THE BOARD OF SUPERVISORS OF THE COUNTY OF STANISLAUS
ACTION AGENDA SUMMARY

DEPT: PUBLIC WORKS

Urgent____ Routine ✓

CEO Concurs with Recommendation YES____ NO____
(Information Attached)

BOARD AGENDA # *C-2

AGENDA DATE OCTOBER 2, 2001

4/5 Vote Required YES____ NO ✓

SUBJECT:

APPROVAL TO AWARD CONTRACT FOR THE LAS PALMAS AVENUE WIDENING PROJECT TO TEICHERT CONSTRUCTION

STAFF RECOMMEN-DATIONS:

1. APPROVE AWARD OF CONTRACT FOR THE LAS PALMAS AVENUE WIDENING PROJECT TO TEICHERT CONSTRUCTION;
2. DIRECT THE AUDITOR TO INCREASE APPROPRIATIONS AND REVENUE BY THE CONTRACT AMOUNT OF $2,158,397.90 AS DETAILED ON THE ATTACHED FINANCIAL TRANSACTION SHEET; AND,
3. AUTHORIZE THE PURCHASING AGENT TO ESTABLISH A CONTRACT WITH TEICHERT CONSTRUCTION OF TURLOCK, CALIFORNIA, FOR THE CONTRACT AMOUNT.

FISCAL IMPACT:

The project will be fully funded with Public Facilities Fees.

BOARD ACTION AS FOLLOWS:

No. 2001-763

On motion of Supervisor Simon , **Seconded by Supervisor** Blom
and approved by the following vote,
Ayes: Supervisors: Mayfield, Blom, Simon, Caruso, and Chair Paul
Noes: Supervisors: None
Excused or Absent: Supervisors: None
Abstaining: Supervisor: None

1) X **Approved as recommended**
2) ____ **Denied**
3) ____ **Approved as amended**
MOTION:

Christine Ferraro

ATTEST: CHRISTINE FERRARO TALLMAN, Clerk **By: Deputy** **File No.**

1010-08

DISCUSSION: This project proposes to widen Las Palmas Avenue to accommodate a continuous two-way left turn lane from the Patterson city limit to Poplar Avenue followed by an AC overlay of the entire project area. This will match the existing Las Palmas Avenue cross section in the City of Patterson except for curb, gutter and sidewalk. From Poplar Avene to the Bridge crossing the San Joaquin River the existing cross section will be maintained with minor shoulder widening. Total project length is approximately 2.5 miles. The Patterson irrigation drainage ditch will be modified to accommodate widening of Las Palmas Avenue at the intersection of Las Palmas Avenue and Poplar Avenue.

On September 12, 2001 three (3) bids were received, publicly opened, and read. A summary of the bids received is as follows:

CONTRACTOR	BID
Teichert Construction, Turlock	$2,158,397.90
Grainite Construction Company, Stockton	$2,213,571.00
George Reed, Inc., Modesto	$2,369,579.20

The engineer's estimate for the project was $2,000,000. It is recommended that the Board award the contract to the low bidder, TEICHERT CONSTRUCTION, of Turlock, in the amount of $2,158,397.90.

POLICY ISSUE: This action is consistent with the Board's policy of providing a safe, healthy community.

STAFFING IMPACT: There is no staffing impact associated with this item.

DK:dk

L:\ROADS\32-077\admin\077BOS-AWARD CONTRACT.wpd

AUDITOR'S COPY

AUDITOR-CONTROLLER
BUDGET JOURNAL

BUDGET JOURNAL SCREEN

Stanislaus County — Striving to be the Best

Public Works — Stanislaus County

Budget Organization	Stanislaus Budget Org
Budget	LEGAL BUDGET
Accounting Period From	Jul-01
To	Jun-02

BATCH SCREEN

Journal Batch	PW DH
Category	Budget

Line	Coding Structure						Period	Description
	Fund 4	Org 7	Account 5	G/L Proj 7	Loc 6	Misc 6	Jun-01 AMOUNT	
1	1102	40310	63280	9582	0	0	2,158,397.90	Increase appropriations
2	1102	40310	31420	9582	0	0	2,158,397.90	Increase est revenue (PFF)
3								
4								
5								
6								
7								
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12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
						Totals	4,316,795.80	

Explanation: Increase appropriations and estimated revenue for Las Palmas Ave Widening

Requesting Department	CEO	Auditors Office Only
Diane Haugh		
Signature	Signature	Approved By / Admin Approval ($75K+)
17-Sep-01		9/17/01
Date	Date	Date / Date

AUDITOR - CONTROLLER

Auditors Copy

STANDARD JOURNAL VOUCHER

BATCH SCREEN

Batch:
Period: Sep-01
Description:

JOURNAL SCREEN

Journal: PW DKH
Period: Sep-01
Category: Transfer
Balance Type: A (A = Actual, B = Budget, E = Encumbrance)
Description: Transfer funds from PFF to Las Palmas Ave Widening Project
Control Total: 2,158,397.90

Line	Coding Structure						Debit	Credit	Description
	Fund 4	Org 7	Account 5	G/L Proj 7	Loc 6	Misc 6			
1	6400	64100	62400	0	0	0	2,158,397.90		
2	1102	40310	31420	9582	0	0		2,158,397.90	
3									
4									
5									
6									
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21									
22									
23									
24									
25									
26									
						Totals	2,158,397.90	2,158,397.90	

Explanation: Transfer of PFF funds to Las Palmas Avenue Widening Project

Diane Haugh	Pat Bates		
Prepared by	Supervisor's Approval	Prepared by	Admin Apprvl >75,000
09/17/01	09/17/01		9/17/01
Date	Date	Date	Date

Stanislaus County
Striving to be the Best

BOARD OF SUPERVISORS
Pat Paul, 1st District
Thomas W. Mayfield, 2nd District
Nick W. Blom, 3rd District
Raymond Clark Simon, 4th District
Paul W. Caruso, 5th District

1010 Tenth Street, Suite 6500, Modesto, CA 95354
Phone: 209.525.4494 Fax: 209.525.4410

November 13, 2001

Clark Hulbert
Turlock Construction District Manager
Teichert Construction
P O Box 3367
Turlock CA 95381-3367

IN RE: *Las Palmas Avenue Widening*

To Whom It Concerns:

Enclosed is your completed contract for the above-mentioned project. This is your Official Notice to Proceed.

Yours truly,

SUZI SEIBERT, Deputy Clerk
of the Board of Supervisors
of the County of Stanislaus
State of California

Enclosure

BOS

Stanislaus County
Department of Public Works

Notice to Contractors

Proposal and Contract

And

Special Provisions

For the Construction of

LAS PALMAS AVENUE WIDENING

In
The County of Stanislaus

For use in connection with projects administered under the Standard Specifications and Standard Plans Dated July, 1999 of the California Depart - ment of Transportation and the Labor Surcharge And Equipment Rental Rates in effect on the date the work is accomplished.

GEORGE STILLMAN
Director

Administration
Engineering
Development Services
Transit
Facilities Services
Road Maintenance
Landfill
Abandoned Vehicle

Public Works

STANISLAUS COUNTY

ADDENDUM NO. 1

TO PLANS AND SPECIFICATIONS FOR

LAS PALMAS AVENUE WIDENING

IN

STANISLAUS COUNTY

REGISTERED PROFESSIONAL ENGINEER
STEVEN L. ERICKSON
54097
EXP. 12/31/03
CIVIL
STATE OF CALIFORNIA
9/5/01

GEORGE STILLMAN, DIRECTOR

By Steve Erickson

STEVE ERICKSON
ASSISTANT TO THE DIRECTOR

September 5, 2001

STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS 1716 Morgan Road • Modesto, CA 95358 • (209) 525-4130 • FAX (209) 525-4140

LAS PALMAS AVENUE WIDENING

OUR RECORDS INDICATE THAT YOU ARE A PLAN HOLDER FOR THE ABOVE MENTIONED PROJECT. THE FOLLOWING CLARIFICATIONS, CHANGES, ADDITIONS, OR SUBTRACTIONS ARE ATTACHED TO AND BECOME A PART OF THE PLANS AND SPECIFICATIONS FOR THE ABOVE MENTIONED PROJECT.

THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS ARE TO TAKE COGNIZANCE OF AND TO GOVERN THEIR BID ACCORDING TO THE PLANS AND SPECIFICATIONS AS SET FORTH HEREINAFTER.

1. Drawing C2, sheet 15 of 15, is missing section B-B of the trash rack detail. Add Exhibit A to drawing C2 for the missing section.

2. Please note the shading representing widening and reconstruction of Las Palmas Avenue on drawings L1, L2, L3, and L4 did not reproduce well. The typical cross sections on drawings X1 and X2 should govern.

3. Estimated embankment quantities on sheets L1, L2, L3, and L4 are revised according to the following table:

STATION RANGE	EMBANKMENT QTY
BOP Sta 40+78 to 50+00	68 C.Y.
Sta 50+00 to 59+50	54 C.Y.
sta 59+50 to 69+00	66 C.Y.
Sta 69+00 to 78+50	164 C.Y.
Sta 78+50 to 88+00	168 C.Y.
Sta 88+00 to 97+50	191 C.Y.
Sta 97+50 to 107+00	180 C.Y.
Sta 107+00 to 116+50	170 C.Y.
Sta 116+50 to 126+00	267 C.Y.
Sta 126+00 to 135+50	223 C.Y.
Sta 135+50 to 142+00	214 C.Y.
Total	1765 C.Y.

4. The estimated quantity of class 2 aggregate base is comprised of the following estimated components:

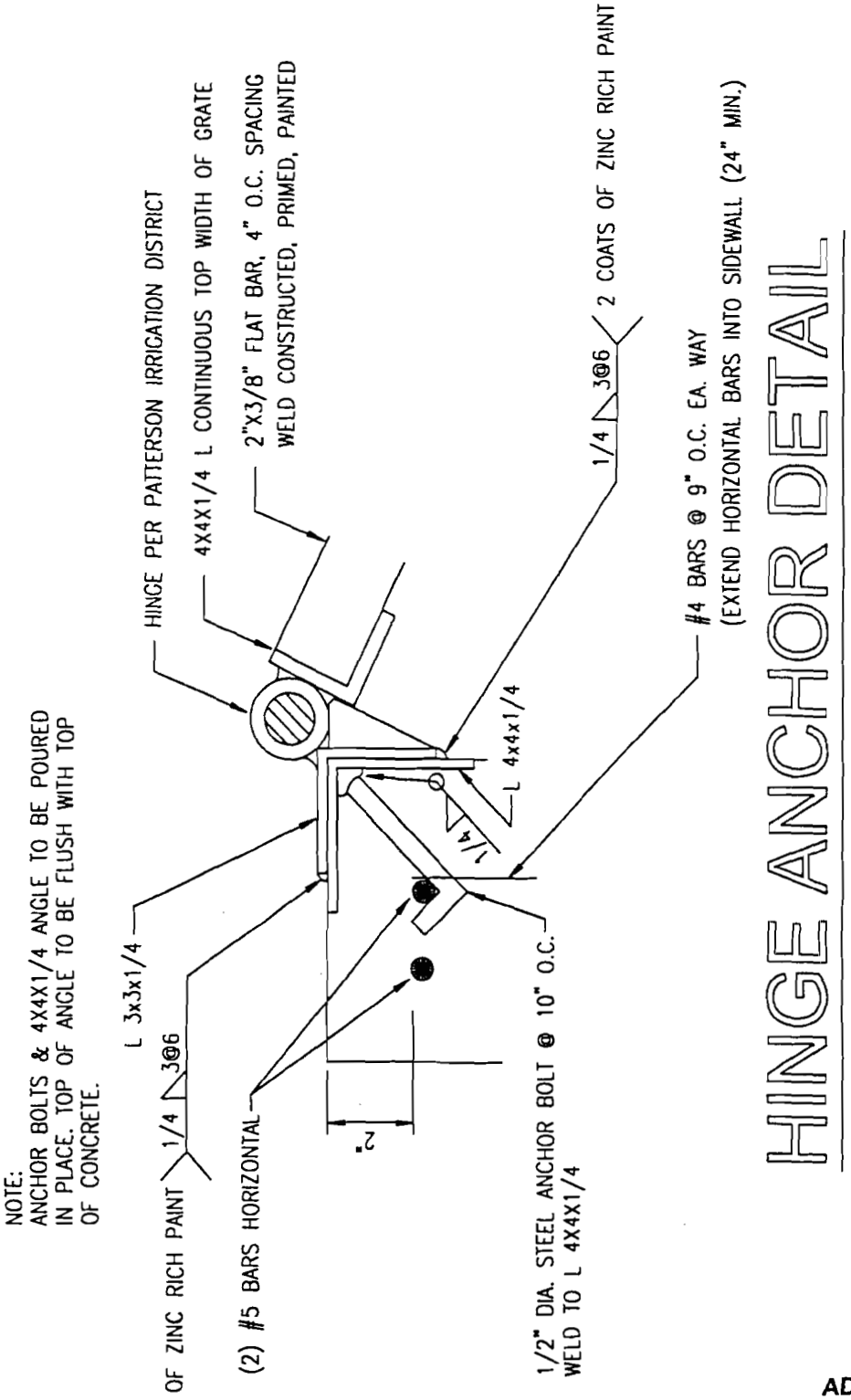
Class 2 Aggregate Base (Driveway tapers)	189 tons
Class 2 Aggregate Base (embankment)	3530 tons
Class 2 Aggregate Base (road section)	7150 tons

5. The estimated quantity of Asphalt Concrete (Type A) is increased to 19,000 tons. Replace page 5 of the form of proposal with Exhibit B.

NOTE: THIS ADDENDUM MUST ACCOMPANY THE BID AND BE ACKNOWLEDGED ON THE BID SHEET.

EXHIBIT A
LAS PALMAS AVENUE WIDENING

SHEET C2, SECTION B-B, OF TRASH RACK DETAIL



HINGE ANCHOR DETAIL

NOT TO SCALE

LAS PALMAS AVENUE WIDENING
ENGINEER'S ESTIMATE

EXHIBIT B

Item No.	Item Description	Unit of Measure	Estimated Quantity	Item Price (in Figures)	Total (in Figures)
1	Traffic Control System	L.S.			$
2	Construction Area Signs	L.S.			$
3	Remove drainage facilities	L.S.			$
4	Clearing and Grubbing	L.S.			$
5	Adjust Manhole Cover to Grade	Each	9	$	$
6	Adjust Cover To Grade	Each	1	$	$
7	Relocate sign	Each	25	$	$
8	Relocate mailbox	Each	40	$	$
9	Relocate Power Pole	Each	1	$	$
10	Construct Survey Monument Well	Each	7	$	$
11	Cold Plane AC(Gutters & Conforms)	S.Y.	437	$	$
12	Cold Plane AC(0.15' to 0.20' Depth)	S.Y.	369	$	$
13	Cold Plane AC(6" Depth)	S.Y.	969	$	$
14	Roadway Excavation	C.Y.	6040	$	$
15	Class 2 Aggregate Base	Tons	10896	$	$
16	Asphaltic Emulsion (Paint Binder)	Tons	54	$	$
17	Asphalt Concrete (Type A)	Tons	19000	$	$
18	Ruberized Asphalt Concrete (Type G)	Tons	8900	$	$
19	AC Dike Type E	L.F.	2067	$	$
20	Rebuild AC Dike Type A	L.F.	388	$	$
21	300 mm Overside Drain Pipe	L.F.	145	$	$
22	300 mm Overside Entrance Taper	Each	8	$	$
23	300 mm Overside Slip Joint	Each	8	$	$
24	Overside Drain anchor assembly	Each	18	$	$
25	Barbed Wire Fence	L.F.	160	$	$
26	24" RCP, RG Class 3	L.F.	190	$	$
27	18" RCP, RG Class 3	L.F.	110	$	$
28	Manhole and base	Each	2	$	$
29	G.O. Basin in A.C. Dike	Each	3	$	$
30	Minor Concrete (Minor Structure)	C.Y.	21	$	$

CONTRACT DOCUMENTS

AND SPECIFICATIONS FOR

LAS PALMAS AVENUE WIDENING

IN

STANISLAUS COUNTY

OWNER - STANISLAUS COUNTY

BOARD OF SUPERVISORS

PAT PAUL, CHAIR	DISTRICT NO. 1
THOMAS W. MAYFIELD	DISTRICT NO. 2
NICK W. BLOM	DISTRICT NO. 3
RAY SIMON	DISTRICT NO. 4
PAUL CARUSO,	DISTRICT NO. 5

REAGAN WILSON -- CHIEF EXECUTIVE OFFICER

GEORGE STILLMAN -- DIRECTOR OF PUBLIC WORKS

August, 2001

NOTICE TO CONTRACTORS

Contractors are invited to submit written, formal bids for

LAS PALMAS AVENUE WIDENING

Bids shall be submitted in sealed envelopes on the forms provided with the plans and specifications for that purpose. Envelopes shall be addressed to the Clerk of the Board of Supervisors, Tenth Street Place, Joint Stanislaus County/City of Modesto Administration Building, 1010 10th Street, 6th Floor, Modesto, CA 95354, and plainly marked:

LAS PALMAS AVENUE WIDENING

Bid envelopes must be delivered to the Clerk of the Board of Supervisors located on the 6th Floor of Tenth Street Place, Joint Stanislaus County/City of Modesto Administration Building, 1010 10th Street, Modesto, CA, prior to 2:30 p.m. on September 12, 2001, as evidenced by the date/time stamp on the envelope by the Clerk. After bid closing, the bids will be publicly opened and read by the Clerk in the Conference Room located on the 6th Floor of Tenth Street Place. The contract will be awarded on the basis of a single bid for the complete job.

The work to be accomplished includes partially reconstructing and widening 2.5 miles of Las Palmas Ave., 17,500 tons of AC (Type A), 8,900 tons of AC (Type G), thermoplastic striping, and other such items not mentioned herein that are required by the plans and specifications.

Plans and specifications are available at the Department of Public Works Office, 1716 Morgan Road, Modesto, CA 95358, upon the receipt of $10.00 **(NON-REFUNDABLE)** fee (make checks payable to: "STANISLAUS COUNTY PUBLIC WORKS"). For any questions, please call the ENGINEERING DIVISION AT (209) 525-4193.

The Contractor shall possess a Class A license at the time this contract is awarded.

No pre-bid meeting is scheduled for this project.

Technical questions should be directed to the Depart. of Public Works Engineering Department, County of Stanislaus, Modesto, California, telephone (209) 525 - 4125., fax (209) 525-4188.

Cross section sheets are available upon request.

Your particular attention is directed to the "Information for Bidders" and "General Conditions" included in the specifications, which are to be followed in all respects. In particular, your attention is directed to the handicapped, non-discrimination clause contained in the General Conditions, Section 2.47 which complies with Section 504 of the Rehabilitation Act of 1973. A bidders bond or its equivalent will be required.

Pursuant to Sections 1770 and 1773 of the Labor Code, the Board of Supervisors has ascertained the general prevailing rate of per diem wages applicable to the work to be done for straight time, overtime, Saturday, Sunday, and holiday work. These wage rates are set forth by the Director of the Department of Industrial Relations, and are now on file with the Department of Public Works, and a part of the contract.

Pursuant to and in accordance with the provisions of Public Contract Code Section 22300, the contractor may elect to substitute securities for retention monies withheld by the County or to request payment of retention monies earned to an escrow agent.

By order of the Board of Supervisors of the County of Stanislaus, State of California, made and entered this August 14, 2001.

ATTEST: CHRISTINE FERRARO TALLMAN, Clerk of the Board of Supervisors of the County of Stanislaus, State of California

BY: _____
Deputy

FORM OF PROPOSAL

HONORABLE BOARD OF SUPERVISORS
STANISLAUS COUNTY, CALIFORNIA

The undersigned bidder has examined the site and all of the documents, plans and specifications for

LAS PALMAS AVENUE WIDENING

Bids are to be submitted for the entire work. The amount of the bid for comparison purposes will be the total of all items.

The bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for that purpose. In the case of unit basis items, the amount set forth under the "Item Total" column shall be the product of the unit price bid and the estimated quantity for the item.

In case of discrepancy between the unit price and the total set forth for a unit basis item, the unit price shall prevail, except as provided in (a) or (b) as follows:

(a) If the amount set forth as a unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount as the entry in the item total column, then the amount set forth in the item total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;

(b) (Decimal Errors) If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc. from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentage wise the unit price or item total in the Department's Final Estimate of cost.

The bidder will perform all work and provide all labor, equipment and materials for the completion and operation of the project for which this proposal is made, all as set forth on the plans and in the specifications, provided by the Director of the Department of Public Works or other specified agent of the Stanislaus County Board of Supervisors, at bid amounts as stated below:

LAS PALMAS AVENUE WIDENING
ENGINEER'S ESTIMATE

EXHIBIT B

Item No.	Item Description	Unit of Measure	Estimated Quantity	Item Price (in Figures)	Total (in Figures)
1	Traffic Control System	L.S.			$ 175,000.00
2	Construction Area Signs	L.S.			$ 5,000.00
3	Remove drainage facilities	L.S.			$ 12,000.00
4	Clearing and Grubbing	L.S.			$ 85,000.00
5	Adjust Manhole Cover to Grade	Each	9	$ 350.00	$ 3150.00
6	Adjust Cover To Grade	Each	1	$ 350.00	$ 350.00
7	Relocate sign	Each	25	$ 185.00	$ 4,625.00
8	Relocate mailbox	Each	40	$ 240.00	$ 9,600.00
9	Relocate Power Pole	Each	1	$ 4,800.00	$ 4,800.00
10	Construct Survey Monument Well	Each	7	$ 750.00	$ 5,250.00
11	Cold Plane AC(Gutters & Conforms)	S.Y.	437	$ 15.00	$ 6,555.00
12	Cold Plane AC(0.15' to 0.20' Depth)	S.Y.	369	$ 16.00	$ 5,904.00
13	Cold Plane AC(6" Depth)	S.Y.	969	$ 10.00	$ 9,690.00
14	Roadway Excavation	C.Y.	6040	$ 32.00	$ 193,280.00
15	Class 2 Aggregate Base	Tons	10896	$ 17.25	$ 187,956.00
16	Asphaltic Emulsion (Paint Binder)	Tons	54	$ 111.00	$ ~~54.00~~ P.C. 5,994.00
17	Asphalt Concrete (Type A)	Tons	19000	$ 37.00	$ 703,000.00
18	Ruberized Asphalt Concrete (Type G)	Tons	8900	$ 59.50	$ 529,550.00
19	AC Dike Type E	L.F.	2067	$ 4.00	$ 8,268.00
20	Rebuild AC Dike Type A	L.F.	388	$ 4.00	$ 1,552.00
21	300 mm Overside Drain Pipe	L.F.	145	$ 16.00	$ 2,320.00
22	300 mm Overside Entrance Taper	Each	8	$ 375.00	$ 3,000.00
23	300 mm Overside Slip Joint	Each	8	$ 375.00	$ 3,000.00
24	Overside Drain anchor assembly	Each	18	$ 300.00	$ 5,400.00
25	Barbed Wire Fence	L.F.	160	$ 10.25	$ 1,640.00
26	24" RCP, RG Class 3	L.F.	190	$ 75.00	$ 14,250.00
27	18" RCP, RG Class 3	L.F.	110	$ 90.00	$ 9,900.00
28	Manhole and base	Each	2	$ 1,875.00	$ 3,750.00
29	G.O. Basin in A.C. Dike	Each	3	$ 1,350.00	$ 4,050.00
30	Minor Concrete (Minor Structure)	C.Y.	21	$ 100.00	$ 2,100.00

LAS PALMAS AVENUE WIDENING
ENGINEER'S ESTIMATE

Item No.	Item Description	Unit of Measure	Estimated Quantity	Item Price (in Figures)	Total (in Figures)
31	Trash Rack	Each	1	$ 2,700.00	$ 2,700.00
32	Metal Beam Guard Rail Type 1A layout	L.F.	124	$ 24.75	$ 3,069.00
33	Terminal System Type SRT	Each	2	$ 2,100.00	$ 4,200.00
34	Thermoplastic Striping (Detail 6)	L.F.	650	$ 0.20	$ 130.00
35	Thermoplastic Striping (Detail 19)	L.F.	810	$ 0.65	$ 526.50
36	Thermoplastic Striping (Detail 22)	L.F.	2000	$ 0.75	$ 1,500.00
37	Thermoplastic Striping (Detail 27B)	L.F.	24580	$ 0.25	$ 6,145.00
38	Thermoplastic Striping (Detail 27C)	L.F.	720	$ 0.25	$ 180.00
39	Thermoplastic Striping (Detail 32)	L.F.	9160	$ 1.50	$ 13,740.00
40	Thermoplastic Striping (Detail 38)	L.F.	650	$ 0.90	$ 585.00
41	Thermoplastic Pavement Marking	S.F.	996	$ 2.90	$ 2,888.40
42	Supplemental Work	L.S.			$100,000.00
				PROJECT TOTAL	$ 2,158,397.90

ADDENDUM NO. 1 DATED 9-5-01 DATE RECEIVED 9-5-01 INITIALS JB

ADDENDUM NO. _____ DATED _____ DATE RECEIVED _____ INITIALS _____

ADDENDUM NO. _____ DATED _____ DATE RECEIVED _____ INITIALS _____

ADDENDUM NO. _____ DATED _____ DATE RECEIVED _____ INITIALS _____

ADDENDUM NO. _____ DATED _____ DATE RECEIVED _____ INITIALS _____

CONTRACTOR Teichert Construction

ADDRESS P.O. Box 3367
Turlock, Ca 95381-3367

PHONE (209) 632-6600 FAX (209) 632-3404

The undersigned also agrees as follows:

1. Within eight (8) days from date of the notice of acceptance of proposal, the Contractor shall execute the contract and furnish to the Board of Supervisors of Stanislaus County satisfactory insurance and contract bonds guaranteeing the faithful performance of the work and General Conditions thereto.

2. To begin work on the date specified in the Notice to Proceed and to prosecute said work in such a manner as to complete it within

SIXTY (60) WORKING DAYS

The work shall be so scheduled that existing facilities shall not be disrupted, but shall remain in continuous operation on present schedules.

Accompanying this proposal is a bidder's bond issued by a California admitted surety, certified or cashier's check, or cash in the amount of ten percent (10%) of the proposal, made payable to Stanislaus County, which bond or check is to be retained as liquidated damages should the undersigned be awarded the contract and fail to execute the contract and furnish satisfactory bonds according to the conditions herein specified; otherwise said bidder's bond or check will be returned.

Dated: September 12, 2001

Bidder: Teichert Construction

By _____

PHIL GIANFORTONE
Chief Estimator

Address: P.O. Box 3367

Turlock, Ca 95381-3367

Telephone: 209-632-6600 Classification A, C-27 License #8
C-16, B
License Expiration Date 4/30/01

If incorporated, President, Secretary or Treasurer should sign as such. If partnership, by all partners thereto.

Each proposal shall have listed therein the name and address of each subcontractor to whom the bidder proposes to subcontract portions of the work in an amount in excess of half of one percent of his total bid or $10,000, whichever is greater, in accordance with the subletting and Subcontracting Fair Practices Act, commencing the Section 4100 of the Public Contract Code. The Bidder's attention is invited to other provisions of said Act related to the imposition of penalties for a failure to observe its provisions by using unauthorized subcontractors or by making unauthorized substitutions.

	TYPE OF SUBCONTRACT	LICENSE NO.	NAME & ADDRESS OF SUBCONTRACTOR
1.	M.B.G.R.		PCN Construction, Byron
2.	Striping		Chrisp Co., Fremont
3.	Dike		AC Curbs Inc, Suisun
4.	Survey		Odell Engineering Modesto
5.	Force		Industrial Force Modesto
6.			
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17.			
18.			

(Signed) _____ PHIL GIANFORTONE
Chief Estimator
Contractor

STANISLAUS COUNTY

NON-DISCRIMINATION OF THE HANDICAPPED

POLICY STATEMENT

In compliance with Section 51.55, Office of Revenue Sharing, Department of the Treasury, it is the policy of Stanislaus County that it will not aid or perpetuate discrimination against a qualified handicapped individual by funding an agency, organization, or person that discriminates on the basis of handicap in providing any aid, benefit, or service to beneficiaries of the program or activity.

The County is committed to provide access to all County services, programs and meetings open to the public to people with disabilities.

In this regard, County and all of its contractors and subcontractors will take all reasonable steps in accordance with GRS Section 51.55 to ensure that handicapped individuals have the maximum opportunity for the same level of aid, benefit or service as any other individual.

CERTIFICATION

Each agency, organization, or person seeking a bid, contract or agreement with Stanislaus County shall sign a Certification of Compliance with Section 504 of the Rehabilitation Act of 1973 as incorporated in the Revenue Sharing Act.

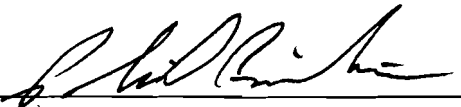
CERTIFICATION OF BIDDER REGARDING NON-DISCRIMINATION OF THE HANDICAPPED

The bidder hereby certifies that he/she/it is in compliance with Section 504 of the Rehabilitation Act of 1973 as incorporated in the Revenue Sharing Act, the applicable administrative requirements promulgated in response thereto, and any other applicable Federal laws and regulations relating to handicap discrimination and participation.

Name of Bidder Teichert Construction

Business Address P.O. Box 3367 Telephone 209-632-6600

City, State, Zip Code Turlock, Ca 95381-3367

By  Title PHIL GIANFORTONE Chief Estimator
(Signature)

Date September 12, 2001

To the County of Stanislaus, Public Works Department,

NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

(Title 23 United States Code Section 112 and Public Contract Code Section 7106)

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the bidder declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly on indirectly colluded, conspired, connived or agreed with any bidder or anyone else to put in a sham bid or that anyone shall refrain from bidding; that 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, or to secure any advantage against the public body awarding the contract of any one interested in the proposed contract; that all statements contained in the bid are true; and, further, that 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, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit.

Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

_____

AGREEMENT

This Agreement, made this OCTOBER 2, 20 01, by and between TEICHERT CONSTRUCTION, hereinafter called "Contractor", and the County of Stanislaus, State of California, hereinafter called "County".

W I T N E S S E T H

ARTICLE I

The Contractor will provide all the materials, tools, equipment and labor and perform all the work necessary to complete in a good workmanlike manner

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as set forth in the Proposal of the Contractor and in accordance with the bid, Notice to Bidders, Information for Bidders, General Conditions, plans and specifications, bonds, addenda, and any documents particularly required or provided, all of which are attached hereto and made a part hereof. All of the foregoing documents, together with this Agreement, comprise the contract.

ARTICLE II

All of the work included in this contract is to be performed under the direction of the County, and in conformity with the true construction and meaning of the contract, as determined solely by the County.

ARTICLE III

No alterations in the work shall be made except upon written order of the County. The amount to be paid by the County or to be deducted from the contract price by virtue of such alterations shall be stated in said order and shall be approved in writing by the County and the Contractor.

Changes, additions, and alterations in the work which do not exceed $500.00 may be ordered in writing by the Director of the Department of Public Works of the County of Stanislaus. All other changes, additions, or alterations in the work shall be by order of the Board of Supervisors of the County of Stanislaus.

ARTICLE IV

The Contractor shall commence the work within five (5) calendar days after the date specified in the Notice to Proceed given to him, and shall prosecute said work in a prompt, diligent and workmanlike manner. The Contractor shall complete the work within

"SIXTY (60) WORKING DAYS"

of the date of the Notice to Proceed, unless extension or suspension of the work is agreed to in writing by the County. Time is of the essence in this Agreement.

ARTICLE V

The County agrees to pay and the Contractor agrees to receive and accept the unit prices contained in his proposal as full compensation for furnishing all materials and for doing all the work contemplated and embraced in this agreement.

The County shall pay to the Contractor in due course and at the usual time for payment of County obligations after the last day of each month, ninety percent (90%) of the cost of the work completed and material properly stored on the job site, which cost shall be determined by the County. A final payment of ten percent (10%) of the contract price shall be due the Contractor 35 days after acceptance of the work, provided that the Contractor furnishes to the County satisfactory evidence that all obligations for labor and materials have been satisfactorily fulfilled within the said 35 day period, and further provided that no payment shall be construed to be an acceptance of defective work or improper materials.

Except as otherwise prohibited by law, the Contractor may elect to receive all payments due under the contract without any retention. If the Contractor so elects, he shall deposit with the County securities with a value equal to the monies which would otherwise be withheld by the County. Said securities shall be as provided in Section 22300 of the Public Contract Code and shall be approved by the County as to both sufficiency and form.

ARTICLE VI

Prior to commencing the work, the Contractor shall file a bond issued by a surety company, approved by the County, and in the form acceptable to the County in the amount of one hundred percent (100%) of the contract price for the faithful payment and satisfaction of all lawful claims of all persons for labor and materials furnished in the prosecution of the contract work. Prior to commencing the work, the Contractor shall file a bond issued by a surety company, approved by the County, and in the form acceptable to the County in the amount of one hundred percent (100%) of the contract price to guarantee the faithful performance of the contract.

ARTICLE VII

The Contractor shall take out, and maintain during the life of the contract, insurance policies as described in Section 2.16 of the General Conditions of the contract documents.

ARTICLE VIII

The Contractor shall indemnify, defend, and save harmless Stanislaus County and all officers and employees thereof connected with the work from all claims, suits or actions of every name, kind and description, brought forth or on account of injuries to or death of any person, including, but not limited to, workmen and the public, or damage to property resulting from the performance of the contract, except as otherwise provided by statute. The duty of the Contractor to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code.

The Contractor waives any and all rights to any type of express or implied indemnity against the County, its officers or employees.

ARTICLE IX

When the work is completed and ready for final inspection, the Contractor shall notify the County which shall make such final inspection within five (5) days after notice.

If the County shall approve the work and find that the work is complete and ready for acceptance and shall accept the same, the final payment of the contract price shall be due as provided in Article V, hereof.

ARTICLE X

The Contractor shall comply with all the provisions of state and local laws relating to contracts for the prosecution of public works, and Sections 2.13, 2.18, 2.19, 2.20, 2.21, and 2.22 of the General Conditions are hereby referred to and incorporated herein as if fully set forth. Pursuant to law, the County has ascertained the general prevailing rate of per diem wages in the locality of the work for each craft or type of workman required for performance of the contract, which rates are as stated in the Notice to contractors, and the Contractor shall be required to pay not less than said prevailing rates.

ARTICLE XI

Whenever any act is directed to be done or notice directed to be given by or to the County hereof, the same may be done or given by or to the Director of the Department of Public Works.

ARTICLE XII

The Contractor shall not assign the contract or sublet it as a whole without the written consent of the County, nor shall the Contractor assign any monies due or to become due to him hereunder without the previous written consent of the County. This contract shall be binding upon the parties hereto, their heirs, successors, assigns, subcontractors, and legal representatives.

ARTICLE XIII

Any alteration or alterations made in this contract, or any part hereof, shall not operate to release any surety from liability of any bond given pursuant to the provisions of this contract and the consent of such surety to such alteration or alterations is hereby given, the surety expressly waiving hereby the provisions of Section 2819 of the Civil Code.

ARTICLE XIV

Neither the final certificate nor payment, nor any provision of the related documents, shall relieve the Contractor of responsibility for faulty workmanship or materials, and less otherwise specified, he shall remedy any defects due thereto and pay for any damage to other work resulting therefrom which shall appear within a period of one (1) year from the date of filing Notice of Completion. The County shall give notice of observed defects with reasonable promptness. All questions arising under this Article shall be decided by the Director of the Department of Public Works.

In Witness Whereof, the parties have hereunto set their hands the day and year first above written.

CONTRACTOR

TEICHERT CONSTRUCTION

By _____

CLARK HULBERT

Turlock Construction District Manager

(Title)

COUNTY OF STANISLAUS

By _____

Chair of the Board of Supervisors

ATTEST:

CHRISTINE FERRARO TALLMAN, Clerk of Board of Supervisors of the County of Stanislaus, State of California

By _____

Deputy

APPROVED AS TO FORM
MICHAEL H. KRAUSNICK

By _____

Deputy County Counsel

(NOTE: The agreement must be acknowledged before a Notary Public by the Contractor.)

SPECIAL PROVISIONS

1.00 INFORMATION FOR BIDDERS.

1.01 DATE AND PLACE FOR OPENING PROPOSALS. Pursuant to the "Notice to Contractors", sealed proposals for performing the work will be received by the Clerk of the Board of Supervisors of Stanislaus County.

At the place and time set forth in said notice, they will be publicly opened and read. The awarding of the contract, if awarded, will be made by said Board of Supervisors as soon thereafter as practicable.

1.02 PRINTED FORM OF PROPOSALS. All proposals must be made upon the blank Form of Proposal attached hereto, and should give the price data in figures, and must be signed by the bidder. In accordance with the directions in the Form of Proposal, in order to insure consideration the proposal should be enclosed in a return envelope furnished by the bidder, and plainly marked: Proposal For

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and addressed to the Clerk of the Board of Supervisors, Tenth Street Place, Joint Stanislaus County/City of Modesto Administration Building, 1010 10th Street, 6th Floor, Modesto, CA 95354. No bid may be withdrawn within 30 days after time of opening.

1.03 OMISSIONS AND DISCREPANCIES. Should a bidder find discrepancies in, or omissions from, the drawings or other contract documents, or should he be in doubt as to their meaning, he should at once notify the Engineer who may send a written instruction to all bidders.

1.04 ACCEPTANCE OR REJECTION OF PROPOSALS. The Board of Supervisors reserves the right to reject any or all proposals. Without limiting the generality of the foregoing, any proposal which is incomplete, obscure, or irregular may be rejected. Any proposal having erasures or corrections in the price sheet may be rejected. Any proposal which omits a bid on any one or more items in the price sheet may be rejected. Any proposal in which unit prices are obviously unbalanced may be rejected. Any proposal accompanied by an insufficient or irregular bidder's bond may be rejected. Any proposal which does not include and have attached a list of all subcontractors, complete with names and addresses, may be rejected.

Also, the Board reserves the right to reject the proposal of any bidder who is not responsible. The successful bidder shall be licensed by the State of California to perform the work required by the plans and specifications and shall endorse his license number on the proposal. The Board may require additional evidence of experience, financial responsibility, or corporate existence, at its option. Each bidder shall endorse his address to which notices hereunder may be directed on the proposal.

A bidder may be deemed not to be responsible and his bid rejected if a listed subcontractor is not responsible. Responsibility of any bidder or of any listed subcontractor shall be determined at the sole discretion of the Board.

1.05 CASH, CERTIFIED CHECK, CASHIER'S CHECK OR BIDDER'S BOND. All proposals shall be accompanied by cash, a certified check, certified to by some responsible bank or banker, a cashier's check on a bank, or a bidder's bond prepared and guaranteed by an admitted corporate surety made payable to the "County of Stanislaus" in the amount of ten percent (10%) of the total bid, unless otherwise specified. All such cash or checks will be returned to the respective bidder within ten (10) days after the proposals are opened, except those which the Board of Supervisors elects to hold until the successful bidder has executed the contract. Thereafter, all remaining cash or checks, including that of the successful bidder, will be returned within five (5) days.

1.06 ACCEPTANCE OF PROPOSALS AND ITS EFFECT. Within 30 days after the opening of the proposals, the Board of Supervisors will act upon them. The acceptance of a proposal will be notice in writing signed by a duly authorized representative of the Board of Supervisors and no other act of the Board of Supervisors shall constitute the acceptance of a proposal. The acceptance of a proposal shall bind the successful bidder to execute the contract and to be responsible for liquidated damages, as provided in Paragraph 1.07. The rights and obligations provided for in the contract shall become effective and binding upon the parties only with its formal execution by the Board of Supervisors.

1.07 TIME FOR EXECUTING CONTRACT AND DAMAGES FOR FAILURE TO EXECUTE. Any bidder whose proposal shall be accepted will be required to execute the contract within 15 days after the date that the contract documents are mailed to him by the Department of Public Works. Failure or neglect to do so shall constitute a breach of the agreement effected by the acceptance of the proposal.

The damages to the County for such breach will include loss from interference with its construction program and other items whose accurate amount will be difficult or impossible to compute. The amount of the cash, certified check, cashier's check or bidder's bond accompanying the proposal of such bidder shall be forfeited and applied by the Board of Supervisors as liquidated damages for such breach. In the event any bidder whose proposal shall be accepted shall fail or refuse to execute the contract as accepted as hereinbefore provided, the Board of Supervisors may, at its option, determine that such bidder has abandoned the contract and thereupon his proposal and the acceptance thereof shall be null and void and the County shall be entitled to liquidated damages as provided in the General Conditions. In such event, the Board of Supervisors may award the contract to the next low responsible bidder or bidders.

1.08 DETERMINATION OF LOW BIDDER. Except where the Board of Supervisors exercises the right reserved herein to reject any or all proposals, the contract will be awarded by said Board to the bidder who has submitted the lowest bid determined by lowest unit price based on the quantities given in the schedule. Quantities are approximate, only being as a basis for the comparison of bids. The Board of Supervisors reserves the right to increase, decrease or omit portions of the work as may be deemed necessary or advisable by the Engineer.

1.09 TIME FOR BEGINNING AND COMPLETING THE WORK. The Contractor shall commence the work within five (5) calendar days after the date specified in the Notice to Proceed given to him by the Clerk of said Board of Supervisors to commence work, and he shall complete the work within the specified time. The date of the Notice to Proceed shall constitute the first working day.

1.10 PRICES. The prices are to include the furnishing of all materials, plant, equipment, tools, scaffolds, and all other facilities, and the performance of all labor and services necessary or proper for completion of the work, except such as may be otherwise expressly provided in the contract documents.

1.11 INTERPRETATION OF ADDENDA. Oral interpretations shall not be made to any bidder as to the meaning of any of the contract documents, or be effective to modify any of the provisions of the contract documents. Every request for an interpretation shall be made in writing, addressed and forwarded to the Engineering Department, LAS PALMAS AVENUE WIDENING, 1716 Morgan Road, Modesto, California 95358, Fax number (209) 525-4188.

1.12 RIGHT TO MAKE CORRECTIONS. The Engineer/Architect shall have the right to make such corrections and interpretations as may be deemed necessary for the fulfillment of the intent of the specifications. The Contractor shall be responsible for calling apparent errors or omissions to the attention of the Engineer/Architect for his corrections and/or interpretation. The Contractor shall not take advantage of said apparent errors or omissions.

1.13 SUBSTITUTION OF SECURITIES FOR WITHHELD PAYMENTS – Section 9-1.065, "Payment of Withheld Funds," of the 1992 Standard Specifications, is deleted in its entirety.

Pursuant to and in accordance with the provisions of Public Contract Code Section 22300, the contractor may elect to substitute securities for retention monies withheld by the County or to request payment of retention monies earned to an escrow agent.

2.00 GENERAL CONDITIONS.

2.01 OWNER. The term "Owner", where used herein, shall mean the County of Stanislaus, a political subdivision of the State of California.

2.02 BOARD. The term "Board", where used herein, shall mean the Board of Supervisors of the County of Stanislaus, California.

2.03 ENGINEER. The Director of Public Works shall supervise and be responsible for the work, and whenever the word "Director" or the word "Engineer" is used herein, it shall mean the Director of Public Works of Stanislaus County, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.

2.04 CONTRACTOR. The term "Contractor", where used herein, shall mean the Contractor to whom the contract for the work described and specified herein has been awarded to by the Board.

2.05 SUBCONTRACTOR. The term "Subcontractor", where used herein, includes only those having a direct contract with the Contractor for the work or portion of the work described and specified herein.

2.06 WORK. The term "Work", where used herein, includes all labor, materials and any necessary equipment required for complete performance of the contract.

2.07 CONTRACT DOCUMENTS. The term "Contract Documents", where used herein, includes the following: The Notice to Bidders, the Instructions to Bidders, the General Conditions, the plans and specifications, the bid, the Agreement, the general bond and insurance certificates. The contract documents are complementary, and what is called for by one shall be as binding as if called for by all.

2.08 DOCUMENT CLARITY. The Contractor's attention is directed to the following requirement:

Government Code 27361.7 - Requirement that document will reproduce readable photographic record substitution of legible original document or preparation of true copy of first document:

> Whenever the text of a document presented for record may be made out but is not sufficiently legible to reproduce a readable photographic record, the Recorder may require the person presenting it for record to substitute a legible copy of the first document by handwriting or typewriting and attach the same to the original as part of the document for making the permanent photographic record. The handwritten or typewritten legible copy shall be certified by the party creating the copy under penalty of perjury as being a true copy of the original. As used in this section, the word "text" includes the notary seal, certificates and other appendices, thereto.

2.09 COMPLETE CONTRACT. The complete contract consists of all of the contract documents.

2.10 PLANS AND SPECIFICATIONS. The term "Plans and Specifications", where used herein, shall mean and include all specifications and provisions of any kind, whether general, detailed or otherwise, relating to the labor, equipment, material or work in the installation thereof, and the plans and drawings, if any, accompanying same which are made a part hereof.

2.11 AGREEMENT. The Contractor to whom the work is awarded shall, within eight days after receipt of the contract documents as mailed by the Department of Public Works, enter into an agreement with the owner. The form of agreement is attached herein and made a part of these General Conditions.

2.12 MATERIAL, LABOR, EQUIPMENT AND OTHER FACILITIES. Unless otherwise provided, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, lights, power, transportation and other facilities necessary for the execution and completion of the work.

2.13 PERMITS AND LICENSES. All permits and licenses necessary for the prosecution of the work shall be secured and paid for by the Contractor, except those secured by Stanislaus County and so noted.

2.14 INSPECTION OF WORK. A representative of the Owner shall, at all times, have access to the work and the Contractor shall provide proper facilities for such access and for inspection. The Contractor's attention is directed to Government Code Section 1126 and Stanislaus County Department of Public Works regulations wherein the County's representative is prohibited from accepting from the Contractor, his employees, and subcontractors any gratuity, gift, service or material of any value or use of equipment or facilities, and agrees to abide by the section and regulations.

2.15 BONDS. The Contractor shall furnish and deliver to the Board a surety bond in the amount equal to one hundred percent (100%) of the contract price to guarantee the faithful performance of the contract, and a surety bond in an amount equal to one hundred percent (100%) of the contract price for the faithful payment and satisfaction of all lawful claims of all persons for labor and material furnished and the prosecution of the contract. Such surety bonds shall be issued by a corporation duly and legally licensed to transact surety business in the State of California and approved by the Board. All participating signatures on the bonds shall be notarized.

2-16 INSURANCE.

A. Indemnity

The Contractor shall indemnify, defend, and save harmless the County of Stanislaus, its officers, agents, and employees, from any and all claims, demands, suits, and legal actions of any kind or nature including all costs, attorneys' fees, and expenses incurred therefrom; whether arising before or after final acceptance of this contract/ agreement; and whether in any manner directly or indirectly caused, occasioned, or contributed to in whole or in part by reason of any act, omission, active or passive negligence of the Contractor or of anyone acting under the Contractor's direction and control. The Contractor's aforesaid indemnity and hold harmless agreement shall not be applicable to any said liability caused solely by the negligence of the County of Stanislaus.

B. Minimum Scope of Insurance:

Insurance coverage shall be at least as broad as:

1. General Liability:
   $1,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to any act or omission to act by Contractor under this Agreement or the general aggregate limit shall be twice the required occurrence limit.

2. Fire Insurance:
   Builder's Risk Fire Insurance, including Extended Coverage and Vandalism and Malicious Mischief endorsements, jointly in the name of the County and the Contractor, such insurance at all times to be of sufficient amount to cover fully all loss or damage to the work under this agreement, resulting from fire and perils covered by the above-referenced endorsements, in not less than 100% of the contract price.

3. Automobile Liability Insurance:
   Owned/Non-owned automobile liability insurance providing combined single limits covering bodily injury liability with limits of no less than One Million Dollars ($1,000,000) per accident, and providing property damage liability of no less than One Hundred Thousand Dollars ($100,000) per accident.

4. Workers' Compensation Insurance:
   Workers' Compensation insurance as required by the Labor Code of the State of California.

C. Labor Code Certification:

In signing this contract, the Contractor makes the following certification, required by Section 1861 of the California Labor Code. I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workmen's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

D. Deductibles, Self-Insured Retentions, Named Insureds:

Any deductibles, self-insured retentions or named insureds must be declared in writing and approved by County. At the option of the County, either: the insurer shall reduce or eliminate such deductibles, self-insured retentions or named insureds; or the Consultant shall provide a bond, cash or letter of credit guaranteeing payment of the self-insured retention, deductible, or payment of any and all costs, losses, related investigations, claim administration and defense expenses.

E. Other Insurance Provisions:

The insurance policies are to contain, or be endorsed to contain, the following provisions:

1. General Liability and Automobile Liability Coverages

   a. The Contractor shall provide a specific endorsement naming the County and County's officers, officials, employees, and volunteers as insureds regarding: liability arising from or in connection with the performance or omission to perform any term or condition of this Agreement by or on behalf of the Contractor, including the insured's general supervision of the Contractor; services, products and completed operations of the Contractor; premises owned, occupied or used by the Contractor; and automobiles owned, leased, hired or borrowed by the Contractor.

   b. The Contractor's insurance coverage shall be primary insurance regarding the County and County's officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the County or County's officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with Contractor's insurance.

   c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to County or County's officers, officials, employees, or volunteers.

   d. The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

2. Workers' Compensation and Employers Liability Coverage:

   The insurer shall agree to waive all rights of subrogation against the County and County's officers, officials, employees, and volunteers for losses arising from the performance of or the omission to perform any term or condition of this Agreement by the Contractor.

3. All Coverages:

   Each insurance policy required by this section shall be endorsed to state that coverage shall not be suspended,voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice by certified mail, return receipt requested, has been given to County.

F. Acceptability of Insurers:

Insurance is to be placed with California admitted insurers (licensed to do business in California) with a Best's rating of no less than A-:VII.

G. **Verification of Coverage:**

At the time required for the submittal of executed bonds and signed agreement, Contractor shall furnish County with certificates of insurance and with original endorsements effecting coverage required by this section. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements shall be received and, in County's sole and absolute discretion, approved by County. County reserves the right to require complete copies of all required insurance policies and endorsements, at any time.

H. **Subcontractors:**

Contractor shall require that all of its subcontractors are subject to the insurance and indemnity requirements stated herein, or shall include all subcontractors as additional named insureds under its insurance policies.

I. Insurance Limits Do Not Limit Contractor Liability:

The limits of insurance described herein shall not limit the liability of the Contractor and Contractor's agents, representatives, employees or subcontractors.

2.17 ASSIGNMENT OF CONTRACT. The Contractor shall not assign the contract or sublet it as a whole without written consent of the owner, nor shall the Contractor assign any monies due or to become due to him hereunder without the written consent of the Owner.

2.18 EIGHT-HOUR DAY. The time of service of any laborer, workman, or mechanic employed upon any of the work herein specified is limited and restricted to eight (8) hours during any one calendar day, and 40 hours during any one calendar week, except that work performed by employees of contractors in excess of eight (8) hours per day, and 40 hours during any one week, shall be permitted upon public work upon compensation for all hours worked in excess of eight (8) hours per day and not less than one and one-half (1-1/2) times the basic rate of pay.

The Contractor shall forfeit, as a penalty to the owner $25.00 for each laborer, workman or mechanic employed in the execution of this contract by him or by any subcontractor under him, upon any public work herein specified for each calendar day or week during which any laborer, workman or mechanic is required or permitted to labor more than eight (8) hours in any one calendar day or 40 hours in any one calendar week in violation of the provisions of Article 3 of Chapter 1, Part 7, Division 2 of the Labor Code of the State of Califomia, and said sums and amount which shall have been so forfeited pursuant to this paragraph and said provisions of said Labor Code shall be withheld and retained from payment due to the Contractor under this contract, pursuant to this contract and the said terms of said Code; but no sums shall be so withheld, retained, or forfeited except from the final payment without a full investigation by either the Division of Labor Law Enforcement of the State Department of Industrial Relations or by said Board.

2.19 PREVAILING WAGES. The Contractor shall comply with Labor Code Section 1775. In accordance with said Section 1775, the Contractor shall forfeit, as a penalty to the County of Stanislaus, $25.00 for each calendar day or portion thereof for each workman paid less than the stipulated prevailing rates for such work or craft in which such workman is employed for any work done under the contract by him or by any subcontractor under him. In addition to said penalty, the difference between such stipulated prevailing wage rates and the amount paid to each workman for each calendar day or portion thereof for which each workman was paid less than the stipulated prevailing wage rate shall be paid to each workman by the Contractor.

Pursuant to Sections 1770 and 1773 of the Labor Code, the Board of Supervisors has ascertained the general prevailing rate of per diem wages applicable to the work to be done for straight time, overtime, Saturday, Sunday and holiday work. These wage rates, which are set forth by the Director of the Department of Industrial Relations, are now on file with the Department of Public Works and are a part of the contract. The Contractor is required to post a copy of these prevailing wage rates on the job site.

The County will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth as provided herein. The possibility of wage increases is one of the elements to be considered by the Contractor in determining his bid, and will not under any circumstances be considered as the basis of a claim against the County on the contract.

2.20 PAYROLLS AND BASIC RECORDS. The Contractor shall meet the requirements of Section 7-1.01A(3), "Payroll Records", of the State of California Standard Specifications. The Contractor shall be responsible for compliance by his subcontractors.

2.21 REQUIRED LISTING OF PROPOSED SUBCONTRACTORS. Each proposal shall have listed therein the name and address of each subcontractor to whom the bidder proposes to subcontract portions of the work in the amount of 1/2 of one percent of his total bid or $10,000, whichever is greater, in accordance with the Subletting and Subcontracting Fair Practices Act, commencing with Section 4100 of the Public Contract Code. The bidder's attention is invited to other provisions of said Act related to the imposition of penalties for a failure to observe its provisions by using unauthorized subcontractor or by making unauthorized substitutions.

A sheet for listing the subcontractors, as required herein, is included in the Proposal.

2.22 STANDARD SPECIFICATIONS AND CODES. All work herein specified shall be performed in accordance with applicable sections of the following Standard Specifications or Codes which are herein named and hereby made a portion of these specifications. In a case of conflict between these specifications and said Standards, these specifications shall be paramount.

Stanislaus County Ordinance Code Title 16 (Uniform Building Code, 1997 Edition)
Stanislaus County Ordinance Code Title 16 (Uniform Plumbing Code, 1997 Edition)
Stanislaus County Ordinance Code Title 16 (National Electric Code, 1996 Edition)
Stanislaus County Ordinance Code Title 16 (Uniform Mechanical Code, 1997 Edition)

Standard Specifications of the California Business and Transportation Agency, Department of Transportation, 1999
Stanislaus County Improvement Standards
Title 24 Cal State Building Code

2.23 TAXES. Any federal, state or city tax payable on articles furnished by the Contractor under the contract shall be included in the contract price paid by the Contractor.

2.24 TIME FOR COMPLETION AND LIQUIDATED DAMAGES. The work to be performed under this contract shall be completed within

"SIXTY (60) WORKING DAYS"

from the date of Notice to Proceed. Should the Contractor fail to complete this contract and the work provided for therein within the fixed time for such completion, the parties hereto agree that it would be impracticable or extremely difficult to fix the actual damage, and therefore agree that the Contractor shall be liable to the Owner and may be assessed by the Owner in the sum of ONE THOUSAND TWO HUNDRED DOLLARS ($1,200) per day for each calendar day this contract is delayed beyond the time of completion above agreed upon by failure of the Contractor to complete the contract as specified. Such payment shall be construed to be liquidated damages by the Contractor in lieu of any other claim for damage because of such delay, and shall not be construed as a penalty.

2.25 PREFERENCES. Price and quality being equal, preference shall be given by the Contractor to Stanislaus County products.

2.26 DEFECTS IN WORK. The Contractor shall be responsible for and must make good any defects through faulty, improper or inferior workmanship or materials arising or discovered in any part of this work within one (1) year after the completion and acceptance of the same.

2.27 DEVIATION FROM PLANS AND SPECIFICATIONS. No deviation shall be made from the plans and specifications. If the Contractor shall vary from the plans and specifications in the form of quality or in the work or the amount or value of the materials herein provided for, the Owner shall have the right to order such improper work or materials removed, remade or replaced. In the event that the work is ordered changed, any other work disturbed or damaged by such alteration shall be made good at the Contractor's expense.

2.28 BRANDS. Wherever the name or brand of a manufacturer or an article is specified herein, it is used as a measure of quality and utility or a standard. If the Contractor desires to use any other brand or manufacturer of equal quality and utility to that specified, he shall make application to the Owner in writing and submit samples, if requested. The Contractor shall have 35 days after the award of the contract for submission of data substantiating any such request for substitution of "equal" items. The Owners will then determine whether or not the name brand or article is equal in quality and utility to that specified, and its decision shall be final.

Except in those instances in which the product is designated to match others presently in use, specifications herein calling for a designated material, product, thing or service by specific brand or trade name shall be deemed to be followed by the words "or equal" so that bidders may furnish any equal material, product, thing or service. The successful bidder shall have thirty-five (35) days after award of the contract for submission of data substantiating a request for a substitution of "an equal" item, pursuant to Section 3400 of the Public Contract Code.

2.29 NEW MATERIALS. All materials used in the work shall be new and the best market quality, unless specified or shown otherwise. All labor used on this contract shall be competent and skilled for the work. All work executed under this contract shall be done in the best, most thorough substantial and workmanlike manner. All material and labor shall be subject to the approval of the Engineer as to quality and fitness, and shall be immediately removed if it does not meet with his approval.

2.30 ABANDONMENT OF WORK. Should the Contractor abandon the work called for under the plans and specifications and contract documents, or assign his contract, or if the Contractor unnecessarily and unreasonably delays the work, or if the Contractor willfully violates any of the conditions of the plans and specifications or contract documents, or performs the work in bad faith, the Owner shall have the power to notify the Contractor to discontinue all work or any part thereof under this contract, and thereupon the Contractor shall cease to continue said work or such part thereof as the Owner may designate, and the Owner shall thereupon have the power to employ such persons as it may consider desirable, and to obtain by contract, purchase, hire or otherwise, such implements, tools, material or materials as the Owner may deem advisable to work at and be used to complete the work herein described, or such part thereof as shall have not been completed, and to use such material as it may find upon the site of said work, and to charge the expense of such labor and material, implements and tools to the Contractor, and the expense so charged shall be deducted and paid by the Owner out of such monies as may be either due, or may at any time thereafter become due to the Contractor hereunder and by virtue of the contract.

In the case such expense is less than the sum which would have been payable under the contract, if the same had been completed by the Contractor, the Contractor shall be entitled to receive the difference, and in case such expense shall exceed the last said amount, then the Contractor or his bondsman shall pay the amount of such excess to the Owner on notice to either from the Owner the excess so due.

2.31 OCCUPANCY OF BUILDING. The Owner reserves the right to occupy or use any part or parts or the entirety of the building or project upon which the work is to be performed during the performance of the work. The exercising of this right shall in no way constitute an acceptance of such part or parts of the work, nor shall it in any way effect the date and time when the work is to be completed, nor shall it in any way prejudice the Owner's rights in the Contractor any bond guaranteeing the same; this contract is to be deemed completed only when all of the work contracted for shall be duly and properly performed and accepted by the Board.

2.32 EXTENSION OF TIME. If it appears to the Contractor that he will not complete the work herein specified in the time agreed, he shall make written application to the Owner at least five (5) calendar days prior to the expiration of the time for completion, stating the reasons why and the amount of extension which he believes he should be granted. The Owner may then, in its discretion, grant or deny such extension.

2.33 SUSPENSION OF WORK. Should the Owner, for any cause, authorize a suspension of work, the time of such suspension will be added to the time allowed for completion. Suspension of work by order of the Board shall not be deemed a waiver of the claim of the Owner for damages for non-completion of the work as above required.

2.34 JUSTIFIABLE DELAYS. The Contractor shall not be held responsible for delays in the completion of the work caused by strikes, labor disturbances, lack or failure of transportation, war, inability to obtain materials due to war conditions, perils of the sea, insurrection, riot, acts of any government, whether foreign or domestic, federal or state, and/or any other causes similar to the foregoing which are beyond the control of and are not the fault of the Contractor, or if prevented by conditions directly resulting from the execution of contracts or the placing of orders by the Federal government or its authorized agencies or representatives, which are required by law to be given priority, but provided that whenever the Contractor shall claim that delays are due to any or all of the above named cause or causes of delay, request an extension of time in accordance with paragraph 2.31 of these General Conditions, and if the Board finds that such cause or causes of delay exist, it shall grant him an extension of time equal to the delay resulting from such cause or causes, or the Board may at its option, rescind said contract and pay said Contractor for the reasonable value of the work completed and let a new contract for the completion of the remainder of the work herein specified.

2.35 PATENTS AND ROYALTIES. If any material, composition, process or any other thing called for or required by the plans and specifications heretofore adopted by the Owner is covered by letter patent, all royalties and expenses thereof, all litigation therefrom, or other things whatsoever which may develop as a cost from the use of such material, composition, process or any other thing which is covered by letter patents shall be borne by the Contractor. The Contractor shall pay all license and/or royalty fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Owner harmless from loss on account thereof.

2.36 EXAMINATION OF SITE. The Contractor shall be held to have examined the site, compared it with the drawings and specifications, and to have satisfied himself as to the conditions under which the work is to be performed. No allowance or claims on his behalf will be made for any expense to which he may be put as a result or failure on his part to thoroughly acquaint himself with conditions at the site.

2.37 DAMAGE TO OTHERS. The Contractor shall exercise due caution during his operations so as not to damage the property of others or Owner's property not directly involved under the plans and specifications, and shall be responsible for the protection of this property and shall replace any and all such property to its former condition as a result of his failure to provide protection or exercise due caution during his operations.

2.38 SURVEYS AND GRADES. The provisions of Standard Specification 5-1.07 shall not apply. The Contractor shall establish alignment and elevations from existing centerline reference monuments and benchmarks. The Contractor shall set supplemental posts for his detailed construction needs. Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various items of work involved and no additional compensation will be allowed therefor.

2.39 SHOP DRAWINGS. The Contractor shall furnish two (2) copies of shop drawings for all steel, miscellaneous iron, electrical and sheet metal work at such time as to cause no delay in his own or other person's work. The Engineer shall, with reasonable promptness, check the drawings, making corrections, and return them for fabrication; two (2) copies of the corrected drawings used for fabrication shall be returned to the Engineer. The drawings shall not relieve the Contractor from any errors made in fabrication or deviation from original plans and specifications unless such deviation has been specifically permitted in writing by the Director of the Department of Public Works.

2.40 CORRECTION OF WORK AFTER FINAL PAYMENT. Neither the final certificate nor final payment, nor any provision of the contract documents shall relieve the Contractor of responsibility for faulty materials or workmanship, and unless otherwise specified, he shall remedy any defects due thereto and shall pay for any damage or other work resulting therefrom which shall appear within a period of one year from the date of substantial completion. The Owner shall give notice of observed defects with reasonable promptness. All questions arising under this article shall be decided by the Director of Public Works.

2.41 CHANGES IN WORK. The Owner, without invalidating the contract, may order extra work or make changes by altering, adding to or deducting from the work, the contract sum being adjusted accordingly. All such work shall be performed under the conditions of the contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering the change. The Engineer shall have authority to make minor changes not involving extra cost and not inconsistent with the purpose of the project.

The value of such extra work or change shall be determined in one or more of the following ways:

A. By estimate and acceptance in a lump sum;

B. By unit prices named in the contract or subsequently agreed upon;

C. By cost and percentage and fixed fee.

Should conditions below surface of the ground be at variance with the conditions indicated by the drawings and specifications, the contract sum shall be equitably adjusted upon claim by either party made within a reasonable time after first observation of conditions.

The amount agreed upon as the value of any extra work resulting from any change order shall constitute full and complete compensation for all overhead, labor, material, tools, and equipment furnished in the performance of work required by that change order. Furthermore, the amount agreed upon as the value of extra work for any change order shall be accepted by the Contractor as full and complete compensation for any and all claims of any nature whatsoever, including, but not limited to, any actual or alleged claims for compensation by Contractor, or any subcontractor of Contractor for delays occasioned by or in any way arising out of stoppage of the work, coordination of the work with others, or processing of that change order.

2.42 CLEANING UP. Contractor shall at all times keep the premises free from accumulations of waste material or rubbish as a result of this operation. Upon completion of work he shall remove all rubbish, material and his equipment from the job and shall leave the job site in a "broom clean" or equivalent condition. In case of a dispute regarding this item, the Owner may remove rubbish or material and charge the cost to the several contractors as the authorized representative shall deem just.

2.43 SUPERVISION. The Contractor shall, at all times during the working hours of the contract, have a competent foreman or superintendent on the job who shall be authorized to act as an agent of the Contractor. Such agent shall be familiar with the type of work hereunder and be aware of the hazards and the safety rules relating to this particular type of construction. Ignorance or incompetence of a foreman shall be due cause for his removal from the job and cessation of work under this contract until the intent of this paragraph is fulfilled, without recourse by the Contractor for any extension of the time of completion as a result of the removal of such unsatisfactory agent.

2.44 APPRENTICESHIP STANDARDS. This contract is subject to the provisions in Sections 1777.5 (Chapter 1411, Statutes of 1968) and 1777.6 of the Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under him. Section 1777.5, as amended, requires the Contractor or subcontractor employing tradesmen in any apprenticeable occupation to apply to the Joint Apprenticeship Committee nearest the site of the public works project and which administers the apprenticeship program in that trade for a certificate of approval. The certificate will also fix the ratio of apprentices to journeymen that will be used in the performance of the contract. The ratio of apprentices to journeymen in such cases shall not be less than one to five, except:

A. When unemployment in the area of coverage by the Joint Apprenticeship Committee has exceeded an average of fifteen percent (15%) in the 90 days prior to the request for certificate; or

B. When the number of apprentices in training in the area exceeds a ratio of one to five; or

C. When the trade can show that it is replacing at least 1/30 of its membership through apprenticeship training on an annual basis statewide or locally; or

D. When the Contractor provides evidence that he employs registered apprentices on all of his contracts on an annual average of not less than one apprentice to eight journeymen.

The Contractor is required to make contributions to funds established for the administration of apprenticeship programs if he employees registered apprentices or journeymen in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions.

The Contractor and any subcontractor under him shall comply with the requirements of Sections 1777.5 and 1777.6 in the employment of apprentices.

Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.

2.45 ASSIGNMENT OF ANTI-TRUST ACTIONS AND UNFAIR BUSINESS PRACTICE CLAIMS. In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S. C. Sec. 15) or under the Cartwright Act (Chapter 2, commencing with Section 16700) or Part 2 of Division 7 of the Business and Professions Code, arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgement by the parties.

2.46 EQUAL EMPLOYMENT OPPORTUNITY. Contractor agrees for the duration of this contract that it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, political affiliation, marital status, or handicap. The Contractor will take affirmative action to insure that employees are treated during employment or training without regard to their race, color, religion, sex, national origin, age, political affiliation, marital status, or handicap. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

The Contractor will in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, age, political affiliation, marital status, or handicap.

The Contractor will send to each labor union or other representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the workers' representative of the Contractor commitments under this agreement.

The Contractor agrees that it will comply with the provisions of Titles VI and VII of the Civil Rights Act, Revenue Sharing Act Title 31, U.S. Code Section 2716, and California Government Code Section 12990.

The Contractor agrees that it will assist and cooperate with the County, the State of California and the United States Govemment in obtaining compliance with the equal opportunity clause, rules, regulations, and relevant orders of the State of California and United States Government issued pursuant to the Acts.

In the event of the Contractor's non-compliance with the discrimination clause, the affirmative action plan of this contract, or with any of the said rules, regulations or orders, this contract may be canceled, terminated, or suspended in whole or in part by the County.

2.47 HANDICAPPED NON-DISCRIMINATION. This project is subject to Section 504 of the Rehabilitation Act of 1973 as amended, (29 U.S.C. 794), and all requirements imposed by the applicable office of Revenue Sharing Regulations (31CFR Part 51) and all guidelines and interpretations issued thereto. In this regard, the County and all of its contractors and subcontractors will take all reasonable steps to ensure that handicapped individuals have the maximum opportunity for the same level of aid, benefit or service as any other individual.

2.48 FAIR EMPLOYMENT AND HOUSING ACT ADDENDUM. In the performance of this contract, the Contractor will not discriminate against any employee or applicant for employment because of race, sex, color, religion, ancestry, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, sex, color, religion, ancestry, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, promotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the State or local agency setting forth the provisions of this Fair Employment and Housing Section.

The Contractor will permit access to his records of employment, employment advertisements, application forms, and other pertinent data and records by the State Fair Employment and Housing Commission, or any other agency of the State of California designated by the awarding authority, for the purposes of investigation to ascertain compliance with the Fair Employment and Housing section of this contract.

Remedies for willful violation:

A. The State or local agency may determine a willful violation of the Fair Employment and Housing provision to have occurred upon receipt of a final judgement having that effect from a court in an action to which Contractor was a party; or upon receipt of a written notice from the Fair Employment and Housing Commission that it has investigated and determined that the Contractor has violated the Fair Employment and Housing Act and has issued an order or obtained an injunction under Government Code Section 12900, et seq.

B. For willful violation of this Fair Employment and Housing provision the State or local agency shall have the right to terminate this contract either in whole or in part, and any loss or damage sustained by the State or local agency in securing the goods or services hereunder shall be borne and paid for by the Contractor and by his surety under the performance bond, if any, and the State or local agency may deduct from any monies due or that thereafter may become due to the Contractor, the difference between the price named in the contract and the actual cost thereof to the State or local agency.

2.49 CONTRACTS WHICH INVOLVE DIGGING TRENCHES OR EXCAVATIONS.

Note the required language in Public Contract Code Section 7104 concerning contracts which involve digging trenches or excavations;

Any public works contract of a local public entity which involves digging trenches or other excavations that extend deeper than four feet below the surface shall contain a clause which provides the following:

A. That the Contractor shall promptly, and before the following conditions are disturbed, notify the public entity, in writing, of any:

1. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to

be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.

2. Subsurface or latent physical conditions at the site differing from those indicated.

3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.

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

C. That, in the event that a dispute arises between the public entity and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the contract, but shall proceed with all work to be performed under the contract. The Contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the contracting parties.

2.50 ARBITRATION The last paragraph in Section 9-1.10, "Arbitration," of the Standard Specifications is amended to read.

Arbitration shall be initiated by a Complaint in Arbitration made in compliance with the requirements of said regulations. A Complaint in Arbitration by the Contractor shall be made not later than 180 days after the date of service in person or by mail on the Contractor of the final written decision by the Department on the claim.

2.51 NOTICE OF POTENTIAL CLAIM Section 9-1.04, "Notice of Potential Claim," of the Standard Specifications is amended to read:

9-1.04 Notice of Potential Claim The Contractor shall not be entitled to the payment of any additional compensation for any act, or failure to act, by the Engineer, including failure or refusal to issue a change order, or for the happening of any event, thing, occurrence, or other cause, unless he shall have given the Engineer due written notice of potential claim as hereinafter specified. Compliance with this Section 9-1.04 shall not be a prerequisite as to matters within the scope of the protest provisions in Section 4-1.03, "Changes," or Section 8-1.06, "Time of Completion," or the notice provisions in Section 5-1.116, "Differing Site Conditions," or Section 8-1.07, "Liquidated Damages," or Section 8-1.10, "Utility and Non-Highway Facilities," nor to any claim which is based on differences in measurements or errors of computation as to contract quantities.

The written notice of potential claim shall be submitted to the Engineer prior to the time that the Contractor performs the work giving rise to the potential claim for additional compensation, if based on an act or failure to act by the Engineer, or in all other cases within 15 days after the happening of the event, thing, occurrence, or other cause, giving rise to the potential claim.

The written notice of potential claim shall be submitted on Form CEM-6201 furnished by the Department and shall be certified with reference to the California False Claims Act, Government Code Sections 12650 - 12655. The notice shall set forth the reasons for which the Contractor believes additional compensation will or may be due and the nature of the costs involved. Unless the amount of the potential claim has been stated in the written notice, the Contractor shall, within 15 days of submitting said notice, furnish an estimate of the cost of the affected work and impacts, if any, on project completion. Said estimate of costs may be changed or updated by the Contractor when conditions have changed. When the affected work is completed, the Contractor shall submit substantiation of his actual costs. Failure to do so shall be sufficient cause for denial of any claim subsequently filed on the basis of said notice of potential claim.

It is the intention of this Section 9-1.04 that differences between the parties arising under and by virtue of the contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The Contractor hereby agrees that he shall have no right to additional compensation for any claim that may be based on any such act, failure to act, event, thing or occurrence for which no written notice of potential claim as herein required was filed.

Should the Contractor, in connection with or subsequent to the assertion of a potential claim, request inspection and copying of documents or records in the possession of the Department that pertain to the potential claim, Contractor shall make its records of the project, as deemed by the Department to be pertinent to the potential claim, available to the Department for inspection and copying.

2.52 FINAL PAYMENT AND CLAIMS Section 9-1.07B, "Final Payment and Claims," of the Standard Specifications is amended to read:

9-1.07B Final Payment and Claims.--After acceptance by the Director, the Engineer will make a proposed final estimate in writing of the total amount payable to the Contractor, including therein an itemization of said amount, segregated as to contract item quantities, extra work and any other basis for payment, and shall also show therein all deductions made or to be made for prior payments and amounts to be kept or retained under the provisions of the contract. All prior estimates and payments shall be subject to correction in the proposed final estimate. The Contractor shall submit written approval of the proposed final estimate or a written statement of all claims arising under or by virtue of the contract so that the Engineer receives such written approval or statement of claims no later than close of business of the thirtieth day after receiving the proposed final estimate. If the thirtieth day falls on a Saturday, Sunday or legal holiday, then receipt of such written approval or statement of claims by the Engineer shall not be later than close of business of the next business day. No claim will be considered that was not included in the written statement of claims, nor will any claim be allowed as to which a notice or protest is required under the provisions in Sections 4-1.03, "Changes," 8-1.06, "Time of Completion," 8-1.07, "Liquidated Damages," 5-1.116, "Differing Site Conditions," 8-1.10, "Utility and Non-Highway Facilities," and 9-1.04, "Notice of Potential Claim," unless the Contractor has complied with the notice or protest requirements in said sections.

On the Contractor's approval, or if he files no claim within said period of 30 days, the Engineer will issue a final estimate in writing in accordance with the proposed final estimate submitted to the Contractor and within 30 days thereafter the State will pay the entire sum so found to be due. Such final estimate and payment thereon shall be conclusive and binding against both parties to the contract on all questions relating to the amount of work done and the

compensation payable therefor, except as otherwise provided in Sections 9-1.03C, "Records," and 9-1.09, "Clerical Errors."

If the Contractor within said period of 30 days files claims, the Engineer will issue a semifinal estimate in accordance with the proposed final estimate submitted to the Contractor and within 30 days thereafter the State will pay the sum so found to be due. Such semifinal estimate and payment thereon shall be conclusive and binding against both parties to the contract on all questions relating to the amount of work done and the compensation payable therefor, except insofar as affected by the claims filed within the time and in the manner required hereunder and except as otherwise provided in Sections 9-1.03C, "Records," and 9-1.09, "Clerical Errors."

Claims filed by the Contractor shall be in sufficient detail to enable the Engineer to ascertain the basis and amount of said claims. If additional information or details are required by the Engineer to determine the basis and amount of said claims, the Contractor shall furnish such further information or details so that the information or details are received by the Engineer no later than the fifteenth day after receipt of the written request from the Engineer. If the fifteenth day falls on a Saturday, Sunday or legal holiday, then receipt of such information or details by the Engineer shall not be later than close of business of the next business day. Failure to submit such information and details to the Engineer within the time specified will be sufficient cause for denying the claim.

The Contractor shall keep full and complete records of the costs and additional time incurred for any work for which a claim for additional compensation is made. The Engineer or any designated claim investigator or auditor shall have access to those records and any other records as may be required by the Engineer to determine the facts or contentions involved in the claims. Failure to permit access to such records shall be sufficient cause for denying the claims.

Claims submitted by the Contractor shall be accompanied by a notarized certificate containing the following language:

Under the penalty of law for perjury or falsification and with specific reference to the California False Claims Act, Government Code Section 12650 et. seq., the undersigned,

_____,
(name)

_____ of
(title)

_____
(company)

hereby certifies that the claim for the additional compensation and time, if any, made herein for the work on this contract is a true statement of the actual costs incurred and time sought, and is fully documented and supported under the contract between parties.

Dated _____
/s/ _____

Subscribed and sworn before me this _____ day of _____.

_____
Notary Public
My Commission Expires_____

Failure to submit the notarized certificate will be sufficient cause for denying the claim.

Any claim for overhead type expenses or costs, in addition to being certified as stated above, shall be supported by an audit report of an independent Certified Public Accountant. Any such overhead claim shall also be subject to audit by the State at its discretion.

Any costs or expenses incurred by the State in reviewing or auditing any claims that are not supported by the Contractor's cost accounting or other records shall be deemed to be damages incurred by the State within the meaning of the California False Claims Act.

The District Director of the District which administers the contract will make the final determination of any claims which remain in dispute after completion of claim review by the Engineer. A board or person designated by said District Director will review such claims and make a written recommendation thereon to the District Director. The Contractor may meet with the review board or person to make a presentation in support of such claims.

Upon final determination of the claims, the Engineer will then make and issue his final estimate in writing and within 30 days thereafter the State will pay the entire sum, if any, found due thereon. Such final estimate shall be conclusive and binding against both parties to the contract on all questions relating to the amount of work done and the compensation payable therefor, except as otherwise provided in Sections 9-1.03C, "Records," and 9-1.09, "Clerical Errors."

2.53 SUPLEMENTAL WORK A "Supplemental Work" item may be included in the contract to cover modifications to the work necessitated by field conditions. The amount of expenditure under this item may vary from zero to the total amount of the item. This amount may constitute the sum of several modifications. The engineer will notify the Contractor in writing when portion of the work being performed will be paid for under this item.

SECTION 3 MATERIALS

3-1.01 ACCEPTANCE TESTING.- Acceptance testing shall be conducted in accordance with the Stanislaus County Public Works Quality Assurance Program. A copy of the Quality Assurance Program is available from the Stanislaus County Public Works Department, 1716 Morgan Road, Modesto CA, 95358.

3-1.02 MEASUREMENT OF QUANTITIES.- The first paragraph of Section 9-1.01, "Measurement of Quantities," of the Standard Specifications is amended to read as follows:

"All work to be paid for at a contract price per unit of measurement will be measured by the Engineer in accordance with the United States Standard Measures. A ton shall consist of 2,000 pounds avoirdupois."

3-1.03 AGENCY-FURNISHED MATERIALS. -- Attention is directed to Section 6-1.02, "State-Furnished Materials," of the Standard Specifications and these special provisions.

The following materials will be furnished to the Contractor:

Disks for survey monuments.

3-1.04 PREQUALIFIED AND TESTED SIGNING AND DELINEATION MATERIALS.-- The Department maintains a trade name list of approved prequalified and tested signing and delineation materials and products. Approval of prequalified and tested products and materials shall not preclude the Engineer from sampling and testing any of the signing and delineation materials or products at any time.

Said listing of approved prequalified and tested signing and delineation materials and products cover the following:

MATERIALS and PRODUCTS

Temporary pavement markers
Striping and pavement marking tape
Pavement markers, reflective and non-reflective
Flexible Class 1 delineators and channelizers
Railing and barrier delineators
Sign sheeting and base materials
Reflective sheeting for barricades
Reflective sheeting for channelizers
Reflective sheeting for markers and delineators
Reflective sheeting for traffic cone sleeves

None of the above listed signing and delineation materials and products shall be used in the work unless such material or product is listed on the Department's List of Approved Traffic Products. A Certificate of Compliance shall be furnished as specified in Section 6 1.07, "Certificates of Compliance," of the Standard Specifications for signing and delineation materials and products. Said certificate shall also certify that the signing and delineation material or product conforms to the prequalified testing and approval of the Department of Transportation, Division of Traffic Operations and was manufactured in accordance with the approved quality control program.

Materials and products will be considered for addition to said approved prequalified and

tested list if the manufacturer of the material or product submits to the Division of Traffic Operations a sample of the material or product. The sample shall be sufficient to permit performance of all required tests. Approval of such materials or products will be dependent upon a determination as to compliance with the specifications and any test the Department may elect to perform.

The following is a listing of approved prequalified and tested signing and delineation materials and products:

PAVEMENT MARKERS, PERMANENT TYPE

Reflective pavement markers

Apex (4x4)
Ray-O-Lite, Models SS, RS, and AA (4x4)
Stimsonite 88 (4x4)

Reflective pavement markers with abrasion resistant surface

Stimsonite 911 (4x4)
Stimsonite 944 SB (2x4) - formerly model 947
Stimsonite 948 (2.3x4.7)

Non-reflective pavement markers for use with epoxy or bituminous adhesive

Apex Universal, Ceramic
Ferro Corporation, Permark (ceramic)
Highway Ceramics Inc., Ceramic
Safety Signs Inc. "Safety Dot" Model SD4 (Polyester)
Traffic Control Signs Co., Titan, TM40W/Y (Polyester)

Non-reflective pavement markers for use with only bituminous adhesive

Edco, Models A 1107 and AY 1108 (ABS)
Valterra Products - P20-2000W and P20-2001Y (ABS)

PAVEMENT MARKERS, TEMPORARY TYPE

Temporary pavement markers for long term day/night use (6 months or less)

Astro Optics Model TPM (4x4)
Flex-O-Lite Model RCM (4x4)
Stimsonite 66 (4x4)
Stimsonite 66GB (Grabber Bottom) (4x4)
Swareflex 3557/3558 (4x4)

Temporary pavement markers for short term day/night use (14 days or less)

Astro Optics Model TPM (4x4)
Davidson T.O.M. (Flexible)
Flex-O-Lite Model (RCM) (4x4)
Stimsonite Model 66 (4x4)
Stimsonite 66GB (Grabber Bottom) (4x4)
Swareflex Model 3002/3004 (4x4)
Swareflex Model 3557/3558 (4x4)
Valterra Products 1280/1281 Series (Flexible) with Reflexite PC 1000 Sheeting
3M Scotch-Lane A200 Pavement Marking System

Temporary pavement markers for short term day/night use (14 days and less) at seal coat locations

Davidson T.R.P.M. with Reflexite PC 1000 Sheeting

Valterra Products - 1280/1281 Series with Reflexite PC 1000 Sheeting

STRIPING AND PAVEMENT MARKING MATERIAL

Permanent traffic striping and pavement marking tape

Brite-Line Series 1000

Swarco Industries "Director"

3M Stamark Brand Pliant Polymer Grade Series 350, 380, A420, A440, and 5730

3M Stamark Brand Bisymmetric 1.75 Grade Series 5750 (For use on low volume roadways only)

Temporary removable construction grade striping and pavement marking tape

Advanced Traffic Marking ATM Series 200

Brite-Line Series 100

3M Stamark Brand, Detour Grade, Series 5710

Swarco Industries "Director 2"

Temporary non-removable construction grade striping tape

Swarco Industries "Visa-Line"

3M Scotch Lane Brand Construction Grade, Series 5160/5161 and 5360/5361

CLASS 1 DELINEATORS

One-piece driveable flexible type (48")

All West Plastics "Flexi-Guide 400"

Carsonite Curve-Flex CFRM 400

Carsonite Roadmarker CRM 375

FlexStake H D

Polyform, Inc.,"Vista-Flex"

CHANNELIZERS

Surface mount Type (36")

Carsonite "Survivor" Model SMD 353

Carsonite "Super Duck" (Flat SDF-436)(Round SDR 336)

Carsonite Super Duck II "The Channelizer"

FlexStake Surface Mount H D

The Line Connection "Dura-Post"

Repo Models 300 and 400

Safe-Hit Guide Post with glue down base (SH236SMA)

TYPE "K" SERIES OBJECT MARKER (18")

Carsonite Models SMD 615 and SMD 615 A

Repo Models 300 and 400

Safe-Hit Model SH718SMA

TYPE "K-4" OBJECT MARKER, (24")

Carsonite Super Duck II
The Line Connection "Dura-Post"
Repo Models 300 and 400
Safe-Hit

CONCRETE BARRIER DELINEATOR

Impactable Type
All West Plastics "Flexi-Guide 235"
Duraflex Corp. "Flexi 2020"
Davidson Portable Concrete Barrier Marker (PCBM 12)
Reflexite Barrier Mount Delineator (Models 661 662)

Non-impactable Type
Astro-Optics JD Series
Stimsonite 967

GUARD RAILING DELINEATOR, (27" Nail On Type)

Carsonite Guardrail Delineator Post (CFGR 427)
Safe-Hit 27-inch Guardrail Delineator
All West Plastics "Flexi-Guide" 327

REFLECTIVE SHEETING FOR CHANNELIZERS, MARKERS, AND DELINEATORS

3M High Intensity
Reflexite PC 1000 (Metalized Polycarbonate)
Reflexite AP 1000 (Metalized Polyester)
Seibulite ULG (Ultralite Grade)

REFLECTIVE SHEETING FOR BARRICADES

Type II Reflective Sign Sheeting
American Decal Adcolite
Avery - Fasson 1500/1600
Seibulite EG
3M - Scotchlite

REFLECTIVE SHEETING FOR TRAFFIC CONE SLEEVES
Reflexite Vinyl

SIGNING MATERIALS

Reflective Sign
Sheeting, Type IIIA (High Performance)
Seibulite Brand "Ultralite" Series 700 and 800
3M High Intensity

Reflective Sign Sheeting, Type IV

Reflexite Vinyl (Roll-Up)

Sign Substrate for construction area signs

Aluminum
Fiberglass Reinforced Plastic (FRP)
Sequentia ("Polyplate")

SECTION 4 CONSTRUCTION DETAILS

4-1.01 ORDER OF WORK -Order of work shall conform to the provisions in Section 5-1.05, "Order of Work," of the Standard Specifications and these special provisions.

Attention is directed to "Maintaining Traffic" and "Temporary Pavement Delineation" of these special provisions.

The work shall be performed in two phases. Phase 1 shall begin immediately upon NTP and consist of modifications to drainage structures and piping between stations 143+50 and 147+00 to a point of completion which allows the 24" drain and associated structures to function at capacity. Road drainage structures need not be completed in Phase 1. Phase 1 shall be allocated 15 working days.

Phase 2 shall begin no earlier than March 1, 2002 and no later than April 1, 2002, weather permitting, or as directed by the Engineer. Phase 2 shall consist of the remainder of contract work and is allocated 45 working days.

Swing ties and record maps used in determining the number of monument wells to be constructed are available for inspection at Stanislaus County Engineering Design Division at 1716 Morgan Road, Modesto CA 95358.The same maps will be provided the Contractor at the pre-construction meeting. The Contractor shall find and verify monuments and tie off before the overlay. Monument location may not be readily apparent from surface features

Asphalt paving operations shall be confined to day light hours.

Road widening operations shall be completed on one side before beginning operations on the opposite side unless the contractor can demonstrate a clear benefit to public safety and convenience to the complete satisfaction of the engineer.

4-1.02 WATER POLLUTION CONTROL - Water pollution control work shall conform to the requirements in Section 7-1.01G, "Water Pollution," of the Standard Specifications, and these special provisions.

Water pollution control work shall conform to the requirements of the "Caltrans Storm Water Quality Handbook, Construction Contractor's Guide and Specifications," dated May 10, 1996, hereafter referred to as the "Handbook". Copies of the Handbook may be obtained from the Department of Transportation, Material Operations Branch, Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, California 95815, Telephone: (916)445-3520.

All areas outside of the project limits disturbed by the Contractor for the prosecution of the work shall also be subject to the requirements of these special provisions. The Contractor shall be fully responsible for all costs and liabilities associated with water pollution control measures in areas outside the project limits.

Conformance with the requirements of this section shall not relieve the Contractor from the Contractor's responsibilities, as provided in Section 7-1.11, "Preservation of Property," and Section 7-1.12, "Responsibility for Damage," of the Standard Specifications.

WATER POLLUTION CONTROL PROGRAM PREPARATION, APPROVAL, AND UPDATES.--As part of the water pollution control work, a Water Pollution Control Program, hereafter referred to as the "WPCP," is required for this contract. The WPCP shall conform to the requirements in Section 7-1.01G, "Water Pollution," of the Standard Specifications, Section 2, "Developing a WPCP," of the Handbook, and these special provisions.

The objectives of the WPCP shall be to identify pollution sources that may affect the quality of storm water discharges and to identify, construct, implement and maintain water pollution

control measures, hereafter referred to as control measures, to reduce pollutants in storm water discharges associated with construction activity under the contract.

The WPCP shall include all items required by the Handbook for a WPCP including, but not limited to, the following:

1. Project description and Contractor's certification;
2. Project information;
3. Pollution sources and control measures; and
4. Amendments, if any.

The WPCP shall address control measures in all of the following categories:

1. Erosion and sediment source control practices;
2. Sediment treatment control practices;
3. Tracking control practices;
4. Wind erosion control practices; and
5. Construction waste management practices.

The Contractor shall conduct operations in such a manner so as to achieve the protective measures specified in the Handbook. In addition, the Contractor shall consider all potential control measures listed and described in the Handbook in each of the above categories. The Contractor shall document the selection process in accordance with the procedure outlined in the Handbook.

The WPCP shall include the signature and title of the person responsible for the preparation of the WPCP. The WPCP shall also indicate the date of initial preparation.

Within 30 days after the approval of the contract, the Contractor shall submit 3 copies of the WPCP to the Engineer for approval. The Contractor shall allow 7 days for the Engineer to review the WPCP. If revisions are required, as determined by the Engineer, the Contractor shall submit a revised plan within 7 days. No work having potential to cause water pollution, as determined by the Engineer, shall be performed until the WPCP has been approved by the Engineer. Upon approval, 3 additional copies shall be submitted to the Engineer with the required changes. Minor changes or clarifications to the initial submittal may be made and attached as amendments to the WPCP. In order to allow construction activities to proceed, the Engineer may conditionally approve the WPCP while minor amendments are being completed.

The Contractor shall amend the WPCP whenever there is a change in construction activities or operations which may affect the discharge of significant quantities of pollutants to surface waters, ground waters, municipal storm drain systems, or when deemed necessary by the Engineer. The WPCP shall also be amended if the WPCP has not achieved the general objective of reducing pollutants in storm water discharges. Amendments shall be dated and attached to the onsite WPCP document.

The Contractor shall keep a copy of the WPCP, together with all updates, revisions and amendments at the construction site.

WATER POLLUTION CONTROL PROGRAM IMPLEMENTATION.--Upon approval of the WPCP, the Contractor shall be responsible for installing, constructing, and implementing all control measures included in the WPCP. Requirements for installation, construction and implementation of control measures are specified in the Handbook.

If the control measures being taken by the Contractor are inadequate to control water pollution effectively, the Engineer may require the Contractor to revise the Contractor's operations and amend the WPCP at no additional cost to the Department.

Erosion and sediment control measures shall be provided throughout the winter season, defined as between October 1 and May 31.

Implementation of erosion and sediment control measures shall be completed no later than

20 days prior to the beginning of the winter season.

The Contractor shall demonstrate the ability and preparedness before the onset of precipitation to fully deploy erosion control measures to protect the entire construction area, or work may be suspended by the Engineer.

During the winter season, nonactive construction areas that have the potential to erode due to previous construction activities shall be fully protected.

During the winter season, active construction locations shall be fully protected at the end of each working day, unless fair weather is predicted through the following work day. The weather forecast shall be monitored by the Contractor on a daily basis. The 3 to 5 day National Weather Service forecast shall be used. The Contractor may propose an alternative weather forecast for use if approved by the Engineer. If precipitation is predicted prior to the end of the following work day, construction scheduling shall be modified, as required, to provide functioning water pollution control measures prior to the onset of the precipitation.

If the work in any area has not progressed to a point where all or part of the facilities on the WPCP for that area can be constructed, the Contractor shall construct such supplementary control facilities as are necessary to protect adjacent private and public property.

Construction waste management control measures, such as vehicle maintenance and waste control measures, shall be provided year-round throughout the duration of the project.

INSPECTION AND MAINTENANCE.--To ensure the proper implementation and functioning of control measures, the Contractor shall regularly inspect and maintain the construction site for the control measures identified in the WPCP. The Contractor shall identify corrective actions and time frames to address any deficient measures or reinitiate any measures that have been discontinued.

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

During the winter season, inspections of the construction site shall be conducted by the Contractor to identify deficient measures, as follows:

1. prior to a predicted storm;
2. after all precipitation which causes runoff capable of carrying sediment from the construction site;
3. at 24 hour intervals during extended precipitation events; and
4. routinely, on a minimum twice monthly basis.

If the Contractor identifies a deficiency in the deployment or functioning of an identified control measure, the deficiency shall be corrected in a timely manner. If the Engineer identifies a deficiency in the deployment or functioning of an identified control measure, the Contractor will be notified in writing and the deficiencies shall be corrected in a timely manner at no additional cost to the Department.

PAYMENT.--Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various items of work involved and no additional compensation will be allowed therefor.

The Engineer will retain an amount equal to 25 percent of the estimated value of all contract work performed during estimate periods in which the Contractor fails to conform to the requirements of this section, "Water Pollution Control," as determined by the Engineer.

Retentions for failure to conform to the requirements of this section shall be in addition to all other retentions provided for in the contract. The amounts retained for failure of the Contractor to conform to the requirements of this section will be released for payment on the next monthly estimate for partial payment following the date that a water pollution control program has been

implemented and maintained, and water pollution is adequately controlled, as determined by the Engineer.

4-1.03 COOPERATION - Attention is directed to Sections 7-1.14, "Cooperation," and 8-1.10, "Utility and Non-Highway Facilities," of the Standard Specifications and these special provisions.

4-1.04 PROGRESS SCHEDULE - Progress schedules will be required for this contract and shall conform to the provisions in Section 8-1.04, "Progress Schedule," of the Standard Specifications.

The first paragraph of Section 8-1.04, "Progress Schedules," of the Standard Specifications is amended to read as follows:

> A tentative progress schedule shall be submitted at the pre-construction meeting and a revised progress schedule prior to the start of work. An approval of the revised progress schedule shall be obtained prior to the beginning of work. When requested, the Contractor shall submit to the Engineer a revised progress schedule within five (5) calendar days.

The third paragraph of Section 8-1.04, "Progress Schedules," of the Standard Specifications is amended to read as follows:

> The progress schedule shall include as a minimum each bid item as an activity and shall show the order in which the Contractor proposes to carry out the work. The progress schedule shall include dates on which he will start the various activities of work (including dirt work, resurfacing, intersection work and plant scheduling), estimated days delivery rate in tons/hour, and the date for completing the said activities. The schedule shall outline the proposed critical path.

Full compensation for providing progress schedules as required shall be considered as included in the prices paid for the various items of work, and no separate payment will be made therefor.

4-1.05 PRESERVATION OF PROPERTY - Attention is directed to the provisions in Section 7-1.11, "Preservation of Property," of the Standard Specifications and these special provisions.

Existing trees, shrubs and other plants, that are not to be removed and are injured or damaged by reason of the Contractor's operations, shall be replaced by the Contractor in accordance with the requirements in Section 20-4.07, "Replacement," of the Standard Specifications and the following:

> The minimum size of tree replacement shall be 12-inch box and the minimum size of shrub replacement shall be 5-gallon. Replacement ground cover plants shall be from flats and shall be planted 12 inches on center. Replacement of Carpobrotus ground cover plants shall be from cuttings and shall be planted 12 inches on center.

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

Damaged or injured plants shall be removed and disposed of outside the highway right of way in accordance with the provisions in Section 7-1.13 of the Standard Specifications. At the option of the Contractor, removed trees and shrubs may be reduced to chips. Such chipped material shall be spread within the highway right of way at locations designated by the

Engineer.

4-1.06 OBSTRUCTIONS

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

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

Notification Center	Telephone Number
Underground Service Alert-Northern California (USA)	1-800-642-2444
Underground Service Alert-Southern California (USA)	1-800-422-4133
South Shore Utility Coordinating Council (DIGS)	1-800-541-3447
Western Utilities Underground Alert, Inc.	1-800-424-3447

4-1.07 CONSTRUCTION AREA SIGNS.

Construction area signs shall be furnished, installed, maintained, and removed when no longer required in accordance with the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these special provisions.

Install C18 "ROAD CONSTRUCTION AHEAD" and C13 "END CONSTRUCTION" signs 500' in advance of construction site. Install C18 sign 100' in advance of construction on side street approaches. The C18 sign shall meet the State of California Department of Transportation standards and be of standard size, 48"x48". The C13 sign shall meet the State of California Department of Transportation standards and be of standard size, 24"x60".

Prior to opening a lane, adjacent to a drop off greater than 0.15', to uncontrolled public traffic, the Contractor shall furnish, place and maintain 24"x 24" C-17 "ROAD WORK SPEED LIMIT 45" and 30"x 30" C-31 "Low Shoulder" signs at the edge of pavement at 1/4 mile intervals. A minimum of two signs (one each) will be required between intersections when less than 1/4 mile. The C-17 shall be the first sign at the departing side of the intersections. The signs shall be mounted securely on Type II Barricades. This notification shall be placed and maintained by the Contractor until the new edge of pavement is protected with embankment.

Between 1000' and 1500' before entering the Contractor's operations the Contractor shall furnish, place and maintain "Traffic Fines Doubled in Construction Zone" signs, 24" x 48" black on orange with 4" letters and a C-17 "ROAD WORK SPEED LIMIT 45". The signs shall be mounted securely on Type II Barricades.

Residents and tenants of residential and business/industrial areas shall be given written notification a minimum of five days prior to overlay. Posting of "No Parking" shall be completed by the Contractor for the residential and business/Industrial areas a minimum of five days prior to overlay.

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

Notification Center	Telephone Number
Underground Service Alert-Northern California (USA)	1-800-642-2444
Underground Service Alert-Southern California (USA)	1-800-422-4133
South Shore Utility Coordinating Council (DIGS)	1-800-541-3447
Western Utilities Underground Alert, Inc.	1-800-541-3447

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

Sign substrates for stationary mounted construction area signs may be fabricated from fiberglass reinforced plastic as specified under "Prequalified and Tested Signing and Delineation Materials" elsewhere in these special provisions.

Type IV reflective sheeting for sign panels for portable construction area signs shall conform to the requirements specified under "Prequalified and Tested Signing and Delineation Materials" elsewhere in these special provisions.

Full compensation for furnishing, placing, and removing construction area signs, no parking signs, and the written notification of residents and tenants shall be considered as included in the contract price paid for Construction Area Signs, and no additional compensation will be allowed therefor.

4-1.08 MAINTAINING TRAFFIC

Attention is directed to Sections 7-1.08, "Public Convenience," 7-1.09, "Public Safety," and 12, "Construction Area Traffic Control Devices," of the Standard Specifications and to the Section entitled "Public Safety" elsewhere in these special provisions, and these special provisions. Nothing in these special provisions shall be construed as relieving the Contractor from the responsibilities specified in Section 7-1.09.

The minimum size specified for Type II flashing arrow signs in the table following the second paragraph of Section 12-3.03, "Flashing Arrow Signs," of the Standard Specifications is amended to read "36 inches by 72 inches".

In the Standard Plans, Note 10 on Standard Plan T10, Note 9 on Standard Plan T10A, Note 5 on Standard Plan T11, Note 6 on Standard Plan T12, Note 5 on Standard Plan T13, and Note 4 on Standard Plan T14 are revised to read:

All traffic cones used for night lane closures shall have reflective cone sleeves as specified in the specifications.

The second and third paragraphs of Section 12-3.10, "Traffic Cones," of the Standard Specifications are amended to read:

During the hours of darkness traffic cones shall be affixed with reflective cone sleeves. The reflective sheeting of sleeves on the traffic cones shall be visible at 1,000 feet at night

under illumination of legal high beam headlights, by persons with vision of or corrected to 20/20.

Reflective cone sleeves shall conform to the following:

1. Removable flexible reflective cone sleeves shall be fabricated from the reflective sheeting specified in the special provisions, have a minimum height of 13 inches and shall be placed a maximum of 3 inches from the top of the cone. The sleeves shall not be in place during daylight hours.
2. Permanently affixed semitransparent reflective cone sleeves shall be fabricated from the semitransparent reflective sheeting specified in the special provisions, have a minimum height of 13 inches, and shall be placed a maximum of 3 inches from the top of the cone. Traffic cones with semitransparent reflective cone sleeves may be used during daylight hours.
3. Permanently affixed double band reflective cone sleeves shall have 2 white reflective bands. The top band shall be 6 inches in height, placed a maximum of 4 inches from the top of the cone. The lower band shall be 4 inches in height, placed 2 inches below the bottom of the top band. Traffic cones with double band reflective cone sleeves may be used during daylight hours.

The type of reflective cone sleeve used shall be at the option of the Contractor. Only one type of reflective cone sleeve shall be used on the project.

Lane closures shall conform to the provisions in the section of these special provisions entitled "Traffic Control System for Lane Closure."

Personal vehicles of the Contractor's employees shall not be parked on the traveled way, including any section closed to public traffic.

The Contractor shall notify local authorities of his intent to begin work at least 5 days before work is begun. The Contractor shall cooperate with local authorities relative to handling traffic through the area and shall make his own arrangements relative to keeping the working area clear of parked vehicles.

Whenever vehicles or equipment are parked on the shoulder within 6 feet of a traffic lane, the shoulder area shall be closed with fluorescent traffic cones or portable delineators placed on a taper in advance of the parked vehicles or equipment and along the edge of the pavement at 25-foot intervals to a point not less than 25 feet past the last vehicle or piece of equipment. A minimum of 9 cones or portable delineators shall be used for the taper. A C23 (Road Work Ahead) or C24 (Shoulder Work Ahead) sign shall be mounted on a telescoping flag tree with flags. The flag tree shall be placed where directed by the Engineer.

A minimum of one paved traffic lane, not less than _10____ feet wide, shall be open for use by public traffic. When construction operations are not actively in progress, not less than 2 such lanes shall be open to public traffic.

4-1.09 TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE

A traffic control system shall consist of closing traffic lanes in accordance with the details shown on the plans, the provisions of Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications, the provisions under "Maintaining Traffic" and "Construction Area Signs" elsewhere in these special provisions and these special provisions.

The provisions in this section will not relieve the Contractor from the responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Section 7-1.09, "Public Safety," of the Standard Specifications.

During traffic stripe operations and pavement marker placement operations using bituminous adhesive, traffic shall be controlled, at the option of the Contractor, with either stationary or moving type lane closures. During all other operations traffic shall be controlled with stationary type lane closures. The Contractor's attention is directed to the provisions in

Section 84-1.04, "Protection From Damage," and Section 85-1.06, "Placement," of the Standard Specifications.

If any component in the traffic control system is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair the component to its original condition or replace the component and shall restore the component to its original location.

STATIONARY TYPE LANE CLOSURE.--When lane closures are made for work periods only, at the end of each work period, all components of the traffic control system, except portable delineators placed along open trenches or excavation adjacent to the traveled way, shall be removed from the traveled way and shoulder. If the Contractor so elects, the components may be stored at selected central locations, approved by the Engineer, within the limits of the highway right of way.

One-way traffic shall be controlled through the project in accordance with the plan entitled "Traffic Control System for Lane Closure on Two Lane Conventional Highways," and these special provisions.

When traffic is under one-way control on unpaved areas, the cones shown along the centerline on the plan need not be placed.

The Contractor shall utilize a pilot car . The cones shown along the centerline on the plan need not be placed when a pilot car is used. The pilot car shall have radio contact with personnel in the work area, and the maximum speed of the pilot car through the traffic control zone shall be 25 miles per hour.

MOVING TYPE LANE CLOSURE.--Flashing arrow signs used in moving lane closures shall be truck-mounted. Flashing arrow signs shall be in the caution display mode when used on two-lane highways. Changeable message signs used in moving lane closure operations shall conform to Section 12-3.12, "Portable Changeable Message Signs," of the Standard Specifications, except the signs shall be truck-mounted and the full operation height of the bottom of the sign may be less than 7 feet above the ground, but should be as high as practicable.

Truck-mounted crash cushions (TMCC) for use in moving lane closures shall be any of the following approved models, or equal:

(1)

Hexfoam TMA Series 3000 and
Alpha 1000 TMA Series 1000 and
Alpha 2001 TMA Series 2001

Manufacturer:

Energy Absorption Systems, Inc.
One East Wacker Drive
Chicago, IL 60601-2076
Telephone (312) 467-6750

Distributor(Northern):

Traffic Control Service, Inc.

8585 Thys Court
Sacramento, CA 95828
Telephone (800) 884-8274
FAX (916) 387-9734

Distributor(Southern):

Traffic Control Service, Inc.
1881 Betmor Lane
Anaheim, CA 92805
Telephone (800) 222-8274

(2)

Cal T-001 Model 2 or Model 3

Manufacturer:	Distributor:
Hexcel Corporation	Hexcel Corporation
11711 Dublin Blvd.	11711 Dublin Blvd.
P.O. Box 2312	P.O. Box 2312
Dublin, CA 94568	Dublin, CA 94568
Telephone (510) 828-4200	Telephone (510) 828-4200

(3)

Renco Rengard Model Nos.
CAM 8-815 and RAM 8-815

Manufacturer:	Distributor:
Renco Inc.	Renco Inc.
1582 Pflugerville Loop Road	1582 Pflugerville Loop Road
P.O. Box 730	P.O. Box 730
Pflugerville, TX 78660-0730	Pflugerville, TX 78660-0730
Telephone (800) 654-8182	Telephone (800) 654-8182

Each TMCC shall be individually identified with the manufacturer's name, address, TMCC model number, and a specific serial number. The names and numbers shall each be a minimum 1/2 inch high, and located on the left (street) side at the lower front corner. The TMCC shall have a message next to the name and model number in 1/2 inch high letters which states, "The bottom of this TMCC shall be _____ inches ±_____ inches above the ground at all points for proper impact performance." Any TMCC which is damaged or appears to be in poor condition shall not be used unless recertified by the manufacturer. The Engineer shall be the sole judge as to whether used TMCCs supplied under this contract need recertification. Each unit shall be certified by the manufacturer to meet the requirements for TMCCs in accordance with the standards established by the Transportation Laboratory Structures Research Section

Approvals for new TMCC designs proposed as equal to the above approved models shall be in accordance with the procedures (including crash testing), established by the Transportation Laboratory Structures Research Section. For information regarding submittal of new designs for evaluation contact:

Transportation Laboratory
Structures Research Section
P.O. Box 19128
5900 Folsom Boulevard
Sacramento, CA 95819

New TMCCs proposed as equal to approved TMCCs or approved TMCCs determined by the Engineer to need recertification shall not be used until approved or recertified by the Transportation Laboratory Structures Research Section.

PAYMENT.--The contract lump sum price paid for traffic control system shall include full compensation for furnishing all labor, flaggers, materials (including signs), tools, equipment and incidentals, and for doing all the work involved in placing, removing, storing, maintaining, moving to new locations, replacing and disposing of the components of the traffic control system and for furnishing and operating the pilot car, (including driver, radios, and any other equipment and labor required), as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

The provisions of Standard Specification 12-2.02, "Flagging Costs" shall not apply. The adjustment provisions in Section 4-1.03, "Changes," of the Standard Specifications, shall not apply to the item of traffic control system. Adjustments in compensation for traffic control system will be made only for increased or decreased traffic control system required by changes ordered by the Engineer and will be made on the basis of the cost of the increased or decreased traffic control necessary. Such adjustment will be made on a force account basis as provided in Section 9-1.03, "Force Account Payment," of the Standard Specifications for increased work, and estimated on the same basis in the case of decreased work.

Traffic control system required by work which is classed as extra work, as provided in Section 4-1.03D of the Standard Specifications, will be paid for as a part of the extra work.

4-1.10 TEMPORARY PAVEMENT DELINEATION

Temporary pavement delineation shall be furnished, placed, maintained and removed in accordance with the provisions in Section 12-3.01, "General," of the Standard Specifications and these special provisions. Nothing in these special provisions shall be construed as to reduce the minimum standards specified in the Manual of Traffic Controls published by the Department or as relieving the Contractor from his responsibility as provided in Section 7-1.09, "Public Safety," of the Standard Specifications.

GENERAL.--Whenever the work causes obliteration of pavement delineation or pavement markings, temporary or permanent pavement delineation and/or pavement markings shall be in place prior to opening the traveled way to public traffic. Laneline or centerline pavement delineation and/or pavement markings shall be provided at all times for traveled ways open to public traffic.

All work necessary, including any required lines or marks, to establish the alignment of temporary pavement delineation or pavement markings shall be performed by the Contractor. Surfaces to receive temporary pavement delineation and/or pavement markings shall be dry and free of dirt and loose material. Temporary pavement delineation or pavement markings shall not be applied over existing pavement delineation and/or pavement markings or other temporary pavement delineation or pavement markings. Temporary pavement delineation and pavement markings shall be maintained until superseded or replaced with a new pattern of temporary pavement delineation and pavement markings or permanent pavement delineation and pavement markings.

Temporary pavement markers and markings and removable traffic type tape which conflicts with a new traffic pattern or which is applied to the final layer of surfacing or existing pavement to remain in place shall be removed by the contractor when no longer required for the direction of public traffic, as determined by the Engineer.

TEMPORARY LANELINE AND CENTERLINE DELINEATION.--Whenever lanelines and centerlines are obliterated the minimum laneline and centerline delineation to be provided shall be temporary reflective raised pavement markers placed at longitudinal intervals of not more than 24 feet. The temporary reflective raised pavement markers shall be the same color as the laneline or centerline the markers replace. Temporary reflective raised pavement markers shall be, at the option of the Contractor, one of the temporary pavement markers listed for short term day/night use (14 days or less) or long term day/night use (6 months or less) in "Prequalified and Tested Signing and Delineation Materials" elsewhere in these special provisions.

Temporary reflective raised pavement markers shall be placed in accordance with the manufacturer's instructions and shall be cemented to the surfacing with the adhesive recommended by the manufacturer, except epoxy adhesive shall not be used to place pavement markers in areas where removal of the markers will be required.

Temporary laneline or centerline delineation consisting entirely of temporary reflective raised pavement markers placed on longitudinal intervals of not more than 24 feet, shall be used on lanes opened to public traffic for a maximum of 14 days. Prior to the end of the 14

days the permanent pavement delineation shall be placed. If the permanent pavement delineation and pavement marking is not placed within the 14 days, the Contractor shall provide, at his expense, additional temporary pavement delineation and pavement marking. The additional temporary pavement delineation and pavement marking to be provided shall be equivalent to the pattern specified for the permanent pavement delineation and pavement marking for the area, as determined by the Engineer.

Where "no passing" centerline pavement delineation is obliterated, the following "no passing" zone signing shall be installed prior to opening the lanes to public traffic. C18 "ROAD CONSTRUCTION AHEAD" or C23 "ROAD WORK AHEAD" signs shall be installed from 1,000 feet to 2,000 feet ahead of "no passing" zones. R63 "DO NOT PASS" signs shall be installed at the beginning and at every 2,000 foot interval within "no passing" zones. For continuous zones longer than 2 miles, W71 "NEXT _____ MILES" signs shall be installed beneath the C18 or C23 signs installed ahead of "no passing" zones. R64 "PASS WITH CARE" signs shall be installed at the end of "no passing" zones. The exact location of "no passing" zone signing will be as determined by the Engineer and shall be maintained in place until permanent "no passing" centerline pavement delineation has been applied. The signing for "no passing" zones, shall be removed when no longer required for the direction of public traffic. The signing for "no passing" zones shall conform to the requirements in "Construction Area Signs" of these special provisions, except for payment.

Full compensation for furnishing, placing, maintaining, and removing the temporary reflective raised pavement markers, used for temporary laneline and centerline delineation (including the signing specified for "no passing" zones) and for providing equivalent patterns of permanent traffic lines for such areas when required; shall be considered as included in the contract prices paid for the items of work that obliterated the laneline and centerline pavement delineation and no separate payment will be made therefor.

4-1.11 EXISTING HIGHWAY FACILITIES

The work performed in connection with various existing highway facilities shall conform to the provisions in Section 15, "Existing Highway Facilities," of the Standard Specifications and these special provisions.

4-1.11A REMOVE PAVEMENT MARKERS - Existing pavement markers, when no longer required for traffic lane delineation as directed by the Engineer, shall be removed and disposed of.

Full compensation for removing and disposing of pavement markers shall be considered as included in the contract price paid per ton for asphalt concrete (Type A) and no separate payment will be made therefor.

Blue reflective pavement markers for fire hydrant location shall be removed and disposed of. They shall be replaced on the same alignment and location following the AC overlay.

Full compensation for removing and replacement of blue reflective pavement markers for fire hydrant location shall be considered as included in the contract price paid per ton for asphalt concrete (Type A) and no separate payment will be made therefor.

4-1.11B REMOVE TRAFFIC STRIPES AND PAVEMENT MARKINGS - All existing thermoplastic stripes and markings within the area to be resurfaced are to be removed.

Where blast cleaning is used for the removal of thermoplastic traffic stripes and pavement markings or for removal of objectionable material, and such removal operation is being performed within 10 feet of a lane occupied by public traffic, the residue including dust shall be removed immediately after contact between the sand and the surface being treated. Such removal shall be by a vacuum attachment operating concurrently with the blast cleaning

operation.

Nothing in these special provisions shall relieve the Contractor from his responsibilities as provided in Section 7-1.09, "Public Safety," of the Standard Specifications.

Full compensation for removal of all thermoplastic stripes and markings within the project area shall be considered as included in the unit price per ton for Asphalt Concrete (Type A) and no additional compensation will be allowed therefor.

4-1.11C REMOVE ASPHALT CONCRETE DIKE-Existing asphalt concrete dike, where shown on the plans to be removed, shall be removed.

The dike shall be removed in such a manner so that the surfacing which is to remain in place is not damaged.

The dike shall be disposed of.in accordance with the provisions of Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications

Full compensation for removal of AC dike shall be considered as included in the unit price per ton for Asphalt Concrete (Type A) and no additional compensation will be allowed therefor.

4-1.11D RESET MAILBOXES - Existing mailboxes shall be removed and reset in accordance with these special provisions.

During construction operations, the mailboxes shall be moved as necessary to clear the way for the Contractor's operations, but at all times shall be accessible for delivery. During construction the mailboxes shall either be installed on posts set in the ground or they may be installed on temporary supports approved by the Engineer.

When construction is complete the mailboxes shall be installed in final position on relocated existing supporting structure 1 foot back of palm tree line. If existing supporting structure is a wood post, a new redwood post shall be provided.

Redwood posts shall conform to the requirements for sign posts in Section 56-2.02B, "Wood Posts," of the Standard Specifications.

The space around the posts shall be back filled with earthy material. The backfill material shall be placed in layers approximately 0.33-foot thick and each layer shall be moistened and thoroughly compacted.

Existing wood posts and mounts shall be disposed of.

A multiple-box installation shall consist of 2 boxes installed on a single post. Each multi-box installation shall be considered as 2 units for payment purposes.

Newspaper boxes on individual posts will be considered as mailboxes for measurement and payment. Newspaper boxes attached to existing mailbox posts shall be removed and fastened to the new mailbox posts and no separate payment will be made therefor.

Full compensation for disposing of existing posts and mounts, for relocating existing supporting structures, moving and maintaining the boxes (regardless of the number of moves required), and for furnishing new posts, planks and hardware shall be considered as included in the contract unit price paid for reset mailbox and no additional compensation will be allowed therefor.

4-1.11E RESET ROADSIDE SIGN - Existing roadside signs shall be removed and reset at the same station with sufficient offset to clear the new edge of pavement by 4 feet. Each roadside sign shall be reset on the same day that the sign is removed.

Full compensation for conforming to the requirements of this section shall be considered as included in the contract unit price paid for relocate sign and no additional compensation will be allowed therefor.

4-1.11F RELOCATE POWER POLE - Contractor shall coordinate with Patterson Irrigation District and the date, time, and length of power outage required to move the pole shown on the plans. Contractor will comply with technical requirements of Patterson Irrigation District. The

roadside face of the pole shall be a minimum distance of 4' offset form the roadside face of the canal headwall perpendicular to the Las Palmas Avenue centerline.

Full compensation for materials, tools, equipment, coordination, and doing all the work necessary to move the power pole shall be considered as included in the lump sum price paid for "Relocate Power Pole" and no additional compensation will be allowed therefor.

4-1.11G ADJUST FRAMES AND COVERS AND FRAMES AND GRATES TO GRADE.-- Frames and covers and frames and grates of existing manholes, inlets, monument well covers, or other facilities shall be adjusted to grade in accordance with the provisions in Section 15-2.05, "Reconstruction," of the Standard Specifications and these special provisions.

Utility frames and covers to be adjusted to grade under this contract shall be brought up to grade within seven days of being covered by resurfacing. The seven day requirement shall not apply to survey monument wells. Special Provision 4-1.23 "Monuments" shall apply to monuments and monument wells.

Manholes shall be paid per unit at the contract price for "Adjust Manhole to Grade". All other facilities under these special provisions shall be paid per unit at the contract price for "Adjust Cover to Grade".

4-1.11H COLD PLANE ASPHALT CONCRETE PAVEMENT - Existing asphalt concrete pavement shall be cold planed at the locations and to the dimensions shown on the plans.

Planing asphalt concrete pavement shall be performed by the cold planing method. Planing of the asphalt concrete pavement shall not be done by the heater planing method.

Cold planing machines shall be equipped with a cutter head not less than 30 inches in width and shall be operated so as not to produce fumes or smoke. The cold planing machine shall be capable of planing the pavement without requiring the use of a heating device to soften the pavement during or prior to the planing operation.

The depth, width and shape of the cut shall be as indicated on the typical cross sections or as directed by the Engineer. The final cut shall result in a uniform surface conforming to the typical cross sections. The outside lines of the planed area shall be neat and uniform. Planing asphalt concrete pavement operations shall be performed without damage to the surfacing to remain in place.

Planed widths of pavement shall be continuous except for intersections at cross streets where the planing shall be carried around the corners and through the conform lines. Following planing operations, a drop-off of more than 0.15-foot will not be allowed at any time between adjacent lanes open to public traffic.

Where transverse joints are planed in the pavement at conform lines no drop-off shall remain between the existing pavement and the planed area when the pavement is opened to public traffic. If asphalt concrete has not been placed to the level of existing pavement before the pavement is to be opened to public traffic a temporary asphalt concrete taper shall be constructed. Asphalt concrete for temporary tapers shall be placed to the level of the existing pavement and tapered on a slope of 30:1 or flatter to the level of the planed area.

Asphalt concrete for temporary tapers shall be commercial quality and may be spread and compacted by any method that will produce a smooth riding surface. Temporary asphalt concrete tapers shall be completely removed, including the removal of all loose material from the underlying surface, before placing the permanent surfacing. Such removed material shall be disposed of outside the highway right of way in accordance with the provisions in Section 7-1.13 of the Standard Specifications.

Operations shall be scheduled such that not more than 7 days shall elapse between the time when transverse joints are planed in the pavement at the conform lines and the permanent

surfacing is placed at such conform lines.

The material planed from the roadway surface ¾" in diameter or smaller may be used as shoulder backing at the contractor's option. Material unsuitable for shoulder backing, including material deposited in existing gutters or on the adjacent traveled way, shall be removed and stockpiled in a neat and uniform manner separate from other materials where designated on the plans.

Cold plane asphalt concrete pavement will be measured by the square yard for the depth (maximum) designated in the Engineer's Estimate. The quantity to be paid for will be the actual area of surface cold planed for the depth (maximum) designated in the Engineer's Estimate, irrespective of the number of passes required to obtain the depth shown on the plans.

The contract price paid per square yard for cold plane asphalt concrete pavement for the depth (maximum) designated in the Engineer's Estimate shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in cold planing asphalt concrete surfacing and disposing of planed material, including furnishing the asphalt concrete for and constructing, maintaining, removing, and disposing of temporary asphalt concrete tapers, as specified in these special provisions and as directed by the Engineer.

4-1.12 REMOVE DRAINAGE FACILITIES

Drainage facilities, where shown on the plans to be removed, shall be removed.

Remove drainage facilities will be paid for on a lump sum basis.

Facilities removed shall be disposed of outside the highway right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

4-1.13 CLEARING AND GRUBBING.--Clearing and grubbing shall conform to the provisions in Section 16, "Clearing and Grubbing," of the Standard Specifications and these special provisions.

Vegetation shall be cleared and grubbed only within the excavation and embankment slope lines except where shown otherwise on the plans. Volunteer date palm trees identified on the plans to be removed shall be removed and disposed of in such a manner as to not damage palm trees to remain. Before removal of any palm tree the engineer shall confirm the correct tree is marked for removal.

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

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

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

Full compensation for conforming to the requirements of this section shall be considered as included in the various items of work involved and no additional compensation will be allowed therefor.

4-1.14 EARTHWORK

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

Where a portion of existing surfacing is to be removed, the outline of the area to be removed shall be cut on a neat line with a power-driven saw to a minimum depth of 0.17-foot before removing the surfacing. Full compensation for cutting existing surfacing shall be considered as included in the contract price paid per cubic yard for roadway excavation and no additional compensation will be allowed therefor.

The requirements in the second paragraph of Section 19-5.03, "Relative Compaction (95 Percent)," of the Standard Specifications shall not apply.

Embankment material/shoulder backing shall be class 2 Aggregate Base from Station 40+77 to Station 142+00.

Embankment material from Station 142+00 to end of job shall be roadway excavated material.

Excavated materials not used in embankments shall be stockpiled in a neat and uniform manner separate from other materials where designated on the plans. Excavated asphalt concrete shall be disposed of in accordance with the provisions of Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

4-1.15 AGGREGATE BASE.--Aggregate base shall be Class 2 and shall conform to the provisions in Section 26, "Aggregate Bases," of the Standard Specifications and these special provisions.

Class 2 aggregate base shall be furnished to provide driveway tapers at all existing dirt and gravel driveways as detailed on the plans and as directed by the engineer. Driveway tapers shall be constructed within 5 days of completion of the new surfacing at the affected driveway.

Class 2 aggregate base shall be furnished for embankment material and shoulder backing from Station 40+77 to Station 142+00.

Class 2 aggregate base shall be furnished for reconstruction and widening of road base where indicated on the plans.

The contract price paid per ton for Class 2 aggregate base shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing, hauling, depositing, and compacting aggregate base for driveways, shoulder backing and road base, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer. Quantities to be paid for by the ton will be determined as provided in Section 9-1.01, "Measurement of Quantities" of the Standard Specifications.

4-1.16 ASPHALT CONCRETE.--Asphalt concrete shall be Type A and shall conform to the provisions in Section 39, "Asphalt Concrete," of the Standard Specifications and these special provisions.

Mix Design

The Contractor shall be responsible for submitting an asphalt concrete mix design, that is in compliance with Section 39, "Asphalt Concrete," of the Standard Specifications, and these special provisions, 15 calendar days prior to the beginning of work.

Stanislaus County will only recognize asphalt concrete mix designs from the California Department of Transportation or Krazan & Associates, Inc., Sacramento, California

The proposed asphalt concrete mix design shall be a current design; dated within 12 months of the notice to proceed.

Upon prior approval of the Engineer, the Contractor may submit, in writing, a job mix formula based on data from actual plant production or recent mix designs from previous jobs using the same mixture.

The amount of asphalt binder to be mixed with the aggregate for Type A asphalt concrete will be determined by the Engineer in accordance with California Test 367 using the samples of aggregates furnished by the Contractor in conformance with Section 39-3.03, "Proportioning,"

of the Standard Specifications.

Asphalt concrete pavement aggregate shall meet the grading requirements for half inch maximum, medium grading.

The contractor may use at his option Asphalt concrete pavement aggregate meeting the grading requirements for 3/4 inch maximum, medium grading, for pavement repair and widening.

Aggregate for asphalt concrete dikes shall conform to the 3/8 inch maximum grading as specified in Section 39-2.02, "Aggregate," of the Standard Specifications.

If the Contractor selects the batch mixing method, asphalt concrete shall be produced by the automatic batch mixing method as provided in Section 39-3.03A(2), "Automatic Proportioning," of the Standard Specifications.

The job mix formula for Type A asphalt concrete shall be designed with sufficient samples to demonstrate the performance of the mixture having a minimum stabilometer value of 37 (or marshal equivalent) respectively, at design air voids, as determined with ASTM Test Methods D2041 and D1188 or D2726. The actual bitumen content of the mix provided shall not vary by more than +/- 0.3% from the target bitumen content of the respective job mix formula. Should testing of in-place asphalt concrete indicate failure to meet the requirements of this paragraph, its removal and replacement shall be required, unless the Engineer elects that said asphalt may remain in place. If said asphalt does remain in place, the Contractor shall pay to the County $2.00 per ton for such asphalt concrete. This amount may be deducted from any monies due or that may become due the Contractor under the contract.

The asphalt binder shall be a paving asphalt of Grade AR-4000, unless otherwise specified by the Engineer.

The Contractor shall be responsible for providing a revised mix design should the source of aggregate supply change during the project.

The use of multiple asphalt concrete plants will not be allowed.

Spreading and Compacting Equipment

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

When placing the initial mat of asphalt concrete on existing pavement, the end of the screed nearest the centerline or one end of the screed for full width paving shall be controlled by a ski device not less than 30 feet long in conjunction with a sonar-like technique control to send elevation control signals to the automatic screed controls. The ski device shall meet the manufacturer's original specifications and shall not be bent, leaning, altered, or used other than as specified. The supports of the ski device shall operate freely and shall be properly maintained.

The end of the screed farthest from centerline shall be controlled manually or the other end of the screed for full width paving shall be controlled by a ski device not less than 20 feet long in conjunction with a sonar-like technique control to send elevation control signals to the automatic screed controls.

When paving contiguously with previously place mats, the end of the screed adjacent to the previously place mat shall be controlled by a sensor activated by a ski device not less than 30 feet long that responds to the grade of the previously placed mat. The end of the screed farthest from the previously placed mat shall be controlled in the same manner as when placing the initial mat.

When paving full width, a 30-foot minimum ski with controls as specified above shall be used. This will require the use of a front and rear beam and bridge over the screed linking the front and rear beam together as a unit. The rear beam shall have means to prevent scarring of the placed mat.

Should the method, equipment, and/or automatic screed controls furnished by the Contractor fail to produce a layer of asphalt concrete conforming to the requirements, including straightedge tolerance of Section 39-6.03, "Compacting", of the Standard Specifications, the paving operations shall be discontinued, and the Contractor shall modify his equipment or furnish substitute equipment.

Equipment which does not perform satisfactorily in the opinion of the Engineer shall be disallowed and removed from the site of the work.

Spreading and Compacting

All surfaces to receive asphalt concrete shall be thoroughly cleaned including caked mud and debris to the satisfaction of the Engineer prior to paving. The Contractor shall scrape (as needed), sweep and then wash with pressurized water the roadway no more than 24 hrs before paving. Full compensation for cleaning the roadway as required by the Engineer shall be considered as included in the prices paid for asphalt concrete, and no additional compensation will be allowed.

Paint binder shall be SS-1 and shall be furnished and applied in conformance with the Provisions set forth is Section 39-4.02 of the Standard Specifications. Paint binder shall be applied at a temperature between 125 degrees F and 150 degrees F.

The area to which paint binder has been applied shall be closed to public traffic. Care shall be taken to avoid tracking binder material onto existing pavement surfaces beyond the limits of construction.

A drop-off of more than 0.15-foot will not be allowed at any time between adjacent lanes open to public traffic.

The Contractor shall schedule his paving operations such that each layer of asphalt concrete is placed on all contiguous lanes of a traveled way each work shift. At the end of each work shift, the distance between the ends of the layers of asphalt concrete on adjacent lanes shall not be greater than 10 feet nor less than 5 feet. Additional asphalt concrete shall be placed along the transverse edge at the end of each lane and along the exposed longitudinal edges between adjacent lanes, hand raked, and compacted to form temporary conforms. Kraft paper, or other approved bond breaker, may be placed under the conform tapers to facilitate the removal of the taper when paving operations resume.

Where the existing pavement is to be widened by constructing a new structural section adjacent to the existing pavement, the new structural section, on both sides of the existing pavement, shall be completed to match the elevation of the edge of the existing pavement at each location prior to spreading and compacting asphalt concrete over the adjacent existing pavement.

Shoulders or median borders adjacent to a lane being paved shall be surfaced prior to opening the lane to traffic.

Asphalt concrete surfacing shall be placed on all existing surfacing, including curve widening, chain control lanes, turnouts, left turn pockets, and public and private road connections shown on the plans, unless otherwise directed by the Engineer

Asphalt concrete placed in layers of 0.15' or less in compacted thickness or widths of less than 5' shall be spread and compacted with the equipment and by the methods conforming to the provisions in Section 39, "Asphalt Concrete," of the Standard Specifications. Other asphalt concrete shall be compacted and finished in conformance with the provisions in Section 39 and the following:

A. The provisions in Section 39-5.02, "Compacting Equipment," of the Standard Specifications shall not apply.
B. The Contractor shall furnish a sufficient number of rollers to obtain the compaction specified in these special provisions and the surface finish required by the Standard Specifications and these special provisions.
C. Rollers shall be equipped with pads and water systems that prevent sticking of asphalt mixtures to the pneumatic-tired or steel-tired wheels. A parting agent that will not damage the asphalt mixture may be used.
D. The second paragraph in Section 39-6.01, "General Requirements," of the Standard Specifications shall not apply.
E. Asphalt concrete and asphalt concrete base shall be compacted by any means to obtain the specified relative compaction before the temperature of the mixture drops below 65°C. Additional rolling to achieve the specified relative compaction will not be permitted after the temperature of the mixture drops below 65°C or once the pavement is opened to public traffic. When vibratory rollers are used as finish rollers the vibratory unit shall be turned off.
F. The fifth and seventh through tenth paragraphs of Section 39-6.03, "Compacting," of the Standard Specifications shall not apply.
G. Asphalt concrete and asphalt concrete base shall be compacted to a relative compaction of not less than 96.0 percent and shall be finished to the lines, grades, and cross section shown on the plans. In-place density of asphalt concrete and asphalt concrete base will be determined prior to opening the pavement to public traffic.
H. Relative compaction will be determined by California Test 375.
I. If the test results for a quantity of asphalt concrete or asphalt concrete base indicate that the relative compaction is below 96.0 percent, the Contractor will be notified. Asphalt concrete or asphalt concrete base spreading operations shall not continue until the Contractor has notified the Engineer of the adjustment that will be made in order to meet the specified relative compaction.

Miscellaneous Areas

Miscellaneous areas of asphalt concrete for driveway tapers shall be as detailed on the plans and as directed by the Engineer. Driveway tapers shall be constructed within 5 days of the overlay at the affected driveway. Estimated tonnage is indicated on the plans. Full compensation for asphalt concrete driveway taper work shall be paid at the contract unit price paid per ton of Asphalt Concrete (Type A), and no separate payment will be allowed therefor.

Level Course / Skin Patch

Level course/skin patching of asphalt concrete in advance of spreading asphalt concrete

over an existing base shall be spread with a paving machine to produce a uniform smoothness and texture to level irregularities, and to provide a smooth base in order that subsequent layers will be of uniform thickness.

Areas requiring level course/skin patching will be at the direction of the Engineer and will be marked in the field by the Engineer. Estimated tonnage is indicated on the plans. Full compensation for level course/skin patch asphalt concrete work shall be paid at the contract unit price paid per ton of Asphalt Concrete (Type A), and no separate payment will be allowed therefor.

AC Pavement Repair

Areas indicated on the plans"Cold Plane 6" Depth" shall be repaired with a like thickness of AC following the planing operations. The undisturbed underlying material shall remain in place. Over excavated material shall be re-compacted to 95 percent minimum relative compaction. Prior to the placing of asphalt concrete, the vertical edges of the existing pavement shall receive a tack coat. Asphalt concrete shall be placed in maximum lifts of 0.25'. The contractor, at his option, may use ¾" maximum medium aggregate, Type A asphalt concrete for AC pavement repair with the submittal of an approved mix design.

Full compensation for AC pavement repair according to the standard provisions, plans, and these special provisions shall be paid at the contract unit price paid per ton of Asphalt Concrete (Type A), and no separate payment will be allowed therefor.

Miscellaneous

The Contractor shall count and tie out utility covers prior to any work in the area. Within five days after completion of the asphalt concrete overlay scheduled for the area the Contractor shall raise the water valve, manholes, etc., to grade.

Asphalt trucks or public traffic will not be allowed on the completed mat of asphalt concrete until the mat's temperature at mid depth is less than 160°F. Rutting the new mat by delivery of material shall be avoided.

The use of multiple asphalt concrete plants will not be allowed.

Paving operations shall be discontinued, at the Engineer's discretion, during periods of precipitation. Asphalt concrete delivered to the site and not placed due to weather conditions shall become the property of the Contractor, and no payment shall be allowed therefor.

4-1.17 RUBBERIZED ASPHALT CONCRETE (TYPE G)

Rubberized asphalt concrete (Type G) shall consist of furnishing and mixing gap graded aggregate and asphalt-rubber binder and spreading and compacting the mixture. Type G rubberized asphalt concrete shall conform, except as otherwise provided, to the provisions for Type A asphalt concrete in Section 39, "Asphalt Concrete," of the Standard Specifications and these special provisions.

4-1.17A GENERAL

The Contractor shall furnish samples of aggregate to the Engineer in conformance with the provisions in Section 39-3.03, "Proportioning," of the Standard Specifications.

Aggregate for Type G rubberized asphalt concrete shall be of such quality that the optimum

amount of asphalt-rubber binder to be mixed with the aggregate, as determined by the Engineer in conformance with the requirements in California Test 367 (as amended below), shall be a minimum of 7.0 percent by mass of dry aggregate and a maximum of 9.0 percent by mass of dry aggregate. Aggregates which result in an optimum asphalt-rubber binder content of less than 7.0 percent or more than 9.0 percent by mass of dry aggregate shall not be used. The Engineer will determine the exact amount of asphalt-rubber binder to be mixed with the aggregate in conformance with the requirements in California Test 367, except as follows:

A. The specific gravity used in California Test 367, Section "B. Voids Content of Specimen," will be determined using California Test 308, Method A.
B. California Test 367, Section "C. Optimum Bitumen Content," is revised as follows:

    1. Plot asphalt-rubber binder content versus void content for each specimen on Form TL-306 (Figure 3), and connect adjacent points with straight lines.
    2. From Figure 3 select the theoretical asphalt-rubber binder content that has 4% percent voids.
    3. Record the asphalt-rubber binder content in Step 2 as the Optimum Bitumen Content (OBC).
    4. To establish a recommended range, use the Optimum Bitumen Content (OBC) as the high value and 0.3 percent less as the low value. Notwithstanding, the recommended range shall not extend below 7.0 percent nor shall the high value to establish the recommended range be above 9.0 percent. If the OBC is 7.0 percent, then there shall be no recommended range, and 7.0 percent shall be the recommended value.

C. Laboratory mixing and compaction shall be in conformance with the requirements of California Test 304, except that the mixing temperature of the aggregate shall be between 300°F (149°C) and 325°F (163°C). The compaction temperature of the combined mixture shall be between 289°F (143°C) and 300°F (149°C).

The rubberized asphalt concrete mixture, composed of the aggregate proposed for use and the optimum amount of asphalt-rubber binder as determined in conformance with the requirements in California Test 367 modified above, shall conform to the following quality requirements:

RUBBERIZED ASPHALT CONCRETE MIXTURE

Test Parameter	California Test	Requirement
Stabilometer Value, Minimum	304 and 366	23
Voids in Mineral Aggregate, Percent, Minimum	See Note	18

Note: Voids in mineral aggregate test shall be determined as described in Asphalt Institute Mix Design Methods for Asphalt Concrete (MS-2).

The asphalt-rubber binder content of the rubberized asphalt concrete (Type G) will be determined by extraction tests in conformance with the requirements in California Test 362, or will be determined in conformance with the requirements in California Test 379.

The Contractor shall furnish a Certificate of Compliance to the Engineer in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications for each material used in asphalt-rubber binder and the asphalt-rubber binder mixture. The Certificate of Compliance shall certify that the material conforms to the provisions in these special provisions. When requested by the Engineer, the Contractor shall submit samples with the Certificate of Compliance. The Contractor shall provide the Engineer a

Material Safety Data Sheet (MSDS) for each of the constituent components of the asphalt-rubber binder, for the completed mixture of asphalt-rubber binder and for the Type G rubberized asphalt concrete.

The Contractor shall provide a Certificate of Compliance for each truck load of crumb rubber modifier (CRM), paving asphalt, and asphalt modifier delivered to the project. The Quality Control Program used by the manufacturer of each ingredient shall include a sampling and testing frequency as shown below:

A. CRM shall be tested, except for the grading requirement, at least once for every 225 tonnes of production, with a minimum of once for each project. CRM shall be tested for grading for every truck load delivered to the project.
B. Paving asphalt shall be tested at least once for every 180 tonnes of production with a minimum of once for each project.
C. Asphalt modifier shall be tested at least once for every 23 tonnes of production with a minimum of once for each project.
D. A copy of the laboratory test results for the test parameters specified in these special provisions for CRM, paving asphalt, and asphalt modifier shall be submitted to the Engineer with the Certificate of Compliance for each truck load of individual material delivered to the project.

Certified volume or weight slips shall be delivered to the Engineer for the materials supplied.

4-1.17B PAVING ASPHALT

The grade of paving asphalt to be used in the asphalt-rubber binder shall be AR-4000 and shall conform to the provisions in Section 92, "Asphalts," of the Standard Specifications and these special provisions.

The paving asphalt for use in asphalt-rubber binder shall be modified with an asphalt modifier.

4-1.17C ASPHALT MODIFIER

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

ASPHALT MODIFIER

Test Parameter	ASTM Designation	Requirement
Viscosity, m^2/s ($x10^{-6}$) at 100°C	D 445	X ± 3*
Flash Point, CL.O.C., °C	D 92	207 min.
Molecular Analysis:		
Asphaltenes, percent by mass	D 2007	0.1 max.
Aromatics, percent by mass	D 2007	55 min.

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

The asphalt modifier shall be proportionately added to the paving asphalt at the production

site where the asphalt-rubber binder is blended and reacted. Asphalt modifier shall be added in an amount of 2.5 percent to 6.0 percent by mass of the paving asphalt based on the recommendation of the asphalt-rubber binder supplier. The paving asphalt shall be at a temperature of not less than 374°F (190°C) or more than 439°F (226°C) when the asphalt modifier is added. If the asphalt modifier is combined with the paving asphalt, before being blended with the CRM, the combined paving asphalt and asphalt modifier shall be mixed by circulation for a period of not less than 20 minutes. Premixing of asphalt modifier and paving asphalt will not be required when the ingredients of the asphalt-rubber binder are proportioned and mixed simultaneously. Asphalt modifier and paving asphalt shall be measured for proportioning with meters conforming to the provisions in Section 9-1.01, "Measurement of Quantities," of the Standard Specifications.

4-1.17D CRUMB RUBBER MODIFIER (CRM)

Crumb rubber modifier (CRM) shall consist of a combination of scrap tire CRM and high natural CRM. The scrap tire CRM shall consist of ground or granulated rubber derived from a combination of automobile tires, truck tires or tire buffings. The high natural CRM shall consist of ground or granulated rubber derived from materials that utilize high natural rubber sources.

Steel and fiber separation may be accomplished by any method. Cryogenic separation, if utilized, shall be performed separately from and prior to grinding or granulating.

CRM shall be ground or granulated at ambient temperature. Cryogenically produced CRM particles which can pass through the grinder or granulator without being ground or granulated respectively shall not be used.

CRM shall not contain more than 0.01-percent wire (by mass of CRM) and shall be free of other contaminants, except fabric. Fabric shall not exceed 0.05-percent by mass of CRM. The test and method for determining the percent by mass of wire and fabric is available at the Transportation Laboratory, Pavement Branch, Telephone 916-227-7300, and will be furnished to interested persons upon request. A Certificate of Compliance certifying these percentages shall be furnished to the Engineer in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications.

The length of an individual CRM particle shall not exceed 4.75 mm.

The CRM shall be sufficiently dry so that the CRM will be free flowing and not produce foaming when combined with the blended paving asphalt and asphalt modifier mixture. Calcium carbonate or talc may be added at a maximum amount of 3 percent by mass of CRM to prevent CRM particles from sticking together. The CRM shall have a specific gravity between 1.1 and 1.2 as determined by California Test 208. Scrap tire CRM and high natural CRM shall be delivered to the production site in separate bags and shall be sampled and tested separately. CRM material shall conform to the following requirements of ASTM Designation: D 297:

SCRAP TIRE CRUMB RUBBER MODIFIER

Test Parameter	Percent	
	Min.	Max.
Acetone Extract	6.0	16.0
Ash Content	—	8.0
Carbon Black Content	28.0	38.0
Rubber Hydrocarbon	42.0	65.0
Natural Rubber Content	22.0	39.0

HIGH NATURAL CRUMB RUBBER MODIFIER

Test Parameter	Percent	
	Min.	Max.
Acetone Extract	4.0	16.0
Rubber Hydrocarbon	50.0	—
Natural Rubber Content	40.0	48.0

The CRM for asphalt-rubber binder shall conform to the gradations specified below when tested in conformance with the requirements in ASTM Designation: C 136, except as follows:

A. Split or quarter 100 g ± 5 g from the CRM sample and dry to a constant mass at a temperature of not less than 57°C or more than 63°C and record the dry sample mass. Place the CRM sample and 5.0 g of talc in a 0.5-L jar. Seal the jar, then shake it by hand for a minimum of one minute to mix the CRM and the talc. Continue shaking or open the jar and stir until particle agglomerates and clumps are broken and the talc is uniformly mixed.

B. Place one rubber ball on each sieve. Each ball shall have a mass of 8.5 g ± 0.5 g, have a diameter of 24.5 mm ± 0.5 mm, and shall have a Shore Durometer "A" hardness of 50 ± 5 in conformance with the requirements in ASTM Designation: D 2240. After sieving the combined material for 10 minutes ± 1 minute, disassemble the sieves. Material adhering to the bottom of a sieve shall be brushed into the next finer sieve. Weigh and record the mass of the material retained on the 2.36-mm sieve and leave this material (do not discard) on the scale or balance. Observed fabric balls shall remain on the scale or balance and shall be placed together on the side of the scale or balance to prevent the fabric balls from being covered or disturbed when placing the material from finer sieves onto the scale or balance. The material retained on the next finer sieve (2.00-mm sieve) shall be added to the scale or balance. Weigh and record that mass as the accumulative mass retained on that sieve (2.00-mm sieve). Continue weighing and recording the accumulated masses retained on the remaining sieves until the accumulated mass retained in the pan has been determined. Prior to discarding the CRM sample, separately weigh and record the total mass of fabric balls in the sample.

C. Determine the mass of material passing the 75-µm sieve (or mass retained in the pan) by subtracting the accumulated mass retained on the 75-µm sieve from the accumulated mass retained in the pan. If the material passing the 75-µm sieve (or mass retained in the pan) has a mass of 5 g or less, cross out the recorded number for the accumulated mass retained in the pan and copy the number recorded for the accumulated mass retained on the 75-µm sieve and record that number (next to the crossed out number) as the accumulated mass retained in the pan. If the material passing the 75-µm sieve (or mass retained in the pan) has a mass greater than 5 g, cross out the recorded number for the accumulated mass retained in the pan, subtract 5 g from that number and record the difference next to the crossed out number. The adjustment to the accumulated mass retained in the pan is made to account for the 5 g of talc added to the sample. For calculation purposes, the adjusted total sample mass is the same as the adjusted accumulated mass retained in the pan. Determine the percent passing based on the adjusted total sample mass and record to the nearest 0.1 percent.

CRM GRADATIONS

Sieve Size	Scrap Tire CRM Percent Passing	High Natural CRM Percent Passing
2.36-mm	100	100
2.00-mm	98-100	100
1.18-mm	45-75	95-100
600-µm	2-20	35-85
300-µm	0-6	10-30
150-µm	0-2	0-4
75-µm	0	0-1

4-1.17E ASPHALT-RUBBER BINDER

Asphalt-rubber binder shall consist of a mixture of paving asphalt, asphalt modifier, and crumb rubber modifier.

At least 2 weeks before the binder's intended use, the Contractor shall furnish the Engineer 4 one-liter cans filled with the asphalt-rubber binder proposed for use on the project. The Contractor shall supply the Engineer, for approval, a binder formulation and samples of the materials to be used in the asphalt-rubber binder at least 2 weeks before construction is scheduled to begin. The binder formulations shall consist of the following information:

A. Paving Asphalt and Modifiers:

1. Source and grade of paving asphalt.
2. Source and identification (or type) of modifiers used.
3. Percentage of asphalt modifier by mass of paving asphalt.
4. Percentage of the combined blend of paving asphalt and asphalt modifier by total mass of asphalt-rubber binder to be used.
5. Laboratory test results for test parameters shown in these special provisions.

B Crumb Rubber Modifier (CRM):

1. Source and identification (or type) of scrap tire and high natural CRM.
2. Percentage of scrap tire and high natural CRM by total mass of the asphalt-rubber blend.
3. If CRM from more than one source is used, the above information will be required for each CRM source used.
4. Laboratory test results for test parameters shown in these special provisions.

C. Asphalt-Rubber Binder:

1. Laboratory test results of the proposed blend for test parameters shown in these special provisions.
2. The minimum reaction time and temperature.

The method and equipment for combining paving asphalt, asphalt modifier, and CRM shall be so designed and accessible that the Engineer can readily determine the percentages by mass for each material being incorporated into the mixture.

The proportions of the materials, by total mass of asphalt-rubber binder, shall be 80 percent ± 2 percent combined paving asphalt and asphalt modifier, and 20 percent ± 2 percent CRM. However, the minimum amount of CRM shall not be less than 18.0 percent. Lower values which are rounded up shall not be allowed. The CRM shall be combined at the production site and shall contain 75 percent ± 2 percent scrap tire CRM and 25 percent ± 2 percent high natural CRM, by mass.

The paving asphalt and asphalt modifier shall be combined into a blended mixture that is chemically compatible with the crumb rubber modifier to be used. The blended mixture is considered to be chemically compatible when it meets the provisions for asphalt-rubber binder (after reacting) found in these special provisions.

The blended paving asphalt and asphalt modifier mixture, and the CRM shall be combined and mixed together at the production site in a blender unit to produce a homogeneous mixture.

The temperature of the blended paving asphalt and asphalt modifier mixture shall be not less than 374°F (190°C) nor more than 439°F (226°C) when the CRM is added. The combined materials shall be reacted for a minimum of 45 minutes after incorporation of the CRM at a temperature of not less than 374°F (190°C) nor more than 424°F (218°C). The temperature shall not be higher than 11°F (6°C) below the actual flash point of the asphalt-rubber binder.

After reacting, the asphalt-rubber binder shall conform to the following requirements:

ASPHALT-RUBBER BINDER

Test Parameter	ASTM Test Method	Requirement	
		Min.	Max.
Cone Penetration @ 25°C, 1/10 mm	D 217	25	70
Resilience @ 25°C, Percent rebound	D 3407	18	—
Field Softening Point, °C	D 36	52	74
Viscosity @ 190°C, Pa • s ($x10^{-3}$)	See Note	1500	4000

NOTE: The viscosity test shall be conducted using a hand held Haake Viscometer Model VT-02 with Rotor 1, 24 mm in depth x 53 mm in height, or equivalent, as determined by the Engineer. The accuracy of the viscometer shall be verified by comparing the viscosity results obtained with the hand held viscometer to 3 separate calibration fluids of known viscosities ranging from 1000 to 5000 Pa • s ($x10^{-3}$). The viscometer will be considered accurate if the values obtained are within 300 Pa • s ($x10^{-3}$) of the known viscosity. The known viscosity value shall be based on the fluid manufacturers standard test temperature or the test temperature versus viscosity correlation table provided by the fluid manufacturer. Viscometers used on the project shall be verified to be accurate. The test method for determining the viscosity of asphalt-rubber binder using a hand held viscometer is available at the Transportation Laboratory, Pavement Branch, Telephone (916) 227-7300. The accuracy verification results shall be provided to the Engineer and shall be certified by a Certificate of Compliance. The Certificate of Compliance shall be furnished to the Engineer in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications.

The Contractor shall provide a Haake Viscometer, or equivalent, at the production site during combining of asphalt-rubber binder materials. The Contractor shall take viscosity readings of asphalt-rubber binder from samples taken from the feed line connecting the storage and reaction tank to the asphalt concrete plant. Readings shall be taken at least every hour with not less than one reading for each batch of asphalt-rubber binder. The Contractor shall log these results, including time and asphalt-rubber binder temperature, and a copy of the log shall be submitted to the Engineer on a daily basis. As determined by the Engineer, the Contractor shall either notify the Engineer at least 15 minutes prior to each test or provide the Engineer a schedule of testing times.

The reacted asphalt-rubber binder shall be maintained at a temperature of not less than 374°F (190°C) nor more than 424°F (218°C).

If any of the material in a batch of asphalt-rubber binder is not used within 4 hours after the 45-minute reaction period, heating of the material shall be discontinued. Any time the asphalt-rubber binder cools below 374°F (190°C) and is reheated shall be considered a reheat cycle. The total number of reheat cycles shall not exceed 2. The material shall be uniformly reheated to a temperature of not less than 374°F (190°C) nor more than424°F (218°C) prior to use.

Additional scrap tire CRM may be added to the reheated binder and reacted for a minimum of 45 minutes. The cumulative amount of additional scrap tire CRM shall not exceed 10 percent of the total binder mass. Reheated asphalt-rubber binder shall conform to the provisions for asphalt-rubber binder.

4-1.17F EQUIPMENT FOR PRODUCTION OF ASPHALT-RUBBER BINDER

The Contractor shall utilize the following equipment for production of asphalt-rubber binder:

A. An asphalt heating tank equipped to heat and maintain the blended paving asphalt and asphalt modifier mixture at the necessary temperature before blending with the CRM. This unit shall be equipped with a thermostatic heat control device and a temperature reading device and shall be accurate to within ± 3°C (±5.4°F) and shall be of the recording type.

B. A mechanical mixer for the complete, homogeneous blending of paving asphalt, asphalt modifier, and CRM. Paving asphalt and asphalt modifier shall be introduced into the mixer through meters conforming to the provisions in Section 9-1.01, "Measurement of Quantities," of the Standard Specifications. The blending system shall be capable of varying the rate of delivery of paving asphalt and asphalt modifier proportionate with the delivery of CRM. During the proportioning and blending of the liquid ingredients, the temperature of paving asphalt and the asphalt modifier shall not vary more than ± 14°C (± 25°F). The paving asphalt feed, the asphalt modifier feed, and CRM feed shall be equipped with devices by which the rate of feed can be determined during the proportioning operation. Meters used for proportioning individual ingredients shall be equipped with rate-of-flow indicators to show the rates of delivery and resettable totalizers so that the total amounts of liquid ingredients introduced into the mixture can be determined. The liquid and dry ingredients shall be fed directly into the mixer at a uniform and controlled rate. The rate of feed to the mixer shall not exceed that which will permit complete mixing of the materials. Dead areas in the mixer, in which the material does not move or is not sufficiently agitated, shall be corrected by a reduction in the volume of material or by other adjustments. Mixing shall continue until a homogeneous mixture of uniformly distributed and properly blended asphalt-rubber binder of unchanging appearance and consistency is produced. The Contractor shall provide a safe sampling device capable of delivering a representative sample of the completed asphalt-rubber binder of sufficient size to permit the required tests.

C. An asphalt-rubber binder storage tank equipped with a heating system furnished with a temperature reading device to maintain the proper temperature of the asphalt-rubber binder and an internal mixing unit capable of maintaining a homogeneous mixture of paving asphalt, asphalt modifier, and CRM.

The equipment shall be approved by the Engineer prior to use.

4-1.17G AGGREGATE

The aggregate for Type G rubberized asphalt concrete shall conform to the following grading and shall meet the quality provisions specified for Type A asphalt concrete in Section 39-2.02, "Aggregate," of the Standard Specifications, except as follows:

A. California Test 211, Los Angeles Rattler loss at 500 revolutions shall be 40 percent maximum.

B. California Test 205, Section D, definition of a crushed particle is revised as follows: "A particle having 2 or more fresh mechanically fractured faces shall be considered a crushed particle."

C. The swell and moisture vapor susceptibility requirements shall not apply.

The symbol "X" in the following table is the gradation which the Contractor proposes to furnish for the specific sieve.

Aggregate Grading Requirements
Percentage Passing
19-mm maximum

Sieve Size	Limits of Proposed Gradation	Operating Range	Contract Compliance
25-mm	—	100	100
19-mm	—	95-100	90-100
12.5-mm	83-87	X±5	X±7
9.5-mm	65-70	X±5	X±7
4.75-mm	33-37	X±5	X±7
2.36-mm	18-22	X±4	X±5
600-µm	8-12	X±4	X±5
75-µm	—	2-7	0-8

4-1.17H PROPORTIONING, SPREADING AND COMPACTING

When batch type asphalt concrete plants are used to produce Type G rubberized asphalt concrete, the asphalt-rubber binder and mineral aggregate shall be proportioned by mass.

If the Contractor selects the batch mixing method, asphalt concrete shall be produced by the automatic batch mixing method in conformance to the provisions in Section 39-3.03A(2), "Automatic Proportioning," of the Standard Specifications.

When continuous mixing type asphalt concrete plants are used to produce Type G rubberized asphalt concrete, the asphalt-rubber binder shall be proportioned by an asphalt meter of the mass flow, Coriolis effect type. The meter shall have been Type-approved by the Division of Measurement Standards prior to the start of production. The meter shall be calibrated in conformance with the requirements in California Test 109. The meter shall be interfaced with the existing continuous mixing plant controller in use on the asphalt concrete plant.

Type G rubberized asphalt concrete shall be placed only when the atmospheric and pavement surface temperatures are 55°F (13°C) or above.

When the atmospheric and pavement surface temperature is 64°F (18°C) or higher, the following shall apply:

A. The temperature of the aggregate shall not be greater than 325°F (163°C) at the time the asphalt-rubber binder is added to the aggregate.
B. Type G rubberized asphalt concrete shall be spread at a temperature of not less than 280°F (138°C) or more than 325°F (163°C), measured in the mat directly behind the paving machine.
C. The first coverage of initial or breakdown compaction shall be performed when the temperature of the Type G rubberized asphalt concrete is not less than 275°F (135°C). Breakdown compaction shall be completed before the temperature of the Type G rubberized asphalt concrete drops below 250°F (121°C).

When the atmospheric or pavement surface temperature is below 64°F (18°C), the following shall apply:

A The temperature of the aggregate shall not be less than 300°F (149°C) nor more than 325°F (163°C) at the time the asphalt-rubber binder is added to the aggregate.
B. The Contractor shall cover the loads of Type G rubberized asphalt concrete with tarpaulins. The tarpaulins shall completely cover the exposed Type G rubberized

asphalt concrete until the Type G rubberized asphalt concrete has been completely transferred into the asphalt concrete paver hopper or deposited on the roadbed.

C. Type G rubberized asphalt concrete shall be spread at a temperature of not less than 289°F (143°C) nor more than 325°F (163°C), measured in the mat directly behind the paving machine.
D. The first coverage of initial or breakdown compaction shall be performed when the temperature of the Type G rubberized asphalt concrete is not less than 280°F (138°C). Breakdown compaction shall be completed before the temperature of the Type G rubberized asphalt concrete drops below 261°F (127°C).

Pneumatic tired rollers shall not be used to compact Type G rubberized asphalt concrete.

Asphalt concrete placed in layers of 0.15' or less in compacted thickness or widths of less than 5' shall be spread and compacted with the equipment and by the methods conforming to the provisions in Section 39, "Asphalt Concrete," of the Standard Specifications. Other asphalt concrete shall be compacted and finished in conformance with the provisions in Section 39 and the following:

A. The provisions in Section 39-5.02, "Compacting Equipment," of the Standard Specifications shall not apply.
B. The Contractor shall furnish a sufficient number of rollers to obtain the compaction specified in these special provisions and the surface finish required by the Standard Specifications and these special provisions.
C. Rollers shall be equipped with pads and water systems that prevent sticking of asphalt mixtures to the pneumatic-tired or steel-tired wheels. A parting agent that will not damage the asphalt mixture may be used.
D. The second paragraph in Section 39-6.01, "General Requirements," of the Standard Specifications shall not apply.
E. Asphalt concrete and asphalt concrete base shall be compacted by any means to obtain the specified relative compaction before the temperature of the mixture drops below 65°C. Additional rolling to achieve the specified relative compaction will not be permitted after the temperature of the mixture drops below 65°C or once the pavement is opened to public traffic. When vibratory rollers are used as finish rollers the vibratory unit shall be turned off.
F. The fifth and seventh through tenth paragraphs of Section 39-6.03, "Compacting," of the Standard Specifications shall not apply.
G. Asphalt concrete and asphalt concrete base shall be compacted to a relative compaction of not less than 96.0 percent and shall be finished to the lines, grades, and cross section shown on the plans. In-place density of asphalt concrete and asphalt concrete base will be determined prior to opening the pavement to public traffic.
H. Relative compaction will be determined by California Test 375.
I. If the test results for a quantity of asphalt concrete or asphalt concrete base indicate that the relative compaction is below 96.0 percent, the Contractor will be notified. Asphalt concrete or asphalt concrete base spreading operations shall not continue until the Contractor has notified the Engineer of the adjustment that will be made in order to meet the specified relative compaction.

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

When placing the initial mat of asphalt concrete on existing pavement, the end of the screed nearest the centerline or one end of the screed for full width paving shall be controlled by a ski

device not less than 30 feet long in conjunction with a sonar-like technique control to send elevation control signals to the automatic screed controls. The ski device shall meet the manufacturer's original specifications and shall not be bent, leaning, altered, or used other than as specified. The supports of the ski device shall operate freely and shall be properly maintained.

The end of the screed farthest from centerline shall be controlled manually or the other end of the screed for full width paving shall be controlled by a ski device not less than 20 feet long in conjunction with a sonar-like technique control to send elevation control signals to the automatic screed controls.

When paving contiguously with previously place mats, the end of the screed adjacent to the previously place mat shall be controlled by a sensor activated by a ski device not less than 30 feet long that responds to the grade of the previously placed mat. The end of the screed farthest from the previously placed mat shall be controlled in the same manner as when placing the initial mat.

When paving full width, a 30-foot minimum ski with controls as specified above shall be used. This will require the use of a front and rear beam and bridge over the screed linking the front and rear beam together as a unit. The rear beam shall have means to prevent scarring of the placed mat.

Should the method, equipment, and/or automatic screed controls furnished by the Contractor fail to produce a layer of asphalt concrete conforming to the requirements, including straightedge tolerance of Section 39-6.03, "Compacting", of the Standard Specifications, the paving operations shall be discontinued, and the Contractor shall modify his equipment or furnish substitute equipment.

Equipment which does not perform satisfactorily in the opinion of the Engineer shall be disallowed and removed from the site of the work.

All surfaces to receive asphalt concrete shall be thoroughly cleaned including caked mud and debris to the satisfaction of the Engineer prior to paving. The Contractor shall scrape (as needed), sweep and then wash with pressurized water the roadway no more than 24 hrs before paving. Full compensation for cleaning the roadway as required by the Engineer shall be considered as included in the prices paid for asphalt concrete, and no additional compensation will be allowed.

Paint binder shall be SS-1 and shall be furnished and applied in conformance with the Provisions set forth is Section 39-4.02 of the Standard Specifications. Paint binder shall be applied at a temperature between 125 degrees F and 150 degrees F.

The area to which paint binder has been applied shall be closed to public traffic. Care shall be taken to avoid tracking binder material onto existing pavement surfaces beyond the limits of construction.

A drop-off of more than 0.15-foot will not be allowed at any time between adjacent lanes open to public traffic.

The Contractor shall schedule his paving operations such that each layer of asphalt concrete is placed on all contiguous lanes of a traveled way each work shift. At the end of each work shift, the distance between the ends of the layers of asphalt concrete on adjacent lanes shall not be greater than 10 feet nor less than 5 feet. Additional asphalt concrete shall be

placed along the transverse edge at the end of each lane and along the exposed longitudinal edges between adjacent lanes, hand raked, and compacted to form temporary conforms. Kraft paper, or other approved bond breaker, may be placed under the conform tapers to facilitate the removal of the taper when paving operations resume.

Shoulders or median borders adjacent to a lane being paved shall be surfaced prior to opening the lane to traffic.

(Para. 9: Use when conform tapers are used in lieu of paving shoulders and/or median

Asphalt concrete surfacing shall be placed on all existing surfacing, including curve widening, chain control lanes, turnouts, left turn pockets, and public and private road connections shown on the plans, unless otherwise directed by the Engineer.

Miscellaneous

The Contractor shall count and tie out utility covers prior to any work in the area. Within five days after completion of the asphalt concrete overlay scheduled for the area the Contractor shall raise the water valve, manholes, and monument covers to grade.

Rutting the new mat by delivery of material shall be avoided.

The use of multiple asphalt concrete plants will not be allowed.

Paving operations shall be discontinued, at the Engineer's discretion, during periods of precipitation. Asphalt concrete delivered to the site and not placed due to weather conditions shall become the property of the Contractor, and no payment shall be allowed therefor.

Traffic shall not be allowed on the Type G rubberized asphalt concrete for at least one hour after final rolling operations have been completed and sand has been applied to the surface.

Sand shall be spread on the surface of Type G rubberized asphalt concrete at a rate of 1 to 2 pounds per square yard (0.5 kg/m^2 to 1.0 kg/m^2). The exact rate will be determined by the Engineer. When ordered by the Engineer excess sand shall be removed from the pavement surface by sweeping. Sand shall be free from clay or organic material. Sand shall conform to the fine aggregate grading provisions in Section 90-3.03, "Fine Aggregate Grading," of the Standard Specifications.

4-1.17I MEASUREMENT AND PAYMENT

Rubberized asphalt concrete (Type G) will be measured and paid for by the ton in the same manner specified for asphalt concrete in Section 39-8, "Measurement and Payment," of the Standard Specifications.

Full compensation for furnishing and spreading sand on the rubberized asphalt concrete surface and for sweeping and removing excess sand from the pavement surface shall be considered as included in the contract price paid per ton for rubberized asphalt concrete (Type G) and no separate payment will be made therefor.

4-1.18 CONCRETE STRUCTURES

Portland cement concrete structures shall conform to the provisions in Section 51, "Concrete Structures, of the Standard Specifications and these special provisions.

The inlet and outlet structures on sheet C2 of the plans shall be considered minor structures and shall be cast in place and shall be paid as minor concrete.

The concrete slabs at Station 52+42 shall be considered minor structures and shall be cast in place and shall be paid as minor concrete.

Full compensation for rerouting the PVC pipe into the manhole at approximately Station 144+10 left, shall be considered as included in the unit price paid per cubic yard for minor

concrete.

4-1.19 MISCELLANEOUS FACILITIES

Manholes, and G.O. Basin in AC Dike shall conform to the provisions in Section 70, "Miscellaneous Facilities," of the Standard Specifications and these Special Provisions.

Manholes shall be constructed of precast reinforced concrete sections which conform to A.S.T.M. Specification C478. The minimum wall thickness shall be 5" and the inside diameter 48". Mortar all joints.

The contract price paid per each manhole shall include full compensation for furnishing all labor, material, tools, equipment and incidentals and for doing all the work involved in installing manholes, including structure excavation, structure backfill, frame and cover, base, extensions, pipe connections, and as shown on the plans and as specified in the Standard Specifications and these Special Provisions and no additional compensation will be allowed therefor.

The contract unit price paid per each for G.O. Basin in AC Dike shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in Inlet (Type OL-14), complete in place including covers, reinforcing steel and connections to pipes, grate, modification to existing curb, and structure excavation, and structure backfill, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

4-1.20 REINFORCED CONCRETE PIPE

Reinforced concrete pipe shall conform to the provisions in Section 65, "Reinforced Concrete Pipe," of the Standard Specifications and these special provisions.

Pipe shall be installed per Caltrans Standard Plan A62D. Where the pipe is to be placed under the traveled way, Stanislaus County Standard plan 3-H1 shall be used.

Measurement and payment shall be as specified in Section 65, "Reinforced Concrete Pipe," of the Standard Specifications and shall also include furnishing backfill material to cover the top of pipe a minimum of 12" at locations where final grade will not be achieved until road widening is scheduled.

4-1.21 OVERSIDE DRAIN

Steel entrance tapers, slip joints, metal pipe downdrain anchor assemblies, and steel pipe downdrains shall conform to the provisions in Section 69, "Overside Drains," of the Standard Specifications and these special provisions. Steel entrance tapers and pipe downdrains shall be fabricated from zinc-coated steel sheet.

4-1.22 BARBED WIRE FENCE

Barbed Wire fence shall conform to the provisions in Section 80, "Fences," of the Standard Specifications and these special provisions.

Removal and disposal of existing barbed wire fence where shown on the plans to be removed shall be included in the price paid per lineal foot of new fence.

Fence removed shall be disposed of outside the highway right of way in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

4-1.23 MONUMENTS.-- Survey monument wells shall be replaced or constructed at locations shown on swing ties and record maps used in determining the number of monument wells to be constructed. Said documents are available for inspection in the office of the Stanislaus County

Engineering Design Division at 1716 Morgan Road, Modesto CA 95358. The same maps will be provided the Contractor at the pre-construction meeting. Survey monument preservation efforts and well construction shall be under the direction of a California licensed surveyor. Monument wells to be constructed or replaced will be determined by the engineer. Increases or decreases in quantity greater than 25% will be paid at the contract unit price.

Monument wells shall be cleared of debris and soil so that the top 2" of the monument is visible.

Where the top of the existing monument is 3 feet or greater in depth, a 2" diameter galvanized pipe with a brass cap identifying the monument shall be placed over the existing monument.

The surveyor shall file a corner record for each monument well constructed or adjusted with the Public Works Department within 30 days of the completion of the project.

Monument well frames, covers, extensions, and installation shall be per Stanislaus County Improvement Standard for Monuments Plate 1-E1 and 1-E2.

Full compensation for all labor, materials, equipment and incidentals to meet the conditions of this section, as shown on the plans and described herein, shall be considered as included in the unit price paid for each "Construct Survey Monument Well".

4-1.24 METAL BEAM GUARD RAILING.-- Metal beam guard railing shall conform to the provisions in Section 83-1, "Railings," of the Standard Specifications, these special provisions, and the Department of Transportation Metric Standard Plans dated July 1999.

Line posts and blocks shall be wood.

Full compensation for furnishing and constructing connection details of Standard Plan A77J or A77K where required shall be considered included in the price paid per lineal foot of " Metal Beam Guard Rail Type 1A layout".

The ninth, eleventh and twelfth paragraphs in Section 83-1.02B, "Metal Beam Guard Railing," of the Standard Specifications are amended to read:

Wood posts and blocks shall be timbers No. 1 (structural) grade Douglas fir or timbers No. 1 grade Southern yellow pine. Wood posts and blocks shall be graded in accordance with the provisions in Section 57-2, "Structural Timber," except allowances for shrinkage after mill cutting shall in no case exceed 5 percent of the American Lumber Standards minimum sizes, at the time of installation.

Wood posts and blocks shall be pressure treated after fabrication as provided in Section 58, "Preservative Treatment of Lumber, Timber and Piling," with creosote, creosote-coal tar solution, creosote-petroleum solution (50-50), pentachlorophenol in hydrocarbon solvent, copper naphthenate, ammoniacal copper arsenate, ammoniacal copper zinc arsenate, or chromated copper arsenate (Southern yellow pine only) except that, when other than one of the creosote processes is used, blocks shall have a minimum retention of 0.40-pound per cubic foot and need not be incised.

If copper naphthenate, ammoniacal copper arsenate, chromated copper arsenate, or ammoniacal copper zinc arsenate is used to treat the wood posts and blocks, the bolt holes shall be treated as follows:

Before the bolts are inserted, all bolt holes shall be filled with a grease, recommended by the manufacturer for corrosion protection, which will not melt or run at a temperature of 150° F.

4-1.25 TRASH RACK - The trash rack shall conform to provisions of Section 75, "Miscellaneous Metal", of the Standard Specifications and these special provisions. Where

galvanized or other metal materials are joined by welding, the area shall be painted with two coats of a rust resistant paint. All elements of the trash rack and its supports and attachments shall have a similar appearance when the completed trash rack is in place and complete.

Full compensation for materials, fabrication, assembling, painting and installing all elements of the trash rack as shown on the plans, shall be considered as included in the lump sum price paid for the trash rack and no additional compensation will be allowed therefor.

4-1.26 THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS.--Thermoplastic traffic stripes (traffic lines) and pavement markings shall conform to the provisions in Sections 84-1, "General," and 84-2, "Thermoplastic Traffic Stripes and Pavement Markings," of the Standard Specifications and these special provisions.

The State Specification No. for glass beads in Section 84-2.02, "Materials," of the Standard Specifications is amended to read "8010-21C-22 (Type II)."

Thermoplastic material for traffic stripes shall be applied by extrusion methods in a single uniform layer with a minimum thickness of .070-inch.

The centerline stripe shall be located as near to the center of the total pavement width as possible and still achieve straight lines and arcs unless otherwise directed by the engineer.

4-1.27 PAVEMENT MARKERS.--Pavement markers shall conform to the provisions in Section 85, "Pavement Markers," of the Standard Specifications and these special provisions.

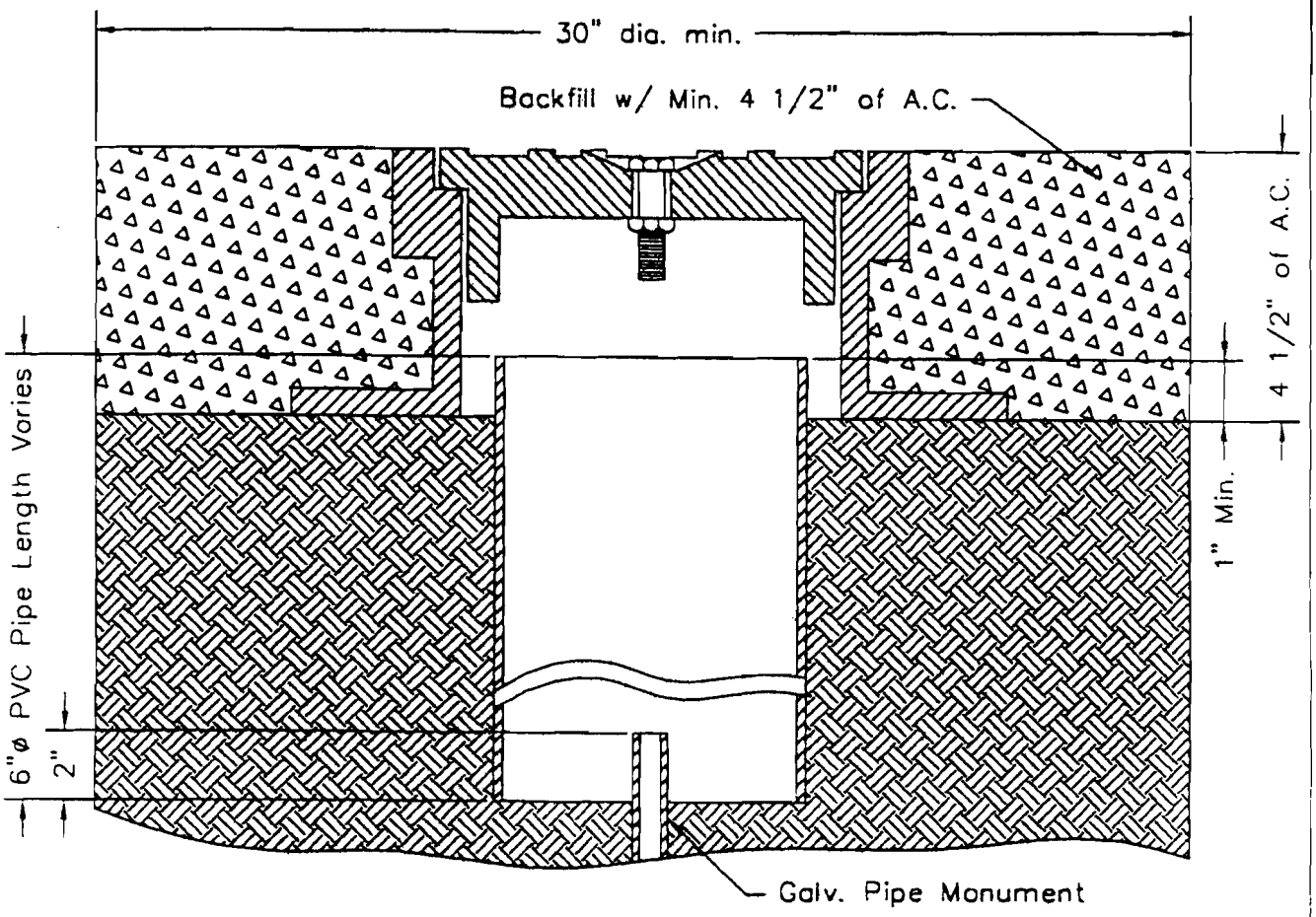
The second paragraph in Section 85-1.02, "Type of Markers," of the Standard Specifications shall not apply.

Certificates of compliance shall be furnished for pavement markers as specified in "Prequalified and Tested Signing and Delineation Materials" elsewhere in these special provisions.

Attention is directed to "Traffic Control System For Lane Closure" elsewhere in these special provisions regarding the use of moving lane closures during placement of pavement markers with bituminous adhesive.

APPLICABLE STANDARD

PLANS AND DETAILS



NOTES:

1. Monument box shall resemble cast iron cover in detail 1-E2 or approved equal.
2. Monument cover shall be marked "MONUMENT".
3. The monument shall be a new 3/4 inch X 24 inch long galvanized iron pipe.
4. The monument shall be tagged as required by the State of California Land Surveyor's Act.
5. The monument shall be capped with a survey marker identifying the monument.
6. All government corners shall be 2 inch X 24 inch galvanized iron pipe with identification cap. The County will provide pipe and cap upon request.

APPROVED _____ DATE JUN 9 1998

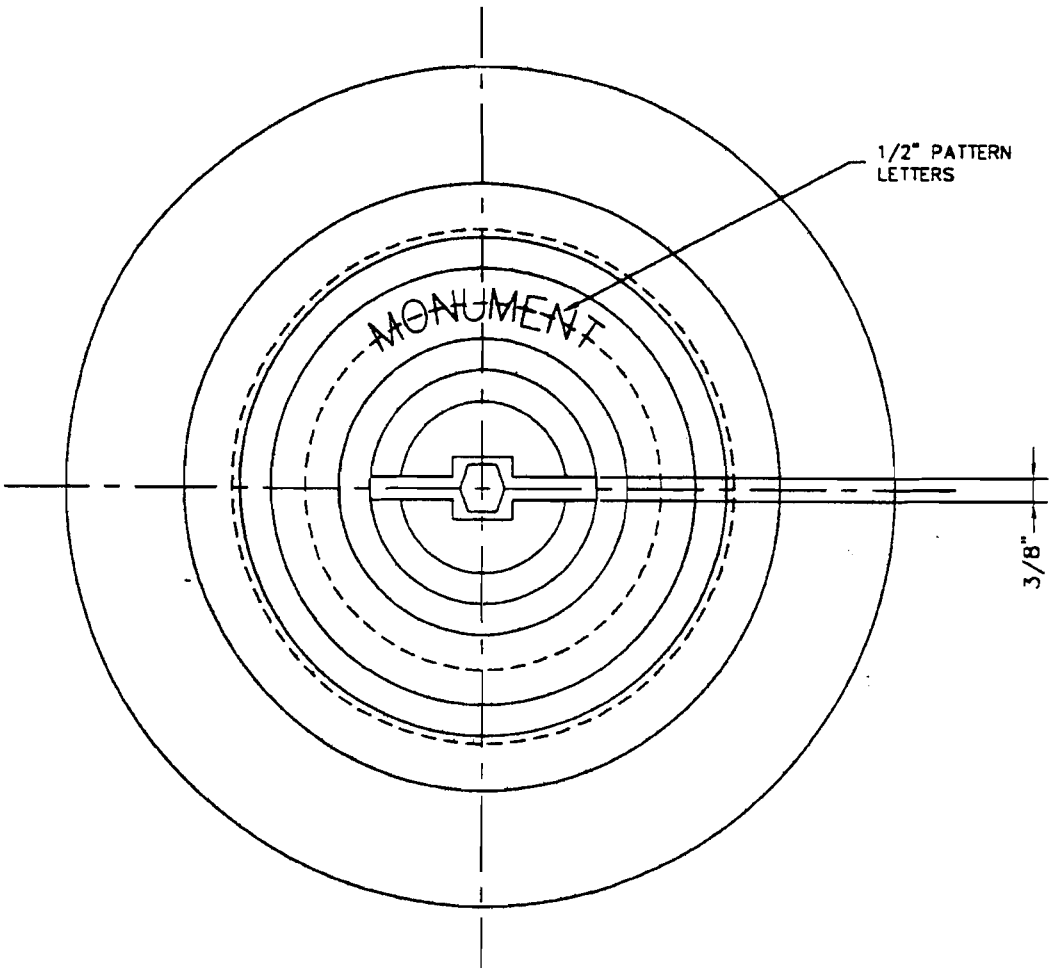
DIRECTOR OF PUBLIC WORKS

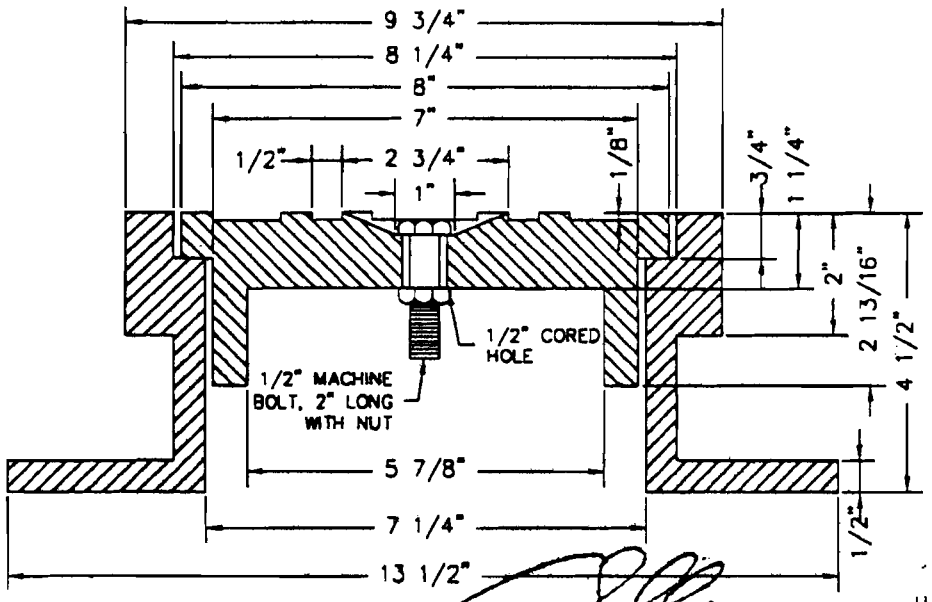
IMPROVEMENT STANDARDS

STANISLAUS COUNTY

ROAD MONUMENT
SHEET 1 OF 2

PLATE 1-E1





APPROVED _____ DATE JUN 9 1998

DIRECTOR OF PUBLIC WORKS

IMPROVEMENT STANDARDS

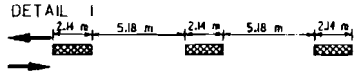
STANISLAUS COUNTY

ROAD. MONUMENT
SHEET 2 OF 2

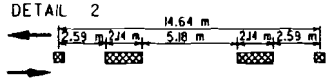
PLATE 1-E2

CENTERLINES
(2 LANE HIGHWAYS)

DETAIL 1



DETAIL 2



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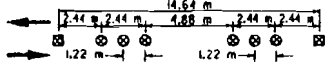

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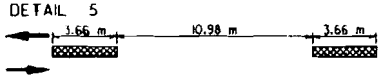

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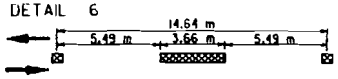

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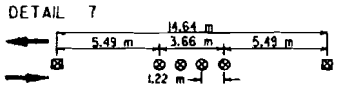


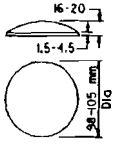
MARKER DETAILS

LEGEND

MARKERS

- ○ TYPE A White Non-reflective
- ⊗ TYPE AY Yellow Non-reflective
- ⊟ TYPE C Red-clear Retroreflective
- ⊠ TYPE D Two-way Yellow Retroreflective
- ◨ TYPE G One-way Clear Retroreflective
- ■ TYPE H One-way Yellow Retroreflective

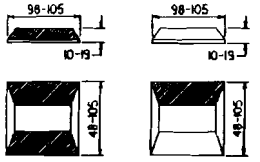
Retroreflective Face



TYPE A & TYPE AY

LINES

- 100 mm White
- 100 mm Yellow
- Direction of Travel



TYPE C & TYPE D

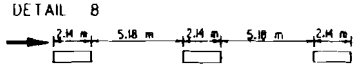
TYPE G & TYPE H

NOTE

Detail 3 deleted

LANELINES
(MULTILANE HIGHWAYS)

DETAIL 8



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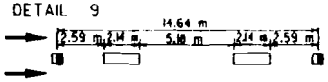
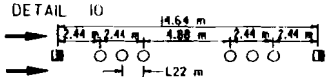
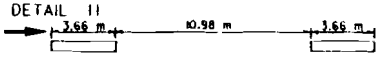


DETAIL 10



DETAIL 11



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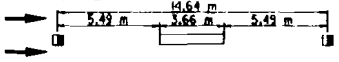

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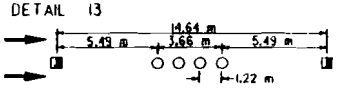

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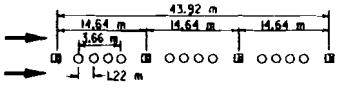
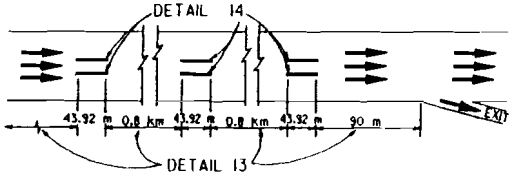
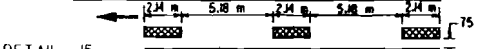




NO PASSING ZONES-ONE DIRECTION

DETAIL 15



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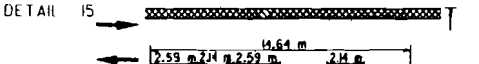

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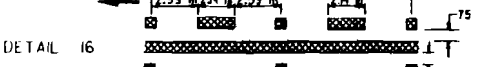

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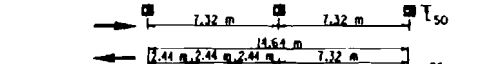

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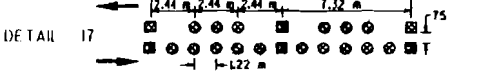

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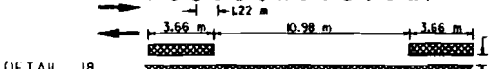
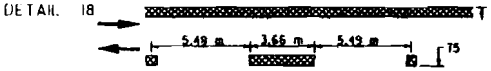
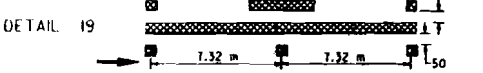


NO PASSING ZONES-TWO DIRECTIONS

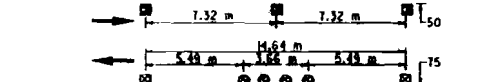
DETAIL 21



DETAIL 22



DETAIL 23



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

A20A

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

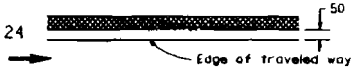
REGISTERED CIVIL ENGINEER

JULY 1, 1999
PLANS APPROVAL DATE

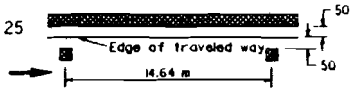
1999 STD. PLAN A20A

LEFT EDGELINES
(Divided Highways)

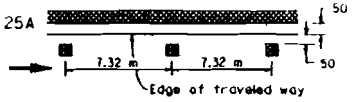
DETAIL 24



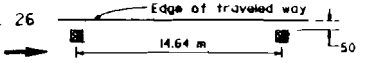
DETAIL 25



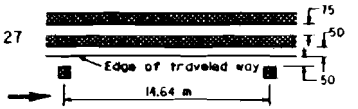
DETAIL 25A



DETAIL 26

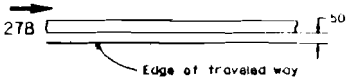


DETAIL 27



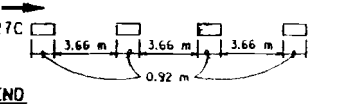
RIGHT EDGELINE

DETAIL 27B



RIGHT EDGELINE EXTENSION THROUGH INTERSECTIONS

DETAIL 27C



LEGEND

MARKERS

- TYPE D Two-way Yellow Retroreflective
- TYPE AY Yellow Non-reflective
- TYPE H One way Yellow Retroreflective

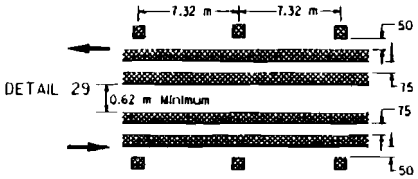
LINES

- 100 mm White
- 100 mm Yellow
- Direction of Travel

MEDIAN ISLANDS

DETAIL 28

DETAIL 29



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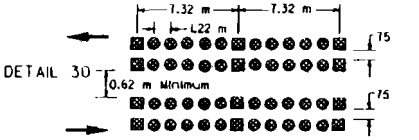
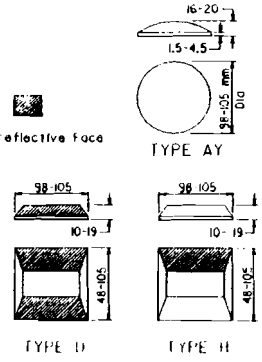


MARKER DETAILS

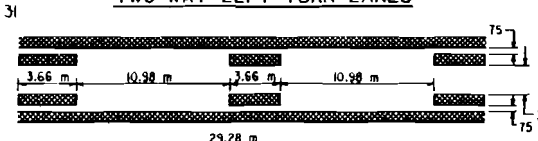


NOTE

Detail 27A deleted

TWO-WAY LEFT TURN LANES

DETAIL 31



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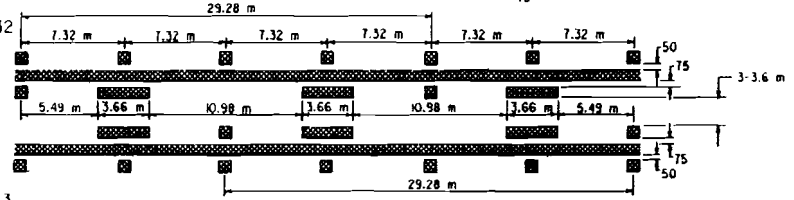

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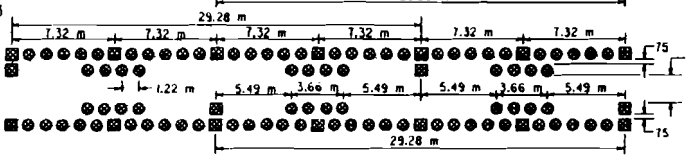
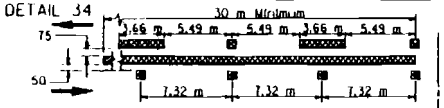
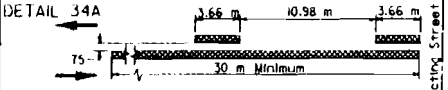


INTERSECTION TREATMENTS

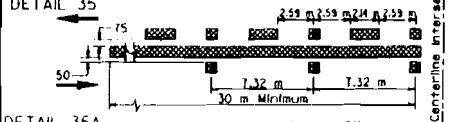
DETAIL 34



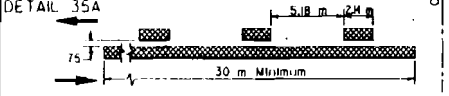
DETAIL 34A



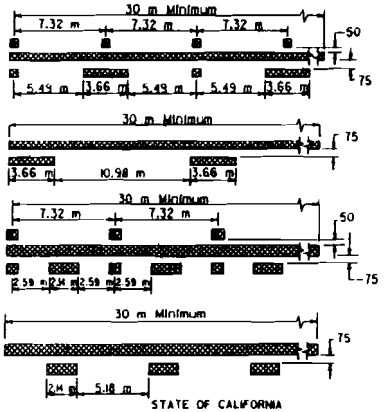
DETAIL 35



DETAIL 35A



Centerline Intersecting Street



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 1, 1999
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

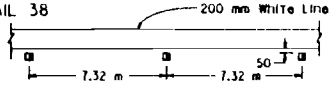
NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

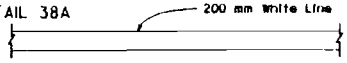
A20B

1999 STD. PLAN A20B

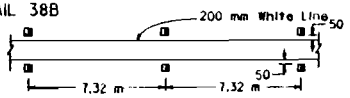
DETAIL 38



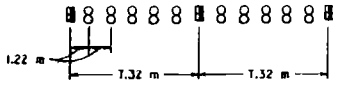
DETAIL 38A



DETAIL 38B



DETAIL 38C



CHANNELIZING LINE

LEGEND

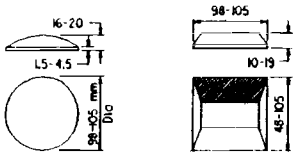
MARKERS

○ TYPE A White Non-reflective

▯ TYPE G One-way Clear Retroreflective

← Direction of Travel

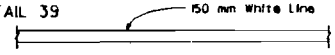
MARKER DETAILS



TYPE A TYPE G

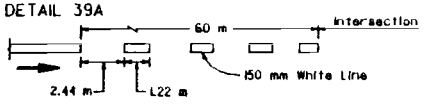
Retroreflective Face

DETAIL 39



BIKE LANE LINE

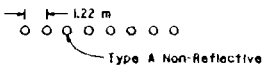
DETAIL 39A



INTERSECTION LINE
BIKE LANE

DETAIL 40

DETAIL 40A



LANE LINE EXTENSIONS
THROUGH INTERSECTIONS

Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 1, 1999
PLANS APPROVAL DATE

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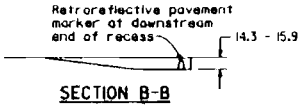
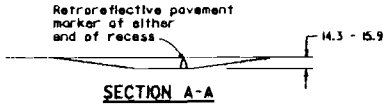
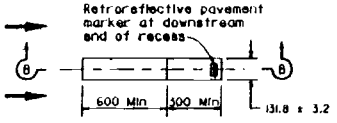


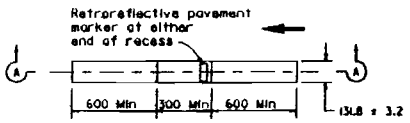
SECTION B-B



SECTION A-A

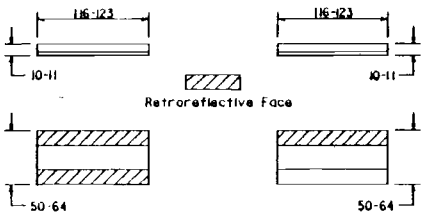


PLAN
One-Way Traffic
(Type 1)



PLAN
Two-Way Traffic
(Type 2)

RECESS DETAIL FOR
RETROREFLECTIVE PAVEMENT MARKER



TYPE C & TYPE D TYPE G & TYPE H

See Notes 1 and 2.

RETROREFLECTIVE PAVEMENT MARKER
FOR RECESSED INSTALLATION

RECESSED MARKER NOTES

1. See typical traffic line details for marker patterns to be used with recessed pavement markers. Detail 14 requires a Type 2 recess.
2. The retroreflective pavement markers shown for recessed installations are not to be used for non-recessed installations.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

A20D

1999 STD. PLAN A20D

9

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 1, 1999
PLANS APPROVAL DATE

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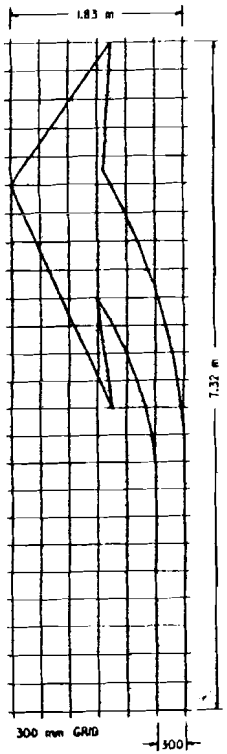
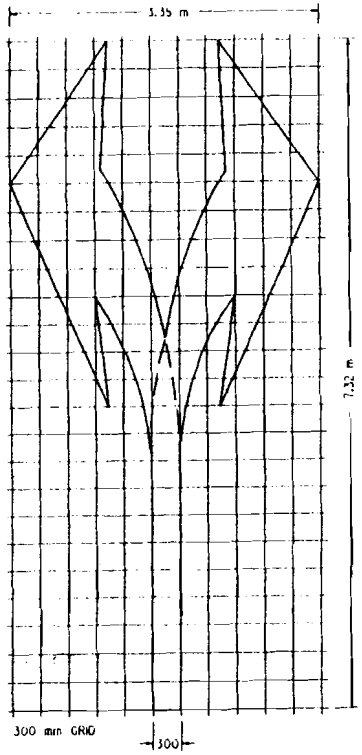


A=3.90 m^2

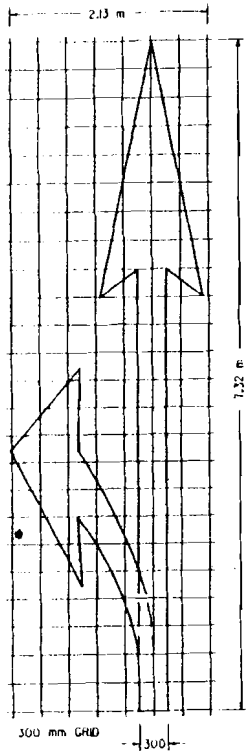
TYPE III(L) ARROW

(FOR TYPE III(R) USE MIRROR IMAGE)



A=6.78 m^2

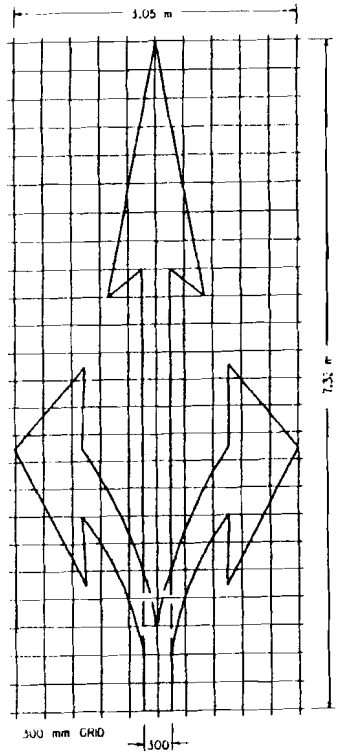
TYPE III(B) ARROW



A=4.18 m^2

TYPE II(L) ARROW

(FOR TYPE II(R) USE MIRROR IMAGE)



A=5.48 m^2

TYPE II(B) ARROW

NOTE

MINOR VARIATIONS IN DIMENSIONS MAY BE ACCEPTED BY THE ENGINEER.

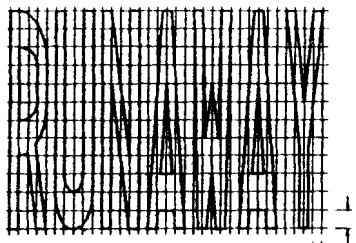
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS
ARROWS

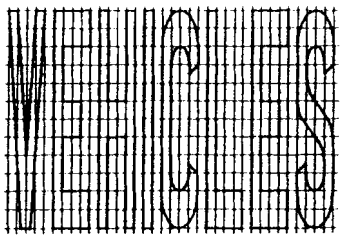
NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

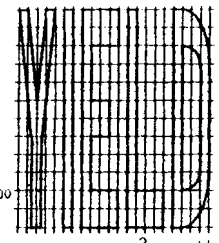
A24B



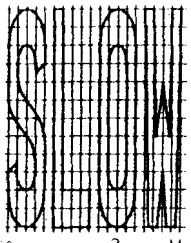
A=3.99 m^2



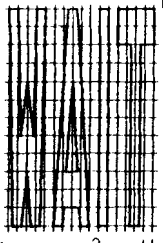
A=3.90 m^2



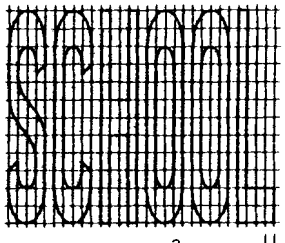
A=2.23 m^2



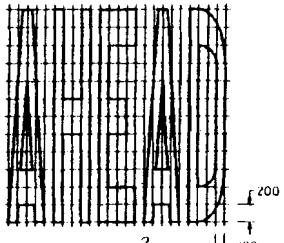
A=2.14 m^2



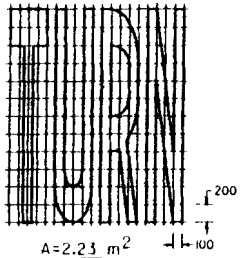
A=1.76 m^2



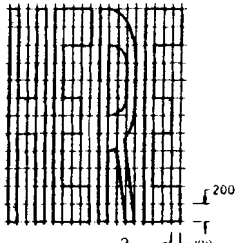
A=3.25 m^2



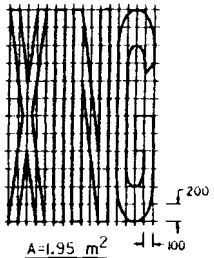
A=2.88 m^2



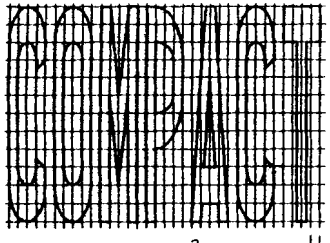
A=2.23 m^2



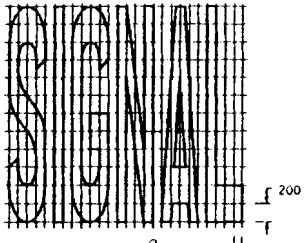
A=2.42 m^2



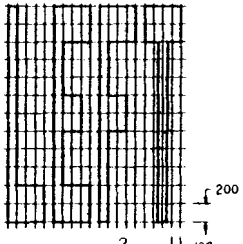
A=1.95 m^2



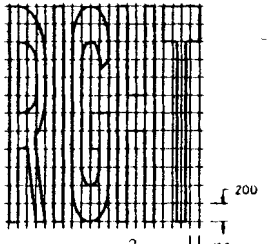
A=0.93 m^2



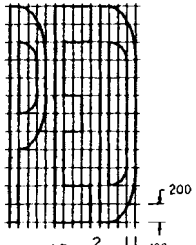
A=2.97 m^2



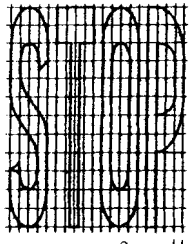
A=1.76 m^2



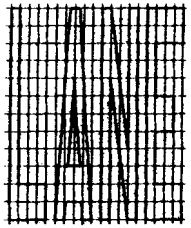
A=2.42 m^2



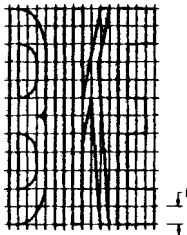
A=1.67 m^2



A=2.04 m^2



A=0.56 m^2



A=0.46 m^2

NOTES

(1) If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.

(2) The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.

(3) Minor variations in dimensions may be accepted by the Engineer.

(4) Portions of a letter, number or symbol may be separated by connecting segments not to exceed 50 mm in width.

WORD MARKINGS

ITEM	m^2	ITEM	m^2	ITEM	m^2	ITEM	m^2
KING	1.95	YIELD	2.23	BIKE	0.46	PED	1.67
AHEAD	2.88	SCHOOL	3.25	SLOW	2.14	COMPACT	0.93
WAIT	1.76	SIGNAL	2.97	STOP	2.04	RUNAWAY	3.99
LANE	0.56	TURN	2.23	LEFT	1.76	VEHICLES	3.90
RIGHT	2.42	HERE	2.42				

Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 1, 1999
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — G. W. Edwards — CIVIL — 6-30-00 — STATE OF CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

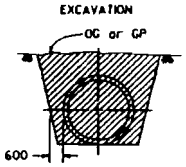
PAVEMENT MARKINGS WORDS

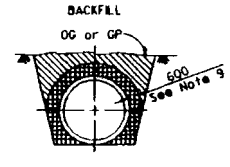
NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

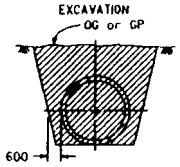
A24D

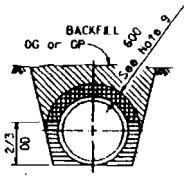
1999 STD. PLAN A24D



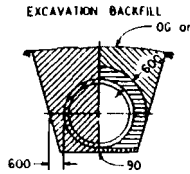


IN TRENCH

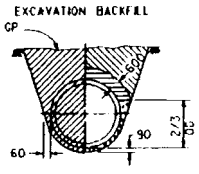




IN TRENCH

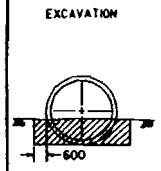


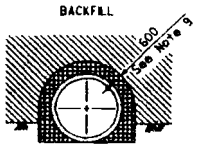
SAND BEDDING



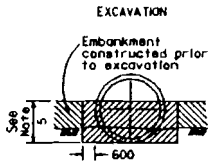
SOIL CEMENT BEDDING

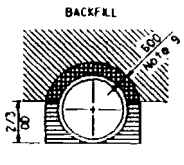
IN TRENCH



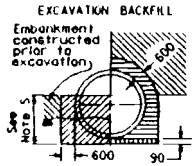


IN EMBANKMENT



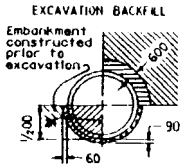


IN EMBANKMENT



SAND BEDDING

A



SOIL CEMENT BEDDING

B

IN EMBANKMENT

MINIMUM ALLOWABLE CLASSES OF RCP FOR METHOD 1

Cover (in meters)	Minimum Class & D-Load
1.80	Class II 500
1.81 - 2.40	Class III 650
2.41 - 3.00	Class III Special 800
3.01 - 3.60	Class IV 1000
3.61 - 4.20	Class IV Special 1200
4.21 - 5.10	Class V 1400
5.11 - 6.00	Class V Special 1700

See Notes 6 and 9

METHOD 1

MINIMUM ALLOWABLE CLASSES OF RCP FOR METHOD 2

Cover (in meters)	Minimum Class & D-Load
4.80	Class II 500
4.81 - 6.00	Class III 650
6.01 - 7.50	Class III Special 800
7.51 - 8.50	Class IV 1000
8.51 - 10.60	Class IV Special 1200
10.61 - 12.80	Class V 1400
12.81 - 15.00	Class V Special 1700

See Notes 8 and 9

METHOD 2

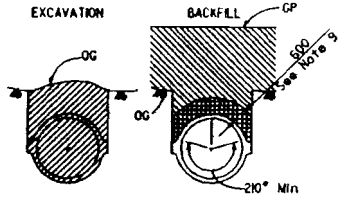
MINIMUM ALLOWABLE CLASSES OF RCP FOR METHOD 3

Cover (in meters)	Minimum Class & D-Load
7.90	Class II 500
7.91 - 9.10	Class III 650
9.71 - 11.50	Class III Special 800
11.51 - 13.70	Class IV 1000
13.71 - 17.00	Class IV Special 1200
17.01 - 20.70	Class V 1400
20.71 - 24.00	Class V Special 1700

METHOD 3

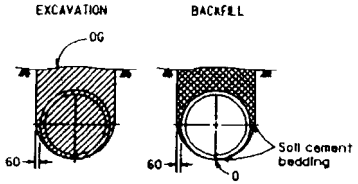
REINFORCED CONCRETE PIPE

See Notes 1, 2, 7 and 10



IN TRENCH ONLY

CAST-IN-PLACE



IN TRENCH ONLY

PRECAST

See Notes 7 and 12

NON-REINFORCED CONCRETE PIPE

LEGEND

- Structure Excavation (Culvert)
- Structure Backfill (Culvert) 95% relative compaction
- Structure Backfill (Culvert) 90% relative compaction
- Loose Backfill
- Sand Bedding
- Soil Cement Bedding
- Roadway Embankment
- Original Ground

OD = Outside diameter for circular pipes and maximum vertical dimension for other shapes

ID = Inside diameter for circular pipes and minimum vertical dimension for other shapes

RCP = Reinforced concrete pipe

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Paul Cotter
REGISTERED CIVIL ENGINEER

July 1, 1999
PLANS APPROVAL DATE

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NOTES

1. Unless otherwise shown on the plans or specified in the special provisions, the Contractor shall have the option of selecting the class of RCP and the method of backfill to be used, provided the height of cover does not exceed the value shown for the RCP selected.
   Example:
   600 mm RCP culvert with maximum cover of 5.80 m the options are:
   a) Class V Special or stronger with Method 1.
   b) Class III or stronger with Method 2.
   c) Class II or stronger with Method 3.
   Cover is defined as the maximum vertical distance from top of pipe to finished grade within the length of any given culvert.
2. The class of RCP, method of backfill and bedding selected shall be the same throughout the length of any given culvert.
3. The "length of any culvert" is defined as the culvert between:
   a) Successive drainage structures (inlets, junction boxes, headwalls, etc.).
   b) A drainage structure and the inlet or outlet end of the culvert.
   c) The inlet and outlet end of the culvert when there are no intervening drainage structures.
4. Slope or shore excavation sides as necessary.
5. Embankment height prior to excavation for installation of all classes of RCP under Methods 2 and 3A shall be as follows:
   Pipe sizes 300 mm to 1050 mm ID = 750 mm
   Pipe sizes 1200 mm to 2100 mm ID = 2/3 OD
   Pipe sizes larger than 2100 mm ID = 1500 mm
6. The maximum size for all classes of RCP placed under Method 1 is 1950 mm ID.
7. Non-reinforced precast pipe sizes 900 mm or smaller may also be placed under Methods 1, 2 or 3.
8. Oval or arch shaped RCP shall be placed under Method 2 only.
9. Embankment compaction requirements govern over the 90% relative compaction backfill requirement within 750 mm of finished grade.
10. Backfill shall be placed full width of excavation except where dimensions are shown for backfill width or thickness. Dimensions shown are minimums.
11. Minimum cover over top of pipe at edge of traveled way shall be 600 mm for AC pavement and 300 mm for PCC pavement.
12. Where the precast non-reinforced concrete pipe is used as a substitute for the cast in-place pipe, both the wall thickness and the concrete strength shall be at least as great as that specified for the cast-in-place pipe. The fill height allowed shall not exceed that shown for the cast-in-place pipe.

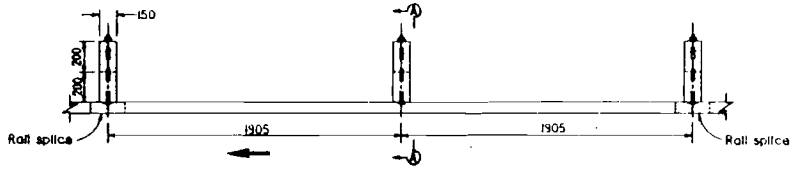
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

EXCAVATION AND BACKFILL CONCRETE PIPE CULVERTS

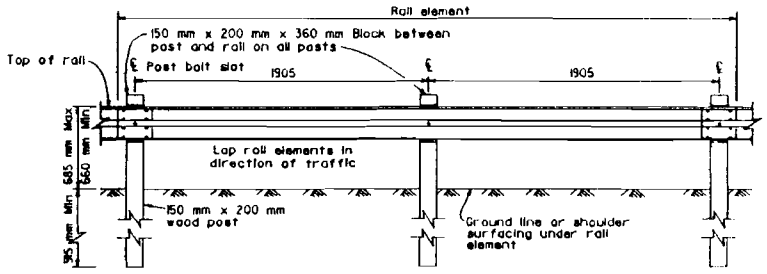
NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

A62D

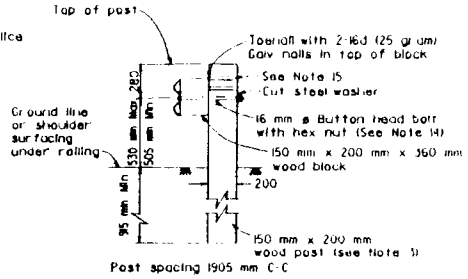


PLAN



ELEVATION

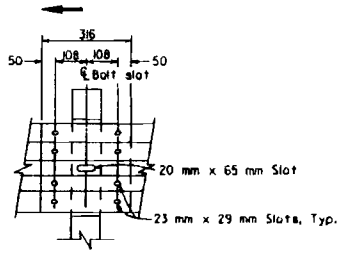
METAL BEAM GUARD RAILING WITH WOOD POST AND BLOCKS



SECTION A-A

TYPICAL WOOD LINE POST INSTALLATION

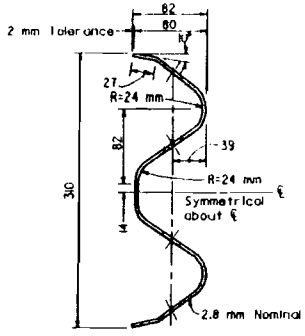
See Note 4



ELEVATION

RAIL ELEMENT SPLICE DETAIL

16 mm ø x 35 mm button head oval shoulder bolts inserted into the 23 mm x 29 mm slots and bolted together with 16 mm ø x 35 mm recessed hex nuts. A total of 8 bolts and nuts are to be used at each rail splice connection. The ends of the rail elements are to be overlapped in the direction of traffic (see details). Where a terminal section or end section is to be attached to the end of a rail element, a total of 4 of the above described splice bolts and nuts are to be used.



SECTION THRU

RAIL ELEMENT

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 1, 1999

PLANS APPROVAL DATE

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NOTES

1. For details of steel post and wood block installations, see Standard Plan A77AA.
2. For details of standard hardware used to construct guard railing, see Standard Plan A77B.
3. For details of wood posts and wood blocks used to construct guard railing, see Standard Plan A77C.
4. For additional installation details, see Standard Plan A77FA.
5. Guard railing post spacing to be 1905 mm center to center, except as otherwise noted.
6. For guard railing typical layouts, see Standard Plans A77D and A77E.
7. For embankment widening details to accommodate guard railing terminal system and treatments, see Standard Plan A77F.
8. For typical terminal system and treatments, see Standard Plans A77L, A77M and A77N. For type of terminal system to be used, see Project Plans.
9. For guard railing terminal anchor details, see Standard Plans A77G, A77I and A77JA.
10. For guard railing connection details to bridge railing, retaining walls and abutments, see Standard Plan A77J.
11. For guard railing connection details to bridge sidewalks and curbs, see Standard Plan A77K.
12. For dike positioning with guard railing installations, see Standard Plan A77F.
13. Direction of traffic indicated by ⟶.
14. Where conditions require the bolt to be installed in the opposite direction from that shown in Section A-A or where a 16 mm threaded rod is required in place of the bolt, no more than 13 mm of thread to be exposed on the traffic side of the rail element.
15. Additional holes in wood post are required for potential adjustments of railing height. See Standard Plan A77C.
16. For guard railing delineation details, see Standard Plan A77F.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

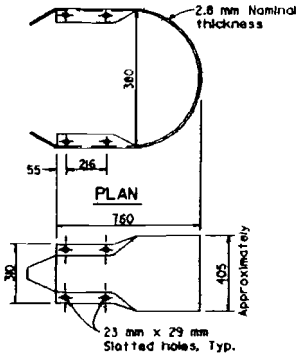
METAL BEAM GUARD RAILING TYPICAL WOOD POST WITH WOOD BLOCK

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

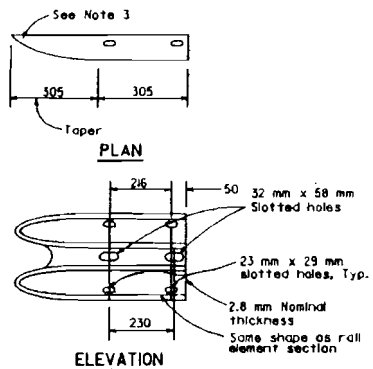
A77A

1999 STD. PLAN A77A



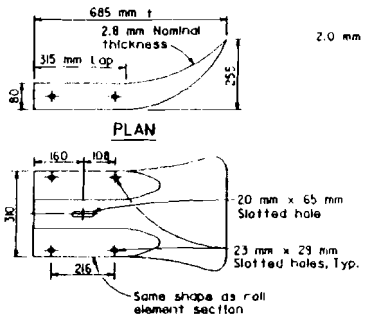
ELEVATION

RETURN SECTION



ELEVATION

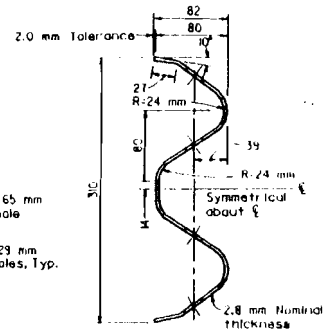
END SECTION DETAILS



ELEVATION

TERMINAL SECTION

(TYPE B)

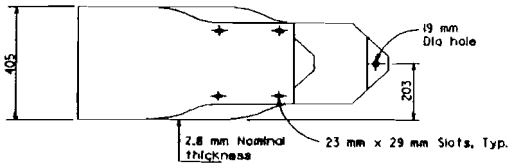


SECTION THRU

RAIL ELEMENT

NOTES

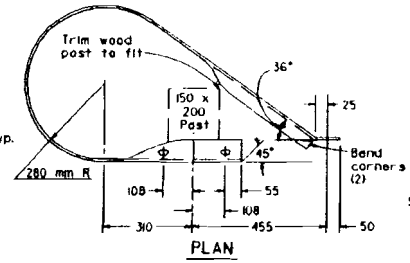
1. Terminal sections not to be installed on the trailing end of guard railing constructed adjacent to one-way roadways.
2. For use and details of back-up plates, see Standard Plans A77J and A77K.
3. End Section may be cut from Terminal Section (Type B) or fabricated.
4. Use for nested railing applications.
5. Terminal Section 'Type A' has been deleted.
6. Use flat plate washer where indicated on plans.



ELEVATION

TERMINAL SECTION

(TYPE C)

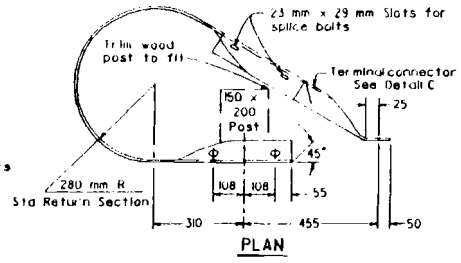


PLAN

TERMINAL SECTION

(TYPE C)

DETAIL A

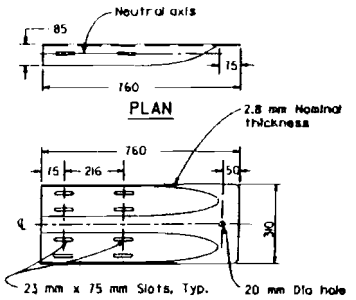


PLAN

OPTIONAL DESIGN TERMINAL SECTION

(TYPE C)

DETAIL B



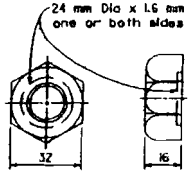
ELEVATION

TERMINAL CONNECTOR FOR

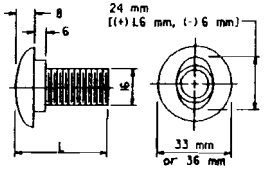
OPTIONAL DESIGN TERMINAL SECTION

(TYPE C)

DETAIL C



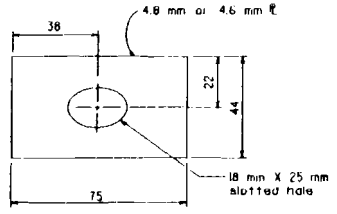
16 mm ø RECESS NUT



16 mm ø BUTTON HEAD BOLT

L	THREAD LENGTH
35 mm	full thread length
50 mm	full thread length
255 mm	100 mm Min thread length
460 mm	100 mm Min thread length
** 70 mm	50 mm Min thread length
**480 mm	100 mm Min thread length

** SEE NOTE 4



FLAT PLATE WASHER

See Note 6

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 1, 1999

PLANS APPROVAL DATE

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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING STANDARD HARDWARE

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

A77B

1999 STD. PLAN A77B

NOTES

1. All holes in wood posts and blocks shall be 20 mm dia ± 1.6 mm.
2. Dimensions shown for wood post are nominal.

Metric

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 1, 1999
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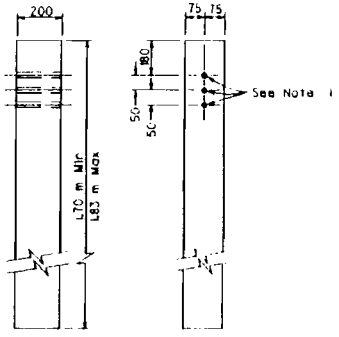
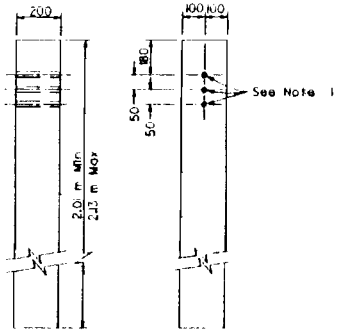


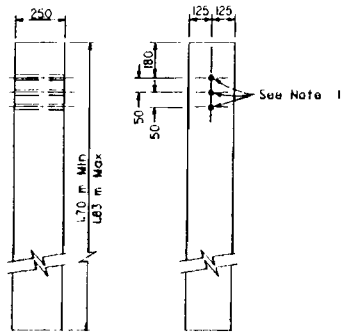
SIDE FRONT

150 mm x 200 mm
WOOD POST



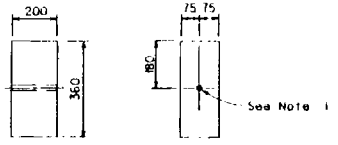
SIDE FRONT

200 mm x 200 mm
WOOD POST



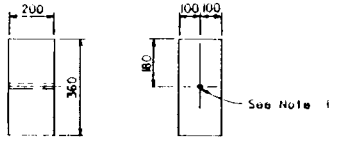
SIDE FRONT

250 mm x 250 mm
WOOD POST



SIDE FRONT

150 mm x 200 mm
WOOD BLOCK



SIDE FRONT

200 mm x 200 mm
WOOD BLOCK

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

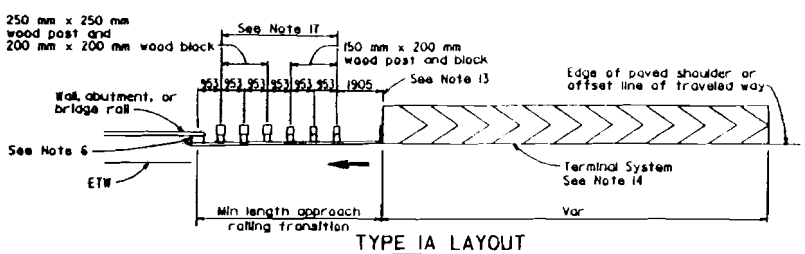
METAL BEAM GUARD RAILING WOOD POST AND WOOD BLOCK DETAILS

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

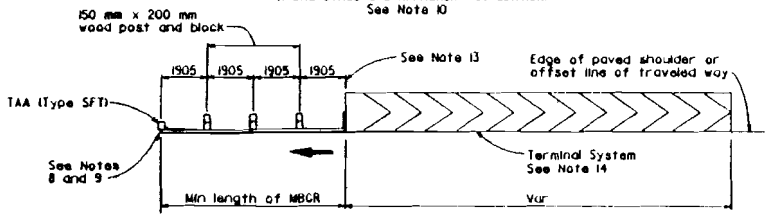
A77C

1999 STD. PLAN A77C



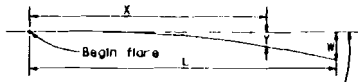
TYPE 1A LAYOUT

(TYPICAL STRUCTURE APPROACH INSTALLATION) See Note 10



TYPE 1B LAYOUT

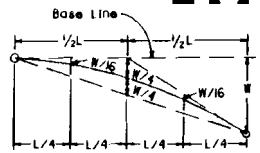
(TYPICAL EMBANKMENT INSTALLATION) See Note 10



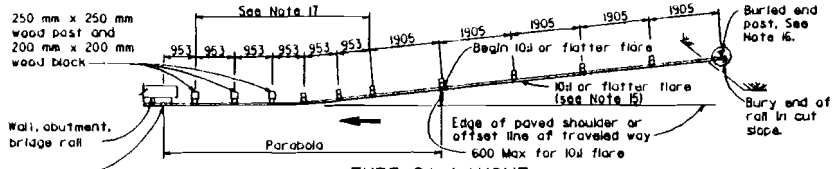
$Y = \frac{WX^2}{L^2}$

Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

PARABOLIC FLARE OFFSETS

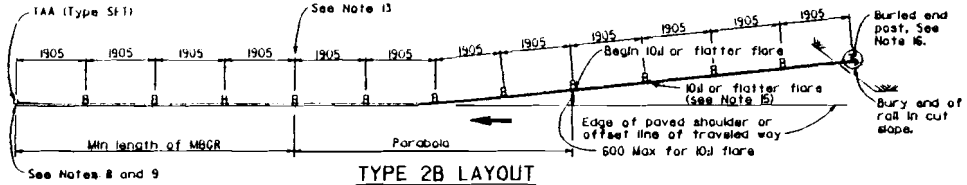


TYPICAL PARABOLIC LAYOUT



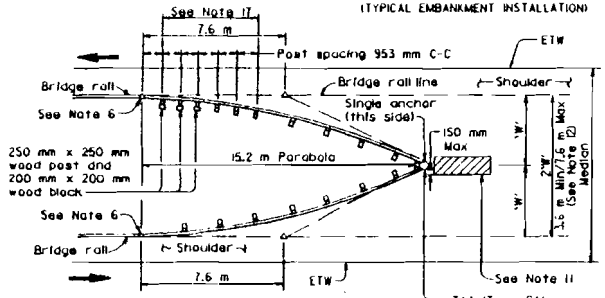
TYPE 2A LAYOUT

(TYPICAL STRUCTURE APPROACH INSTALLATION)

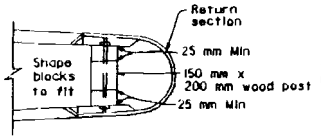


TYPE 2B LAYOUT

(TYPICAL EMBANKMENT INSTALLATION)



TYPE 3A LAYOUT



DETAIL A

NOTES

1. Post, blocks and hardware to be used are shown on Standard Plans A77B, A77C and A77CA.
2. Guard rail post spacing to be 1905 mm center to center, except as otherwise noted.
3. Except as noted, posts shown are 150 mm x 200 mm wood. MW 150 x 14 steel posts with 200 mm x 200 mm notched wood blocks may be used for 150 mm x 200 mm wood posts and blocks where applicable and when specified.
4. Rail elements to be installed as shown on Standard Plan A77A for wood post and wood blocks installations and as shown on Standard Plan A77AA for steel post and wood block installations.
5. Direction of traffic indicated by ⟶
6. For connection details see Standard Plan A77J or A77K.
7. For terminal anchor assembly (Type CA) details, see Standard Plan A77L. Where a crash cushion is required as specified in Note 11 and the crash cushion attaches to the ends of the guard railing, the terminal anchor assembly (Type CA) and return section may not be required (see Project Plans).
8. For terminal anchor assembly (Type SFT) details, see Standard Plan A77G. Terminal Sections not to be installed on trailing end of guard railing constructed adjacent to one-way roadways.
9. On two-way roadways less than 18 m in width, a terminal system is to be used in place of the terminal anchor assembly (Type SFT) at the trailing end of guard railing for embankment installations.
10. For details of a terminal system typically used as a flared end treatment on Type 1A and Type 1B Layouts, see Standard Plan A77L. For details of terminal system typically used on Type 1A and Type 1B Layouts where site conditions will not accommodate a flared end treatment, see Standard Plans A77M and A77N. For embankment widening details to accommodate terminal system end treatments, see Standard Plan A77F.
11. A crash cushion is required for Type 3A layout, when the end of the guard railing is within 9.0 m of the edge of traveled way (ETW) of approaching traffic. For the type of crash cushion to be used, see Project Plans and the Special Provisions.
12. When width "W" exceeds 3.8 m; to calculate the length of parabolic flare use "L=3W" and round to nearest 3.8 m.
13. As site conditions dictate, additional 3.8 m lengths of guard railing with post spacing at 1905 mm may be required at the point shown.
14. For the type of terminal system to be used, see Project Plans and the Special Provisions.
15. The 10d or flatter flare is based on the edge of the paved shoulder or offset line of edge of traveled way. The length of guard railing within the 10d or flatter flare may be increased by 3.8 m lengths, as site conditions dictate.
16. For buried end anchor details, see Standard Plan A77TA.
17. Use a flat plate washer on the rail face when attaching rail element to these posts. Wood post with wood block are only to be used for these posts and block.

TAA = Terminal Anchor Assembly

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Metric

REGISTERED CIVIL ENGINEER

July 1, 1999
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — CIVIL — No. C17826 — Exp. 6-30-01 — STATE OF CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS

NO SCALE

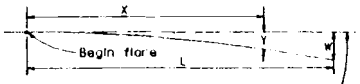
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

A77D

1999 STD. PLAN A77D

NOTES

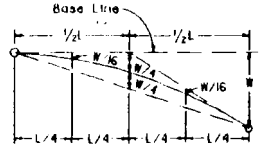
1. Post, blocks and hardware to be used are shown on Standard Plans A77B, A77C and A77CA.
2. Guard railing post spacing to be 1905 mm center to center, except as otherwise noted.
3. Except as noted, posts and blocks shown are 150 mm x 200 mm wood. MW 150 x 14 steel posts with 200 mm x 200 mm notched wood blocks may be used for 150 mm x 200 mm wood posts and blocks where applicable and when specified.
4. Rail elements to be installed as shown on Standard Plan A77A for wood post and wood block installations and as shown on Standard Plan A77AA for steel post and wood block installations.
5. A 1.2 m minimum clearance is required between the face of the railing and the face of a fixed object located directly behind a guard railing post. Where a fixed object is behind the railing, but not directly behind a guard railing post, a 910 mm minimum clearance, is required between the face of the railing and the face of the fixed object. Where minimum clearances cannot be obtained, construct guard railing as shown in "Approach Railing Transition Details for Fixed Objects" on this plan.
6. Direction of traffic indicated by ⟶.
7. For connection details, see Standard Plans A77J and A77K.
8. For terminal anchor assembly (Type CA) details, see Standard Plan A77I. Where a crash cushion is required as specified in Note 11 and the crash cushion attaches to the ends of the guard railing, the terminal anchor assembly (Type CA) and return section may not be required (see Project Plans).
9. For terminal anchor assembly (Type SFT) details, see Standard Plan A77G.
10. Terminal sections not to be installed on trailing end of guard railing constructed adjacent to one-way roadways.
11. A crash cushion is required for Type 4A, 5A and 6A layouts, when the end of the guard railing is within 9.0 m of the edge of traveled way (ETW) of approaching traffic. For the type of crash cushion to be used, see the Project Plans and Special Provisions.
12. When width "W" exceeds 3.8 m to calculate the length of parabolic flare use "L=3W" and round to nearest 3.8 m.
13. For the type of terminal system to be used, see Project Plans and the Special Provisions.
14. For details of a terminal system typically used as a flared end treatment on Type 8A Layouts, see Standard Plan A77L. For details of a terminal system typically used on Type 8A Layouts where site conditions will not accommodate a flared end, see Standard Plans A77M and A77N.
15. Use a flat plate washer on the rail face when attaching rail element to these posts.
16. Wood post with wood block are only to be used for these posts and blocks.



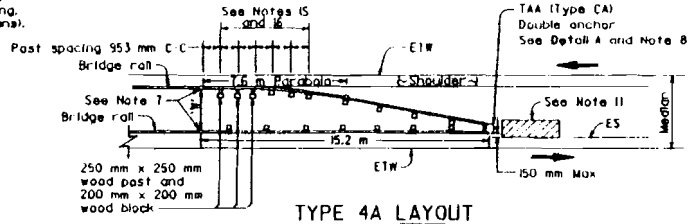
$Y = \frac{WX^2}{L^2}$

Y = Offset from base line
W = Maximum offset
X = Distance along base line
L = Length of flare

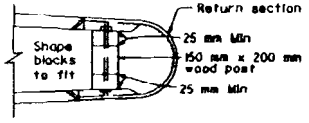
PARABOLIC FLARE OFFSETS



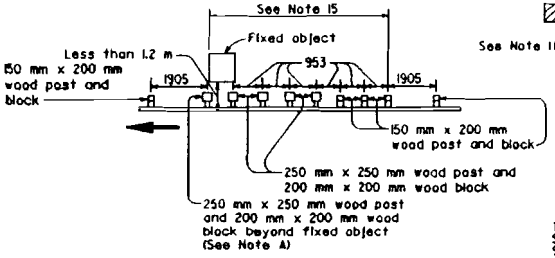
TYPICAL PARABOLIC LAYOUT



TYPE 4A LAYOUT



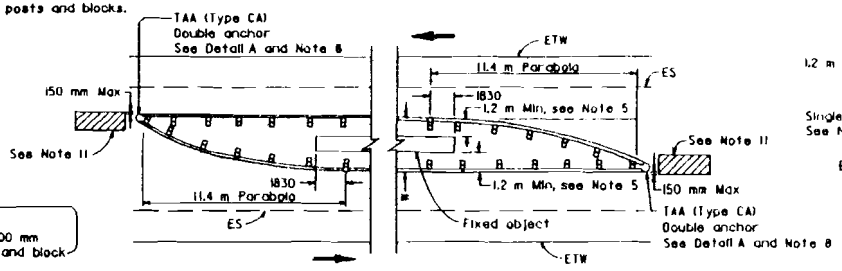
DETAIL A



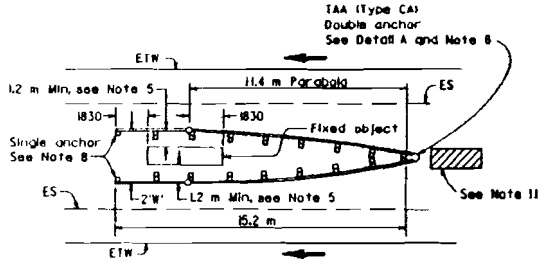
Note A. For a series of fixed objects (bridge columns, overhead sign supports, etc.) additional 250 mm x 250 mm wood post with 200 mm x 200 mm wood blocks at 953 mm center to center spacing are to be used between fixed objects.

APPROACH RAILING TRANSITION DETAIL FOR FIXED OBJECT

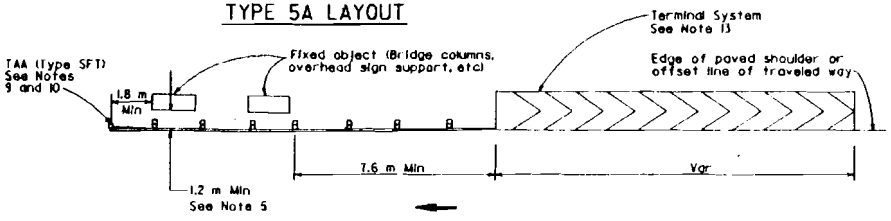
Use with Type 5A, 6A, and 8A layouts where minimum clearances specified in Note 5 cannot be obtained between the face of the guard railing and fixed object(s).



TYPE 5A LAYOUT



TYPE 6A LAYOUT



TYPE 8A LAYOUT

See Note 14

TAA = Terminal Anchor Assembly

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL LAYOUTS

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

A77E

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

Ellis K. Wood
REGISTERED CIVIL ENGINEER

July 1, 1999
PLANS APPROVAL DATE

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Metric

1999 STD. PLAN A77E

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

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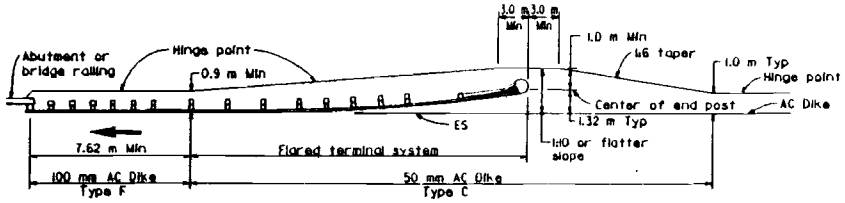
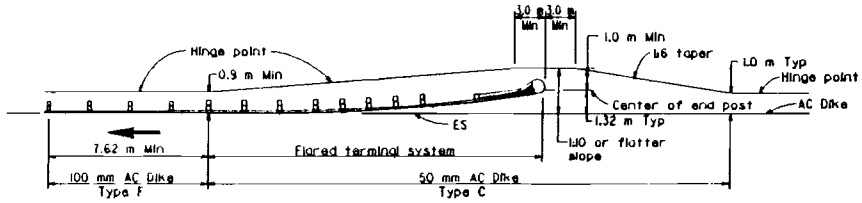


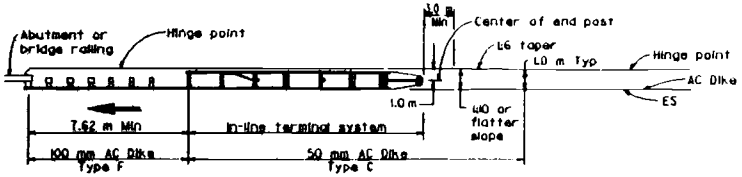
TYPICAL STRUCTURE APPROACH EMBANKMENT WIDENING AND DIKE PLACEMENT FOR FLARED END TREATMENT

See Notes 1 and 2



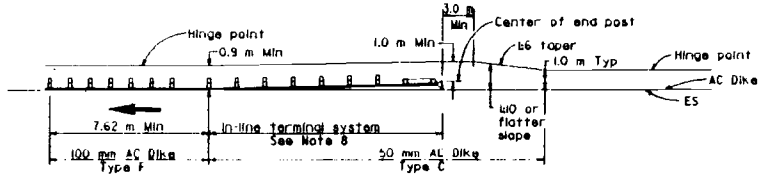
TYPICAL ROADWAY EMBANKMENT WIDENING AND DIKE PLACEMENT FOR FLARED END TREATMENT

See Notes 1 and 2



TYPICAL STRUCTURE APPROACH EMBANKMENT WIDENING AND DIKE PLACEMENT FOR IN-LINE END TREATMENT

See Notes 1 and 2

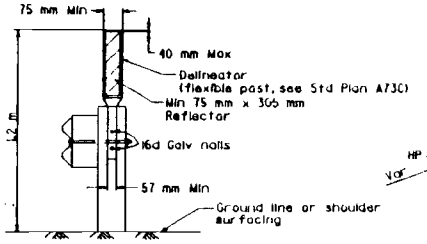


TYPICAL ROADWAY EMBANKMENT WIDENING AND DIKE PLACEMENT FOR IN-LINE END TREATMENT

See Notes 1 and 2

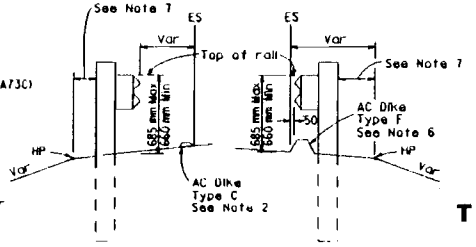
NOTES

1. For guard railing layout details, see Standard Plans A77D and A77E.
2. When necessary to place dike in front of face of guard railing, only Type C dike may be used. For dike details, see Standard Plan A87.
3. For standard railing post embedment, see Standard Plan A77FA.
4. Guard railing delineation to be used where shown on the project plans.
5. Direction of traffic indicated by ⟶.
6. When dike or curb is placed under guard railing, the maximum height of the dike or curb shall be 100 mm. For dike and curb details, see Standard Plan A87.
7. For details of distance between the face of rail and hinge point, see Standard Plan A77FA.
8. When Terminal System (Type ET) is used, a traffic approach flare of 50:1 is required for the terminal system. See Standard Plan A77M.



GUARD RAILING DELINEATION

See Note 4



DIKE POSITIONING

(See Note 2)

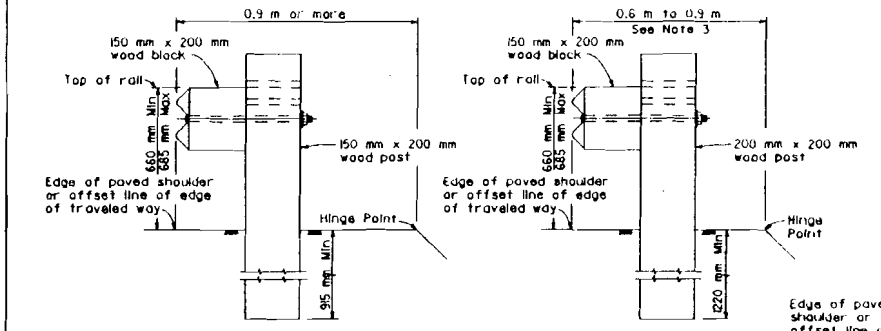
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING TYPICAL EMBANKMENT WIDENING FOR END TREATMENTS

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

A77F



DETAIL A

TYPICAL ROADWAY INSTALLATION

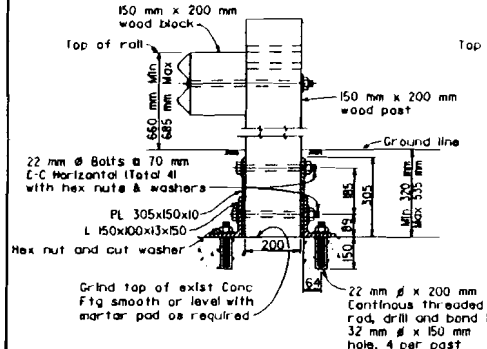
See Note 1

DETAIL B

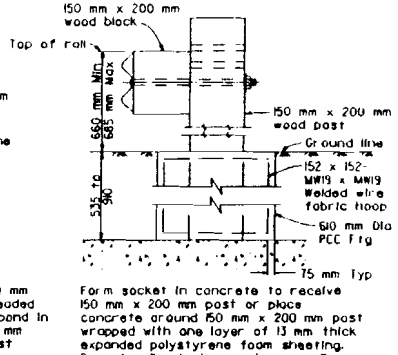
NARROW ROADWAY INSTALLATION

See Note 1

POST EMBEDMENT



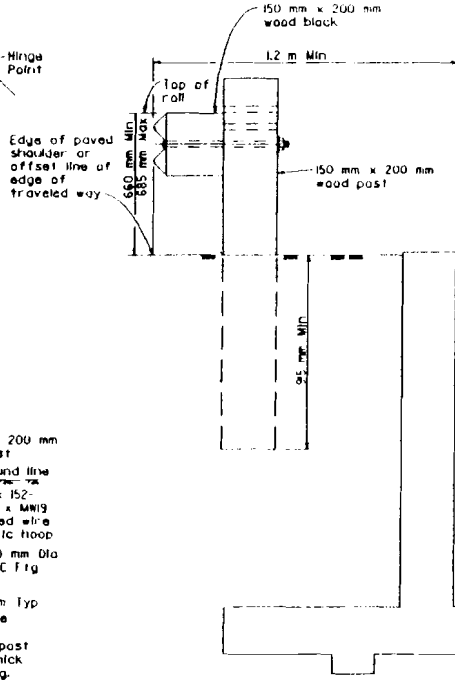
DETAIL C



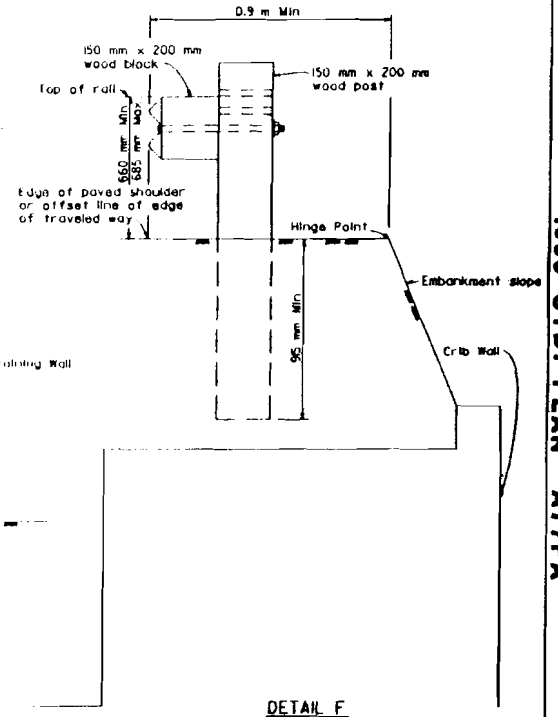
DETAIL D

SPECIAL POST FOOTINGS

See Note 4



DETAIL E



DETAIL F

INSTALLATION AT EARTH RETAINING WALLS

NOTES

1. For additional installation details, see Standard Plans A77A and A77AA.
2. For additional details of wood post and blocks, see Standard Plan A77C.
3. Where the distance between the face of the rail and the hinge point is less than 0.6 m, see the Project Plans for special details.
4. Use these post footings only where standard embedment of railing post as shown in Details A and B is restricted by underground concrete facilities such as footing of walls, columns, etc.
5. For dike positioning with guard railing installations, see Standard Plan A77F.

DIST | COUNTY | ROUTE | KILOMETER POST TOTAL PROJECT | SHEET NO. | TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 1, 1999

PLANS APPROVAL DATE

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STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

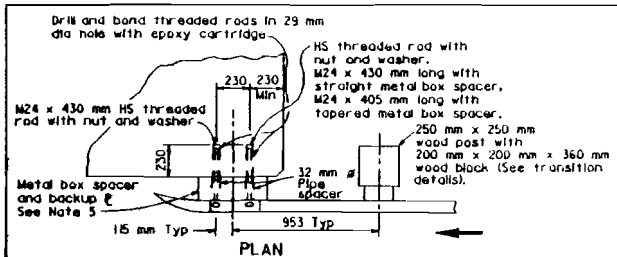
METAL BEAM GUARD RAILING TYPICAL LINE POST INSTALLATION

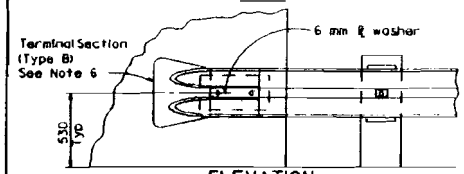
NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

A77FA

1999 STD. PLAN A77FA





ELEVATION

GUARD RAILING END CONNECTION TO WALL OR ABUTMENT FACE

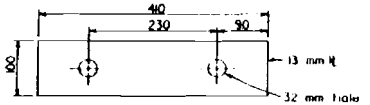


PLATE WASHER

(For backside of bridge railing)

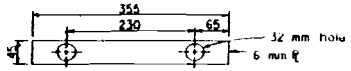
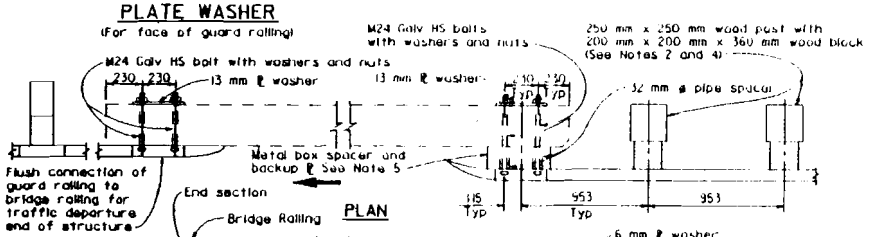


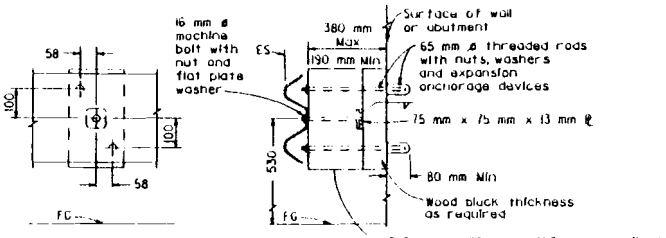
PLATE WASHER

(For face of guard railing)



ELEVATION

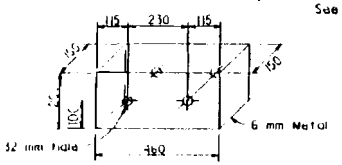
GUARD RAILING CONNECTION TO BRIDGE RAILING



ELEVATION

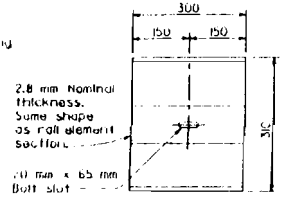
GUARD RAILING ANCHORAGE TO WALL OR ABUTMENT FACE

(Use this type of anchorage where guard railing is required across face of wall or abutment)
See Notes 8 and 9



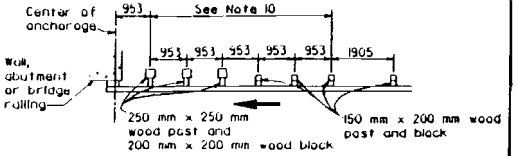
STRAIGHT METAL BOX SPACER

Use where approach guard railing is parallel to bridge railing, wall or abutment face at the point of connection.
See Note 5



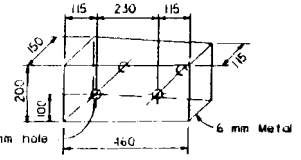
BACK-UP PLATE

for use between guard rail element and metal box spacer.



APPROACH RAILING TRANSITION

Wood post and blocks



TAPERED METAL BOX SPACER

Use where approach guard railing is not parallel to bridge railing, wall or abutment face at the point of connection.
See Note 5

NOTES

1. These connection details apply to bridge railings, abutments and retaining walls. For additional connection details for bridge railing, see Standard Plan B11-53, B11-54, B11-55 and B11-56 and the project plans. See Standard Plan A77K for connection details to bridges with sidewalks or curbs.
2. Additional details of post, blocks and hardware are shown on Standard Plans A77B, A77C and A77CA.
3. Direction of traffic indicated by ⟶
4. For traffic approach railing details, see Standard Plans A77D, A77E and the "Approach Railing Transition Details" on this plan.
5. When metal box spacer is installed, place M24 bolts through 32 mm ø x 125 mm and 32 mm ø x 100 mm pipe spacers within tapered box spacer and place M24 bolts through 32 mm ø x 130 mm pipe spacers within straight box spacer.
6. Terminal sections not to be installed on railing end at approach guard railing constructed adjacent to one-way roadways. When terminal section is not installed, use backup plate between rail element and metal box spacer. See Standard Plan A77B for backup plate details.
7. In addition to the use of "Connection Detail B" for traffic departure ends of structure, "Connection Detail B" shall be used on the traffic approach ends of structure on two-way roadways which are 18 m or less in width. Where "Connection Detail B" is used at the traffic approach ends of structures, the size and spacing of posts and blocks shall be as shown in the "Approach Railing Transition" detail on this plan.
8. Use timber shims without posts where clearance between rail element and wall or abutment is less than 380 mm.
9. Do Not attach railing to bridge columns. Use separate posts as shown on Standard Plan A77E.
10. Use a flat plate washer on the rail face when attaching rail element to these posts. Wood post with wood block are only to be used for these posts and blocks.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING CONNECTIONS TO BRIDGE RAILINGS, RETAINING WALLS AND ABUTMENTS

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

A77J

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 1, 1999
PLANS APPROVAL DATE

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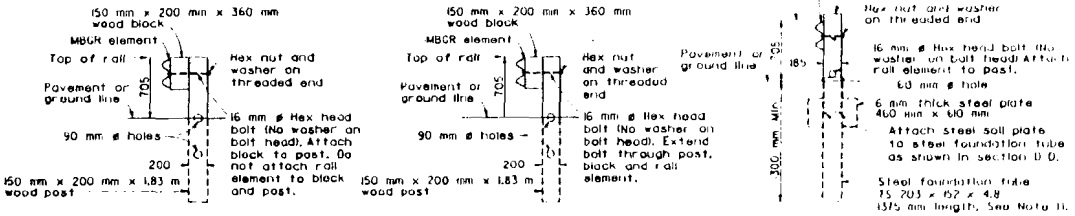
1999 STD. PLAN A77J

TABLE A

POST OFFSET DIMENSIONS

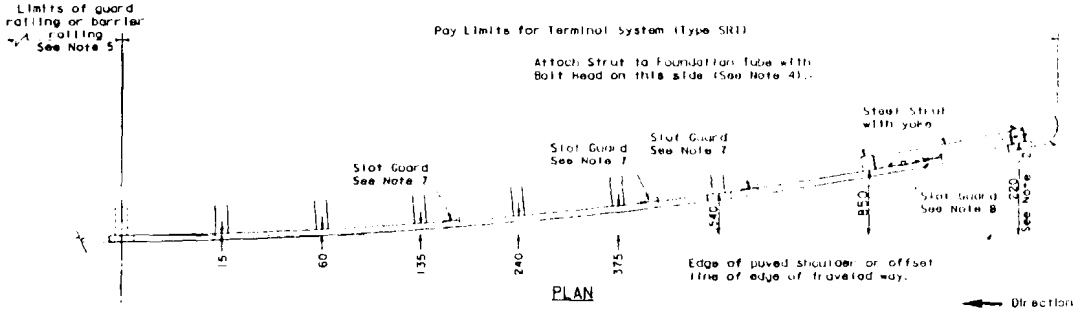
Post No.	915 mm System End Offset	1070 mm System End Offset
1	915 mm	1070 mm
2	565 mm	705 mm
3	300 mm	420 mm
4	170 mm	270 mm
5	75 mm	150 mm
6	20 mm	70 mm
7	0 mm	20 mm
8	0 mm	0 mm
9	0 mm	0 mm

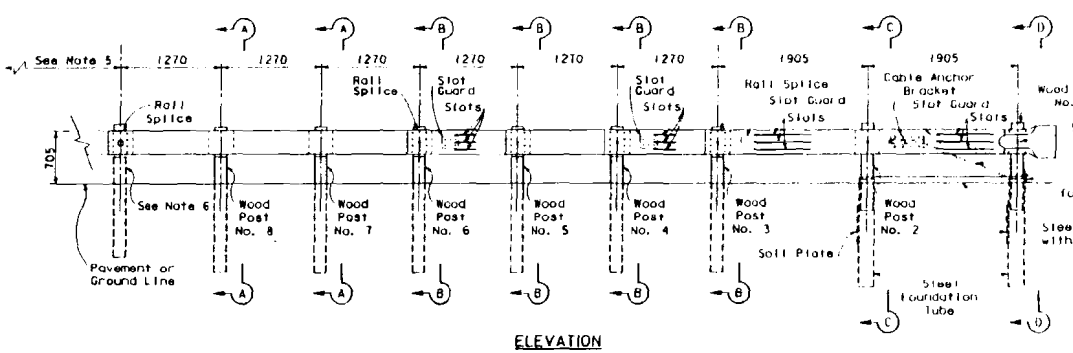
See Note 12



Attach steel soil plate to steel foundation tube with 16 mm ø x 190 mm hex head bolts with hex nuts (21 mm ø holes in plate and in two sides of tube to accommodate hex bolt).

Steel foundation tube TS 203 x 152 x 4.8 1375 mm length, See Note 11.





ELEVATION

TERMINAL SYSTEM (TYPE SRT)

(8 Post System)
See Note 9

NOTES:

1. For additional details of Terminal System (Type SRT), refer to the manufacturer's installation instructions.
2. The post offset dimensions are given to the center of the traffic face of the block, except at the first two posts, where the dimension is to the center of the traffic face of the post. Offset points are to be located by chord measurements at the back of the rail equal to the nominal post spacings shown. Posts are to be set approximately radial to the railing at each post location.
3. Do not attach rail elements to posts 7 and 8.
4. Attach strut to Post Nos.1 and 2 foundation tubes with 16 mm ø hex head bolts, washers and hex nuts. Bolts extend through the strut, steel foundation tube, and wood posts.
5. For the length and type of guard railing or barrier the terminal system is attached to, see the Project Plans. For minimum length of guard railing used with terminal system end treatments, see Standard Plans A77D and A77E.
6. Attach rail element to this post and block. Payment for this post, block and hardware is included in payment for the type of railing or barrier the terminal system is attached to, not part of payment for Terminal System (Type SRT).
7. The deflector angle of the slot guard is to be positioned immediately downstream of the slots.
8. For bearing plate orientation, refer to the manufacturer's installation instructions.
9. Terminal System (Type SRT) is a flared end treatment for guard railing or single faced barrier railing. See Type 1A and 1B Layouts on Standard Plan A77D and Type 8A Layout on Standard Plan A77E for typical use of this terminal system with guard railing. See Standard Plan A78E for typical use of this terminal system with single thrie beam barrier.
10. A complete wrap around terminal section may continued to be used in existing installations. New installations shall be constructed with the ¾ wrap terminal section shown.
11. A 1830 mm length steel foundation tube, TS 203 x 152 x 4.8, without a soil plate, may be furnished and installed in place of the 1375 mm length steel foundation tube and soil plate shown. Minimum embedment of the 1830 mm length tube shall be 1760 mm. A 16 mm ø hex head bolt and nut shall be installed in the hole in 1830 mm length tube to keep the wood post from dropping into the tube.
12. Where site conditions will not accommodate use of the standard 1220 mm system end offset, 1070 mm or 915 mm system end offsets, as applicable, may be used. See Table A for post offset dimensions for 1070 mm and 915 mm system end offsets.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

METAL BEAM GUARD RAILING AND SINGLE FACED BARRIER RAILING TERMINAL SYSTEM END TREATMENTS

NO SCALE

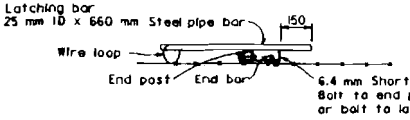
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

RSP A77L DATED OCTOBER 26, 2000 SUPERSEDES STANDARD PLAN A77L DATED JULY 1, 1999 PAGE 52 OF THE STANDARD PLANS BOOK DATED JULY 1999.

REVISED STANDARD PLAN RSP A77L

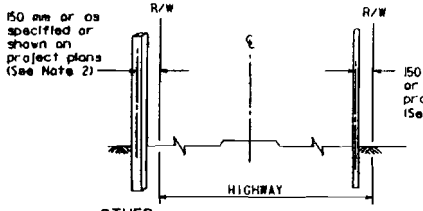
October 26, 2000

To accompany plans dated _____



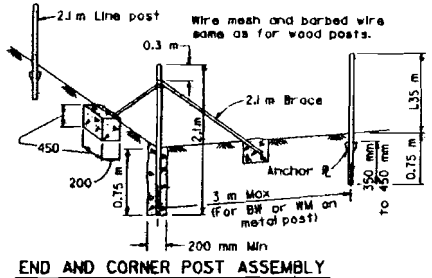
LATCHING DEVICE FOR GATEWAYS

See Note 1

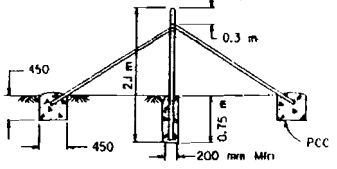


OTHER HIGHWAYS — FREEWAYS

FENCE LOCATION



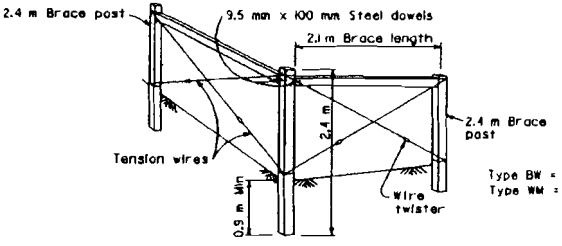
END AND CORNER POST ASSEMBLY



PULL POST ASSEMBLY

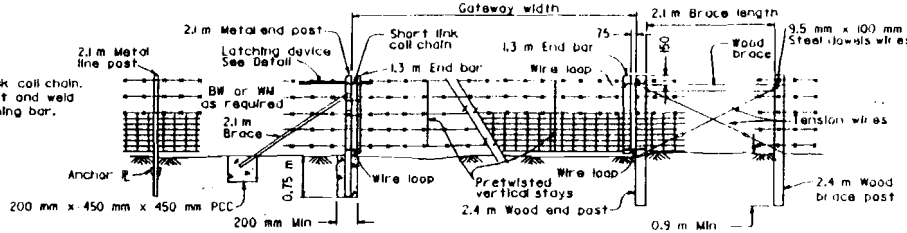
At 200 m maximum intervals for WM fence.
At 400 m maximum intervals for BW fence.

METAL POST INSTALLATION



Type BW = 5 lines of barbed wire.
Type WM = Wire mesh and 3 lines of barbed wire.

END AND CORNER POST ASSEMBLY

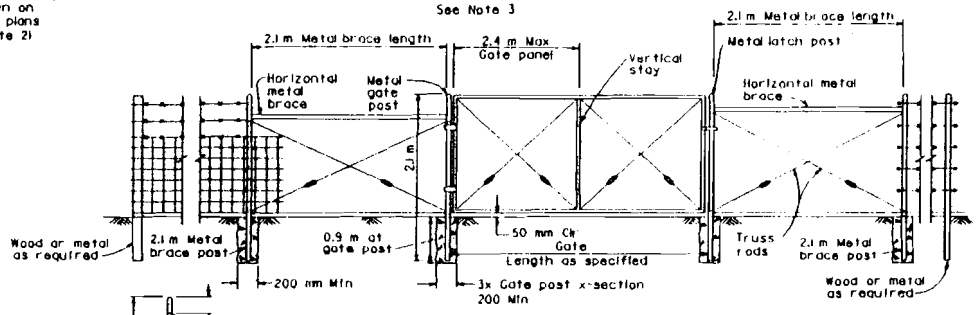


METAL POST INSTALLATION

WOOD POST INSTALLATION

GATEWAY

See Note 3

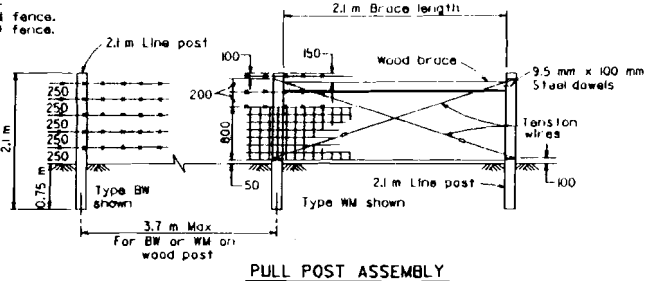


WIRE MESH GATE INSTALLATION FOR EITHER WOOD OR METAL POST FENCES

WIRE MESH GATE POST (See Note 4)		
GATE WIDTHS (m)	NOMINAL ID (mm)	MASS PER METER (kg)
Up thru 1.83	65	7.37
Over 1.83 thru 3.66	90	13.56
Over 3.66 thru 5.49	125	21.76
Over 5.49 to 7.32 max	150	28.23

NOTES

1. Metal end post and end bar shown. Use wood end post and end bar for wood post installation.
2. Offset to be 0.6 m at monument locations, measured at right angles to R/W lines. Taper to achieve offset to be at least 6 m long.
3. Gateway to be used when specified in the special provisions.
4. Post dimensions and masses are minimums. Larger sizes may be used on approval of the Engineer.
5. Line post spacing for wood post equals 3.7 m maximum. Line post spacing for metal post equals 3 m maximum.



PULL POST ASSEMBLY

At 200 m maximum intervals for WM fence.
At 400 m maximum intervals for BW fence.

WOOD POST INSTALLATION

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

BARBED WIRE AND WIRE MESH FENCES

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

A86

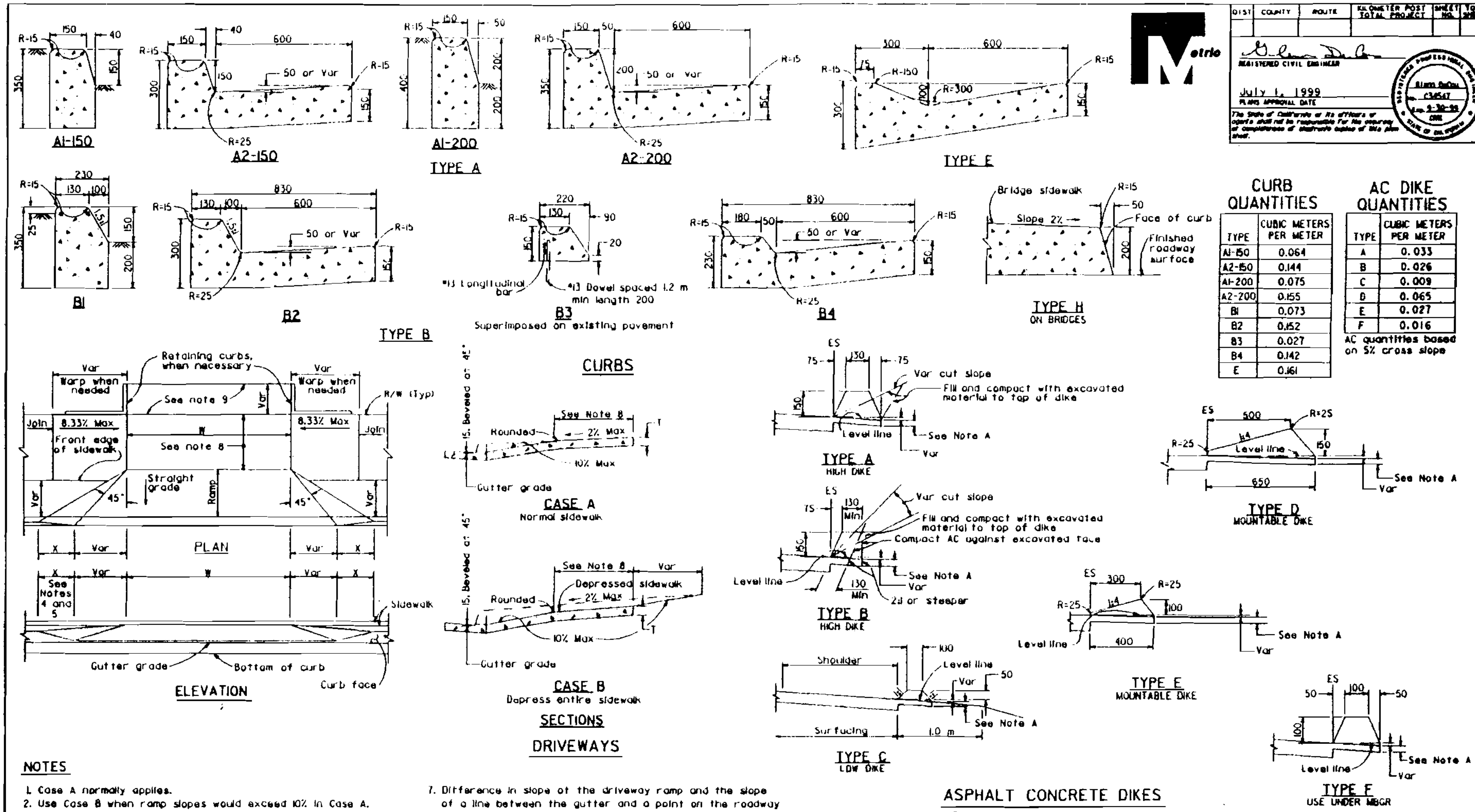
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 1, 1999
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

1999 STD. PLAN A86



CURB QUANTITIES

TYPE	CUBIC METERS PER METER
A1-150	0.064
A2-150	0.144
A1-200	0.075
A2-200	0.155
B1	0.073
B2	0.152
B3	0.027
B4	0.142
E	0.161

AC DIKE QUANTITIES

TYPE	CUBIC METERS PER METER
A	0.033
B	0.026
C	0.009
D	0.065
E	0.027
F	0.016

AC quantities based on 5% cross slope

ASPHALT CONCRETE DIKES

NOTE A - Extend top layer of AC placed on the shoulder under dike with no joint at the ES

NOTES

1. Case A normally applies.
2. Use Case B when ramp slopes would exceed 10% in Case A.
3. Use Case B when sidewalk cross slope would exceed 2% in Case A.
4. X=900 mm except for curb heights over 250 mm where 1:4 slopes shall be used on curb slope.
5. X is variable when sidewalk is located where wheelchairs may traverse the surface. Slopes shall be 8.33% maximum.
6. Sidewalk and ramp thickness "T" at driveway shall be 100 mm for residential and 150 mm for commercial.
7. Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 1.5 meters feet from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.
8. Minimum width of clear passage shall be 1.22 meters. Where right of way restrictions, natural barriers or other existing conditions create an unreasonable hardship, the clear width may be reduced to 915 mm.
9. Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 150 mm.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

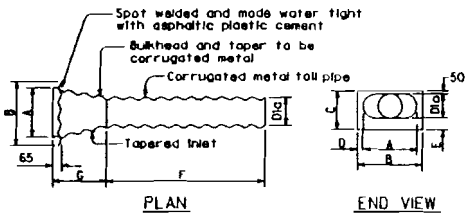
CURBS, DIKES AND DRIVEWAYS

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

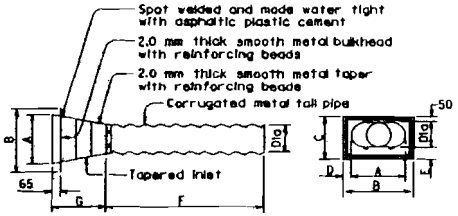
A87

1999 STD. PLAN A87



Bulkhead and taper of same thickness as tail pipe with 2.0 mm maximum. Tail pipe of same thickness as downdrain pipe.

ENTRANCE TAPER - TYPE 1
ALTERNATIVE A



Tail pipe of same thickness as downdrain pipe.

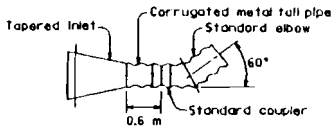
ENTRANCE TAPER - TYPE 1
ALTERNATIVE B

CMP dimensions as tabulated below

P (mm)	250	375	450	525	675
Q (mm)	200	300	375	450	600

DIA (mm)	MIN L	N (mm)	N (mm)
200	3 m	450	200
300	5 m	500	300
375	8 m	600	375
450	9 m	750	400
600	12 m	900	450

Slip joint to be same thickness as downdrain pipe.



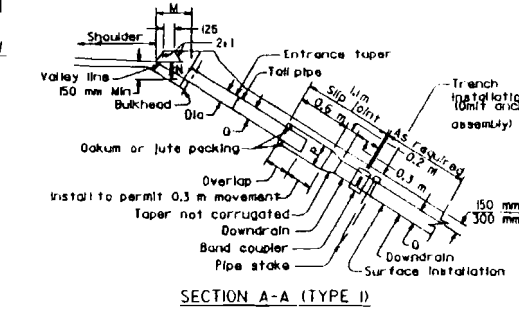
Tapered inlet of same construction and dimensions as Type 1- Alternative A or B except tail pipe length will be 0.6 m.

ENTRANCE TAPER - TYPE 2

Taper joints may be welded or riveted. Dimensions to be as tabulated below for Type 1 Alternatives A and B.

DIA (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (m)	G (m)
200	410	650	380	120	130	1.8	0.6
300	460	650	485	95	135	1.8	0.6
375	540	770	585	115	160	1.8	0.6
450	610	860	685	125	185	1.8	0.6
600	870	1170	890	150	240	1.2	1.2

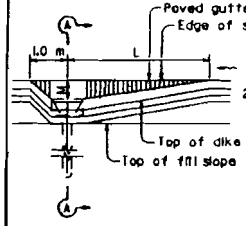
ENTRANCE TAPER - TYPE 1
ALTERNATIVE A AND B

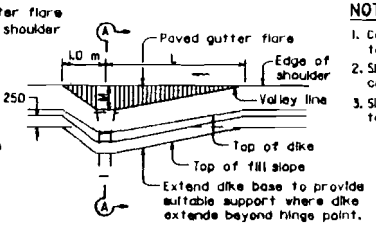


SECTION A-A (TYPE I)

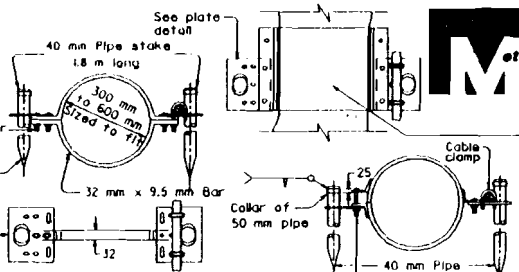
NOTE

1. Cable, slip joint or anchor assembly to be used when specified.
2. Slip joint to be omitted when completely buried.
3. Slip joint for Type I entrance taper shown. Type 2 similar.





PLAN
TYPE 1



CORRUGATED METAL PIPE DOWNDRAIN ANCHOR ASSEMBLY

Cable and cable clamps to be used when required by the Special Provisions.

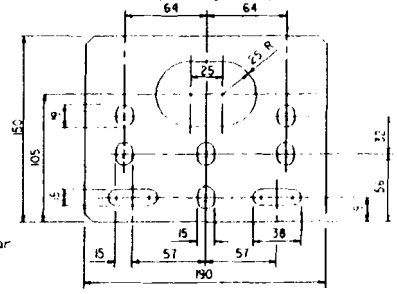
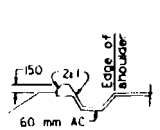


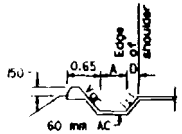
PLATE DETAIL

Material to be 6.4 mm plate galvanized after fabrication.

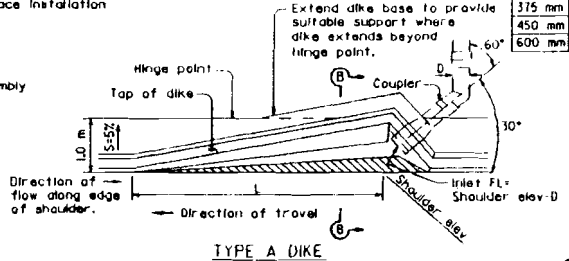
NOTES

1. All hardware to be galvanized after fabrication. All pipe stakes to be either galvanized after fabrication, or be fabricated from pre-galvanized pipe. If pre-galvanized pipe is used, weld areas shall be cleaned, and painted with zinc-rich primer.
2. Either Alternative A or Alternative B anchor assemblies and pipe stakes may be used at Contractor's option for corrugated steel pipe or corrugated aluminum pipe. Alternative A anchor assembly only to be placed in annular corrugation. Alternative A anchor assembly may be placed on annular coupling band if securely fastened on downstream side of joint. Alternative B anchor assembly to be fastened to pipe sections and not to a band coupler used to join sections.
3. For cable anchorage system details, see Standard Plan D81C.



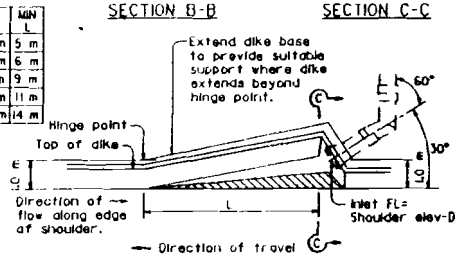


DIA D	MIN L
200 mm	5 m
300 mm	6 m
375 mm	9 m
450 mm	11 m
600 mm	14 m



PLAN
TYPE 2

(For use on full freeway sections ONLY with grades OF 2% or greater.)



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CORRUGATED METAL PIPE DOWNDRAIN DETAILS

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

D87A

ENTRANCE TAPER AND PIPE DOWNDRAIN

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 1, 1999
PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

FORM OF PROPOSAL

HONORABLE BOARD OF SUPERVISORS
STANISLAUS COUNTY, CALIFORNIA

The undersigned bidder has examined the site and all of the documents, plans and specifications for

LAS PALMAS AVENUE WIDENING

Bids are to be submitted for the entire work. The amount of the bid for comparison purposes will be the total of all items.

The bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for that purpose. In the case of unit basis items, the amount set forth under the "Item Total" column shall be the product of the unit price bid and the estimated quantity for the item.

In case of discrepancy between the unit price and the total set forth for a unit basis item, the unit price shall prevail, except as provided in (a) or (b) as follows:

(a) If the amount set forth as a unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount as the entry in the item total column, then the amount set forth in the item total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;

(b) (Decimal Errors) If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc. from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentage wise the unit price or item total in the Department's Final Estimate of cost.

The bidder will perform all work and provide all labor, equipment and materials for the completion and operation of the project for which this proposal is made, all as set forth on the plans and in the specifications, provided by the Director of the Department of Public Works or other specified agent of the Stanislaus County Board of Supervisors, at bid amounts as stated below:

GEORGE STILLMAN
Director

Administration
Engineering
Development Services
Transit
Facilities Services
Road Maintenance
Canals
Management Services

Public Works
STANISLAUS COUNTY

ADDENDUM NO. 1

TO PLANS AND SPECIFICATIONS FOR

LAS PALMAS AVENUE WIDENING

IN

STANISLAUS COUNTY

REGISTERED PROFESSIONAL ENGINEER
STEVEN L. ERICKSON
54097
EXP. 12/31/03
CIVIL
STATE OF CALIFORNIA
9/5/01

GEORGE STILLMAN, DIRECTOR

By Steve Erickson

STEVE ERICKSON
ASSISTANT TO THE DIRECTOR

September 5, 2001

STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS 1716 Morgan Road • Modesto, CA 95358 • (209) 525-4130 • FAX (209) 525-4140

LAS PALMAS AVENUE WIDENING

OUR RECORDS INDICATE THAT YOU ARE A PLAN HOLDER FOR THE ABOVE MENTIONED PROJECT. THE FOLLOWING CLARIFICATIONS, CHANGES, ADDITIONS, OR SUBTRACTIONS ARE ATTACHED TO AND BECOME A PART OF THE PLANS AND SPECIFICATIONS FOR THE ABOVE MENTIONED PROJECT.

THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS ARE TO TAKE COGNIZANCE OF AND TO GOVERN THEIR BID ACCORDING TO THE PLANS AND SPECIFICATIONS AS SET FORTH HEREINAFTER.

1. Drawing C2, sheet 15 of 15, is missing section B-B of the trash rack detail. Add Exhibit A to drawing C2 for the missing section.

2. Please note the shading representing widening and reconstruction of Las Palmas Avenue on drawings L1, L2, L3, and L4 did not reproduce well. The typical cross sections on drawings X1 and X2 should govern.

3. Estimated embankment quantities on sheets L1, L2, L3, and L4 are revised according to the following table:

STATION RANGE	EMBANKMENT QTY
BOP Sta 40+78 to 50+00	68 C.Y.
Sta 50+00 to 59+50	54 C.Y.
sta 59+50 to 69+00	66 C.Y.
Sta 69+00 to 78+50	164 C.Y.
Sta 78+50 to 88+00	168 C.Y.
Sta 88+00 to 97+50	191 C.Y.
Sta 97+50 to 107+00	180 C.Y.
Sta 107+00 to 116+50	170 C.Y.
Sta 116+50 to 126+00	267 C.Y.
Sta 126+00 to 135+50	223 C.Y.
Sta 135+50 to 142+00	214 C.Y.
Total	1765 C.Y.

4. The estimated quantity of class 2 aggregate base is comprised of the following estimated components:

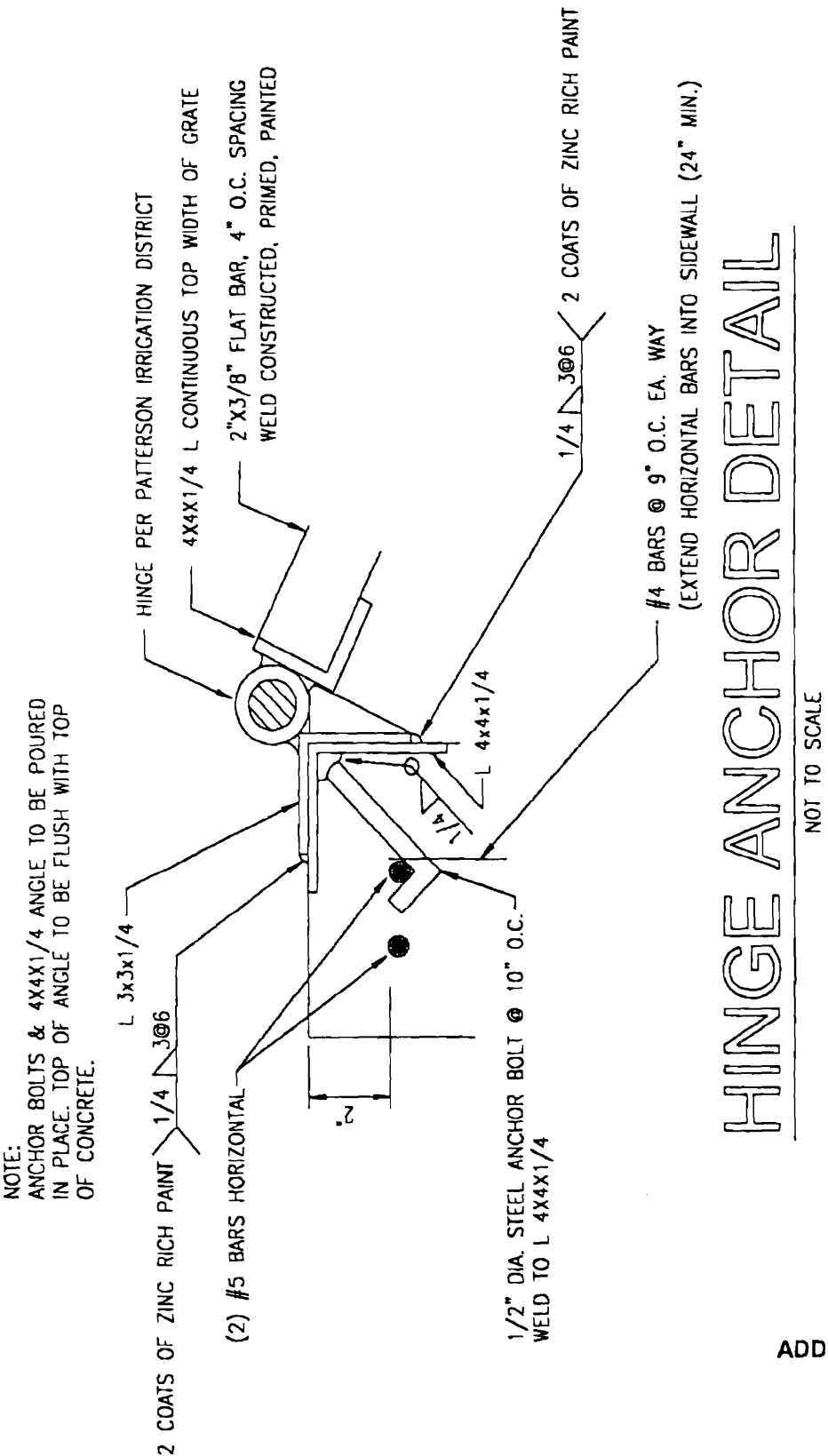
Class 2 Aggregate Base (Driveway tapers)	189 tons
Class 2 Aggregate Base (embankment)	3530 tons
Class 2 Aggregate Base (road section)	7150 tons

5. The estimated quantity of Asphalt Concrete (Type A) is increased to 19,000 tons. Replace page 5 of the form of proposal with Exhibit B.

NOTE: THIS ADDENDUM MUST ACCOMPANY THE BID AND BE ACKNOWLEDGED ON THE BID SHEET.

EXHIBIT A
LAS PALMAS AVENUE WIDENING

SHEET C2, SECTION B-B, OF TRASH RACK DETAIL



HINGE ANCHOR DETAIL

NOT TO SCALE

LAS PALMAS AVENUE WIDENING EXHIBIT B

ENGINEER'S ESTIMATE

Item No.	Item Description	Unit of Measure	Estimated Quantity	Item Price (in Figures)	Total (in Figures)
1	Traffic Control System	L.S.			$ 175,000.00
2	Construction Area Signs	L.S.			$ 5,000.00
3	Remove drainage facilities	L.S.			$ 12,000.00
4	Clearing and Grubbing	L.S.			$ 85,000.00
5	Adjust Manhole Cover to Grade	Each	9	$ 350.00	$ 3150.00
6	Adjust Cover To Grade	Each	1	$ 350.00	$ 350.00
7	Relocate sign	Each	25	$ 185.00	$ 4,625.00
8	Relocate mailbox	Each	40	$ 240.00	$ 9,600.00
9	Relocate Power Pole	Each	1	$ 4,800.00	$ 4,800.00
10	Construct Survey Monument Well	Each	7	$ 750.00	$ 5,250.00
11	Cold Plane AC(Gutters & Conforms)	S.Y.	437	$ 15.00	$ 6,555.00
12	Cold Plane AC(0.15' to 0.20' Depth)	S.Y.	369	$ 16.00	$ 5,904.00
13	Cold Plane AC(6" Depth)	S.Y.	969	$ 10.00	$ 9,690.00
14	Roadway Excavation	C.Y.	6040	$ 32.00	$ 193,280.00
15	Class 2 Aggregate Base	Tons	10896	$ 17.25	$ 187,956.00
16	Asphaltic Emulsion (Paint Binder)	Tons	54	$ 111.00	$ ~~54.00~~ P.G. 5,994.00
17	Asphalt Concrete (Type A)	Tons	19000	$ 37.00	$ 703,000.00
18	Ruberized Asphalt Concrete (Type G)	Tons	8900	$ 59.50	$ 529,550.00
19	AC Dike Type E	L.F.	2067	$ 4.00	$ 8,268.00
20	Rebuild AC Dike Type A	L.F.	388	$ 4.00	$ 1,552.00
21	300 mm Overside Drain Pipe	L.F.	145	$ 16.00	$ 2,320.00
22	300 mm Overside Entrance Taper	Each	8	$ 375.00	$ 3,000.00
23	300 mm Overside Slip Joint	Each	8	$ 375.00	$ 3,000.00
24	Overside Drain anchor assembly	Each	18	$ 300.00	$ 5,400.00
25	Barbed Wire Fence	L.F.	160	$ 10.25	$ 1,640.00
26	24" RCP, RG Class 3	L.F.	190	$ 75.00	$ 14,250.00
27	18" RCP, RG Class 3	L.F.	110	$ 90.00	$ 9,900.00
28	Manhole and base	Each	2	$ 1,875.00	$ 3,750.00
29	G.O. Basin in A.C. Dike	Each	3	$ 1,350.00	$ 4,050.00
30	Minor Concrete (Minor Structure)	C.Y.	21	$ 900.00	$ 18,900.00

LAS PALMAS AVENUE WIDENING
ENGINEER'S ESTIMATE

Item No.	Item Description	Unit of Measure	Estimated Quantity	Item Price (in Figures)	Total (in Figures)
1	Traffic Control System	L.S.			$
2	Construction Area Signs	L.S.			$
3	Remove drainage facilities	L.S.			$
4	Clearing and Grubbing	L.S.			$
5	Adjust Manhole Cover to Grade	Each	9	$	$
6	Adjust Cover To Grade	Each	1	$	$
7	Relocate sign	Each	25	$	$
8	Relocate mailbox	Each	40	$	$
9	Relocate Power Pole	Each	1	$	$
10	Construct Survey Monument Well	Each	7	$	$
11	Cold Plane AC(Gutters & Conforms)	S.Y.	437	$	$
12	Cold Plane AC(0.15' to 0.20' Depth)	S.Y.	369	$	$
13	Cold Plane AC(6" Depth)	S.Y.	969	$	$
14	Roadway Excavation	C.Y.	6040	$	$
15	Class 2 Aggregate Base	Tons	10896	$	$
16	Asphaltic Emulsion (Paint Binder)	Tons	54	$	$
17	Asphalt Concrete (Type A)	Tons	17933	$	$
18	Ruberized Asphalt Concrete (Type G)	Tons	8900	$	$
19	AC Dike Type E	L.F.	2067	$	$
20	Rebuild AC Dike Type A	L.F.	388	$	$
21	300 mm Overside Drain Pipe	L.F.	145	$	$
22	300 mm Overside Entrance Taper	Each	8	$	$
23	300 mm Overside Slip Joint	Each	8	$	$
24	Overside Drain anchor assembly	Each	16	$	$
25	Barbed Wire Fence	L.F.	160	$	$
26	24" RCP, RG Class 3	L.F.	190	$	$
27	18" RCP, RG Class 3	L.F.	110	$	$
28	Manhole and base	Each	2	$	$
29	G.O. Basin in A.C. Dike	Each	3	$	$
30	Minor Concrete (Minor Structure)	C.Y.	21	$	$

LAS PALMAS AVENUE WIDENING
ENGINEER'S ESTIMATE

Item No.	Item Description	Unit of Measure	Estimated Quantity	Item Price (in Figures)	Total (in Figures)
31	Trash Rack	Each	1	$2,700.00	$2,700.00
32	Metal Beam Guard Rail Type 1A layout	L.F.	124	$24.75	$3,069.00
33	Terminal System Type SRT	Each	2	$2,100.00	$4,200.00
34	Thermoplastic Striping (Detail 6)	L.F.	650	$0.20	$130.00
35	Thermoplastic Striping (Detail 19)	L.F.	810	$0.65	$526.50
36	Thermoplastic Striping (Detail 22)	L.F.	2000	$0.75	$1,500.00
37	Thermoplastic Striping (Detail 27B)	L.F.	24580	$0.25	$6,145.00
38	Thermoplastic Striping (Detail 27C)	L.F.	720	$0.25	$180.00
39	Thermoplastic Striping (Detail 32)	L.F.	9160	$1.50	$13,740.00
40	Thermoplastic Striping (Detail 38)	L.F.	650	$0.90	$585.00
41	Thermoplastic Pavement Marking	S.F.	996	$2.90	$2,888.40
42	Supplemental Work	L.S.			$100,000.00
				PROJECT TOTAL	$2,158,397.90

ADDENDUM NO. 1 DATED 9-5-01 DATE RECEIVED 9-5-01 INITIALS RB

ADDENDUM NO. _____ DATED _____ DATE RECEIVED _____ INITIALS _____

ADDENDUM NO. _____ DATED _____ DATE RECEIVED _____ INITIALS _____

ADDENDUM NO. _____ DATED _____ DATE RECEIVED _____ INITIALS _____

ADDENDUM NO. _____ DATED _____ DATE RECEIVED _____ INITIALS _____

CONTRACTOR Teichert Construction

ADDRESS P.O. Box 3367
Turlock, Ca 95381-3367

PHONE (209) 632-6600 FAX (209) 632-3404

The undersigned also agrees as follows:

1. Within eight (8) days from date of the notice of acceptance of proposal, the Contractor shall execute the contract and furnish to the Board of Supervisors of Stanislaus County satisfactory insurance and contract bonds guaranteeing the faithful performance of the work and General Conditions thereto.

2. To begin work on the date specified in the Notice to Proceed and to prosecute said work in such a manner as to complete it within

SIXTY (60) WORKING DAYS

The work shall be so scheduled that existing facilities shall not be disrupted, but shall remain in continuous operation on present schedules.

Accompanying this proposal is a bidder's bond issued by a California admitted surety, certified or cashier's check, or cash in the amount of ten percent (10%) of the proposal, made payable to Stanislaus County, which bond or check is to be retained as liquidated damages should the undersigned be awarded the contract and fail to execute the contract and furnish satisfactory bonds according to the conditions herein specified; otherwise said bidder's bond or check will be returned.

Dated: September 12, 2001

Bidder: Teichert Construction

By _____

PHIL GIANFORTONE
Chief Estimator

Address: P.O. Box 3367

Turlock, Ca 95381-3367

Telephone: 209-632-6600 Classification A, C-27 License #8
C-16, B
License Expiration Date 4/30/01

If incorporated, President, Secretary or Treasurer should sign as such. If partnership, by all partners thereto.

Each proposal shall have listed therein the name and address of each subcontractor to whom the bidder proposes to subcontract portions of the work in an amount in excess of half of one percent of his total bid or $10,000, whichever is greater, in accordance with the subletting and Subcontracting Fair Practices Act, commencing the Section 4100 of the Public Contract Code. The Bidder's attention is invited to other provisions of said Act related to the imposition of penalties for a failure to observe its provisions by using unauthorized subcontractors or by making unauthorized substitutions.

	TYPE OF SUBCONTRACT	LICENSE NO.	NAME & ADDRESS OF SUBCONTRACTOR
1.	M.B.G.R.		PCN Construction, Byron
2.	Striping		Chrisp Co., Fremont
3.	Dike		AC Curbs Inc, Suisun
4.	Survey		Odell Engineering Modesto
5.	Fence		Industrial Fence Modesto
6.			
7.			
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13.			
14.			
15.			
16.			
17.			
18.			

(Signed) _____ PHIL GIANFORTONE
Chief Estimator
Contractor

STANISLAUS COUNTY

NON-DISCRIMINATION OF THE HANDICAPPED

POLICY STATEMENT

In compliance with Section 51.55, Office of Revenue Sharing, Department of the Treasury, it is the policy of Stanislaus County that it will not aid or perpetuate discrimination against a qualified handicapped individual by funding an agency, organization, or person that discriminates on the basis of handicap in providing any aid, benefit, or service to beneficiaries of the program or activity.

The County is committed to provide access to all County services, programs and meetings open to the public to people with disabilities.

In this regard, County and all of its contractors and subcontractors will take all reasonable steps in accordance with GRS Section 51.55 to ensure that handicapped individuals have the maximum opportunity for the same level of aid, benefit or service as any other individual.

CERTIFICATION

Each agency, organization, or person seeking a bid, contract or agreement with Stanislaus County shall sign a Certification of Compliance with Section 504 of the Rehabilitation Act of 1973 as incorporated in the Revenue Sharing Act.

CERTIFICATION OF BIDDER REGARDING NON-DISCRIMINATION OF THE HANDICAPPED

The bidder hereby certifies that he/she/it is in compliance with Section 504 of the Rehabilitation Act of 1973 as incorporated in the Revenue Sharing Act, the applicable administrative requirements promulgated in response thereto, and any other applicable Federal laws and regulations relating to handicap discrimination and participation.

Name of Bidder Teichert Construction

Business Address P.O. Box 3367 Telephone 209-632-6600

City, State, Zip Code Turlock, Ca 95381-3367

By _____ Title PHIL GIANFORTONE Chief Estimator
(Signature)

Date September 12, 2001