authorized in writing in advance by the Engineer or the PG&E representative.
 5. Submit a complete list of construction equipments make, model, and weight that will be operated within ten feet (10') of the 16" gas line for PG&E review and approval.

SPECIAL PROVISIONS SECTION SP-8

PROGRESS OF WORK
 (NO BID ITEM)

The provisions of Section 8 - Progress of Work, of the General Provisions of the Standard Specifications, shall apply in their entirety and as supplemented below.

SP8-01 PRE-CONSTRUCTION MEETING

A pre-construction meeting for this project will be held on July 7, 2016 at 2:30 pm at the City offices. The contractor shall submit all required bonds, insurance, and signed contracts prior to this meeting. The Notice to Proceed will be issued to the Contractor at this meeting. **The prime contractor's full-time on-site superintendent and foremen for the project, along with any major subcontractors, are required to attend the preconstruction meeting.**

At the pre-construction meeting, representatives of the Owner, the Contractor, Subcontractors, and the Engineer will discuss in detail certain procedural aspects of the Work, including but not limited to:

- Administrative procedures for transmittals, approvals, change orders, and similar items;
- Review of the method of application for payment, progress payments, retention; and final payment;
- Review of the Contractor's construction progress schedule;
- Clarifications of any questions regarding the contract Plans and Special Provisions;
- Review of traffic control procedures;
- At the preconstruction meeting the Contractor shall provide a Cal/OSHA trenching permit.

SP8-02 PROGRESS SCHEDULE

The Contractor shall submit the construction progress schedule to the Engineer at the pre-construction meeting. Contractor shall also submit an updated schedule by no later than Friday morning of each work week, and as requested by the Engineer per Section 8-2, "Progress Schedule," of the General Provisions of the Standard Specifications.

SP8-03 TIME OF COMPLETION AND LIQUIDATED DAMAGES

The Contractor shall complete the entire Work in this Contract within one hundred fifteen (115) working days from the start date, including completion of all "Punch List" work. Liquidated damages shall be assessed per Section 8-10, "Liquidated Damages," of the General Provisions of the Standard Specifications.

The count of working days on this Contract shall start Monday, July 18, 2016.

SP8-04 WORKING HOURS

Without prior written approval by the Engineer, and except for emergency work, work or activity of any kind shall be limited to the hours from 8:00 a.m. to 5:00 p.m. Monday through Friday. Contractor's attention is directed to hours for lane/road closures in Section SP-11 of these Special Provisions.

SPECIAL PROVISIONS SECTION SP-9

MOBILIZATION

(BID ITEMS 1-2)

The provisions of Section 1 – "Mobilization," of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP9-01 MEASUREMENT AND PAYMENT

The contract lump sum price paid for "**Mobilization**" shall include full compensation for furnishing all labor, supervision, materials, tools, equipment, and incidentals, for all the work involved in mobilization of forces, equipment, materials, and meeting all general conditions and provisions of Contract Documents, for doing all the work involved in developing, preparing, obtaining approval of, revising, and amending the WPCP, as specified in the State Specifications and these Special Provisions, and as directed by the Engineer and no additional compensation will be allowed therefor.

The Contract Price paid for each "**Project Identification Sign**" shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals, and for doing all the work involved in coordinating with the City to obtain the City provided "Project Identification signs", transporting, installing signs on barricades or posts, maintaining signs, removing signs and barricades or posts, and returning City's signs to the City as specified in the Standard Specifications and these Special Provisions and as directed by the Engineer and no additional compensation will be allowed therefor.

No separate payment shall be made for conforming to the provisions in this section. Full compensation for conforming to all the provisions of this section shall be considered as included in the prices paid for **Mobilization** and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-10

CONSTRUCTION AREA SIGNS

(BID ITEM NO. 3-4)

Work shall conform to Section 1-3, "Construction Area Signs," of the Technical Provisions of the Standard Specifications.

SP10-01 GENERAL

The Engineer shall approve all locations prior to the Contractor installing signs. Construction Area signs shall be in place on the project site at least two (2) days prior to the start of work, but not more than seven (7) days. Signs shall be removed within five (5) days of completing all work. The Contractor shall notify the regional notification center for operators of subsurface installations (USA-Underground Service Alert: 1-800-227-2600), at least four (4) working days, but not more than fourteen (14) calendar days, prior to commencing any excavation for construction area sign posts.

The bottom of the mounted sign panels shall be seven (7) feet above existing grade.

Construction area signs shall include the installation of five electronic changeable message signs for the duration of the project. Sign messages and exact sign locations shall be approved by the Engineer, and shall be rephrased and repositioned as necessary to be compatible with various stages of construction per the direction of the Engineer.

SP10-02 MEASUREMENT AND PAYMENT

Construction area signs shall be counted and paid based on the number of sign panels installed regardless of the number of sign posts installed.

The Contract Price paid per each for "**Construction Area Sign**", and "**Changeable Message Sign**" shall be considered as full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals, and for doing all work involved in furnishing, erecting, maintaining, and removing all construction area signs and changeable message signs, as shown on the Plans, as specified in these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed therefor.

SPECIAL PROVISIONS SECTION SP-11

TRAFFIC CONTROL AND TEMPORARY PAVEMENT DELINEATION

(BID ITEM NO. 5-6)

SP11-01 GENERAL

Work shall conform to the requirements of Section 6-12, "Traffic Control," Section 6-12.7, "Temporary Traffic Striping & Pavement Markings," of the General Provisions and Section 15-4, "Removal of Existing and Temporary Traffic Stripes and Pavement Markings," of the Technical Provisions of the Standard Specifications. Nothing in

these Special Provisions shall be construed as relieving the Contractor from his/her responsibilities as specified in said sections. Any traffic striping or markings that are removed due to any phase of work shall be replaced, or re-aligned if required, with temporary traffic stripes or pavement markings. All temporary striping and markings shall be placed the same day the permanent striping or markings are removed and they shall be placed before opening the roadway to public traffic.

SP11-02 LANE CLOSURE HOURS

Contractor's attention is directed to noticing requirements in Section SP6-01. In addition, beginning at least one (1) week prior to the first lane closure and realignment, the Contractor shall furnish and place changeable message signs on Pleasant Hill Road, eastbound and westbound Olympic Boulevard to indicate the travel lane changes/realignments, as directed by the Engineer. The changeable message signs shall remain in full, continuous operation throughout the entire construction.

Road closures are not allowed, unless otherwise stated in the Stage Construction of the Contract Plans. Lane closure or road closure (where permitted) hours shall be allowed between 8:30 a.m. and 5:00 p.m. between June 20th and August 19, 2016, and between 9:00 a.m. and 4:30 p.m. on all other work days.

Contractor shall stage and sequence work such that lane closures and disruptions to mobility of the public are minimized. Contractor shall make best efforts to allow passage of vehicles through the work zone.

The full width of the traveled way shall be open for use by public traffic at all times. Notwithstanding anything to the contrary, emergency vehicles shall be provided immediate access through the construction area at all times.

ROADWAY USERS COST

As specified above, road closures requiring detours around the project intersection shall be limited to the stages and durations as stipulated in the Stage Construction Plans. In consideration of the economic, convenience, and environmental impacts to the public and the City; each and every day of road closure that exceeds the durations allowed shall be subject to a Roadway Users Cost, which shall not be construed as a penalty or forfeiture. In accordance with Government Code Section 53069.85, it is agreed that Contractor shall be responsible for the Roadway Users Cost, and City shall deduct such amounts owed from any payment due to Contractor. The Roadway Users Cost shall be charged in addition to any Liquidated Damages that may be owed as specified in SP 8-03. This section does not exclude recovery of other damages specified in the Contract Documents.

The Roadway Users Cost for this Project is \$5,000 per day.

SP11-03 FLAGGING

The contractor shall pay 100% of the cost of furnishing all flaggers and pilot cars, including transporting flaggers; furnishing stands and towers for flaggers, and operating pilot cars to provide for the passage of traffic through the work.

SP11-04 MAINTAINING TRAFFIC, PEDESTRIAN AND DRIVEWAY ACCESS

Contractor shall stage his work so as to be able to provide a continuous ADA-compliant pedestrian pathway through the project at all times, including maintaining functional crosswalks at the project intersection. In order

to maintain pedestrian access to the adjacent multiuse trail, the Contractor shall not be allowed to close the entire sidewalk or multiuse trail along a single block without providing a reasonable alternative route, but may close portions for short periods of time in accordance with the Stage Construction plans and with approval from the Engineer.

Where necessary and required to maintain pedestrian access, Contractor shall provide temporary ADA-compliant access ramps through work zones and over demolished areas. Each ramp shall consist of a sturdy non-slip walking surface at least 5 feet wide and 6 feet long, with cross-slopes less than 1.5% and running grades less than 7.5%. Ramps shall have handrails constructed from timber of 2"x4" nominal size. Contractor shall submit shop drawings of a typical Access Ramp for review and approval prior to fabrication.

Where sidewalk closure is necessary, Contractor shall provide temporary "SIDEWALK CLOSED" signs mounted on barricades at a location approaching the closure as determined by the Engineer to best minimize pedestrian traffic attempting to walk through the closure.

SP11-05 TEMPORARY SIGN, TRAFFIC STRIPING AND PAVEMENT MARKINGS

Contractor shall install all temporary roadway delineation and signs to be compatible with each construction stage as shown on the Contract Plans. All conflicting stripes and markings shall be removed. At no times shall the roadway be open to the public without adequate roadway delineation, including but not limited to lane lines, edge lines, and limit lines. The special construction signs, specified on Detour plans as "Olympic closed at Pleasant Hill Road - Use alternate route" and "Use SR24 to Walnut Creek", shall be on a minimum 3' x 4' aluminum material board.

SP11-06 MEASUREMENT AND PAYMENT

The contract lump sum price paid for "**Traffic Control**" shall be considered as full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals needed to perform all traffic control work, for all phases and stages of the work performed by the Contractor or the Contractor's "subcontractors" including, but not limited to, all signs, special construction signs, barricades, steel plates, traffic control plan, maintaining traffic, lane and road closures, flagmen, , maintaining driveway and pedestrian access, including temporary access ramps, and all other traffic control devices; and all other work as shown on Standard Plans, as specified in the Standard Specifications, the State Specifications, these Special Provisions, and as directed by the Engineer and no additional compensation shall be allowed therefor. There shall be no additional compensation for traffic control due to an increase in the quantities shown on the bid proposal for pay items within the project limits.

Traffic Control required by work which is classified as extra work, as provided in Section 9.3, "Extra Work", of the General Provisions of the Standard Specifications, will be paid for as part of said extra work.

The contract lump sum price paid for "**Temporary Traffic Striping and Pavement Markings**" shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals and for doing all the work necessary to layout, place, maintain, and remove temporary pavement striping, legends, arrows, glue down delineators, markers and markings, and all other work as shown on the Plans, as specified in these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-12

CLEARING AND GRUBBING

(BID ITEM NO. 7-8)

The provisions of Section 2 – “Clearing and Grubbing,” Section 21, “Tree Trimming and Removal,” and Section 22-3, “Tree and Plant Protection,” of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

All cleared and grubbed areas shall be approved by the Engineer before commencing the next stage of construction.

SP12-01 MEASUREMENT AND PAYMENT

The contract lump sum price paid for “**Clearing & Grubbing, Tree & Shrub Trimming or Removal, & Tree Protection**” shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals, and for doing all the work involved in clearing and grubbing, tree trimming, tree removal, and tree protection including, but not limited to- the removal and disposal of all existing trash, debris, rocks, shrubs and vegetation; trimming of vegetation, shrubs, and trees of diameters less than 6 inches in diameter; removing, salvaging, and/or relocating landscape borders, removing and/or relocating decorative rock; and all other work as shown on the Plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract price paid per each “**Remove Tree - 6" Diameter & Greater**” shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals, and for doing all the work involved in tree removal, but not limited to, tree removal and disposal off site, grinding roots, and all other work shown on the Plans, as specified in the standard Specifications and these Special Provisions and as directed by the Engineer and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-13

EXISTING FACILITIES

(BID ITEM NO. 9-27)

SP13-01 GENERAL

Work shall consist of removing, abandoning, relocating, or protecting existing facilities which interfere with construction. Work performed in connection with various existing facilities shall conform to applicable provisions of Section 7, “Existing Utilities,” of the General Provisions, Section 2, “Clearing and Grubbing,” and Section 22, “Protection and Restoration of Existing Improvements,” of the Technical Provisions of the Standard Specifications, these Special Provisions, and as directed by the Engineer.

The Contractor shall fully document pre-construction conditions at all points around the work area. This documentation shall consist of notes, still photographs, and video. Special effort shall be made to document the existing conditions at all buildings and private improvements not to be disturbed. These documents shall be available to the City upon request.

If Contractor damages or destroys materials or facilities designated on the Plans, in these Special Provisions, or by the Engineer to be protected, salvaged or reused, he shall repair or replace them in kind at his sole expense.

SP13-02 REMOVALS

Contractor's attention is directed to Section 6-11, "General Safety," of the General Provisions, of the Standard Specifications, and Section SP-11-05, "Temporary traffic striping & pavement markings," of these Special Provisions.

Removals of existing road facilities not considered to be included in other Contract Work include- various types of concrete removal, asphalt concrete dikes, driveway, pathway, sidewalk, shoulder, and other flatwork, remove concrete pipe, inlets, traffic signs, and other various items to be removed as shown on the plans. See Section 13, "Cold Planning" of the Technical Provisions, and SP-18, "Cold Planning" of these Special Provisions for cold plane pavement removal associated with roadway conforms. All other removals as shown on the drawings and as directed by the Engineer to accommodate new construction as intended by Contract, for which no specific Bid Item is shown, shall be considered as incidental work.

Where existing curb and gutter is to be removed and replaced, and the adjacent pavement is intended to remain, removal work shall include the removal of said curb and gutter and a sufficient area of the adjacent pavement to a proper depth to allow the forming and construction of the replacement new curb and gutter.

For removals that involve sawcutting, all sawcut lines shall be approved by the Engineer prior to sawcutting.

Removals of area in preparation for new construction shall extend to a depth that is sufficient to accommodate the new improvements to be constructed, including any necessary subgrade.

The Engineer may direct Contractor to salvage components of private improvements designated to be removed. In such cases, Contractor shall take care to remove the components in a manner to reasonably minimize damage and stockpile them neatly in a location designated by the Engineer. When directed, salvaged items shall be reset to their original position and condition.

SP13-03 MONUMENTS AND PROPERTY CORNERS

All monuments and property corners are to be preserved unless designated on the plans to be replaced. The Contractor shall bear the expense of replacing and recording with the County any monument or benchmark that is disturbed and was not designated to be replaced. Replacement shall be done only under the direction of and in the presence of the Engineer or a licensed surveyor.

SP13-04 REMOVE COBRA HEAD STREET LIGHT; REMOVE & SALVAGE FLASHING SIGNAL, POLE AND SIGNS

Work shall also conform to the provisions Section 86-1.06, "Maintaining Existing and Temporary Electrical Systems," of the State Standard Specifications.

The salvaged signal, pole and sign materials shall be delivered to the City's Public Works yard at: 3001 Camino Diablo, Lafayette, California. Contractor shall coordinate delivery with the Engineer at least 48 hours prior to delivery to arrange access to the facility.

The existing street light shall be protected and maintained in functional condition for initial stages of construction prior to its removal in a subsequent stage. The maintenance of this light is considered incidental to the other Contract Work and compensation for doing so is included in the Contract Prices paid for those items.

SP13-05 LOWERING AND RAISING MANHOLE COVERS AND RODDING INLETS

Work involves storm drain, sanitary sewer, gas and similar utility manhole covers and sanitary sewer rodding inlets. Work consists of initially lowering these facilities to accommodate full-depth reconstruction of the roadway and subsequently raising them to finished grade in conformance with Section 22-9 of the Technical Provisions of the Standard Specifications. Facilities in cold-plane areas do not need to be lowered, and Contractor shall be aware of their locations and take appropriate measures to protect them in place.

Before excavating the existing roadway, manhole structures and rodding inlets located within excavation limits shall be lowered to a point below the final roadway excavation depth. If a manhole or rodding inlet condition does not allow said lowering, then the facility shall be lowered as much as practically possible using all reasonable means. Contractor shall then coordinate his construction equipment, means, and methods to avoid damage to the facility during construction.

Adjustments below the excavation depth shall include but not be limited to placement of temporary false bottoms in manholes, removal of existing concrete collars, cutting riser pipes, salvaging the existing frames and covers, removal of riser rings, placing and securing in place an acceptable temporary steel cover below the required depth, and placement of temporary asphalt concrete over and around the temporary cover to allow safe passage of vehicular traffic prior to and following roadway excavation. Each false bottom shall be constructed of two pieces of standard grade plywood, or similar material, that is hinged together so that they can be folded in half to fit through the manhole opening. The false bottom shall be set securely near the bottom of the manhole structure above the sewer flowline, in a manner so as to ensure that flow in the manhole is not impeded by debris entering the manhole inadvertently. Any debris that does enter the manhole or inlet shall be immediately removed. For rodding inlets, the adjustment shall include placing a temporary plug in the riser pipe and covering the pipe with a temporary steel lid. The plug shall be a mechanical type plug. Inflatable plugs shall not be allowed.

Manholes and rodding inlets located within new paving limits shall be raised to finished grades per Section 22-9.2 & 9.3 of the Technical Provisions of the Standard Specifications, following the placement of the final lift of asphalt concrete. For all rodding inlets, the maximum distance between the finished pavement grade and the top of the riser pipe shall be six (6) inches. If the distance to the top of the riser pipe is greater than six (6) inches, the riser shall be extended with a new section of pipe connected with a fitting that produces a smooth interior with no offset or obstruction. The adjusted sanitary sewer manholes and rodding inlets shall conform to all utility company standards and requirements.

Frames and covers for sanitary sewer manholes may be re-used if they are in good condition and if the manhole covers have a nominal diameter dimension of twenty-five inches {25"}. Existing frames and covers that exceed this dimension shall be replaced. In this case, the Central Contra Costa Sanitary District shall provide new frames and covers to be installed by Contractor. At its discretion CCCSD may also elect to provide new sewer rodding inlet frames and covers to be installed by Contractor. Contractor shall coordinate the delivery and integration of materials to be furnished by CCCSD with the District representative.

CCCSD at its sole discretion may elect to adjust its own facilities. In that case, the quantities shown on the Bid Schedule shall be adjusted accordingly, and Contractor shall comply with Section 22-9.3 of the Technical Provisions of the Standard Specifications.

SP13-06 LOWERING AND RAISING EXISTING UTILITY VALVE FRAMES AND COVERS

Provisions of SP13-05 shall apply in full to utility valve frames and covers, except where modified or amended herein.

Water valves shall be adjusted to grade using a new "G5" box as shown in the detail in Appendix C. The G5 boxes will be provided by the East Bay Municipal Utility District (EBMUD) free of charge. Contractor shall coordinate the delivery or pick-up and integration of materials to be furnished by EBMUD with District representatives. All other frames and covers, shall be adjusted reusing the existing riser and cover with a concrete collar and that is topped with asphalt concrete.

Contractor shall phase his work so that all water valves are lowered for a maximum of 20 calendar days prior to being raised to finished grades. In the event that Contractor fails to adjust the valves to grade and make them fully accessible within twenty (20) calendar days from the initial lowering, Contractor expressly agrees to defend, indemnify, and hold harmless City of Lafayette, EBMUD and their Directors, officers, agents, and employees from and against any and all loss, liability, expense, claims, suits, and damages, including attorneys' fees, arising out of or resulting from the inability to operate said valves.

EBMUD at its sole discretion may elect to adjust its own facilities. In that case, the quantities shown on the Bid Schedule shall be adjusted accordingly, and Contractor shall comply with Section 22-9.3 of the Technical Provisions of the Standard Specifications.

SP13-07 UTILITY BOX ADJUSTMENTS

Where utility boxes are encountered within the limits of the planned work, Contractor shall adjust utility boxes to the new finished grade. Said adjustment shall include relocation of boxes to a new location as necessary to accommodate new construction. Relocation shall require Contractor to modify and extend the associated existing plumbing to the new location. Any utility box adjustment or relocation which results in the box being located within the traveled way shall include replacing the existing box lids with traffic rated lids.

For water meters, Contractor shall coordinate with EBMUD to obtain new utility boxes and integrate them into the Work. All boxes shall be placed securely in place on a compacted base in native material, asphalt concrete, or concrete as applicable, in a manner that would not result in settling over time. The boxes shall be set so that they are accessible by utility personnel. EBMUD at its sole discretion may elect to adjust its own facilities. In that case, the quantities shown on the Bid Schedule shall be adjusted accordingly, and Contractor shall comply with Section 22-9.3 of the Standard Specifications Special Provisions.

SP13-08 REMOVE EXISTING STRIPING, MARKERS AND MARKINGS

Existing traffic striping, markers and markings in conflict with new design shall be removed just prior to the installation of new striping, markers and markings.

Pavement markers, stripes, or legends which are removed shall be replaced with either final or temporary markers, stripes, and or legends prior to opening the roadway to vehicular or pedestrian traffic. Pavement

delineation removal shall conform to the provisions of Section 15-4, "Removal of Existing and Temporary Stripes and Pavement Markings," of the Technical Provisions of the Standard Specifications. Removal by sandblasting shall not be allowed. Attention also is directed to Section SP-11, "Traffic Control and Temporary Pavement Delineation." of these Special Provisions.

SP13-09 RELOCATE EXISTING TRAFFIC SIGN ONTO NEW POST

Each roadside sign must be relocated on the same day that the sign is removed, unless otherwise directed by the Engineer. In cases where the final sign location is incompatible with the on-going stage of construction, Contractor shall furnish and install a temporary sign with an in-kind message at a location to be approved by the Engineer. Said interim sign(s) shall be considered incidental to this Contract Work.

The new post must conform to Section 16, "Traffic Signs" of the Technical Provisions except as modified herein. New sign posts shall be galvanized 1-3/4" square Ulti-Mate square post systems or approved equal. Refer to Appendix C "" for post and hardware details. All roadside signs shall be installed with a minimum of 7' of vertical clearance measured from the lowest point of the sign panel to the ground surface, unless otherwise noted on the plans or specified in these Special Provisions.

If a sign is lost or damaged during the process of relocation, Contractor shall install an equivalent sign in new condition at the relocated location shown on the Plans.

SP13-10 REMOVE ROADSIDE SIGN AND POST (SALVAGE SIGN)

Each roadside sign designated as to be removed on the plans should not be removed until it is replaced by a permanent or temporary sign, is no longer functionally needed, or as directed by the Engineer.

The salvaged sign panel shall be delivered to the City of Lafayette, Public Works Corporation Yard at: 3001 Camino Diablo, Lafayette, Ca. Contractor shall coordinate with the Engineer at least 48 hours prior to delivery to arrange access to the facility.

SP13-11 MEASUREMENT AND PAYMENT

No separate payment shall be made for conforming to the provisions of this section, with the exception of the items specified below. Full compensation for conforming to all the provisions of this section, including minor removal work and the resetting of temporary removals, for which no specific payment is allowed in Contract, shall be considered to be incidental work included in prices paid for various other contract items of work, and no additional compensation will be allowed therefor.

Full compensation for documenting, locating and marking utilities, setting reference points, utility reference point plans and arranging with the utility owners for the timely adjustment of their facilities shall be considered as included in the contract price paid for various contract items of work, and no additional compensation shall be allowed therefor.

Full compensation for protecting existing overhead and buried utilities shall be considered as included in the prices paid for various contract items of work and no additional compensation shall be allowed therefor.

The lump sum price paid for "Remove & Salvage Flashing Signals, Poles and Signs" and "Remove Cobra Head Street Light" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals,

and for doing all work involved in the complete removal of the designated items, all measures and equipment in protecting street light in operating condition, and salvaging designated items for delivery to the City, and all other work as noted on the plans, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract unit prices paid per each for **“Lower Existing Manhole or Rodding Inlet Frame,”** and **“Lower Existing Utility Valve Frame and Cover”** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals necessary to lower the frames and covers; including, but not limited to- locating, referencing, and setting marks; lowering the facility; placement of “false bottoms”; cleaning out the structure or riser; placement of temporary cover; placement of temporary asphalt concrete; maintain temporary asphalt concrete; and all other work as specified in these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed therefor. Contract quantities may be reduced or eliminated based on work to be performed by others. No adjustment in the bid item price shall be allowed due to any change in contract quantities.

The contract unit prices paid per each for **“Adjust Manhole or Rodding Inlet Frame and Cover to Grade”** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals necessary to raise the frames and covers, including but not limited to- locating, referencing, and setting marks; all coordination work; raising the facility to finished grade; placement of concrete collars and temporary and permanent asphalt concrete; and all other work as shown on the Plans, as specified in these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed therefor. Contract quantities may be reduced or eliminated based on work to be performed by others. No adjustment in the bid item price shall be allowed due to any change in contract quantities.

The contract unit prices paid per each for **"Adjust Utility Box to Grade", "Adjust Water Meter Box to Grade",** and **"Adjust Water Valve to Grade"** shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in adjusting the facilities to grade complete in place, including all required excavation, backfilling, compaction, placing of temporary asphalt concrete, and permanent restoration to match surrounding materials, and all other work as shown on the plans and/or applicable standard plans, and as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed therefor. Contract quantities may be reduced or eliminated based on work to be performed by others. No adjustment in the bid item price shall be allowed due to any change in contract quantities.

The lump sum contract price paid for **"Remove Thermoplastic Traffic Stripe, Marking, and Markers"** shall be considered as full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to remove and dispose of pavement markers, stripes and legends, as specified in the Standard Specifications, the State Specifications and these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefore.

The contract prices paid per linear foot for **"Remove Asphalt Concrete Dike", "Remove Concrete Curb",** and **"Remove Concrete Curb and Gutter"** shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to remove and dispose of existing concrete curb and gutter and asphalt concrete dike, adjacent asphalt pavement or other paving as necessary to accommodate form boards, and all excavation and backfill as required to accommodate new improvements as shown on the contract plans, as specified in these Special Provisions, and as directed by the Engineer, and no additional compensation shall be

allowed therefor. Contract quantities may be reduced or eliminated based on work to be performed by others. No adjustment in the bid item price shall be allowed due to any change in contract quantities.

The contract prices paid per square foot for "**Remove Concrete Surfacing and Base Material**", and "**Remove Asphalt Concrete Sidewalk and Base Material**" shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to remove and dispose of existing concrete and asphalt and base material, including adjacent asphalt pavement or other paving as necessary to accommodate form boards, and all excavation and backfill as required to accommodate new improvements as shown on the contract plans, as specified in these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract prices paid per each for "**Remove Inlet**" and per linear foot of "**Remove Reinforced Concrete Pipe**" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals necessary to excavate, sawcut, remove, and dispose of the existing facilities, including shoring, dewatering, and backfill where required, and all other work as noted on the plans, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract prices paid per each for "**Relocate Existing Traffic Sign Onto New Post**" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in furnishing and placing signs and posts complete in place, including adhesives, backing, bolts, frames, posts, caps, concrete footing, and all other work as noted on the plans, including temporary interim signage, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract prices paid per each for "**Remove Roadside Sign & Post (Salvage Sign)**" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing signs, posts, and footing, complete in place, and for salvaging and delivering the sign panel, and all other work as noted on the plans, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract price paid per each for "**Remove Bollard**" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing the bollard complete in place, including, the bollard, concrete footing, rebar and all other work as noted on the plans, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-14

EXCAVATIONS

(BID ITEM NO. 28)

Excavations of all kind shall conform to the provisions of Section 3 – “Earthwork,” of the Technical Provisions of the Standard Specifications, and shall apply in their entirety except as modified or supplemented herein.

The Contractor shall provide for the public safety and public convenience in accordance with the provisions of Sections 7-1.03, "Public Convenience", and 7-1.04, "Public Safety", of the State Specifications and these Special Provisions.

SP14-01 ROADWAY EXCAVATION

Excavation consists of sawcutting, removing, and disposing of asphalt concrete pavement, concrete flatwork or pavement, roadway subgrade and subbase of all kinds, soil, and any other materials encountered to excavate to the required depths to install improvements shown on the plan, including new roadway structural section, landscape planter and median areas.

All excavated asphalt concrete material, base material, and native material shall be disposed of outside the right-of-way as required in Section 6-16 of the General Provisions of the Standard Specifications. All excavated material to be disposed of shall be off-hauled from the site as it is generated. The excavated material will consist of asphalt concrete, base material and native material, and may contain reinforcing fabric and/or other particles that are a by-product of asphalt concrete. The City makes no guarantee that the material will be reusable or recyclable. No additional compensation shall be allowed to the Contractor if the material is deemed not reusable or recyclable. Any testing, if required, by the disposal site shall be arranged and paid for by the Contractor.

Access to all driveways shall be maintained at all times, unless otherwise specified in the Stage Construction Plans. If necessary, excavations shall be temporarily filled at driveways to allow access at the end of the working period and re-excavated the next working period at the Contractor's expense.

All excavations adjacent to the traveled lane, which are not backfilled the same day, shall be sloped with a temporary paved ramp placed against the edge of pavement as shown on the plans. The Contractor shall also place temporary Type "II" barricades with flashers at least twenty-five feet (25') on centers along the edges of all existing roadway pavement excavations.

Unsuitable material encountered below the grading plane shown on the Plans shall be excavated and disposed of per Section 19-1.03B of the State Specifications and at the direction of the Engineer. Subexcavation shall not begin without prior approval from the Engineer. The cost of removal and disposal of unsuitable material and replacement material shall be paid for at force account as provided in Section 4-1.05 and 9-1.04 of the State Specifications.

SP14-02 MEASUREMENT AND PAYMENT

There is no separate measurement or payment for earthwork involved with pipes, drainage structures, foundations, curb, gutter, pathways, walkways, and driveways. All excavation and backfill necessary to construct these items, except as specifically provided for in other sections of these Special Provisions, shall be considered as included in the Contract Prices paid for the various items of work.

The contract price per cubic yard for **“Roadway Excavation”** shall include full compensation for all labor, materials, tools, equipment, and incidentals to do all the work involved in sawcutting; excavating, removing, loading, off-hauling, and disposal of asphalt concrete or concrete pavement, cement-treated base, subgrade, and sub-base materials of all kind within existing, and new median planters and roadway areas; as shown on the Plans, specified in these Special Provisions, and as directed by the Engineer; and no additional compensation shall be allowed therefor. The quantity shown on the Bid Schedule shall be a "Final Pay" quantity in accordance with the provisions of Section 9-6 of the General Provisions of the Standard Specifications.

SPECIAL PROVISIONS SECTION SP-15

DUST CONTROL AND WATERING

(NO BID ITEM)

The provisions of Section 4 – “Dust Control & Watering,” of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP15-01 PAYMENT

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

SPECIAL PROVISIONS SECTION SP-16

AGGREGATE BASE

(BID ITEM NO. 29)

The provisions of Section 8 – “Aggregate Base,” of the Technical Provisions of the Standard Specifications, shall apply in their entirety.

SPECIAL PROVISIONS SECTION SP-17

ASPHALT CONCRETE (BID ITEM NO. 30-32)

The provisions of Section 9 – “Asphalt Concrete,” of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP17-01 ASPHALT CONCRETE PAVEMENT

Asphalt concrete shall be Type A HMA, 3/4 inch base course and 1/2-inch maximum size aggregate for finish course, PG64-10 Asphalt.

Base Course: Where existing roadway pavement grades are more than 0.25’ below design finish grades, a base course is required to prepare for the paving of the final lift. Contractor shall place a base course of varying depths based on the elevation differentials shown on the Contract Plans, such that the surface of the completed base course is between 0.17’ and 0.25’ below design finish grade. Each base course lift shall not exceed 0.33’ in depth, and Contractor shall install multiple lifts as necessary to achieve the required pavement surface grades for final lift paving as shown on the Plans and specified in these Special Provisions. Contractor’s attention is directed to the requirement of a grade setter specified elsewhere in these Special Provisions.

Finish Course: Contractor shall not place the uppermost layer of new asphalt concrete pavement until all underlying storm drain pipes, conduits; irrigation pipes, sleeves, utilities and any other underground facility have been installed. Finish Course over all areas to be paved shall be constructed as a single course between 0.17’ and 0.25’ in depth, conforming to design finish elevations as shown on the Plans.

Temporary Asphalt Concrete Pavement at Medians: Contractor shall pave the median islands as specified in Stage 1 of the Construction Staging Plans.

Roadway conform paving between the construction sawcut line and the face of new concrete curb or gutter shall be constructed per the various details shown on the Plans. Asphalt concrete shall conform to the requirements specified in this section and aggregate base for said conform paving shall conform to the applicable requirements of these Special Provisions.

SP17-02 MEASUREMENT AND PAYMENT

The contract unit price paid per ton for the various courses of “**Asphalt Concrete Pavement**” shall be considered as full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals to complete the necessary work, including but not limited to- providing a grade-setter; cleaning existing pavement; installing a tack coat binder, sawcutting furnishing, transporting, placing, spreading and compacting asphalt concrete; constructing, maintaining, removing, and disposing of temporary asphalt concrete ramps when required; any necessary corrective measures to each pavement course; and all other work as shown on the Plans, as specified in these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract unit price paid per linear foot for “**Asphalt Concrete Dike**” shall be considered as full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals to complete the necessary work,

including but not limited to: furnishing, transporting, placing, spreading, forming and compacting asphalt concrete dike; any necessary corrective measures; and all other work as shown on the Plans, as specified in these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The contract unit price paid per square foot for **“Temporary Asphalt Concrete Pavement At Medians”** shall be considered as full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals to complete the necessary work, including but not limited to- cleaning existing pavement; sawcutting; furnishing, transporting, placing, spreading and compacting asphalt concrete; tack coat binder; constructing, maintaining, removing, and disposing of temporary asphalt concrete pavement and temporary asphalt rampsall roadway conform paving; any necessary corrective measures; and all other work as shown on the Plans, as specified in these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-18

COLD PLANING (BID ITEM NO. 33)

The provisions of Section 13 –“Cold Planing” of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP18-01 GENERAL

Existing asphalt concrete shall be planed at the locations and to the various depths and widths as shown on the Plans and as directed by the Engineer. The Contractor shall schedule his/her operation so that the cold planed area is paved within five (5) working days after having receiving cold planing. Any damage to the planed surface caused by the Contractor, or resulting from prolonged exposure of the planed surface to traffic loads beyond the specified time above, shall be repaired at no cost to the City prior to paving.

Work includes grinding pavement at conform joints and milling pavement in areas to receive an asphalt concrete overlay. Cold planing of areas to receive inlay include grinding to correct the grades and cross-slope of the existing roadway. The outside lines of the planed area shall be neat and uniform. The road surfacing and concrete gutters to remain in place shall not be damaged in any way by the planing.

The final cut shall result in a uniform surface allowing final paving to conform to the proposed surface elevations as shown on the plans. Contractor shall continuously monitor and adjust the depth of cold plane such that the final cut surface will accommodate a final paving lift of no less than 0.17’ and no more than 0.25’. In some areas Contractor may be required to make multiple passes to achieve the desired grades. Excessive or inadequate milling that result in a final surface outside of the allowable tolerances shall be corrected by additional cutting or placement of asphalt concrete leveling courses to achieve compliance. These remedial measures shall be at the Contractor’s sole expense.

Where utility and similar facilities exist within the surface to be planed, Contractor shall take special notice of those locations and exercise extra care and caution in his operation so as to maintain and protect those facilities in place. Protection of said facilities shall be considered incidental to Contract Work in performing the cold plane operation.

SP18-02 MEASUREMENT AND PAYMENT

The contract price paid per square yard for "**Cold Plane Asphalt Concrete Pavement (Variable Depths)**" shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals, and for doing all the work involved, including, but not limited to, providing grade setter; cold planing, loading, off-hauling, testing (if needed) and disposing of planed material; constructing, maintaining, and disposing of the temporary ramps; street sweeping, barricades, and all other work as shown on the Plans, as specified in the Standard Specifications, the State Specifications and these Special Provisions, and as directed by the Engineer and no additional compensation shall be allowed therefor.

The quantity shown on the Bid Schedule shall be a "Final Pay" quantity in accordance with the provisions of Section 9-1.02C of the State Specifications.

SPECIAL PROVISIONS SECTION SP-19

PAVEMENT STRIPING, MARKERS AND DELINEATION

(BID ITEM NO. 34-42)

The provisions of Section 15 – "Pavement Striping, Markers and Delineation," of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP19-01 GENERAL

All thermoplastic and paint striping and pavement markings to be installed for bicycle traffic shall be skid resistant surface material. Contractor shall submit product information and cutsheets for review and approval of the product to be used prior to installation. City will accept skid resistant green surface marking such as "Ride-A-Way" colorized coating manufactured by Ennis-Flint, or approved equal.

SP19-02 OBJECT MARKER

Object markers and Pavement Marker Array should be installed in accordance with Section 15-3, "Pavement Markers," of the Technical Provisions of the Standard Specifications.

The object marker must be on a white flexible post, free from burns, discoloration, contamination, and other objectionable marks or defects that affect appearance or serviceability.

The target plate on the object marker must be the same color and material as the flexible post.

A reflector for object marker must be made of a Type III or higher grade retroreflective sign sheeting.

SP19-03 MEASUREMENT AND PAYMENT

The contract price paid per each for "**Object Marker (Type K)**" and "**Pavement Marker Array**", per square foot for "**Green Skid Resistant Surface Marking (4 coats)**," and per linear foot for pavement marker details and various thermoplastic stripes and per square foot for thermoplastic pavement markings shall include full compensation for furnishing all labor, supervision, materials, tools, equipment, and incidentals, including application of skid resistant materials, and for doing the work involved in installing the object marker and

pavement markers complete in place, and all other work as shown on the Plans, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-20

TRAFFIC SIGNS AND STREET NAME SIGNS

(BID ITEM NO. 43-45)

The provisions of Section 16 – “Traffic Signs” of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP20-01 GENERAL

Sign posts shall be galvanized 1-3/4” square Ulti-Mate square post systems or approved equal. Refer to Appendix C, “Sign Post & Accessories,” for post and hardware details.

All signs shall be installed with a minimum of 7’ of vertical clearance measured from the lowest point of the sign panel to the ground surface, unless otherwise specified on the plans.

Street name signs will be furnished by the City. Contractor shall be responsible to coordinate with the City to obtain the signs, transport and install each sign on two posts as shown on the Plans. Upon receipt of signs, Contractor shall be responsible for the care and protection of said signs. Gouges, scratches and visible cosmetic defects shall be repaired to the satisfaction of the Engineer, or the entire sign shall be replaced in kind, all at the Contractor’s sole expense.

SP20-02 MEASUREMENT AND PAYMENT

The contract price paid per each for "**Install New Traffic Sign and Post (One Post)**", "**Install New Street Name Sign and Post (Two Posts)**" and "**Install New Traffic Sign (Strap and Saddle Bracket Method)**" shall include full compensation for furnishing all labor, supervision, materials, tools, equipment, and incidentals, and for doing the work involved in, backfilling excavations, installing signs on new posts complete in place, including concrete footing, mounting hardware and new sign panels where required, and all other work as shown on the Plans, as specified by these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP 21

CONCRETE CONSTRUCTION

(BID ITEM NO. 46-56)

The provisions of Section 17 – “Concrete Construction” of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP21-01 GENERAL

Concrete curbs (various types), sidewalks, shared use paths, gutters, curb ramps, driveway, drainage inlets, truck aprons, median island concrete paving, shall be constructed of Portland Cement concrete of the class and other requirements prescribed in Section 17 of the Technical Provisions of the Standard Specifications, and shall

conform to the latest applicable Contra Costa County (CCC) Public Works Department "Standard Plans," unless otherwise specified or modified by Contract Documents.

All new concrete construction shall include installation of a subbase consisting of a minimum six (6)-inch-thick layer of Class 2 aggregate base, conforming to SP-16, compacted to 95% relative compaction. At locations shown on the Plans where new curb and gutter, sidewalk, and curb ramps are constructed to join with existing concrete facilities, the Contractor shall install eighteen (18) inch long No. 4 rebar dowels. The dowels shall be placed at 12 inches on center in drilled holes at least six (6) inches into the existing concrete.

Before placing concrete, Contractor shall verify that forms and site constraints allow construction to the required dimensioning and slopes shown. Contractor shall immediately notify the Engineer if site conditions will not accommodate the design details.

Concrete truck apron shall have a coarse, "raked" finish in preparation for installation of stone slab facing.

Void spaces along the back of new concrete curbs and similar constructions, such as those created by form work, shall be backfilled to match existing surrounding material. This material is typically topsoil, gravel or base rock. Fill material shall be placed and compacted to the top of the new concrete improvements and sloped at a maximum of 3:1 (33%) to conform to the existing terrain. The fill material shall be compacted to 90% relative compaction.

Contractor's attention is directed to requirements for conform paving adjacent to curb and/or gutter, as specified elsewhere in these Special Provisions.

All new curb ramps shall include detectable warning surfaces (detectable panels) conforming to the referenced Standard Plans. Detectable surface panels shall be the color onyx black and shall be wet set monolithically with the ramp construction in accordance with manufacturer's instructions. Contractor shall submit a six (6)-inch square sample of the product to be provided, along with the manufacturer's product data and "cut-sheets" for review and approval prior to ordering. The detectable warning surface shall conform to:

- a. Americans with Disabilities Act (ADA) Title III Regulations, 28 CFR Part 36 "ADA Standards For Accessible Design," Appendix A, Section 4.29 for "Detectable Warnings."
- b. Division of the State Architect - Access Compliance (DSA-AC) approved detectable warning products as provided in the California Code of Regulations (CCR) Title 24, Part 2, Section 205 definition of "Detectable Warning."

City may accept products from ADA solutions (800-372-0519), Answer Industries (909-230-4064), and Armor-Tile (916-844-4132).

All new storm drain inlets shall have a City provided placard stating "No Dumping - Drains to Creek" affixed to the curb or other logical location.

SP21-02 MEASUREMENT AND PAYMENT

The contract prices paid per square foot for "**Concrete Truck Apron**", "**Concrete Sidewalk**" and "**Concrete Curb Ramp with Detectable Panel**" and the contract prices paid per linear foot for "**Concrete Retaining Curb**",

“Concrete Curb & Gutter”, “Concrete Curb”, “Concrete Median Curb – Dowel/Epoxy” , “Concrete Curb at Truck Apron”, and “Concrete Curb at Truck Blister”, and the contract prices paid per each for **“Install Type “G” Inlet”** and **“Install Type “J” Inlet”** shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals for doing all work involved in constructing curb, gutter, sidewalk, truck apron, splitter island, curb ramp, and drainage structures including, but not limited to, sawcutting; excavation; loading; off-hauling; disposal; forming; dewatering; backfill; steel plates; retaining curbs; reinforcement; dowels; frames; grates; covers; galvanizing; aggregate base; compaction; grading to drain; concrete; finishing; raised truncated dome detectable warning surfaces; catch basin placards; and all other work necessary to construct the facilities complete, in place as shown on the plans as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer and no additional compensation shall be allowed therefor.

“Concrete Curb Ramp with Detectable Panel” shall be measured as the ramp area up to the outer most groove line defining the ramp, up to and including the adjacent retaining curb where it exists, and inclusive of the detectable panel. The retaining curb associated with a curb ramp shall not be paid separately as a curb item.

Concrete inlet aprons, regardless of size, are measured and paid per linear foot as **“Concrete Curb and Gutter.”**

SPECIAL PROVISIONS SECTION SP-22

STORM DRAINS

(BID ITEM NO. 57)

The provisions of Section 18 – “Storm Drains” of the Technical Provisions of the Standard Specifications, shall apply in their entirety except as modified or supplemented herein.

SP22-01 GENERAL

Storm drain inlet frames and grates shall be galvanized. Trench restoration and resurfacing shall be per the details shown on the plans.

SP22-02 CONNECTIONS

Connections between new and existing storm drain pipes and structures shall be made with a concrete collar. Concrete collar shall be 12” wide with hoop rebar and mastic seal. Openings in existing structures shall be made with care so as to minimize damage to the structure wall, with the minimum clearance practicable to properly seat the connecting pipe into the opening. The connection point shall be grouted smooth. Extensive damage that is deemed by the Engineer to compromise the integrity of the structure shall be repaired by replacing the structure or the entire wall face. Concrete shall conform to the requirements of SP-21 of these Special Provisions.

SP22-03 MEASUREMENT AND PAYMENT

The price paid per linear foot for **“15” Reinforced Concrete Pipe”** in place shall be considered full compensation for all labor, materials, tools, equipment, and incidentals, to do all of the work, including but not limited to – potholing utilities, sawcutting, the excavations of the trench; the control of ground and surface waters; sheeting and shoring per OSH requirements, the preparation of subgrade; the removal of interfering portions of existing

storm drains and other improvements; the closing or removing of abandoned conduit and structures; placing and joining pipes with various fittings, concrete collar, bedding and backfilling the trench, compaction, ; placing, maintaining, and removing temporary asphalt concrete surfacing; permanent resurfacing; coordination with, protecting, and supporting existing utilities; and all other work necessary to install the pipe system complete in place as shown on the Contract Plans, as specified in the Contract Specifications, and as directed by the Engineer.

No adjustment in the contract unit price shall be made for raising the pipe grade by any amount or lowering of the pipe by (12) twelve inches or less.

SPECIAL PROVISIONS SECTION SP-23

LANDSCAPE IRRIGATION

(BID ITEM NO. 58-59, 70)

SP23-01 DESCRIPTION

The provisions of Section 19 "Landscape Irrigation" of the Technical Provisions of the Standard Specifications shall apply in their entirety except as modified or supplemented herein.

Work includes:

Order and furnish all labor, materials, supplies, tools and transportation and perform all operations in connection with incidentals to complete installation of the automatic sprinkler irrigation systems as shown on the drawings and described in these Special Provisions. Items hereinafter are included as an aid to take off, and are not necessarily a complete list of work items.

1. Trenching, directional borings, stockpiling, excavation, off haul, backfill materials for trenches.
2. Furnishing materials and installation for complete system including piping, valves, fittings, sprinkler heads, automatic controls and final adjustment of the irrigation system to insure complete and uniform coverage.
3. Line voltage connections to the irrigation controllers and low voltage control wiring from existing controller to remote control valves.
4. Replacement of unsatisfactory materials.
5. Clean-up, inspection and approval.
6. All work of every description mentioned in these Special Provisions, and all other labor, materials, and incidental to the satisfactory completion of the work, including clean- up of the site, as directed by the Engineer.
7. Tests.
8. Record drawings, State required irrigation audits and Certificates of Completion.

SP23-02 GENERAL REQUIREMENTS

OSHA Compliance: All articles and services covered by this specification shall meet or exceed the safety standards established under the Federal Occupational Safety and Health Act of 1970, together with all amendments in effect as of the date of this specification.

Codes and Standards: Comply with all applicable codes and standards.

1. All work and materials shall be in full accordance with the latest rules and regulations of the National Electric Code; the Uniform Plumbing Code, published by the Western Plumbing Officials Association; and other State or local laws or regulations. Nothing in these Drawings or Special Provisions is to be construed to permit work not conforming to these codes.
2. When the Special Provisions call for materials or construction of a better quality or larger size than required by above-mentioned rules and regulations, the provision of the Special Provisions shall take precedence over the requirements of the said rules and regulations.
3. The Contractor shall furnish without any extra charge any additional material and labor when required by the compliance with these rules and regulations, though the work may not be mentioned in these particular Specifications or shown on the Drawings.
4. The Contractor shall erect and maintain barricades, guards, warning signs, and lights as necessary or required by OSHA regulations for the protection of the public or workers.
5. Any existing buildings, equipment, piping, pipe covering sewers, sidewalks, landscaping, etc., damaged by the Contractor during the course of this work shall be replaced or repaired by the Contractor in a manner satisfactory to the Engineer and at Contractor's expense. The Contractor shall be responsible for damage caused by leaks in the piping systems being installed or having been installed by him. He shall repair, at his own expense, all damage so caused, in a manner satisfactory to Engineer.
6. The Contractor shall pay for all permits, licenses, and fees required.

SP23-03 SUPERVISION AND WORKMANSHIP

The Contractor's authorized and competent representative, shall supervise the work constantly, and shall keep the same foreman and workers on the job from commencement to completion. The workmanship of the entire job must in every way be first class, and only experienced and competent workers will be allowed on the job.

SP23-04 LAYOUT OF WORK

The Contractor shall stake out the irrigation system as shown on the Drawings. These areas shall be checked by the Contractor before construction is started. Any changes, deletions or additions shall be determined at this check.

SP23-05 INSTRUCTION

After the system has been installed and approved, Contractor shall schedule a demonstration and training session to instruct the Engineer and his designee(s) in the complete operation and maintenance of the irrigation system.

SP23-06 SUBMITTAL

Submit six (6) copies of catalogue information on material which are to be submitted. No substitution will be permitted without prior written approval by the Engineer. Complete material list shall be submitted prior to performing any work.

Record Drawings:

1. The Contractor shall maintain in good order in the field office one complete set of black line prints of all sprinkler drawings which form as part of the contract, showing all water lines, sprinklers, valves, controllers and stub-outs. In the event any work is not installed as indicated on the Drawings, such work shall be corrected and dimensioned accurately from the building walls.
2. All underground stub-outs for future connections and valves shall be located and dimensioned accurately from building walls or face of the curb on all record drawings.
3. Upon completion of the work, Contractor shall submit drawings of the as-built conditions to the Engineer for approval. Drawings shall be legible at 11x17 sheet size, color coded by station. Upon approval of drawings, Contractor shall submit two sets of prints, laminated in 6 mil plastic.
4. Contractor shall provide manufacturer's cut sheets for all components specified for use.

SP23-07 PIPE AND FITTINGS

Main Line (constant pressure) pipe shall be PVC 1120, Class 315. Use Class 315 PVC solvent weld fittings as approved by the UPC.

Lateral lines (non-pressure): Shall be a minimum 3/4" 1120-Schedule 40 PVC plastic pipe. All lateral lines shall be connected with Schedule 40, Type 1, Grade 2, PVC solvent weld fittings.

Connections between main lines and RCVs shall be of Schedule 80 PVC (threaded both ends) nipples and fittings.

SP23-08 QUICKCOUPLING VALVES

Quick coupling valve shall be as listed on the Drawings. Provide three key and swivel hose ells for quick coupling valves.

SP23-09 BOXES FOR REMOTE CONTROL VALVES

Carson Model 1419 black plastic valve box with black plastic lid. Lid shall be marked: Irrigation Control Valve".

SP23-10 MISCELLANEOUS EQUIPMENT

Provide all equipment called for by the plans.

Provide to the Owner, at completion of Maintenance Period, three (3) each of all operating and servicing keys and wrenches required for complete maintenance and operation of all heads and valves. Include all wrenches necessary for complete disassembly of all heads and valves.

SP23-11 PREPARATION

Schedule and coordinate placement of materials and equipment in manner to effect the earliest completion of work in conformance with construction and progress schedule.

SP23-12 HANDLING AND STORAGE

Protect work and materials from damage during construction and storage as directed by Engineer. Handle plastic pipe carefully; especially protect it from prolonged exposure to sunlight.

SP23-13 LAYOUT

Layout work as accurately as possible in accordance with diagrammatic drawings.

Where site conditions do not permit location of piping, valves and heads where shown, notify Engineer immediately and determine relocation in joint conference.

Run pipelines and automatic control wiring in common trenches wherever practical. To the maximum extent feasible Contractor shall coordinate irrigation pipes and sleeves to be placed in joint trenches with electrical conduits to minimize the number of road cuts.

SP23-14 ASSEMBLING PIPELINES

All pipe shall be assembled free from dirt and pipe scale. Field cut ends shall be reamed only to full pipe diameter with rough edges and burrs removed.

Solvent Weld Joint:

1. Prepare joint by first making sure the pipe end is square, then deburring the pipe end and cleaning pipe and fitting of dirt, dust and moisture.
2. Dry-insert pipe into fitting to check for missing. Pipe should enter fitting 1/3 to 2/3 depth of socket.
3. Coat the inside socket surface of the fitting and the fitting and the male end of the pipe with P-70 primer (manufactured by Weld-On). Then without delay, apply Weld-On 711 cement liberally to the male end of the pipe and also apply Weld-On 711 cement lightly to the inside of the socket. At this time, apply a second coat of cement to the pipe end.
4. Insert pipe immediately into fitting and turn 1/4 turn to distribute cement and remove air bubbles. The pipe must seat to the bottom of the socket and fitting. Check alignment of the fitting. Pipe and fitting shall be aligned properly without strain to either.
5. Hold joint still for approximately thirty (30) seconds and then wipe the excess cement from the pipe and fitting.
6. Cure joint a minimum of thirty (30) minutes before handling and at least six (6) hours before allowing water in the pipe.

Threaded Joint:

1. Field threading of plastic pipe or fittings is not permitted. Factory-formed threads only will be permitted.
2. Factory-made nipples shall be used wherever possible. Field-cut threads in metallic pipe will be

permitted only where absolutely necessary. When field threading, cut threads accurately on axis with sharp dies.

3. All threaded joints shall be made up with pipe joint compound. Apply compound to male threads only.
4. Where assembling metallic pipe to metallic fitting or valve, no more than three (3) full threads shall show when joint is made up.
5. Where assembling to threaded plastic fitting, take up joint no more than one full turn beyond hand tight.
6. Where assembling soft metal (brass or copper) or plastic pipe, use strap type friction wrench only; do not use metal-jawed wrench.

Cap or plug openings as pipeline is assembled to prevent entrance of dirt or obstructions. Remove caps or plugs only when necessary to continue assembly.

Where pipes or control wires pass through sleeves, provide removable non-decaying plug at ends of sleeve to prevent entrance of earth.

SP23-15 REMOTE CONTROL VALVES

Install where shown on Drawings and group together where practical. Limit one remote control valve per box. No Exceptions.

Thoroughly flush main line before installing valve.

Install in shrub or ground cover areas where possible.

Label control line wire at each valve with a 2 1/4" x 3/4" polyurethane I.D. tag, indicating identification number of valve (controller and station number). Attach label to control wire.

SP23-16 AUTOMATIC CONTROL WIRE

Run lines along mains wherever practical. Tie wires in bundles with pipe wrapping tape at 10' intervals and allow slack for contraction between strappings. Electrical service wiring shall be run inside a conduit.

Loop a minimum of three (3) feet of extra wire in each valve box; both control wire and ground wire. Connections shall be made by crimping bare wires with brass connectors and sealing with sealer packs.

Splicing will be permitted only on runs exceeding 2500'. Locate all splices at valve locations within valve boxes.

Where control lines pass under paving, they shall pass through Schedule 40 electrical PVC conduit.

SP23-17 QUICK COUPLING VALVES

Thoroughly flush lines before installing QCVs.

Locate QCVs as shown in the Drawings and Details.

SP23-18 DRIP SYSTEM

Drip Valve Kit: Drip valve / filter / pressure reducer shall be as indicated per the Irrigation Schedule.

In-Line Emitter tubing as per Irrigation Schedule, or approved equal. Shrub and Tree drip rings created from in-line drip tubing as indicated on the Plans and Details.

Drip Line Irrigation area illustrated is schematic. Contractor to install tubing, per general details, in such a way as to not water areas where plant materials will not benefit.

SP23-19 EXCAVATION AND TRENCHING

Contractor's attention is directed to the joint trenches required by Contract. Irrigation pipes and sleeves shall be coordinated with trenching for street light installation as shown on the Plans.

Restore landscape and or hardscape surfaces, existing underground installations, etc., damaged or cut as a result of excavations, to original conditions in manner approved by the Engineer. Where other utilities interfere with irrigation trenching and pipe work, adjust the trench depth as instructed by Engineer.

SP23-20 TRENCHING IN EXISTING PAVEMENT

Contractor shall pothole all utilities prior to trenching or directional drilling.

TRENCHING INSTALLATION OF CONDUIT AND SLEEVING

Sleeving shall at minimum be SCH 40 PVC pipe or as indicated on the plans.

Trenching installation of conduit and sleeving shall be done per County Standard Plans detail "Utility Trench Cut Details" unless otherwise specified on the plans or these Special Provisions.. Restoration of irrigation trenches in pavement shall be in accordance to SP30-10, "Trenching," of these Special Provisions.

During Construction, all trenches shall be duly maintained by the Contractor. New trenched areas where vehicular traffic is permitted shall be covered with steel plate on a daily basis and maintained.

Trench shall be finish paved within 5 calendar days of the installation of the backfill. If the Contractor does not comply with this section, the Engineer will order the work done by others and deduct the cost of doing the work from monies due the Contractor.

Conduit installed to a PG&E service point location(s) shall be 2 inches in size. The conduit in a foundation and between a foundation and the nearest pull box shall be the rigid metallic type.

The ends of conduits in pull boxes shall have a bell bushing and shall be a minimum of 4 inches above surface of rock and a minimum of 6 inches below the top of the pull box.

DIRECTIONAL DRILLING METHOD

At the option of the Contractor, conduit and sleeving can be installed by the directional drilling method at no extra cost to the City. The minimum depth of 36" shall be maintained by the directional boring method except in the vicinity of entering or leaving a pull box or a cabinet, unless otherwise directed by the Engineer.

Placement of the directional boring equipment and alignment of bore shall be approved by the Engineer prior to boring operation. Pavement shall not be disturbed without permission from the Engineer. In the event obstructions are encountered, upon approval from the Engineer, small holes may be cut in the pavement to locate or remove the obstruction

Excessive use of water, such that pavement might be undermined or subgrade softened, will not be permitted. Following successful pull-back of pipe, Contractor shall test pipe as described in Section 19-4.13 of the Technical Provisions of the Standard Specifications.

SP23-21 BACKFILLING

Backfill only after piping has been tested, inspected and approved.

Backfill material shall be as shown on the Plans. Carefully select backfill that is to be placed next to plastic pipe to avoid any sharp objects which may damage the pipe.

Place backfill materials in 6" layers and compact to a minimum relative compaction of 90 percent of original soil density and 95 percent in the vehicular areas.

Dress off areas to finish grades and remove excess soil, rocks or debris remaining after backfill is completed.

If settlement occurs along trenches, and adjustments in pipes, valves and sprinkler heads, soil, paving are necessary to bring the system, soil, sod or paving to the proper level or the permanent grade, the Contractor, as part of the Work under this contract, shall make all adjustments without extra cost to the City.

SP23-22 GUARANTEE

The Contractor shall also guarantee all materials, equipment and workmanship furnished by him to be free of all defects of workmanship and materials, and shall agree to replace at his expense, at any time within one year after project acceptance by the City Council, any and all defective parts that may be found.

SP23-23 CLEAN-UP

When work of this section has been completed and at such other times as may be directed, remove all trash, debris, surplus materials and equipment from site.

SP23-24 MAINTENANCE

Contract Work includes maintenance of the completed system for sixty (60) days. Upon final inspection and acceptance of the work by the Engineer, Contractor may request the landscape and irrigation maintenance item in the Contract to begin. Contractor shall submit a written request to include the maintenance schedule, detailing day and approximate time of each maintenance visit, frequency of visits, and name(s) and phone number(s) of the person(s) performing the work. Upon approval of said request the Engineer will provide a written notice to Contractor stating the start date of the Contract 60-day maintenance period.

Proper irrigation system maintenance includes but not limited to the overall supervision of the system, controller scheduling, routine adjustments and necessary repairs.

Water: Do not apply water at a rate higher than the infiltration rate of the soil. Regularly utilize a soil probe to evaluate actual soil moisture levels and irrigation schedule.

Regularly observe irrigation system operation and make any repairs or adjustments necessary to maintain effective watering of the plant material.

- a. Visual Review: Inspect irrigated areas for unusually wet or dry areas.
- b. System Operation: Operate each controller station and visually inspect each bubbler for proper operation.
- c. Controller Program: Comprehensively review controller program with consideration for water conservation, overall site conditions, seasonal changes and plant requirements. In windy areas, set controller to operate during periods of low wind velocity. Adjust watering schedule so as not to interfere with the use of the facility. Maintain a record of current irrigation programs, including day, time and length of watering for each station and program for each controller. Flag all areas that appear to be abnormal and make required repairs or adjustments.
- d. Valve Operation: Visually inspect valves and components for leaks. Make required repairs or adjustments.
- e. Repair and Replacement: Any faulty equipment or damage to the system not caused by the Contractor's negligence or operations shall be promptly reported to the Engineer, together with an estimate of costs for repairs. Emergency repairs necessary for the continued viability of the plant material shall be completed without prior authorization.
- f. Upon completion of Contract maintenance period, Contractor shall submit a log of maintenance visits, with dates, times, and names of personnel, documenting activities performed during each visit, as proof of having fulfilled the maintenance obligations under Contract.

SP23-25 MEASUREMENT AND PAYMENT

"**Irrigation System**" shall be paid at the lump sum price, which shall be considered full compensation for all labor, materials, tools, equipment, and incidentals including excavation, water pressure testing, all pipes and sleeves, joints, remote control valves, check valves, quick coupler valves, electrical connections, flow sensor, wire, drip irrigation/emitters, and all the installation thereof including incidentals, and all other work required to provide a fully functional automated irrigation system with full coverage.

Payment at the contract unit price per linear foot for "**Irrigation Trenches**" shall be considered full compensation for all labor, material, tools, and equipment, potholing for utilities, saw cut, excavation, off-haul, removal of backfill, hand and machine trenching, boring, installation of all types of backfill materials including aggregate base, 2-sack slurry, trench restoration, and incidentals required to perform the work, as directed by the Engineer, and as shown on the Plans and no additional compensation shall be made therefore. Measurement for "I" irrigation trenches shall be per linear foot of the trench regardless of the number of sleeve and pipe within the trench.

Where electrical and irrigation trenches can be coordinated as joint trenches, payment for constructing said joint trenches shall be measured as part of the electrical items of work described elsewhere in these Special Provisions. There shall be no separate payment for joint trenches as irrigation trenches. Compensation for placing irrigation pipes and sleeves in joint trenches with electrical facilities shall be considered to be included in the lump sum Contract Price paid for "Irrigation System," and no additional compensation shall be made therefor.

Attention is directed to SP24-09, Measurement and Payment for landscape and irrigation system maintenance.

SPECIAL PROVISIONS SECTION SP-24

LANDSCAPING

(BID ITEM NO. 60-70)

SP24-01 GENERAL

The provisions of Section 20 'Landscaping' of the Technical Provisions of the Standard Specifications shall apply in their entirety except as modified or supplemented herein. Adhere to the requirements of the Section 4 of the General Provisions of the Standard Specifications.

This work shall consist of, but is not necessarily limited to, furnishing all labor, materials, tools, and equipment required to furnish and install plant material, fertilize plants, complete and maintain the tree / shrub planting and irrigation system for the duration of the maintenance period. Trees and shrubs shall be planted in accordance with the details shown on the Plans.

SP24-02 QUALITY ASSURANCE

Contractor shall notify the Engineer of the source of plant materials no later than twenty (20) days after issuance of the Notice to Proceed. All plant material shall be inspected and approved by the City prior to planting.

SP24-03 SUBMITTALS

The Contractor shall submit to the Engineer within 14 days following the date of the Notice to Proceed, all descriptive data and samples for the work as required by these specifications. Such submittals shall be checked and coordinated by the Contractor with the work of other trades involved before they are submitted to the Engineer for review.

Submit the following material samples:

1. Tree ties, rock mulch, and bark materials.

Submit the following materials certification from approved qualified testing laboratories:

1. fertilizers

Contractor shall supply the Engineer with a list of all products, e.g. fertilizer, and plant materials, including name of nursery or supplier.

Contractor to submit the number of copies which the contractor requires plus two copies to be retained by the Engineer.

When requested by the Engineer the Contractor shall supply the Engineer with a sample of all supplied materials accompanied by analytical data from an approved laboratory source illustrating compliance or bearing the manufacturer's guaranteed analysis.

SP24-04 DELIVERY, STORAGE, AND HANDLING

Plants shall be transported in enclosed trucks. Trees that are too large for enclosed trucks may be transported in open trucks provided that they are wrapped to prevent damage and windburn. Trees in transport or prior to shipping shall not be tipped so that the container of the adjacent plant is leaning on the trunk of the next tree. Adequate protection shall be placed between trees so that trunks are not scarred in transport and branches are not broken.

Deliver fertilizer materials in original, unopened, and undamaged containers showing weight, analysis, and name of manufacturer. Store in manner to prevent wetting and deterioration. Fertilizer shall not be stored with any other landscape materials.

Protect plants in transit and after delivery to the Project site. Plants in broken containers and plants with broken branches or injured trunks will be rejected. Remove rejected material from the site immediately.

Plants not installed on the day of arrival at the site shall be stored and protected as follows:

1. Outside storage shall be shaded and protected from wind and sun.
2. Plants shall be kept in a moist condition until planted, by watering.

Storage of Materials shall be only in designated areas, or areas approved by the Engineer.

SP24-05 PROJECT CONDITIONS

Do not do soil preparation, conditioning, and planting until construction work is completed in the area to be planted.

Protect utilities, paving, and other structures from damage caused by planting operations.

Rocks and other obstructions shall be removed to a depth necessary to permit proper planting according to Contract Plans and these specifications. If underground utilities, construction or solid rock ledges are encountered, the Engineer shall be contacted immediately for determination of extent of obstruction. The Engineer may direct the selection of alternate locations.

Contractor's attention is directed to Section 20-4.3 of the Technical Provisions of the Standard Specifications regarding drainage tests of planting areas.

Contractor shall not plant at the end of the day Friday or on or before holidays, unless a special crew is assigned to care for the plants on weekends or holidays.

SP24-06 PRESERVATION OF EXISTING IMPROVEMENTS

The planting operations shall be conducted in such a manner that no damage shall result to existing site improvements and plantings. The Contractor shall be responsible for any damage resulting from the Contractor's operations, and shall repair or replace such damage at Contractor's own expense and to the satisfaction of the Engineer. Vehicles of any kind shall not be allowed to pass over curbs, sidewalk, planting areas, etc., unless proper protection is provided.

Damage to utility lines, underground structures and improvements shall be repaired at the Contractor's expense to the satisfaction of the Engineer or owner of the utility involved.

Protect existing trees and plants scheduled to remain against injury or damage, including, cutting, breaking, or skinning of roots, trunks or branches; soil compaction by stockpiled construction materials, excavated materials or vehicular traffic within the dripline (tree canopy). The work includes but is not limited to the following: Protecting existing trees and plants to remain during all phases of construction, including site preparation, excavation and trenching. Erection, maintenance and removal of temporary tree protection fencing.

SP24-07 MATERIALS

TOPSOIL

Will be furnished by City and installed by Contractor per Section 20-2.6 of the Technical Provisions. Topsoil shall be placed in lifts no greater than six (6) inches and foot-tamped at plant locations to prevent settling. Areas to receive topsoil shall be scarified to a depth of at least six (6) inches when adjacent to sidewalk, and at least 18 inches in median planters. The initial layer of topsoil shall be rototilled, or hand worked if tree roots are encountered, and mixed into native soil to create a composite zone prior to placing additional topsoil layers to the depths specified on the Plans.

Topsoil shall be at optimum moisture content for planting. Contractor shall not plant in dry or muddy soil.

Contractor shall place topsoil in over excavated planters in accordance with the Plans, these Special Provisions, and as directed by the Engineer. Depth of topsoil (assumed compacted to 90%) installed in all landscape areas shall be 24" per the Plans and Details.

MULCH

Shall be black mini bark from Contra Costa Topsoil or approved equal. Prior to ordering, Contractor shall submit a sample of sufficient size to represent the materials to be furnished for review by the Engineer.

ROCK MULCH

Shall be 1"-4" mixed size angular material (not tumbled cobble) of a grey-brownish color to blend with the proposed Paving Stone and Boulders. Provide weed cloth barrier under rock mulch. Provide sample of rock mulch for approval by Engineer.



Rock mulch color and character example (name might vary)

BOULDERS

Shall be roughly of sizes indicated on the plans. Roundish or oblong (not flat boulders) are preferred. Color should be grey-brownish (sometimes known as Sandalwood color) to blend with the Rock Mulch and Paving Stone. Provide pictures of selected boulders for approval by Engineer.



Boulder color and character example

SP24-08 MAINTENANCE

Contract work includes maintaining the completed landscaping for 60 days in accordance to the Section 20-8 of the Technical Provisions of the Special Provisions. Also, refer to SP23-24 of these Special Provisions for the start of the Maintenance Period requirements.

SP24-09 MEASUREMENT AND PAYMENT

"Tree Planting and Staking (24" box)", "Tree Planting and Staking (15-gallon)", "Shrub Planting (5-gallon)" and "Shrub Planting (1-gallon)" shall be paid at the contract unit price per each., which shall be considered full compensation for all labor, materials, tools, equipment, and incidentals including excavation, drainage testing, grading, delivery of plant material, plant material, planting, fertilizing, soil amendments, staking, mulch, disposal of plant tags, nursery stakes and containers and all other work required to provide healthy and fully viable landscaped areas in accordance with the Plans and Details, as specified in these Special Provisions, and directed by the Engineer; and no additional compensation shall be made therefore .

"Root Barriers" shall be paid at the contract price per linear foot which shall be considered full compensation for all labor, material, tools, equipment, and incidentals required to perform all work, including ascertaining utility locations, excavation and backfill as specified in these Special Provisions, as shown on the Plans, and directed by the Engineer; and no additional compensation shall be made therefore.

"Bark Mulch" shall be paid at the contract price per cubic yard which shall be considered full compensation for all labor, material, tools, equipment, and incidentals required to perform all work, including delivery and placement of mulch as specified in these Special Provisions, as shown on the Plans, and directed by the Engineer; and no additional compensation shall be made therefore.

"Rock Mulch" shall be paid at the contract price per cubic yard which shall be considered full compensation for all labor, material, tools, equipment, and incidentals required to perform all work, including delivery and placement of weed cloth and rock mulch as specified in these Special Provisions, as shown on the Plans, and directed by the Engineer; and no additional compensation shall be made therefore.

"Boulders" shall be paid at the contract price per ton which shall be considered full compensation for all labor, material, tools, equipment, and incidentals required to perform all work, including ascertaining utility locations, excavation and placement as specified in these Special Provisions, as shown on the Plans / Details, and directed by the Engineer; and no additional compensation shall be made therefore.

"Place Imported Topsoil" shall be paid at the contract price per cubic yard and shall be considered full compensation for all labor, material, tools, and equipment, and incidentals to coordinate and take delivery of, handle, care for, place, grade, and compact topsoil furnished by the City as shown on the Plans, as specified in the Standard Specification and these Special Provisions, and as directed by the Engineer, and no additional compensation shall be made therefore. The quantity shown on the Bid Schedule shall be a "Final Pay Quantity" in accordance with the provisions of Section 9-6 of the General Provisions of the Standard Specifications.

"Soil Preparation" shall be paid at square foot contract price (associated ONLY with areas of new planting and irrigation) which shall be full compensation for all labor, material, tools, equipment and other incidentals including digging, smooth grading, weed and debris removal and disposal, and all other work required in accordance with the Contract Documents and no additional compensation shall be allowed thereafter.

"Landscape & Irrigation Maintenance Period – 60 Days" shall be paid at the contract lump sum price, which shall be considered full compensation for furnishing all supervision, labor, materials, tools, equipment, watering, and incidentals required for maintaining the irrigation system and planting and to perform all work as specified in these Special Provisions, as shown on the Plans, and directed by the Engineer; and no additional compensation shall be made therefore.

There shall be no separate measurement or payment for required guarantees. Full compensation for furnishing and compliance to guarantee requirements shall be considered as included in various contract items of work and no separate compensation shall be allowed therefore.

SPECIAL PROVISIONS SECTION SP-25

PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS

(NO BID ITEM)

The provisions of Section 22 - Protection and Restoration of Existing Improvements of the Technical Provisions of the Standard Specifications, shall apply in their entirety.

SPECIAL PROVISIONS SECTION SP-26

WOOD FENCE

(BID ITEM NO. 71)

SP26-01 GENERAL

Timber members shall be installed in accordance with the details shown on the Plans and shall conform to applicable provisions of Section 57-2, "Wood Structures", and Section 57-2.01B(3), "Preservative Treatment", of the State Specifications, these Special provisions and as directed by the Engineer.

All timber members shall be sound and free from all decay, splits, multiple cracks, or any other defect which would weaken the posts or otherwise cause them to be structurally unsuitable for the purpose intended. Timber for split rail fence shall be as shown on the Contract Plans. All other wood fences shall be of construction heart redwood. Timber shall be sanded to remove splinters and protrusions. Sanded timber shall be treated with Cabots Clear Solution sealer prior to assembly. Contractor shall submit a treated sample for approval by the Engineer prior to installation.

Post hole drilling and installation of post and concrete backfill shall be coordinated so that post holes are left open a minimum amount of time. The bottom of holes shall be cleaned such that no more than 2 inches of loose soil remains in the hole prior to placement of concrete.

Where fences are installed adjacent to existing fences, new fence shall match existing fence in alignment, height, and style. Connect new fences to existing fences.

All posts shall be set true to line and grade in concrete bases at least two (2) feet in depth. All concrete used for post bases shall conform to the provisions of Section 17 "Concrete Construction" of the Standard Specifications.

The maximum distance between posts in any section shall not exceed eight (8) feet, measured parallel to the ground slope. Each post shall be installed in a vertical position. The top and bottom railings shall be securely fastened to the posts per details shown on the Contract Plans.

SP26-02 MEASUREMENT AND PAYMENT

The fence is measured:

1. Parallel to the ground slope
2. Along the fence

The contract prices paid per linear foot for "**Split Rail Wood Fence**" shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals for doing all work involved in constructing the fence including, but not limited to, post hole drilling; concrete backfill; sanding and treating

timber with sealer; fastening; and all other work necessary to construct the facilities complete, in place as shown on the plans as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-27

WIRE FENCE

(BID ITEM NO. 72)

SP27-01 GENERAL

The provisions of Section 80 "Fences" of the State Standard Specifications shall apply in their entirety, except as modified or supplemented herein.

The fence shall match existing fence in alignment, height, and style. Connect new fences to existing fences.

SP27-02 MEASUREMENT AND PAYMENT

The fence is measured:

1. Parallel to the ground slope
2. Along the fence

The contract prices paid per linear foot for "**Wire Fence**" shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals for doing all work involved in constructing the fence including, but not limited to, post hole drilling; concrete backfill; sealer; loading; hauling; disposal; appurtenances; bracing; removing existing vegetation; connecting to existing fencing; and all other work necessary to construct the facilities complete, in place as shown on the plans as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer and no additional compensation shall be allowed therefore.

SPECIAL PROVISIONS SECTION SP-28

SURVEY MONUMENT

(BID ITEM NO. 73)

SP28-01 GENERAL

Contractor shall remove and dispose of existing monuments where shown on the plans or as directed by the Engineer. New survey monuments shall be set at locations shown on the Plans or as designated by the Engineer in the field in accordance with the details shown on County Standard Plan CC105, "Street Survey Monument." Frames, covers, collars, concrete cores and brass markers shall be furnished and installed by the Contractor. The City will set reference points, prior to the start of construction, for existing survey points.

At least five (5) working days prior to the installation of monuments, Contractor shall deliver brass markers to the Engineer for the stamping of the land surveyor's license number on the disks. Survey monument in pavement shall be installed after the final lift of paving is completed and after the City Surveyor has set temporary straddle survey points. If permanent asphalt concrete paving cannot be placed the same day that the monument frame and collar are installed, Contractor shall place and maintain temporary asphalt concrete until the permanent pavement is placed.

All monuments and property corners designated on the plans to be replaced shall be recorded by the City's Licensed Land Surveyor.

SP28-02 MEASUREMENT AND PAYMENT

The Contract Price paid per each for “Install Survey Monument” shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals necessary; including but not limited to excavation; removing and restoration of asphalt concrete pavement; removal and disposal of existing monuments; placement of the concrete collar & core, metal frame and cover, brass marker, maintenance, and removal of temporary asphalt concrete around the monument, and all other work to completely install the monument in place as shown on the Plans, as specified in these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-29

STONE PAVING
(BID ITEM NO. 74)

SP29-01 GENERAL

Contractor shall construct paving stone facing on concrete base in truck apron areas per plans and details. A submittal is required for all materials used in constructing stone paving, including product information and properties, color sample, and physical sample.

SP29-02 MATERIALS

Stone for apron paving shall be “Mahogany Flagstone” paving stone as supplied by “American Soil Products, Inc. “ (Attn: Carol Green, 2121 San Joaquin Street Richmond, CA 94804, Telephone 510-292-3000) or approved equal.



Mahogany Flagstone Example Character and Color

Stone Slabs: Contractor shall submit samples (minimum 1 square foot in size) representing the full range of sizes and the full range of color variations of stones to be provided for approval prior to placement of material order. Stone slabs shall be furnished in a random gradation of sizes. Each individual piece shall have a general minimum

dimension of at least 24 inches. At least 15% of the completed surface area of stone facing shall consist of individual pieces with a general minimum dimension greater than 48 inches. Stone thickness shall be 3 inches with a tolerance of one-fourth inch.

Anchors/Pins shall be 1/2 "diameter by 8" long stainless steel. Pins shall be installed using an adhesive with minimum bond strength of 1,000 PSI.

Mortar or mortar-based product shall have a minimum 28-day compressive strength of 5,000 PSI. A compatible bonding agent, with minimum bond strength of 1,000 PSI, shall be used between the mortar and concrete substrate

Grout shall be Portland-cement-based conforming to Section 41-4.02B, "Fast-Setting Grout," of the State Specifications. Exposed grout joints shall match the darkest hue of the spectrum of colors submitted for the stone samples. Contractor shall submit a color sample for review and approval prior to installation.

SP29-03 INSTALLATION

Installation shall begin with laying out the stone facing and dry-setting a 100 square-foot representative area of work for inspection and approval by the Engineer. Upon approval final installation of said area may begin. Each successive area shall be laid out and dry set similarly for subsequent inspection and approval by the Engineer prior to final installation.

Stone shall be brushed clean, free of dust and foreign matter, and wetted sufficiently to take up surface absorption. Stone slabs shall be set using a high-strength thin set mortar with a bonding agent. Contractor shall skim the back of stone slabs with a "parge coat" to fill voids and crevices with mortar or grout material to be used for setting the stone on concrete base per detail.

Within the truck apron, any stone piece with a free edge against landscape areas shall be additionally secured with a stainless steel pin embedded minimum 2" into stone and 6" into the underlying concrete base, at 2' spacing, with a minimum of one pin per stone piece, and as shown on the Plans. Pin holes shall be drilled at about 4" from the free edge of the stone. The edge against the landscape area shall be irregular in shape to blend into the landscape area, and shall not create a distinct, straight edge.

Stone facing in areas subject to vehicle load shall be set such that the vertical deviation between the edges of two adjacent stone pieces shall be substantially flush, with a maximum tolerance of three-eighths of one inch.

Stones shall be cut to neat lines and precise shapes to fit corners and odd geometry as encountered in the field. Stones shall not be cut to less than 4 inches in any dimension. Joints between stone pieces shall not exceed two (2) inches and be not less than one-half (1/2) inch. Joints shall be filled with grout and raked to recess below the face of stone by no more than one-half (1/2) inch.

SP29-04 MEAUREMENT AND PAYMENT

The contract price paid per square foot for "**Stone Paving**" shall include full compensation for furnishing all labor, supervision, materials, tools, equipment and incidentals necessary; including but not limited to providing sample stones and mock-ups; obtaining and transporting all materials; placing, grout, mortar and bonding agent, and pinning stone; and all other work to completely install the stone facing in place as shown on the Plans, as

specified in these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-30
STREET LIGHT AND ELECTRICAL SYSTEMS
(BID ITEM NO. 75-81)

The provisions of Section 86, "Electrical Systems", of the State Standard Specifications shall apply in their entirety unless modified or supplemented herein.

SP30-01 GENERAL

The work shall consist of installing street light assemblies, electrical service enclosures, pull boxes, conduits, and conductors at the locations shown on the plans, and making all required connections for a fully-functional system.

SP30-02 SUBMITTALS

Contractor shall provide technical submittals, including supporting cut sheets, manufacturer's literature, sketches or drawings, calculations, and other pertinent data, for all electrical equipment including but not limited to street light poles, luminaires, and service enclosures. Contractor shall furnish three (3) copies of each submittal. The submittals shall state the Special Provision section, the vendor's name, the manufacturer's name if different from the vendor's, trade name, and model number or code for each product, and shall include sufficient detail to enable the City to review the information and determine that the contractor clearly understands the requirements of the contract documents. Incorporation of materials without an approved submittal into Project Work shall constitute ground for rejection of said Work and materials.

Within fourteen (14) calendar days after the date of the Notice of Award of the Contract, the Contractor shall deliver to City a complete submittal for review. Contractor shall make all corrections to the submittals that are required as result of City's review, and resubmit the required number of corrected copies as directed. The Contractor shall indicate in writing on each resubmittal any revisions other than or in addition to the corrections required in the previous submittals. Contractor shall repeat revisions and resubmittals as many iterations as it is necessary to obtain approval, and submittals shall be considered incidental to Contract Work. Approval of a submittal does not supersede Contract Documents and does not relieve the Contractor of his responsibility for his errors and omissions, nor his responsibility to provide and install Work in accordance with provisions of the Contract Documents, nor does it constitute acceptance of a product not in conformance with the Contract.

Contractor shall place the order of street light assemblies and related materials within seven (7) calendar days of submittal approval date. Contractor shall provide to the Engineer a copy of all purchase orders immediately upon order. Contractor shall also provide copies of all correspondence with equipment and materials suppliers concerning availability, delivery dates, anticipated delays (if any), and shipment notices within seven (7) calendar days of each correspondence. References to cost may be omitted. Consideration for recommending time extensions for materials and equipment delivery delays will not be made unless the above provisions are met.

SP30-03 PULL BOX COVER

The pull box cover to be installed at the location shown on the Plans shall conform to the requirements of Section 86-2.06, "Pull Boxes", of the State Standard Specifications. Pull boxes damaged by Contractor during construction shall be replaced in kind at Contractor's expense.

Pull box cover shall be "split" reinforced precast concrete. The cover shall be marked "LIGHTING" or "SERVICE" as appropriate.

SP30-04 MAINTAINING EXISTING ELECTRICAL SYSTEMS

Work shall conform to the provisions of Section 86-1.06, "Maintaining Existing and Temporary Electrical Systems", of the State Standard Specifications.

Contractor shall coordinate his operations such that the existing street lights shall be fully functional and in continuous operation during the hours of darkness.

SP30-05 STREET LIGHT ASSEMBLY

POLES

Poles shall be tapered aluminum tube (5" outside diameter at base, 4" outside diameter at free end) with minimum 0.156" wall thickness of Alloy 6063-T6. Poles shall have 7.5" square cast aluminum base flange of Alloy 356-T6 with bolt covers and stainless steel screws, and hand hole measuring 2" x 4" with lap-type cover and stainless steel screws. Each pole shall be furnished with aluminum pole cap with stainless steel screws, including a NEMA twist-lock photocell in the pole cap.

Poles shall accommodate mounting of specified luminaire fixtures at 6" below pole top end and 15' above pole base.

City may accept 15'-6" RTA poles from Hapco of Abingdon, VA (Telephone: 276.628.7171, Hapco.com), per its drawing B35298 included in the Appendix of these Special Provisions, or approved equal.

Poles shall be coated black using one of the systems specified below.

COATING AT FACTORY/FABRICATION SITE

Paint System:

- Prime: Two-part polyamidoamine epoxy, series N69 hi-build epoxoline II by Tnemec Company, or approved equal. Apply by spray to a dry film thickness of 3.0 to 5.0 mils (75 to 125 microns) D.F.T.
- Top Coat: Two-part aliphatic acrylic polyurethane, series 1075 semi-gloss by Tnemec Company, or approved equal. Apply by spray to a dry film thickness of 5.0 mils (125 microns) D.F.T.
- Surface Preparation: All scale, rust and other contaminates shall be removed and all surfaces cleaned to steel structures Painting Council (SSPC) SP-6 commercial blast cleaning standard. Prior to prime and topcoat application, all surfaces must be clean, dry and free of oil, grease, fingerprints and other

contaminants. The application, curing temperature and metal temperature must be above 60 degrees Fahrenheit (16 degrees Celsius).

- Total Film Thickness: 8 to 10 mils (200 to 250 microns).
- Color: Black.
- Application Method: Airless, air or H.V.L.P. spray, or electrostatic spray.

Powder Coating:

- TGIC-Polyester coating system, Alestia by DuPont/Axalta Coating Systems, PFB652S6 "Vulcan Black" or approved equal, with film thickness of 3.5 to 5.0 mils using cold electrostatic spray application and cured at 400 degrees Fahrenheit for 10 minutes.
- Notwithstanding other provisions elsewhere in the Contract Documents, Contractor shall provide a seven- (7) year warranty on powder coating finish of poles against failure in materials or workmanship of the pole assembly, including but not limited to fading of color, chipping, peeling, corrosion.

FIELD PAINTING OR FIELD TOUCH-UP

- Surface Preparation: Area to be touched-up shall be scarified with a palm sander, pole sander or scotch brite pad. All rust shall be removed to bright metal. All oil, grease, fingerprints and other contaminants shall be removed with clean solvent and clean rags.
- Prime: Two-part polyamide epoxy. Color: Black (or other as specified herein) Tnemec series 27 F.C. epoxy, or approved equal. Apply by brush or roller to 3.0 to 4.5 mils (75 to 110 microns) dry film thickness. This may require two or three coats to reach required D.F.T.
- Top Coat: Two-part aliphatic acrylic polyurethane – series 1075 semi-gloss by Tnemec or approved equal. Color: Black (or other as required to match existing top coating). Apply by brush or roller to 3.5 to 5.0 mils (88 to 125 microns) D.F.T. This may require several coats to reach the required D.F.T.
- Total Dry Film Thickness: match factory applied coatings.
- Color: Black.
- Application Temperature: Shall be 60 degrees Fahrenheit (16 degrees Celsius) or higher. Application temperature is critical for proper adhesion and curing properties. It is best to do the touch-up mid to late mornings so as to allow the higher afternoon temperatures to help these two-part paints to cure properly.

Other coating systems may be substituted for the products specified herein if they are found to be equal in quality, appearance, performance, and durability. A complete submittal package shall be submitted to the Engineer for review and approval.

The final finish of poles prior to acceptance by City shall be smooth and free of scratches, gouges, and defects of any kind.

LUMINAIRE

Luminaire fixtures shall be the following by Philips Gardco, (Contact John Benson, ALR, telephone: 510.638.3800 x183, johnbenson@alrinc.com) or approved equal. See Project Plans for locations of fixtures with each type of distribution.

SlenderForm Round Type B, Model SFRA-APD-1-4-25LA-4815-NW-UNIV-BLP, 25-watt with Type 4 distribution, painted or powder coated black.

SlenderForm Round Type C, Model SFRA-APD-1-3-25LA-4815-NW-UNIV-BLP, 25-watt with Type 3 distribution, painted or powder coated black.

Fixtures shall operate in connection with photocells provided in the pole caps. All fixtures shall be capable of automatically dimming to 50% of normal illumination output for eight continuous hours during night time darkness. The dimming period shall be specified by the Engineer during the submittal review for programming into the fixtures.

SP30-06 FOUNDATIONS

The provisions of Section 17, "Concrete Construction," of the Technical Specifications of the Standard Specifications shall apply in their entirety except as modified or supplemented herein.

Foundations shall conform to the provisions in Section 86-2.03, "Foundations", of the State Standard Specifications, the Contract Plans and these Special Provisions.

Exposed foundation anchor bolts shall be properly protected with either barricades or traffic cones until the poles are erected.

SP30-07 CONDUIT

Conduit runs are shown diagrammatically on the Plans. Where directed by the Engineer, conduits to be installed in areas of new median, curb ramp and/or sidewalk shall be placed below and prior to construction of the new improvements.

The conduit in a foundation and between a foundation and the nearest pull box shall be the rigid metallic type. All conduits shall have a 1/4" pull rope installed in them. All conduit joints shall be glued. The ends of conduits in pull boxes shall have a bell bushing and shall be a minimum of 4 inches above surface of rock and a minimum of 6 inches below the top of the pull box.

Conduit installed to a PG&E service point location(s) shall be 2 inches in size or as required by PG&E.

After conductors have been installed, the ends of conduit terminating in pull boxes and cabinets shall be sealed with a UL approved plug or duct seal.

When a standard coupling cannot be used for coupling metal type conduit, a UL listed threaded union coupling, as specified in the third paragraph in Section 86-2.05C, "Installation", of the State Standard Specifications, or a concrete tight split coupling or concrete tight set screw coupling shall be used.

SP30-08 CONDUCTORS AND WIRING

The Contractor shall provide to the Engineer a Certificate of compliance from the Manufacturer in accordance with the provisions of Section 6-1.05, "Certificates of Compliance", of the State Standard Specifications for all the conductors and cables furnished for the project.

Conductors shall not be pulled into conduits until the pull boxes have been set to grade, rock sumps have been installed, and conduits have been bonded and grounded. All pull boxes shall be inspected and approved prior to pulling any conductors. Conductors shall not be pulled into conduits unless the Engineer is present to observe the operation. The ends of all unused cables shall be sealed.

At least 6 feet of slack shall be provided in the pull box nearest each street lighting for those conductors terminating at that standard; and 3 feet of slack shall be provided in each conductor in all other pull boxes.

Where determined to be necessary by the Engineer, conductors shall be labeled. Identification bands shall be constructed from a nylon cable tie with a .35" by .75" label flag attached. The marking pen shall be one recommended by the manufacturer of the cable tie or it shall be an indelible marking pen compatible with writing on the nylon material. No other method of labeling shall be acceptable. Lighting conductors shall be labeled as appropriate.

SP30-09 SERVICE ENCLOSURES

The Contractor shall install one new service enclosures for street lighting. Locations shall be as shown on the plans to accommodate the new electrical circuit(s), including any required modifications to the existing PG&E service feed.

Service enclosure shall be coated black per the provisions above.

The Contractor shall coordinate with PG&E well in advance of the project for service interruption as required for connection of new street lights to the existing service. The Contractor shall furnish and install all materials and equipment necessary to complete the electrical connections between the terminating point of PG&E service and the Project electrical system, as shown on the Plans and as required to provide the intended function and service.

SP30-10 TRENCHING

Trenching for installation of conduits and sleeves shall be done per details shown on plans and as specified in these Special Provisions. Trenching shall be coordinated with other similar installations, such as irrigation lines, to minimize the number of trench cuts. All trenches shall be completed prior to the final lift of paving.

Restoration of trench cuts in existing pavement shall consist of two layers of compacted asphalt concrete. The resulting restored trench section shall consist of six inches (6") of compacted asphalt concrete within the trench cut. The first layer shall be a plug of the entire trench width and length to a depth of three inches (3"). The second (top) layer shall be constructed in conjunction with an inlay of the adjacent pavement. Existing pavement abutting the trench shall be milled to a uniform depth of three inches (3") and widths extending four feet (4') beyond the trench cut on all sides to accept the inlay paving. Asphalt concrete work shall conform to the applicable requirements in Sections 5 and 9 of the Technical Provisions of the Standard Specifications and as specified elsewhere in these Special Provisions.

Asphalt concrete for trench restoration shall be as specified in SP-17 of these Special Provisions, and constructed similarly to a failed area repair in accordance to Section 5 of the Technical Provisions of the Standard Specifications.

Provisions of Section 6-11, "General Safety" of the General Provisions shall apply.

Trenched pavement shall be permanently restored within 5 calendar days of the installation of the backfill. After the 5 days period, the Engineer shall have the sole discretion to order the work to be done by others, and deduct the cost of said work from Contract Payments due to the Contractor.

At the option of the Contractor, conduits and sleeves can be installed by the directional drilling method at no extra cost to the City. Work shall conform to Section 24 of the Technical Provisions. The minimum depth of cover for all conduits and sleeves shall be 24", except in the vicinity of entering or leaving a pull box or a cabinet, unless otherwise directed by the Engineer.

SP30-11 TESTING

Electrical systems shall be tested for proper function for five consecutive days prior to acceptance by the Engineer. Failure within the five days shall require a new five-day functional test period.

Any damage to new equipment installed as part of a modified facility prior to or during the "five-day functional test" shall be repaired by the Contractor at the Contractor's expense. The "five-day functional test" will begin on the day the system is completed and/or put into operation. The Contractor is responsible for the maintenance of all installed or relocated system until the Final Acceptance by the City Council.

In the event that the Contractor is unable to respond to a problem that develops during the functional test, or that for any reason he is unable to correct the problem in a timely fashion as determined by the City, the City may have its own maintenance personnel work on the problem. Any such work performed by the City shall not invalidate the guarantee and warranty required by Contract, and shall be at the Contractor's expense.

SP30-12 MEASUREMENT AND PAYMENT

The contract unit price paid per each for "**Service Enclosure,**" and "**Install Street Light Assemblies**" of various types shall include full compensation for furnishing all supervision, labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing a functional service enclosure and street lighting systems as shown on the Plans, and as specified in the Standard Specifications and these Special Provisions, including but not limited to, coordination with PG&E, pothole utilities, excavation, off-haul and disposal; preparing subgrade, dewatering, concrete foundations; reinforcing steel cage; foundation bolts; furnishing and installing coated poles and light fixtures, service enclosure; associated painted hardware; making all required tests and corrections, and all other work as shown on the Plans, as specified in the Standard Specifications, these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefor.

The Contract Price paid per linear foot for "**Electrical Conduits and Conductors**" shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in installing electrical conduits and conductors, as shown on the Plans, as specified in these Special Provisions, the State Standard Plans and Specifications, and as directed by the Engineer, including but not limited to- potholing for

utilities; sawcutting; excavation; removal, off-haul, and disposal of spoils; trenching; boring; installation of all backfill; repair and restoration of existing pavement and surface conditions; splicing of conductors; coordination and all required work to complete all electrical connections to both existing and newly constructed facilities; and no additional payment shall be allowed therefor. Measurement shall be made by the actual linear feet of conduit trench, regardless of the number of conduits, and conductors installed.

The contract unit price paid per each for "**Pull Box**" of various types shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in installing new pull boxes as shown on the Plans, as specified in these Special Provisions, the State Standard Plans and Specifications, and as directed by the Engineer, including but not be limited to- excavation; removal, off haul, and disposal of spoils; furnishing and installing boxes with rock sumps; and repair and restoration of surface conditions, and no additional payment shall be allowed therefor.

SPECIAL PROVISIONS SECTION SP-31

ROCK DRAIN WELL

(BID ITEM NO. 82)

The provisions of Section 18 – “Storm Drains” of the Technical Provisions of the Standard Specifications, shall apply in their entirety, except as modified or supplemented herein.

SP31-01 GENERAL

The contractor shall, to the maximum extent possible, prevent construction equipment and stockpiled materials from compacting the subgrade soils at the location of the rock drain well. The contractor shall take precautions to prevent both subgrade soil compaction and sediment contamination. All excavation should be performed with the lightest practical excavation equipment. All excavation equipment should be placed outside the limits of the rock drain well.

The rock well construction should be delayed until all other construction areas that may temporarily or permanently drain to the dry well are stabilized.

Excavate the rock drain well to the design dimensions. Excavated materials shall be placed away from the trench sides to enhance trench wall stability. The side walls of the trench shall be roughened where sheared and sealed by heavy equipment. Excavate the bottom of the well to a uniform, level uncompacted subgrade free from rocks and debris.

Excavate the infiltration trench to the design dimensions. Excavated materials shall be placed away from the trench sides to enhance trench wall stability. Large tree roots must be trimmed flush with the trench sides in order to prevent fabric puncturing or tearing of the filter fabric during subsequent installation procedures. The side walls of the trench shall be roughened where sheared and sealed by heavy equipment.

SP31-02 MATERIALS

The 1 1/2" diameter drain rock shall be clean washed, uniformly graded aggregate with 40% void capacity as measured by ASTM-C29. (AASHTO size No. 3, or similar). The rock shall be placed in 6-inch, lightly compacted lifts. All other materials shall be as shown on the plans and as specified in these Special Provisions.

SP31-03 MEASUREMENT AND PAYMENT

The lump sum price paid for "**Rock Drain Well**" shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved in installing the rock drain well complete in place as shown on the Plans, as specified in these Special Provisions, the State Standard Plans and Specifications, and as directed by the Engineer, including but not be limited to- excavation; removal, off haul, and disposal of spoils; furnishing and installing steel grate and frame, galvanized wire screen cover, perforated CMP Pipe, corrugated HDPE pipe, drain rock, geotextile fabric; and compaction, and no additional payment shall be allowed therefor.

APPENDICES

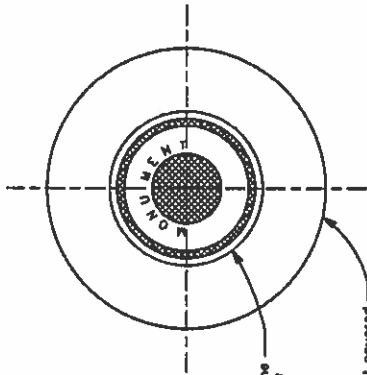
- Appendix A: Standard Plans:**
Contra Costa County Standard Details
Caltrans Standard Plans (Dated 2015)
- Appendix B: Street Light Assembly Cut Sheet**
- Appendix C: Other Details:**
Sign Post & Accessories
G5 Valve Box with Cast Iron Traffic Lid
CCCSD Standard Plans:
Rodding Inlet
Manhole Adjustment to Finish Grade
- Appendix D: Utility Pothole Log**
- Appendix E: Cross Sections**

Appendix A

Standard Plans

**Contra Costa County Standard Plans
(Latest Edition)**

Julia R. Bieren
 PUBLIC WORKS DIRECTOR
 JULIA R. BIENEN
 CIVIL
 No. 37812
 REGISTERED PROFESSIONAL ENGINEER
 State of California
 License No. 37812
 Date: 11/29/17
 The County of Contra Costa is the owner of the right of way and the right of easement for the above described street and the right of easement for the above described street.

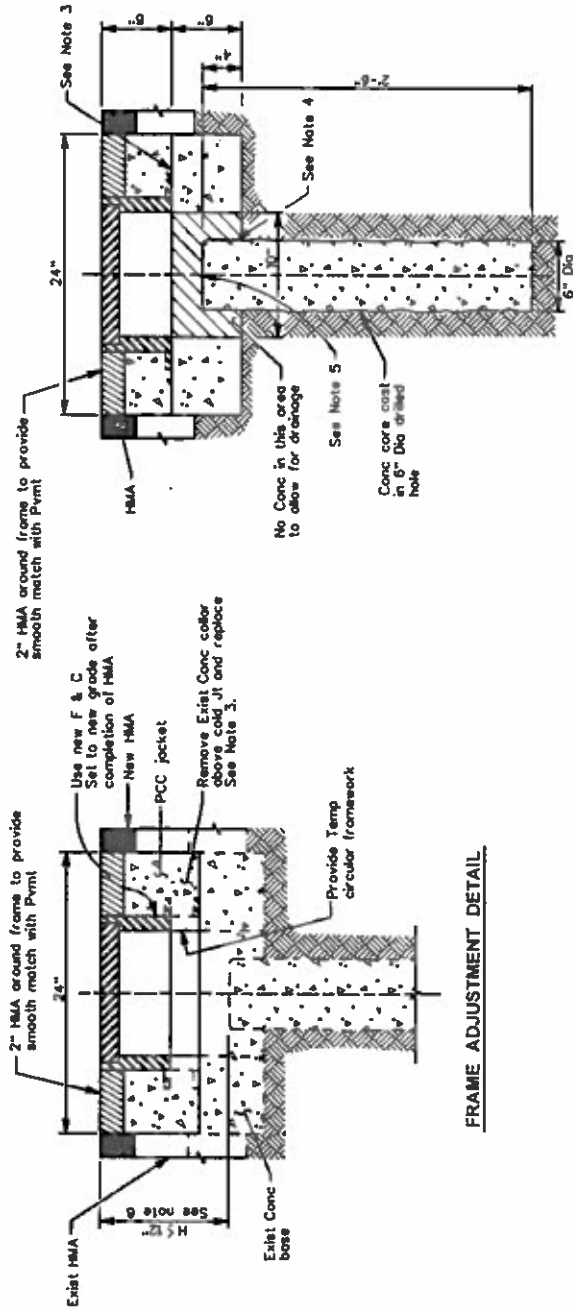


Metal cover and frame (Schematic only)-See Note 2.

24" Dia PCC jacket covered with 2" of HMA-See Note 1

NOTES:

1. Concrete for jacket and core shall contain not less than 500 lbs of cementitious material per cubic yard, 1/2" maximum aggregate grading, in conformance with Section 90, "Concrete", of the California Department of Transportation's Standard Specifications.
2. Approved covers and frames are those manufactured by Chrisp Co. Casting, Part No. B277M or B279 or approved equivalent. Covers shall be marked "Monument" shall be non-rocking and designed for a 15000 lb. wheel load.
3. 30# felt or 1/4" layer of sand to create a "cold joint".
4. 6" diameter collar formed with 30# felt or non-metallic form tube (may be left in place).
5. Solid brass marker 12" to 2 1/2" diameter top and 2" minimum shank with distinctive punch and R.E.C. or U.S. number.
6. When "T" exceeds 12", a complete reconstruction of monument is required.



FRAME ADJUSTMENT DETAIL

NEW INSTALLATION DETAIL

COUNTY OF CONTRA COSTA PUBLIC WORKS DEPARTMENT SANTOZ, CALIFORNIA	
STANDARD PLAN	
STREET SURVEY MONUMENT	
SCALE: NO SCALE	DATE 3/14
DRAWN BY: L. COSTA	PLAN NO. CA40
BY: R. Ziemmer	CHECKED BY: R. Ziemmer

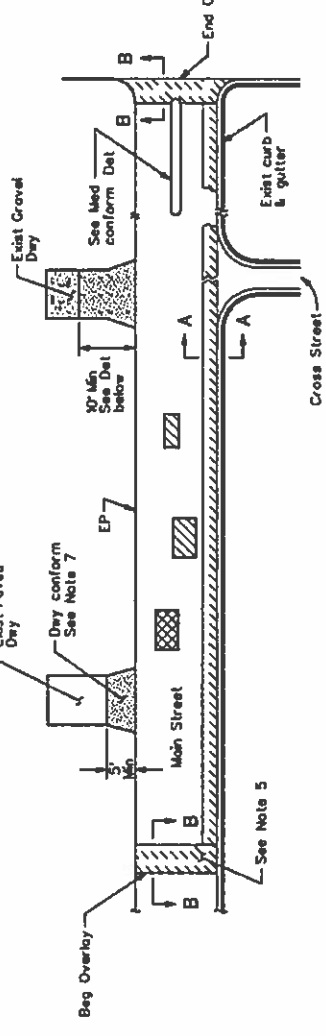
NO.	DATE	REVISION DESCRIPTION

NOTES:

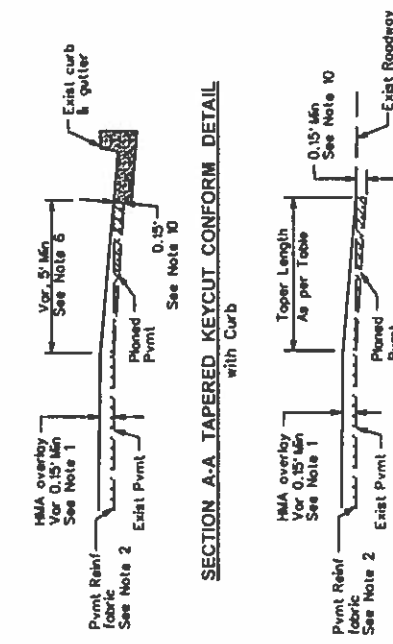
1. Hot mix asphalt (HMA) overlay thickness shall be as specified by the Public Works Department.
2. Pavement reinforcing fabric shall be as required by the Public Works Department.
3. Paving of the gutter to be placed per Standard Plan CA70 Detail A when conforming to S1-6, S1-8 curb, or PCC valley gutters.
4. When conforming to median curb, extend overlay to face of median curb regardless of curb type. If minimum remaining height of curb is less than 4", "Modified M3-B Curb" per County Standard Plan CA71 shall be constructed.
5. For design speeds of 45 mph or less maximum grade break of taper shall not exceed 1%. For design speeds greater than 45 mph grade of taper shall not exceed 0.5%. Use "Length of Taper by Design Speed" table.
6. Paved width shall be such that the resultant slope of shoulder or gutter does not exceed 5%. The width of paving shall be approved by the Public Works Department.
7. HMA driveway conforms shall be tapered and no paving is required, unless otherwise specified by the Public Works Department.
8. Depth and dimensions of pavement failure repair shall be as specified by the Public Works Department.
9. Removal of failed pavement by cold paving the required depth and dimensions, or by scarifying around failure to a neat line and removing failed pavement.
10. Conform thickness shall be 0.15" unless otherwise specified by the Public Works Department.
11. Place and compact native material per Public Works Department Standard Provisions or project special provisions to conform to new EP unless shown on project plans.
12. Limits of pavement failure repairs and base failure repairs shall be as marked in the field by the Engineer/Inspector.
13. For pavement failure repairs and base failure repairs reconstruct the existing road base or subgrade to 95% relative density prior to placing HMA in accordance with Section 19 of California Department of Transportation's Standard Specifications.
14. Place paint binder on all vertical cut faces prior to placing HMA.

LEGEND

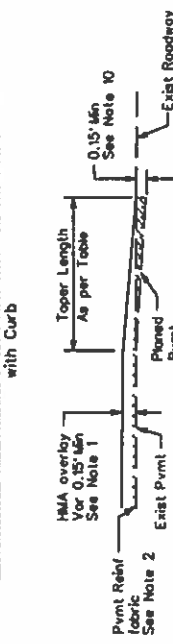
- Pavt Failure Repair
- Base Failure Repair
- Tapered Conform-Cold Paved
- Tapered HMA



PLANNED ASPHALT CONFORM DETAILS

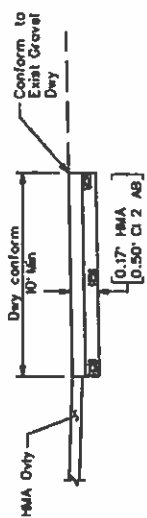


SECTION A-A TAPERED KEYCUT CONFORM DETAIL



SECTION B-B LENGTH OF TAPER DETAIL

LENGTH OF TAPER BY DESIGN SPEED		
Overlay Thickness (ft)	Taper Length (ft)	Taper Length (ft) at 45mph speed (ft)
0.15	20	20
0.15	25	25
0.15	30	30
0.15	35	35
0.15	40	40
0.15	45	45
0.15	50	50
0.15	55	55
0.15	60	60
0.15	65	65
0.15	70	70
0.15	75	75
0.15	80	80



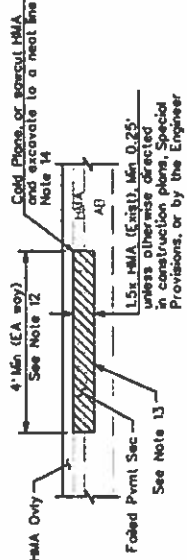
EXISTING GRAVEL DRIVEWAY CONFORM DETAIL



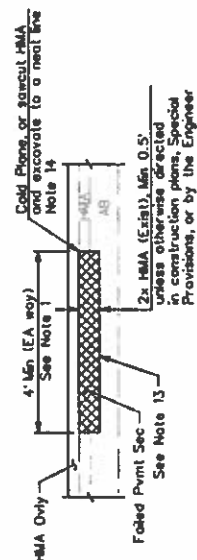
SAFETY EDGE

- 1) Safety edges shall be used on all roads posted 35 mph or higher with paved shoulders 4' or less.
- 2) Construct safety edge in conformance with project special provisions or Public Works Department Standard Provisions for Public Works Construction.

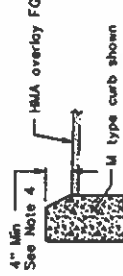
PAVEMENT FAILURE REPAIR DETAIL



BASE FAILURE REPAIR DETAIL



MEDIAN CONFORM DETAIL



COUNTY OF CONTRA COSTA
PUBLIC WORKS DEPARTMENT
JANINEZ CALIFORNIA
STANDARD PLAN

TYPICAL HMA CONFORM DETAILS for OVERLAYS

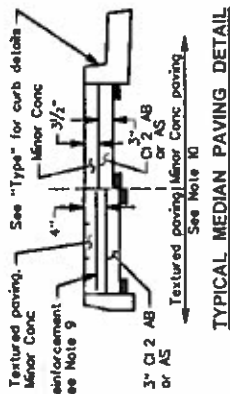
SCALE: NO SCALE DATE: 3/14
DRAWN BY: K. NUSSEY/COSTA PLAN NO: CA51
BY: CHECKED BY: M. HILLIGAS/CPH

JULIA R. BORDEN
 No. 37937
 CIVIL
 STATE OF CALIFORNIA
 REGISTERED PROFESSIONAL ENGINEER

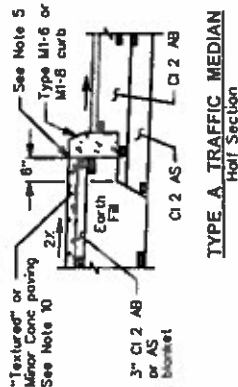
Julia R. Borden
 JULY 11, 2011

Public Works Department
 The County of Contra Costa or its officers or agents
 shall be responsible for electronic copies of this plan sheet.

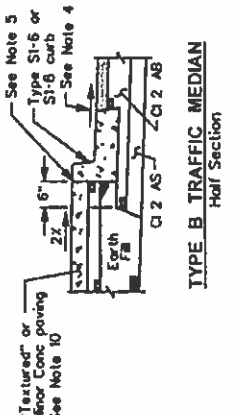
DATE OF APPROVAL: _____
 DATE OF REVISION: _____



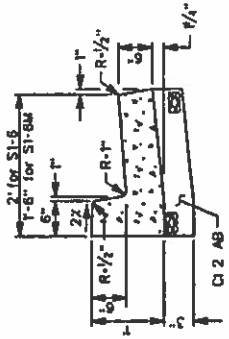
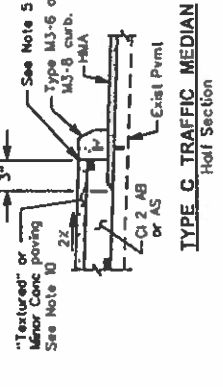
TYPICAL MEDIAN PAVING DETAIL



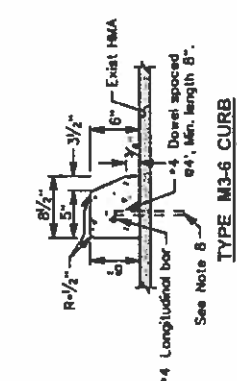
TYPE A TRAFFIC MEDIAN
 Half Section



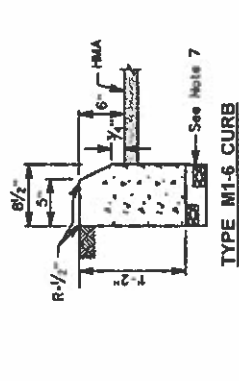
TYPE B TRAFFIC MEDIAN
 Half Section



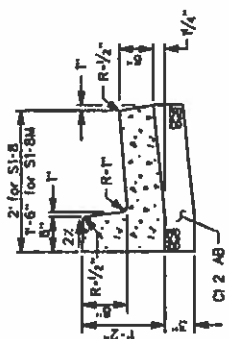
TYPE S1-6 & S1-6M



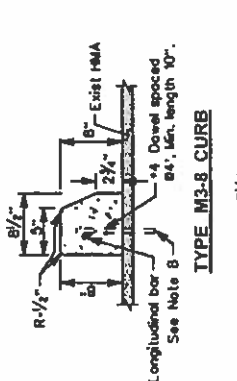
TYPE M3-6 CURB
 See Note 6



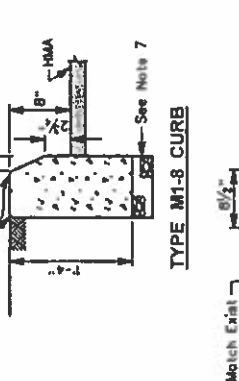
TYPE M1-6 CURB
 See Note 7



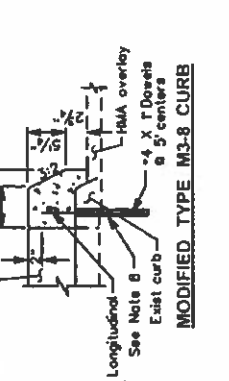
TYPE S1-8 & S1-8M



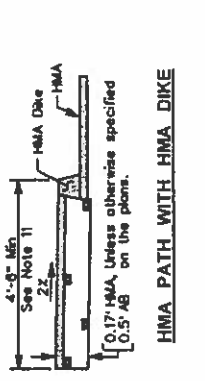
TYPE M3-8 CURB
 See Note 8



TYPE M1-8 CURB
 See Note 7



MODIFIED TYPE M3-8 CURB
 See Note 8



NOTES:

- Minor Concrete in conformance with Section 90-2, "Minor Concrete" of the California Department of Transportation's Standard Specifications containing no less than 505 lb. per cubic yard of cementitious material shall be used for all concrete construction detailed on this plan.
- Wedgeed plane joints shall be provided at 10' intervals on all curbs. See Standard Plan CA70, "Detail B".
- All new curb where it conforms to existing facilities shall be detailed as per Standard Plan CA74.
- When the street slopes away from the curb, the gutter slope shall match the cross slope of the street.
Paving at the gutter lip shall conform to Standard Plan CA70 Detail A, except that where the street slopes away from the curb, the paving shall match the gutter lip.
- Curb may be constructed monolithically with the median paving, in which case a weakened plane joint conforming to Standard Plan CA70 Detail B shall be provided along the back of the curb.
- Type M3 curb shall be used only when placed on existing or overlaid pavement.
- A 3" minimum compacted layer of Class 2 aggregate base or subbase shall be placed under Type M1 curb, unless noted otherwise on the plans.
- Place dowels in 1" diameter drilled hole filled with 1:1 sand grout. Omit dowels when curb is extruded.
- Reinforcement shall be #4 bars at 18" OC each way or 6" x 6" x 8" x 8" 10 gauge welded wire fabric.
- Median paving may be "textured" as approved by the Public Works Department.
- Width of HMA path shall be a minimum of 4'-8" measured from top face of curb or dike.

COUNTY OF CONTRA COSTA
 PUBLIC WORKS DEPARTMENT
 MARTINEZ, CALIFORNIA
 STANDARD PLAN

**MEDIAN, CURB AND HMA DIKE
 DETAILS**

SCALE: NO. SCALE DATE: 3/14
 DRAWN BY: H. HUSSEY PLAN NO.: CA71
 CHECKED BY: B. HOLMSTADT

NO.	DATE	REVISION DESCRIPTION

JULIA R. BUEREN
 LICENSE NO. 37837
 CIVIL ENGINEER
 STATE OF CALIFORNIA

Julia R. Bueren

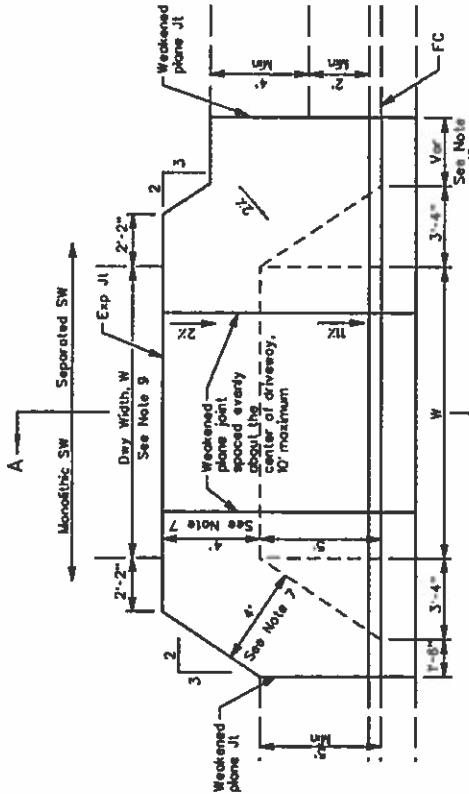
PUBLIC WORKS SECTION
APPROVAL DATE
PLANS APPROVAL DATE

The County of Contra Costa is the owner of this project and the engineer is responsible for the accuracy and completeness of all information on this plan sheet.

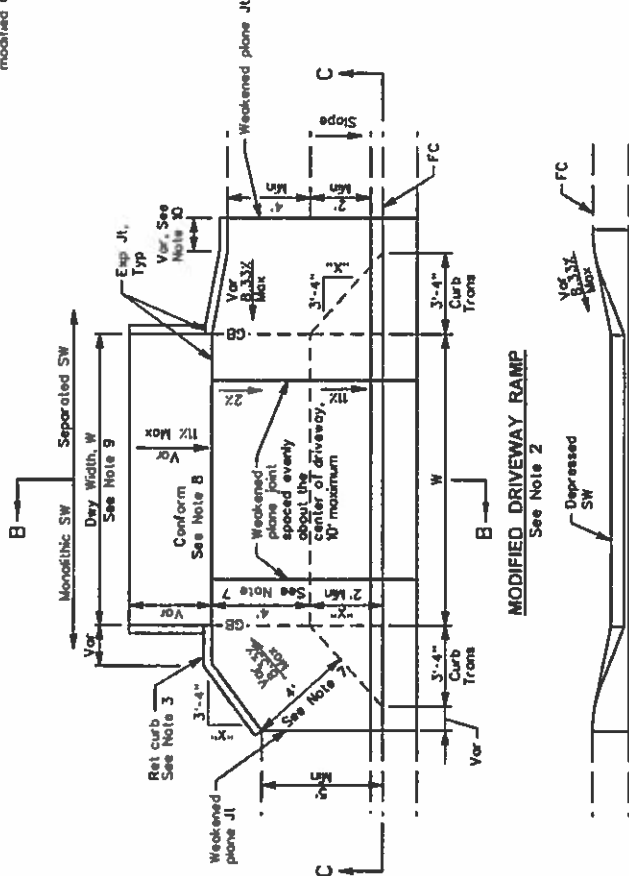
NOTES:

1. New depressed curb and driveway ramps shall be constructed monolithically. Minor Concrete, not less than 505 to cementitious material per cubic yard, 1" maximum aggregate shall be used for all construction detailed on this plan. Minor concrete shall comply with Section 910 of the California Department of Transportation Standard Specifications.
2. When existing road right of way restricts use of standard driveway ramp, the modified driveway may be used when approved by the Public Works Department. "X" shall be on large as possible, and as specified on the plans.
3. Retaining curbs and driveway conforms as required by the Public Works Department. See Standard Plan CA54 for retaining curb details.
4. For depressed driveways (Section B-B) the sidewalk shall be a minimum of 3/4" (7/8"-2") above the gutter flow line grade. Depth of gutter flange shall be calculated and compared to proposed depressed sidewalk elevations during design to make sure gutter flange is contained.
5. See Standard Plan CA70 for weakened plane joint, expansion joint, and scoremark details. See Standard Plan CA74 for doweling details when conforming to existing curb and sidewalk.
6. If pavement cross slope exceeds 4%, the modified driveway shall be used with the slope of the driveway ramp reduced such that the difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5' from gutter flow line shall not exceed 15%. Reduce driveway ramp slope, not the gutter slope. Other dimensions shall be modified as approved by the Public Works Department.

7. Minimum width of clear passage shall be 4' with a 2% cross slope. Where right of way restrictions, natural barriers or other restrictions create an unreasonable hardship, the clear width may be reduced to 3' with a 2% cross slope, with approval of the Public Works Department.
8. Acquisition of construction easement may be necessary where right of way is limited to construct driveway conform.
9. Driveway width, W, as specified on the plans, and in accordance with the following:
 Residential: 10' Min to 28' Max
 Commercial: 20' Min to 35' Max
10. Extend driveway conform beyond curb transition to conform to sidewalk to maintain 8.33% maximum ramp slope.
11. #4 reinforcing steel bars at 18" c-c bothways, for commercial driveways.

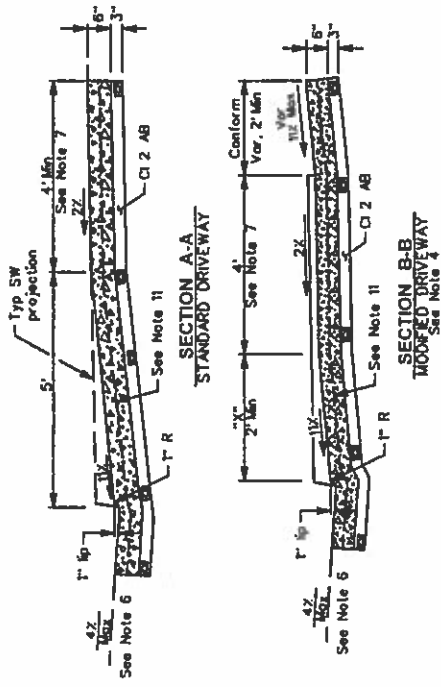


STANDARD DRIVEWAY RAMP



MODIFIED DRIVEWAY RAMP

**SECTION C-C
 MODIFIED DRIVEWAY**



**COUNTY OF CONTRA COSTA
 PUBLIC WORKS DEPARTMENT**
 MARTINEZ, CALIFORNIA

STANDARD PLAN

DRIVEWAY RAMP DETAILS

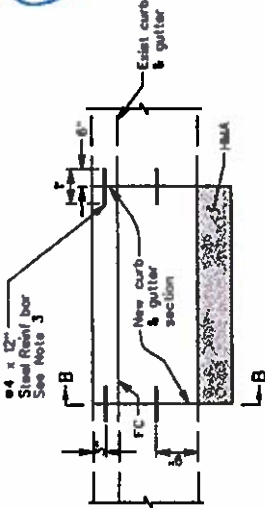
SCALE: NO SCALE DATE: 3/14
 DRAWN BY: K. HUSSEY PLAN NO: CA72
 BY: CHECKED BY: HOLLINGSWORTH



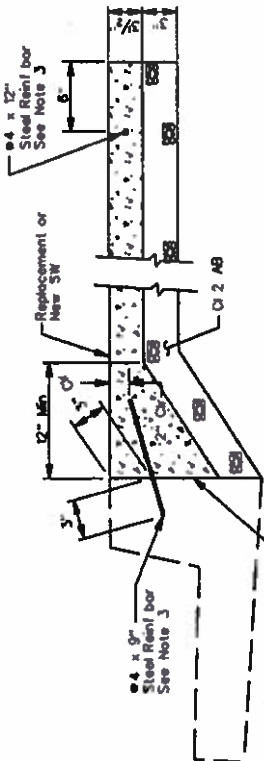
APPROVED: *[Signature]*
 MARIA B. BIERSON
 CIVIL
 STATE OF CALIFORNIA
 LICENSE NO. 37587

DATE: *March 17, 2014*

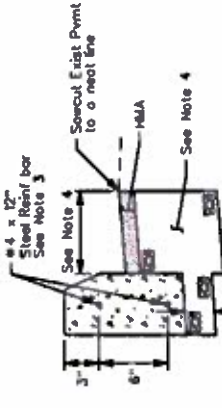
THE OFFICE OF CIVIL ENGINEERS OF THE STATE OF CALIFORNIA
 DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THIS PLAN SHEET.



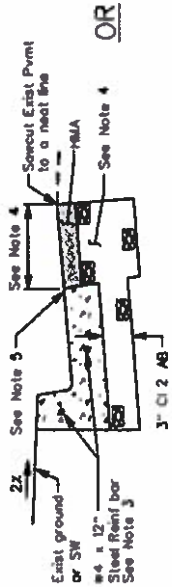
SECTION A-A
 DOWELING LOCATION FOR NEW CURB CONFORMING TO EXISTING CURB



SECTION A-A
 PCC shall be min 6" thick along entire back of curb.

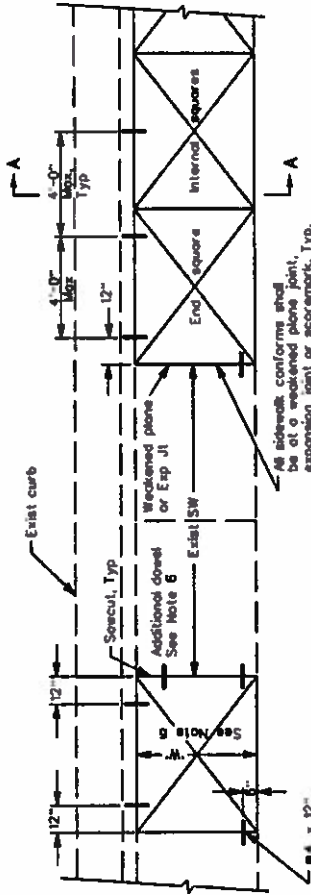


TYPE M CURB



TYPE S1 CURB

SECTION B-B



REPLACEMENT OF ONE SQUARE

REPLACEMENT OF TWO OR MORE SQUARES

LOCATIONS FOR REPLACEMENT SIDEWALK

NOTES:

1. All curb, gutter, and sidewalk shall conform to Standard Plans CA70 and CA71.
2. Concrete sidewalk removed for replacement construction shall be sawcut to a neat line at the nearest weakened plane joint, expansion joint or scoremark.
3. Dowels shall be placed in a 3/4" diameter drilled hole filled with #1 sand cement grout.
4. When replacing existing curb on existing alignment and grade, sawcut existing pavement 6" from gutter lip for face of curb for Type 'B' curb replacement. Remove existing HMA and base to minimum 8" depth, compact subgrade and replace with full depth HMA. If placing new curb, sawcut pavement minimum of 12" inside existing edge of pavement, EP, unless otherwise directed on project plans. New pavement structural section shall be 0.5 HMA, 0.7 AS minimum unless otherwise specified on the plans or as required by the Public Works Department.
5. Paving of the gutter lip shall conform to Detail A of Standard Plan CA70. When the street slopes away from the curb, the paving shall match the gutter lip.
6. If WP's add additional doweling, 4' maximum spacing between dowels.

COUNTY OF CONTRA COSTA
 PUBLIC WORKS DEPARTMENT
 MARTINEZ, CALIFORNIA
 STANDARD PLAN

DOWELING DETAILS FOR CURB AND SIDEWALK

SCALE: NO. SCALE	DATE: 3/14	
DRAWN BY: R. RUSSEY	PLAN NO. CA74	
CHECKED BY: M. HOLLIGAN		
NO.	DATE	REVISION DESCRIPTION

CONFORM NOTES:

The pavement conform shall be as follows:

STANDARD CONFORM:

Cut through the full depth of existing HMA to a neat straight line at least 1.0 foot beyond the trench line. Re-cut any pavement edges damaged during construction to neat lines prior to paving. Joint binder (lock coat) shall be applied to all vertical surfaces in accordance with the latest edition of Caltrans Standard Specifications.

ALTERNATE CONFORM:

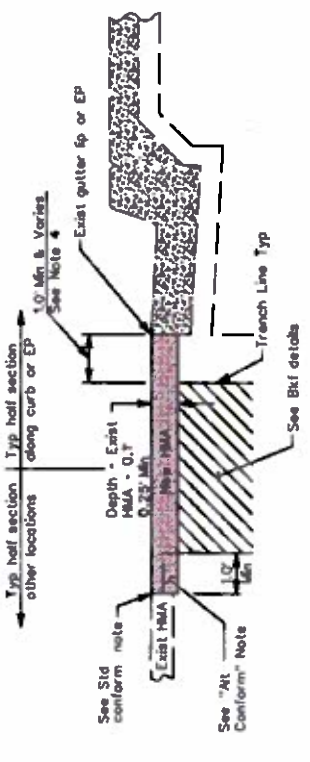
Grind existing HMA to a minimum depth of 0.20 feet on a neat straight line at least 1.0 foot beyond the trench line. Any pavement edges, including ground edges, damaged during construction shall be re-cut or re-ground to neat lines prior to paving. Joint binder (lock coat) shall be applied to all vertical surfaces in accordance with the latest edition of Caltrans Standard Specifications.

NOTES:

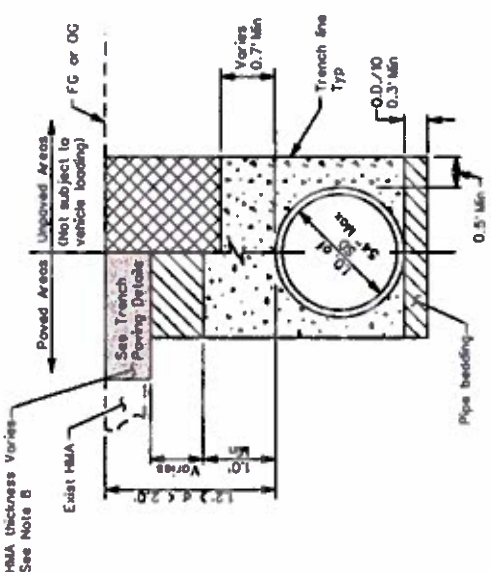
1. Unsuitable native material shall be excavated below the limit of excavation and replaced with suitable backfill material when directed by the Public Works Department.
2. "x" shall be as a minimum, the dimensions shown below for the storm drain "L.O."

L.O.	"x"
18" to 12"	0.5'
12" to 54"	1.0'
over 54"	2.0'

3. If cover is less than 1.2' or the storm drain L.O. exceeds 54 inches in shallow installations, a special design is required with approval by the Public Works Department.
4. Where the trench parallels curb and the nearest trench line is less than 3 feet from the gutter lip, existing HMA shall be replaced to the gutter lip. For gutter lip paving detail see Detail A.
5. Hot mix asphalt shall be 1/2-inch Type A HMA in conformance with Section 39, "Hot Mix Asphalt," of the California Department of Transportation's Standard Specifications, unless otherwise specified in the County contract, encroachment permit's Special Road Encroachment Permit Conditions or as directed by the Public Works Department.
6. Concrete shall contain not less than 505 lbs of cementitious material per cubic yard in conformance with Section 90, "Concrete," of the California Department of Transportation's Standard Specifications.
7. This standard plan shall govern over encroachment permit's Standard Road Encroachment Permit Conditions, and General Permit Conditions-Attachment 1. County Contract Special Provisions and Plans, or Encroachment permit's Special Road Encroachment Permit Conditions shall govern over this standard plan.
8. HMA thickness shall be existing HMA plus 0.1' if PCC backfill encroaches into this specified thickness, the HMA thickness may be reduced, except the minimum HMA thickness shall not be less than 0.20'.



TRENCH PAVING DETAILS



SHALLOW TRENCH BACKFILL DETAILS

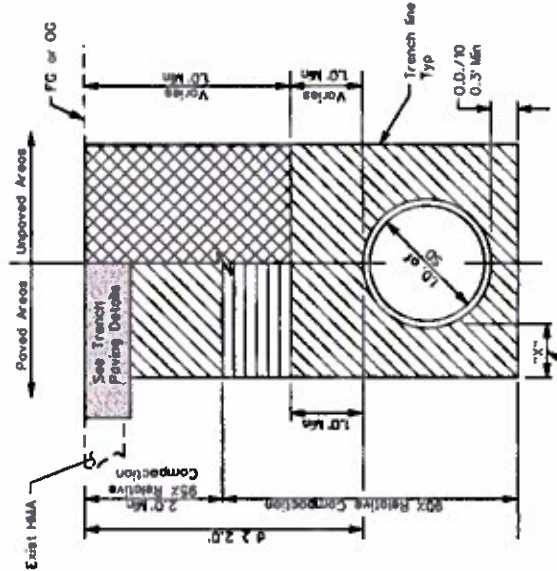
TYPICAL HALF SECTIONS
1.2' < d < 2.0'
See Note 3

LEGEND

- HMA Paving
- CI 2 AB
- Conc Bkfl. See Note 8
- CI 2 AB or suitable native Bkfl MII with a 1in sand equivalent of 20. Suitable native MII, no solid materials (rock, Conc) larger than 4 inches in greatest dimension or organic matter.

STANDARD TRENCH BACKFILL DETAILS

TYPICAL HALF SECTIONS
d > 2.0'



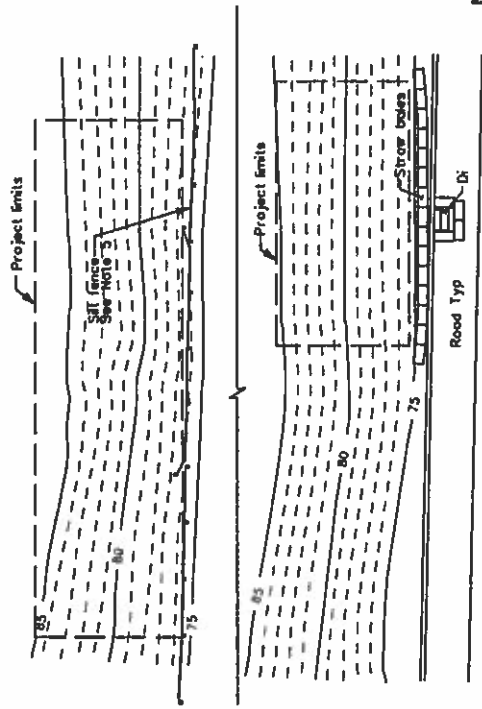
See Note 2
STANDARD TRENCH BACKFILL DETAILS
TYPICAL HALF SECTIONS
d > 2.0'

COUNTY OF CONTRA COSTA
PUBLIC WORKS DEPARTMENT
MARTINEZ, CALIFORNIA
STANDARD PLAN

STORM DRAIN TRENCH DETAILS

SCALE: 1/4" = 1'-0" DATE: 3/14
DRAWN BY: K. HUSSEY PLAN NO: CD01
BY: REVISION DESCRIPTION NO DATE

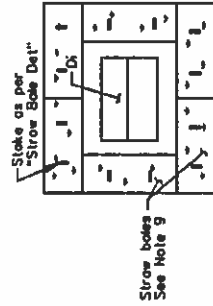
PUBLIC WORKS DEPARTMENT
 COUNTY OF CONTRA COSTA
 March 11, 2014
 PLANS APPROVAL DATE
 The Chief of County Office or its officers or agents
 shall be responsible for electronic copies of this plan sheet.



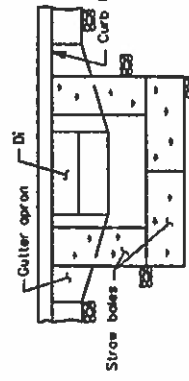
NOTES:

1. Minimum size of posts shall be 2" x 2" treated wood or steel posts with projections for fasteners ASTM Designation: A702 Class B, or approved equivalent. Do not staple fabric or wire mesh to tree in lieu of required posts.
2. Fasteners shall be 1" long heavy duty staples or hog rings.
3. Post depths are established minimums and may vary depending on site conditions.
4. When one continuous roll of filter fabric cannot be used, fabric shall be spliced at post as shown in Fabric Joint Detail of this plan.
5. Silt fences shall be installed parallel to the contours.
6. Silt fences shall be cleaned after any rainfall or when 5' of silt has accumulated at any point along the fence.
7. All straw bales shall be stacked and entrenched to a minimum depth of 4".
8. Silt fence may be installed as alternative protection and shall be installed as shown on this plan.
9. Straw bales shall be balled together. Any gaps remaining shall be filled by wedging loose straw between bales.
10. These details are not a substitute for a project specific Storm Water Pollution Prevention Plan. All permit and local, state, and federal requirements shall be reviewed to satisfy local, State, and Federal clean water requirements and regulations.

TYPICAL SITE PLAN

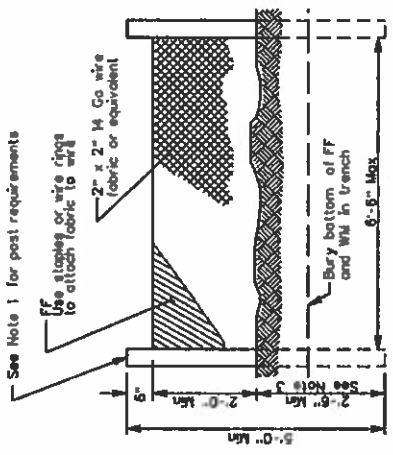


DRAINAGE INLET PROTECTION
Field Type C Inlet

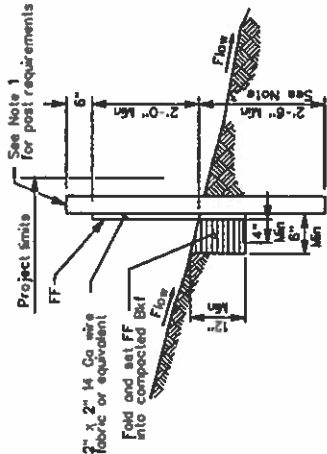


NOTE: Det only valid when road surface is improved in a sump condition and road is closed to traffic.

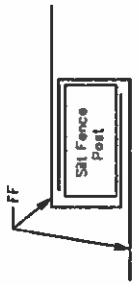
DRAINAGE INLET PROTECTION
Road Type A Inlet



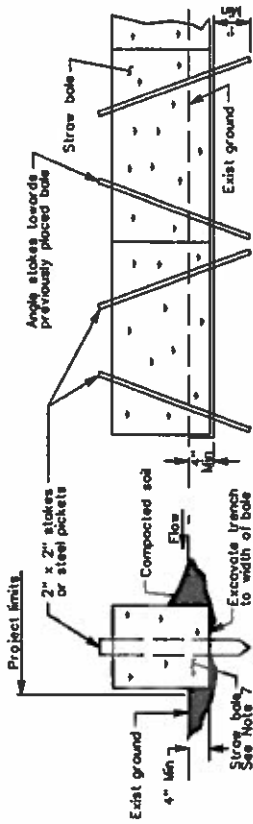
SILT FENCE DETAIL



SILT FENCE SECTION



FABRIC JOINT DETAIL
for silt fence fabrics



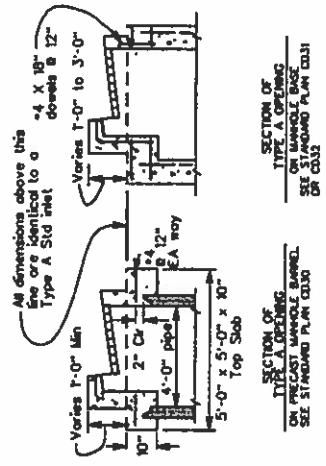
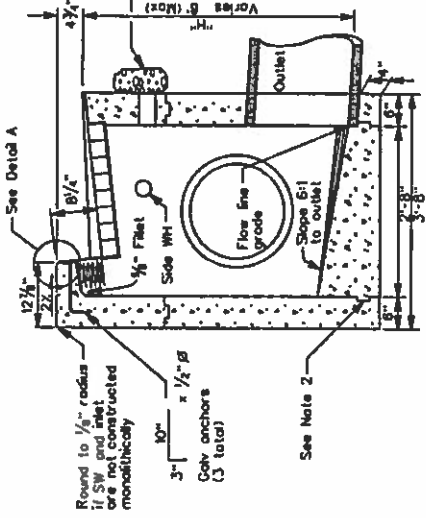
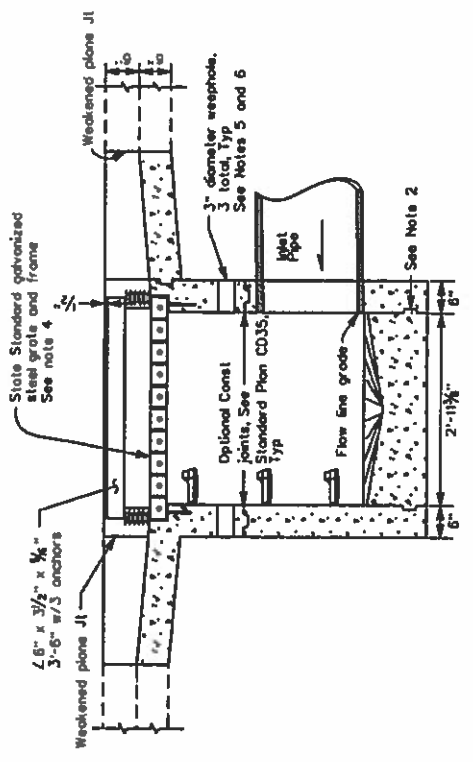
STRAW BALE SECTION

STRAW BALE DETAIL

COUNTY OF CONTRA COSTA
 PUBLIC WORKS DEPARTMENT
 WARMER, CALIFORNIA
 STANDARD PLAN
**SILT FENCE AND HAYBALE
 SEDIMENT CONTROL DETAILS**
 SCALE: NO SCALE DATE: 3/14
 DRAWN BY: HUNNISSEY PLAN NO
 CHECKED BY: E. HOLLINGSWORTH
CD03

NO.	DATE	REVISION DESCRIPTION

APPROVED FOR THE COUNTY OF CONTRA COSTA
 PLANS APPROVAL DATE: *March 2014*
 THE COUNTY OF CONTRA COSTA IS THE OFFICER OF APPROVAL
 AND DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF ANY PART HEREOF.

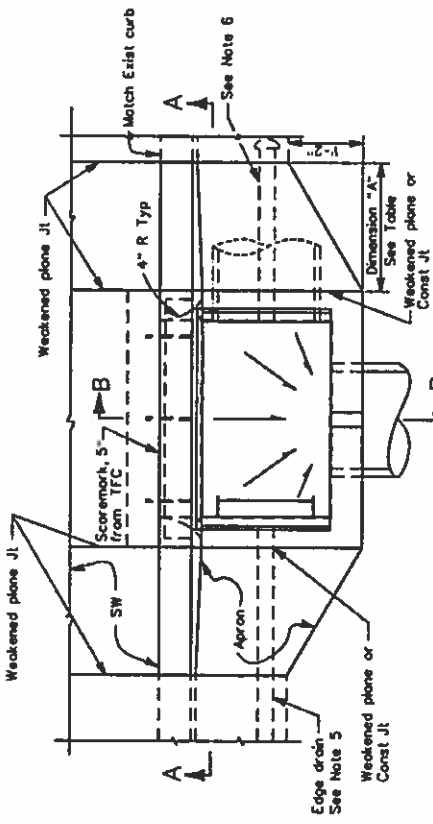


SECTION OF TYPE A OPENING ON PRECAST MANHOLE BURNEL. SEE STANDARD PLAN CD30.

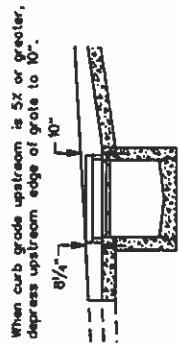
SECTION OF TYPE A OPENING ON MANHOLE BASE. SEE STANDARD PLAN CD31 OR CD32.

SECTION B-B NO SCALE

SECTION A-A NO SCALE



PLAN NO SCALE GRATE NOT SHOWN



DETAIL FOR STEEP CURB SLOPE

TABLE DIMENSION "A" (in)

UPSTREAM CURB GRADE	"A" UPSTREAM	"A" DOWNSTREAM
22 and lower	44	44
24	44	44
26	44	44
28	44	44
30	44	44
32	44	44
34	44	44
36	44	44
38	44	44
40 and greater	44	44

See DETAIL FOR STEEP CURB SLOPE.

NOTES:

- For Inlet General Notes and Details, see Standard Plan CD35.
- Construction joints are optional where shown, other locations are subject to the approval of the Public Works Department. Key dimensions - $\frac{1}{4}'' \pm 3''$.
- When dimension "R" exceeds 6'-0", use a manhole base with Type "C" inlet top.
- See Caltrans Standard Plan D77A for inlet frame and Caltrans Standard Plan D77B for type 24-95 inlet grate.
- If edge drains are specified by Public Works Department or shown on the plans, see Standard Plan CD08 for edge drain (ED) details.
- See Standard Plan CD35 for weephole drainage details unless edge drain is shown on plans or as specified by Public Works Department. For edge drain details, see Standard Plan CD08.

COUNTY OF CONTRA COSTA
 PUBLIC WORKS DEPARTMENT
 MARTINEZ, CALIFORNIA
 STANDARD PLAN

TYPE "G" INLET

SCALE: NO SCALE DATE: 3/14
 DRAWN BY: L. COSTA
 CHECKED BY: M. HOLLINGSWORTH

NO. DATE REVISION DESCRIPTION

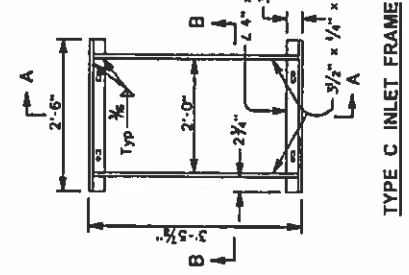
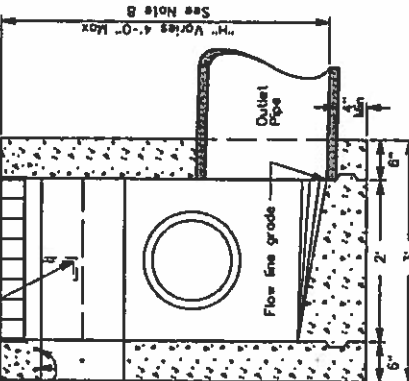
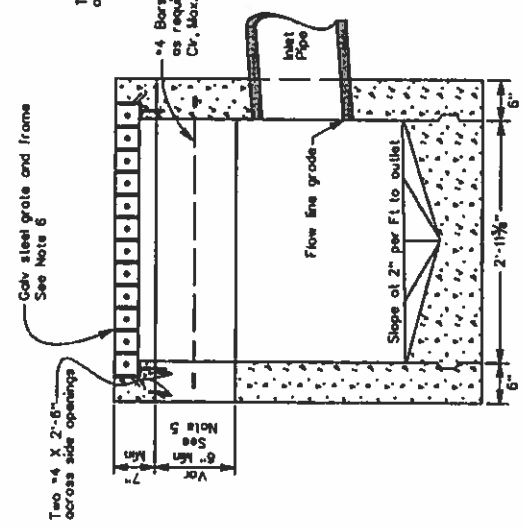
PLAN NO. CD27

Julius R. Bieren

PUBLIC WORKS DEPARTMENT
 COUNTY OF CONTRA COSTA
 JULIUS R. BIENEN
 CIVIL ENGINEER
 No. 37817

PLANS APPROVAL DATE: *March 11, 2011*

The County of Contra Costa is the authority of record and the responsibility for accurate copies of this plan sheet.



Remove anchor if side opening below.

Two #4 x 3'-8" across front openings

Galv steel grate and frame See Note 6

Two #4 x 2'-6" across side openings

#4 Bars across openings as required for 6" vert Cr. Max.

Slope of 2" per Ft to outlet

Inlet Pipe

Flow line grade

Outlet Pipe

See Note B

"H" Works 4'-0" Max

SECTION A-A

SECTION B-B

TYPE C INLET FRAME

SECTION A-A (Thru frame and grate)

SECTION B-B (Thru frame)

SECTION A-A

SECTION B-B

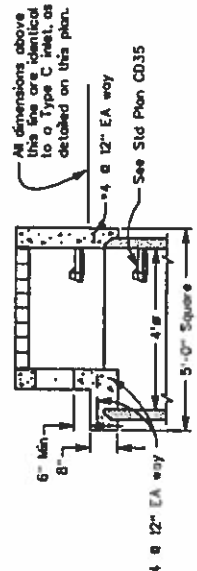
TYPE C INLET FRAME

SECTION A-A (Thru frame and grate)

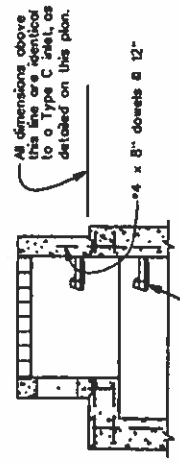
SECTION B-B (Thru frame)

NOTES:

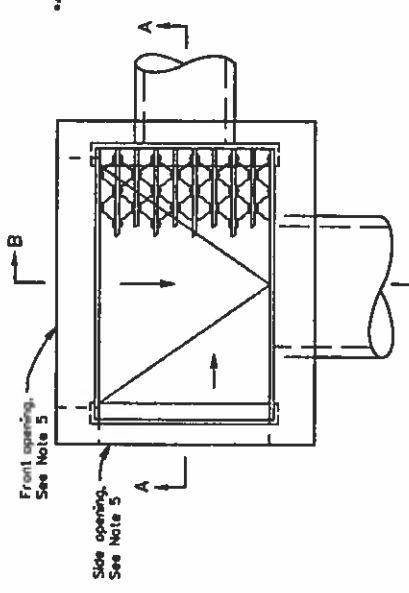
1. See Standard Plan CD35 for Inlet General Drainage Notes.
2. Type J inlets shall not be used in pedestrian areas.
3. Construction joints are optional where shown. Other locations are subject to the approval of the Public Works Department. Key Dimensions are 3/4" x 2 1/2".
4. Min clearances shall be 2" for all reinforcing steel.
5. Location, bar size, elevation and size of side openings to be as shown on plans, or as directed by the Public Works Department.
6. All inlets shall be constructed with Caltrans Type 24-RS grates, see Caltrans Standard Plan D778, and Type J inlet frame shown on this plan.
7. No precast Type J inlets are allowed without prior approval of the Public Works Department.
8. Maximum depth for Type J inlet shall be 4'. For depths greater than 4' use a manhole base with a Type J top. The Type J inside wall with steps shall be flush with manhole base inside wall below.



TYPE "C" OPENING ON PRECAST MANHOLE BARREL
 REFER TO STANDARD PLAN CD30



TYPE "C" OPENING ON MANHOLE BASE
 REFER TO STANDARD PLAN CD31



COUNTY OF CONTRA COSTA
 PUBLIC WORKS DEPARTMENT
 MARTINEZ, CALIFORNIA
 STANDARD PLAN

TYPE "J" INLET

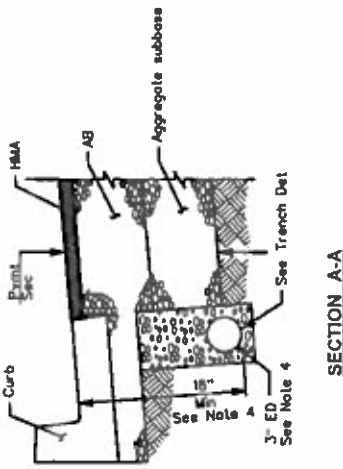
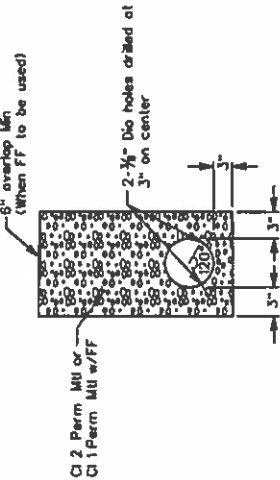
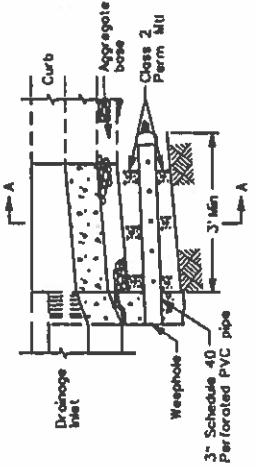
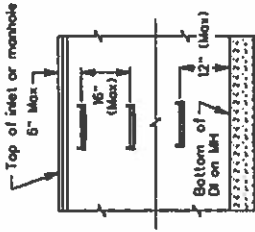
SCALE: NO SCALE DATE 3/14
 DRAWN BY: L. COSTA
 CHECKED BY: M. HOLMESWORTH
 PLAN NO. CD29

NO.	DATE	REVISION DESCRIPTION	BY

Handwritten signature and date: J. Garcia 11/20/11

SEAL OF THE COUNTY OF CONTRA COSTA
 PLANNING DIVISION
 CIVIL ENGINEER
 No. 37237
 State of California

The County of Contra Costa and the City of Hayward or upon approval of this plan shall be responsible for the accuracy or completeness of all drawings and specifications of all plans shown.



COUNTY OF CONTRA COSTA
 PUBLIC WORKS DEPARTMENT
 SANITARY CALIFORNIA

STANDARD PLAN

**STD INLET/MANHOLE PLAN
 GENERAL NOTES & DETAILS**

SCALE: NO SCALE DATE: 3/74
 DRAWN BY: H. HUSSEY
 CHECKED BY: H. HOLLOWORTH

PLANNING DIVISION
 CIVIL ENGINEER
 No. 37237
 State of California

PLANNING DIVISION
 CIVIL ENGINEER
 No. 37237
 State of California

PLANNING DIVISION
 CIVIL ENGINEER
 No. 37237
 State of California

NOTES:

- All inlets shall have a County approved "anti-pollution" plastic marker attached to the inlet as directed by the Inspector or Resident Engineer. The marker shall be applied following manufacturer's recommendations. PCC surfaces shall be mechanically cleaned just prior to attaching the marker. The marker and adhesive may be furnished by the Public Works Department, check your permit conditions or contract Special Provisions.
- Steps shall be steel reinforced polypropylene plastic, M.A. Industries, Inc. No. PS2-PP or equivalent. Steps to be cast in place or press fitted into holes per manufacturer. Install steps with lowest rung 12" maximum above the floor and highest rung not more than 6" below top of inlet. The spacing between steps shall not exceed 18" and shall be uniform throughout the length of the well. Place steps in the well without an opening. Steps shall not be installed on inlet box. No steps required where distance from floor of inlet to top of grate is 4' or less. See "Step Detail".
- Weephole elevation varies depending on the depth of the adjoining pavement section. It shall be 0.1' or slightly below the pavement section subgrade elevation with a minimum depth of 18" below the curb inlet grate elevation. The side weephole detail shall be used at all "sump" locations. Edge drain (Standard Plan CD08), or side weephole detail at other locations may be required as shown on the construction plans or by the Public Works Department. Where the side weephole detail or edge drains are not required, these weepholes shall conform to the front face weephole details shown on this plan.
- 3" edge drain per Standard Plan CD08, when shown on the plans or specified by the Public Works Department.
- Concrete shall conform to Section 90, "Concrete", of California Department of Transportation's Standard Specifications and the following.
 - Construction joints shown on standard plans are permitted when top portion of inlet is to be constructed monolithically with curb and sidewalk. Key dimensions - 1/4" x 3".
 - Concrete construction joint shall be located 12" to 18" below top of curb elevation.
 - Concrete above construction joint shall contain a minimum of 505 lbs of cementitious material per cubic yard, 1" maximum aggregate grading.
 - Concrete below construction joint shall contain a minimum of 590 lbs of cementitious material per cubic yard, 1" maximum aggregate grading.
 - When inlet is constructed as a single unit concrete shall comply with Item D, described above.
- Type "M" manhole (Std. Plan CD30) bases are for use with pipes to 24" in diameter and where there is sufficient cover to use minimum strength manhole bases, except for cover and cover frames. Use Type "M" manhole bases (Std. Plan CD30) with pipes to 12" in diameter. Use Type "M" manhole bases (Std. Plan CD32) for 60" in diameter. Use Type "M" manhole bases (Std. Plan CD34) for pipes up to 96" in diameter. For pipe larger than 96" in diameter, a special manhole base design is required.
- Unless otherwise noted on Standard Plans all concrete shall contain not less than 590 lbs of cementitious material per cubic yard, 1" maximum grading in conformance with Section 90, "Concrete" of California Department of Transportation's Standard Specifications. Invert paving concrete shall contain not less than 505 lbs per cubic yard of cementitious material, 1" maximum grading, in conformance with said Standard Specifications.
- Inlet and outlet pipes shall not intercept a manhole base through a corner, if such angle is too great to permit the covering to be made in a single wall face, use a Type "M" manhole base. (See Std. Plan CD32).

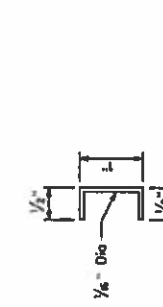
STANDARD FRONTSIDE WEEPHOLE DETAIL
See Note 3

NO.	DATE	REVISION DESCRIPTION	BY

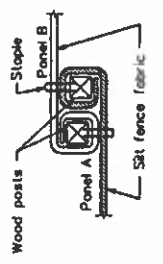
Julio J. Garcia
 JULIO J. GARCIA
 CIVIL ENGINEER
 No. 37937
 State of California
 License No. 37937
 Date: 10/15/2019
 LWS APPROVAL DATE: 10/15/2019
 The County of Contra Costa has reviewed and approved the construction of this project in accordance with the provisions of the California Public Works Law.

NOTES:

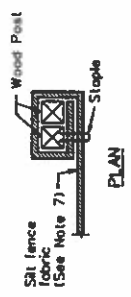
1. Install Temporary ESA Silt Fence by first digging trench, driving posts, placing and securing silt fabric. Second, backfill and tamp trench. Finally, install ESA fabric.
2. Reach length not to exceed 500 feet.
3. The down stream end of the Temporary ESA Silt Fence shall have the last 8' angled up slope.
4. Subsoil dimensions may vary to fit field conditions.
5. Posts to overlap and fence fabric to fold around each post one full turn. Secure fabric with 4 staples for each post.
6. Posts shall be driven tightly together to prevent potential flow-through of sediment at the joint. The tops of the posts shall be secured to each other with wire.
7. For each end post, fence fabric shall be folded around two posts one full turn and secured with 4 staples.
8. Install silt fabric with a minimum of 4 staples per post. Install ESA fabric with a minimum 2 wire or plastic ties per post. Dimensions shown are typical.
9. Joint sections shall not be placed at sump locations.
10. Materials:
 Posts, Signs and ESA Fabric: Per California Department of Transportation's Standard Special Provision (SSP) -07-453.
 Silt Fabric: Per California Department of Transportation's Standard Special Provision (SSP) -07-430.
11. Post signs if specified on project plans or project specifications.



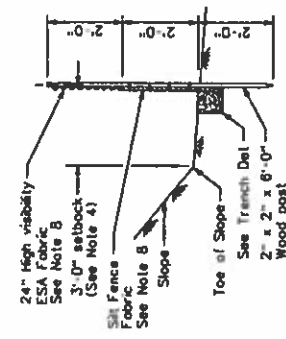
STAPLE DETAIL
(See Note 8)



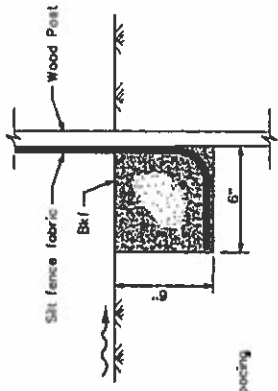
POST AT JOINTS



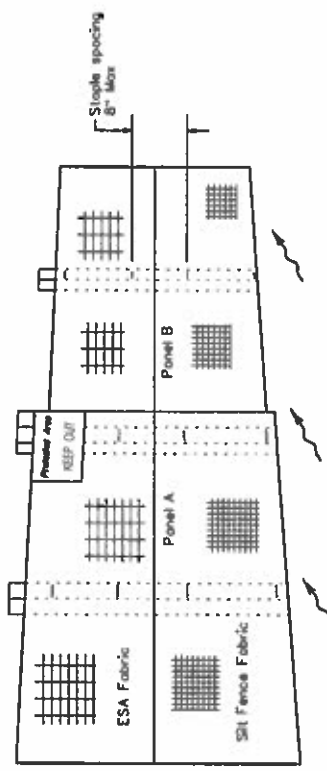
END POST DETAIL



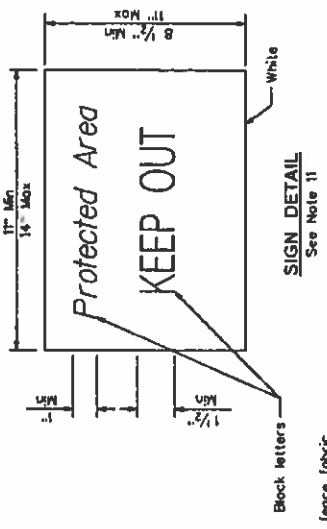
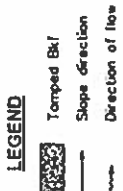
SECTION A-A
TEMPORARY ESA SILT FENCE



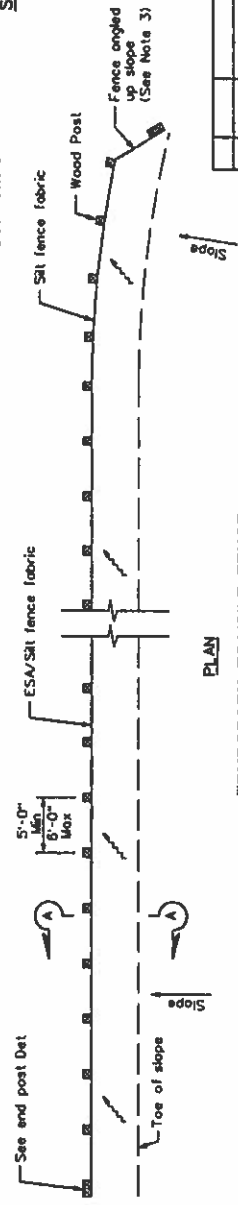
SECTION DETAIL
TRENCH DETAIL



PERSPECTIVE
SILT FENCE PANELS AT JOINTS



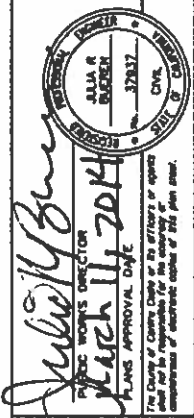
SIGN DETAIL
See Note 11



PLAN
TEMPORARY ESA/SILT FENCE

COUNTY OF CONTRA COSTA PUBLIC WORKS DEPARTMENT SANTO DOMINGO, CALIFORNIA	
STANDARD PLAN	
TEMPORARY ESA SILT FENCE	
SCALE: NO SCALE	DATE: 3/14
DRAWN BY: L. COSTA	PLAN NO: CE01
CHECKED BY: M. HOLMES/PHH	

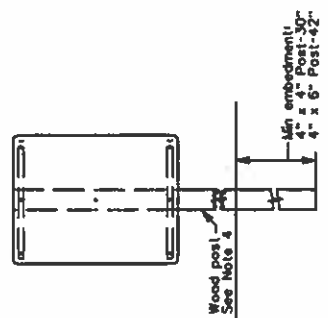
NO.	DATE	REVISION DESCRIPTION



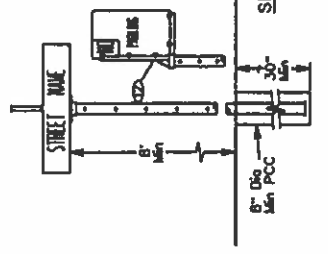
The County of Contra Costa is the official of record and shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

NOTES:

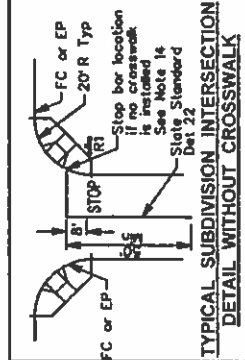
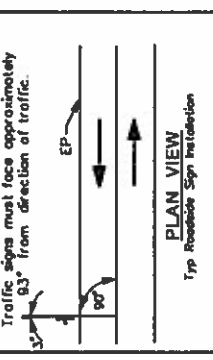
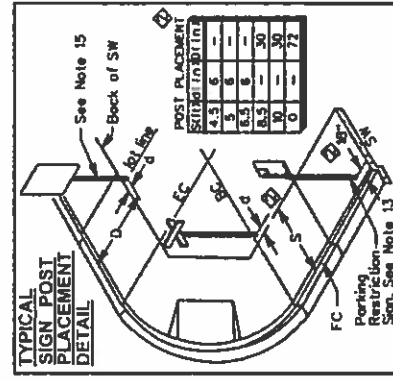
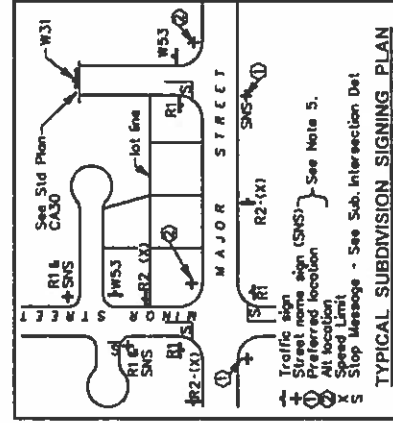
1. Street name signs (SNS) shall conform to the Public Works Department Standard Provisions for Public Works Construction. All traffic signs shall comply with current edition of California Manual of Uniform Traffic Control Devices (California MUTCD).
2. All sign support posts shall be 2" (12 gauge) "Unistrut", except as noted on this plan. Square sign post system approved for highway sign use by the FHWA is an acceptable substitution for "Unistrut".
3. Posts supporting street name signs and traffic signs, shall not be painted. 7" minimum clearance between bottom of sign and any sidewalk or pedestrian path.
4. Only wood posts shall be used in rural locations and shall conform to Section 56 of California Department of Transportation's Standard Specifications for grade, species and preservative treatment.
 - a. Use 4" x 4" wood posts with any size RT sign.
 - b. Use 4" x 6" wood post with any 38" x 42" R-2 sign. A hole must be drilled at the base in accordance with California Department of Transportation's Standard Plan RS2, "Breakaway Feature".
5. Street name signs (SNS) shall be installed on the corner with the greatest sight distance and which favors the major street where conditions permit. SNS may be installed on the same sign post with a STOP (R1) sign.
 6. One SNS shall be installed at an intersection on each side of the major road with two or more lanes in each direction.
 7. Where sign posts are to be installed in an existing sidewalk, the sidewalk shall be sawcut to a neat appearance. Then new concrete placed and finished to match surrounding grade after sign post installation.
 8. Striping details and markings shall conform to the California Department of Transportation's Standard Plans, and this Standard Plan.
 9. Pavement markings and stripes shall be thermoplastic and shall conform to Section 84 of California Department of Transportation's Standard Specifications. Public Works Department Standard Provisions for Public Works Construction and project special provisions, if any.
 10. For G7 sign use 8" U.C. and 4 1/2" L.C. lettering.
 11. The first 3' of all median curb noses shall be painted with reflective white paint.
 12. All button head bolt threads shall be painted after assembly.
 13. Sidewalk with parking restriction signs should be minimum 8'-8" wide.
 14. Stop bars shall always be placed prior to a curb ramp.
 15. Mid-block signs in residential areas shall be placed at or near lot line, except as indicated on this Standard Plan.



WOOD POST FOUNDATION AND MOUNTING DETAILS



METAL POST FOUNDATION



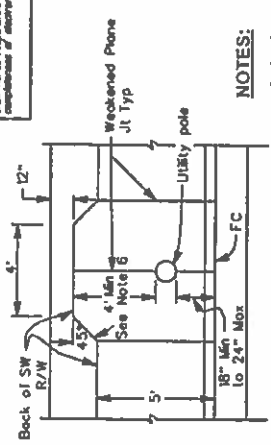
Note: Crosswalk shall be centered on the curb ramps, or as directed by the Public Works Department.

COUNTY OF CONTRA COSTA PUBLIC WORKS DEPARTMENT SAN RAFAEL, CALIFORNIA		STANDARD PLAN	
SIGNING & STRIPING STANDARDS			
SCALE: NO. SCALE	DATE: 3/14	PLAN NO. CRS1	
DRAWN BY: H. HUSSEY	CHECKED BY: M. HOLMESWORTH	BY	
NO.	DATE	REVISION DESCRIPTION	



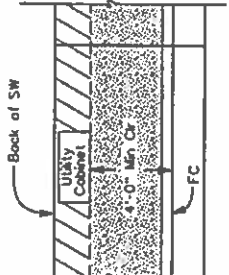
Julia R. Baeren
 PUBLIC WORKS DIRECTOR
 PUBLIC WORKS DEPARTMENT
 COUNTY OF CONTRA COSTA
 DATE: 11/20/14
 PLANS APPROVAL DATE

The County of Contra Costa is the authority or representative for the authority or responsibility of all other signs of this plan sheet.



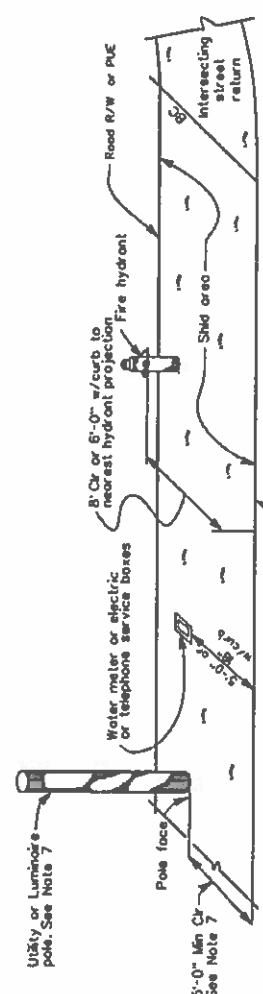
NOTES:
 1. All distances shown are minimums established by the County. Any exceptions must be approved by the Public Works Department.
 2. Width of sidewalk and planter strip vary. See specific project plans for widths.
 3. Detail to be used as approved by the Public Works Department when new sidewalk is installed and utility relocation is not possible.
 4. No utility boxes or above ground utilities shall be installed in the sidewalk area between the B.C. and E.C. of the curb return in either residential or commercial areas.
 5. Positioning of facilities along the street frontage is optional with the utility involved and may be adapted as required to avoid driveways, lot development, and other utilities.
 6. With approval by the Public Works Department this dimension may be reduced to 3'.
 7. As rights of way allow, utility poles shall be set back as far from the roadway as possible. The minimum being 5' from edge of roadway. However, utility locating poles and luminaires on the outside of curves shall be avoided whenever possible.

SIDEWALK IMPROVEMENTS
 See Note 3

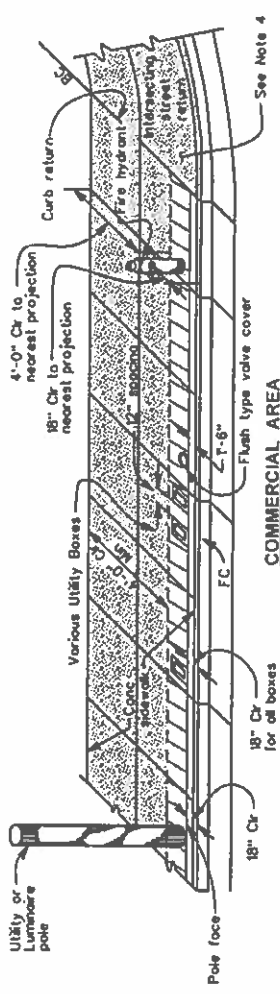


ABOVE GROUND UTILITY CABINET DETAIL

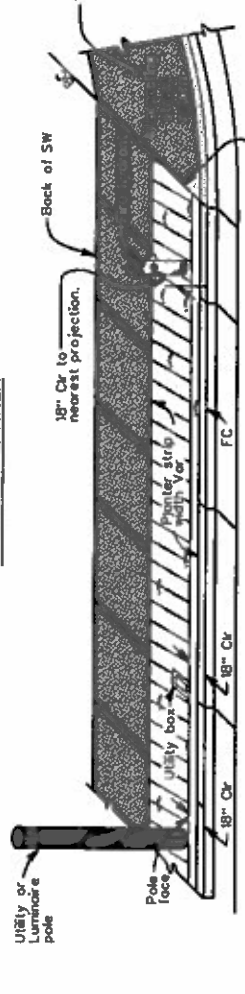
Area of SW to remain Cr. of all utilities, including boxes, unless approved by the Public Works Department.
 At utility location as approved by the Public Works Department, preferred location is behind the back of SW as shown for Residential Area - 2.



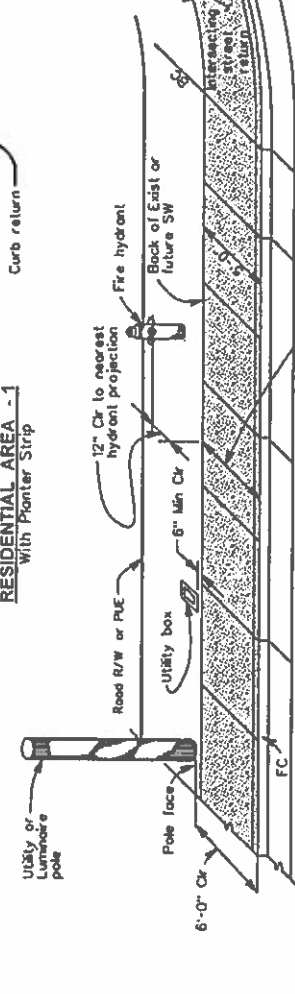
NON-SIDEWALK AREAS



COMMERCIAL AREA



RESIDENTIAL AREA - 1
 With Planter Strip



RESIDENTIAL AREA - 2
 Sidewalk adjacent to curb

COUNTY OF CONTRA COSTA PUBLIC WORKS DEPARTMENT MARTINEZ, CALIFORNIA	
STANDARD PLAN	
STANDARD UTILITY LOCATIONS	
SCALE: NO SCALE	DATE: 3/14
DRAWN BY: H. HUSSEY	PLAN NO. CU60
CHECKED BY: H. HOLLINGWORTH	

NO.	DATE	REVISION DESCRIPTION	BY

**Caltrans Standard Plans
(Dated 2015)**

STATE COUNTY ROUTE POST MILE MARKS SHEET NO. 10471 10472 10473 10474 10475 10476 10477 10478 10479 10480 10481 10482 10483 10484 10485 10486 10487 10488 10489 10490 10491 10492 10493 10494 10495 10496 10497 10498 10499 10500

REGISTERED CIVIL ENGINEER

October 30, 2015

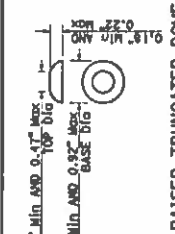
PLANS APPROVAL DATE

BY APPOINTMENT OF THE BOARD OF SUPERVISORS

CONTRACT NO. 15-0000000000000000

PROJECT NO. 15-0000000000000000

DATE 3-31-16



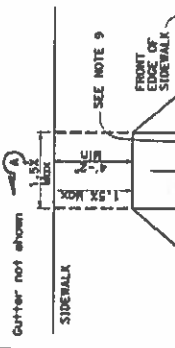
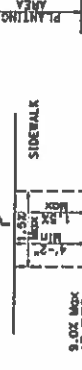
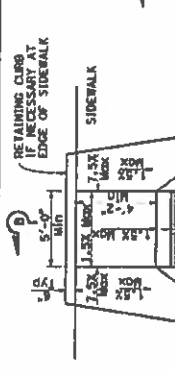
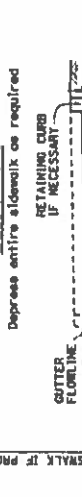
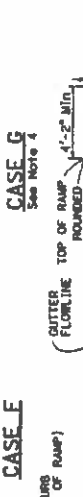
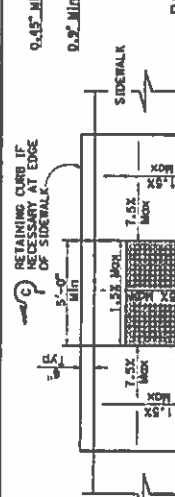
RAISED TRUNCATED DOME

NOTES:

- All site conditions (ditches, Cases A through Case C curb ramps) may be used for curb installations similar to those shown in detail A, detail B, and detail C. The case of curb ramps used in detail A do not have to be the same. Case A through Case G curbs, ramps also may be used at mid block locations, on site conditions dictate.
- If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-2" platform (landing) as shown in Case A, Case B, Case C, Case D, Case E, Case F, Case G, Case H, Case I, Case J, Case K, Case L, Case M, Case N, Case O, Case P, Case Q, Case R, Case S, Case T, Case U, Case V, Case W, Case X, Case Y, Case Z, Case AA, Case AB, Case AC, Case AD, Case AE, Case AF, Case AG, Case AH, Case AI, Case AJ, Case AK, Case AL, Case AM, Case AN, Case AO, Case AP, Case AQ, Case AR, Case AS, Case AT, Case AU, Case AV, Case AW, Case AX, Case AY, Case AZ, Case BA, Case BB, Case BC, Case BD, Case BE, Case BF, Case BG, Case BH, Case BI, Case BJ, Case BK, Case BL, Case BM, Case BN, Case BO, Case BP, Case BQ, Case BR, Case BS, Case BT, Case BU, Case BV, Case BW, Case BX, Case BY, Case BZ, Case CA, Case CB, Case CC, Case CD, Case CE, Case CF, Case CG, Case CH, Case CI, Case CJ, Case CK, Case CL, Case CM, Case CN, Case CO, Case CP, Case CQ, Case CR, Case CS, Case CT, Case CU, Case CV, Case CW, Case CX, Case CY, Case CZ, Case DA, Case DB, Case DC, Case DD, Case DE, Case DF, Case DG, Case DH, Case DI, Case DJ, Case DK, Case DL, Case DM, Case DN, Case DO, Case DP, Case DQ, Case DR, Case DS, Case DT, Case DU, Case DV, Case DW, Case DX, Case DY, Case DZ, Case EA, Case EB, Case EC, Case ED, Case EE, Case EF, Case EG, Case EH, Case EI, Case EJ, Case EK, Case EL, Case EM, Case EN, Case EO, Case EP, Case EQ, Case ER, Case ES, Case ET, Case EU, Case EV, Case EW, Case EX, Case EY, Case EZ, Case FA, Case FB, Case FC, Case FD, Case FE, Case FF, Case FG, Case FH, Case FI, Case FJ, Case FK, Case FL, Case FM, Case FN, Case FO, Case FP, Case FQ, Case FR, Case FS, Case FT, Case FU, Case FV, Case FW, Case FX, Case FY, Case FZ, Case GA, Case GB, Case GC, Case GD, Case GE, Case GF, Case GH, Case GI, Case GJ, Case GK, Case GL, Case GM, Case GN, Case GO, Case GP, Case GQ, Case GR, Case GS, Case GT, Case GU, Case GV, Case GW, Case GX, Case GY, Case GZ, Case HA, Case HB, Case HC, Case HD, Case HE, Case HF, Case HG, Case HH, Case HI, Case HJ, Case HK, Case HL, Case HM, Case HN, Case HO, Case HP, Case HQ, Case HR, Case HS, Case HT, Case HU, Case HV, Case HW, Case HX, Case HY, Case HZ, Case IA, Case IB, Case IC, Case ID, Case IE, Case IF, Case IG, Case IH, Case II, Case IJ, Case IK, Case IL, Case IM, Case IN, Case IO, Case IP, Case IQ, Case IR, Case IS, Case IT, Case IU, Case IV, Case IW, Case IX, Case IY, Case IZ, Case JA, Case JB, Case JC, Case JD, Case JE, Case JF, Case JG, Case JH, Case JI, Case JJ, Case JK, Case JL, Case JM, Case JN, Case JO, Case JP, Case JQ, Case JR, Case JS, Case JT, Case JU, Case JV, Case JW, Case JX, Case JY, Case JZ, Case KA, Case KB, Case KC, Case KD, Case KE, Case KF, Case KG, Case KH, Case KI, Case KJ, Case KK, Case KL, Case KM, Case KN, Case KO, Case KP, Case KQ, Case KR, Case KS, Case KT, Case KU, Case KV, Case KW, Case KX, Case KY, Case KZ, Case LA, Case LB, Case LC, Case LD, Case LE, Case LF, Case LG, Case LH, Case LI, Case LJ, Case LK, Case LL, Case LM, Case LN, Case LO, Case LP, Case LQ, Case LR, Case LS, Case LT, Case LU, Case LV, Case LW, Case LX, Case LY, Case LZ, Case MA, Case MB, Case MC, Case MD, Case ME, Case MF, Case MG, Case MH, Case MI, Case MJ, Case MK, Case ML, Case MM, Case MN, Case MO, Case MP, Case MQ, Case MR, Case MS, Case MT, Case MU, Case MV, Case MW, Case MX, Case MY, Case MZ, Case NA, Case NB, Case NC, Case ND, Case NE, Case NF, Case NG, Case NH, Case NI, Case NJ, Case NK, Case NL, Case NM, Case NN, Case NO, Case NP, Case NQ, Case NR, Case NS, Case NT, Case NU, Case NV, Case NW, Case NX, Case NY, Case NZ, Case OA, Case OB, Case OC, Case OD, Case OE, Case OF, Case OG, Case OH, Case OI, Case OJ, Case OK, Case OL, Case OM, Case ON, Case OO, Case OP, Case OQ, Case OR, Case OS, Case OT, Case OU, Case OV, Case OW, Case OX, Case OY, Case OZ, Case PA, Case PB, Case PC, Case PD, Case PE, Case PF, Case PG, Case PH, Case PI, Case PJ, Case PK, Case PL, Case PM, Case PN, Case PO, Case PP, Case PQ, Case PR, Case PS, Case PT, Case PU, Case PV, Case PW, Case PX, Case PY, Case PZ, Case QA, Case QB, Case QC, Case QD, Case QE, Case QF, Case QG, Case QH, Case QI, Case QJ, Case QK, Case QL, Case QM, Case QN, Case QO, Case QP, Case QQ, Case QR, Case QS, Case QT, Case QU, Case QV, Case QW, Case QX, Case QY, Case QZ, Case RA, Case RB, Case RC, Case RD, Case RE, Case RF, Case RG, Case RH, Case RI, Case RJ, Case RK, Case RL, Case RM, Case RN, Case RO, Case RP, Case RQ, Case RR, Case RS, Case RT, Case RU, Case RV, Case RW, Case RX, Case RY, Case RZ, Case SA, Case SB, Case SC, Case SD, Case SE, Case SF, Case SG, Case SH, Case SI, Case SJ, Case SK, Case SL, Case SM, Case SN, Case SO, Case SP, Case SQ, Case SR, Case SS, Case ST, Case SU, Case SV, Case SW, Case SX, Case SY, Case SZ, Case TA, Case TB, Case TC, Case TD, Case TE, Case TF, Case TG, Case TH, Case TI, Case TJ, Case TK, Case TL, Case TM, Case TN, Case TO, Case TP, Case TQ, Case TR, Case TS, Case TT, Case TU, Case TV, Case TW, Case TX, Case TY, Case TZ, Case UA, Case UB, Case UC, Case UD, Case UE, Case UF, Case UG, Case UH, Case UI, Case UJ, Case UK, Case UL, Case UM, Case UN, Case UO, Case UP, Case UQ, Case UR, Case US, Case UT, Case UY, Case UZ, Case VA, Case VB, Case VC, Case VD, Case VE, Case VF, Case VG, Case VH, Case VI, Case VJ, Case VK, Case VL, Case VM, Case VN, Case VO, Case VP, Case VQ, Case VR, Case VS, Case VT, Case VY, Case VZ, Case WA, Case WB, Case WC, Case WD, Case WE, Case WF, Case WG, Case WH, Case WI, Case WJ, Case WK, Case WL, Case WM, Case WN, Case WO, Case WP, Case WQ, Case WR, Case WS, Case WT, Case WY, Case WZ, Case XA, Case XB, Case XC, Case XD, Case XE, Case XF, Case XG, Case XH, Case XI, Case XJ, Case XK, Case XL, Case XM, Case XN, Case XO, Case XP, Case XQ, Case XR, Case XS, Case XT, Case XU, Case XV, Case XW, Case XX, Case XY, Case XZ, Case YA, Case YB, Case YC, Case YD, Case YE, Case YF, Case YG, Case YH, Case YI, Case YJ, Case YK, Case YL, Case YM, Case YN, Case YO, Case YP, Case YQ, Case YR, Case YS, Case YT, Case YU, Case YV, Case YW, Case YX, Case YY, Case YZ, Case ZA, Case ZB, Case ZC, Case ZD, Case ZE, Case ZF, Case ZG, Case ZH, Case ZI, Case ZJ, Case ZK, Case ZL, Case ZM, Case ZN, Case ZO, Case ZP, Case ZQ, Case ZR, Case ZS, Case ZT, Case ZU, Case ZV, Case ZW, Case ZX, Case ZY, Case ZZ.
- Transitions from ramps and landing to walks, gutters or streets shall be flush (no lip) and free of abrupt changes.
- Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches of the curb ramp shall not be less than 1:50. Gutter pan slope shall not exceed 1" or depth for each 2' of width.
- Curb ramps shall have a detectable warning surface that extends beyond the ramp. The detectable warning surface may be used on a 4'-2" wide curb ramp. Detectable warning surfaces shall conform to the requirements in the Standard Specifications.
- Sidewalk and ramp thickness, "T", shall be 3/4" minimum.
- Utility and base assemblies, walls and all other utility facilities within the boundary of the curb ramp shall be retrofitted to grade by the owner prior to, or in conjunction with, curb ramp construction.
- Detectable warning surface may have to be cut to allow removal of utility covers while maintaining full detectable warning width and depth.



RAISED TRUNCATED DOME PATTERN (IN-LINE)
DETECTABLE WARNING SURFACE
See Note 3



DETAIL B
TYPICAL ONE-RAMP CORNER INSTALLATION
See Note 1 and 3

DETAIL A
TYPICAL TWO-RAMP CORNER INSTALLATION
See Note 1

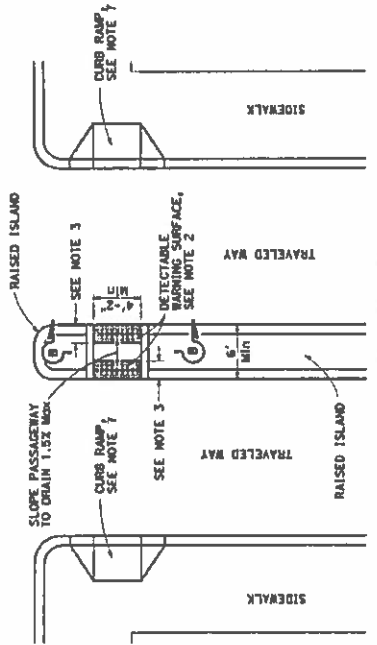
RETROFIT PAY LIMITS
Existing curb and sidewalk

DIST.	COUNTY	ROUTE	PROJECT	DATE	SCALE

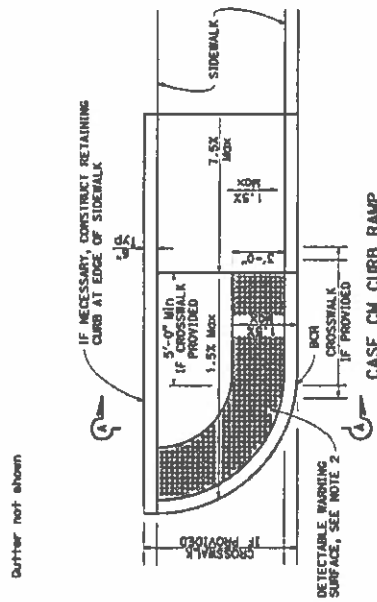
REGISTERED CIVIL ENGINEER
H. Paul Cook
 REGISTERED CIVIL ENGINEER
 No. 10000
 STATE OF CALIFORNIA
 EXPIRES 12/31/15
 THE ASSOCIATION OF COUNTY ENGINEERS OF CALIFORNIA
 1000 J STREET, SACRAMENTO, CALIF. 95833

PLANS APPROVAL DATE
 October 30, 2015

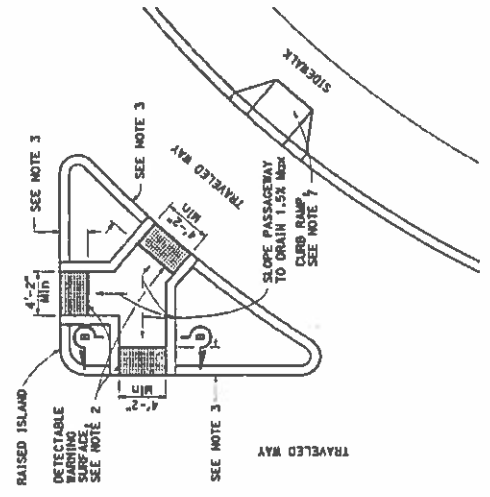
- NOTES:**
1. Sidewalk, ramp and passageway thickness, "T", shall be 3/2" minimum.
 2. For details of detectable warning surfaces, see Standard Plan A88A.
 3. Where an island passageway length is greater than or equal to 6'-0", but less than 8'-0", each detectable warning surface shall extend the full width and 2'-0" depth of the passageway length with the full width of the detectable warning surface shall equal to 6'-0". For each detectable warning surface shall extend the full width and 3'-0" depth of the passageway length. A 4'-0" wide detectable warning surface may be used on a 4'-2" wide island passageway.
 4. Transitions from ramps to walks, gutters or streets shall be flush (no lip) and free of abrupt changes.
 5. Utility pull boxes, manholes, vaults and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
 6. Detectable warning surface may have to be cut to allow removal of utility covers while maintaining full detectable warning width and depth.
 7. For additional curb ramp details, see Standard Plan A88A.



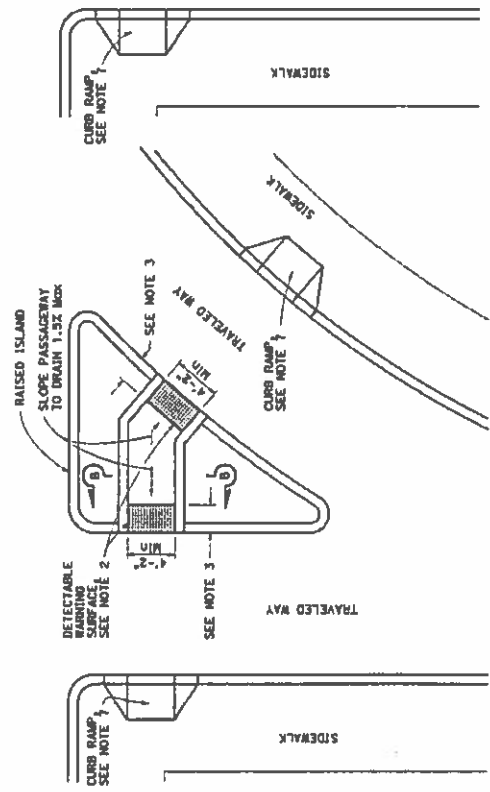
TYPE A PASSAGEWAY



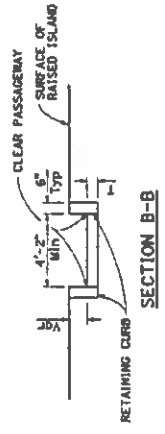
CASE CM CURB RAMP



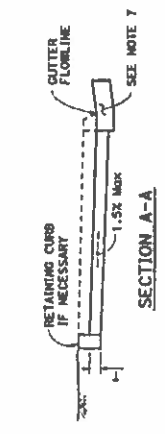
TYPE B PASSAGEWAY



TYPE C PASSAGEWAY



SECTION B-B

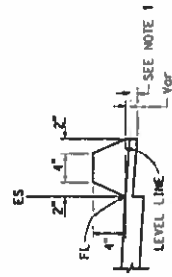


SECTION A-A

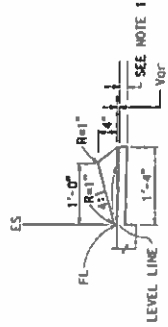
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
CURB RAMP AND ISLAND PASSAGEWAY DETAILS
 NO SCALE
A88B

SHEET NO. _____ OF _____ SHEETS
 COUNTY ROUTE TOTAL PROJECT
 REGISTERED CIVIL ENGINEER
 JANUARY 15, 2016
 ALL RIGHTS RESERVED
 NO PART OF THIS PLAN OR SPECIFICATIONS SHALL BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.

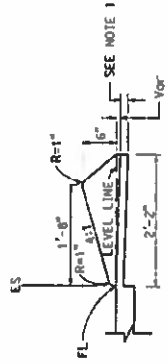
TO ACCOMPANY PLANS DATED _____



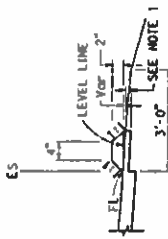
TYPE F
See Note 5



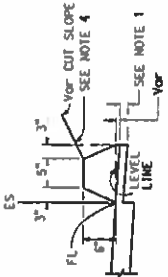
TYPE E



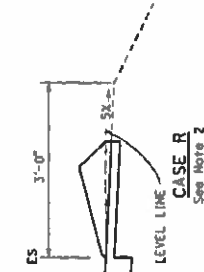
TYPE D
DIKES



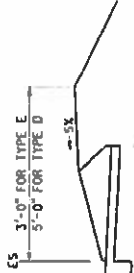
TYPE C



TYPE A
See Notes 3 and 5



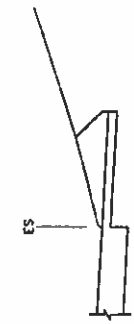
CASE R
See Note 2



CASE F



CASE C-2
Out Slope



CASE C-1
Out Slope

TYPE D AND E BACKFILL DETAILS

NOTES:

- For HMA shoulders only, extend top layer of HMA placed on the shoulder under dike with no joint at the ES. For projects with OGC shoulders, do not extend OGC under dike. See project plans for modified dike detail.
- Case R applies to retrofit only projects where restrictive conditions do not provide enough width for Case F backfill.
- Type A dike only to be used where restrictive slope conditions do not provide enough width to use Type D or Type E dike.
- Fill and compact with excavated material to top of dike.
- Use Type A or F dike where dike is required with guardrail installations. See Standard Plan A774 for dike installation details. See Standard Plan A775 for hinge point offsets with guardrail.

DIKE


DIKE TYPE	CUBIC YARDS PER LINEAR FOOT
A	0.0135
C	0.0038
D	0.0293
E	0.0130
F	0.0066

Quantities based on 5% cross slope.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
HOT MIX ASPHALT DIKES
 NO SCALE

RSP A87B DATED JANUARY 15, 2016 SUPERSEDES STANDARD PLAN A87B
 DATED OCTOBER 30, 2015 - PAGE 126 OF THE STANDARD PLANS BOOK DATED 2015.

REVISED STANDARD PLAN RSP A87B

COUNTY ROUTE STATE HIGHWAY
 DISTRICT NO. 1
 PROJECT NO. 1001
 SHEET NO. 1001

 October, 30, 2015
 THIS PLAN IS THE PROPERTY OF THE OFFICE OF THE STATE ENGINEER AND SHALL BE KEPT IN HIS OFFICE FOR THE USE OF THE STATE OF CALIFORNIA.

LEGEND
 MARKERS
 ○ TYPE A1 YELLOW NON-REFLECTIVE
 □ TYPE D TWO-WAY YELLOW RETROREFLECTIVE
 ■ TYPE H ONE-WAY YELLOW RETROREFLECTIVE
LINES
 ▨ 4" WHITE
 ▩ 4" YELLOW

MEDIAN ISLANDS
 DETAIL 28
 DETAIL 29
 DETAIL 30
 DETAIL 31

LEFT EDGELINES (DIVIDED HIGHWAYS)
 DETAIL 24
 DETAIL 25
 DETAIL 26
 DETAIL 27

RIGHT EDGELINES
 DETAIL 27A DELETED
 DETAIL 27B
 DETAIL 27C

INTERSECTION TREATMENTS
 DETAIL 34
 DETAIL 34A
 DETAIL 35
 DETAIL 35A

TWO-WAY LEFT TURN LANES
 DETAIL 32
 DETAIL 33

MARKER DETAILS
 TYPE A1
 TYPE D
 TYPE H
 RETROREFLECTIVE FACE

RIGHT EDGELINE EXTENSION THROUGH INTERSECTIONS
 DETAIL 27C

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS
 NO SCALE
A20B

DIST COUNTY ROUTE TOTAL MILES PROJECT MILE POSTS

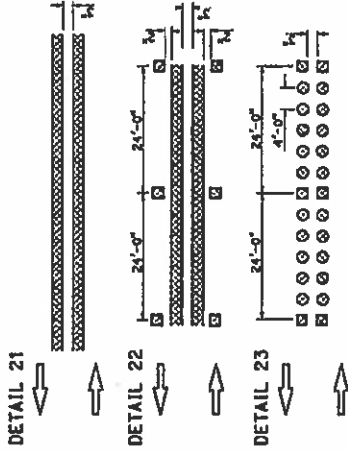
John Young
REGISTERED CIVIL ENGINEER

October 30, 2015
PLANS APPROVAL DATE

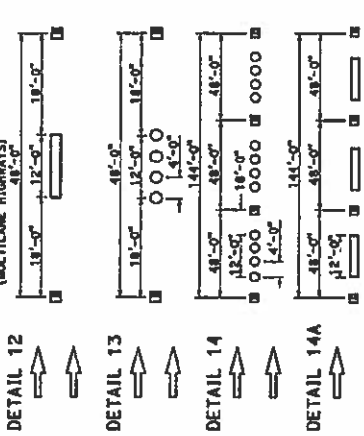
STATE OF CALIFORNIA
DIVISION OF HIGHWAYS
REGISTERED CIVIL ENGINEER
NO. 15000
EXPIRES ON 10/30/2018

DATE OF PREPARED DRAWING: 10/20/15
DATE OF LAST REVISION: 10/20/15

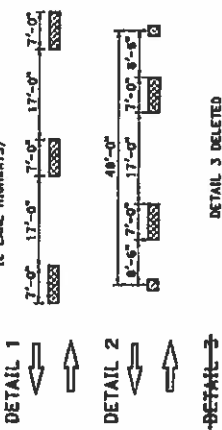
NO PASSING ZONES-TWO DIRECTION



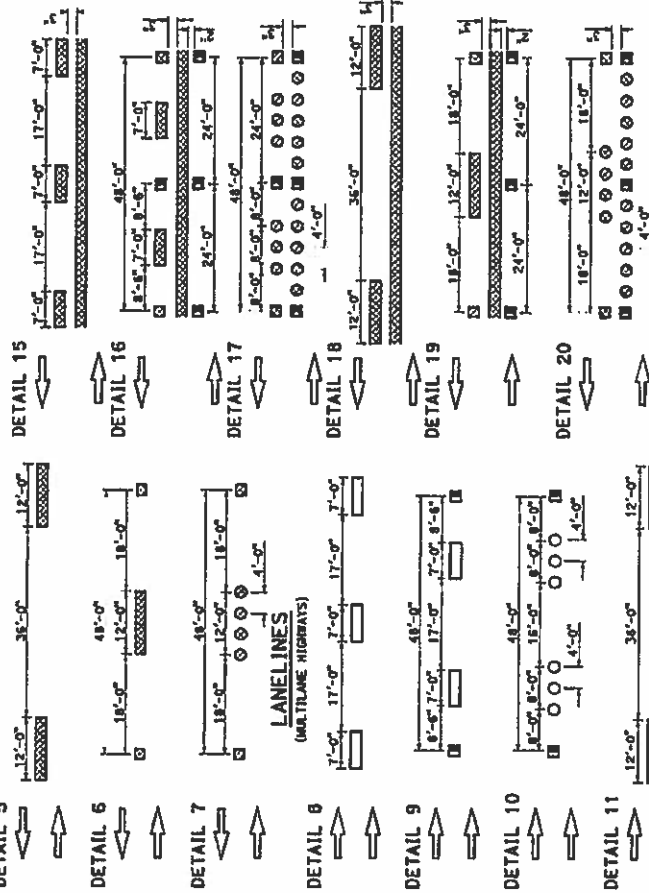
LANELINES (Cont)



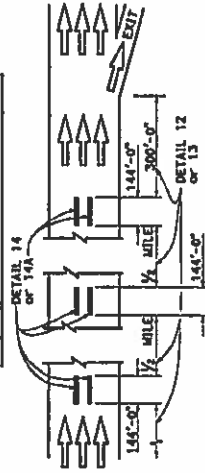
CENTERLINES
12 LANE HIGHWAYS



NO PASSING ZONES-ONE DIRECTION



TYPICAL LANE LINE DELINEATION
IN ADVANCE OF EXIT RAMP



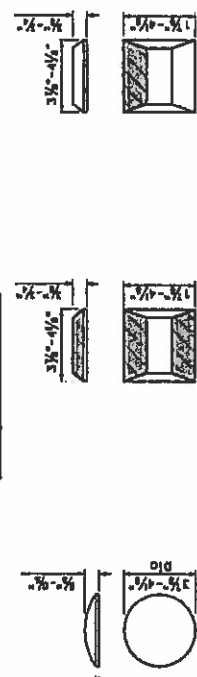
LEGEND

- MARKERS
- TYPE A WHITE NON-REFLECTIVE
 - ◻ TYPE AY YELLOW NON-REFLECTIVE
 - ◻ TYPE C RED-CLEAR RETROREFLECTIVE
 - ◻ TYPE D TWO-WAY YELLOW RETROREFLECTIVE
 - ◻ TYPE O ONE-WAY CLEAR RETROREFLECTIVE
 - ◻ TYPE H ONE-WAY YELLOW RETROREFLECTIVE
- LINES
- ▬ 4" WHITE
 - ▬ 4" YELLOW

NOTE:

Detail 14 is to be used in combination with Detail 13. Detail 14A is to be used in combination with Detail 12.

MARKER DETAILS



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS
AND TRAFFIC LINES
TYPICAL DETAILS

NO SCALE

A20A

01-1 COUNTY ROUTE TOTAL PROJECT SHEET NO. PROJECTS

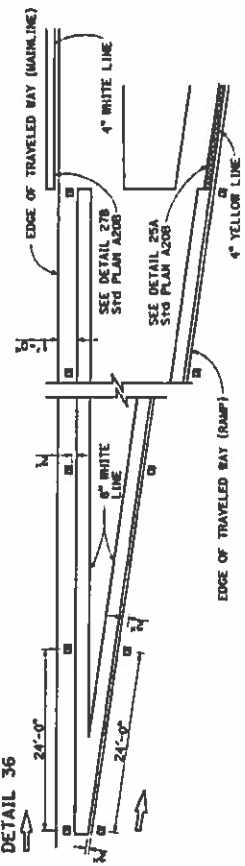
October 30, 2015
 DATE
 1515 LAMAR BLVD
 SACRAMENTO, CA 95811
 PROJECT NO. 1515-00000-0000
 SHEET NO. 1515-00000-0000-0000

CHILTON FERRARI
 REGISTERED CIVIL ENGINEER

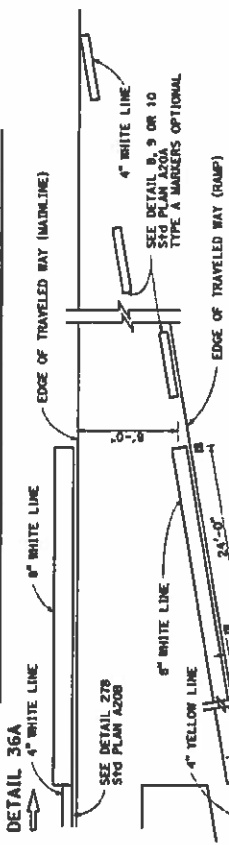
SEAL: CHILTON FERRARI, CIVIL ENGINEER, STATE OF CALIFORNIA, LICENSE NO. 51327

NO USE OF OR PART OF THIS DESIGN OR ANY PART THEREOF FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.

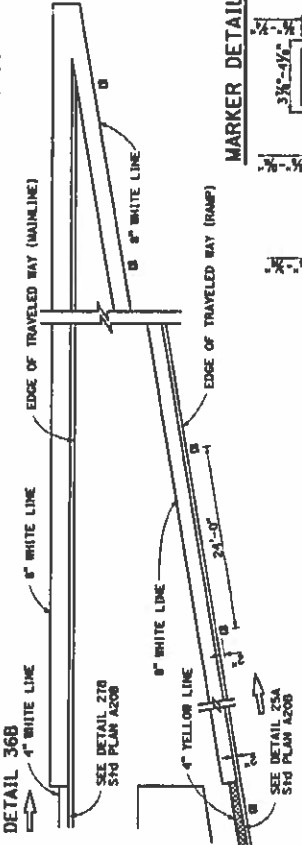
EXIT RAMP NEUTRAL AREA (GORE) TREATMENT



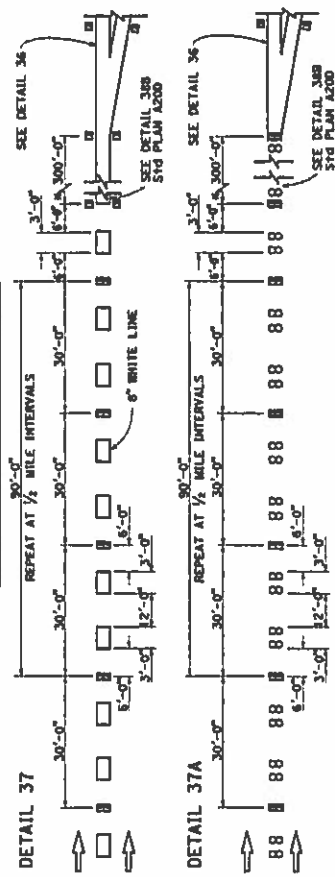
ENTRANCE RAMP NEUTRAL AREA (MERGE) TREATMENT



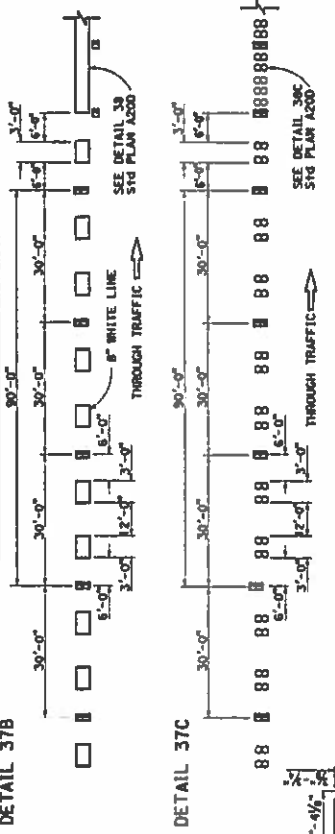
ENTRANCE RAMP NEUTRAL AREA (ACCELERATION LANE) TREATMENT



LANE DROP AT EXIT RAMP

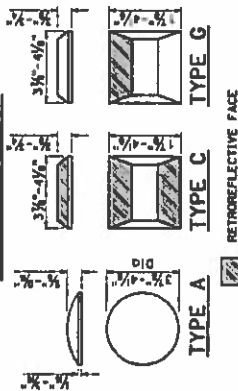


LANE DROP AT INTERSECTIONS



* The solid channelizing line shown may be omitted on short auxiliary lanes where weaving length is critical.

MARKER DETAILS



- LEGEND:**
- TYPE A WHITE NON-REFLECTIVE
 - TYPE C RED-CLEAR RETROREFLECTIVE
 - ▣ TYPE G ONE-BAY CLEAR RETROREFLECTIVE

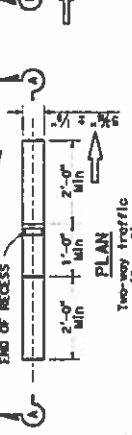
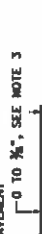
STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKERS
 AND TRAFFIC LINES
 TYPICAL DETAILS**
 NO SCALE

A20C

COUNTY: _____ ROUTE: _____ TOTAL SHEETS: _____ SHEET NO.: _____

 PROJECT: _____
 DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 TITLE: _____

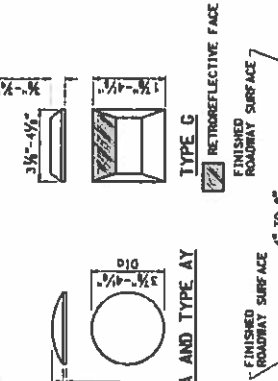
CHANNELIZING LINE



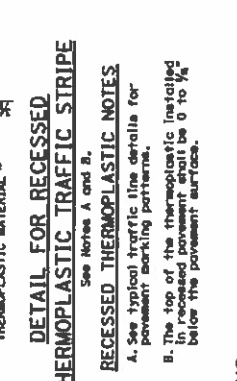
LEGEND MARKERS

- TYPE A WHITE NON-REFLECTIVE
- ⊙ TYPE AT YELLOW NON-REFLECTIVE
- ◻ TYPE C ONE-WAY CLEAR RETROREFLECTIVE
- ▨ 4" YELLOW LINE

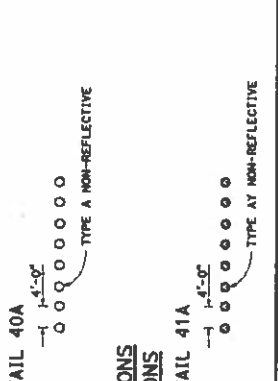
MARKER DETAILS



DETAIL FOR RECESSED THERMOPLASTIC TRAFFIC STRIPE



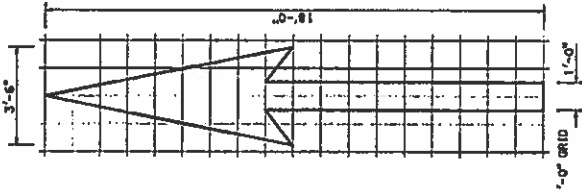
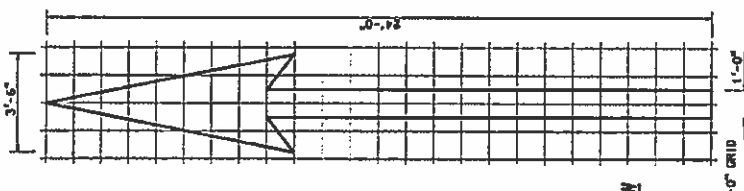
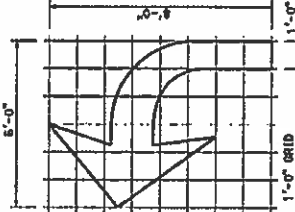
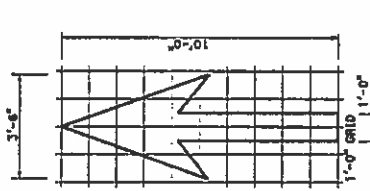
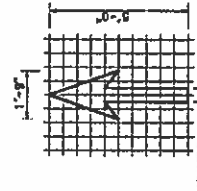
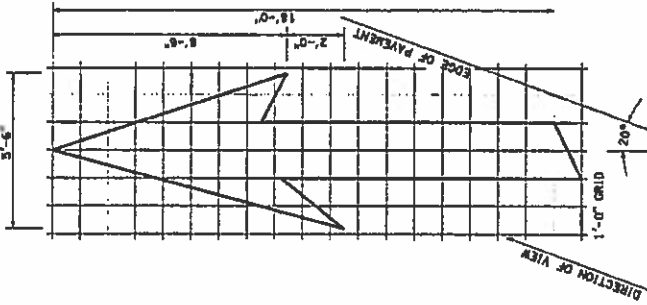
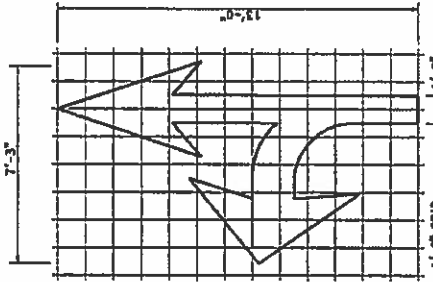
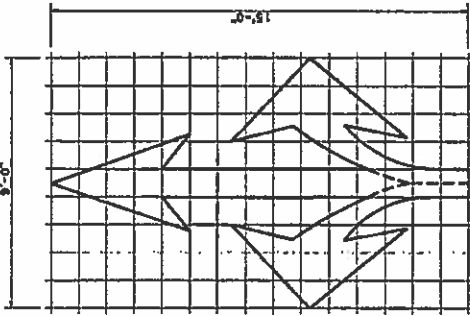
RECESS DETAIL FOR RETROREFLECTIVE PAVEMENT MARKER



A20D

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKERS
 AND TRAFFIC LINES
 TYPICAL DETAILS**
 NO SCALE

PROJECT NUMBER: _____
 SHEET NUMBER: _____
 DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 APPROVED BY: _____
 TITLE: _____
 SCALE: _____
 PROJECT LOCATION: _____
 PROJECT DESCRIPTION: _____
 CONTRACT NUMBER: _____
 CONTRACT DATE: _____
 CONTRACT VALUE: _____
 CONTRACTOR: _____
 ENGINEER: _____
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF CALIFORNIA
 LICENSE NUMBER: _____
 EXPIRES: _____
 THE STATE OF CALIFORNIA HAS REVIEWED THIS PROJECT FOR CONFORMANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND HAS FOUND IT TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.



NOTE:
 Minor variations in dimensions may be accepted by the Engineer.

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKINGS
 ARROWS**

NO SCALE

A24A

DATE	QUANTITY	ROUTE	TOTAL	NO. SHEETS	TOTAL SHEETS

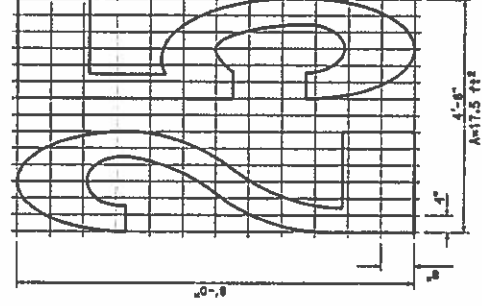
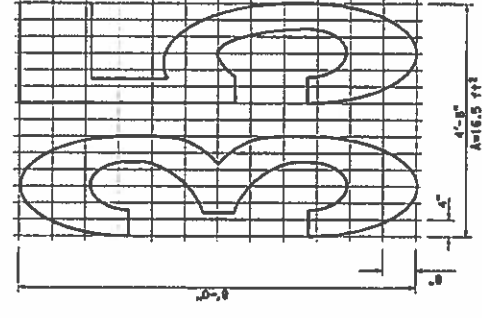
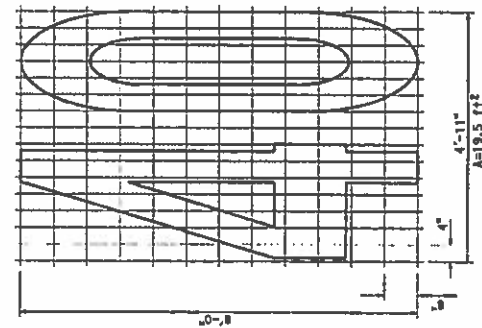
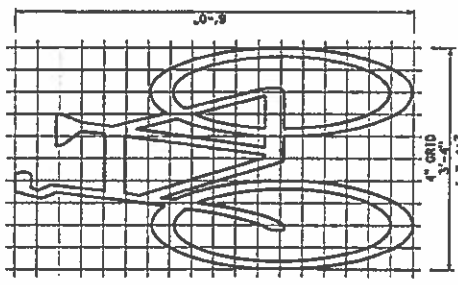
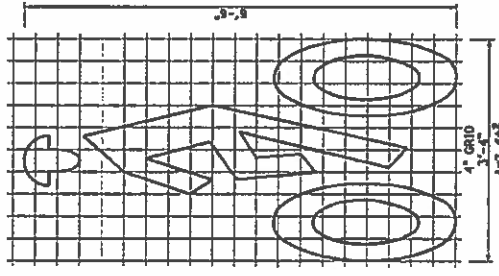
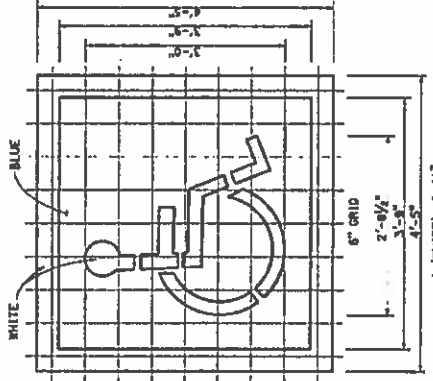
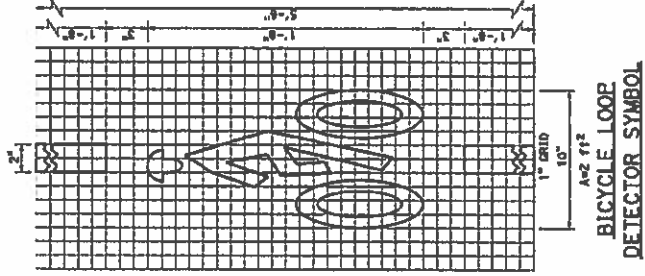
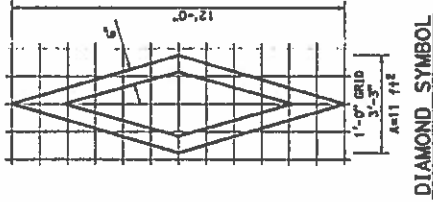
John J. ...
REGISTERED CIVIL ENGINEER

October 30, 2015

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
DESIGN DIVISION

DATE OF PREPARATION: 10/15/15
BY: J. J. ...
CHECKED BY: ...
DESIGNED BY: ...

NOTE:
Minor variations in dimensions may be accepted by the Engineer.



SHARED ROADWAY BICYCLE MARKING

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS
SYMBOLS AND NUMERALS**

NO SCALE

A24C

DIST. COUNTY ROUTE 100' PER STATION

REGISTERED PROFESSIONAL ENGINEER

OCTOBER 30, 2015

PLANS APPROVAL DATE

BY STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

FOR THE PURPOSE OF CONSTRUCTION OF ROADWAY

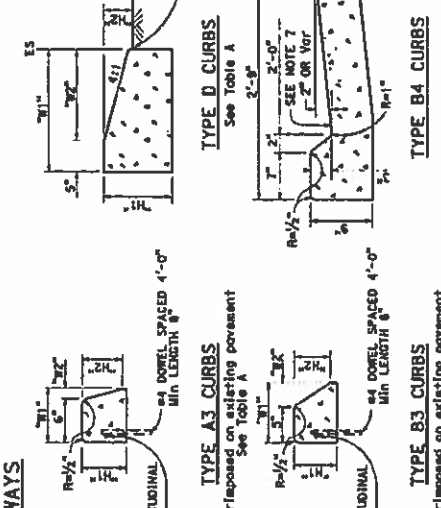
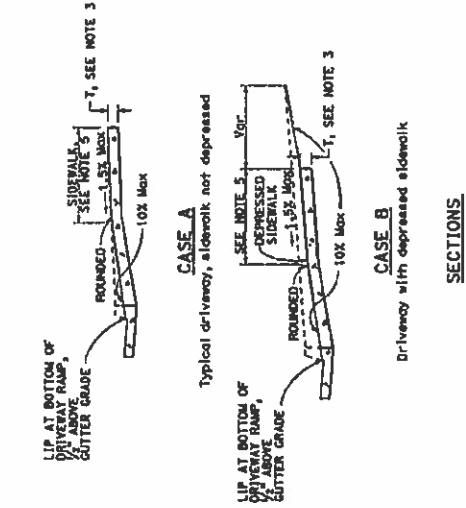
PROJECT NO. 100' PER STATION

CURB QUANTITIES

TYPE	CUBIC YARDS PER LINEAR FOOT
A1-B	0.02595
A1-B	0.02984
A2-B	0.02903
A2-B	0.06379
A3-B	0.01038
A3-B	0.01435
B1-B	0.02185
B1-B	0.02930
B2-B	0.05315
B2-B	0.06171
B3-B	0.01074
B4	0.05709
D-4	0.04083
D-8	0.06804
E	0.06681

TABLE A

CURB TYPE	DIMENSIONS			
	1/4"	1/2"	3/4"	1"
A1-B	1'-2"	6"	7 1/2"	1 1/2"
A1-B	1'-4"	6"	6"	2"
A2-B	1'-0"	6"	2-7/8"	1 1/2"
A2-B	1'-2"	6"	2'-0"	2"
A3-B	6"	5"	7 1/2"	1 1/4"
A3-B	6"	7"	7 1/2"	1 1/4"
B1-B	1'-0"	4"	7 1/2"	2 1/2"
B1-B	1'-2"	6"	9"	4"
B2-B	1'-0"	4"	2-7/8"	2 1/2"
B2-B	1'-0"	6"	2'-0"	4"
B3-B	4"	3"	2'-0"	2"
B3-B	6"	5"	4 1/2"	3 1/2"
D-4	1'-0"	4"	1'-6"	1'-1"
D-8	1'-0"	6"	2'-2"	1'-9"



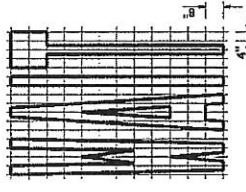
- NOTES:**
- Case A driveway section typically applies.
 - X₃-0' except for curb heights over 10' where 4:1 slopes shall be used on curb slope.
 - Shoulder and ramp thickness 7" at driveway shall be 4" for residential and 6" for commercial.
 - Difference in slope of the driveway ramp and the roadway shall be 1:10. The curb shall point an edge 15'-0" from curb line and shall not exceed 15". Reduce driveway ramp slope, not gutter slope, where required.
 - Minimum width of clear possession for sidewalk shall be 4'-2".
 - Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
 - Across the pedestrian route of curb ramp locations, the gutter pan slope shall not exceed 1% of depth for each 2'-0" of width.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

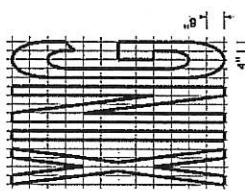
CURBS AND DRIVEWAYS

NO SCALE

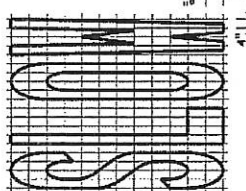
DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL	COUNT
REGISTERED CIVIL ENGINEER <i>Stephen Jensen</i> October 30, 2015 PLANS APPROVAL DATE 11/16/2015 3-31-17 REGISTERED PROFESSIONAL ENGINEER CIVIL NO. 52318 BOARD OF CIVIL ENGINEERS AND SURVEYORS STATE OF CALIFORNIA			11/16/2015 3-31-17 REGISTERED PROFESSIONAL ENGINEER CIVIL NO. 52318 BOARD OF CIVIL ENGINEERS AND SURVEYORS STATE OF CALIFORNIA		



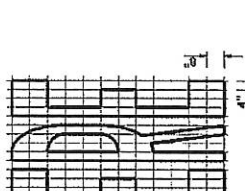
A=19 ft+2



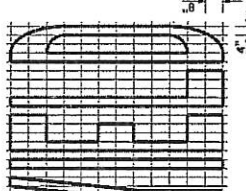
A=21 ft+2



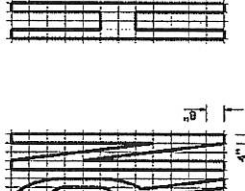
A=23 ft+2



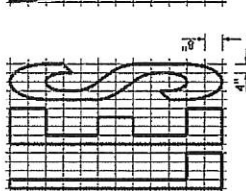
A=26 ft+2



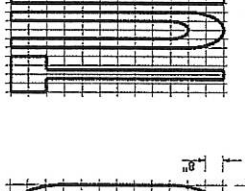
A=24 ft+2



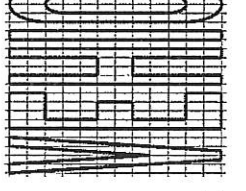
A=24 ft+2



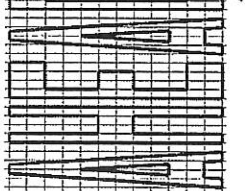
A=42 ft+2



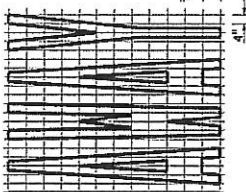
A=31 ft+2



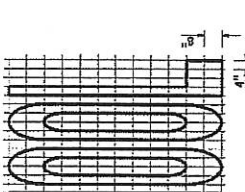
A=43 ft+2



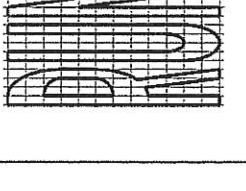
A=35 ft+2



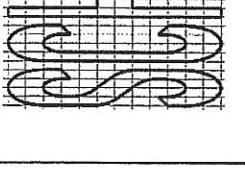
A=19 ft+2



A=32 ft+2



A=26 ft+2



A=5 ft+2



A=6 ft+2



A=22 ft+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 letters. The height of the letters must be at least 1/4 inch. The height of the letters must be at least 1/4 inch. The space may be reduced proportionately 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.

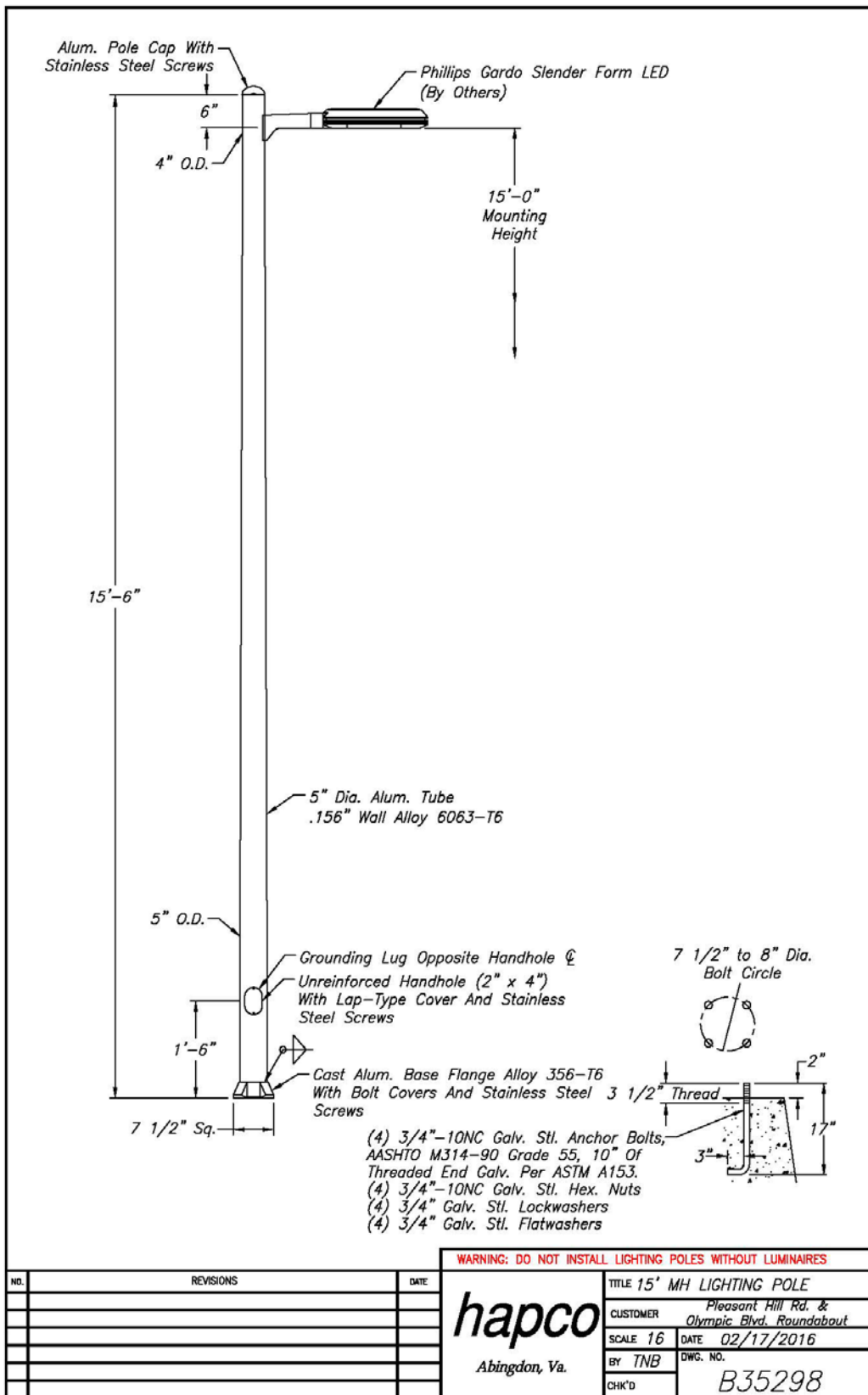
WORD MARKINGS			
ITEM	ft+2	ft+2	ft+2
XING	21	YIELD	24
AHEAD	31	SCHOOL	35
LANE	6	SIGNAL	32
RIGHT	26	TURN	24
		HERE	26
		LEFT	19
		VEHICLES	42
		BIKE	5
		PED	18
		STOP	23
		COMPACT	10
		RUNWAY	43

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKINGS
WORD MARKINGS
 NO SCALE

A 24D

Appendix B

Street Light Assembly Cut Sheet



B35298

Appendix C

Other Details

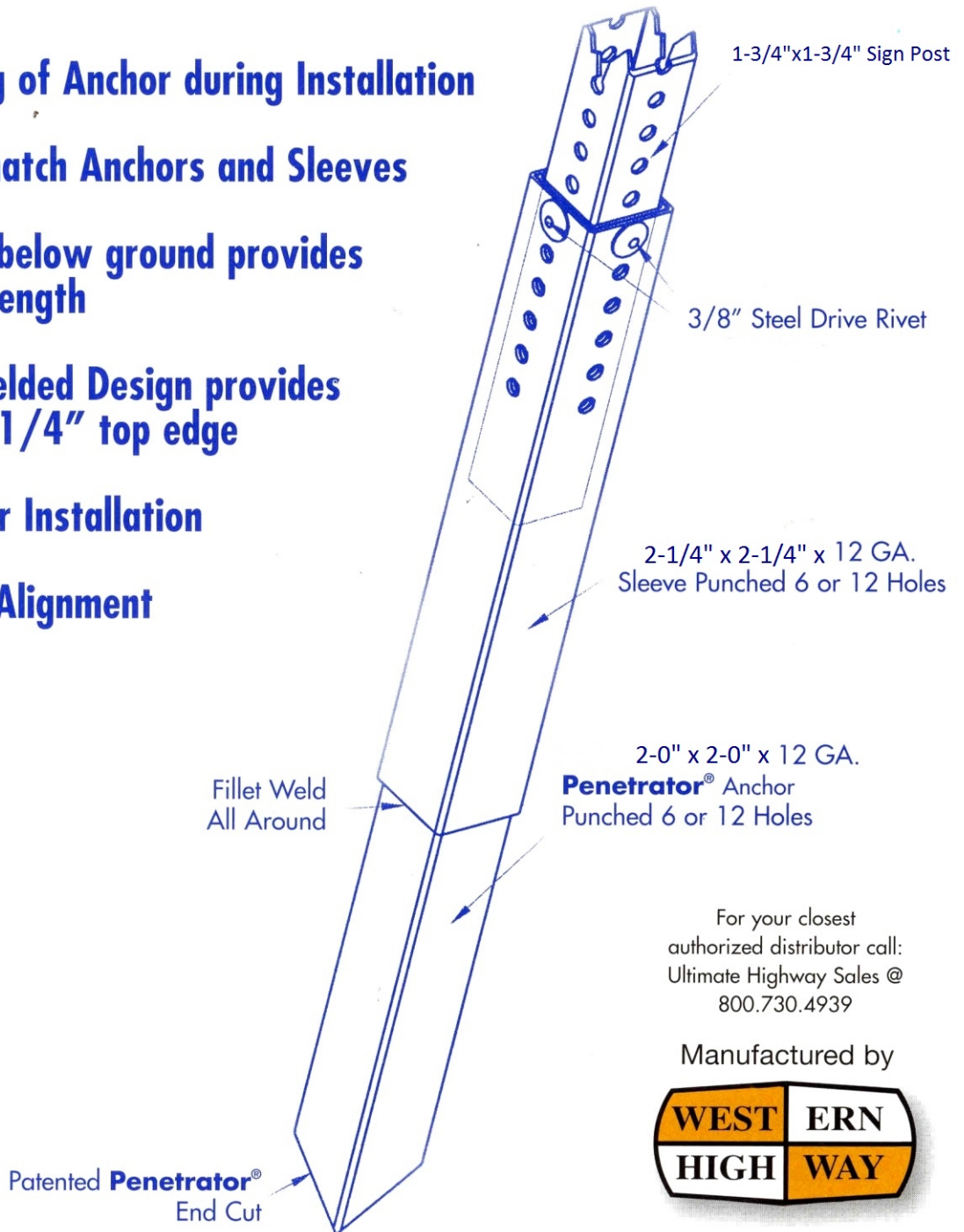
Sign Post & Accessories

The Anchor-Mate®

The Best Drivable Anchor in the World!

by **Ulti-Mate**®
The Ultimate Sign Support System

- No Deforming of Anchor during Installation
- No need to match Anchors and Sleeves
- Solid section below ground provides additional strength
- Two Piece Welded Design provides almost a full 1/4" top edge
- Quicker Easier Installation
- Perfect Hole Alignment



For your closest authorized distributor call:
Ultimate Highway Sales @
800.730.4939

Manufactured by



<http://www.westernhighway.com>
E-mail: whpsales@westernhighway.com

Ulti-Mate®

The Ultimate Sign Support System

Traffic signs are the primary source of information for motorists. The biggest and brightest sign is only effective if the support it is mounted on keeps the sign in its intended position. Sign supports need to be strong,

versatile and cost effective. The Ulti-Mate® sign support system, approved by the Federal Highway Administration, is the most reliable, economical and easiest to install support system available.

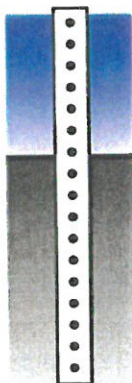
MATERIALS & SPECIFICATIONS

The Ulti-Mate sign support system is available in 12 and 14 gage steel complying with ASTM specification A653, hot dip galvanized conforming to coating designation G-140 for excellent corrosion prevention.

- Available with 7/16" holes on 1" centers on 2 or 4 sides (11.1mm on 25.4mm centers).
- The Ulti-Mate sign support system is completely compatible with all existing square posts.
- Mating tube sections allow for fast, safe ground level installations.

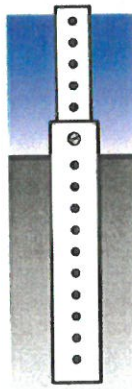
- Ground anchor posts allow for rapid replacement installations when necessary.
- Square tube sections provide superior resistance to wind and other forces over U-channel or round posts.
- The Ulti-Mate sign support system provides four flat surfaces for mounting signs in any direction and at any height without the need for additional hardware.
- FHWA approved as meeting safety requirements for sign supports.
- Custom sign support colors available on request.

FHWA APPROVED INSTALLATIONS



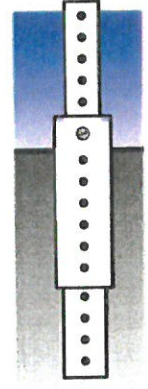
DIRECT INSTALLATION

The Ulti-Mate sign post can be installed directly into the ground using power equipment or a sledge-hammer with driving cap.



EZ INSTALLATION

The Ulti-Mate 12 gage anchor system allows crews to work at ground level for fast installations and replacements. The Ulti-Mate anchor is installed directly into the ground, leaving 1 or 2 holes above grade level. The Ulti-Mate sign post slides into the anchor for safe and easy installations.



HI-IMPACT INSTALLATION

The Ulti-Mate double 12 gage system is for areas that require frequent replacements due to damaged sign posts. This unique method utilizes a two-piece breakaway anchor that makes replacement work fast and safe.

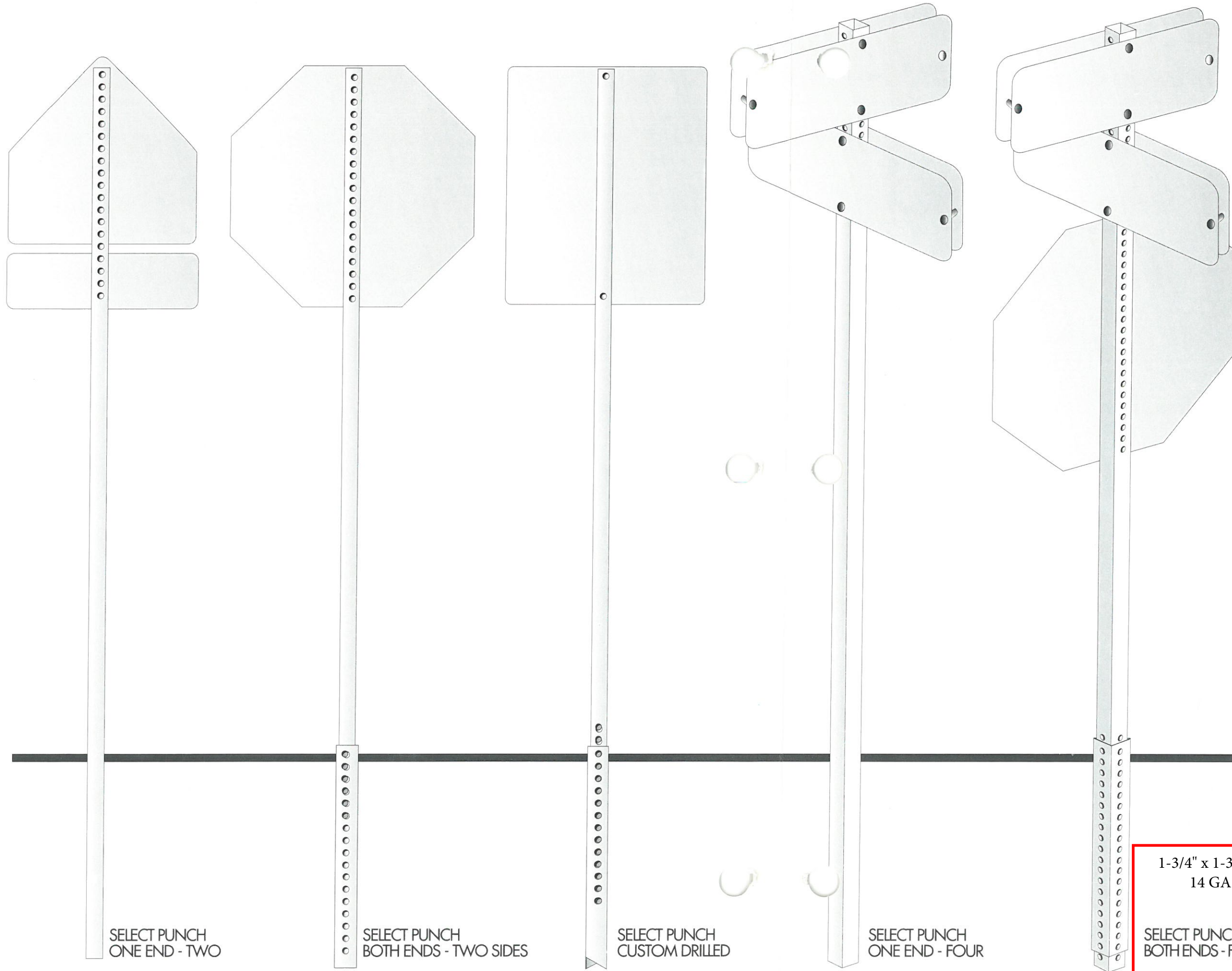
For an easy to follow post-selection ordering guide, contact your local Ulti-Mate distributor.

AVAILABLE PRODUCTS

Tube Size	English			Tube Size	Metric	
	Wall Thickness Gage	Wall Thickness Inches	Pounds Per Foot		Wall Thickness (mm)	Kilograms Per Meter
1.75 x 1.75	14	0.083	1.71	44.45 x 44.45	2.10	2.54
2.00 x 2.00	14	0.083	1.99	50.80 x 50.80	2.10	2.96
2.25 x 2.25	14	0.083	2.28	57.15 x 57.15	2.10	3.39
1.50 x 1.50	12	0.105	1.74	38.10 x 38.10	2.66	2.59
1.75 x 1.75	12	0.105	2.09	44.45 x 44.45	2.66	3.11
2.00 x 2.00	12	0.105	2.44	50.80 x 50.80	2.66	3.63
2.25 x 2.25	12	0.105	2.79	57.15 x 57.15	2.66	4.16
2.50 x 2.50	12	0.105	3.14	63.50 x 63.50	2.66	4.69

Distributed by:

For the name of your closest authorized distributor, call Ultimate Highway Sales at (800) 730-4939.



SELECT PUNCH
ONE END - TWO

SELECT PUNCH
BOTH ENDS - TWO SIDES

SELECT PUNCH
CUSTOM DRILLED

SELECT PUNCH
ONE END - FOUR

SELECT PUNCH
BOTH ENDS - FOUR SIDES

Because you don't need all those holes...

Since the introduction of Ulti-Mate, the Ultimate Sign Support System, we have talked to highway engineers, designers and installers across the country on how to make the best better. The most common response was, "We don't need all those holes". The typical twelve foot post has 564 holes; in most cases only 2 holes are required. With that in mind, we are pleased to offer the Select Punch by Ulti-Mate. Choose the option that best serves your needs... No more unnecessary holes.

- Continuous punching in increments of six, on two or four sides and from either end.
- Custom drilling available to your exact location and hole size as required.
- Also available on all base posts including the Penetrator.
- Minimum of 25 posts per order.

Select Punch by Ulti-Mate. You talked and we listened. **The best just got better.**

Ulti-Mate[®]
The Ultimate Sign Support System

Manufactured by



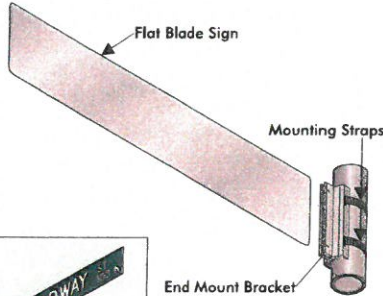
1-3/4" x 1-3/4" x 120"
14 GA Post

HARDWARE FLAT AND EXTRUDED BLADES

MOUNTING COMPONENTS

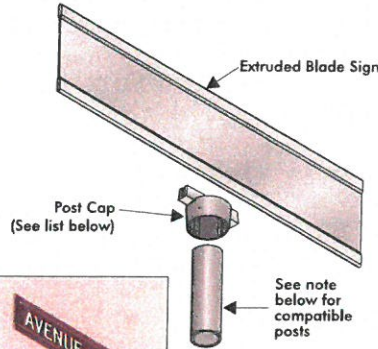
CONFIGURATION: End Mount

Configuration includes nut and bolt set to hold sign in bracket



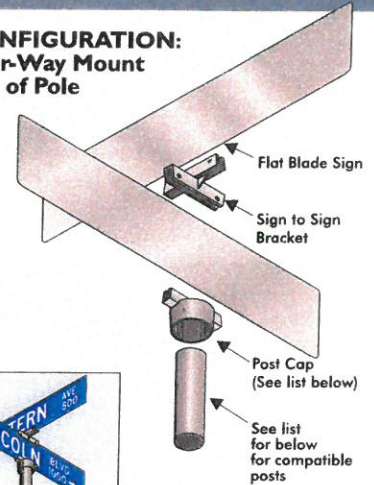
Sign fully assembled on post.

CONFIGURATION: Single Mount Top of Pole



Sign fully assembled on post.

CONFIGURATION: Four-Way Mount Top of Pole



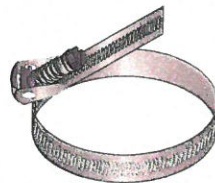
Sign fully assembled on post.



END MOUNT BRACKET

Blade street signs can be held on their ends with this bracket.

- EMB-6** for AX-6 or AF-6 signs
- EMB-6.75** for AX-6.75 or AF-6.75 signs
- EMB-9** for AX-9 or AF-9 signs

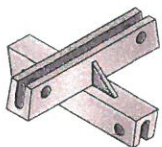


MOUNTING STRAP

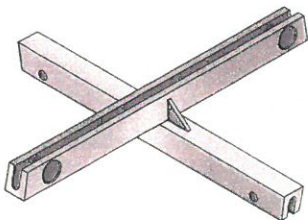
Stainless Steel Strap/Clamp - inexpensive and convenient for mounting sign brackets and other uses. With a length of 32 inches, the clamp can accommodate poles up to 9 inches wide.

SIGN TO SIGN BRACKETS

Bracket allows two blade signs to be stacked on top of one another.





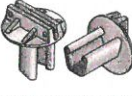
- 707XCS** for AX-6 or AX-6.75 signs
- 808XCS** for AX-9 signs
- 606FCS** for AF-6 or AF-6.75 signs
- 808FCS** for AF-9 signs



- 812XCS** for AX-9 signs
- 812FCS** for AF-9 signs

POST CAPS AND POST INFORMATION

Post caps are recommended for "Single Top of Pole" or "Four-Way Top of Pole" configurations of blade street signs. Western Highway supplies post caps for the most common street sign posts. Use the following chart to see if your posts are compatible with our regularly available post caps.

 Cylindrical Post Caps	Fits 2" ID Diameter Post 707X-2 for AX-6 or AX-6.75 808X-2 for AX-9 signs 606F-2 for AF-6 or AF-6.75 signs 808F-2 for AF-9 signs	Fits 2-1/2" ID Diameter Post 707X-2.5 for AX-6 or AX-6.75 808X-2.5 for AX-9 signs 606F-2.5 for AF-6 or AF-6.75 signs 808F-2.5 for AF-9 signs
 Square Post Cap	Fits Square Tube Post 850X for AX-6, AX-6.75 or AX-9 signs 850F for AF-6, AF-6.75 or AF-9 signs	
 U-Channel Post Cap	Fits U-Channel Post 707XU for AX-6 or AX-6.75 signs 808XU for AX-9 signs 606FU for AF-6 or AF-6.75 signs 808FU for AF-9 signs	

Other post caps are available. Please call us to confirm inventory.


SIGN POST

H21-DP
DELINEATOR POSTS
 HOT DIPPED GALVANIZED OR BAKED ENAMEL GREEN
 5 ft.
 6 ft.
 1.12 #/ft 30 - 3/8" holes on 1" centers. Light weight but strong. Ideal for Delineators, or marking utility lines.




H21-GP
 5 ft., 6 ft. GUIDE POSTS (FOR MTG. TARGET PLATES)

H21-GP
 40 Inch (for mtg. Type "K" Plates) California Spec. Flanges slotted ends pointed.



PIPE POST


H21-RP2-12
H21-RP2.5-12
H21-RP2
H21-RP2.5
 GALVANIZED STEEL PIPE POSTS
 Schedule 40 steel pipe
 2 inch and 2 1/2 inch I.D.
 10 1/2 ft. and 12 ft. long.
IN STOCK



"U" CHANNEL POSTS
 HOT DIPPED GALVANIZED OR BAKED ENAMEL GREEN

H21-SP
SIGN POSTS
 6 ft. 7 ft.
 8 ft. 9 ft.
 10 ft. 11 ft.
 12 ft.
 2 lb. per foot


(Other lengths on special order) Hot rolled, high carbon, rail steel. 3/8" holes punched on 1" centers, full length. Bottom pointed. High carbon steel is recommended because it resist bending. Meets & exceeds California State specifications.




Uti-Mate[®]

The Ultimate Sign Support System

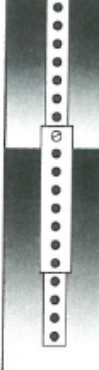
DIRECT INSTALLATION
 The Uti-mate sign post can be installed directly into the ground using power equipment or a sledgehammer with drive cap.



EZ INSTALLATION
 The Uti-mate 12 gage anchor system allows crews to work at ground level for fast installations and replacements. The Uti-mate anchor is installed directly into the ground, leaving 1 or 2 holes above grade level. The Uti-mate sign post slides into the anchor for safe and easy installations.



HI-IMPACT INSTALLATION
 The Uti-mate double 12 gage system is for areas that require frequent replacements due to damaged sign posts. This unique method utilizes a two-piece breakaway anchor that makes replacement work fast and safe.



Tube Size	English		Pounds Per Foot	Tube Size	Metric	
	Wall Thickness Gage	Inches			Wall Thickness (mm)	Kilograms Per Meter
1.75 x 1.75	14	0.083	1.71	44.45 x 44.45	2.10	2.54
2.00 x 2.00	14	0.083	1.99	50.80 x 50.80	2.10	2.96
2.25 x 2.25	14	0.083	2.28	57.15 x 57.15	2.10	3.39
1.50 x 1.50	12	0.105	1.74	38.10 x 38.10	2.66	2.59
1.75 x 1.75	12	0.105	2.09	44.45 x 44.45	2.66	3.11
2.00 x 2.00	12	0.105	2.44	50.80 x 50.80	2.66	3.63
2.25 x 2.25	12	0.105	2.79	57.15 x 57.15	2.66	4.16
2.50 x 2.50	12	0.105	3.14	63.50 x 63.50	2.66	4.69

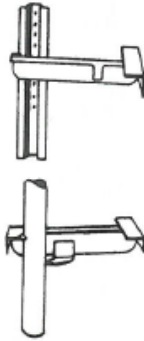
See Separate Literature

SIGN POST ACCESSORIES



H25-4A
DETACHABLE
POST PULLER ONLY
(any shape post)
Must be used with Jack.

H25-7
POST PULLER JACK
ONLY
Includes Base & Handle.



H25-6
Self Locking
U-Post Step

H25-6A
Self Locking
2" Pipe Step



H25-8
POST DRIVER
For Driving U Channel
Sign Posts.
38 lb.



H26-SP
1 1/2" x 48 PIPE ONLY
Painted Black

Use H5 Spacer and H6-2.5
Bolts for mounting signs to
above.



H26-20B
20 lb. Base Only

H26-30B
30 lb. Base Only

H26-40B
40 lb. Base Only

5/16" flat steel plate
base. Painted black.



ULTI-MATE STOP

TO BE USED FOR
TEMPORARY TRAFFIC
CONTROL SITUATIONS.

See separate literature for
complete information.



H21-SPDC
MANUAL DRIVE CAP
For U-Channel.

H21-SPPDC
POWER DRIVE CAP
& 7/8" SHANK
For U-Channel.

UM-MDC175
MANUAL DRIVE CAP
For 1 3/4" anchor posts.

UM-MDC200
MANUAL DRIVE CAP
For 2" anchor posts.

UM-MDC225
MANUAL DRIVE CAP
For 2 1/4" anchor posts.

UM-MDC250
MANUAL DRIVE CAP
For 2 1/2" anchor posts.



UM-PDCS7/8-325
POWER DRIVE SHANK
7/8" x 3 1/4"

UM-PDCS7/8-425
POWER DRIVE SHANK
7/8" x 4 1/4"

UM-PDCS1-425
POWER DRIVE SHANK
1" x 4 1/4"

UM-PDCS1 1/8-6
POWER DRIVE SHANK
1 1/8" x 6"

UM-PDCS1 1/4-6
POWER DRIVE SHANK
1 1/4" x 6"



UM-PDC175
POWER DRIVE CAP
For 1 3/4" anchor posts.

UM-PDC200
POWER DRIVE CAP
For 2" anchor posts.

UM-PDC225
POWER DRIVE CAP
For 2 1/4" anchor posts.

UM-PDC250
POWER DRIVE CAP
For 2 1/2" anchor posts.






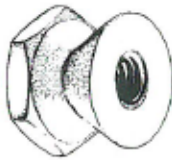
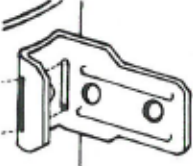







**STREET NAME
SIGN
HARDWARE**

WE MANUFACTURE A COMPLETE LINE OF STREET
NAME SIGN MOUNTING HARDWARE. LOOK FOR IT
IN THE STREET NAME SIGN SECTION OF YOUR
WESTERN HIGHWAY PRODUCTS CATALOG.

10650 FERN AVENUE, STANTON, CALIFORNIA 90680
(714) 761-4811 (800) 479-3783 FAX (714) 952-2118
<http://www.westernhighway.com> E-mail whpsales@westernhighway.com

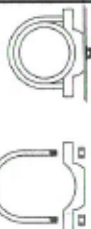
SIGN MOUNTING HARDWARE

	<p>H1-SL STRAP-ON BRACKET (Straight Leg) Extra Heavy 1/8" Steel, Hot dipped galv. with 5/16" tapped hole. Slotted for 3/4" Strap. Mounting Bolt not included.</p> <p>H1-SLSS STAINLESS STEEL BRACKET Includes Mounting Bolt.</p>	 <p>H6-STB SEAL-TITE BOLT 5/16" X 1/2" bolt with Neoprene washer for mounting Signs with tapped brackets or pipe.</p>
	<p>H2-FL STRAP-ON BRACKET (Flared Leg) For banding to large poles. Extra Heavy 1/8" Steel, Hot dipped galv. with 5/16" tapped hole. Slotted for 3/4" Strap.</p> <p>H2-FLSS STAINLESS STEEL BRACKET Includes Mounting Bolt.</p>	 <p>H6-TPBKEY KEY WRENCH For tamper proof bolt.</p> <p>H6-TPDR RACKET DRIVER For tamper proof bolt.</p> <p>H6-TP TAMPER PROOF BOLT 5/16" X 1/2" special spanner head bolt. Use same as H6-STB bolt.</p>
	<p>H3-CLB STRAP-ON BRACKET CANTILEVER Heavy Gauge Aluminum Use one for each sign hole. For mounting double face Signs - slotted for 3/4" strap and punched for 5/16" bolts.</p>	 <p>H6-VGNG For Galv. Bolt H6-VGNP For Plated Bolt VANDLGARD-NUT Tamper Proof Nut for Sign Mounting Call Western Highway for information on this unique, easily installed nut that cuts sign losses.</p>
	<p>H4-D-007 STRAP-ON L-MOUNT BRKT. Stainless Steel Double holes for mounting long signs. May be used back to back in pairs for extra rigid cantilever mounting. Slotted for 3/4" Strap.</p>	 <p>H6-2.5 BG 2 1/2" - Galv. H6-2.5 BP 2 1/2" - Plated BUTTON THEFT PROOF BOLT When this button head bolt is used with nut H6-VGN above, theft is almost impossible. 5/16" Diameter. Available in both galvanized and plated.</p>  <p>ADAPTOR WASHER CARRIAGE BOLT</p> <p>H6-4.5 CB 4 1/2" Plated Carriage Bolt includes adaptor washer. Washer can be sold as separate item.</p>
	<p>H5 BOLT-ON SPACER Galv. Channel Iron 1 1/2" x 1 1/2" x 1/8" Provides flat mounting surface when bolting sign to any size pipe to prevent wobble.</p>	 <p>H6-23 SIGN MTG. HDWR. For U Channel Posts. Aluminum spacer 3 1/2" x 2 1/2", 5/16" x 2 1/2" Bolt, Washer and Nut.</p>  <p>H6-24 GUIDE PLATE MTG. HDWR. 1/4 X 1/2" Bolt, Washer and Lock Nut (8 sets reqd. per Guide Marker).</p>

SIGN MOUNTING HARDWARE



HWSSC
STAINLESS STEEL-CLAMP
 Inexpensive and convenient for mounting sign brackets and other uses. 32" long fits 2" to 9" diameter pipe pole.



H9-2
H9-2.5
CLAMP ON U-BRACKETS
 (Single Bracket)
 Includes steel zinc coated U bolt with nuts and cast aluminum bracket. Sign fastening bolt not included.
 (Use H6-STB or H6-TP)
 Fits 2" and 2 1/2" I.D. standard pipe, eliminates strapping or drilling holes.



H10-1 (3/16 x 1 x 36")
SIGN BRACE (Galv.)
 To fit 4 x 4 posts.
H10-2 (3/16 x 1 x 37 1/4")
 To fit 4 x 6 posts.
H10-4.5HG
HEX HEAD BRACE BOLT
 5/16" x 4 1/2" Includes nut & washer.
H10-6.5HG
HEX HEAD BRACE BOLT
 5/16" x 6 1/2" Includes nut & washer.
H10-8.5HG
HEX HEAD BRACE BOLT
 5/16" x 8 1/2" Includes nut & washer.



H11-C203 3/8"
H11-C204 1/2"
H11-C205 5/8"
H11-C206 3/4"
HEAVY DUTY
BANDING TAPE
 .030 Stainless Steel 100 Ft. Roll.



H16-C253 3/8"
H16-C254 1/2"
H16-C255 5/8"
H16-C256 3/4"
HEAVY DUTY
BUCKLES
 Stainless Steel 100 per Box.

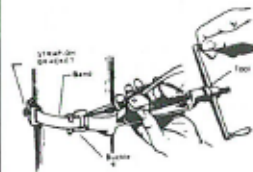


H14-C130
3/4" STRAPPING TAPE
 .015 Stainless Steel
 200 Ft. Roll.



H14-C163
3/4" STRAPPING TAPE
 .020 Stainless Steel
 200 Ft. Roll.

H14-C156
VALUE CLIP
 100 per Box.



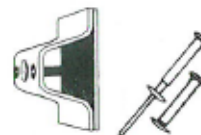
H18-C001
BANDING TOOL
 For use with any size Banding or Strapping Tape.



H19-HP2
HAND PLIER RIVETING TOOL
 For self-setting rivets. Complete with 4 size Heads - 3/32, 1/8, 5/32, 3/16.



H20-AB66A
3/16" SELF-SETTING RIVETS
 For fastening C.M. Ref. Buttons with Hand Plier. 100 per Box.



H20-18
1/4" x 7/8" POP RIVET
 100 per Box.

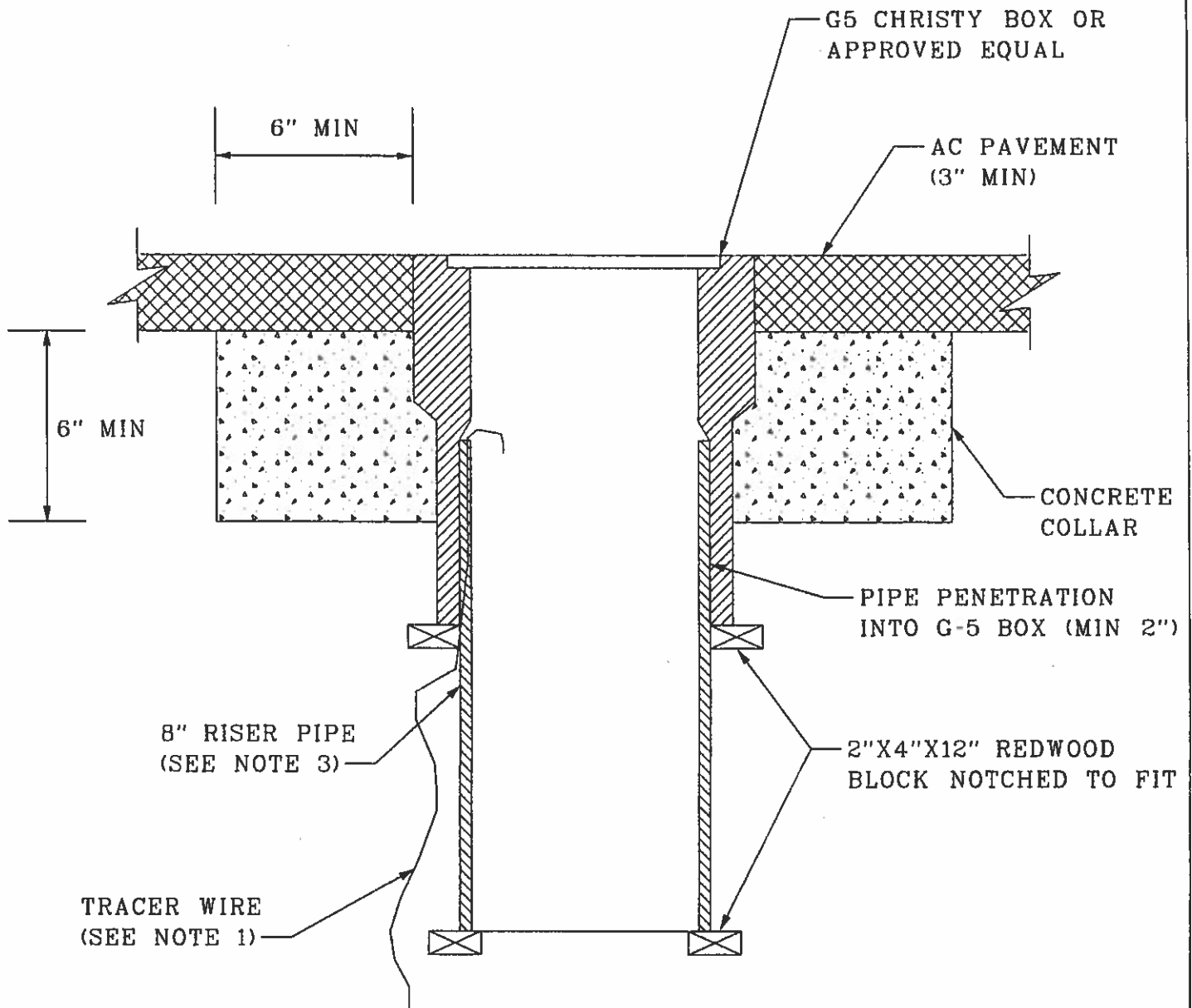
H20-26
CHERRY-MATE FASTENER
1/4" X 1 3/8" POP RIVETS
 A convenient way to mount signs on the H21-SP sign posts. 100 per Box.



H20-316 3/16" x 9/16"
DRIVE RIVETS
 For fastening C.M. Ref. Buttons with Hammer.

H20-38 3/8" x 1/2"
 For sign mounting. 100 per box.

**G5 Valve Box
With Cast Iron Lid**



NOTES:

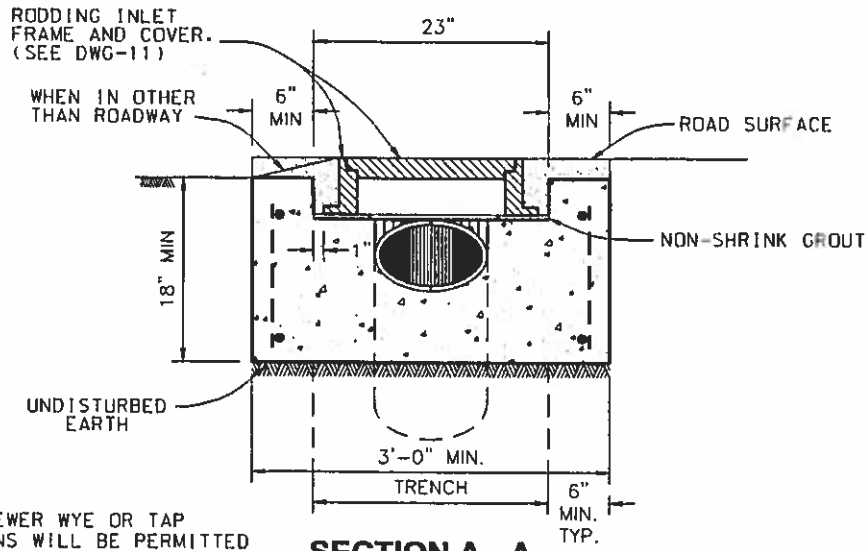
1. AC PAVEMENT TO COMPLY WITH STREET PAVEMENT REQUIREMENTS
2. FOR VALVE BOXES INSTALLED IN NON TRAFFIC AREAS, CONCRETE COLLAR SHALL BE EXTENDED TO FINISH GRADE AND SLOPED TO DRAIN AWAY FROM LID.
3. RISER PIPE TO BE ONE CONTINUOUS PIECE, APPROVED PVC CLASS 150, 200 OR STEEL PIPE WITH A MIN 10 GA WALL THICKNESS
4. IF TRACER WIRE IS OF SUFFICIENT LENGTH RE-ROUTE AS SHOWN

G5
VALVE BOX WITH CAST IRON TRAFFIC LID
NTS

**Central Contra Costa Sanitary District
Standard Plans**

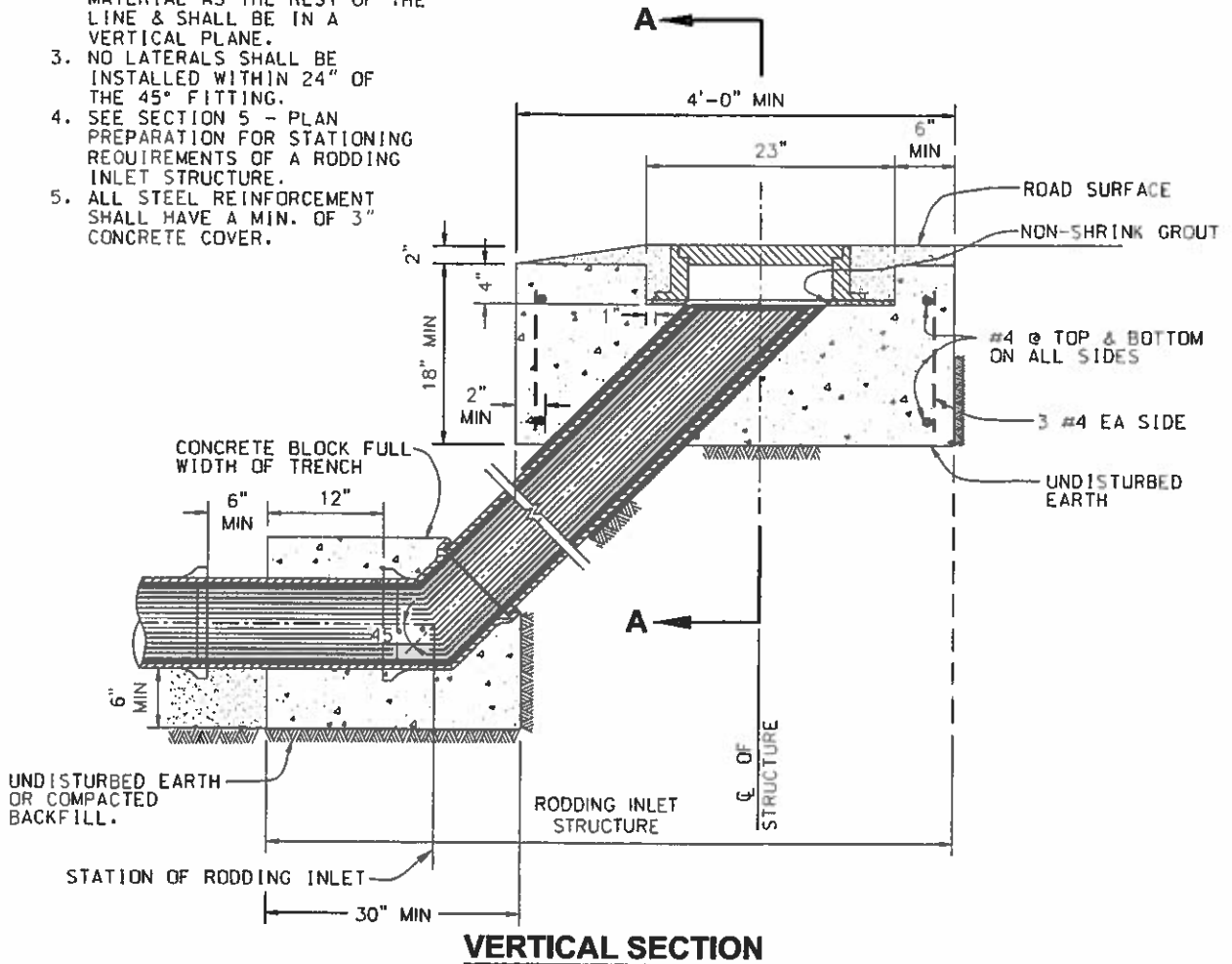
CENTRAL CONTRA COSTA SANITARY DISTRICT MARTINEZ, CALIFORNIA

RODDING INLET



NOTES:

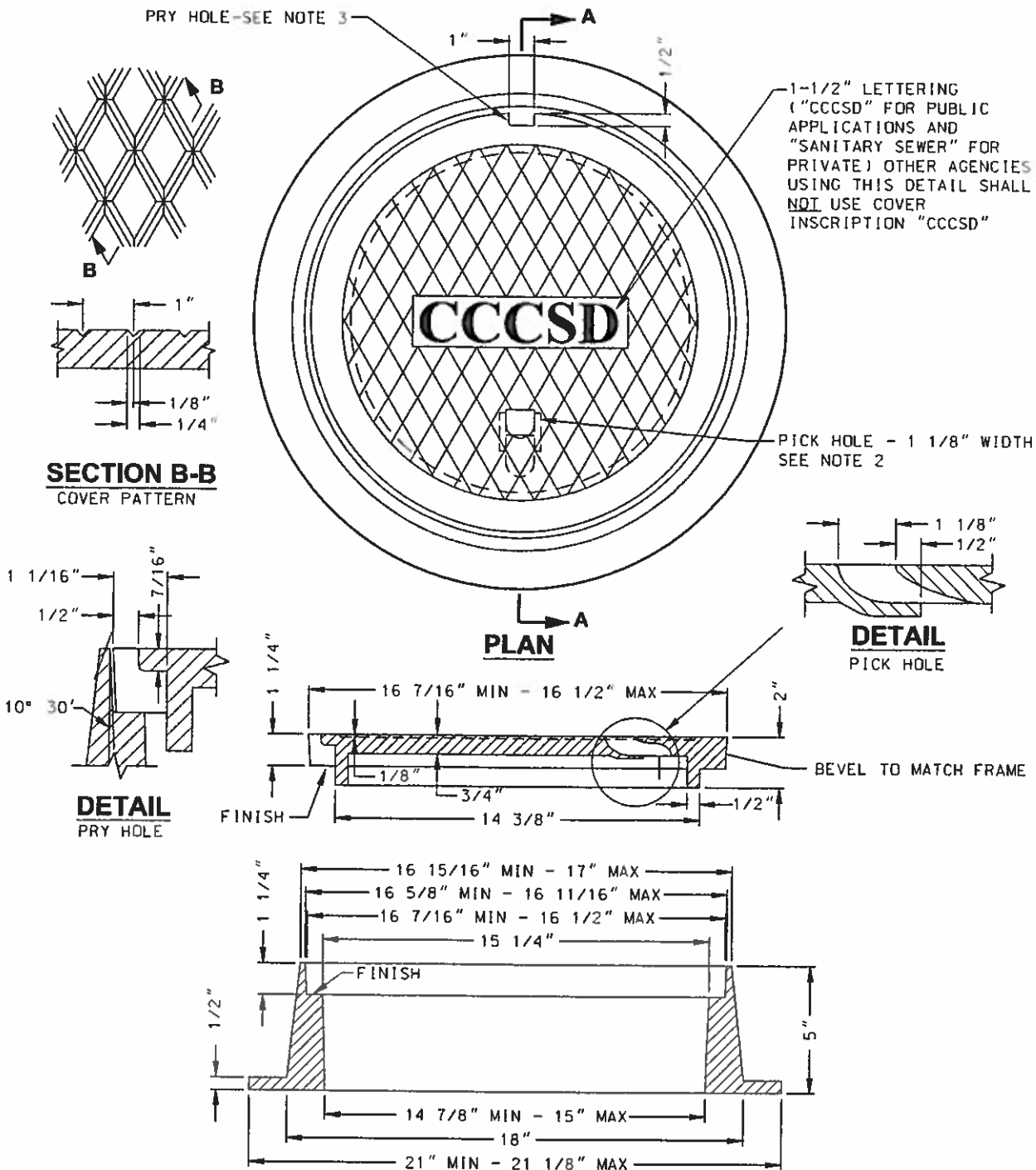
1. NO SIDE SEWER WYE OR TAP CONNECTIONS WILL BE PERMITTED IN RISER PIPE.
2. RISER PIPE SHALL BE THE SAME MATERIAL AS THE REST OF THE LINE & SHALL BE IN A VERTICAL PLANE.
3. NO LATERALS SHALL BE INSTALLED WITHIN 24" OF THE 45° FITTING.
4. SEE SECTION 5 - PLAN PREPARATION FOR STATIONING REQUIREMENTS OF A RODDING INLET STRUCTURE.
5. ALL STEEL REINFORCEMENT SHALL HAVE A MIN. OF 3" CONCRETE COVER.



06-Jul-2014 K:\Projects\standardSpecs\cobsys110_RoddingInlet.dwg

**CENTRAL CONTRA COSTA SANITARY DISTRICT
MARTINEZ, CALIFORNIA**

RODDING INLET FRAME & COVER

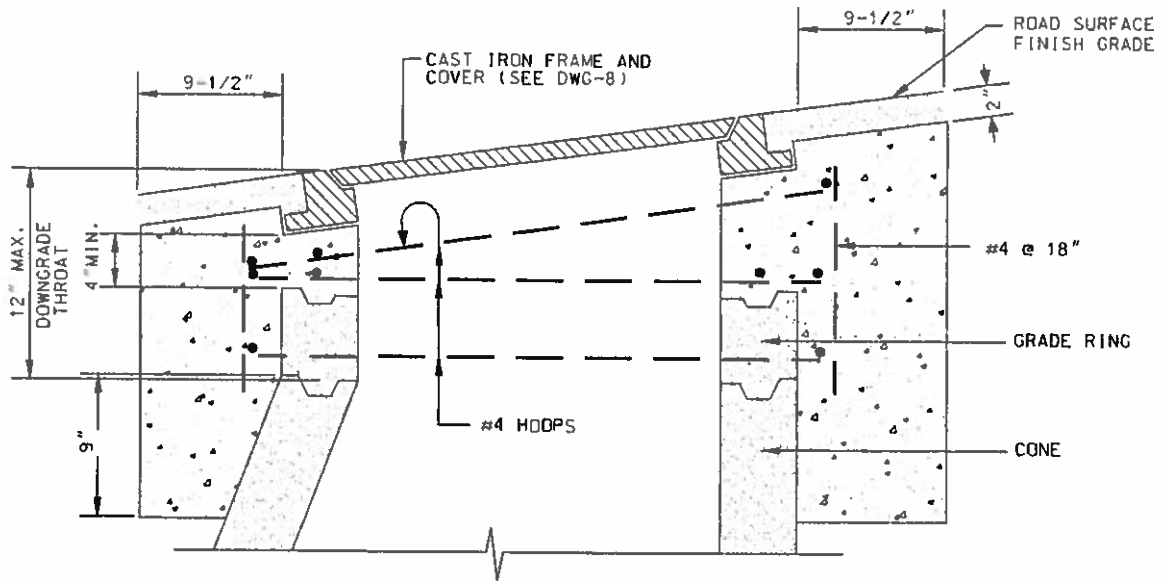


NOTES:

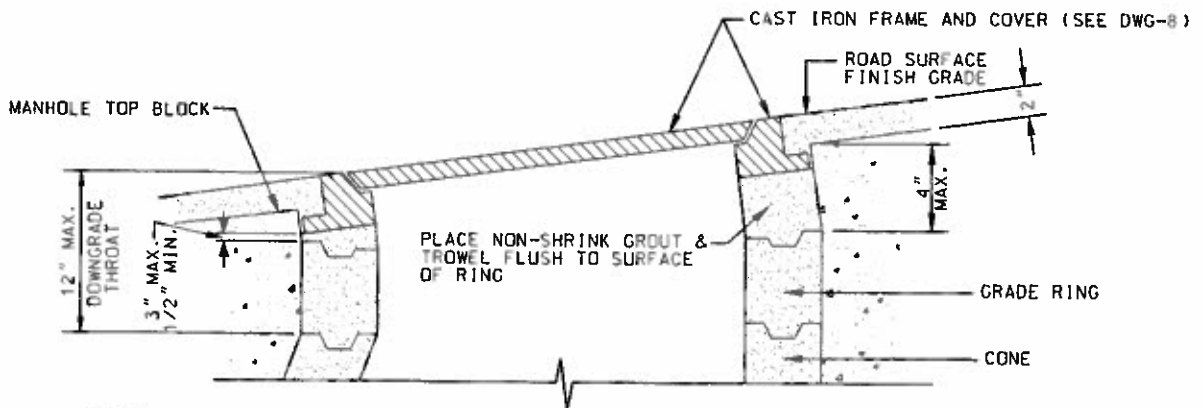
1. COVER SHALL BE DESIGNED FOR HS-20 HIGHWAY LOADING.
2. PICK HOLE SHALL BE OPEN AND FIT A STANDARD PICK.
3. PRY HOLE SHALL BE LOCATED AT TOP CENTER OF THE RODDING INLET COVER AS SHOWN.

CENTRAL CONTRA COSTA SANITARY DISTRICT MARTINEZ, CALIFORNIA

MANHOLE ADJUSTMENT TO FINISH GRADE PAVED AREAS



GREATER THAN 13% GRADE



NOTE:

1. SEE DWG-1 FOR TOP BLOCK DETAILS

13% GRADE OR LESS

Appendix D

Utility Pothole Log

CITY OF LAFAYETTE

UTILITY POTHOLE LOG

(Contractor shall complete and submit to the Engineer prior to commencing excavation work.)

The Contractor shall notify Underground Service Alert (800-227-2600) prior to potholing for utilities. The Contractor shall positively locate all utilities (laterals and mains) marked by utility representatives or identified by the Engineer.

Address	Approx. Station	Offset From Existing Improvement or Centerline	Utility Owner and Type	Depth*
2685 Sample Street	10+53	2' from North Gutter Lip, in Street	PG&E (Gas Service)	36"

*Depth measured from existing surface

Contractor shall sign and date, attesting that the above information is true and correct to the best of Contractor's knowledge.

Contractor Name: _____

Signature of Contractors Representative: _____

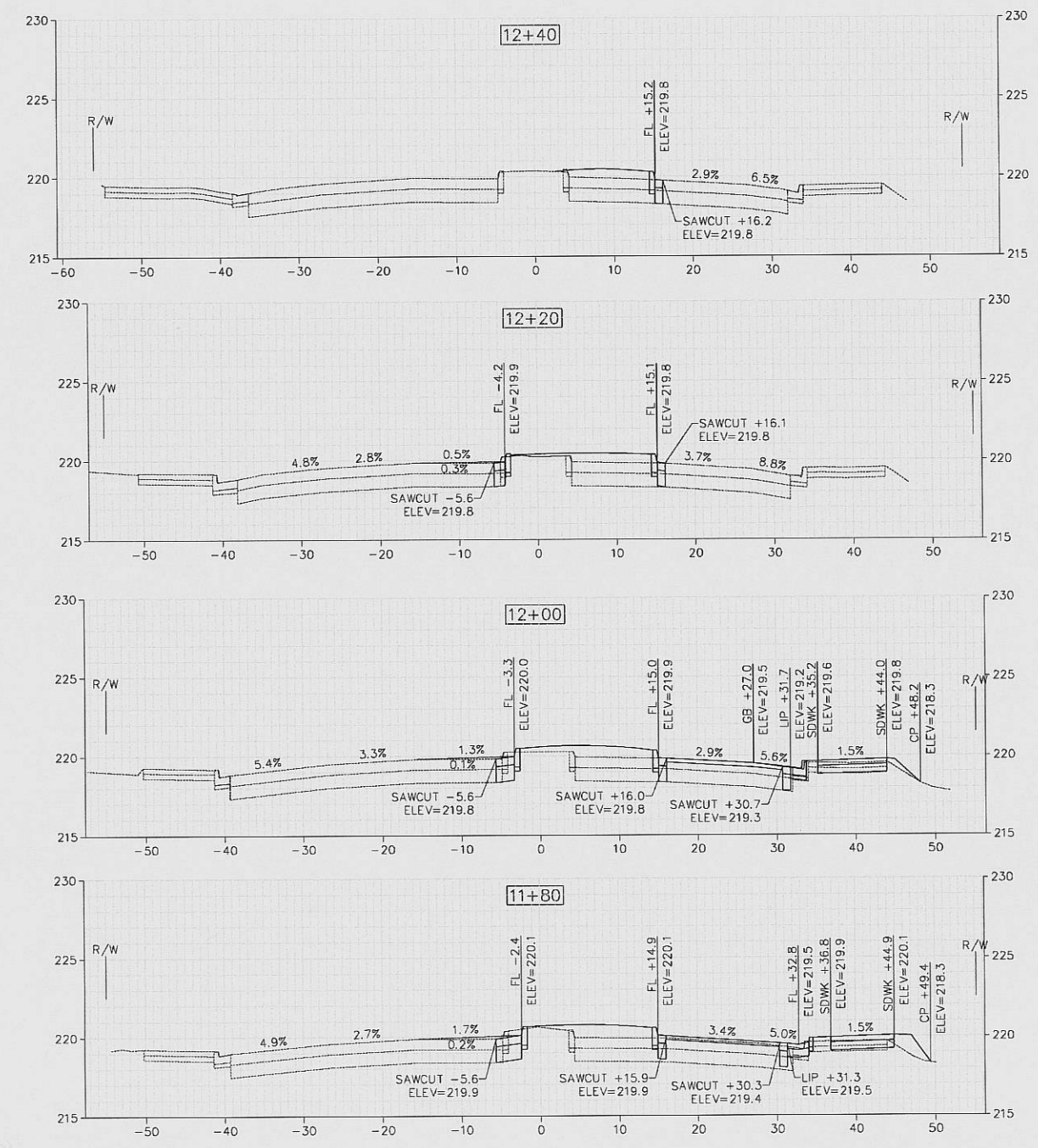
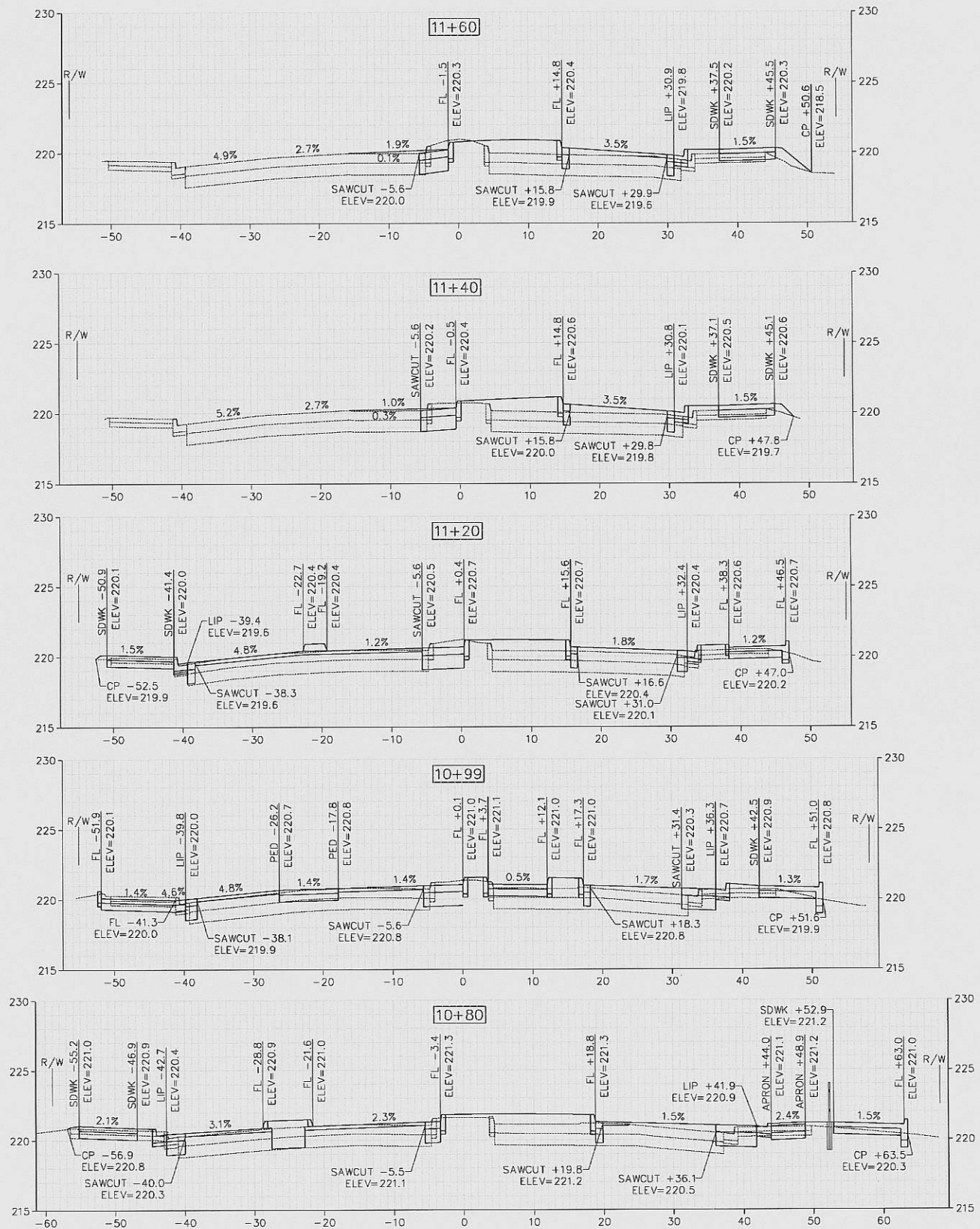
Date: _____

Signature of City of Lafayette Representative: _____

Date: _____

Appendix E

Cross Sections



PLEASANT HILL ROAD



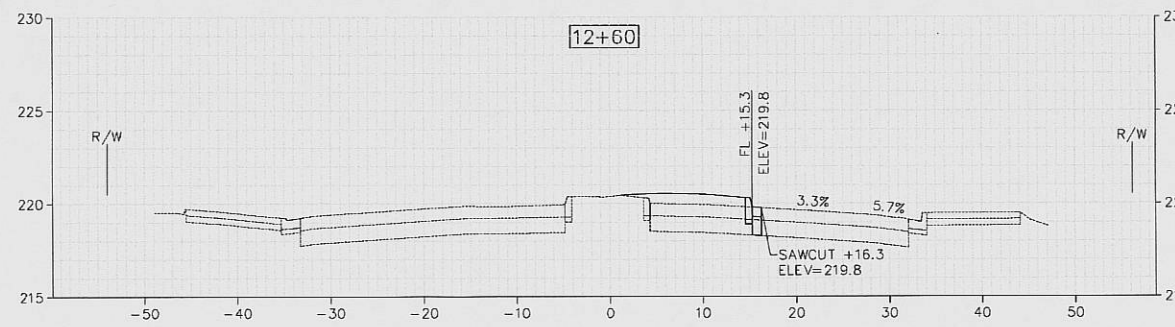
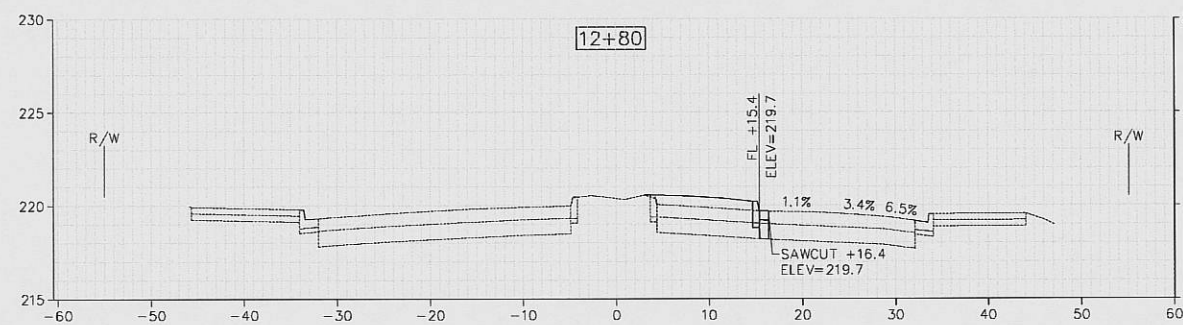
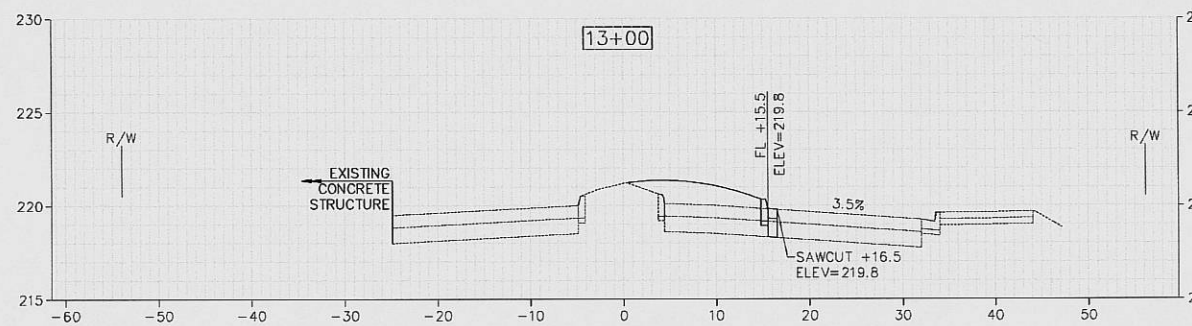
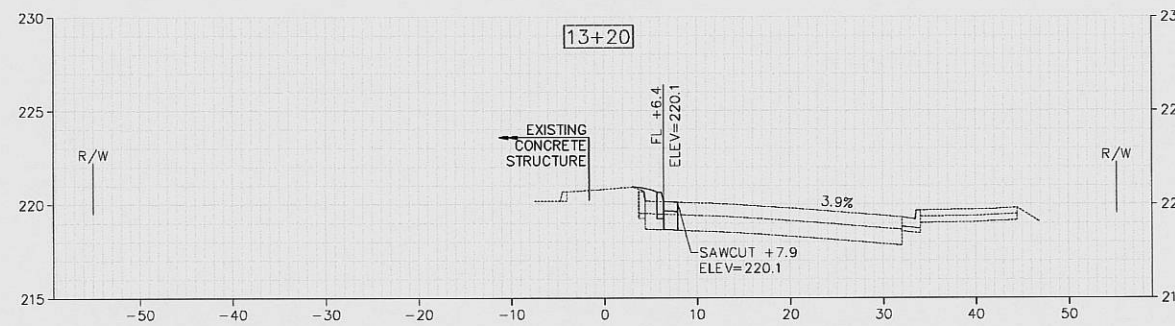
REVISIONS			
NO.	DESCRIPTION	DATE	BY

DRAWN BY:	DJK	DATE:	3-2-2016
DESIGNED BY:	DJK	DATE:	3-2-2016
CHECKED BY:	RGB	DATE:	3-2-2016

CITY OF LAFAYETTE
PROJECT No. 014-9707

PLEASANT HILL RD & OLYMPIC BLVD
ROUNDBOUT
ROADWAY CROSS SECTIONS

SCALE	DATE:	5/6/2016
HORIZ. 1"=10'	CAD FILE:	2052XS002.DWG
VERT. 1"=5'	DRAWING NO.:	XS-1
	SHEET NO.:	1 OF 5



PLEASANT HILL ROAD



REVISIONS			
NO.	DESCRIPTION	DATE	BY

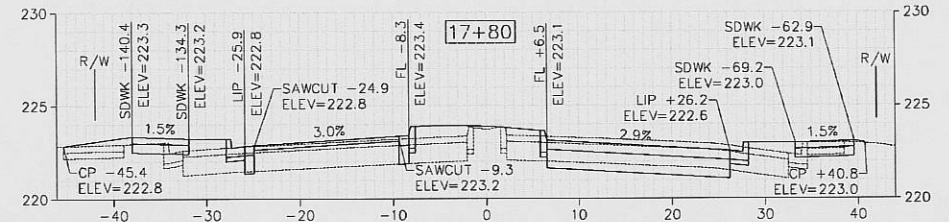
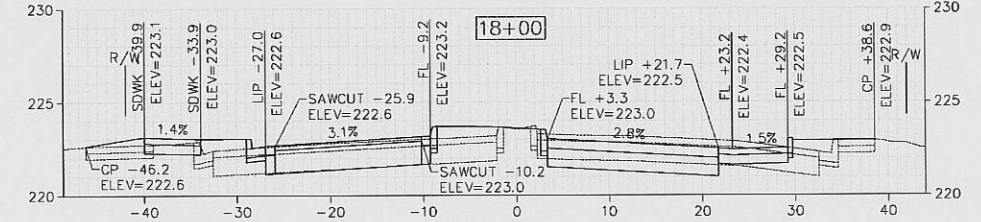
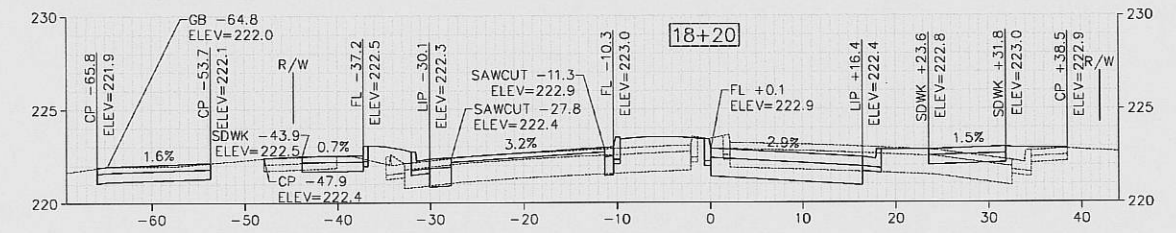
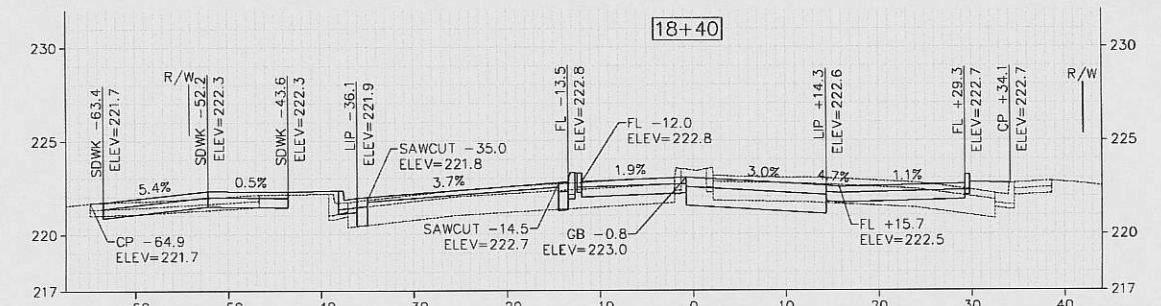
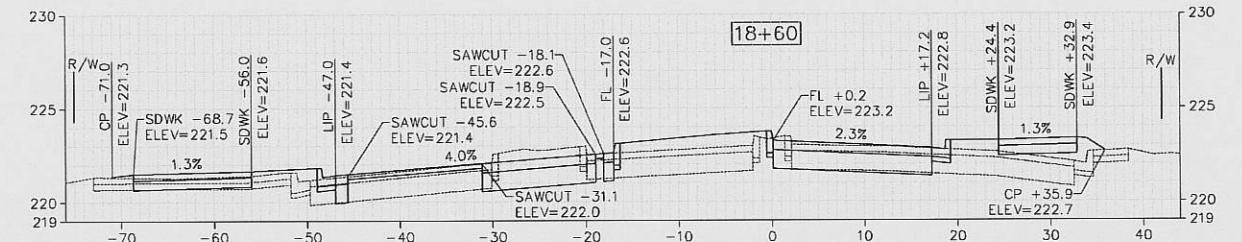
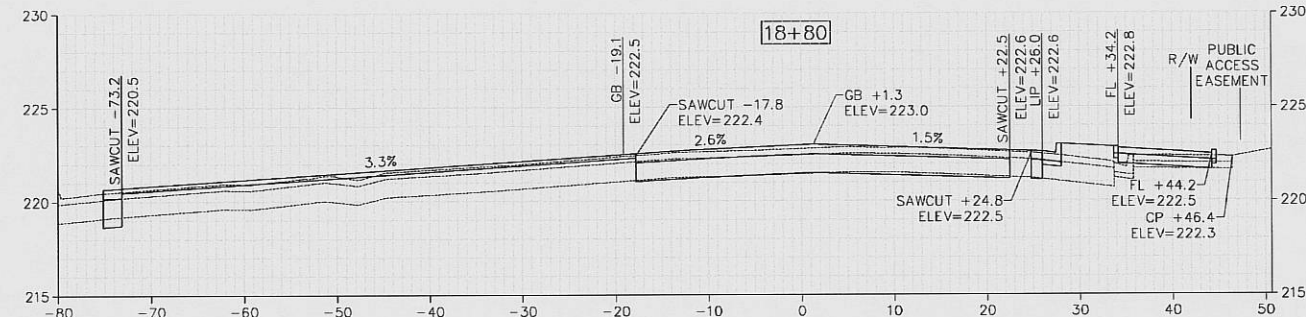
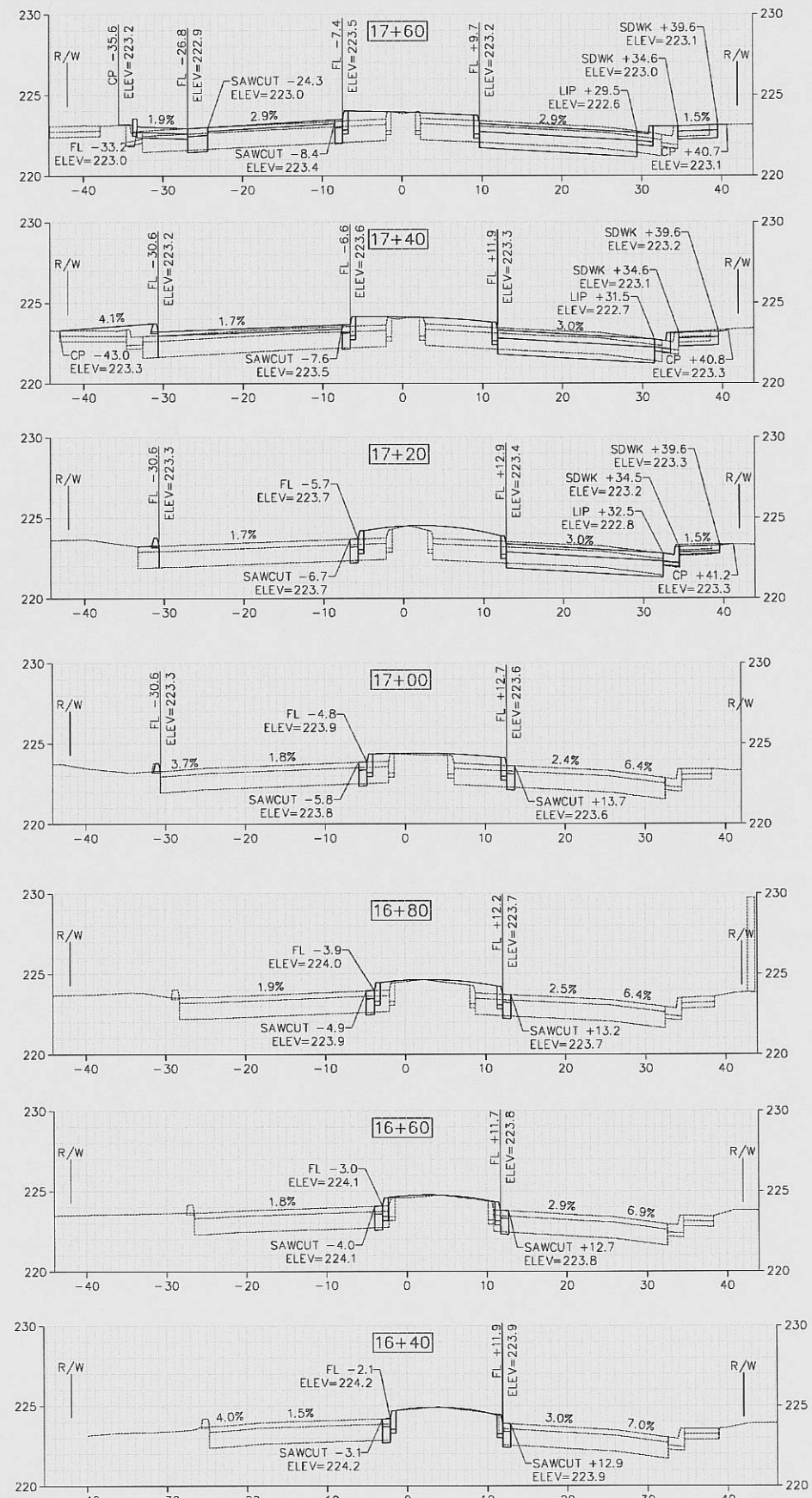
DRAWN BY: DJK DATE: 3-2-2016
 DESIGNED BY: DJK DATE: 3-2-2016
 CHECKED BY: RGB DATE: 3-2-2016



CITY OF LAFAYETTE
 PROJECT No. 014-9707

PLEASANT HILL RD & OLYMPIC BLVD
 ROUNDABOUT
 ROADWAY CROSS SECTIONS

SCALE	DATE: 5/6/2016
HORIZ. 1"=10'	CAD FILE: 2052XS002.DWG
VERT. 1"=5'	DRAWING NO. XS-2
	SHEET NO. 2 OF 5



OLYMPIC BOULEVARD



REVISIONS			
NO.	DESCRIPTION	DATE	BY

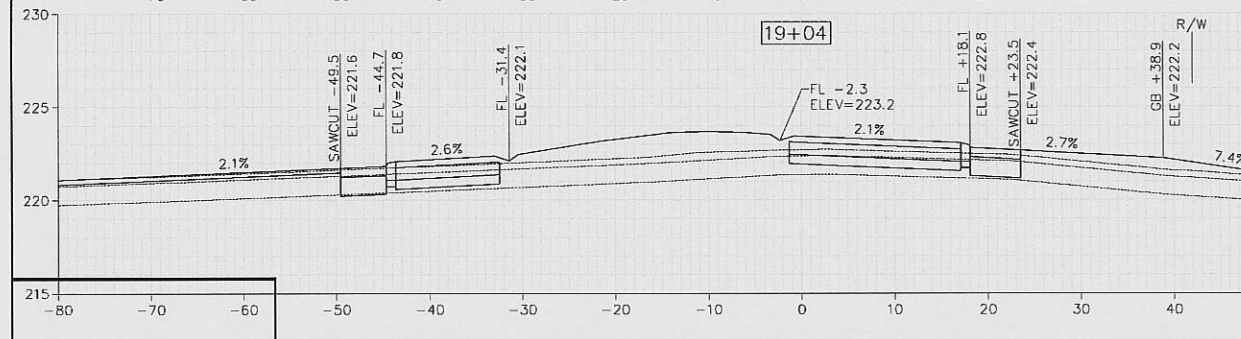
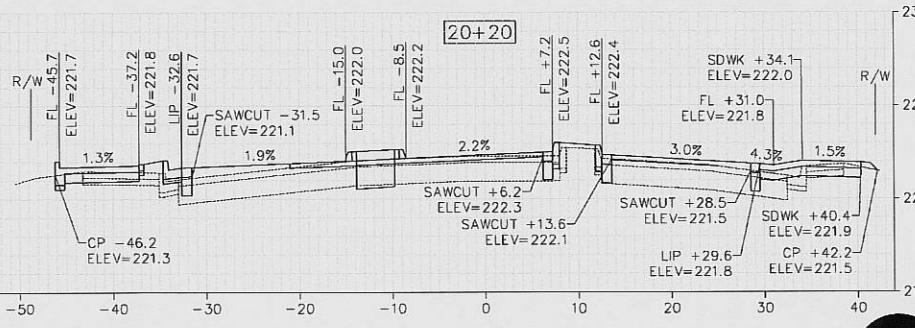
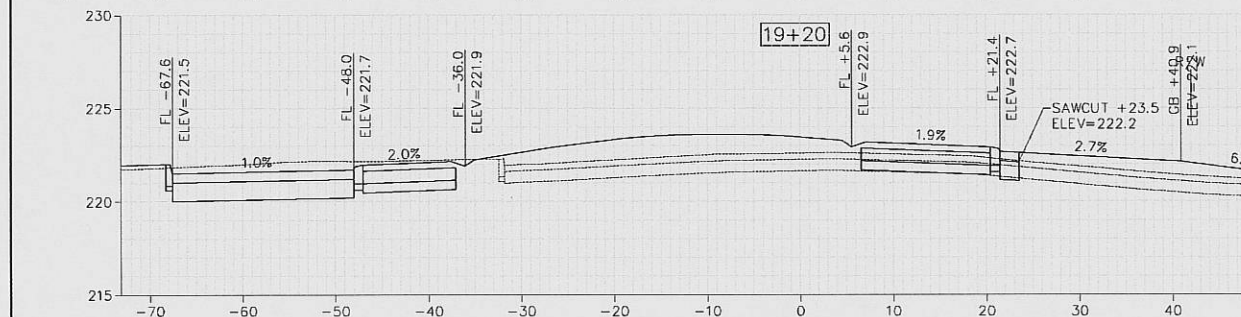
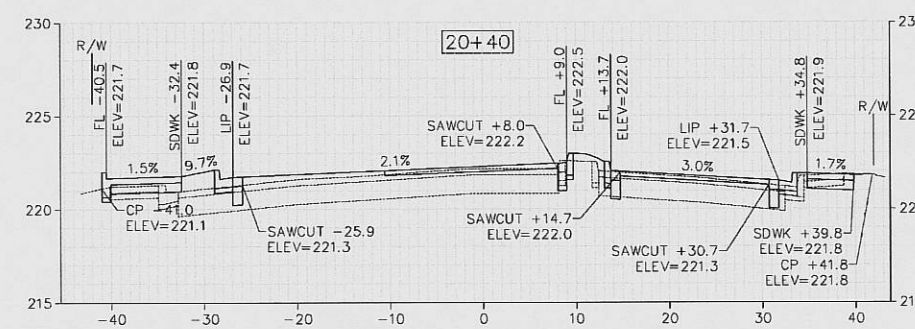
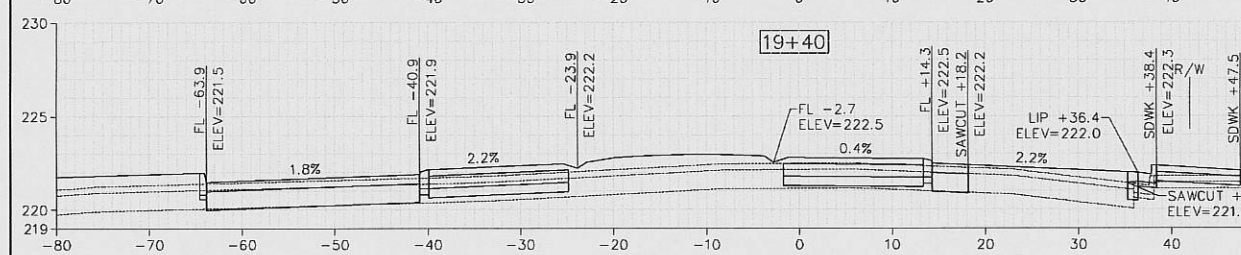
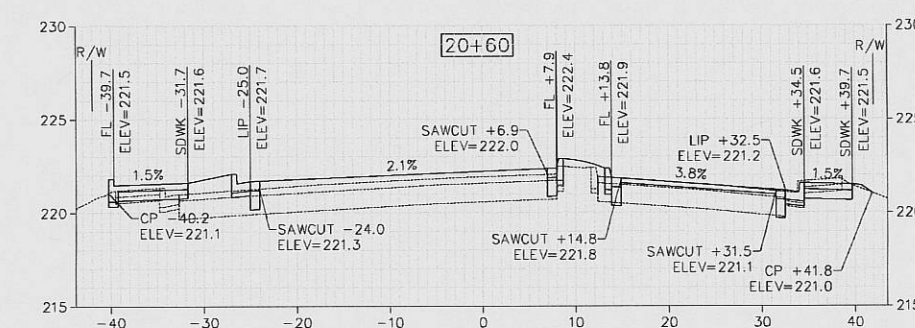
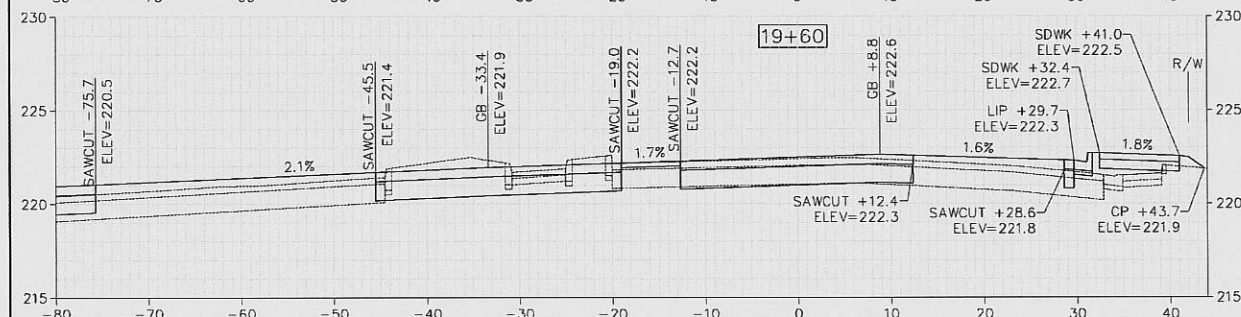
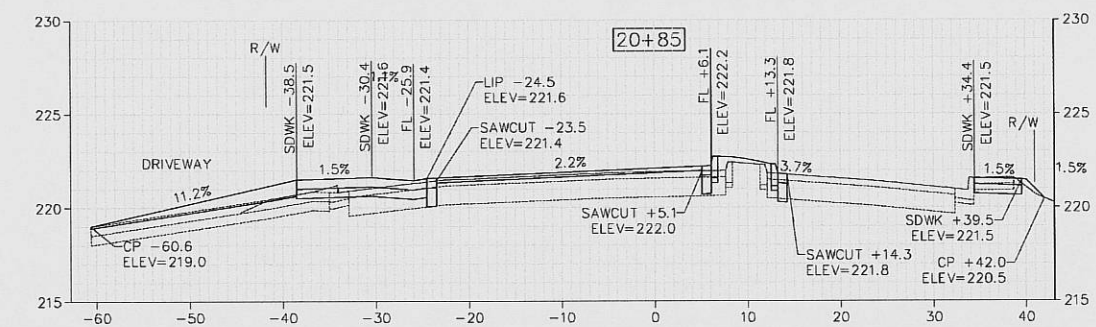
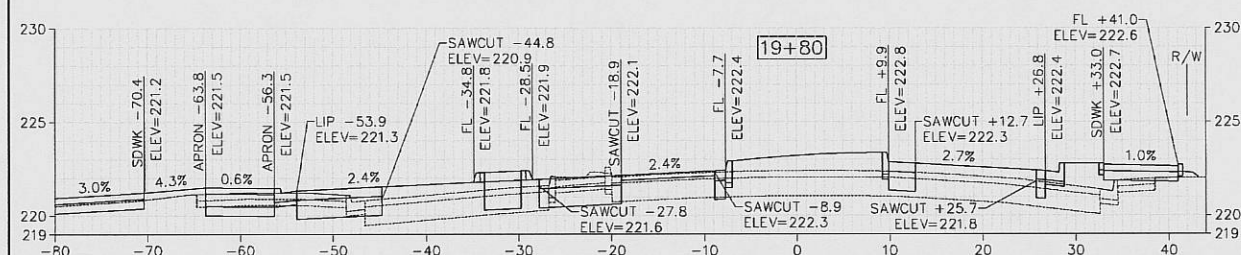
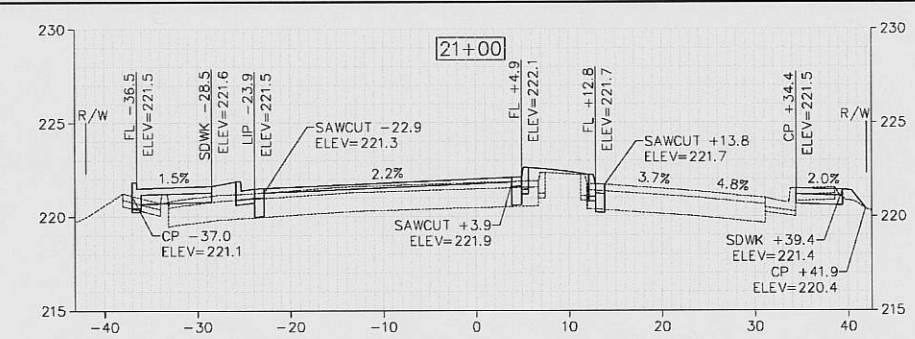
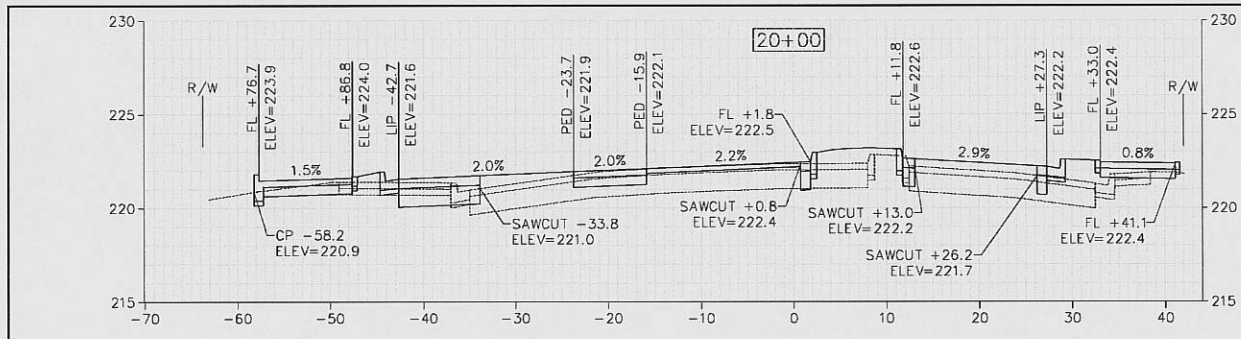
DRAWN BY: DJK DATE: 3-2-2016
 DESIGNED BY: DJK DATE: 3-2-2016
 CHECKED BY: RGB DATE: 3-2-2016



CITY OF LAFAYETTE
 PROJECT No. 014-9707

PLEASANT HILL RD & OLYMPIC BLVD
 ROUNDABOUT
 ROADWAY CROSS SECTIONS

SCALE	DATE: 5/6/2016
HORIZ. 1"=10'	CAD FILE: 2052XS002.DWG
VERT. 1"=5'	DRAWING NO. XS-3
	SHEET NO. 3 OF 5



OLYMPIC BOULEVARD



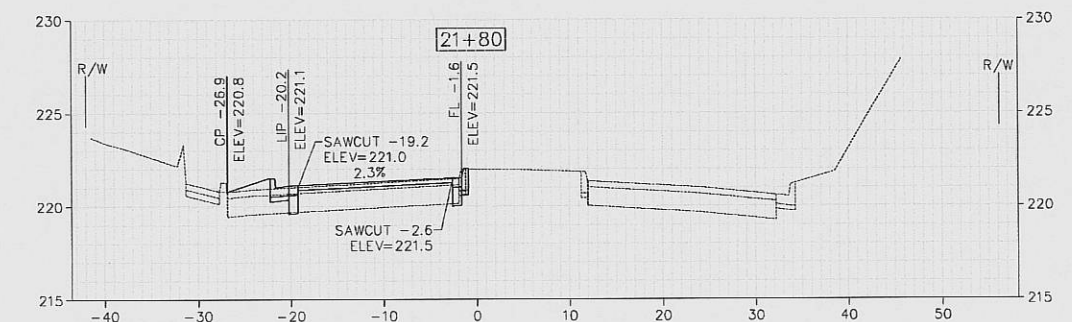
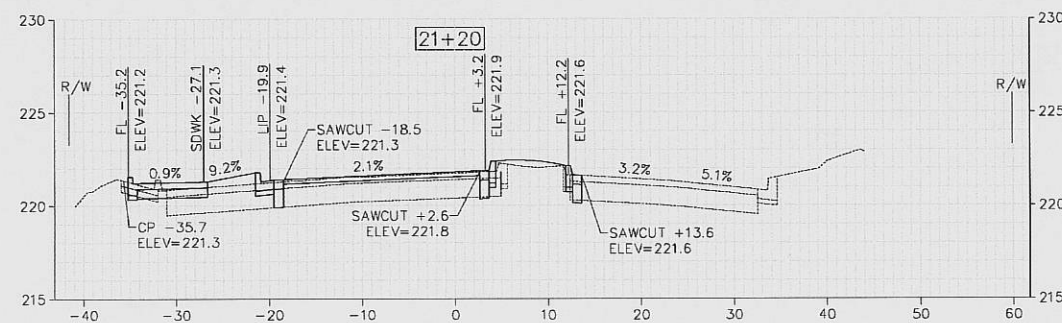
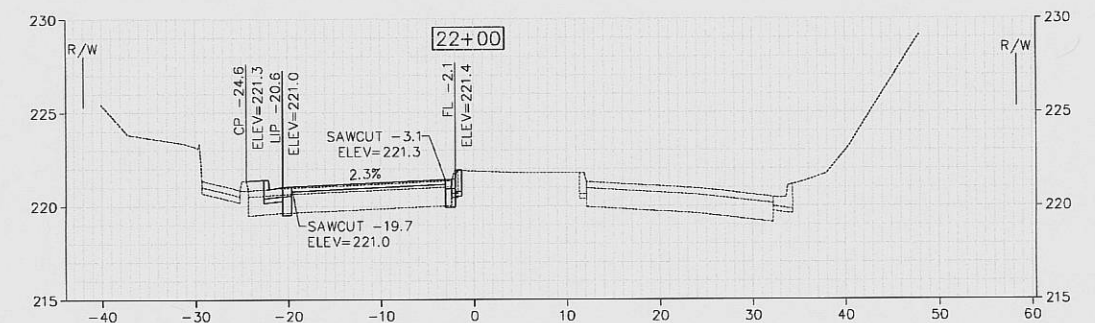
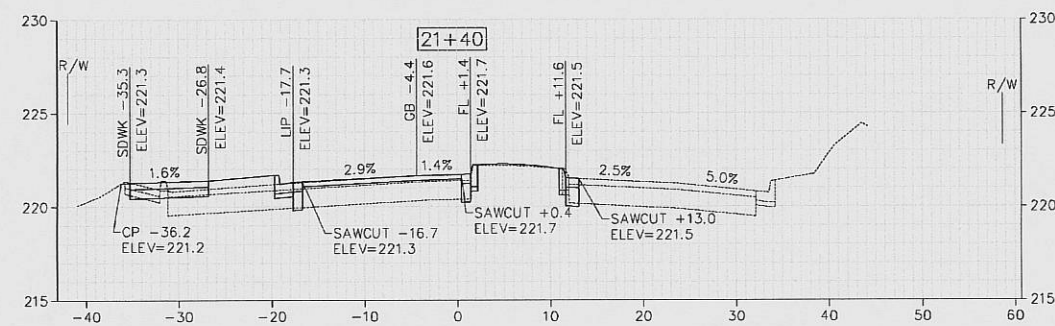
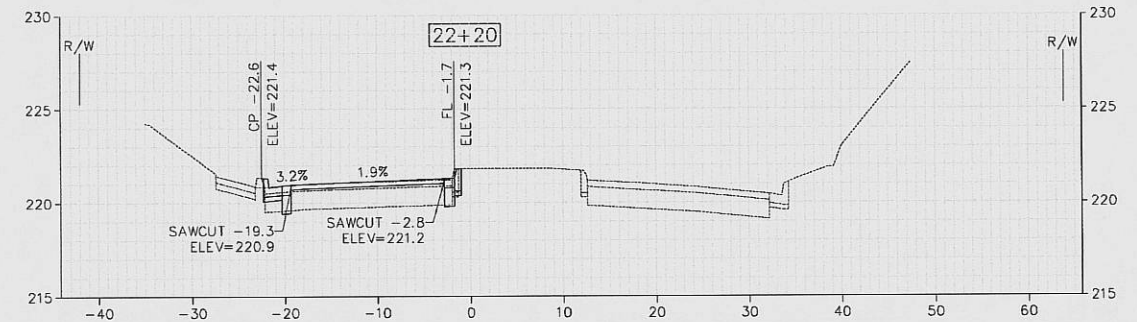
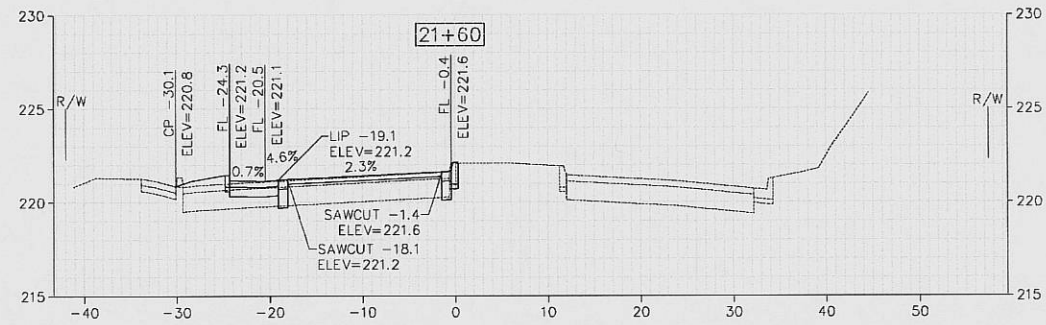
CITY OF LAFAYETTE
PROJECT No. 014-9707

PLEASANT HILL RD & OLYMPIC BLVD
ROUNDBOUT
ROADWAY CROSS SECTIONS



REVISIONS				DRAWN BY:	DJK	DATE:	3-2-2016
NO.	DESCRIPTION	DATE	BY	DESIGNED BY:	DJK	DATE:	3-2-2016
				CHECKED BY: <td>RGB <td>DATE: <td>3-2-2016</td> </td></td>	RGB <td>DATE: <td>3-2-2016</td> </td>	DATE: <td>3-2-2016</td>	3-2-2016

SCALE	DATE:	5/6/2016
HORIZ. 1"=10'	CAD FILE:	2052XS002.DWG
VERT. 1"=5'	DRAWING NO.:	XS-4
SHEET NO.		4 OF 5



OLYMPIC BOULEVARD



CITY OF LAFAYETTE
PROJECT No. 014-9707

PLEASANT HILL RD & OLYMPIC BLVD
ROUNDBOUT
ROADWAY CROSS SECTIONS



REVISIONS			
NO.	DESCRIPTION	DATE	BY

DRAWN BY: DJK DATE: 3-2-2016
DESIGNED BY: DJK DATE: 3-2-2016
CHECKED BY: RGB DATE: 3-2-2016

SCALE: DATE: 5/6/2016
HORIZ. 1"=10' CAD FILE: 2052XS002.DWG
VERT. 1"=5' DRAWING NO. XS-5
SHEET NO. 5 OF 5