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

DEPT: Public Works **BOARD AGENDA #** *C-4

Urgent ☐ **Routine** ■ **AGENDA DATE** December 18, 2007

CEO Concurs with Recommendation YES ☐ **NO** ☐ **4/5 Vote Required YES** ☐ **NO** ☒
(Information Attached)

SUBJECT:

Approval to Adopt Plans and Specifications for the Albers Road at Milnes Road Intersection Project and Set the Bid Opening Date and Time for January 30, 2008, 2:00 P.M.

STAFF RECOMMENDATIONS:

1. Adopt plans and specifications for the Albers Road at Milnes Road Intersection Project and set the bid opening date and time for January 16, 2008, 2:00 P.M.

2. Direct the Clerk of the Board to publish notice inviting bids for the project as required by law and set January 16, 2008, prior to 2:00 P.M., as the deadline for submission of bids.

3. Direct the Auditor-Controller to make the necessary budget adjustments per the financial transaction sheet.

(Continued on Page 2)

FISCAL IMPACT:

The total estimated cost for this project is $2,038,871. The project will be funded 100% by Regional Transportation Impact Fee (RTIF) funds. At this time, $5,000 is required for reproduction costs, advertisement costs and other miscellaneous costs associated with the bid process.

BOARD ACTION AS FOLLOWS:

No. 2007-1008

On motion of Supervisor Mayfield , **Seconded by Supervisor** Grover
and approved by the following vote,
Ayes: Supervisors: Mayfield, Grover, Monteith, DeMartini, and Chairman O'Brien
Noes: Supervisors: None
Excused or Absent: Supervisors: None
Abstaining: Supervisor: None

1) X **Approved as recommended**
2) _____ **Denied**
3) _____ **Approved as amended**
4) _____ **Other:**
MOTION:

* Please note that Staff Recommendations Nos. 1 and 2 contain a typographical error regarding the date of the bid opening. The correct bid opening date is January 30, 2008 as stated in the Subject.

Christine Ferraro

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

4. Direct the Public Works Department staff to mail a notice inviting bids to trade journals as required by law.

DISCUSSION:

In January 2004, the Board of Supervisors approved the Public Works Department Traffic Congestion Relief Program. The Traffic Congestion Relief Program provides for the installation of traffic signals, left turn lanes and other related improvements on selected roadways throughout the County, including the improvements to the Albers Road at Milnes Road intersection.

In May 2004, the Board of Supervisors awarded a contract to Quincy Engineering, Inc. for environmental and engineering services for the Traffic Congestion Relief Project "A". This project consists of intersection improvements at four intersections along Albers Road and Geer Road. The four intersections are Geer Road at Service Road, Geer Road at Fox Road, Albers Road at Dusty Lane, and Albers Road at Milnes Road.

On December 14, 2004, the Board of Supervisors approved the Initial Study/Mitigated Negative Declaration for the Stanislaus County Traffic Congestion Relief Project "A".

Construction has been completed at the intersection of Geer Road and Fox Road. Construction is underway at the intersections of Geer Road and Service Road and Albers Road at Dusty Lane.

This project consists of the installation of traffic signals at the intersection of Albers Road and Milnes Road. The proposed new traffic signal and additional through lanes and turn lanes will improve traffic safety and enhance the flow of traffic through the intersection. Installation of safety lighting and shoulder widening will also be completed.

On November 1, 2007, escrow closed on the last right-of-way to be acquired for this project.

The project is anticipated to begin construction in April 2008 and end in June 2008.

POLICY ISSUES:

The Board should consider if the recommended actions are consistent with its priorities of providing a safe community, a healthy community and a well-planned infrastructure system.

STAFFING IMPACT:

There is no staffing impact associated with this item.

AUDITOR-CONTROLLER
BUDGET JOURNAL

Balance Type	Budget
Category	Budget - Upload
Source	
Currency	USD
Budget Name	LEGAL BUDGET
Batch Name	BO#
Journal Name	
Journal description	Transfer Budget to Albers Rd @ Milnes Rd Intersection Project
Period	JUL-07 to JUN-08
Organization	Stanislaus Budget Org

Line	Coding Structure							Debit	Credit	Description
	Fund 4	Org 7	Account 5	G/L Proj 7	Loc 6	Misc 6		incr appropriations decr est revenue	decr appropriations incr est revenue	
1	1102	40310	63280	9701	0	0	.0	5,000.00		
2	1102	40310	63280	0	0	0	0		5,000.00	
3	1102	40310	46615	0	0	0	.0	5,000.00		
4	1102	40310	46615	9701	0	0	0		5,000.00	
5							0			
6							.0			
7							.0			
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23							.0			
24							.0			
25							.0			
						Totals		10,000.00	10,000.00	

Transfer Budget to Albers Rd @ Milnes Rd Intersection Project

Requesting Department	CEO		Auditors Office Only	
Sharon Andrews				
Signature	Signature		Prepared By	Admin Approval ($75K+)
12/10/07	12/12/07			12/10/07
Date	Date		Date	Date

Contact Person & Phone Number

Budget_JVFORM_NEW_1

AUDITOR-CONTROLLER
STANDARD JOURNAL VOUCHER

BATCH SCREEN

Batch: PW

Period: Dec ~~Nov~~ 07

Description:

JOURNAL SCREEN

Journal: PW SKA JV

Category: Transfer

Balance Type: A (A = Actual or E = Encumbrance)

Description: Transfer funds from RTIF to Project Account Albers Rd @ Milne Rd

Control Total: 9,000.00

Line	Coding Structure							Debit	Credit	Description
	Fund 4	Org 7	Account 5	G/L Proj 7	Loc 6	Misc 6				
1	6400	64100	85850	0	0	0	.0	5,000.00		
2	1102	40310	46615	9701	0	0	.0		5,000.00	
3							0			
4							.0			
5							0			
6							.0			
7							.0			
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25							.0			
26							.0			
27							.0			
						Totals		5,000.00	5,000.00	

Explanation: Transfer funds from RTIF to Project Account Albers Rd @ Milne Rd

Departments Outside Auditors' Office

SHARON ANDREWS

Prepared by — 11/29/07 — Date

Supervisor's Approval — Date

Auditors Office Only

Prepared By — Date

Admin Approval ($75K+) — 12/10/07 — Date

COUNTY OF STANISLAUS
DEPARTMENT OF PUBLIC WORKS

INVITATION TO BIDDERS AND SPECIAL PROVISIONS FOR THE TRAFFIC CONGESTION RELIEF PROJECT "A" ALBERS ROAD AT MILNES ROAD INTERSECTION IMPROVEMENTS

BOARD OF SUPERVISORS

William O'Brien, Chairman	**District No. 1**
Thomas Mayfield	**District No. 2**
Jeff Grover	**District No. 3**
Dick Monteith	**District No. 4**
Jim DeMartini	**District No. 5**

Richard W. Robinson, Chief Executive Officer
Matt Machado, Director

The Specifications contained herein have been prepared by or under the direction of the following registered engineer.

Robert C. Meleg

11/29/07

Approved by Stanislaus County Board of Supervisors: December 18, 2007
Bid Opening Time and Date: January 30, 2008, 2:00 P.M.

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COUNTY OF STANISLAUS
DEPARTMENT OF PUBLIC WORKS
INVITATION TO BIDDERS

Contractors are invited to submit written, formal bids for the Traffic Congestion Relief Project "A", Albers Road at Milnes Road Intersection Improvement Project. Estimated Construction cost for this project is between $1,800,000 and $2, 009,000. The work to be accomplished includes the widening of the Albers Road and Milnes Road intersection. Construction materials and activities include construction area signs and traffic control system; pavement overlay; roadway excavation; aggregate base and asphaltic concrete; driveway construction; installation of drainage facilities; safety lighting; placing thermoplastic striping and marking; and pavement markers and other such items not mentioned herein that are required by the plans and specifications.

Plans and specifications are available FOR VIEWING on the Stockton Blue Website www.stocktonblue.com, under "Public Plan Room". Paper copies are available from Stockton Blue. Call (209) 524-2924 for questions regarding the purchase of plans and specifications.

Technical Questions: All questions must be submitted in writing. Email your questions to Robert.Meleg@stancounty.com or fax your questions to 209-525-4183, Attn: Robert Meleg.

Bid forms are provided in the "Bid Proposal and Contract" booklet. Bids shall be submitted in a sealed envelope and plainly marked **Traffic Congestion Relief Project "A", Albers Road at Milnes Road Intersection Improvement Project**. Bid envelopes shall be addressed to: Stanislaus County, Clerk of the Board of Supervisors, 1010 10th Street, Ste. 6500, Modesto, California, 95354. Bid envelopes must be delivered to the Clerk of the Board of Supervisors prior to 2:00 P.M., January 30, 2008, as evidenced by the Clerk's date/time stamp on the envelopes. The bids will be publicly opened in Ste. 6709 and read by the Clerk of the Board after bid closing.

The award of the contract, if it be awarded, will be to the lowest responsible bidder whose proposal complies will all the requirements prescribed.

Bidders are urged to obtain Disadvantaged Business Enterprise (DBE) participation on this project, although there is no specific project goal for DBE participation.

Other such items and details not mentioned herein that are required by the Plans, Standard Specifications or these Special Provisions shall be performed, placed, constructed or detailed.

A pre-construction conference shall be required prior to the "Notice to Proceed".

This project is subject to the "Buy America" provisions of the Surface Transportation Assistance Act of 1982, as amended by the Intermodal Surface Transportation Efficiency Act of 1991.

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

This contract is subject to state contract nondiscrimination and compliance requirements pursuant to Government Code, Section 12990.

The successful bidder shall furnish a payment bond and a performance bond.

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 available at the agencies web site and are on file with the Department of Public Works and hereby made a part of the agreement.

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.

The Contractor designated as the "Apparent Low Bidder" after the bid opening shall provide to the County, within thirty (30) days and prior to the issue of the formal "Notice to Proceed" ("NTP"), the name of the designated, certified Storm Water Pollution Control Manager (SWPCM) and shall submit three copies of the Storm Water Pollution Prevention Program (SWPPP). The SWPCM shall be responsible for the preparation of the SWPPP and required modifications or amendments thereto and shall be responsible for the implementation and adequate functioning of the various water pollution control practices ("Best Management Practices") ("BMPs") employed during the project.

By order of the Board of Supervisors of the County of Stanislaus, State of California, made and entered into this December 4, 2007.

ATTEST:
CHRISTINE FERRARO TALLMAN
Clerk of the Board of Supervisors of the
County of Stanislaus, State of California
By_____
Deputy Clerk
Advertise: December 12, 2007

CONTRACTOR'S BID QUANTITIES:
LOCATED IN THE BID PROPOSAL AND CONTRACT FOR THE TRAFFIC CONGESTION RELIEF PROJECT "A", ALBERS ROAD AT MILNES ROAD INTERSECTION IMPROVEMENT PROJECT BOOKLET -- UNDER CONTRACTOR'S BID.

INSURANCE REQUIREMENTS:
Your insurance agent must thoroughly review the contract specifications before he issues the Certificate of Insurance.

- General Liability Insurance, $1,000,000 per occurrence.
- Automobile Liability Insurance, $1,000,000 per accident.
- Workers' Compensation Insurance as required by the Labor Code of the State of California.
- **Insurance to be placed with California admitted insurers** (licensed to do business in California) with a Best's rating of no less than A:VII.
- **Any deductibles, self-insured retentions or named insureds must be declared.**

COUNTY OF STANISLAUS
DEPARTMENT OF PUBLIC WORKS
SPECIAL PROVISIONS

SECTION 1: SPECIFICATIONS AND PLANS

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

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

Whenever in the Standard Specifications, Standard Plans, Special Provisions, Notice to Bidders, Proposal, Contract, or other contract documents the following terms are used, the intent and meaning shall be interpreted as follows:

State or State of California	County of Stanislaus
Department of Transportation	Stanislaus County, Department of Public Works
Director of Transportation	Stanislaus County Director of Public Works
District Director	Stanislaus County Director of Public Works
Engineer	Stanislaus County Director of Public Works acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.
Attorney General	Stanislaus County, County Counsel
Contract	Agreement

Amendments to the Standard Specifications set forth in these special provisions shall be considered as part of the Standard Specifications for the purposes set forth in

Section 5-1.04, "Coordination and Interpretation of Plans, Standard Specifications and Special Provisions," of the Standard Specifications. Whenever either the term "Standard Specifications is amended" or the term "Standard Specifications are amended" is used in the special provisions, the indented text or table following the term shall be considered an amendment to the Standard

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

Proposal and Contract -- Located under separate document called "Bid Proposal and Contract".

SECTION 2: PROPOSAL REQUIREMENTS AND CONDITIONS

The bidder's attention is directed to the provisions in Section 2, "Proposal Requirements and Conditions," of the Standard Specifications and these Special Provisions for the requirements and conditions which the bidder must observe in the preparation of the proposal form and the submission of the bid.

In addition to the subcontractors required to be listed in conformance with Section 2-1.054, "Required Listing of Proposed Subcontractors," of the Standard Specifications, each proposal shall have listed therein the portion of work that will be done by each subcontractor listed. A sheet for listing the subcontractors is included in the Proposal.

The form of Bidder's Bond mentioned in the last paragraph in Section 2-1.07, "Proposal Guaranty," of the Standard Specifications shall be as shown on the "Sample" Bidder's Bond found in the Bid Proposal and Contract Section of these specifications.

In conformance with Public Contract Code Section 7106, a Noncollusion Affidavit is included in the Proposal.

The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate. Each subcontract signed by the bidder must include this assurance.

SECTION 3: AWARD AND EXECUTION OF AGREEMENT

The award of the contract, if it be awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements prescribed.

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

General

The Contractor shall comply with the provisions in Section 8-1.03, "Beginning of Work," in Section 8-1.06, "Time of Completion," and in Section 8-1.07, "Liquidated Damages," of the Standard Specifications and these special provisions.

The Contractor shall begin work within five (5) days after the date of the Notice to Proceed, and shall complete the work within 50 working days. The date of the Notice to Proceed shall constitute the first working day.

The Contractor shall pay to the County of Stanislaus the sum of $5,960 per day, for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed above.

The amount specified herein may, at the option of the County, be deducted from any payments due or to become due to the Contractor.

Prior to the issuance of the Notice to Proceed, a pre-construction conference will be held at the County of Stanislaus, Department of Public works, Engineering Division, 1716 Morgan Road, Modesto, California, for the purpose of discussing with the Contractor the scope of work, contract drawings, specifications, existing conditions, materials to be ordered, equipment to be used, and all essential matters pertaining to the prosecution of and the satisfactory completion of the project as required. The Contractor's representative at this conference shall include all major superintendents for the work and may include subcontractors.

Post Construction Meeting

The contractor shall be required to attend a post construction meeting that will be arranged by the Public Works Engineering Design Division, Robert Meleg, (209) 567-4883 after completion of all work and prior to acceptance of final payment. The Project inspector shall attend this meeting. The purpose of the meeting will be to discuss the Project and any related issues that can help improve the future Public Works construction projects. This meeting will be held in Stanislaus County, Public Works Department.

As-Built / Record Drawings

The Contractor shall maintain and keep two (2) sets of plans with all deviation from the approved plans clearly identified. These plans shall be available for review by the County and shall be delivered to the County Inspector after completion of construction at the post construction meeting prior to final payment.

All revisions to the approved plans shall be marked clearly. Original reproducible drawings of the approved plans shall be revised by the contractor and stamped "As-Built" or "Record Drawings" and signed by the Contractor and shall be submitted to the Stanislaus County Department of Public Works for their file records. The costs for maintaining and preparing As Built/Record Drawings shall be included in the unit prices for the various items of work and no separate payment will be made therefore.

ESTIMATED SCHEDULE OF EVENTS.

The following is an estimated schedule of events that have been established for this project:

EVENT DESCRIPTION	ANTICIPATED DATE
BOARD APPROVAL OF PLANS AND SPECIFICATIONS	December 18, 2007
PROJECT ADVERTISEMENT	December 26, 2007
LAST DAY CONTRACTORS CLARIFICATION REQUESTS	January 23, 2008
ISSUANCE OF ADDENDUM (IF NEEDED)	January 25, 2008
BID OPENING	January 30, 2008
BOARD APPROVAL OF CONTRACT	February 26, 2008
NOTICE TO PROCEED	April 14, 2008
BEGIN CONSTRUCTION	April 14, 2008
END CONSTRUCTION	June 23, 2008

SECTION 5: LABOR

Labor Nondiscrimination

The Contractor shall comply with the following Notice that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

Notice of Requirements for Nondiscrimination Program
(Gov. Code, Section 12990)

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

Prevailing Wage and Certified Payrolls

The Contractor shall comply with Section 7-1.01A(2) "Prevailing Wage" and Section 7-1.01A(3) Payroll Records of the Standard Specifications.

The general prevailing wage rates determined by the Director of Industrial Relations, for the county or counties in which the work is to be done, are available at the County of Stanislaus Department of Public Works, Engineering Division, 1716 Morgan Road, Modesto, CA 95358 and the Division of Labor Statistics and Research web page

(http://www.dir.ca.gov/DLSR/PWD/index.htm).

These wage rates are not included in the Proposal and Agreement for the project. Changes, if any, to the general prevailing wage rates will be available at the same location.

Apprentices

The Contractor shall comply with Section 7-1.01A(5) "Apprentices of the Standard Specifications" to ensure compliance and complete understanding of the law regarding apprentices.

SECTION 6: Public Safety

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

The Contractor shall install temporary railing (Type K) between a lane open to public traffic and an excavation, obstacle or storage area when the following conditions exist:

A. Excavations. The near edge of the excavation is 12' or less from the edge of the lane, except:

   1. Excavations covered with sheet steel or concrete covers of adequate thickness to prevent accidental entry by traffic or the public.
   2. Excavations less than 1' deep.
   3. Trenches less than 1' wide for irrigation pipe or electrical conduit, or excavations less than 1' in diameter.
   4. Excavations parallel to the lane for the purpose of pavement widening or reconstruction.
   5. Excavations in side slopes, where the slope is steeper than 1:4 (vertical:horizontal).
   6. Excavations protected by existing barrier or railing.

B. Temporarily Unprotected Permanent Obstacles. The work includes the installation of a fixed obstacle together with a protective system, such as a sign structure together with protective railing, and the Contractor elects to install the obstacle prior to installing the protective system; or the Contractor, for the Contractor's convenience and with permission of the Engineer, removes a portion of an existing protective railing at an obstacle and does not replace such railing complete in place during the same day.

C. Storage Areas. Material or equipment is stored within 12' of the lane and the storage is not otherwise prohibited by the provisions of the Standard Specifications and these special provisions.

The approach end of temporary railing (Type K), installed in conformance with the provisions in this section "Public Safety" and in Section 7-1.09 "Public Safety," of the Standard Specifications, shall be offset a minimum of 15' from the edge of the traffic lane open to public traffic. The temporary railing shall be installed on a skew toward the edge of the traffic lane of not more than 1' transversely to 10' longitudinally with respect to the edge of the traffic lane. If the 15' minimum offset cannot be achieved, the temporary railing shall be installed on the 10:1 skew to obtain the maximum available offset between the approach end of the railing and the edge of the traffic lane, and an array of temporary crash cushion modules shall be installed at the approach end of the temporary railing.

Temporary railing (Type K) shall conform to the provisions in Section 12-3.08 "Temporary Railing (Type K)," of the Standard Specifications. Temporary railing (Type K) conforming to the details shown on 2006 Standard Plan T3, may be used.

Temporary crash cushion modules shall conform to the provisions in "Temporary Crash Cushion Module" of these special provisions.

Except for installing, maintaining and removing traffic control devices, whenever work is performed or equipment is operated in the following work areas, the Contractor shall close the adjacent traffic lane unless otherwise provided in the Standard Specifications and these special provisions:

Approach Speed of Public Traffic (Posted Limit)	**Work Areas**
(45 Miles Per Hour)	Within 6' of a traffic lane but not on a traffic lane
(35 to 45 Miles Per Hour)	Within 3' of a traffic lane but not on a traffic lane

The lane closure provisions of this section shall not apply if the work area is protected by permanent or temporary railing or barrier.

When traffic cones or delineators are used to delineate a temporary edge of a traffic lane, the line of cones or delineators shall be considered to be the edge of the traffic lane, however, the Contractor shall not reduce the width of an existing lane to less than 10' without written approval from the Engineer.

When work is not in progress on a trench or other excavation that required closure of an adjacent lane, the traffic cones or portable delineators used for the lane closure shall be placed off of and adjacent to the edge of the traveled way. The spacing of the cones or delineators shall be not more than the spacing used for the lane closure.

Suspended loads or equipment shall not be moved nor positioned over public traffic or pedestrians. Full compensation for conforming to the provisions in this section "Public Safety," including furnishing and installing temporary railing (Type K) and temporary crash cushion modules, shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefore.

SECTION 7: STORM WATER POLLUTION

The Contractor designated as the "Apparent Low Bidder" after the bid opening shall provide to the County, within thirty (30) days and prior to the issuance of the formal "Notice to Proceed" ("NTP"), the name of the designated, certified Storm Water Pollution Control Manager (SWPCM) and shall submit three (3) copies of the Storm Water Pollution Prevention Program (SWPPP). The SWPCM shall be responsible for the preparation of the SWPPP and required modifications or amendments thereto and shall be responsible for the implementation and adequate functioning of the various water pollution control practices ("Best Management Practices" ("BMPs") employed during the project.

SECTION 8: BUY AMERICA REQUIREMENTS

The Contractor shall comply with the "Buy America" requirements of the Surface Transportation Assistance Act of 1982 (Section 165) and the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) Sections 1041(a) and 1048(a), and the regulations adopted pursuant thereto. In conformance with the law and regulations, all manufacturing processes for steel and iron materials furnished for incorporation into the work on this project shall occur in the United States; with the exception that pig iron and processed, pelletized and reduced iron ore manufactured outside of the United States may be used in the domestic manufacturing process for such steel and iron materials. The application of coatings, such as epoxy coating, galvanizing, painting, and other coating that protects or enhances the value of steel or iron materials shall be considered a manufacturing process subject to the "Buy America" requirements.

A Certificate of Compliance, confirming to the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications shall be furnished for steel and iron materials. The certificates, in addition to certifying that the materials comply with the specifications, shall specifically certify that all manufacturing processes for the materials occurred in the United States, except for the above exceptions.

The requirements imposed by the law and regulations do not prevent a minimal use of foreign steel and iron materials if the total combined cost of the materials used does not exceed one-tenth of one percent (0.1 percent) of the total contract cost or $2,500, whichever is greater. The Contractor shall furnish the Engineer acceptable documentation of the quantity and value of the foreign steel and iron prior to incorporating the materials into the work.

SECTION 9: REMOVAL OF ASBESTOS AND HAZARDOUS SUBSTANCES

When the presence of asbestos or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, and the asbestos or hazardous substance has not been rendered harmless, the Contractor may continue work in unaffected areas reasonably believed to be safe. The contractor shall immediately cease work in the affected area and report the condition to the Engineer in writing.

In conformance with Section 25914.1 of the Health and Safety Code, removal of asbestos or hazardous substances including exploratory work to identify and determine the extent of the asbestos or hazardous substance will be performed by separate contract.

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

SECTION 10: SUBCONTRACTING

The Contractor shall comply with the provisions in Section 8-1.01, "Subcontracting," and Section 2, "Proposal Requirements and Conditions," and Section 3, "Award and Execution of Contract," of the Standard Specifications and these special provisions.

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

http://www.dir.ca.gov/dir/Labor_law/DLSE/Debar.html.

This requirement shall be enforced as follows:

Noncompliance shall be corrected. Payment for subcontracted work involved will be withheld from progress payments due, or to become due, until correction is made. Failure to comply may result in termination of the contract.

Prompt Progress Payment to Subcontractors

The Contractor shall comply with the provisions in Sections 10262 and 10262.5 of the Public Contract Code and Section 7108.5 of the Business and Professions Code concerning prompt payment to subcontractors.

Prompt Payment of Withheld Funds to Subcontractors

The Contractor shall return all monies withheld in retention from the subcontractor within 30 days after receiving payment for work satisfactorily completed, even if the other contract work is not completed and has not been accepted in conformance with Section 7-1.17, "Acceptance of Contract," of the Standard Specifications. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or noncompliance by a subcontractor.

SECTION 11: PAYMENTS

The Contractor shall comply with Section 9-1.06, "Partial Payments," and 9-1.07, "Payment After Acceptance," of the Standard Specifications and these special provisions.

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

None

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

In determining the partial payments to be made to the Contractor, only the following listed materials where designated by (P), (S-P), or (S-P-F) in the Engineers Estimate, will be considered for inclusion in the payment as materials furnished but not incorporated in the work:

None

SECTION 12: NOTICE OF POTENTIAL CLAIM

The Contractor shall comply with the provisions in Section 9-1.04, "Notice of Potential Claim," of the Standard Specifications and these special provisions.

SECTION 13: PAYMENT OF WITHHELD FUNDS

Section 9-1.065, "Payment of Withheld Funds," of the 2006 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.

SECTION 14: ENCROACHMENT PERMIT ---- Not Applicable

SECTION 15: SURFACE MINING AND RECLAMATION

The Contractor shall comply with the Surface Mining and Reclamation Act of 1975, commencing in Public Resources Code, Mining and Geology, Section 2710, which establishes regulations pertinent to surface mining operations.

Material from mining operations furnished for this project shall only come from permitted sites in compliance with the Surface Mining and Reclamation Act of 1975.

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

SECTION 16: BONDS

The successful bidder shall furnish and deliver to the County, at the time of delivery of the signed Agreement, a surety bond, in the amount equal to 100 percent of the contract price to guarantee the faithful performance of the contract, and a surety bond in an amount equal to 100 percent 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 must be notarized.

SECTION 17: INSURANCE

Limits located in a separate booklet entitled, Bid Proposal and Contract for the Traffic Congestion Relief Project "A", Albers Road and Milnes Road Intersection Improvement Project under the heading entitled, "Agreement for Independent Contractor Services."

SECTION 18: 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 recording to substitute a legible original document or to prepare a legible copy of the first document by handwriting or typewriting and attaching 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.

SECTION 19: EQUAL EMPLOYMENT OPPORTUNITY

The 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, martial 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 non-discrimination 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. Codes 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 Government 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.

SECTION 20: SURVEYS AND GRADES

The Engineer shall establish permanent type reference monuments or posts for the horizontal alignment and vertical control of the work. The Engineer shall provide all temporary stakes for horizontal and vertical alignment sufficient for construction of the project. The Contractor is charged with the responsibility of adequately protecting said stakes and monuments. The cost to reestablish and/or replace lost temporary stakes for horizontal and vertical alignment due to Contractor's operations shall be at the expense of the Contractor. The County reserves the right to deduct the cost of replacing lost temporary stakes from progress payments due the Contractor.

SECTION 21: MATERIALS

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, Engineering Division, 1716 Morgan Road, Modesto, CA 95358.

Agency-Furnished Materials

The Contractor shall comply with Section 6-1.02, "State-Furnished Materials," of the Standard Specifications and these Special Provisions. The following materials will be furnished to the Contractor:

None

SECTION 22: DESCRIPTION OF WORK

The road construction work to be done consists of improving the at-grade County Road intersection at Albers Road and Milnes Road in the southeastern part of the County, east of the City of Modesto:

The road construction work to be done consists of adding left-turn channelization by widening the existing paved surface with varying widths of additional structural sections. All work to be accomplished within the existing right-of-way. Construction materials and activities include construction area signs and traffic control system; roadway excavation; aggregate base and asphaltic concrete; driveway construction; placing thermoplastic striping and marking; pavement markers, drainage facilities, signalization , and safety lighting.

COUNTY OF STANISLAUS

DEPARTMENT OF PUBLIC WORKS

BID PROPOSAL AND CONTRACT

FOR THE

TRAFFIC CONGESTION RELIEF PROJECT "A"
ALBERS ROAD AT MILNES ROAD INTERSECTION IMPROVEMENTS

Approved by Stanislaus County Board of Supervisors: December 18, 2006
Bid Opening Time and Date: January 30, 2008

D. FlexStake, Model 604
E. GreenLine Models HWDU and CGD (with 450 mm U-Channel base)
F. Safe-Hit with 200 mm pavement anchor (SH248-GP1)
G. Safe-Hit with 380 mm soil anchor (SH248-GP2) and with 450 mm soil anchor (SH248-GP3)

SURFACE MOUNT FLEXIBLE TYPE, 1200 MM

A. Bent Manufacturing Company, Masterflex Model MF-180EX-48
B. Carsonite, "Super Duck II"
C. FlexStake, Surface Mount, Models 704 and 754 TM

CHANNELIZERS SURFACE MOUNT TYPE, 900 MM

A. Bent Manufacturing Company, Masterflex Models MF-360-36 (Round) and MF-180-36 (Flat)
B. Bunzl Extrusion, Flex-Guide Models FG300LD and FG300UR
C. Carsonite, "Super Duck" (Flat SDF-436, Round SDR-336)
D. Carsonite, "Super Duck II" Model SDCF203601MB "The Channelizer"
E. FlexStake, Surface Mount, Models 703 and 753 TM
F. GreenLine, Model SMD-36
G. Hi-Way Safety, Inc. "Channel Guide Channelizer" Model CGC36
H. Repo, Models 300 and 400
I. Safe-Hit, Guide Post, Model SH236SMA
J. The Line Connection, "Dura-Post" Model DP36-3 (Permanent)
K. The Line Connection, "Dura-Post" Model DP36-3C (Temporary)

CONICAL DELINEATORS, 1070 mm (For 700 mm Traffic Cones, see Standard Specifications)

A. Bent Manufacturing Company "T-Top"
B. Plastic Safety Systems "Navigator-42"
C. Radiator Specialty Company "Enforcer"
D. Roadmaker Company "Stacker"
E. TrafFix Devices "Grabber"

OBJECT MARKERS
Type "K", 450 mm

A. Carsonite, Model SMD 615
B. FlexStake, Model 701 KM
C. Repo, Models 300 and 400
D. Safe-Hit, Model SH718SMA
E. The Line Connection, Model DP21-4K

TYPE "K-4" / "Q" OBJECT MARKERS, 600 MM

A. Bent Manufacturing "Masterflex" Model MF-360-24
B. Bunzl Extrusion, Model FG324PE
C. Carsonite, Super Duck II
D. FlexStake, Model 701KM
E. Repo, Models 300 and 400
F. Safe-Hit, Models SH8 24SMA_WA and SH8 24GP3_WA
G. The Line Connection, Model DP21-4Q

CONCRETE BARRIER MARKERS AND TEMPORARY RAILING (TYPE K) REFLECTORS

Impactable Type

A. ARTUK, "FB"
B. Bunzl Extrusion, Model PCBM-12
C. Duraflex Corp., "Flexx 2020" and "Electriflexx"
D. Hi-Way Safety, Inc., Model GMKRM100
E. Sun-Lab Technology, "Safety Guide Light Model TM-5"

Non-Impactable Type

A. ARTUK, JD Series
B. Vega Molded Products, Models GBM and JD

THREE BEAM BARRIER MARKERS (For use to the left of traffic)

A. Bunzl Extrusion, "Mini" (75 mm x 254 mm)
B. Duraflex Corp., "Railrider"

CONCRETE BARRIER DELINEATORS, 400 MM (For use to the right of traffic)

A. Bunzl Extrusion, Model PCBM T-16
B. Safe-Hit, Model SH216RBM
C. Sun-Lab Technology, "Safety Guide Light, Model TM16," 75 mm x 300 mm

CONCRETE BARRIER-MOUNTED MINI-DRUM (260 MM X 360 MM X 570 MM)

A. Stinson Equipment Company "SaddleMarker"

SOUND WALL DELINEATOR (Applied vertically. Place top of 75 mm x 300 mm reflective element at 1200 mm above roadway)

A. Bunzl Extrusion, PCBM S-36
B. Sun-Lab Technology, "Safety Guide Light, Model SM12," 75 mm x

300 mm

GUARD RAILING DELINEATOR (Place top of reflective element at 1200 mm above plane of roadway)

Wood Post Type, 686 mm

A. Bunzl Extrusion, FG 427 and FG 527
B. Carsonite, Model 427
C. FlexStake, Model 102 GR
D. GreenLine GRD 27
E. J. Miller Model JMI-375G
F. Safe-Hit, Model SH227GRD

Steel Post Type

A. Carsonite, Model CFGR-327 with CFGRBK300 Mounting Bracket

RETROREFLECTIVE SHEETING

Channelizers, Barrier Markers, and Delineators

A. Avery Dennison T-6500 Series (Formerly Stimsonite, Series 6200) (For rigid substrate devices only)
B. Nippon Carbide, Flexible Ultralite Grade (ULG) II
C. Reflexite, PC-1000 Metalized Polycarbonate
D. Reflexite, AC-1000 Acrylic
E. Reflexite, AP-1000 Metalized Polyester
F. Reflexite, Conformalight, AR-1000 Abrasion Resistant Coating
G. 3M, High Intensity

TRAFFIC CONES, 330 MM SLEEVES

A. Reflexite SB (Polyester), Vinyl or "TR" (Semi-transparent)

TRAFFIC CONES, 100 MM AND 150 MM SLEEVES

A. Nippon Carbide, Flexible Ultralite Grade (ULG) II
B. Reflexite, Vinyl, "TR" (Semi-transparent) or "Conformalight"
C. 3M Series 3840

BARRELS AND DRUMS

A. Avery Dennison W-6100
B. Nippon Carbide, Flexible Ultralite Grade (ULG) II
C. Reflexite, "Conformalight", "Super High Intensity" or "High Impact Drum

Sheeting"
D. 3M Series 3810

BARRICADES: TYPE I, MEDIUM-INTENSITY (TYPICALLY ENCLOSED LENS, GLASS-BEAD ELEMENT)

A. American Decal, Adcolite
B. Avery Dennison, T-1500 and T-1600 series
C. 3M Engineer Grade, Series 3170

BARRICADES: TYPE II, MEDIUM-HIGH-INTENSITY (TYPICALLY ENCLOSED LENS, GLASS-BEAD ELEMENT)

A. Avery Dennison, T-2500 Series
B. Kiwalite Type II
C. Nikkalite 1800 Series

SIGNS: TYPE II, MEDIUM-HIGH-INTENSITY (TYPICALLY ENCLOSED LENS, GLASS-BEAD ELEMENT)

A. Avery Dennison, T-2500 Series
B. Kiwalite, Type II
C. Nikkalite 1800 Series

SIGNS: TYPE III, HIGH-INTENSITY (TYPICALLY ENCAPSULATED GLASS-BEAD ELEMENT)

A. Avery Dennison, T-5500 Series
B. Nippon Carbide, Nikkalite Brand Ultralite Grade II
C. 3M Series 3870

SIGNS: TYPE IV, HIGH-INTENSITY (TYPICALLY UNMETALLIZED MICROPRISMATIC ELEMENT)

A. Avery Dennison, T-6500 Series (Formerly Stimsonite Series 6200)

SIGNS: TYPE VI, ELASTOMERIC (ROLL-UP) HIGH-INTENSITY, WITHOUT ADHESIVE

A. Reflexite "Vinyl" (Orange)
B. Reflexite "SuperBright" (Fluorescent orange)
C. Reflexite "Marathon" (Fluorescent orange)
D. 3M Series RS34 (Orange) and RS20 (Fluorescent orange)

SIGNS: TYPE VII, SUPER-HIGH-INTENSITY (TYPICALLY UNMETALLIZED MICROPRISMATIC ELEMENT)

A. 3M LDP Series 3970

SIGNS: TYPE VIII, SUPER-HIGH-INTENSITY (TYPICALLY UNMETALLIZED MICROPRISMATIC ELEMENT)

A. Avery Dennison, T-7500 Series

SPECIALTY SIGNS

A. All Sign Products, STOP Sign (All Plastic), 750 mm
B. Relexite "Endurance" Work Zone Sign

SIGN SUBSTRATE

Fiberglass Reinforced Plastic (FRP)

A. Fiber-Brite
B. Sequentia, "Polyplate"

ALUMINUM

SECTION 1: 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 Construction Details.

The first order of work shall be to place the order for the traffic signal lighting equipment. The Engineer shall be furnished a statement from the vendor that the order for the traffic signal equipment has been received and accepted by the vendor.

The Contractor shall provide a swale for the parcel located at the northeast corner of Albers Road/Milnes Road intersection (APN 14-022-001) to allow the property owner to irrigate crops every 12-calendar days between the months of May and September. The swale shall be in place to capture the runoff from the property owner's irrigation activities.

Within 10 days of notice to proceed and 10 days prior to excavating in or adjacent to the existing traveled way the Contractor will submit a traffic-handling plan for review and approval by the Engineer. The staging plan must be approved prior to the Contractor starting excavation in or adjacent to the existing traveled way.

The traffic-handling plan must comply with the details as specified in the Special Provisions.

Full compensation for preparing the traffic-handling plan shall be considered as included in the contract prices paid for the various items of work and no separate payment will be made therefore.

The uppermost layer of new pavement shall not be placed until all underlying conduits and loop detectors have been installed.

Prior to commencement of the traffic signal functional test, all items of work related to signal control shall be completed and all roadside signs, pavement delineation, and pavement markings shall be in place at that location.

Attention is directed to "Water Pollution Control" of the Special Provisions regarding the submittal and approval of the Storm Water Pollution Prevention Plan prior to performing work having potential to cause water pollution.

Attention is directed to "Maintaining Traffic" and "Temporary Pavement Delineation" of the Special Provisions.

The work shall be performed in conformance with the stages of construction shown on the plans. Nonconflicting work in subsequent stages may proceed concurrently with work in preceding stages, provided satisfactory progress is maintained in the preceding stages of construction.

In each stage, after completion of the preceding stage, the first order of work shall be the removal of existing pavement delineation as directed by the Engineer. Pavement delineation removal shall be coordinated with new delineation so that lane lines are provided at all times on traveled ways open to public traffic.

Before obliterating any pavement delineation (traffic stripes, pavement markings, and pavement markers) that is to be replaced on the same alignment and location, as determined by the Engineer, the pavement delineation shall be referenced by the Contractor, with a sufficient number of control points to reestablish the alignment and location of the new pavement delineation. The references shall include the limits or changes in striping pattern, including one- and 2-way barrier lines, limit lines, crosswalks and other pavement markings.

Full compensation for referencing existing pavement delineation shall be considered as included in the contract prices paid for new pavement delineation and no additional compensation will be allowed therefore.

At the end of each working day if a difference in excess of 0.15-foot exists between the elevation of the existing pavement and the elevation of excavations

within 8 feet of the traveled way, material shall be placed and compacted against the vertical cuts adjacent to the traveled way. During excavation operations, native material may be used for this purpose; however, once placing of the structural section commences, structural material shall be used. The material shall be placed to the level of the elevation of the top of existing pavement and tapered at a slope of 1:4 (vertical:horizontal) or flatter to the bottom of the excavation. Full compensation for placing the material on a 1:4 slope, regardless of the number of times the material is required, and subsequent removing or reshaping of the material to the lines and grades shown on the plans shall be considered as included in the contract price paid for the materials involved and no additional compensation will be allowed therefore. No payment will be made for material placed in excess of that required for the structural section.

It is a priority that the Contractor does everything possible to maintain acceptable access to the local residences and businesses. The Engineer will determine this acceptable access. To avoid conflicts it will be required that the Contractor will include a traffic handling plan, showing how access can be maintained. The Contractor shall determine an order of work and provide a schedule of construction to the Engineer. Work shall commence in the pre-determined order so as to reduce potential conflicts with daily traffic and residents. The Contractor shall perform the work so that there is a minimum amount of disruption to the adjacent residences and businesses.

SECTION 2: WATER POLLUTION CONTROL (WPC)

General

Water pollution control work shall conform to the provisions in Section 7-1.01G, "Water Pollution", of the Standard Specifications and these Construction Details.

The project lies within the boundaries of the Central Valley Regional Water Quality Control Board (RWQCB) of the State Water Resources Control Board (SWRCB) and shall conform to the requirements of the National Pollutant Discharge Elimination System (NPDES) Permit for General Construction Activity No. CSA000002, Order No. 99-08-DWQ, as issued by the SWRCB and the NPDES General Permit for Waste Water Discharge Requirements (WDRS) for discharges of Storm Water Runoff Associated with Small Linear Underground/ Overhead Construction Projects, No. CSA000005, Order No. 2003-0007-DWQ as issued by the SWRCB. These permits, hereafter referred to as the "Permits", regulate storm water discharges associated with construction activities. Copies of the Departments Permits are available for review from the SWRCB, Storm Water Permit Unit, 1001 "I" Street, P. O. Box 1977, Sacramento, California 95812-1977, Telephone: (916) 341-5254 and may also be obtained fro the SWRCB website at:

http://www.swrcb.ca.gov/stormwtr/construction.html

The Contractor shall know and fully comply with the applicable provisions of the Manuals, Permits, and Federal, State, and Stanislaus County regulations that govern the Contractor's operations and storm water discharges from both the project site and areas of disturbance outside the project limits during construction. The Contractor shall maintain copies of the Permits at the project site and shall make said Permits available during construction.

The Permits shall apply to storm water and certain permitted non-storm water discharges from areas outside the project site which are directly related to construction activities for this contract including, but not limited to, asphalt batch plants, material borrow areas, concrete plants, staging areas, storage yards, maintenance yards, and access roads. The Contractor shall comply with the Permits and the Manuals for said areas and shall implement, inspect and maintain the required water pollution control practices. The Engineer shall be allowed full access to these areas during construction to assure Contractor's proper implementation of water pollution control practices. Installing, inspecting and maintaining water pollution control practices on areas outside the project limits not specifically arranged and provided for by the County for the execution of this contract, will not receive compensation.

The Contractor shall be responsible for penalties assessed or levied on the Contractor or the Department as a result of the Contractor's failure to comply with the provisions in this section "Water Pollution Control" including, but not limited to, compliance with the applicable provisions of the Permits, the Manuals, and Federal, State and local regulations and /or requirements as set forth therein.

Penalties as used in this section, "Water Pollution Control," shall include fines, penalties and damages, whether proposed, assessed, or levied against the Department or the Contractor, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Control Act, by governmental agencies or as a result of civil suits. Penalties shall also include payments made or costs incurred in settlement for alleged violations of the Permits, the Manuals, applicable laws, regulations, or requirements. The Contractor shall also be responsible for costs associated with mitigation, remediation, and corrections of violations.

No work having potential to cause water pollution, shall be performed until the SWPPP has been received and reviewed by the Engineer. Receipt and review shall not constitute a finding that the SWPPP complies with applicable requirements of the Permits, the Manuals and applicable Federal, State and local laws, regulations, and requirements.

The Contractor designated as the "Apparent Low Bidder" after the bid opening shall provide to the County, within thirty (30) calendar days and prior to the issue of the "Notice to Proceed" ("NTP"), the name of the designated, certified Storm

Water Pollution Control Manager (SWPCM) and shall submit three(3) copies of the SWPPP. The SWPCM shall be responsible for the preparation of the SWPPP and required modifications or amendments thereto and shall be responsible for the implementation and adequate functioning of the various water pollution control practices(BMP's) employed. The Contractor may designate separate SWPCM's to prepare the SWPPP and to implement the water pollution control practices. The SWPCM's shall serve as the primary contact for issues related to the SWPPP or its implementation. The Contractor shall submit to the Engineer a statement of qualifications, certification number, description of training received, previous work history, and expertise of the individual(s) selected by the Contractor to serve as SWPCM(s). The SWPCM(s) shall have a minimum of 24 hours of formal storm water management training or certification as a Certified Professional in Erosion and Sediment Control (CPESC). The Engineer will reject the Contractor's submission of a SWPCM if the submitted qualifications are deemed to be inadequate.

APPLICABILITY OF SWPPP

The SWPPP shall apply to the areas within and those outside of the project limits that are directly related to construction operations including, but not limited to, asphalt batch plants, material borrow areas, concrete plants, staging areas, storage yards, and access roads.

The SWPPP shall include, but not be limited to, the items described in the Manuals, Permits, and related information contained in the contract documents. The SWPPP shall also include a copy of the permitting agencies permits.
Where storm water discharge is directly into a water body listed pursuant to Clean Water Act Section 303(d) as being impaired due to sedimentation/siltation or turbidity, or when analysis of non-visible pollutants is required, the Contractor shall develop and include in the SWPPP the **Sampling and Analysis Plan(s)** as required by the Permits, and modifications thereto, and as required in "Sampling and Analytical Requirements" of this section.

The Contractor shall develop a **Water Pollution Control Schedule (WPCS)** that describes the timing of grading or other work activities that could affect water pollution. The WPCS shall be updated by the Contractor to reflect changes in the Contractor's operations that would affect the necessary implementation of water pollution control practices.

The Contractor shall complete the **"Construction Site BMPs Consideration Checklist"** presented in the Preparation Manual and shall incorporate water pollution control practices into the SWPPP. Water pollution control practices include the "Minimum Requirements" and other Contractor-selected water pollution control practices from the **"Construction Site BMPs Consideration Checklist"**.

The Contractor shall keep one copy of the submitted SWPPP and amendments

thereto at the project site. The SWPPP shall be made available upon request by a representative of the Regional Water Quality Control Board (RWQCB), State Water Resources Control Board (SWRCB), United States Environmental Protection Agency (EPA), or the local storm water management agency. Requests by the public shall be directed to the Engineer.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) IMPLEMENTATION

Unless otherwise specified, upon submittal of the SWPPP, the Contractor shall be responsible throughout the duration of the project for installing, constructing, inspecting, maintaining, removing, and disposing of the water pollution control practices specified in the SWPPP and in the amendments. Unless otherwise directed by the Engineer, the Contractor's responsibility for SWPPP implementation shall continue throughout temporary suspensions of work ordered in conformance with the provisions in Section 8-1.05, "Temporary Suspension of Work," of the Standard Specifications. Requirements for installation, construction, inspection, maintenance, removal, and disposal of water pollution control practices shall conform to the requirements in the Manuals and these Construction Details.

If the Contractor or the Engineer identifies any deficiency in the implementation of the SWPPP or amendments, the deficiency shall be corrected immediately. If the Contractor fails to correct the identified deficiency the project shall be in nonconformance with this section, "Water Pollution Control." Attention is directed to Section 5-1.01, "Authority of Engineer," of the Standard Specifications, and to "Retention of Funds" of this section for possible nonconformance penalties.

If the Contractor fails to conform to the provisions of this section, "Water Pollution Control," the Engineer may order the suspension of construction operations until the project complies with the requirements of this section.

REPORTING REQUIREMENTS

Report of Discharges, Notices or Orders

If the Contractor identifies discharges into surface waters or drainage systems in a manner causing, or potentially causing, a condition of pollution, or if the project receives a written notice or order from a regulatory agency, the Contractor shall immediately inform the Engineer.

The Contractor shall submit a written report to the Engineer and RWQCB within twenty-four (24) hours (one(1) days) of the discharge event, notice or order. The report shall include the following information:

A.	The date, time, location, nature of the operation, and type of discharge, including the cause or nature of the notice or

	order.
B.	The water pollution control practices deployed before the discharge event, or prior to receiving the notice or order.
C.	The date of deployment and type of water pollution control practices deployed after the discharge event, or after receiving the notice or order, including additional measures installed or planned to reduce or prevent reoccurrence.

Annual Certifications

By June 15 of each year, the Contractor shall complete and submit an Annual Certification of Compliance, as contained in the Preparation Manual, to the Engineer.

SAMPLING AND ANALYTICAL REQUIREMENTS

When there is storm water discharge from the construction site directly into a water body listed as being impaired due to sedimentation/siltation or turbidity the Contractor is required to implement specific sampling and analytical procedures to determine whether BMPs implemented on the construction site are:

A.	Preventing pollutants that are known or should be known by permittees to occur on construction sites that are not visually detectable in storm water discharges, to cause or contribute to exceedances of water quality objectives,
And	
B.	Preventing further impairment by sediment in storm waters discharged into water bodies listed as impaired due to sediment, siltation or turbidity.

RETENTION OF FUNDS

Notwithstanding and other remedies authorized by law, the County may retain money due the Contractor under the Contract, in an amount determined by the County, up to and including, the entire amount of penalties proposed, assessed, or levied as a result of the Contractor's violation of the permits, the Manuals, Federal or State law, regulations, or requirements. The County may retain funds until final disposition has been made as to the penalties. The Contractor shall remain liable for the full amount of penalties until such time as a final resolution is obtained with the entity seeking the penalties.

Retention of Funds for failure to conform to the provisions of this section, "Water Pollution Control", shall be in addition to the other retention amounts required by the Contract. The amounts retained for the Contractor's failure to conform to the

provisions in this section will be released for payment on the next monthly estimate for partial payment following the date when an approved SWPPP, or portion thereof, had been implemented and maintained, and when water pollution has been adequately controlled, as determined by the Engineer.

When a regulatory agency identifies a failure to comply with the Permits and modifications thereto; the Manuals; or other Federal, State, or local requirements, the County may retain money due the Contractor, subject to the following:

A.	Retention of funds from payment made after the acceptance of the Contract ("Notice of Completion" (NOC)) may be made without prior notice to the Contractor.
B.	No retention of additional amounts out of the partial payments will be made if the amount to be retained does not exceed the amount being withheld from partial payment pursuant to Section 9-1.06, "Partial Payments", of the Standard Specifications.
C.	If the County has retained funds, and it is subsequently determined that the County is not subject to the entire amount of the costs and liabilities assessed or proposed in connection with the matter for which the retention was made, the County shall be liable for interest on the amount retained for the period of the retention. The interest rate payable shall be 6 percent (%) per annum.

During all other estimate periods that the Contractor fails to conform to the provisions in this section, "Water Pollution Control" (WPC), the County may retain an amount equal to 25 percent (%) of the estimated value of the Contract work performed.

The Contractor shall notify the Engineer immediately upon request from the regulatory agencies to enter, inspect, sample, monitor, or otherwise access the project site or the Contractor's records pertaining to WPC work. The Contractor and the County shall provide copies of correspondence, notice(s) of violation, enforcement action(s), or proposed fine(s) by the regulatory agencies to the requesting regulatory agency.

MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals; for doing all the work involved in developing, preparation, submittal, revising, and amending the SWPPP; installing, constructing, removing, and disposing of water pollution control practices, including non-storm water management; and waste management and materials pollution water pollution control practices as specified in the Standard Specifications and these Construction Details shall be included in the Contract Lump Sum price for Water

Pollution Control and no additional compensation will be allowed therefore.

SECTION 3: PROGRESS SCHEDULE

Progress schedules are required for this contract and shall be submitted in conformance with the provisions in Section 8-1.04, "Progress Schedule," of the Standard Specifications and these Construction Details, unless otherwise authorized in writing by the Engineer.

The second paragraph of Section 8-1.04, "Progress Schedule," of the Standard Specifications shall not apply.

The last paragraph of Section *-1.04, "Progress Schedule," of the Standard Specifications shall be enforced.

SECTION 4: OBSTRUCTIONS

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

Attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workers and of the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipelines greater than 6 inches in diameter or pipelines operating at pressures greater than 60 pounds per square inch gage; underground electric supply system conductors or cables, with potential to ground of more than 300 V, either directly buried or in a duct or conduit which do not have concentric grounded or other effectively grounded metal shields or sheaths.

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 1-800-227-2600
Underground Service Alert- Southern California (USA)	1-800-422-4133 1-800-227-2600

Installation of the following utility facilities will require coordination with the Contractor's operations. The Contractor shall make the necessary arrangements with the utility company, through the Engineer, and shall submit a schedule of work, verified by a representative of the utility company, to the Engineer. The

schedule of work shall provide not less than the following number of working days, as defined in Section 8-1.06, "Time of Completion," of the Standard Specifications for the utility company to complete their work:

Utility	Location	Working Days
Modesto Irrigation District	Albers Road and Milnes Road	Insert Working Days
AT&T	Albers Road and Milnes Road	Insert Working Days
Insert Utility	Insert Location	Insert Working Days
Insert Utility	Insert Location	Insert Working Days

SECTION 5: DUST CONTROL

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

MEASURSEMENT AND PAYMENT

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals; for doing all the work involved in dust control as specified in the Standard Specifications and these Construction Details shall be included in the Contract price for the various contract items of work requiring dust control and no additional compensation will be allowed therefore.

SECTION 6: MOBILIZATION

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

MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals; for doing all the work involved in mobilization as specified in the Standard Specifications and these Construction Details shall be included in the Contract Lump Sum price for Mobilization and no additional compensation will be allowed therefore.

SECTION 7: CONSTRUCTION AREA TRAFFIC CONTROL DEVICES

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

Category 1 traffic control devices are defined as those devices that are small and lightweight (less than 100 pounds), and have been in common use for many years. The devices shall be known to be crashworthy by crash testing, crash testing of similar devices, or years of demonstrable safe performance. Category 1 traffic control devices include traffic cones, plastic drums, portable delineators, and channelizers.

If requested by the Engineer, the Contractor shall provide written self-certification for crashworthiness of Category 1 traffic control devices. Self-certification shall be provided by the manufacturer or Contractor and shall include the following: date, Federal Aid number (if applicable), expenditure authorization, district, county, route and post mile of project limits; company name of certifying vendor, street address, city, state and zip code; printed name, signature and title of certifying person; and an indication of which Category 1 traffic control devices will be used on the project. The Contractor may obtain a standard form for self-certification from the Engineer.

Category 2 traffic control devices are defined as those items that are small and lightweight (less than 100 pounds), that are not expected to produce significant vehicular velocity change, but may otherwise be potentially hazardous. Category 2 traffic control devices include: barricades and portable sign supports.

Category 2 devices purchased on or after October 1, 2000 shall be on the Federal Highway Administration (FHWA) Acceptable Crashworthy Category 2 Hardware for Work Zones list. This list is maintained by FHWA and can be located at the following Internet address:

http://safety.fhwa.dot.gov/fourthlevel/hardware/listing.cfm?code=workzone.

The Department maintains a secondary list at the following Internet address:

http://www.dot.ca.gov/hq/traffops/signtech/signdel/pdf.htm.

Category 2 devices that have not received FHWA acceptance, and were purchased before October 1, 2000, may continue to be used until they complete their useful service life or until January 1, 2003, whichever comes first. Category 2 devices in use that have received FHWA acceptance shall be labeled with the FHWA acceptance letter number and the name of the manufacturer by the start of the project. The label shall be readable. After January 1, 2003, all Category 2 devices without a label shall not be used on the project.

If requested by the Engineer, the Contractor shall provide a written list of

Category 2 devices to be used on the project at least 5 days prior to beginning any work using the devices. For each type of device, the list shall indicate the FHWA acceptance letter number and the name of the manufacturer.

Measurement and Payment:

Full compensation for providing self-certification for crashworthiness of Category 1 traffic control devices and for providing a list of Category 2 devices used on the project and labeling Category 2 devices as specified shall be considered as included in the prices paid for the various contract items of work requiring the use of the Category 1 or Category 2 traffic control devices and no additional compensation will be allowed therefore.

SECTION 8: CONSTRUCTION AREA SIGNS

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

Attention is directed to the provisions in "Prequalified and Tested Signing and Delineation Materials" of these Construction Details. Type II retroreflective sheeting shall not be used on construction area sign panels.

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" of these Construction Details.

The Contractor may be required to cover certain signs during the progress of the work. Signs that are no longer required or that convey inaccurate information to the public shall be immediately covered or removed, or the information shall be corrected. Covers for construction area signs shall be of sufficient size and density to completely block out the complete face of the signs. The retroreflective face of the covered signs shall not be visible either during the day or at night. Covers shall be fastened securely so that the signs remain covered during inclement weather. Covers shall be replaced when they no longer cover the signs properly.

Measurement and Payment:

Full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to furnish, install, and maintain Construction Area Signs as specified in Section 12 of the Standard Specifications, the plans and these Construction Details and as directed by the Engineer will be considered as

included in the contract price for Construction Area Signs and no additional compensation will be allowed therefore.

SECTION 9: 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 provisions in "Public Safety" of these Construction Details and these Construction Details. Nothing in these Construction Details shall be construed as relieving the Contractor from the responsibilities specified in Section 7-1.09.

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

Measurement and Payment:

Full compensation for furnishing all labor,(including flagging costs), materials, tools, equipment and incidentals, for preparing and submitting lane closure plans and for doing all work involved in Maintaining Traffic including maintaining the roadbed in a smooth and even condition for passage of public traffic, furnishing and installing such signs, lights, flares necessary to expedite passage of public traffic through or around the work, all as specified in Sections 7-1.08 and 7-1.09 of the Standard Specifications and as directed by the Engineer will be considered as included in the contract price for the Traffic Control System and no additional compensation will be allowed therefore.

SECTION 10: TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE

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

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

Each vehicle used to place, maintain and remove components of a traffic control system on multilane highways shall be equipped with a Type II flashing arrow sign which shall be in operation when the vehicle is being used for placing, maintaining or removing components. Vehicles equipped with Type II flashing arrow sign not involved in placing, maintaining or removing components when operated within a stationary lane closure shall only display the caution display mode. The sign shall be controllable by the operator of the vehicle while the vehicle is in motion. The flashing arrow sign shown on the plans shall not be used on vehicles, which are being used to place, maintain and remove components of a traffic control system and shall be in place before a lane closure

requiring its use is completed.

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

When lane closures are made for work periods only, at the end of each work period, 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 designated by the Engineer within the limits of the highway right of way.

Measurement and Payment:

Full compensation for furnishing all labor (including flagging costs), 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 as shown on the plans, as specified in the Standard Specifications and these Construction Details, and as directed by the Engineer shall be included in the contract lump sum item for Traffic Control System and no additional compensation will be allowed therefore.

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. The 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.

SECTION 11: TEMPORARY PAVEMENT DELINEATION

Temporary pavement delineation shall be furnished, placed, maintained, and removed in conformance with the provisions in Section 12-3.01, "General," of the Standard Specifications and these Construction Details. Nothing in these Construction Details shall be construed as reducing 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.

Whenever the work causes obliteration of pavement delineation, temporary or permanent pavement delineation shall be in place prior to opening the traveled

way to public traffic. Laneline or centerline pavement delineation shall be provided at all times for traveled ways open to public traffic.

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

Temporary pavement markers and removable traffic 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 when no longer required for the direction of public traffic, as determined by the Engineer.

Measurement and Payment:

Full compensation for providing Temporary Pavement Delineation shall be considered as included in the prices paid for the various contract items of work requiring the use of Temporary Pavement Delineation and no additional compensation will be allowed therefore.

SECTION 12: TEMPORARY LANELINE AND CENTERLINE DELINEATION

Whenever lanelines and centerlines are obliterated, the minimum laneline and centerline delineation to be provided shall be temporary raised pavement markers placed at longitudinal intervals of not more than 24 feet. The temporary raised pavement markers shall be the same color as the laneline or centerline the markers replace. Temporary 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" of these Construction Details.

Temporary raised pavement markers shall be placed in conformance 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 raised pavement markers placed on longitudinal intervals of not more than 24 feet shall be used on lanes open to public traffic for a maximum of 14 calendar days. Prior to the end of the 14 calendar days, the permanent pavement delineation shall be placed. If the permanent pavement delineation is not placed within the 14 calendar days, additional temporary pavement delineation shall be

provided at the Contractor's expense. The additional temporary pavement delineation to be provided shall be equivalent to the pattern specified for the permanent pavement delineation for the area, as determined by the Engineer.

Measurement and Payment:

Full compensation for furnishing, placing, maintaining, and removing the temporary raised pavement markers used for temporary laneline and centerline delineation and for providing equivalent patterns of permanent traffic lines for these 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 therefore.

SECTION 13: BARRICADES

Barricades shall be furnished, placed and maintained at the locations shown on the plans, specified in the Standard Specifications or in these Construction Details or where designated by the Engineer. Barricades shall conform to the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications and these Construction Details.

Attention is directed to "Prequalified and Tested Signing and Delineation Materials" of these Construction Details regarding retroreflective sheeting for barricades.

At the time of completion of the project, certain barricades shall be left in place as directed by the Engineer. In addition to the contract unit price or prices paid for the type or types of barricades, the cost of leaving the barricades in place will be paid for at the contract unit price for barricade (left in place).

Construction area sign and marker panels conforming to the provisions in Section 12-3.06, "Construction Area Signs," of the Standard Specifications shall be installed on barricades in a manner determined by the Engineer at the locations shown on the plans.

Sign panels for construction area signs and marker panels installed on barricades shall conform to the provisions in Section 12-3.06A, "Stationary Mounted Signs," of the Standard Specifications.

Measurement and Payment:

Full compensation for furnishing, installing, maintaining, and removing construction area signs and marker panels on barricades shall be considered as included in the contract lump sum price paid for Construction Area Signs and no addition compensation will be allowed therefore.

SECTION 14: 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 Construction Details.

The Contractor shall exercise extreme care in removal operations to protect adjacent property from damage, including lawn, shrubbery, trees, irrigation facilities, etc., as so not to remove, break, or damage any improvement or facility. Any improvement or facility that is removed, broken or damaged by action of the contractor or through his negligence or operations shall be replaced by the Contractor at his own expense to the satisfaction of the Engineer.

It shall be the contractor's responsibility to remove all obstructions within the right of way, which interfere with the work shown on the drawings. The location of the obstructions shown on the plans is figurative only. The County does not guarantee the exact location of items shown. It shall be the Contractor's responsibility to determine which items are going to interfere with this work.

Concrete within construction limits, both inside and outside the highway right of way, shall be removed, except for curbs and sidewalks adjacent to frontage roads and through city streets.

Where no joint exists between concrete to be removed and concrete to remain in place, the concrete shall be cut on a neat line to a minimum depth of 2-inches with a power driven saw before the concrete is removed.

Concrete to be removed which has portions of the same structure both above and belowground will be considered as concrete above ground for compensation

SECTION 15: REMOVE AND DISPOSE OF EXISTING DRAINAGE AND IRRIGATION FACILITES

Existing pipes, drain inlets, headwalls and other drainage and irrigation facilities where any portion of such structures is within 3 feet of the grading plane, within an area to be cleared and grubbed or where shown on the plans to be removed, shall be completely removed and disposed of. Removed drainage and irrigation facilities shall be disposed of outside of the highway right of way in accordance with the provisions in Section 7-1.13 of the Standard Specifications.

Measurement and Payment:

Full compensation for furnishing all labor materials, tool, equipment and incidentals for doing all work involved with removing drainage and irrigation facilities shall be considered as included in the contract unit price paid for clearing and grubbing and no additional compensation will be allowed therefore.

SECTION 16: RESET MAILBOX

All existing mailboxes including but not limited to joint/gang mailboxes, and private mailboxes shall be removed and reset. During construction the mailboxes

shall be moved as necessary to clear the way for Contractors 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 posts or supports equivalent to the original.

Newspaper boxes on individual posts will be considered as mailboxes for measurement and payment. Newspaper boxes attached to existing mailbox posts, fences or other supports other than posts will be removed and refastened to the relocated facility and no separate payment will be made therefore.

Measurement and Payment:

Full compensation for furnishing all labor materials, tool, equipment and incidentals for doing all work involved with disposing of existing posts as necessary, moving and maintaining the boxes (regardless of the number of moves required), and for furnishing new posts, planks and hardware as necessary shall be considered as included in the contract unit price paid for Reset Mailbox no additional compensation will be allowed therefore.

SECTION 17: RESET ROADSIDE SIGNS

Existing roadside signs shall be removed and relocated at new locations shown on the plans. Each roadside sign shall be installed at the new location on the same day said sign is removed from its original location.

When construction is complete the signs shall be installed in final position on posts or supports equivalent to the original.

Measurement and Payment:

Full compensation for furnishing all labor materials, tool, equipment and incidentals for doing all work involved with reset roadside sign all in accordance with the plans, specifications and these Construction Details shall be considered as included in the contract price paid for the item requiring the relocation of the roadside sign and no additional compensation will be allowed therefore.

SECTION 18: ADJUST FRAMES AND COVERS AND FRAMES AND GRATES TO GRADE

Frames and covers and frames and grates of existing manholes water valves, grates, existing survey monuments, or other facilities shall be adjusted to grade in accordance with the provisions in Section 15-2.05, "Reconstruction," of the Standard Specifications, the plans and these Construction Details.

Measurement and Payment:

Full compensation for furnishing all labor materials, tool, equipment and incidentals for doing all work involved with adjusting frame and cover and frames and grates to grade all in accordance with the plans, specifications and these Construction Details shall be considered as included in the contract price paid for the item of work involved and no additional compensation will be allowed therefore.

SECTION 19: REMOVE AND DISPOSE OF CURB AND GUTTER AND SIDEWALK (Not used)

SECTION 20: CLEARING AND GRUBBING

Clearing and grubbing shall conform to the provision in Section 16, "Clearing and Grubbing," of the Standard Specifications and these Construction Details.

All improvements remaining either wholly or partially within the right of way that interfere with the work, including, but not limited to, retaining walls, footings, walks, curbs, paving, AC dike, and slabs above ground, shall be demolished and removed as part of the work included under clearing and grubbing.

Measurement and Payment:

Full compensation for demolition, removal and disposal of the facilities specified herein shall be considered as included in the contract lump sum price paid for Clearing and Grubbing and no additional compensation will be allowed therefore.

SECTION 21: WATERING

Developing a water supply and applying watering shall conform to the provisions in Section 17, "Watering," of the Standard Specifications and these Construction Details.

Measurement and Payment:

Full compensation for furnishing all labor materials, tool, equipment and incidentals for doing all work involved with watering and dust control all in accordance with the Standard Specifications and these Construction Details shall be considered as included in the prices paid for related items of work involved and no additional compensation will be allowed therefore.

SECTION 22: EARTHWORK

Earthwork shall conform to the applicable requirements of Section 19, "Earthwork," of the Standard Specifications, except as herein provided.

The contractor shall excavate only as much trench as it can effectively backfill in the same day. All trenches in the roadway area shall be paved with temporary paving the same day the pavement cut is made. All trenches shall be backfilled so that traffic can cross at the close of each days work or protected to the

satisfaction of the Engineer. There shall be no open trench left in the roadway area after normal working hours.

The Engineer will make arrangements for all required compaction tests. Compaction tests will be performed as specified in Subsection 19-1.01 of the Standard Specifications under the direction of the Engineer. Compaction tests will be made in accordance with Nuclear Test Method California No. 231. The Owner shall pay for all laboratory inspection services direct for the first test. The actual cost of re-testing shall be deducted from future payments due the contractor. The contractor shall cooperate with the Engineer and shall furnish required labor and excavating equipment, as determined by the Engineer, to aid in making compaction tests.

The quantities of structure excavation and structure backfill involved in excavation and backfilling pipe and other structures as shown on the Plans shall be considered included in the unit prices paid for the various items of work for which it applies and no separate payment will be made therefore.

Measurement and Payment:

Full compensation for earthwork necessary for construction of Concrete Structures and Miscellaneous Concrete Construction shall be considered as included in the cost of the contract items for which it is related and no additional compensation will be allowed therefore.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all the work involved in excavating, transporting, filling, compacting and disposing of material, including filling between the back of walk and right of way, earthwork required for construction of asphalt concrete paving and concrete facilities as shown on the Plans and as specified in these Construction Details shall be considered as included in the contract unit price for Roadway Excavation (Final) and no additional compensation will be allowed therefore.

The quantity of roadway excavation shall be considered a final pay quantity as per Section 5-1.015 of the Standard Specifications.

Imported borrow will be measured and paid for by the cubic yard and the quantity to be paid for will be computed in the following manner:

A. The total quantity of embankment will be computed in conformance with the provisions for roadway excavation in Section 19-2.08, "Measurement," of the Standard Specifications, on the basis of the planned or authorized cross section for embankments as shown on the plans and the measured ground surface.
B. The Contractor, at the Contractor's option, may compact the ground surface on which embankment is to be constructed before placing any embankment thereon. If the compaction results in an average subsidence exceeding 0.25-foot, the ground surface will be measured

after completion of the compaction. The Engineer shall be allowed the time necessary to complete the measurement of an area before placement of embankment is started in that area.

C. The quantities of roadway excavation, structure excavation and ditch excavation, which have been used in the embankment, will be adjusted by multiplying by a grading factor to be determined in the field by the Engineer. No further adjustment will be made in the event that the grading factor determined by the Engineer does not equal the actual grading factor.

D. The quantity of imported borrow to be paid for will be that quantity remaining after deducting the adjusted quantities of excavation from the total embankment quantity and then adding a quantity of 5300 cubic yards for the anticipated effect of subsidence. No adjustment will be made in the event that the anticipated subsidence does not equal the actual subsidence.

E. The Contractor may propose a plan whereby the Contractor would be paid on the basis of measured settlement in lieu of the allowance specified above. The proposal shall include complete details of the subsidence-measuring devices and a detailed plan of each installation. If the Engineer approves the proposed plan, the Contractor, at the Contractor's expense, shall provide, install and maintain the subsidence-measuring devices. The Engineer will take necessary readings to determine the progress of subsidence, if any, and the Contractor shall provide necessary assistance to make the readings.

F. Installed devices, which are determined by the Engineer to have been damaged, will not be used for the determination of subsidence for the area the devices represent in the pattern of approved installations. The subsidence of the area represented by that installation shall be considered zero, regardless of the subsidence measured at other installations.

G. The volumes required as a result of subsidence will be computed by the average-end-area method from the original measurements and the final measurements, including zero subsidence at all points and for all areas as provided herein. It shall be understood and agreed that the subsidence at the point of intersection of the side slopes (and end slopes at structures) with the ground line as established by the original cross sections shall be considered as zero. Unless otherwise agreed to by the Engineer, the subsidence shall be considered as zero at the points on the cross sections 50 feet beyond the beginning and ending of the instrumented area. The computed volumes for such subsidence will be added to the quantities of embankment measured as specified herein.

H. Detachable elements of the subsidence-measuring devices, which can be salvaged without damage to the work, shall remain the property of the Contractor and shall be removed from the highway right of way

after final measurements are made.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals; for doing all the work involved in imported borrow as specified in the Standard Specifications and these Construction Details shall be included in the Contract unit price for Imported Borrow and no additional compensation will be allowed therefore.

SECTION 23: 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 Construction Details.

MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals; for doing all the work involved in Class 2 Aggregate Base as specified in the Standard Specifications and these Construction Details shall be included in the Contract unit price for Class 2 Aggregate Base and no additional compensation will be allowed therefore.

The quantity of aggregate base shall be considered a final pay quantity as per Section 5-1.015 of the Standard Specifications.

SECTION 24: ASPHALT CONCRETE

This work shall consist of furnishing and placing asphalt concrete in conformance with these Construction Details.

Asphalt concrete shall be Type A and shall conform to the provisions in Section 39, "Asphalt Concrete," of the Standard Specifications and these Construction Details. The asphalt shall be grade PG 64-10 as specified in the Standard Specifications, unless otherwise approved by the Engineer. Aggregates used in all but the final course shall be ¾ inch maximum medium grading. Aggregates used in the final course shall be ½ inch maximum medium 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(lb), "Automatic Proportioning," of the Standard Specifications.

In addition to the aggregate requirements listed in Section 39, "Asphalt Concrete," of the Standard Specifications, the combined aggregates shall conform to the following quality requirement when mixed with paving asphalt Grade PG 64-10 in the amount of asphalt determined to be optimum by California Test 367:

Test California Test Requirement

Surface 360 Loss not to exceed 15 grams
Abrasion Method A

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 paving contiguously with previously placed mats, the end of the screed adjacent to the previously placed mat shall be controlled by a sensor that responds to the grade of the previously placed mat and will reproduce the grade in the new mat within 0.01-foot tolerance.

Should the methods and equipment 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.

Should the automatic screed controls fail to operate property during any day's work, the Contractor may use manual control of the spreading equipment for the remainder of that day, however, the equipment shall be corrected or replaced with alternative automatically controlled equipment conforming to the requirements in this section before starting another day's work.

Prior to spreading asphalt concrete, a paint binder of asphaltic emulsion or of paving asphalt shall be furnished and applied uniformly to the pavement to be surfaced and to contact surfaces of cold pavement joints, curbs, gutters, and to other surfaces designated by the Engineer. If paving asphalt is furnished, the paving asphalt shall be applied at a temperature of not less than 285° F or more than 345° 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 final lift of asphalt concrete for all streets shall be placed after all work related to underground facilities, excavations, reconstruction, trench pavement, and pre-paving work has been completed.

Asphalt concrete shall be spread and compacted in conformance with the following:

1. Asphalt concrete shall be spread with a self-propelled spreader ready for compaction without further shaping.
2. Compaction shall be performed with a steel-tired tandem roller weighing not less than 8 tons and shall consist of not less than 3 complete coverages of the roller over each layer, with proper overlap

to prevent displacement. The first coverage shall be completed before the temperature of the mixture drops below 250° F, unless a lower temperature is directed by the Engineer.

3. The completed surfacing shall be true to grade and cross section, of uniform smoothness and texture, compacted firmly, and free from depressions, humps or irregularities.

Measurement and Payment:

Full compensation for the work performed under this section "Asphalt Concrete," including the asphalt concrete, dikes, surfacing miscellaneous areas, and paint binder, shall conform to the provisions in Section 39-8.01, "Measurement," and Section 39-8.02, "Payment," of the Standard Specifications.

SECTION 25: SURVEY MONUMENTS (Not Used)

SECTION 26: MARKERS AND DELINEATORS

Markers and delineators shall conform to the provisions in Section 82, "Markers and Delineators," of the Standard Specifications and these Construction Details.

Markers and delineators on flexible posts shall conform to the provisions in "Prequalified and Tested Signing and Delineation Materials" of these Construction Details. Flexible posts shall be made from a flexible white plastic which shall be resistant to impact, ultraviolet light, ozone, and hydrocarbons. Flexible posts shall resist stiffening with age and shall be free of burns, discoloration, contamination, and other objectionable marks or defects, which affect appearance or serviceability.

Retroreflective sheeting for metal and flexible target plates shall be the retroreflective sheeting designated for channelizers, markers, and delineators conforming to the requirements in ASTM Designation: D 4956-95 and in conformance with the provisions in "Prequalified and Tested Signing and Delineation Materials" of these Construction Details.

Measurement and Payment:

Full compensation for furnishing and installing delineators shall be considered as included in the contract unit price paid for Delineators and no additional compensation will be allowed therefore.

Full compensation for furnishing and installing delineators shall be considered as included in the contract unit price paid for Delineators and no additional compensation will be allowed therefore.

Full compensation for furnishing and installing markers shall be considered as included in the contract unit price paid for Pavement Marker (Retroreflective) and no additional compensation will be allowed therefore.

SECTION 27: METAL BEAM GUARD RAILING (Not Used)

SECTION 28: THERMOPLASTIC TRAFFIC STRIPE AND PAVEMENT MARKING

Thermoplastic traffic stripes (traffic lines) and pavement markings shall be applied in conformance with the provisions in Section 84, "Traffic Stripes and Pavement Markings," of the Standard Specifications and these Construction Details.

Thermoplastic material shall be free of lead and chromium, and shall conform to the requirements in State Specification PTH-02ALKYD.

Retroreflectivity of the thermoplastic traffic stripes and pavement markings shall conform to the requirements in ASTM Designation: D 6359-99. White thermoplastic traffic stripes and pavement markings shall have a minimum initial retroreflectivity of 250 mcd·m-2·lx-1. Yellow thermoplastic traffic stripes and pavement markings shall have a minimum initial retroreflectivity of 150 mcd·m-2·lx-1.

Where striping joins existing striping, as shown on the plans, the Contractor shall begin and end the transition from the existing striping pattern into or from the new striping pattern a sufficient distance to ensure continuity of the striping pattern.

Thermoplastic traffic stripes shall be applied at the minimum thickness and application rate as specified below. The minimum application rate is based on a solid stripe of 4 inches in width.

Minimum Stripe Thickness Inch	Minimum Application Rate Lb/ft
0.079	0.27
0.098	0.34

Thermoplastic traffic stripes and pavement markings shall be free of runs, bubbles, craters, drag marks, stretch marks, and debris.

At the option of the Contractor, permanent traffic striping and pavement marking tape conforming to the provisions in "Prequalified and Tested Signing and Delineation Materials" of these Construction Details may be placed instead of the thermoplastic traffic stripes and pavement markings specified herein. Permanent tape, if used, shall be installed in conformance with the manufacturer's specifications.

If permanent tape is placed instead of thermoplastic traffic stripes and pavement markings, the tape will be measured and paid for by the linear foot as thermoplastic traffic stripe and by the square foot as thermoplastic pavement marking.

Measurement and Payment:

Full compensation for furnishing and installing thermoplastic traffic stripe shall be considered as included in the contract unit price paid for Thermoplastic Traffic Stripe and no additional compensation will be allowed therefore.

Full compensation for furnishing and installing thermoplastic pavement markings shall be considered as included in the contract unit price paid for Thermoplastic Pavement Marking and no additional compensation will be allowed therefore.

SECTION 29: PAINT TRAFFIC STRIPE AND PAVEMENT MARKING (Not Used)

SECTION 30: ROADSIDE SIGNS

Roadside signs shall be installed at the locations shown on the plans or where designated by the Engineer.

Measurement and Payment:

Full compensation for furnishing all labor materials, tool, equipment and incidentals for doing all work involved with construction of roadside signs all in accordance with the plans, specifications and these Construction Details shall be considered as included in the contract unit price paid for Roadside Sign and no additional compensation will be allowed therefore.

SECTION 31: TRAFFIC SIGNAL AND LIGHTING

DESCRIPTION

This work shall include the furnishing and all labor, materials, tools and equipment to construct and complete in an efficient and workmanlike manner the installation of the traffic signal system in accordance with the approved plans, these specifications, the County Standard Specifications, and the Standard Specifications and Standard Plans.

ORDER OF WORK

Order of work shall conform to the provisions in Section 1, "Order of Work", of these specifications and the provisions of Section 5-1.05, "Order of Work," of the Standard Specifications.

No signal standard shall be delivered on-site until Contractor has all signal materials at hand.

MAINTAINING EXISTING AND TEMPORARY ELECTRICAL SYSTEMS

Existing traffic flashing beacon system shall not be removed until Contractor has installed a temporary flashing beacon system. The temporary flashing beacon system shall remain until the traffic signal is in operation.

REMOVING, REINSTALLING OR SALVAGING ELECTRICAL EQUIPMENT

Attention is directed to "Existing Highway Facilities" elsewhere in these specifications. Salvaged electrical materials shall be hauled to Stanislaus County Corporation Yard at 1716 Morgan Road, Modesto, California, and stockpiled as directed by the Engineer.

MEASUREMENT AND PAYMENT

Full compensation for hauling and stockpiling electrical materials shall be considered as included in the lump sum contract price for Signal and Lighting work, and no additional compensation will be allowed therefore.

Full compensation for installing temporary flashing beacon system shall be consider as included in the lump sum contract price for Signal and Lighting, and no additional compensation will be allowed therefore.

MATERIALS AND INSTALLATION

A. Standards, Steel Pedestals and Posts:

Paragraph four of Section 86-2-04, "Standards, Steel Pedestals and Posts," of the Standard Specifications is amended by adding the following after the second subparagraph:

Standards with an outside diameter of twelve (12) inches or less shall be round. Standards with an outside diameter of greater than twelve (12) inches shall be round or multi-sided. Multi-sided standards shall have a minimum of ten (10) sides, which shall be convex and shall have a minimum bend radius of four (4) inches.

Section 86-2.04, "Standards, Steel Pedestals and Post," of the Standard Specifications is amended by adding the following after paragraph eleven:

All galvanized nuts, used on assemblies with a specified pre-load or torque, shall be lubricated in accordance with the requirements specified for galvanized Grade DH nuts in ASTM Designation: A 563.

The twelfth paragraph in said Section 8602.04 of the Standard Specifications is amended to read:

The sign mounting hardware, as shown on Detail U of Standard Plan ES-6T, shall be installed at the locations shown on the plans.

Where the plans refer to the side tenon detail at the end of the signal mast arm, the applicable tip tenon detail may be substituted.

B. Solid-state Traffic Actuated Controller:

The Contractor shall furnish one Model 170E controller assembly consisting of Model 170E controller unit, one wired Model 332 cabinet and all auxiliary equipment required to control the signal indications per location as shown on the Plans, and as specified in these Construction Details. The controller shall

be furnished complete with all equipment conforming to the requirements in the "Traffic Signal Control Equipment Specifications," issued by the State of California. Controllers, cabinets, equipment, and all modifications thereto shall be type approved by the State of California Testing Laboratory, and shall have California State Quality Product listing.

The controller unit shall be supplied with B1 Tran System Program #200CA. One diagnostic PROM module with C1 and C2 wraparound plugs compatible with and of the same manufacturer as the controller units shall also be provided. An operation/instruction manual shall accompany the diagnostic PROM modules and intersection programs.

The controller cabinet layou7t and component locations shall conform to the requirements for Model 332 cabinet in said "Traffic Signal Control Equipment Specifications," and addendum thereto.

The controller shall have four ACIA capability. Four ACIA's shall be integral to the controller unit.

The controller memory modules shall be model 412C as described in the Caltrans specifications and provide for 32K EPROM (27256), 16K RAM, and 8K zero power RAM (memory method 2, memory select 4).

All compression connectors that terminate inside controller cabinet for low voltage circuits shall be soldered.

The controller shall be supplied with a Model 400 modem with anti-streaming capability module complete with terminal block and cable to connect to controller ACIA port. The Contractor shall install terminal block and all cabinet wiring except incoming communication lines.

The cabinets shall be wired and fully equipped for traffic actuation and phasing shown on the Plans.

Cabinet shall be aluminum. Cabinet shall have the additional following items installed:

1. Fluorescent light with door switches
2. Auto/Manual control with police panel cord.
3. Pull-out drawer/shelf assembly
4. Communications panels

The Contractor shall arrange to have a signal technician, qualified to work on the controller units and employed by the controller unit manufacturer or his representative, present at the time the equipment is turned on.

The convenience receptacle shall have ground-fault circuit interruption as defined by the Code. Circuit interruption hall occur on 6 milliamperes of ground-fault current and shall not occur on less than 4 milliamperes of ground-fault current.

Model 332 cabinets shall be furnished with a Corbin lock, keyed "State #2."

Contractor shall deliver all signal equipment to be installed within controller cabinet including cabinet to City of Modesto Electrical shop at 501 N. Jefferson Street, Modesto, California, thirty (30) working days before installation for testing. Contractor shall deliver equipment from City Electrical shop to job site. If any component fails, the thirty (30) working day testing time will restart after the replacement part is received at the City Electrical shop.

C. Vehicle Signal Faces and Signal Heads:

Signal housings shall be polycarbonate manufactured from virgin material using lexan polycarbonate black in color.

Backplates shall be polycarbonate material black in color.

Reflectors shall be mounted with mechanical fasteners; adhesive mounting shall not be used.

Glass lenses shall be used.

All signals shall have tunnel visors and backplates black in color. All sections of all signals shall be twelve (12) inches.

All red, yellow, and green indications shall have Light Emitting Diode (LED's) signal modules that meet the latest Caltrans Specifications.

Top openings of signal heads shall be sealed with neoprene gaskets.

D. Pedestrian Signals and Pedestrian Push Buttons:

Pedestrian signals shall be Type A black in color. International symbol indications shall be provided. The pedestrian signal faces (International Hand Symbol) shall have LED's signal modules orange color. Pedestrian push buttons shall meet ADA requirements with rain covers. The push sign shall be porcelain enameled metal.

The following type of screen shall be provided:

A 1 ½-inch deep eggcrate-type screen either of 0.020-inch maximum thickness 3—3 H14 aluminum alloy or of 0.030-inch nominal thickness polycarbonate. The assembly shall be mounted in a frame constructed o 0.040-inch minimum thickness aluminum alloy or polycarbonate black in color.

The eggcrate-type screen shall be installed parallel to the face of the message plate and shall be held in place by the use of stainless steel screws.

The hood described in Section 86-4.05C, "Visors," of the Standard Specifications is not required.

The screen and frame shall be anodized flat black or may be finished with flat black enamel as specified in Section 91-4.01, "Enamel: Traffic Signal Lusterless Black," of the Standard Specifications. Said enamel shall be applied in the shop at the Contractor's expense.

Alternate methods may be substituted for the above screening providing the results are equal to or superior to those obtained with the above-specified screen as determined by the Engineer.

E. Luminaires:

Glare shields are not required.

Luminaires shall be 200 watt, with high-pressure sodium and full cut-off, General Electric M2RR20S1A2GMS2, ITT 133-6253, Hubbel RM G7 20 S31 071 0340 or approved equal.

F. Photoelectric Controls:

Photoelectric controls shall be Type IV.

G. Emergency Vehicle Detector System:

The Contractor shall provide and install a 3M Emergency Vehicle Detector System per the plans and these Special Provisions with two phase selectors inside the controller cabinet compatible with optically activated receiver units and Model 170E controller. The Contractor shall provide and install optically activated receiver units with optical detector cable as shown on the plans. The phase selectors, optical emitter, optically activated receiver units, and optical detector cable shall meet specifications in Attachment 1.

The Contractor shall be responsible for making the optical Emergency Vehicle Detector System operational, as per supplier's requirements.

H. Terminal Compartment:

Slip-fitters and terminal compartments shall be cast bronze.

I. Detectors:

Loop wire shall be Type 1.

Detector loops shall be six feet by six feet in size unless otherwise noted on the Plans.

Unless shown otherwise, each loop shall consist of three turns of loop conductor.

Conductor of each loop shall be run continuous, without splice, to the termination pull box where splice to detector lead-in cable is made.

Conductors from loop to termination pull box shall be twisted together three turns per foot, before inserting in the saw cut slot and conduit.

Each loop shall be installed with the conductor wound in a clockwise rotation. Each individual conductor shall be banded "Start" and "End" in the termination pull box.

Each pair of loop conductors shall be identified and banded together in pairs, by lane, in the termination pull box. A minimum of five feet of loop conductors shall be provided, after splicing, in a termination pull box.

All banding shall be of the permanent, waterproof type.

Upon completion of the loop, and prior to connecting the loop to the lead-in cable, each loop shall be megohm tested and tested for continuity in the presence of the Engineer. The insulation resistance of the loop conductors, lead-in cable, and splices shall not be less than 100 megohms.

Final loop connections shall be made such that each loop section is wound in the opposite rotation to an adjacent loop, whether such loop is in the same lane or in the adjacent lane.

The loops shall be joined in combination of series-parallel so that optimum sensitivity is obtained at the detector sensor unit, and shall be in accordance with the detector unit manufacturer's recommendation regarding series-parallel combinations.

Final splices between loops and lead-in cable shall not be made until the operation of the loops under actual traffic conditions is approved by the Engineer.

Loop detector lead-in cable shall be Type B. Splices to lead-in cable shall be soldered, insulated and in a heat-shrinking tubing, or approved equal.

Each loop detector lead-in cable shall be identified and banded in each pull box and in the controller cabinet.

Detectors shall be Type 222 with built-in loop diagnostics or approved equal. Detectors shall have automatic reset capability and shall not require manual resetting upon opening and closing of loop circuit.

The sealant for filling slots shall be an elastomeric sealant, and shall conform to Standard Specification 86-5.01A(5), 3M detector sealant, black 5000.

J. Conductors and Wiring:

Subparagraphs 2, 4, and 5 of the first paragraph of Section 86-2.09D, "Splicing and Terminations," of the Standard Specifications is deleted.

Splices shall be insulated by "Method B" except detector lead-in cables.

Conductors shall be cabled in bundles, by phase, and identified by phase with permanent labels in the controller cabinet and at terminal pull boxes.

Multiple lighting conductors and bonding conductors only, may be spliced.

"C" shaped compression connectors, as shown on the Plans, shall be used.

Insulation shall be THW rated, and shall comply with Section 86-2.08B of the Standard Specifications.

K. Fused Splice Connectors:

Fused splice connectors will not be required.

L. Bonding and Grounding:

Grounding jumper shall be attached by a 3/16 inch or larger brass bolt in the signal and lighting_standard or controller pedestal and shall be run to the conduit, ground rod or bonding wire in adjacent pull box.

Grounding jumper shall be visible after cap has been poured on foundation.

Equipment grounding conductors will not be required in conduit containing loop lead-in cables only.

Green Wire #6 (cabinet ground) shall have a separate ground rod in pull box nearest to cabinet, with no other wire attached.

M. Conduit:

Conduit shall be rigid galvanized metal.

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

Insulated bonding bushings will be required on metal conduit. All conduit shall be grounded together in all pull boxes and cabinets by means of a grounding jumper.

Conduit to be installed under pavement shall be installed by bore and jacking, directional drilling, or other approved methods which do not damage pavement.

After conductors have been installed, the ends of conduits terminating in pull boxes and in service and controller cabinets shall be sealed with an approved type of sealing compound.

N. Pull Boxes and Handholes:

Pull boxes shall be precast reinforced concrete with "Lighting" stamped on lids. Handholes shall be Type A.

The bottoms of pull boxes shall be grouted. Contractor's attention is directed to Section 86-2.06C of the Standard Specifications.

Recesses for suspension of ballasts will not be required.

Pull boxes shall be State #5 minimum. Larger sizes shall be installed where required by the National Electrical Code or where shown on the Plans.

O. Foundations:

Portland cement concrete shall conform to Section 90-10, "Minor Concrete," of the Standard Specifications and shall contain no less than 470 pounds of cement per cubic yard, except concrete for cast-in-place reinforced pile foundations shall contain not less than 564 pounds of cement per cubic yard.

P. Signs:

Signs shall be furnished and installed by the Contractor as shown on the Plans and as specified in the MUTCD.

The G7 street name signs shall be on a diamond grade reflective sheeting.

Sign panel height shall be 18 inches. Street name text shall be white, 10-inch upper case, D font, on a green background. Block numbers and arrows shall be white, four inches high, on a green background. Block numbers and arrow shall be located on the right hand side of the sign. Arrows shall be orientated toward the highest block number. The block shall be located above the arrow. Messages shall be on both sides of the signs unless otherwise indicated on the plans. G7 signs shall be provided as follows:

STREET NAME (Four G7 Signs)
BLOCK NUMBERS with arrow pointing as indicated on the plans or as directed by the Engineer. Block numbers will be provided by the

Engineer.

The Contractor shall provide and install signs as called for on the plans.

The Contractor shall obtain approval by the Engineer of the G7 street name signs before fabrication.

Two wraps of stainless steel Band-It-Band strapping ¾" thick shall be used to hang all overhead signs. Band-It-Band buckles type 201 stainless steel shall be used with strapping.

Q. Street Lighting Pole and Arm:

Poles shall be hot-dip galvanized steel. The 28-foot poles with 15-foot arms shall be Ameron Catalog No. N-2815-2 or an approved equal. See County Standards and Specifications for other requirements.

R. Flashing Beacons:

LED modules for flashing beacon units shall be furnished by the Contractor. W3-3 signs shall be mounted to the flashing beacon units as shown on the plans and per Section 10-1.28, "Install Sign (Strap and Saddle Bracket Method)", of these special provisions.

S. Battery Back-Up System (BBS):

The Battery Back-Up System shall comply with the latest California Department of Transportation specifications and requirements. The battery back-up unit and batteries shall be contained in a separate cabinet. The BBS shall be mounted on the service equipment enclosure. TESCO Model 23-000BBS or approved equal shall be used.

TESTING

A. Testing:

The Contractor shall make the signals fully operational including entering timing settings provided by the Public Works Department in the controller and peripheral equipment.

The Contractor shall have present, a qualified field technician, who shall be qualified to perform testing and servicing on all systems of the installation.

Prior to scheduled turn on, the field technician shall perform all testing assignments. This testing shall include measurement of each loop installation utilizing a field loop tester/analyzer. Based on the measurement of each loop,

the final loop configuration shall be established in such manner as to generate a unique frequency for each adjacent loop system, (detector channel). This unique frequency shall be set such that in the natural state and in the detect state, the frequency does not enter the frequency range of any adjacent loop system. In addition to the frequency setting and adjustments, the loop configuration shall be such that peak tuning characteristics shall be maximized; i.e., the detect state shall be a minimum of a 3.0 reference value based on natural state reference. For loops rated less than a 3.5 reference value, the loops shall be configured to maximize the sensitivity of the loop closest to the stop bar.

The Contractor shall provide the Engineer with the detector test report as provided. This report shall include each detector as labeled on the drawing, and shall show the final loop configuration, the natural state frequency, the detect frequency, and the calculated reference value of each loop system.

The Contractor shall flash test all circuits of each signal phase and both circuits of each pedestrian phase to confirm that the signal is wired properly before the signal is requested to be energized. The Contractor shall provide the Engineer with the signal flash report.

B. Signal Energizing:

The Contractor, after fully testing the new traffic signal equipment, will contact the County Inspector to schedule signal energizing. Signals will only be allowed to be put into operation on Tuesdays, Wednesdays or Thursdays. The Contractor will have the signal fully tested at least 24 hours before the signal is energized.

C. Functional Testing:
D. The first paragraph in Section 86-2.14B, "Field Testing," of the Standard Specifications is amended to read:

Prior to start of functional testing, the Contractor shall perform the following tests on all circuits, in the presence of the Engineer.

The functional test for each lighting system shall consist of not less than 14 days. If unsatisfactory performance of the system develops, the conditions shall be corrected and the test shall be repeated until the 14 days of continuous, satisfactory operation is obtained.

MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor, materials and equipment necessary to complete the work as shown on the Plans, and as specified in these Construction Details, shall be included in the contract lump sum price for Signal and Lighting

and no additional compensation will be allowed therefore. All incidental work not shown on the Plans or specified herein which is necessary to complete the work necessary to provide the system described, or shown, shall be furnished and installed as part of this contract at no additional cost to the County. The work shall be complete and ready for service as shown on the Plans and/or specified to the satisfaction of the Engineer.

Sign panels installed on signal mast arms shall be considered as included in the contract lump sum price paid for Signal and Lighting and no additional compensation will be allowed therefore.

The contract lump sum price paid for signal and lighting shall include flashing beacons at intersections in connection with signal system.

The contract lump sum price paid for the signal and lighting shall include full compensation for installing Opticom system, complete in place, as shown on the plans, as specified in the Standard Specifications and these Construction Details, and no additional compensation will be allowed therefore.

ATTACHMENT I

OPTICALLY ACTIVATED, DATA-ENCODED, TRAFFIC SIGNAL PRIORITY CONTROL SYSTEM

SYSTEM DESCRIPTION

The required priority control system will employ data-encoded optical communication to identify the presence of designated priority or probe vehicles. A record of the vehicle by classification and identification number shall be created. In priority vehicle mode, he data-encoded optical communication will request the traffic signal controller to advance to and/or hold a desired traffic signal display selected from phases normally available. In probe vehicles mode, no traffic signal priority is requested-only a record of the probe vehicle's presence is generated.

The priority control system will consist of a matched system of optical emitters, optical detectors, optical detector cable, phase selectors and system software.

The emitter will generate an infrared, data-encoded optical signal. The optical signal will be detected and recognized by the optical detectors at or near the intersection over a line-of-sight path of up to 2,500 feet (762m) under clear atmospheric conditions. The phase selector will process the signal from the detector to ensure that the signal (1) is valid base frequency, (2) is correctly data-encoded, and (3) is within user-settable range. If these conditions are met, the phase selector will generate a priority control request (i.e., a green light) for the approaching priority vehicles, or record the presence of approaching probe vehicles by classification and identification number.

The system will require no action from the vehicle operator other than to turn the emitter on. The system will operate on a fist-come, first-served basis. Higher priority (Command) requests will override lower priority (Advantage) requests. The system sill interface with most traffic signal controllers and will not compromise normal operation or existing safety provisions.

MATCHED SYSTEM COMPONENTS

The required priority control data-encoded optical communications system will be comprised of five basic matched components: optical emitter, optical detector, detector cable, phase selector and system software. To ensure system integrity, operation and compatibility, all components will be from the same manufacturer. The system will offer compatibility with most signal controllers, e.g., electromechanical, NEMA (National Electrical Manufacturers Association), 170. Interfacing to an electromechanical controller may require the use of an interface card.

A. Data-Encoded Emitter. The data-encoded emitter will trigger the system. It will send the encoded infrared signal to the optical detector. It will be located on the priority or probe vehicle.
B. Optical Detector. The optical detector will change the infrared signal to an electrical signal. It will be located at or near the intersection. It will send the electrical signal, via the optical detector cable to the phase selector.
C. Optical Detector Cable. The optical detector cable will carry the electrical signal from the detector to the phase detector.
D. Phase Selector. The phase selector shall be 3M Model 752 with two-channel type or approved equal. The phase selector will accommodate data-encoded communication and will validate, identify, classify and record the signal from the detector. It will be located within the controller cabinet at the intersection. It will request the controller to provide priority to the requesting vehicle and/or record presence of a probe vehicle.
E. Card Rack. The card rack will provide simplified installation of a phase selector into controller cabinets that do not already have a suitable card rack.
F. System Software. The system software will be a Windows™ 95 compliant program. It supports system configuration and gathering of operational information.
G. Electromechanical Card. The electromechanical card shall provide electrical interface between the phase selector and electromechanical-type traffic controllers.

SYSTEM COMPONENT SPECIFICATIONS

A. Data-Encoded Optical Emitter

1. The required data-encoded emitter will generate the optical signal, which serves as the trigger to the rest of the priority control system. The optical signal generated by the emitter will be a series of data-encoded flashes from a single light source. The flash signal will consist of a fixed frequency base signal and a coded overlay signal that can be used to transmit information.
2. The data-encode emitter will be powered by the DC voltage supplied from the vehicle's battery, 10 to 16 volts DC.
3. The flash sequence generated by the data-encoded emitter will carry three types of information:
   a. The first type will be the base frequency of either 9.63855HZ+/-0.0014HZ for an Advantage priority emitter, or 14.03509HZ +/-0.003HZ for a Command priority emitter.
   b. The second type of information generated by the data-encoded emitter will be a vehicle classification and identification code that is interleaved into the base frequency flashes. Setting the vehicle classification and identification code will be accomplished through four, 10-position rotary switches located in the power supply of the data-encoded emitter. Each data-encoded emitter will be capable of setting a minimum of 10

different classifications with 1,000 different identification numbers per class for Command priority and an equal number for Advantage priority, for a total of 10,000 codes for each priority.

c. The third type of information generated by the data-encoded emitter will be reserved for the intersection detection range. The system will enable the Traffic Engineer to manually activate the range code from his/her vehicle using an emitter ON/OFF switch equipped with a special equipped with a special SET RANGE push button. The system configured with a clear lens, will accommodate setting a separate range from 200 feet (61m) to 2,500 feet (762m) for both Command or Advantage priority signals. The system, configured with a visible light filter, will accommodate setting a separate range from 200 feet (61m) to 1,800 feet (549m) for both Command or Advantage priority signals.

4. While operating, the data-encoded emitter will conduct self-diagnostics designed to check for data transmission integrity. Any failures of the self-diagnostic tests shall be displayed by flashing of the indicator light.
5. Each data-encoded emitter will be supplied with ON/OFF switch. The switch will be equipped with an indicator light providing internal diagnostics that will assist in troubleshooting. The indicator light will operate as follows:

   a. Steady on when the data-encoded emitter is operating.
   b. Flash at 0.5HZ rate when the data-encoded emitter is disabled.
   c. Flash at a 4HZ rate when the emitter is missing pulses.

6. The data-encoded emitter will be supplied complete with all cables needed for installation. The cable that connects the flash head to the power supply will be reassembled with connectors for both ends; it will be available in two lengths, 4 feet (1.2m) and 15 feet (4.6m). The cable that connects the power supply to the vehicle battery will have a connector on the power supply end and no connector on the battery end; it will be at least 25 feet (7.6m) in length.
7. The data-encoded emitter will be equipped with a disable input that, when activated, will cease unit operation, thereby eliminating the possibility of inadvertent signal transmission after the priority vehicle has arrived at its destination. The unit will start up with a disable input active.
8. The data-encoded emitter will operate over a temperature range of –30F° (-34C°) to +140F° (+60°).
9. The data-encoded emitter will operate over a relative humidity range of 5% to 95%.

B. Optical Detector

1. The required optical detector will be a lightweight, weatherproof device capable of sensing and transforming pulsed optical energy into electrical signals for use by the phase selection equipment.

2. The optical detector will be designed for mounting at or near an intersection on mast arms, pedestals, pipes or span wires.
3. Each optical detector will be supplied with mounting hardware to accommodate installation on mast arms. Additional hardware shall be available for span wire installations.
4. The optical detector design shall include adjustable tubes to enable their reorientation for span wire mounting without disassembly of the unit.
5. The optical detector will accept optical signals from one or two directions and will provide single or dual electrical output signal(s).
6. The optical detector will be available in three configurations:
   a. Uni-directional with one output channel.
   b. Bi-directional with one output channel
   c. Bi-directional with two output channels.
7. The optical detector will allow aiming of the two optical sensing inputs for skewed approaches or slight curves.
8. The optical detector will have a built-in terminal block to simplify wiring connections.
9. The optical detector will receive power from the phase selector and will have internal voltage regulation to operate from 18 to 37 volts DC.
10. The optical detector will respond to a clear lens data-encoded optical emitter at a distance of 2,500 feet (762m) under clear atmospheric conditions. If the emitter is configured with a visible light filter, the detector will respond at a distance of 1,800 feet (549m) under clear atmospheric conditions. The noted distances shall be comparable day and night.
11. The optical detector will deliver the necessary electrical signal to the phase selector via an optical detector cable up to 1,000 feet (305m) in length.

C. Optical Detector Cable

1. The optical detector cable shall deliver sufficient power from the phase selector to the optical detector and will deliver the necessary quality signal from the detector to the phase selector over a non-spliced distance of 1,000 feet (305m).

2. The cable will be of durable construction to satisfy the following installation methods:
   a. Direct burial
   b. Conduit and mast arm pull.
   c. Exposed overhead (supported by messenger wire).
3. The outside diameter of the optical detector cable will not exceed 0.3 inches (7.62mm).
4. The insulation rating of the optical detector cable will be 600 volts minimum.
5. The temperature rating of the optical detector cable will be +167° (+75C) minimum.

6. The conductors will be shielded with aluminized polyester and have an AWG #20 (7 x 28) stranded and individually tinned drain wire to provide signal integrity and transient protection.
7. The optical detector will allow aiming of the two optical sensing inputs for skewed approaches or slight curves.
   a. Orange for delivery of optical detector power (+).
   b. Drain wire for optical detector power return (-).
   c. Yellow for optical detector signal #1.
   d. Blue for optical detector signal #2.
8. The characteristic impedance of the detector cable shall be:
   0.6ohms/1000"
   14.3uF/1000'
9. The shield wrapping will have a 20% overlap to ensure shield integrity following conduit and mast arm pulls.

E. Phase Selector

1. The phase selector, designed to be installed in the traffic controller cabinet, will accommodate data-encoded signals and is intended for use directly with numerous controllers. These include California/New York Type 170 controllers with compatible software, NEMA controllers, or other controllers along with the system chassis and suitable system interface equipment and controller software.
2. The phase selector will be a plug-in, two or four channel, multiple-priority device intended to be installed directly into a card rack located within the controller cabinet.
3. The phase selector will be powered from 115 volt (95 volts AC to 135 volts AC), 60Hz mains and will contain an internal, regulated power supply that supports up to twelve optical detectors.
4. Programming the phase selector and retrieving the data stored in it will be accomplished using an IBM PC-compatible computer and the system interface software. The connection can be made either directly, via the computer's communication (COM) port, or remotely via a modem. The communication port on the phase selector will be an RS232 interface located on the front and back of the unit.

5. The phase selector will have the capability of storing up to 1,000 of the most recent priority control call. When the log is full, the phase selector will drop the oldest entry to accommodate the new entry. The phase selector will store the record in non-volatile memory and will retain the record if power terminates. Each record entry will include nine points of information about the priority call, as follows:

   a. Classification: Indicates the type of vehicle.
   b. Identification number: Indicates the unique ID number of the vehicle.
   c. Priority level: Indicates whether Command or Advantage priority, or

Probe frequency is requested by the vehicle.

d. Director: Channel A, B, C, or D: Indicates the vehicle's direction of travel.

e. Call duration: Indicates the total time in seconds the priority status is active.

f. Final greens at end of call: Indicates which phases are green.

g. Duration of final greens: Indicates the total time of priority greens.

h. Time and date call ended: Indicates the time a priority status ended; provided in second, minute, hour, day, month, year.

i. Maximum signal intensity: Indicates the strongest signal intensity measured by the phase selector during call.

j. Priority output active: Indicates if the phase selector requested priority from the controller for the call.

6. The phase selector will include several control timers that will limit or modify the duration of a priority control condition, by channel, and can be programmed from a PC-type computer. The control timers will be as follows:

   a. MAX CALL TIME: Will set the maximum time a channel is allowed to be active. It will be settable from 120 to 65,535 seconds in one-second increments. Its factory default must be the maximum time.
   b. CALL EXTENSION TIME: Will set the time a call is held on a channel after the priority signal is no longer being received. It will be settable from one to 255 seconds in one-second increments. Its factory default must be six seconds.
   c. CALL DELAY TIME: Will set the time a call must be recognized before the phase selector activates the corresponding output. It will be settable from zero to 255 seconds in one-second increments. Its factory default must be zero seconds.

7. The phase selector's default values shall be re-settable by the operator using and IBM PC-compatible computer, or manually using the switches located on its front.
8. The phase selector will be capable of three levels of discrimination of data-encoded optical signals as follows:

   a. Verification of the presence of the base optical signal of either 14.03509Hz for Command priority, 9.63855Hz for Advantage priority or 11.25870HZ ±0.0114Hz for Probe frequency.
   b. Determination of when the vehicle is within the predetermined range.
   c. Validation of the optical signal data-encoded pulses.

9. The phase selector's card edge connector will include primary optical detector inputs and power outputs. Two additional detector inputs per channel will be provided on a front panel connector.
10. The phase selector will include one opto-isolated NPN output per channel

that provides the following electrical signal to the appropriate pin on the card edge connector:

a. 6.25HZ ± 0.1HZ 50% on/duty square wave in response to an Advantage priority call.
b. A steady ON in response to a Command priority call.

11. The phase selector will accommodate three methods for setting the high and low priority optical sensitivity (emitter range):

    a. Using an encoded emitter with range-setting capability.
    b. Using any optical emitter by manipulating the front panel switches.
    c. Inputting the information via the communication port.

12. The phase selector will have a solid state POWER ON LED indicator that flashes to indicate unit diagnostic mode and illuminates steadily to indicate proper operation.
13. The phase selector will have internal diagnostics to test for proper operation. If a fault is detected, the phase selector will use the front panel LED indicators to display fault information.
14. The phase selector will have a Command (High) and Advantage (Low) solid state LED indicator for each channel to display active calls.
15. The phase selector will have a test switch for each channel to test proper operation of Command or Advantage priority.
16. The phase selector will properly identify a Command priority call with the presence of 10 Advantage priority data-encoded emitter signals being received simultaneously on the same channel.
17. The phase selector will have write-on pads to allow identification of the phase and channel.
18. The phase selector will have a test for each channel to test proper operation of Command or Advantage priority.
19. The phase selector shall provide one isolated confirmation light control output per channel. These outputs are user configurable through software for a variety of confirmation light sequences.
20. The NEMA model of the phase selector shall have outputs for the control of NEMA controllers that lack internal preemption capability. The function shall be accomplished through the use of Manual Control Enable, Interval Advance and Phase Omit signals.
21. The phase selector shall have the capability of recording the presence of a vehicle transmitting at the specified Probe frequency. The phase selector shall at no time attempt to modify the intersection operation in response to the Probe frequency.
22. The phase selector shall have the capability of providing Advantage priority in a mode where the output to the controller is gated or controlled by timing relationships within the controller cycle.
23. The phase selector shall have the capability to assign a relative priority to

5. The interface card for electromechanical controllers will have one input to disable the interface card.

6. The interface card for electromechanical controllers will include the following switches:

a. Channel 1 Green Time: 16-position rotary switch; Controls timing between advance pulses, in seconds, when in Phase 1 green.
b. Channel 2 Green Time: 16-position rotary switch; Controls timing between advance pulses, in seconds, when in Phase 2 green.
c. Channel 3 Green Time: 16-position rotary switch; Controls timing between advance pulses, in seconds, when in Phase 3 green.
d. Channel 4 Green Time: 16-position rotary switch; Controls timing between advance pulses, in seconds, when in Phase 4 green.
e. NON Green Time: 16-position rotary switch; Controls timing between advance pulses, in seconds, when no indications are green.
f. Power Switch.

G. Interface Software

1. The priority control interface software will be provide on 3.5", 1.44MB diskettes to interface with the phase selector. It must run on most IBM-compatible computers equipped with at least 512 KB RAM, Windows™ 95 and color VGA display capability.
2. The priority control interface software must accommodate:

a. Setting up and presenting user-determined system parameters.
b. Viewing and changing settings.
c. Viewing activity screens.
d. Displaying and/or downloading records of previous activity showing class, code, priority, direction, call duration, final greens at end of call, duration of final greens, time call ended in real time plus maximum signal intensity (vehicle location information). This information may be used to reconstruct the route taken by a priority (or probe) vehicle to track the vehicle.

3. The priority control interface software must accommodate operation via a mouse or via the keyboard, or in combination.
4. The priority control interface software must provide menu displays to enable:

a. Setting of valid vehicle ID classes and codes.
b. Establishing signal intensity thresholds (detection ranges), modem initialization, intersection name and timing parameters.
c. Setting of desired green signal indications during priority control operation and upload and download capability to view.
d. Resetting and/or retrieving logged data and priority vehicle activity.

e. Addressing for each card in a multi-drop connected system.
f. Confirmation light configuration.
g. NEMA Control Parameters.

RELIABILITY

A. All equipment supplied as part of the optical priority control system intended for use in the controller cabinet will meet the following electrical and environmental specifications spelled out in the NEMA Standards Publication TS2 1992, Part 2.

1. Line voltage variations per NEMA TS2 1992, Paragraph 2.1.2.
2. Power source frequency per NEMA TS2 1992, Paragraph 2.1.3.
3. Power source noise transients per NEMA TS2 1992, Paragraph 2.1.6.1.
4. Temperature range per NEMA TS2 1992, Paragraph 2.1.5.1.
5. Humidity per NEMA TS2 1992, Paragraph 2.1.45.2.
6. Shock test per NEMA TS2 1992, Paragraph 3.13.9.
7. Vibration per NEMA TS2 1992, Paragraph 3.13.8.

B. Each piece of equipment supplied as part of the priority control system intended for use in or on priority vehicles will operate properly across the entire spectrum of combinations of environmental conditions (temperature range, relative humidity, vehicle battery voltage) per the individual component specifications.

QUALIFICATIONS

A. The manufacturer of the required optical priority control system will verify the proven, safe operation of the system's optical communication technology. Upon request, the manufacturer will produce a list of 20 user agencies having two years or more experience interfacing priority control equipment with electromechanical, solid-state and programmable controller types.

B. The manufacturer will demonstrate the ability to finance ongoing technical support, written product warranties, and responsibility for product failure.

C. Upon request, the manufacturer will produce a copy of its last full year and four previous years' corporate financial statements.

D. The manufacturer will have an independent quality department that has complete authority to control product integrity and is answerable only to the senior officer of the organization.

RESPONSIBILITIES

A. The manufacturer of the required optical priority control system and/or the

manufacturer's representative will provide responsive service before, during and after installation of the priority control system. The manufacturer and/or the manufacturer's representative, as consultants to the installer, will provide certified, trained technicians having traffic systems industry experience and operational knowledge of priority control systems.

B. The lowest fully responsive bidder will be required to supply working production components specified in the Specifications with 14 calendar days from the bid opening date. Failure to do so will render the bid non-responsive.

C. Paragraph B will not be required if, prior to the bid opening, the bidder demonstrated to the City that the equipment bid meets these specifications.

SUBSTANTIATED WARRANTY

A. The manufacturer of the required optical priority control system will warrant that, provided the priority control system has been properly installed, operated and maintained, component parts of a matched component system (see Section II) that prove to be defective in workmanship and/or material during the first five years from the date of shipment from the manufacturer will be covered in a documented system-protection plan, plus an added five-year warranty for repair or replacement at a fixed deductible charge for a total of 10 years of product coverage.

B. In addition, upon request, the manufacturer will provide documentation proving ability to financially support the 10-year provisions of the warranty. Documentation will include appropriate financial reports for the previous five business years.

C. The protection plan will warrant that component parts of a matched component system that prove to be defective in workmanship and/or material during the first five years from the date of shipment from manufacturer will be repaired at no charge, and that extended coverage with a fixed repair deductible will be available for an additional five years.

D. In total, the warranty coverage must assure that system components will be available to allow system operation during the 10-year warranty period.

E. A copy of the manufacturer's written warranty outlining the conditions stated above will be supplied with the bid.

CERTIFICATE OF INSURANCE

The manufacturer of the required optical priority control system will provide a certificate of product liability insurance protection for $5,000,000 assuring the priority control user that the manufacturer is insured against civil damages if

proven to be at fault for an accident due to equipment failure within the system of matched priority control components. This certificate, however, need not, and is not meant to provide liability insurance protection to the priority control system dealer, installer or user.

USER SUPPORT SERVICES

The manufacturer of the required optical priority control system will offer support programs to assist the purchase and implementation of a priority control system program, including:

A. A preferred lease program to finance purchase of a system.

B. Public relations assistance to promote the system within the user community.

C. Intersection survey service to document appropriate equipment interfaces.

D. Customized proposals to assist the procurement process.

CERTIFICATION

The manufacturer of the required priority control system will certify that all component products are designed, manufactured and tested as a system of matched components and will meet or exceed the requirements.

SECTION 32: RUBBERIZED CHIP SEAL (Not Used)

SECTION 33: ENVIRONMENTAL MITIGATION

The Contractor shall conform to these Construction Details.

AIR QUALITY

During construction, the Contractor shall comply with San Joaquin Valley Air Pollution Control District (SJVAPCD) Regulation VII (Fugitive Dust Rules.

The Contractor shall implement the following dust control practices, drawn from Tables 6-2 and 6-3 of the SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI), during construction:

a. All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover.
b. All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
c. All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
d. When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or at least six inches of freeboard space from the top of the container shall be maintained.
e. All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions.) (Use of blower devices is expressly forbidden.)
f. Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.
g. Limit traffic speeds on unpaved roads to 15 mph; and

Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent. Erosion control measures used for environmental mitigation shall not be considered included as part of Erosion control (type D).

Full compensation for all work involved in conforming to the air quality mitigation measures required for environmental mitigation shall be considered as included in the contract prices paid for the various items of work involved, and no additional compensation will be allowed therefore.

BIOLOGICAL RESOURCES

The Contractor shall avoid Impacts to Nesting Birds.

a. Surveys for nesting migratory birds are required prior to any construction-related activities or other site disturbances initiated during the breeding season (February 1 through July 31).
b. If any construction will occur between February 1 and July 31, surveys for nesting migratory birds shall be conducted no sooner than two weeks prior to the initiation of construction activities or other site disturbances.
c. An additional survey may be required if periods of construction inactivity (e.g., gaps of activity during grading, tree removal, road building, or structure assembly) exceed a period of three weeks, an interval during which bird species, in the absence of human or construction-related disturbances, may establish a nesting territory and initiate egg laying and incubation.
d. Should any active nests or breeding areas be discovered, a buffer zone (protected area surrounding the nest) and monitoring plan, if needed, should be developed.

During construction only certified weed-free straw will be used and all disturbed soils will be thoroughly covered with straw (or mulch or chips created on-site during tree removal) upon completion of grading. No seed mixes should be used unless consisting of locally native grasses and forbs.

Surveys for Swainson's hawks shall be conducted in the year that construction is scheduled, and shall be completed no more than 30 days prior to construction by the Contractor. Surveys shall be conducted by a qualified wildlife biologist, in accordance with recommended protocol (Swainson's Hawk TAC 2000). An additional survey may be required if periods of construction inactivity (e.g., gaps of activity during grading, tree removal, road building, or structure assembly) exceed a period of three weeks, an interval during which Swainson's hawks, in the absence of human or construction-related disturbances, may establish a nesting territory and initiate egg laying and incubation. If an active Swainson's hawk nest is discovered nesting in trees within 0.25 miles of the project area, the following mitigation measures are likely to be required [based on CDFG Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California (November 1, 1994)]:

a. No intensive new disturbances (e.g., heavy equipment operation associated with construction, use of cranes or draglines, new rock

crushing activities) or other project related activities which may cause nest abandonment or forced fledging, would be allowed within 1/4 mile (buffer zone) of an active nest between March 1 and September 15 or earlier if a Management Authorization or Biological Opinion is obtained for the project from the CDFG;

b. Nest trees would not be removed unless there is no feasible way of avoiding it. If a nest tree must be removed, a Management Authorization (including conditions to offset the loss of the nest tree) must be obtained with the tree removal period specified in the Management Authorization generally between October 1 and February 1. If construction or other project related activities that may cause nest abandonment or forced fledging are necessary within the buffer zone, monitoring of the nest site (funded by the project sponsor) by a qualified biologist (to determine if the nest is abandoned) would be required. If it is abandoned and if the nestlings are still alive, the project sponsor must fund the recovery and hacking (controlled release of captive reared young) of the nestling (s). Routine disturbances such as agricultural activities, commuter traffic, and routine facility maintenance activities within 1/4 mile of an active nest would not be prohibited.

Surveys for burrowing owls should be conducted by the Contractor in the year that construction is scheduled. Surveys shall be conducted by a qualified wildlife biologist, in accordance with recommended CDFG protocol (CBOC 1993). Surveys shall be conducted no more than 30 days prior to the onset of construction. An additional survey may be required if periods of construction inactivity (e.g., gaps of activity during grading, tree removal, road building, or structure assembly) exceed a period of three weeks, an interval during which burrowing owls, in the absence of human or construction-related disturbances, may establish a nesting territory and initiate egg laying and incubation. If the surveys reveal the presence of burrowing owls in or near the construction area, CDFG recommends the following mitigation measures (from CDFG Staff Report on Burrowing Owl Mitigation, October 17, 1995):

a. Occupied burrows should not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFG verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival;

b. To offset the loss of foraging and burrow habitat on the project site, a minimum of 6.5 acres of foraging habitat (calculated on 300 feet foraging radius around the burrow) per pair or unpaired resident bird, should be acquired and permanently protected. The protected lands should be adjacent to occupied burrowing owl habitat and at a location acceptable to CDFG. Protection of additional habitat acreage per pair or unpaired resident bird may be applicable in some instances. Mitigation guidelines developed by the California Burrowing Owl Consortium (CBOC 1993) may also be incorporated into the mitigation requirements;

c. When destruction of occupied burrows is unavoidable, existing unsuitable burrows should be enhanced (enlarged or cleared of debris) or new burrows created (by installing artificial burrows) at a ratio of 2:1 on the protected lands site;
d. If owls must be moved away from the disturbance area, passive relocation techniques should be used rather than trapping. At least one or more weeks will be necessary to accomplish this and allow the owls to acclimate to alternate burrows; and
e. The project sponsor should provide funding for long-term management and monitoring of the protected lands. The monitoring plan should include success criteria, remedial measures, and an annual report to CDFG.

MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in the biological resources mitigation measures required for environmental mitigation including preconstruction and on-going surveys of nesting birds, erosion control for environmental mitigation, and surveys for Swainson Hawks and Burrowing Owls, as specified in the Standard Specifications and these Construction Details shall be included in the contract lump sum price for Environmental Mitigation and no additional compensation will be allowed therefore. .

CULTURAL RESOURCES

No surface examination excludes the possibility of buried resources. These may include historical debris such as ceramics, glass, metal, or food remains such bones, or prehistoric material including chipped stone items like projectiles, ground stone objects such as mortars, pestles, and similar tools, or food remains or human interments. Should any of these items be identified during construction work, activity in the immediate area of the find shall be halted within 150 feet of the find until a qualified archaeologist can evaluate the discovery.

Human Remains

With regard to human remains, Section 7050 of the California Health and Safety Code states that it is a misdemeanor to knowingly disturb a human burial. If human remains are encountered, work shall halt in that vicinity and the Stanislaus County coroner should be notified immediately. At the same time, the Department's archaeologist should be contacted to evaluate the human remains. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of such identification.

Full compensation for all work involved in conforming to the cultural resources mitigation measures required for environmental mitigation shall be considered as

included in the contract price paid for the various items of work involved, and no additional compensation will be allowed therefore.

NOISE

As a means of limiting the potential noise impacts associated with construction activities, the following mitigation measures are recommended:

1. All pneumatic tools and demolition equipment operations are limited to the daytime hours.
2. All equipment should be equipped with factory mufflers.
3. All residents in the vicinity are notified in advance of nighttime construction activities.
4. To the extent possible, the nighttime construction work should be limited to the portion of the project site furthest from the residences.

MEASUREMENT AND PAYMENT

Full compensation for all work involved in conforming to the noise mitigation measures required for environmental mitigation shall be considered as included in the contract prices paid for the various items of work involved, and no additional compensation will be allowed therefore.

TRAFFIC HANDLING

A traffic handling plan shall be followed during construction of the project to avoid impacts to emergency vehicles and emergency response plans.

MEASUREMENT AND PAYMENT

Full compensation for all work involved in conforming to the traffic handling mitigation measures required for environmental mitigation shall be considered as included in the contract price paid for the various items of work involved, and no additional compensation will be allowed therefore.

SECTION 34: PORTABLE CHANGEABLE MESSAGE SIGN

The Contractor shall furnish, place, operate, and maintain at those locations shown on the plans or where designated by the Engineer in conformance with the provisions of Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications for the duration of the project or as directed by the Engineer.

MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor materials, tool, equipment and incidentals for doing all work involved with portable changeable message dign all

in accordance with the plans, specifications and these Construction Details shall be considered as included in the contract unit price paid for Portable Changeable Message Sign and no additional compensation will be allowed therefore.

SECTION 35: 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.

Except as otherwise provided for damaged materials in Section 15-2.04, "Salvage," of the Standard Specifications, the materials to be salvaged shall remain the property of the County, and shall be cleaned, packaged, bundled, tagged, and hauled to the Stanislaus County Corporation Yard at 1716 Morgan Road, Modesto, California and stockpiled.

The Contractor shall notify the Engineer and the Stanislaus County Corporation Yard, telephone (209) 525-6753, a minimum of 48 hours prior to hauling salvaged material to the Corporation Yard.

SECTION 36: ABANDON CULVERT

Existing culverts , where shown on the plans to be abandoned, shall be abandoned in place or, at the option of the Contractor; the culverts shall be removed and disposed of. Resulting openings into existing structures that are to remain in place shall be plugged with commercial quality concrete containing not less than 506 pounds of cement per cubic yard.

Abandoning culverts in place shall conform to the following:

A. Culverts that intersect the side slopes shall be removed to a depth of not less than 3 feet measured normal to the plane of the finished side slope, before being abandoned.
B. Culverts 12 inches in diameter and larger, shall, at the Contractor's option, be backfilled with sand, controlled low strength material or slurry cement backfill conforming to the provisions in Section 19-3.062, "Slurry Cement Backfill," of the Standard Specifications by any method acceptable to the Engineer that completely fills the pipe. Sand backfill material shall be clean, free draining, and free from roots and other deleterious substances.
C. The ends of culverts shall be securely closed by a 0.5-foot thick tight fitting plug or wall of commercial quality concrete.

Culverts shall not be abandoned until their use is no longer required. The Contractor shall notify the Engineer in advance of any intended culvert abandonment.

MEASUREMENT AND PAYMENT

Full compensation for concrete plugs, pipe removal, structure excavation, and backfill (including sand backfill, controlled low strength material or slurry cement backfill), removal of concrete headwalls, and bar reinforcement shall be considered as included in the contract price paid linear foot for Abandon Culvert and no additional compensation will be allowed therefore.

SECTION 37: 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 that no fumes or smoke will be produced. The cold planing machine shall plane 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 shown on the construction detail plans or as designated 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 and shall be the entire width of the area to be surfaced.

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 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 1:30 (Vertical: Horizontal) 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 loose material from the underlying surface, before placing the permanent surfacing. The removed material shall be disposed of outside the County 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.

Operations shall be scheduled so 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 the conform lines.

The material planed from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way, shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications. Removal operations of cold planed material shall be concurrent with planing operations and follow within 50 feet of the planer, unless otherwise directed by the Engineer.

MEASUREMENT AND PAYMENT

Cold plane asphalt concrete pavement will be measured by the square foot. The quantity to be paid for will be the actual area of surface cold planed irrespective of the number of passes required to obtain the depth shown on the plans.

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 the Standard Specifications and these Construction Details shall be included in the contract unit price for Cold Plane Asphalt Concrete Pavement and no additional compensation will be allowed therefore.

SECTION 38: EXISTING DRIVEWAYS

If, in the opinion of the Engineer, the Contractor has caused any damage to the existing driveway facilities leading to the adjacent properties in the vicinity of the Work, the Contractor, at his own expense, shall, as directed by the Engineer, take immediate steps to repair such damages to the satisfaction of the Engineer.

SECTION 39: CONTROLLED LOW STRENGTH MATERIAL

Controlled low strength material shall consist of a workable mixture of aggregate, cementitious materials, and water and shall conform to the provisions for slurry

cement backfill in Section 19-3.062, "Slurry Cement Backfill," of the Standard Specifications and these Construction Details.

At the option of the Contractor, controlled low strength material may be used as structure backfill for pipe culverts, except that controlled low strength material shall not be used as structure backfill for culverts having a diameter or span greater than 20 feet.

When controlled low strength material is used for structure backfill, the width of the excavation shown on the plans may be reduced so that the clear distance between the outside of the pipe and the side of the excavation, on each side of the pipe, is a minimum of 12 inches. This minimum may be reduced to 6 inches when the height of cover is less than or equal to 20 feet or the pipe diameter or span is less than 42 inches.

Controlled low strength material in new construction shall not be permanently placed higher than the basement soil. For trenches in existing pavements, permanent placement shall be no higher than the bottom of the existing pavement permeable drainage layer. If a drainage layer does not exist, permanent placement in existing pavements shall be no higher than one inch below the bottom of the existing asphalt concrete surfacing or no higher than the top of base below the existing potland cement concrete pavement. The minimum height that controlled low strength material shall be placed, relative to the culvert invert, is 0.5 diameters or 0.5 heights for rigid culverts and 0.7 diameters or 0.7 heights for flexible culverts.

When controlled low strength material is proposed for use, the Contractor shall submit a mix design and test data to the Engineer for approval prior to excavating the trench for which controlled low strength material is proposed for use. The test data and mix design shall provide for the following:

A. A 28-day compressive strength between 50 pounds per square inch and 100 pounds per square inch for pipe culverts having a height of cover of 20 feet or less and a minimum 28-day compressive strength of 100 pounds per square inch for pipe culverts having a height of cover greater than 20 feet. Compressive strength shall be determined in conformance with the requirements in ASTM Designation: D 4832.
B. Cement shall be any type of portland cement conforming to the requirements in ASTM Designation: C 150; or any type of blended hydraulic cement conforming to the requirements in ASTM Designation: C 595M or the physical requirements in ASTM Designation: C 1157M. Testing of cement will not be required.
C. Admixtures may be used in conformance with the provisions in Section 90-4, "Admixtures," of the Standard Specifications. Chemical admixtures containing chlorides as Cl in excess of one percent by weight of admixture, as determined in conformance with the requirements of California Test 415, shall

not be used. If an air-entraining admixture is used, the maximum air content shall be limited to 20 percent. Mineral admixtures shall be used at the Contractor's option.

Materials for controlled low strength material shall be thoroughly machine-mixed in a pugmill, rotary drum or other approved mixer. Mixing shall continue until the cementitious material and water are thoroughly dispersed throughout the material. Controlled low strength material shall be placed in the work within 3 hours after introduction of the cement to the aggregates.

When controlled low strength material is to be placed within the traveled way or otherwise to be covered by paving or embankment materials, the material shall achieve a maximum indentation diameter of 3 inches prior to covering and opening to public traffic. Penetration resistance shall be measured in conformance with the requirements in ASTM Designation: D 6024.

MEASUREMENT AND PAYMENT

Full compensation for furnishing and installing controlled low strength material shall be considered as included in the contract price paid for the item requiring controlled low strength material and no additional compensation will be allowed therefore.

Controlled low strength material used as structure backfill for pipe culverts will be considered structure backfill for compensation purposes.

SECTION 40: SHOULDER BACKING

This work shall consist of constructing shoulder backing adjacent to the edge of new pavement surfacing in conformance with the details shown on the plans and these special provisions.

Material for shoulder backing shall be imported material or material processed from reclaimed portland cement concrete, lean concrete base, cement treated base, or a combination of any of these materials, conforming to the following grading and quality requirements:

Grading Requirements		Quality Requirements		
Sieve Sizes	Percentage Passing	Specification	California Test	Requirement
2"	100	Sand Equivalent	217	10 minimum-30 maximum
1"	75 - 100	Resistance (R-value)	301	50 minimum
No. 4	40 - 60	Percentage Crushed Particles	205	75% minimum

No. 30	12 - 35	Durability Index	229	20 minimum
No. 200	5 - 20			

At the option of the Contractor, aggregate for shoulder backing may consist of material processed from reclaimed asphalt concrete conforming to the following grading and quality requirements:

Grading Requirements		Quality Requirements		
Sieve Sizes	Percentage Passing	Specification	California Test	Requirement
2"	100	Resistance (R-value)	301	50 minimum
3/4"	70 - 100	Percentage Crushed Particles	205	75% minimum
No. 4	30 - 80	Durability Index	229	20 minimum

Coarse aggregate consisting of material retained on the No. 4 sieve, shall consist of material of which at least 75 percent by weight shall be crushed particles with a minimum of two fractured faces, as determined in conformance with California Test 205.

Shoulder backing material shall have a minimum unit weight of 135 pounds per cubic foot as determined in conformance with California Test 212.

Shoulder backing material shall not be treated with lime, cement, or other chemical mixtures.

Shoulder backing material consisting of reclaimed asphalt concrete, shall not be placed within 100 feet measured horizontally of any culvert, watercourse, or bridge within the project limits.

The areas where shoulder backing is to be constructed shall be cleared of weeds, grass, and debris. Removed weeds grass and debris shall be disposed of in conformance with the provisions in Section 7-1.13, "Disposal of Material Outside the Highway Right of Way," of the Standard Specifications.

Prior to placement of shoulder backing material, basement material shall be scarified to a minimum depth of 3 inches. Immediately prior to placement of shoulder backing material, scarified material shall be watered. Shoulder backing material shall be placed, watered, and rolled a minimum of two passes with a steel tired roller weighing not less than 8 tons to form a smooth, compacted surface. Watering shall conform to the provisions in Section 17, "Watering," of the Standard Specifications.

Shoulder backing material shall not be deposited on new pavement surfacing prior to placing the material in the final position, nor shall the material be deposited onto new pavement surfacing during mixing, watering, and blading operations.

Shoulder backing construction shall be completed along the edges of any portion of new pavement surfacing within 5 days after completion of that portion of the new surfacing. Prior to opening a lane adjacent to uncompleted shoulder backing to uncontrolled public traffic, the Contractor shall furnish, place, and maintain portable delineators and W8-9 (LOW SHOULDER) signs off of and adjacent to the new pavement surfacing. Portable delineators shall be placed at the beginning and along the drop-off of the edge of pavement, in the direction of travel, at successive maximum intervals of 500 feet on tangents and 200 feet on curves. W8-9 (LOW SHOULDER) signs shall be placed at the beginning and along the drop-off at successive maximum intervals of 2,000 feet. The portable delineators and W8-9 (LOW SHOULDER) signs shall be maintained in place at each location until the shoulder backing is completed at that location. Portable delineators and signs shall conform to the provisions in Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications, except the signs may be set on temporary portable supports or on barricades.
Quantities of imported material (shoulder backing) will be measured by the ton in conformance with the provisions in Section 9-1.01, "Measurement of Quantities," of the Standard Specifications, except that the weight of water in the aggregate will not be determined and no deduction will be made from the weight of material delivered to the work.

MEASUREMENT AND PAYMENT

Full compensation for doing all the work involved in constructing shoulder backing including furnishing all labor, materials, tools, equipment, complete in place, shall be considered as included in the contract price paid Roadway Excavation and no additional compensation will be allowed therefore.

SECTION 41: REINFORCEMENT

Reinforcement shall conform to the provisions in Section 52, "Reinforcement," of the Standard Specifications and these Construction Details.

The State Department's mechanical splices prequalified list can be found at the following internet site:

http://www.dot.ca.gov/hq/esc/approved_products_list/

The provisions of "Welding Quality Control" of these special provisions shall not apply to resistance butt welding.

MEASUREMENT AND PAYMENT

Full compensation for bar reinforcement, including furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing reinforcement, complete in place, as specified in the Standard Specifications and these Construction Details shall be considered as included in the contract lump sum price paid for signal and lighting, and no additional compensation will be allowed therefore.

SECTION 42: REINFORCED CONCRETE PIPE

Reinforced concrete pipe shall conform to the provisions in Section 65, "Reinforced Concrete Pipe," of the Standard Specifications, Section 4.7, "Pipe," of the County Standard Specifications, and these Construction Details.

Where embankment will not be placed over the top of the pipe, a relative compaction of not less than 85 percent shall be required below the pipe spring line for pipe installed using Method 1 backfill in trench, as shown on Standard Plan A62D. Where the pipe is to be placed under the traveled way, a relative compaction of not less than 90 percent shall be required unless the minimum distance between the top of the pipe and the pavement surface is the greater of 4 feet or one half of the outside diameter of the pipe.

Except as otherwise designated by classification on the plans or in the specifications, joints for culvert and drainage pipes shall conform to the Standard Plans or specifications for standard joints.

When reinforced concrete pipe is installed in conformance with the details shown on Standard Plan A62DA, the fifth paragraph of Section 19-3.04, "Water Control and Foundation Treatment," of the Standard Specifications shall not apply.

When solid rock or other unyielding material is encountered at the planned elevation of the bottom of the bedding, the material below the bottom of the bedding shall be removed to a depth of 1/50 of the height of the embankment over the top of the culvert, but not less than 6 inches nor more than 12 inches. The resulting trench below the bottom of the bedding shall be backfilled with structure backfill material in conformance with the provisions in Section 19-3.06, "Structure Backfill," of the Standard Specifications.

The excavation and backfill below the planned elevation of the bottom of the bedding will be paid for as extra work as provided in Section 4-1.03D, "Extra Work," of the Standard Specifications.

The Outer Bedding shown on Standard Plan A62DA shall not be compacted prior to placement of the pipe.

MEASUREMENT AND PAYMENT

Full compensation for furnishing and installing reinforced concrete pipe (rubber gasket joint) shall be considered as included in the contract unit price paid for the various sizes of Reinforced Concrete Pipe (Rubber Gasket Joint) and no additional compensation will be allowed therefore.

SECTION 42: CORRUGATED METAL PIPE

Corrugated steel pipe culverts shall conform to the provisions in Section 66, "Corrugated Metal Pipe," of the Standard Specifications and these Construction Details.

Corrugated steel pipe shall be fabricated from zinc-coated steel sheet.

MEASUREMENT AND PAYMENT

Full compensation for furnishing and installing corrugated metal pipe shall be considered as included in the contract unit price paid for 10" Corrugated Steel Pipe and no additional compensation will be allowed therefore.

SECTION 43: PLASTIC PIPE (SUPPLY LINE)

Plastic pipe (supply line) shall conform to the provisions in Section 20-2.15B, "Plastic Pipe," of the Standard Specifications and these Construction Details.

MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in plastic pipe (supply line), complete in place, including structure excavation and structure backfill, and connecting new pipe to existing facilities, including all connection appurtenances, as specified in the Standard Specifications and these Construction Details shall be included in the contract unit price for 4" Plastic Pipe (PR 135) (Supply Line) and no additional compensation will be allowed therefore.

SECTION 44: MISCELLANEOUS FACILITIES

Flared end sections shall conform to the provisions in Section 70, "Miscellaneous Facilities," of the Standard Specifications.

MEASUREMENT AND PAYEMENT

Full compensation for furnishing and installing flared end section shall be considered as included in the contract unit price paid for the various sizes of

Concrete Flared End Section and no additional compensation will be allowed therefore.

SECTION 45: MISCELLANEOUS CONCRETE CONSTRUCTION

Minor concrete (curb) shall conform to the provisions in Section 73, "Concrete Curbs and Sidewalks," of the Standard Specifications and these Construction Details.

MEASUREMENT AND PAYMENT

Full compensation for furnishing and installing minor concrete shall be considered as included in the contract unit price paid for Minor Concrete (Curb) and no additional compensation will be allowed therefore.

SECTION 46: TYPE BW FENCE

Type BW fence shall conform to the provisions in Section 80, "Fences," of the Standard Specifications and these Construction Details.

The fence material shall be fastened to metal posts. Metal posts shall be painted a brown color.

MEASUREMENT AND PAYMENT

Full compensation for furnishing and installing type BW fence shall be considered as included in the contract unit price paid for Type BW Fence and no additional compensation will be allowed therefore.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	Sta	CR		1	34

INDEX OF SHEETS

1	TITLE SHEET
2	TYPICAL SECTION
3	KEY MAP
4-10	LAYOUT
11-13	CONSTRUCTION DETAILS
14	TEMPORARY WATER POLLUTION CONTROL DETAILS
15	DRAINAGE PROFILES
16	DRAINAGE QUANTITIES
17-21	UTILITY PLANS
22	CONSTRUCTION AREA SIGNS
23-29	PAVEMENT DELINEATION AND SIGN PLAN
30-31	PAVEMENT DELINEATION AND SIGN QUANTITIES
32	SUMMARY OF QUANTITIES
33-34	SIGNAL AND LIGHTING

STANISLAUS COUNTY

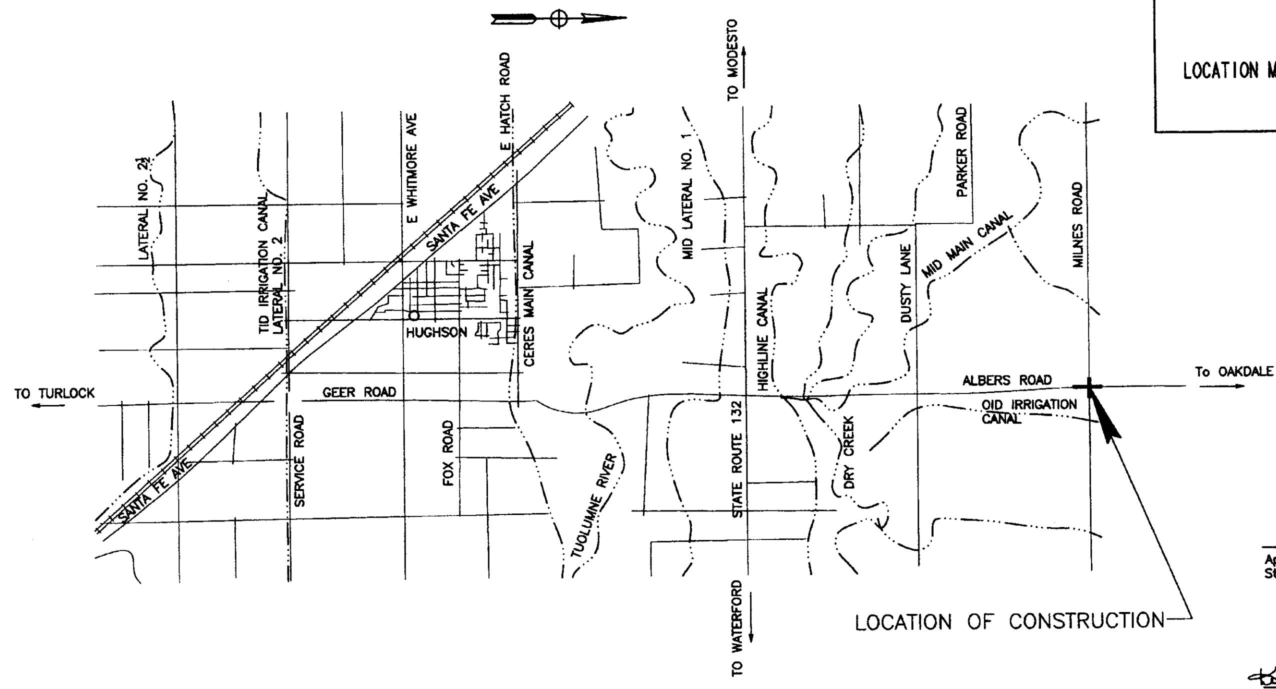
DEPARTMENT OF PUBLIC WORKS

PROJECT PLANS FOR CONSTRUCTION OF

TRAFFIC CONGESTION RELIEF PROJECT "A"

IN STANISLAUS COUNTY
AT THE INTERSECTION OF ALBERS ROAD AND MILNES ROAD

To be supplemented by State of California, Standard Plans for Construction of Local Streets and Roads dated July, 2002



8-31-07
Approved as to features affecting Stanislaus County facilities

3/23/07
Project Engineer Date
Registered Civil Engineer

REGISTERED PROFESSIONAL ENGINEER K.D. Rhodes No. C53587 Exp. 6-30-07 CIVIL STATE OF CALIFORNIA

March 23, 2007
Plans Approval Date

PROJECT ENGINEER	DATE	PROJECT MANAGER	DATE
K.D. RHODES	03/07	K.D. RHODES	03/07

The Contractor shall possess the Class (or classes) of license as specified in the "Notice to Contractors".

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

Contract No

TRAFFIC CONGESTION RELIEF PROJECT "A"

s161rl.dwg, Mon, 07 May 2007 - 10:18am, joeb

NOTES:
1. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SHOULDER BACKING.
3. NATIVE MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% AT A MINIMUM DEPTH OF 2.5 FEET BELOW THE FINISHED GRADE AS SPECIFIED IN THE STANDARD SPECIFICATIONS WITH NO EXCEPTIONS.

DESIGN DESIGNATION (ALBERS ROAD)

2004 ADT = 9,267 T = 19.13%
2025 ADT = 17,757 V = 65 MPH
TI = 12

DESIGN DESIGNATION (MILNES ROAD)

T = 11.0% TI = 10
V = 65 MPH

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		2	34

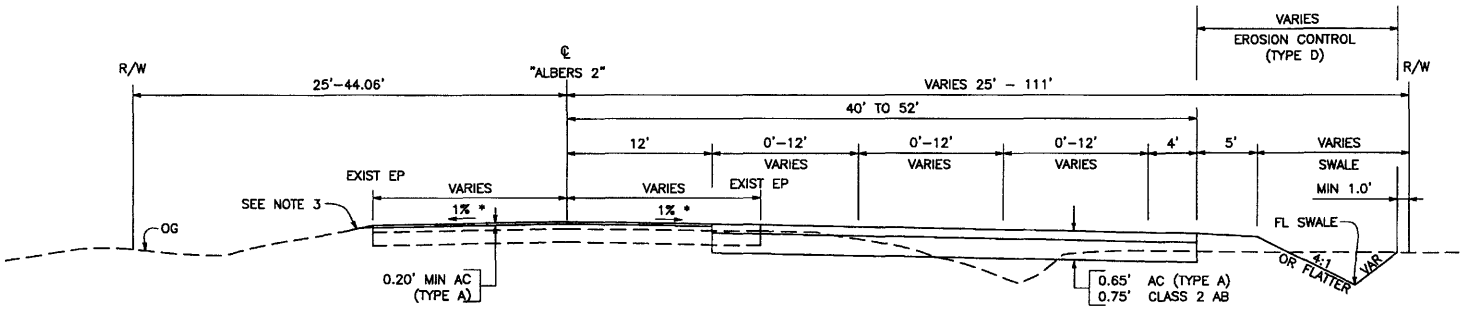
REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

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

K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

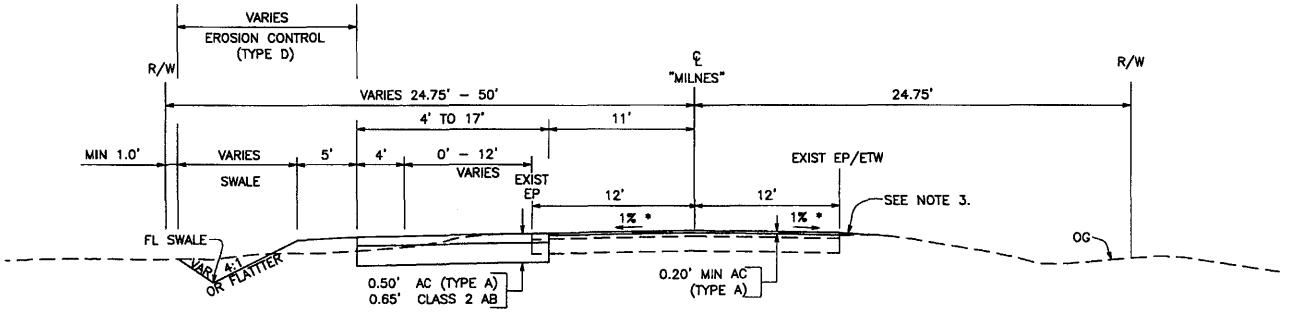
Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827



ALBERS ROAD

* 2% FROM STA 111+91.00 TO 117+50.00
AND FROM STA 128+50.00 TO 133+48.00

"ALBERS 2" LINE
STA 111+91.00 TO STA 133+48.00



MILNES ROAD

* 2% FROM STA 13+14.00 TO 18+00.00

"MILNES" LINE
STA 13+14.00 TO STA 31+40.27

ALBERS ROAD / MILNES ROAD INTERSECTION TYPICAL SECTION

NO SCALE

X-1

AGENCY NAME	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	REVISED
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS	KEITH D. RHODES	KP	KT	3/05	KR	3/07
				12/04		

GRAPHIC SCALE (IN FEET) 0 30 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

Last Revised: ts161rx.dwg, Fri, 04 May 2007 - 11:15am, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		3	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

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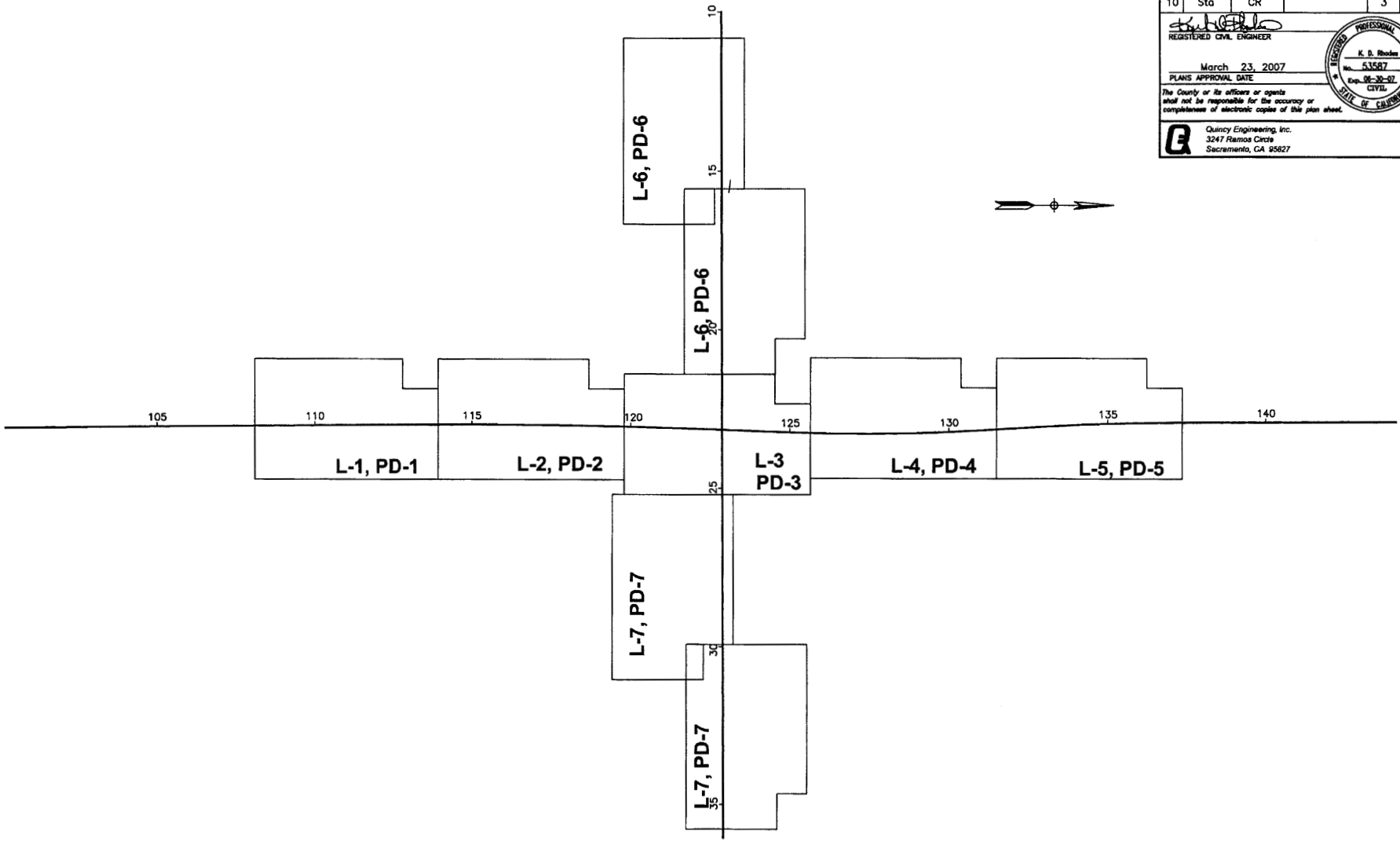
REGISTERED PROFESSIONAL ENGINEERS — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

AGENCY NAME	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS	KEITH D. RHODES	KP	KT	12/04	REVISED
				3/05	KR
				3/07	



ALBERS ROAD / MILNES ROAD INTERSECTION KEY MAP

NO SCALE

K-1

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rmp4.dwg Fri, 04 May 2007 - 11:17am, joeb

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORDS MAPS AT COUNTY OFFICE.
2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		4	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

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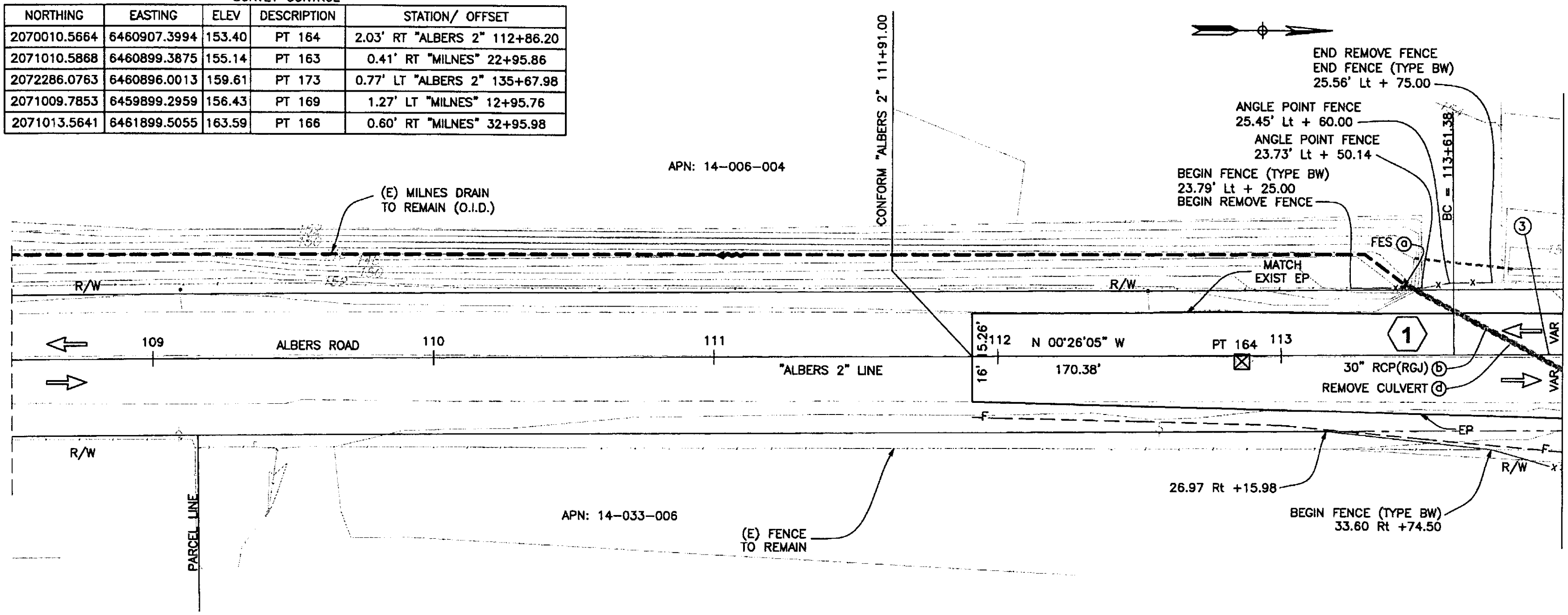
Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

CURVE DATA TABLE

No	R	Δ	T	L
③	20000'	2°32'38"(RT)	444.07'	887.99'

SURVEY CONTROL

NORTHING	EASTING	ELEV	DESCRIPTION	STATION/ OFFSET
2070010.5664	6460907.3994	153.40	PT 164	2.03' RT "ALBERS 2" 112+86.20
2071010.5868	6460899.3875	155.14	PT 163	0.41' RT "MILNES" 22+95.86
2072286.0763	6460896.0013	159.61	PT 173	0.77' LT "ALBERS 2" 135+67.98
2071009.7853	6459899.2959	156.43	PT 169	1.27' LT "MILNES" 12+95.76
2071013.5641	6461899.5055	163.59	PT 166	0.60' RT "MILNES" 32+95.98



LEGEND

Symbol	Description
—o— — —F— — —	CUT AND FILL LINE
R/W	R/W
⇨	DIRECTION OF TRAFFIC
〰	FLOW LINE EXISTING SWALE
⊠	SURVEY CONTROL POINT
— — —▷ —	FLOW LINE
▨	DRIVEWAY APPROACH

ABBREVIATIONS

(E)	EXISTING
TBRBO	TO BE RELOCATED BY OTHERS
UP	UTILITY POLE
E/O	EAST OF
W/O	WEST OF
N/O	NORTH OF
S/O	SOUTH OF
RCP (RGJ)	REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)
O.I.D.	OAKDALE IRRIGATION DISTRICT

ALBERS ROAD S/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

L-1

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

AGENCY NAME

PROJECT ENGINEER: KEITH D. RHODES

CALCULATED/DESIGNED BY: KP | DATE 3/05 | REVISED BY: KR 3/07

CHECKED BY: KT | 12/04 | REVISED

s161rlo.dwg, Fri, 04 May 2007 - 12:08pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		5	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

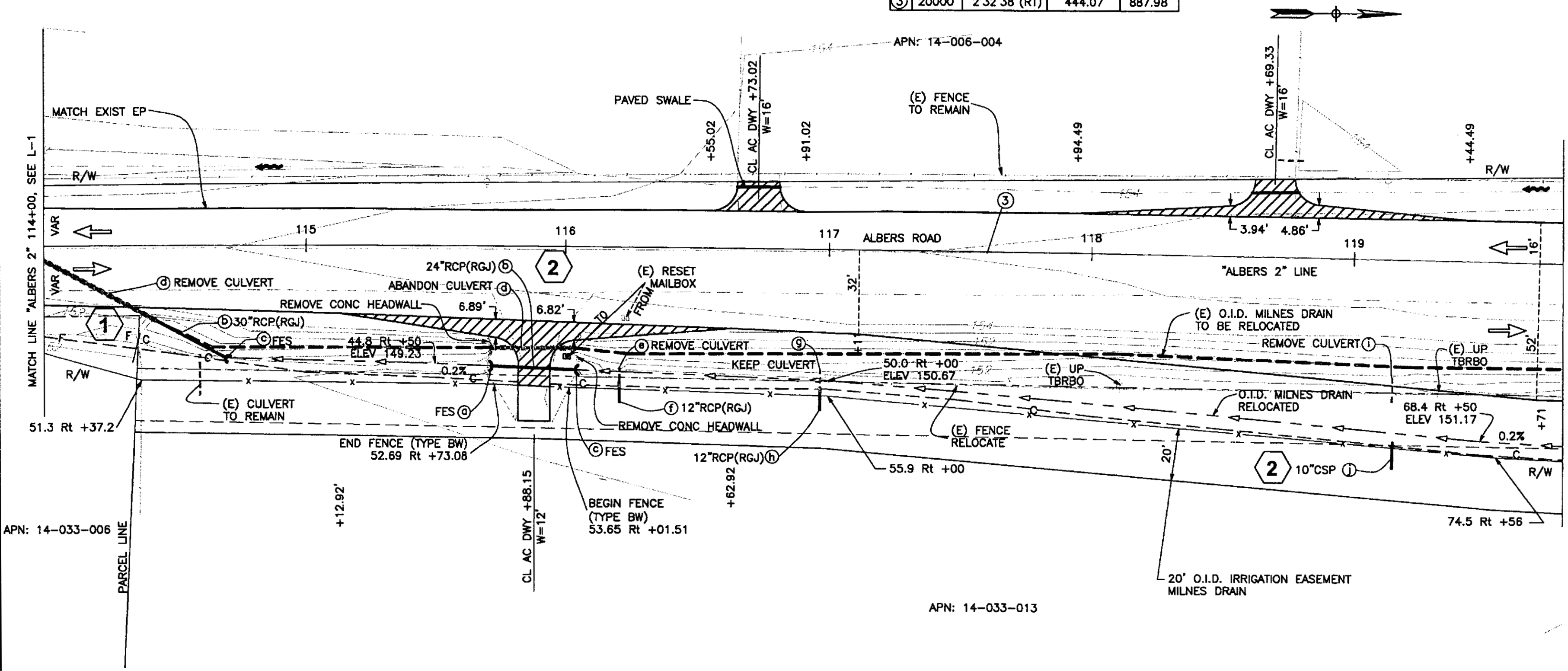
Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORDS MAPS AT COUNTY OFFICE.
2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.

CURVE DATA TABLE

No	R	Δ	T	L
3	20000'	2°32'38"(RT)	444.07'	887.98'



ALBERS ROAD S/O MILNES ROAD

ALBERS ROAD / MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

L-2

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

s161rlo.dwg, Fri, 04 May 2007 - 12:09pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		6	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER K. O. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

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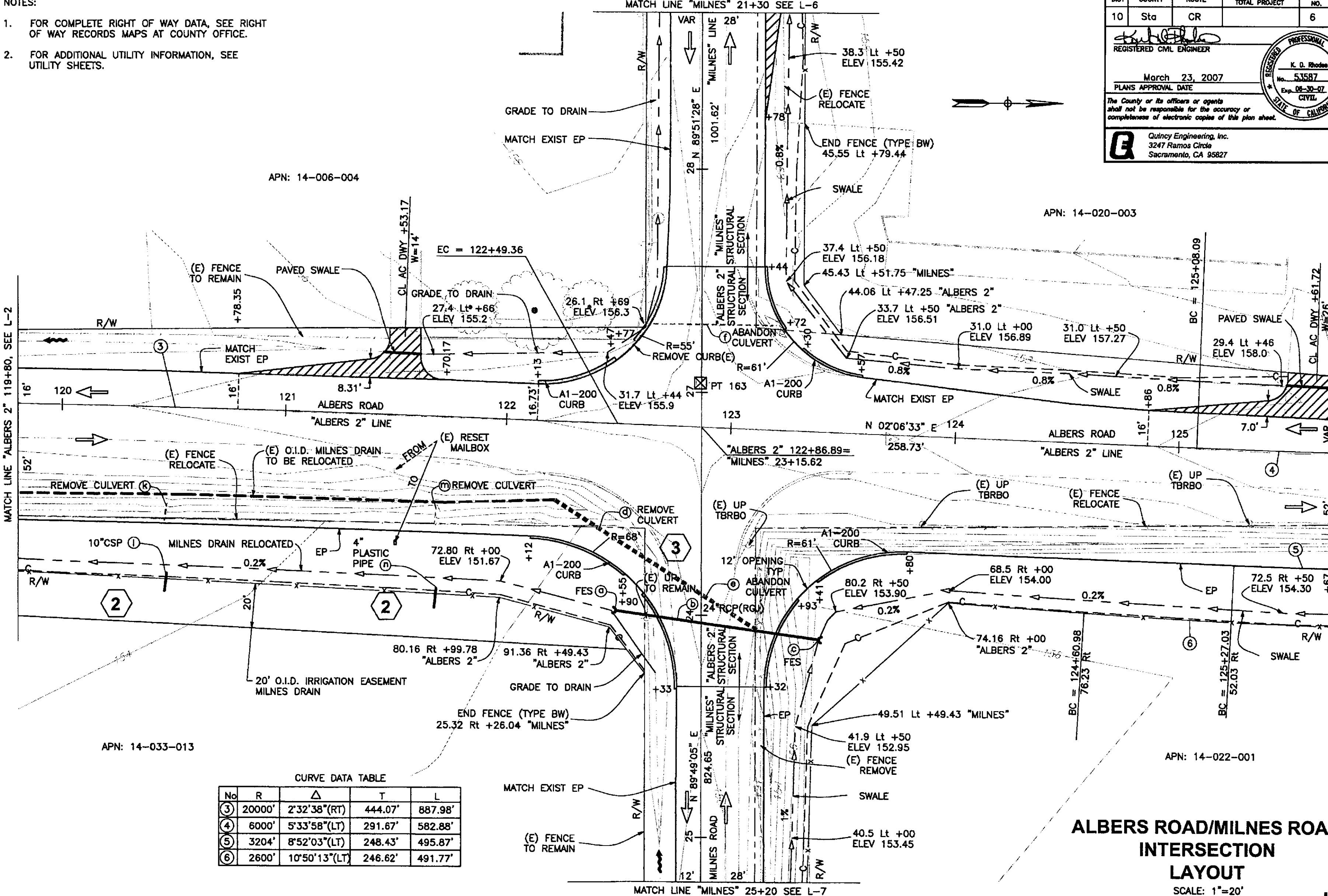

MATCH LINE "MILNES" 21+30 SEE L-6
MATCH LINE "MILNES" 25+20 SEE L-7
MATCH LINE "ALBERS 2" 119+80, SEE L-2
MATCH LINE "ALBERS 2" 125+70, SEE L-4
APN: 14-006-004
APN: 14-020-003
APN: 14-033-013
APN: 14-022-001
ALBERS ROAD
"ALBERS 2" LINE
MILNES ROAD
"MILNES" LINE
"ALBERS 2" 122+86.89= "MILNES" 23+15.62
EC = 122+49.36
BC = 125+08.09
BC = 124+60.98 76.23 Rt
BC = 125+27.03 52.03 Rt
N 02°06'33" E 258.73'
N 89°51'28" E 1001.62'
N 89°49'05" E 824.65'
PT 163
GRADE TO DRAIN
MATCH EXIST EP
PAVED SWALE
SWALE
REMOVE CULVERT
MILNES DRAIN RELOCATED
20' O.I.D. IRRIGATION EASEMENT MILNES DRAIN
(E) O.I.D. MILNES DRAIN TO BE RELOCATED
(E) RESET MAILBOX
(E) FENCE TO REMAIN
(E) FENCE RELOCATE
(E) FENCE REMOVE
(E) UP TBRBO
A1-200 CURB

CURVE DATA TABLE

No	R	Δ	T	L
3	20000'	2°32'38"(RT)	444.07'	887.98'
4	6000'	5°33'58"(LT)	291.67'	582.88'
5	3204'	8°52'03"(LT)	248.43'	495.87'
6	2600'	10°50'13"(LT)	246.62'	491.77'

ALBERS ROAD/MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

L-3

TRAFFIC CONGESTION RELIEF PROJECT "A"

AGENCY NAME	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS	KEITH D. RHODES	CHECKED BY	KT	12/04	REVISED	3/07

e161rlo.dwg, Fri, 04 May 2007 - 12:08pm, joeb

AGENCY NAME	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS	KEITH D. RHODES	CHECKED BY	KT	12/04	REVISED	3/07

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORDS MAPS AT COUNTY OFFICE.
2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.

CURVE DATA TABLE

No	R	Δ	T	L
(4)	6000'	5°33'58"(LT)	291.66'	582.87'
(5)	3204'	8°52'03"(LT)	248.43'	495.87'
(6)	2600'	10°50'13"(LT)	246.62'	491.77'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		7	34

REGISTERED CIVIL ENGINEER

March 23, 2007

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

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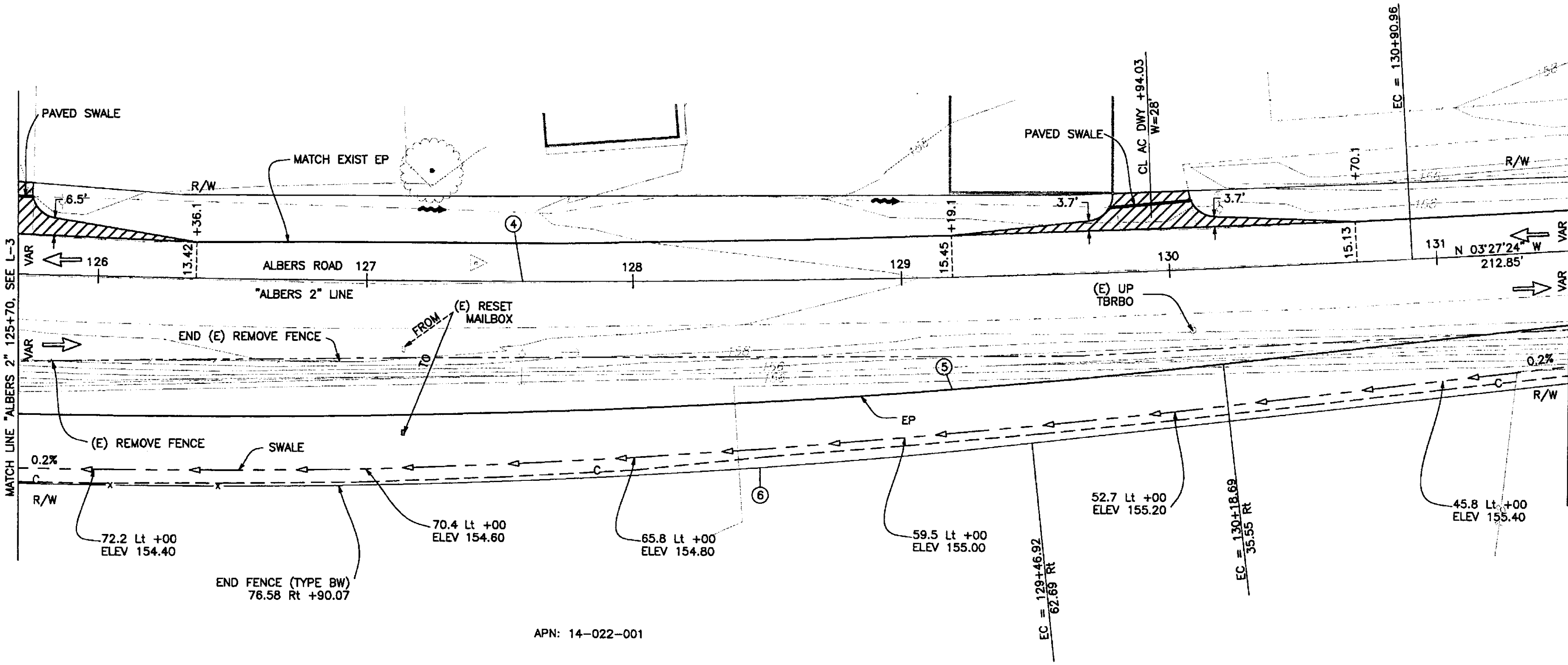
Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

APN: 14-020-003



APN: 14-022-001

ALBERS ROAD N/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

L-4

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION a161rlo.dwg, Fri, 04 May 2007 - 12:09pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		8	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

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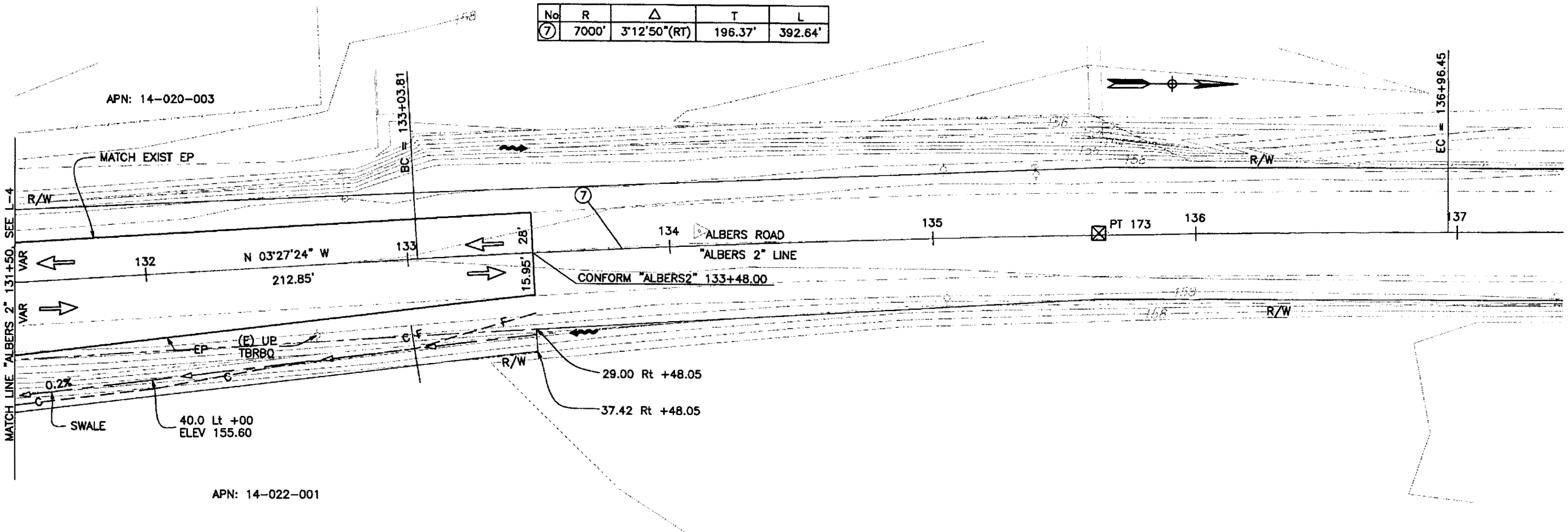
Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORDS MAPS AT COUNTY OFFICE.
2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.

CURVE DATA TABLE

No	R	Δ	T	L
7	7000'	3°12'50"(RT)	196.37'	392.64'



ALBERS ROAD N/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

L-5

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

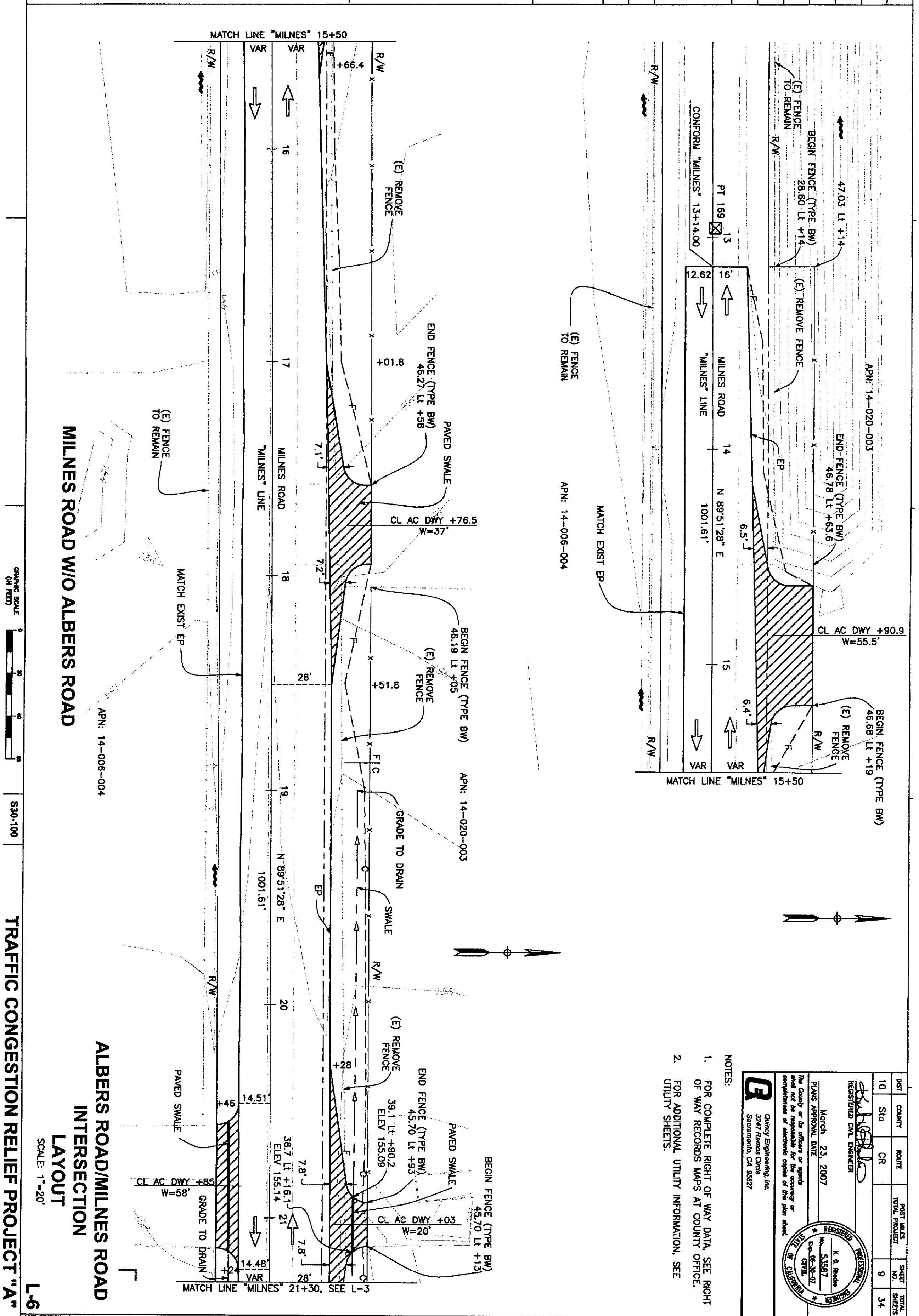
CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

s161rlo.dwg, Fri, 04 May 2007 - 12:09pm, joeb

AGENCY NAME	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS	KEITH D. RHODES	CHECKED BY	KT	12/04	REVISED	3/07



NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORDS MAPS AT COUNTY OFFICE.
2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		9	34

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE March 23, 2007

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Quincy Engineering, Inc. 3247 Ramos Circle Sacramento, CA 95827

REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53567 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

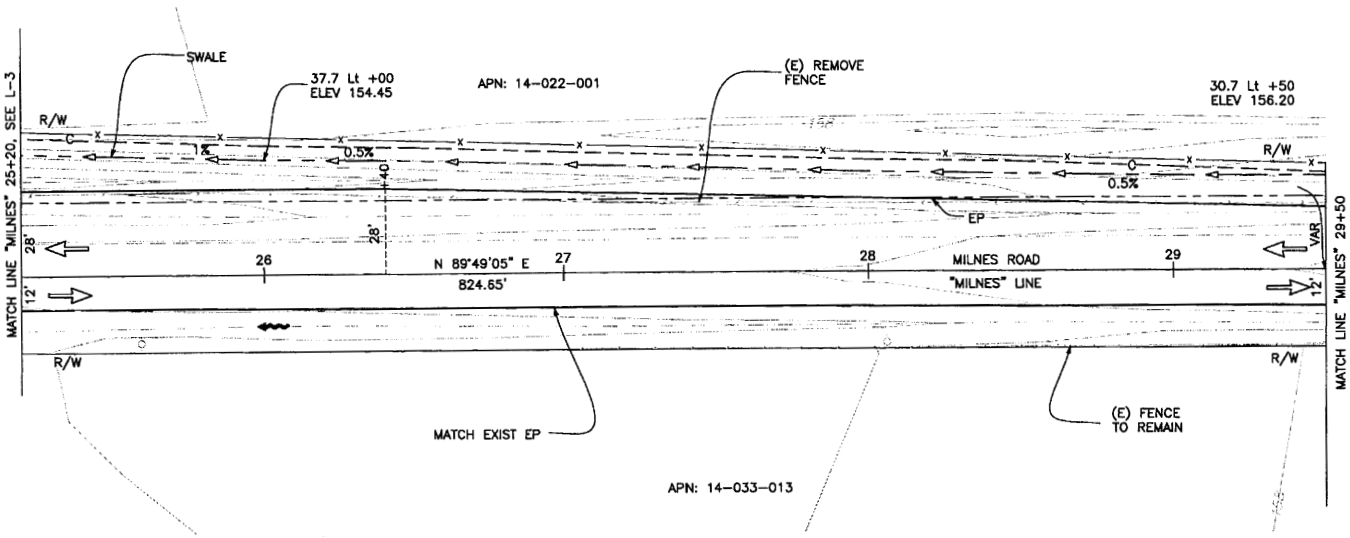
TRAFFIC CONGESTION RELIEF PROJECT "A"

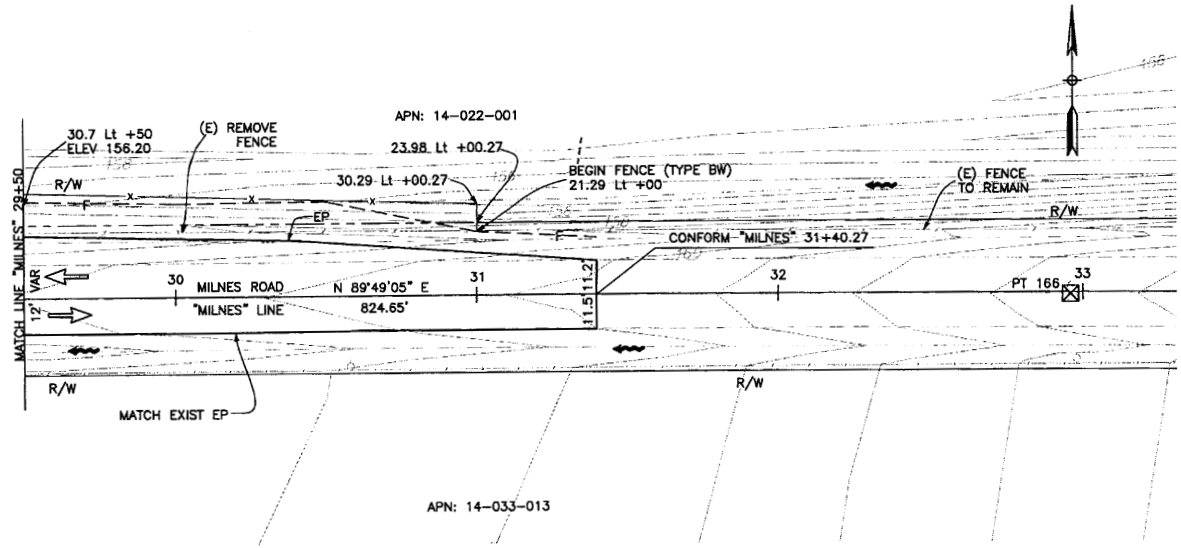
ALBERS ROAD/MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

L-6

LAST REVISION s161rlo.dwg, Mon, 07 May 2007 - 10:27am, joeb





MILNES ROAD E/O ALBERS ROAD

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		10	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORDS MAPS AT COUNTY OFFICE.
2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.

DATE	REVISED BY
3/05	KR
12/04	REVISED
	3/07

CALCULATED/DESIGNED BY: KP
CHECKED BY: KT

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 30 40 80

S30-100

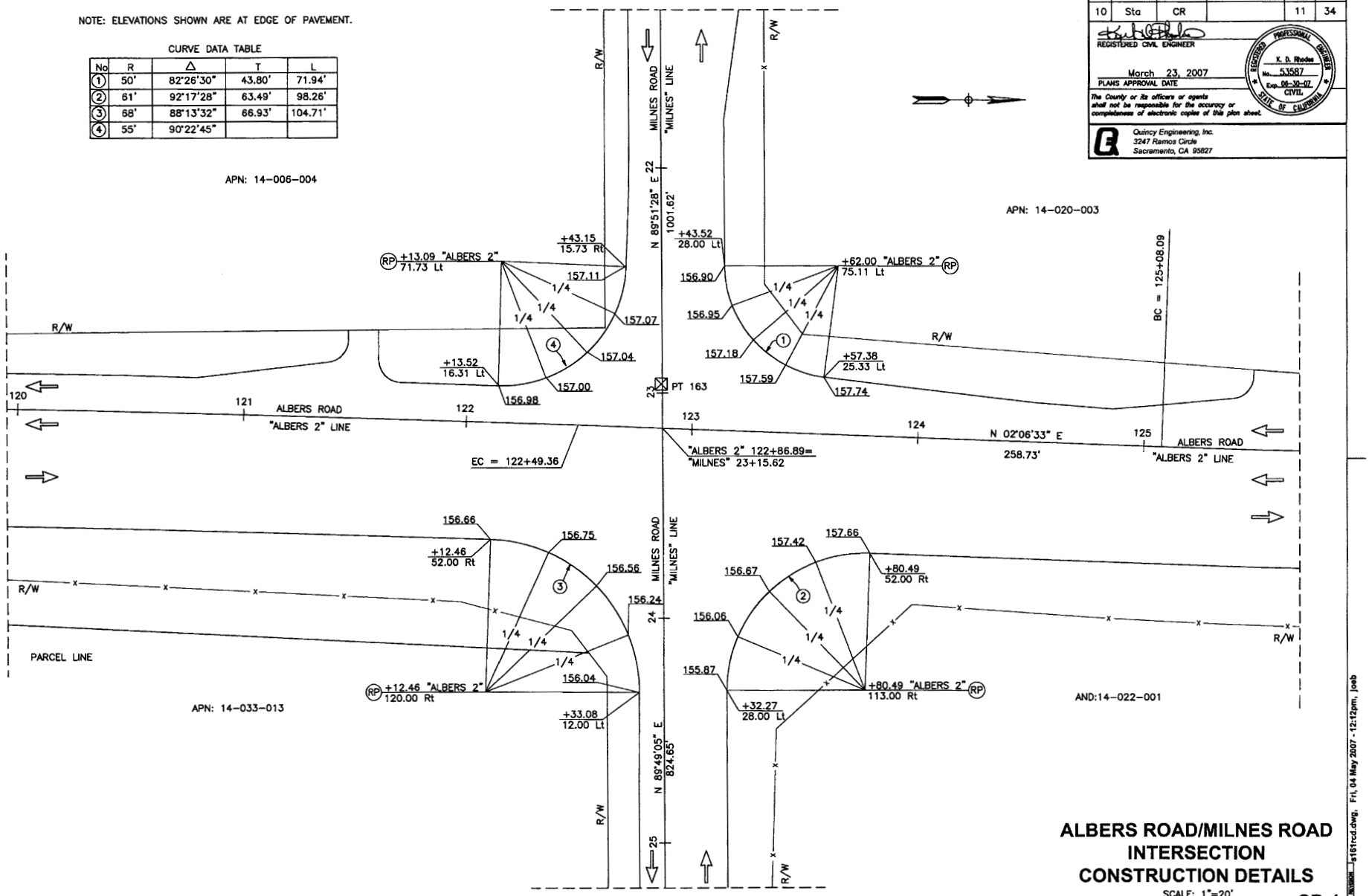
ALBERS ROAD/MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

L-7

TRAFFIC CONGESTION RELIEF PROJECT "A"

USER_NAME = s161rlo.dwg, Fri, 04 May 2007 - 12:09pm, joeb


NOTE: ELEVATIONS SHOWN ARE AT EDGE OF PAVEMENT.
CURVE DATA TABLE
No R Δ T L
1 50' 82°26'30" 43.80' 71.94'
2 61' 92°17'28" 63.49' 98.26'
3 68' 88°13'32" 66.93' 104.71'
4 55' 90°22'45"
APN: 14-006-004
APN: 14-020-003
APN: 14-033-013
AND:14-022-001
MILNES ROAD
"MILNES" LINE
N 89°51'28" E 1001.62'
N 89°49'05" E 824.65'
N 02°06'33" E 258.73'
ALBERS ROAD
"ALBERS 2" LINE
PT 163
BC = 125+08.09
EC = 122+49.36
"ALBERS 2" 122+86.89=
"MILNES" 23+15.62
PARCEL LINE
R/W
+13.09 "ALBERS 2" 71.73 Lt
+43.15 15.73 Rt
+13.52 16.31 Lt
+43.52 28.00 Lt
+62.00 "ALBERS 2" 75.11 Lt
+57.38 25.33 Lt
+12.46 52.00 Rt
+12.46 "ALBERS 2" 120.00 Rt
+33.08 12.00 Lt
+80.49 52.00 Rt
+80.49 "ALBERS 2" 113.00 Rt
+32.27 28.00 Lt
1/4
DIST COUNTY ROUTE POST MILES TOTAL PROJECT SHEET NO. TOTAL SHEETS
10 Sta CR 11 34
REGISTERED CIVIL ENGINEER
March 23, 2007
PLANS APPROVAL DATE
The County or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.
K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL
REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA
Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827
AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS
PROJECT ENGINEER
KEITH D. RHODES
CALCULATED/DESIGNED BY KP
CHECKED BY KT
DATE 3/05 12/04
REVISED BY KR
REVISED 3/07
ALBERS ROAD/MILNES ROAD
INTERSECTION
CONSTRUCTION DETAILS
SCALE: 1"=20'
CD-1
GRAPHIC SCALE (IN FEET) 0 20 40 80
S30-100
TRAFFIC CONGESTION RELIEF PROJECT "A"
LAST REVISION s161rcd.dwg, Fri, 04 May 2007 - 12:12pm, joeb

PAVEMENT ELEVATIONS
ALBERS ROAD/MILNES ROAD

LINE	STATION	LT/RT	OFFSET FT	ELEVATION FT
ALBERS 2	111+91	LT	15.26	153.35
		RT	16.00	153.34
ALBERS 2	112+00	LT	15.26	153.34
		RT	16.28	153.32
ALBERS 2	112+50	LT	15.32	153.29
		RT	17.82	153.24
ALBERS 2	113+00	LT	15.25	153.31
		RT	19.36	153.23
ALBERS 2	113+50	LT	14.77	153.47
		RT	20.90	153.35
ALBERS 2	114+00	LT	14.50	153.63
		RT	22.44	153.47
ALBERS 2	114+50	LT	14.02	153.82
		RT	23.97	153.62
ALBERS 2	115+00	LT	14.06	154.04
		RT	25.51	153.81
ALBERS 2	115+50	LT	13.85	154.28
		RT	31.37	153.93
ALBERS 2	116+00	LT	14.03	154.50
		RT	36.50	154.05
ALBERS 2	116+50	LT	14.32	154.66
		RT	31.67	154.31
ALBERS 2	117+00	LT	14.44	154.80
		RT	31.67	154.46
ALBERS 2	117+50	LT	14.91	154.95
		RT	35.20	154.54
ALBERS 2	118+00	LT	15.64	155.22
		RT	39.21	154.98
ALBERS 2	118+50	LT	19.07	155.34
		RT	43.10	155.10
ALBERS 2	119+00	LT	19.14	155.51
		RT	46.87	155.23
ALBERS 2	119+50	LT	15.68	155.71
		RT	50.51	155.36
ALBERS 2	120+00	LT	15.81	155.86
		RT	52.00	155.50
ALBERS 2	120+50	LT	16.08	156.14
		RT	52.00	155.78
ALBERS 2	121+00	LT	18.97	156.38
		RT	52.00	156.05
ALBERS 2	121+50	LT	38.93	156.46
		RT	52.00	156.32
ALBERS 2	122+00	LT	16.62	156.94
		RT	52.00	156.59
ALBERS 2	124+00	LT	21.75	157.68
		RT	52.00	157.86
ALBERS 2	124+50	LT	17.55	158.71
		RT	52.00	158.37
ALBERS 2	125+00	LT	17.67	159.10
		RT	52.00	158.75
ALBERS 2	125+50	LT	35.39	159.29
		RT	52.06	159.13
ALBERS 2	126+00	LT	18.84	159.52
		RT	51.86	159.19
ALBERS 2	126+50	LT	13.70	159.63
		RT	51.29	159.26
ALBERS 2	127+00	LT	14.22	159.68
		RT	50.35	159.31
ALBERS 2	127+50	LT	14.24	159.57
		RT	49.03	159.22
ALBERS 2	128+00	LT	14.56	159.41
		RT	47.33	159.08
ALBERS 2	128+50	LT	14.91	159.09
		RT	45.27	158.49

LINE	STATION	LT/RT	OFFSET FT	ELEVATION FT
ALBERS 2	129+00	LT	15.39	158.91
		RT	42.83	158.36
ALBERS 2	129+50	LT	17.92	158.79
		RT	40.02	158.35
ALBERS 2	130+00	LT	29.43	158.53
		RT	36.83	158.38
ALBERS 2	130+50	LT	16.83	158.75
		RT	33.43	158.42
ALBERS 2	131+00	LT	15.12	158.76
		RT	30.39	158.45
ALBERS 2	131+50	LT	15.12	158.79
		RT	27.51	158.54
ALBERS 2	132+00	LT	15.14	158.83
		RT	24.62	158.64
ALBERS 2	132+50	LT	15.13	158.88
		RT	21.74	158.75
ALBERS 2	133+00	LT	15.15	158.92
		RT	18.85	158.84
ALBERS 2	133+48	LT	15.28	159.04
		RT	15.95	159.02
MILNES	13+14	RT	12.62	156.42
		LT	16.00	156.33
MILNES	13+50	RT	12.81	156.52
		LT	16.86	156.44
MILNES	14+00	RT	13.01	156.58
		LT	18.06	156.48
MILNES	14+50	RT	13.02	156.64
		LT	27.65	156.35
MILNES	15+00	RT	13.02	156.70
		LT	46.71	156.02
MILNES	15+50	RT	13.06	156.75
		LT	23.83	156.54
MILNES	16+00	RT	12.87	156.80
		LT	22.86	156.60
MILNES	16+50	RT	13.13	156.81
		LT	24.06	156.59
MILNES	17+00	RT	13.39	156.82
		LT	25.26	156.58
MILNES	17+50	RT	13.43	156.83
		LT	33.43	156.43
MILNES	18+00	RT	13.93	156.87
		LT	35.43	156.44
MILNES	18+50	RT	13.73	157.11
		LT	28.10	156.97
MILNES	19+00	RT	13.78	157.21
		LT	28.00	157.07
MILNES	19+50	RT	14.06	157.31
		LT	28.00	157.17
MILNES	20+00	RT	14.16	157.37
		LT	28.00	157.23
MILNES	20+50	RT	15.27	157.31
		LT	31.06	157.15
MILNES	21+00	RT	24.96	157.16
		LT	45.69	156.95
MILNES	21+50	RT	14.32	157.21
		LT	31.88	157.03
MILNES	22+00	RT	14.40	157.15
		LT	28.00	157.02
MILNES	24+50	RT	11.08	156.09
		LT	28.00	155.92
MILNES	25+00	RT	11.18	156.23
		LT	28.00	156.06
MILNES	25+50	RT	11.12	156.37
		LT	28.00	156.20

LINE	STATION	LT/RT	OFFSET FT	ELEVATION FT
MILNES	26+00	RT	11.24	156.51
		LT	28.00	156.35
MILNES	26+50	RT	11.30	156.66
		LT	27.77	156.49
MILNES	27+00	RT	11.31	156.82
		LT	26.57	156.66
MILNES	27+50	RT	11.37	156.99
		LT	25.37	156.85
MILNES	28+00	RT	11.41	157.17
		LT	24.17	157.04
MILNES	28+50	RT	11.68	157.48
		LT	22.97	157.37
MILNES	29+00	RT	11.58	157.81
		LT	21.77	157.71
MILNES	29+50	RT	11.84	158.14
		LT	20.57	158.06
MILNES	30+00	RT	11.97	158.70
		LT	19.37	158.63
MILNES	30+50	RT	11.62	159.32
		LT	17.70	159.26
MILNES	31+00	RT	11.54	159.94
		LT	14.11	159.92
MILNES	31+40.27	RT	11.50	160.44
		LT	11.22	160.44

NOTE: PAVEMENT ELEVATIONS SHOWN ARE AT THE EDGE OF PAVEMENT.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		12	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

AGENCY NAME	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE	REVISED BY
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS	KEITH D. RHODES	KP	KT	12/04	REVISED	3/07	KR

ALBERS ROAD/MILNES ROAD INTERSECTION CONSTRUCTION DETAILS

NO SCALE

CD-2

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST SAVED: s161rcd.dwg, Fri, 04 May 2007 - 12:12pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		13	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

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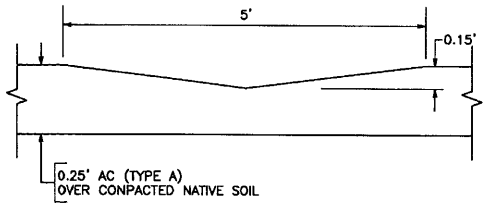
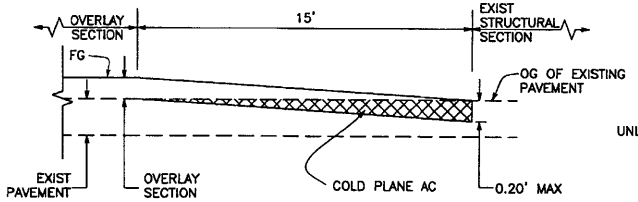
REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

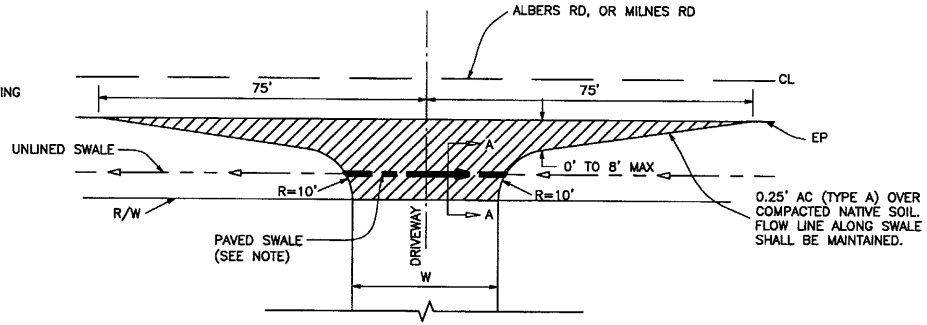


SECTION A–A
PAVED SWALE DETAIL

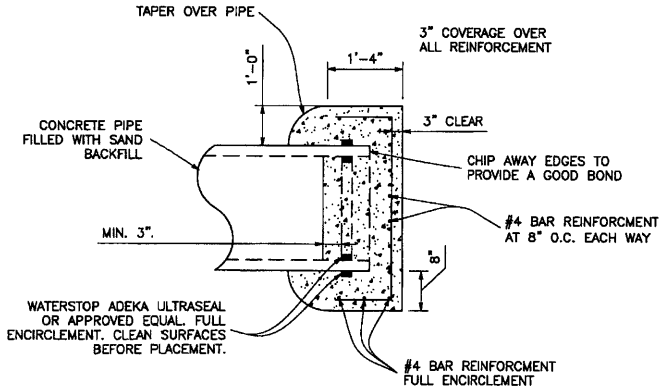
NOTE: PAVED SWALES ARE NOT REQUIRED AT THE FOLLOWING DRIVEWAYS:
"ALBERS 2" 115+88.15,
"MILNES" 14+90.9, AND
"MILNES" 17+76.5.



ASPHALT CONCRETE CONFORM



DRIVEWAY APPROACH DETAIL



ABANDON CULVERT DETAIL

3 ⓔ ⓕ

ALBERS ROAD/MILNES ROAD INTERSECTION CONSTRUCTION DETAILS

NO SCALE

CD-3

CALCULATED/ DESIGNED BY	CHECKED BY
KP	KT

DATE	REVISED BY
3/05	
12/04	REVISED
	KR
	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 30 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

User: Rhodes — s161rcd.dwg, Fri, 04 May 2007 - 12:41pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		14	34

REGISTERED CIVIL ENGINEER

March 23, 2007

PLANS APPROVAL DATE

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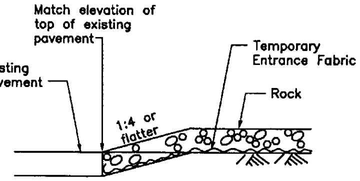
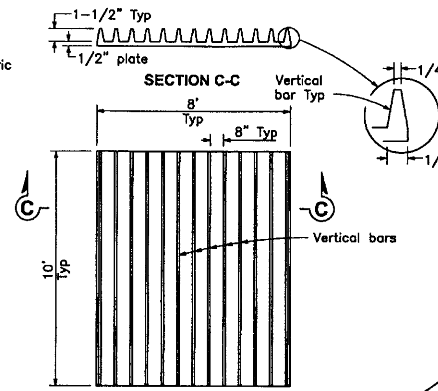
REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

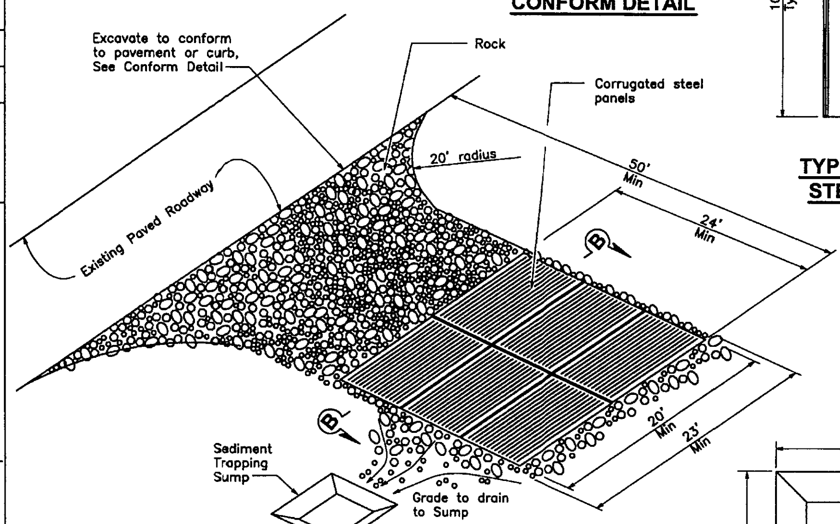


SECTION

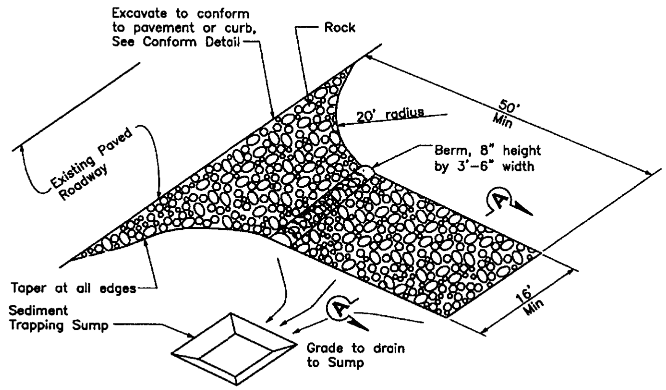
CONFORM DETAIL



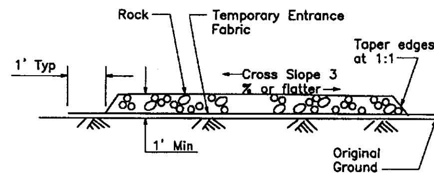
TYPICAL CORRUGATED STEEL PANEL DETAIL



PERSPECTIVE

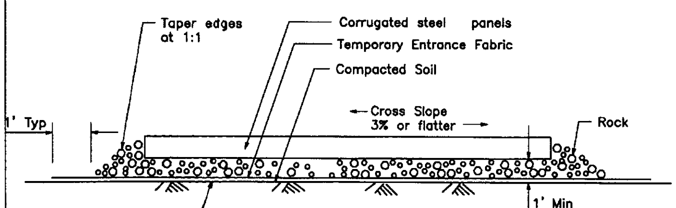


PERSPECTIVE



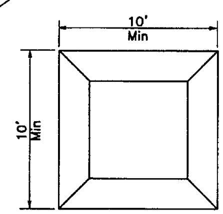
SECTION A-A

TEMPORARY CONSTRUCTION ENTRANCE (TYPE 1)

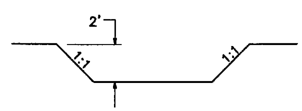


SECTION B-B

TEMPORARY CONSTRUCTION ENTRANCE (TYPE 2)



PLAN



ELEVATION

SEDIMENT TRAPPING SUMP

ALBERS ROAD/MILNES ROAD INTERSECTION TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY CONSTRUCTION ENTRANCE)

NO SCALE

WPC-1

STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

AGENCY NAME

PROJECT ENGINEER KEITH D. RHODES

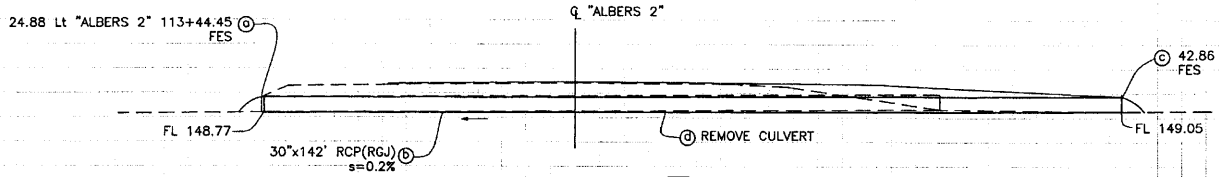
CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

GRAPHIC SCALE (IN FEET) 0 20 40 60

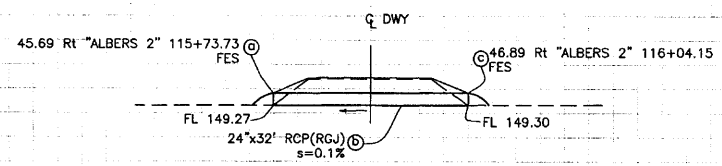
S30-100

s161rwpc1.dwg Fri, 04 May 2007 - 2:32pm, joeb

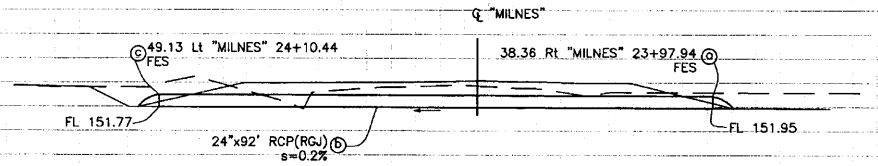
ABBREVIATIONS:
RCP(RGJ) REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)



DRAINAGE SYSTEM No. 1
STA 113+90.07



DRAINAGE SYSTEM No. 2
STA 115+88.11



DRAINAGE SYSTEM No. 3
STA 24+03.42

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		15	34

REGISTERED CIVIL ENGINEER
March 23, 2007
PLANS APPROVAL DATE
K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL
REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

CALCULATED/ DESIGNED BY	DATE	REVISED BY	REVISED
KP	3/06	KR	3/07
KT	12/04		
CHECKED BY			

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

ALBERS ROAD/MILNES ROAD INTERSECTION DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

D-1

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

Last Revision s151rdn.dwg, Fri, 25 May 2007 - 9:49am, michaelk

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		16	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

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Sacramento, CA 95827

	DATE	REVISED BY
CALCULATED/DESIGNED BY		
KP	3/05	KR
KT	12/04	REVISED
CHECKED BY		3/07

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

DRAINAGE QUANTITIES

SHEET	DRAINAGE SYSTEM No.	DRAINAGE UNIT No.	STATION	REMOVE CULVERT (N)	ABANDON CULVERT	4" PLASTIC PIPE (PR 315) (SUPPLY LINE)	10" CORRUGATED STEEL PIPE	12" REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	24" REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	30" REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	24" CONCRETE FLARED END SECTION	30" CONCRETE FLARED END SECTION	SAND BACKFILL (N)	DESCRIPTION
				LF	LF	LF	LF	LF	LF	LF	EA	EA	CY	
L-1/L-2	1	a	24.88 Lt ALBERS 2 113+44.45									1		30" CONCRETE FES
		b	ALBERS 2 113+90.07							142				30" X 142' RCP(RGJ)
		c	42.86 Rt ALBERS 2 114+69.33									1		30" CONCRETE FES
		d	ALBERS 2 113+90.07	112										REMOVE CULVERT (30" RCP)
		e	Rt ALBERS 2 114+59.44	16										REMOVE CULVERT (12" RCP)
L-2/L-3	2	a	45.69 Rt ALBERS 2 115+73.73								1			24" CONCRETE FES
		b	46.29 Rt ALBERS 2 115+88.11						32					24" X 33' RCP(RGJ)
		c	46.89 Rt ALBERS 2 116+04.15								1			24" CONCRETE FES
		d	38.67 Rt ALBERS 2 115+87.64		33								3.8	ABANDON CULVERT (24" RCP)
		e	45.72 Rt ALBERS 2 116+20.46	8										REMOVE CULVERT (12" RCP)
		f	51.33 Rt ALBERS 2 116+20.46					8						12" X 8' RCP(RGJ)
		g	45.89 Rt ALBERS 2 116+96.98	8										REMOVE CULVERT (12" RCP)
		h	52.83 Rt ALBERS 2 116+96.98					8						12" X 8' RCP(RGJ)
		i	44.67 Rt ALBERS 2 119+15.61	10										REMOVE CULVERT (10" CMP)
		j	69.74 Rt ALBERS 2 119+15.61				10							10" X 8' CSP
		k	42.95 Rt ALBERS 2 120+47.63	8										REMOVE CULVERT (10" CMP)
		l	74.40 Rt ALBERS 2 120+47.63				8							10" X 8' CSP
		m	40.02 Rt ALBERS 2 121+69.67	9										REMOVE CULVERT (4" PVC)
		n	77.10 Rt ALBERS 2 121+69.67			9								4" X 9' PVC
L-3	3	a	38.36 Rt MILNES 23+97.94								1			24" CONCRETE FES
		b	MILNES 24+03.42						92					24" X 92' RCP(RGJ)
		c	49.13 Lt MILNES 24+10.44								1			24" CONCRETE FES
		d	35.25 Rt ALBERS 2 122+22.61	58										REMOVE CULVERT (24" CMP)
		e	MILNES 22+69.58		57								0.7	ABANDON CULVERT (8" CMP)
TOTAL					90	9	18	16	124	142	4	2		

(N) – NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

ALBERS ROAD/MILNES ROAD INTERSECTION DRAINAGE QUANTITIES

NO SCALE

D-2

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LEGEND

Exist OVERHEAD POWER

Exist BURIED TELEPHONE

OVERHEAD POWER

ABBREVIATION

(E) EXISTING

TBRBO TO BE RELOCATED BY OTHERS

UP UTILITY POLE

NOTES:

1. LOCATION OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERFIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. UTILITY OWNERSHIP:
   TELEPHONE – AT&T
   ELECTRIC – MODESTO IRRIGATION DISTRICT (M.I.D.)
3. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT COUNTY OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		17	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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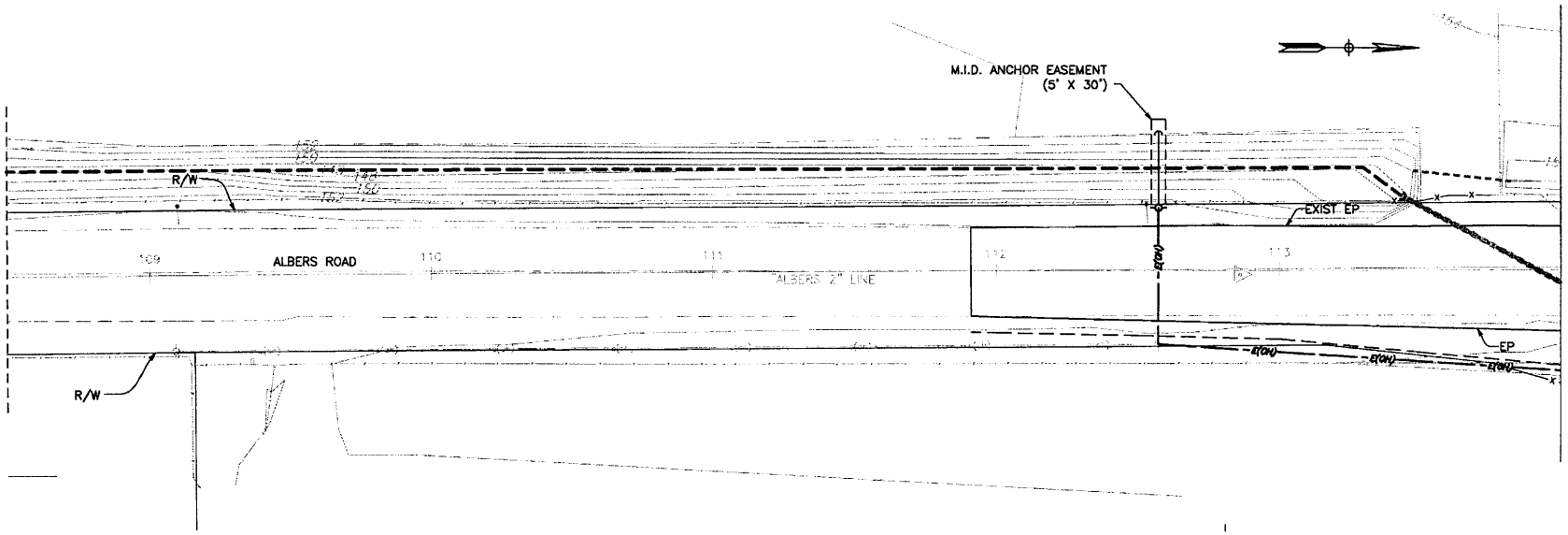
Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827



ALBERS ROAD S/O MILNES ROAD

ALBERS ROAD/MILNES ROAD
INTERSECTION
UTILITY PLAN
SCALE: 1"=20'

U-1

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

PROJECT ENGINEER: KEITH D. RHODES

CALCULATED/DESIGNED BY: KP | DATE: 3/05 | REVISED BY: KR | REVISED: 3/07

CHECKED BY: KT | DATE: 12/04 | REVISED BY: | REVISED:

Last Revised: s161rud.dwg, Fri, 04 May 2007 - 2:56pm, joeb

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT COUNTY OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		18	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

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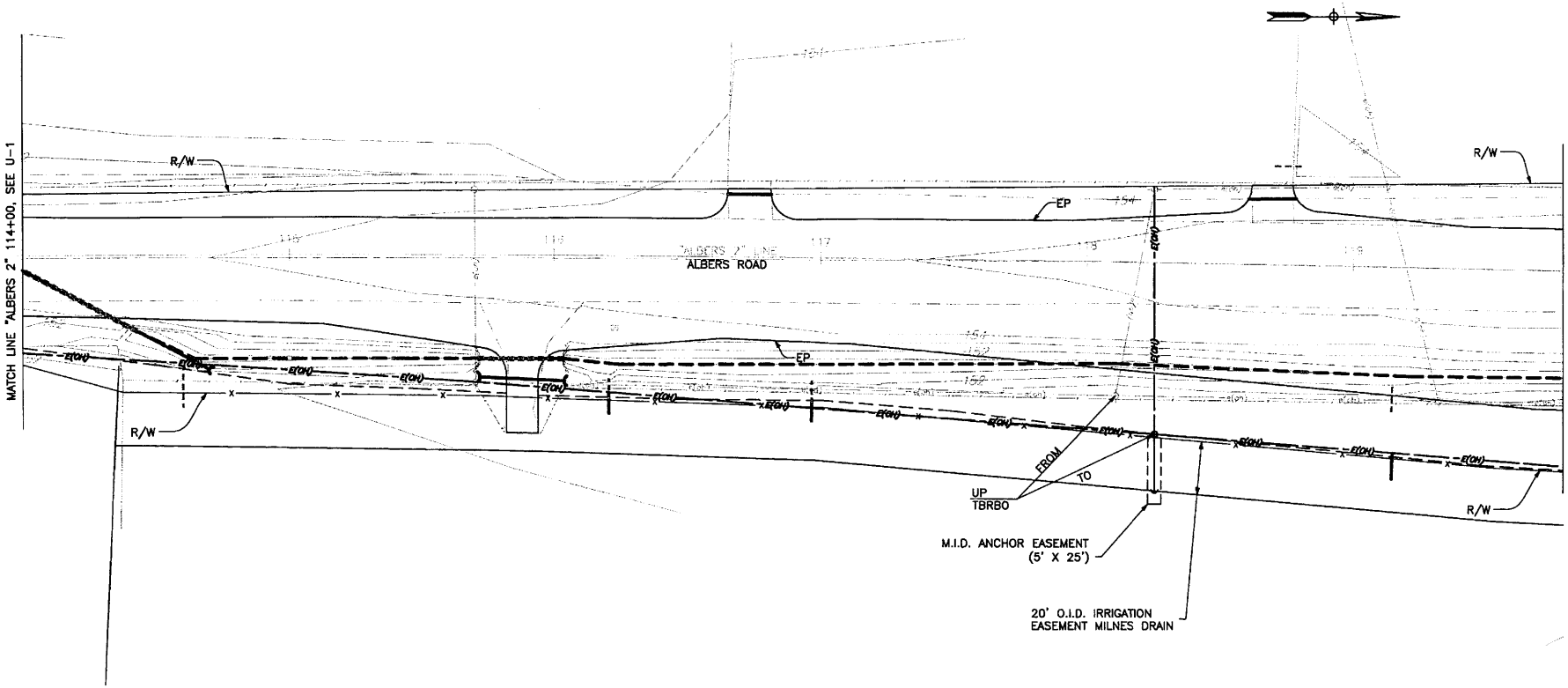

ALBERS ROAD S/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION UTILITY PLAN

SCALE: 1"=20'

U-2

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

AGENCY NAME	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	DATE	REVISED BY
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS	KEITH D. RHODES	KP	3/05	KR
		CHECKED BY		REVISED
		KT	12/04	3/07

LAST REVISED s161rut.dwg, Fri, 04 May 2007 - 2:56pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		19	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

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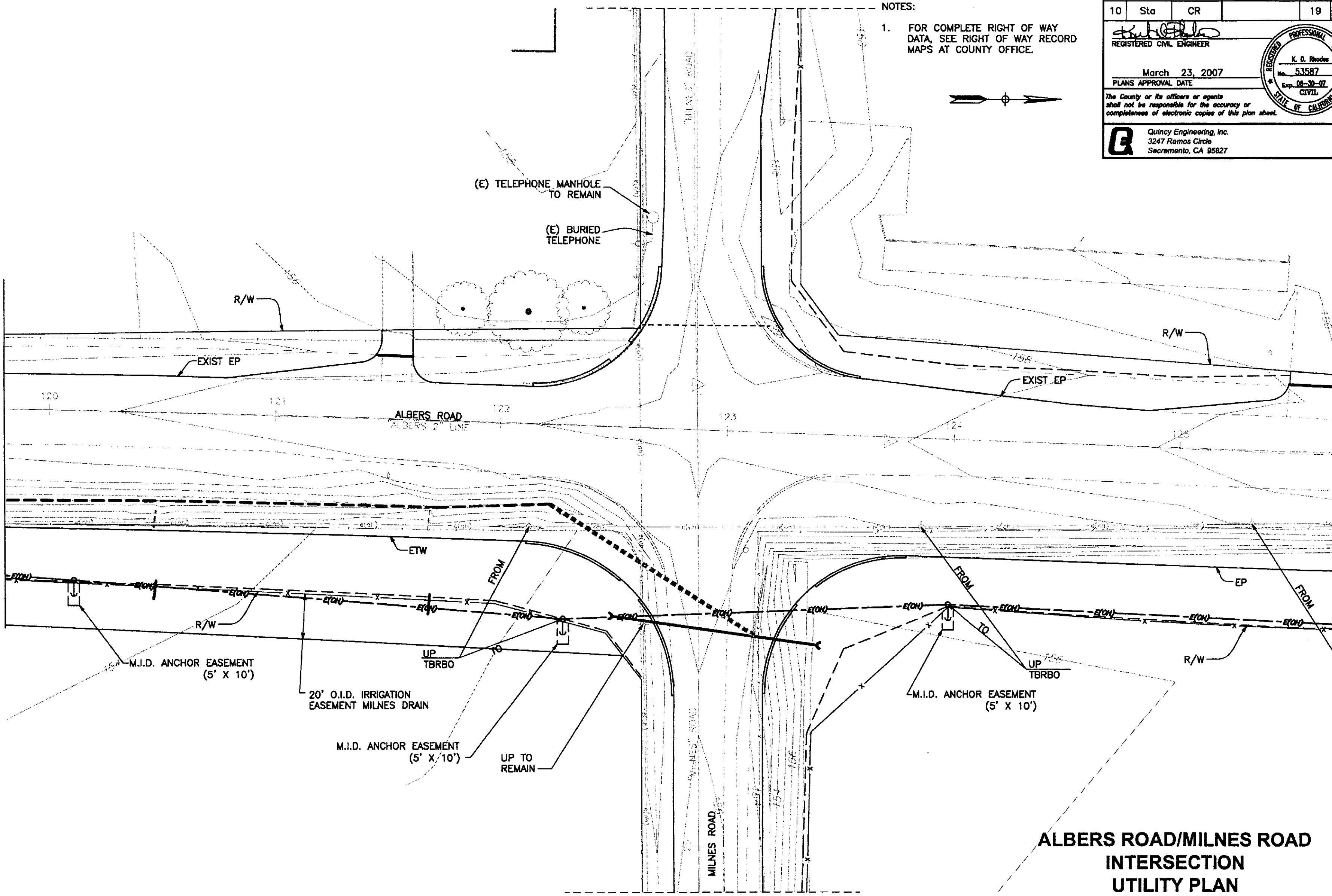
REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT COUNTY OFFICE.



ALBERS ROAD/MILNES ROAD INTERSECTION UTILITY PLAN

SCALE: 1"=20'

U-3

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

AGENCY NAME	PROJECT ENGINEER	CALCULATED/DESIGNED BY	KP	CHECKED BY	KT
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS	KEITH D. RHODES	DATE REVISED 3/05		12/04	
		REVISED BY	KR	REVISED	3/07

LAST REVISION s161rut.dwg, Fri, 04 May 2007 - 2:57pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		20	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

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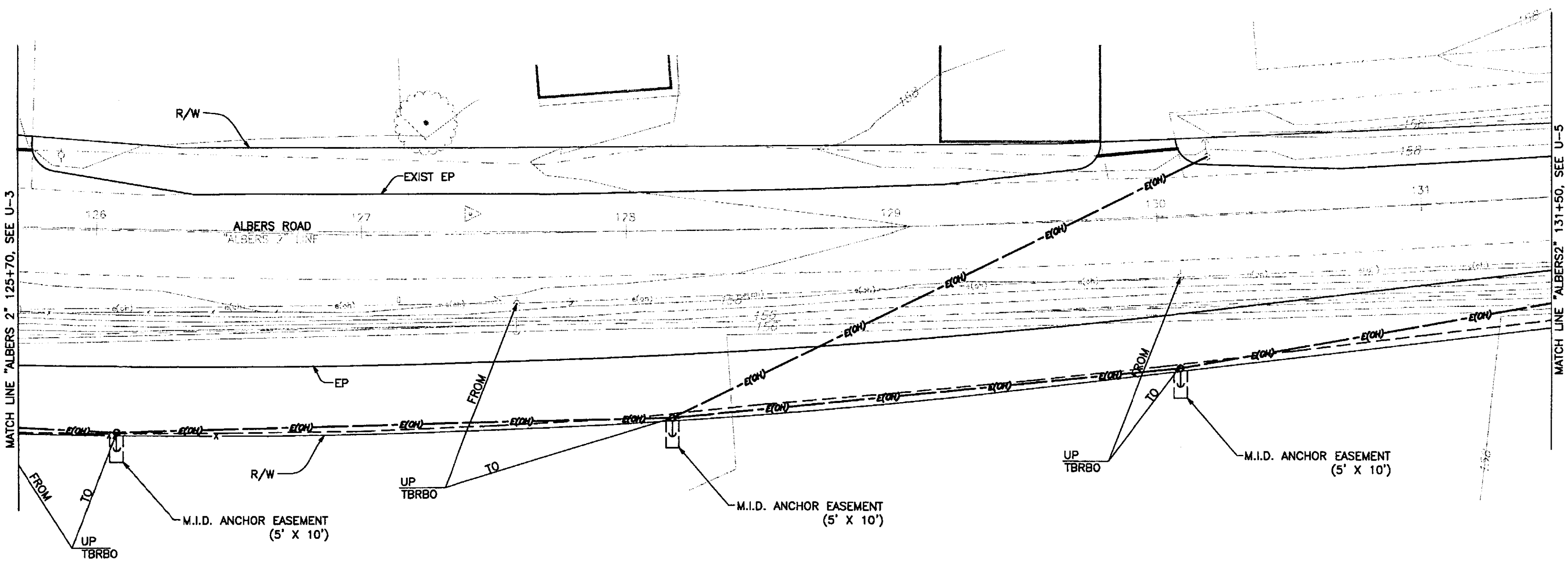
REGISTERED PROFESSIONAL ENGINEER
K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT COUNTY OFFICE.



ALBERS ROAD N/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION UTILITY PLAN

SCALE: 1"=20'

U-4

CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

s161rut.dwg, Fri, 04 May 2007 - 2:57pm, joeb

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT COUNTY OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		21	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

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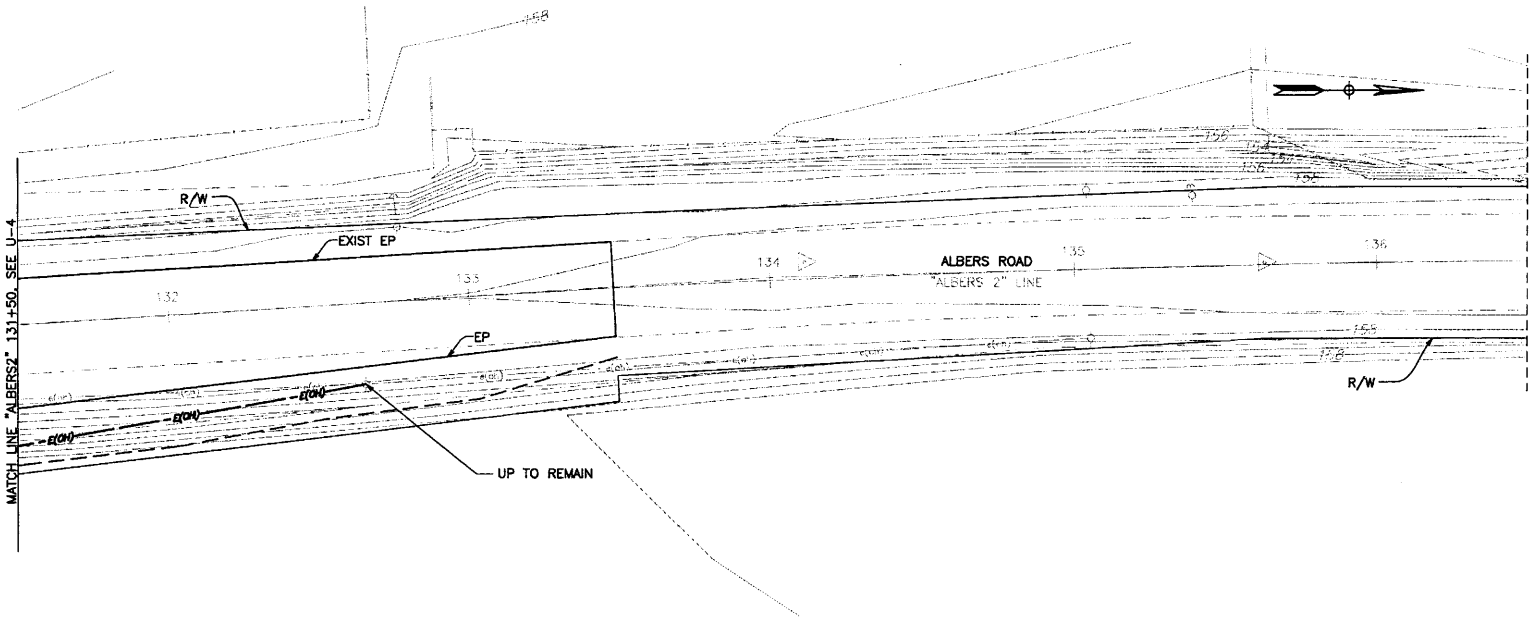
CALCULATED/ DESIGNED BY	DATE	REVISED BY
KP	3/05	KR
CHECKED BY	12/04	REVISED
KT		3/07

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS



ALBERS ROAD N/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION UTILITY PLAN

SCALE: 1"=20'

U-5

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

Last Revised: ...\s161rut.dwg, Fri, 04 May 2007 - 2:57pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		22	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

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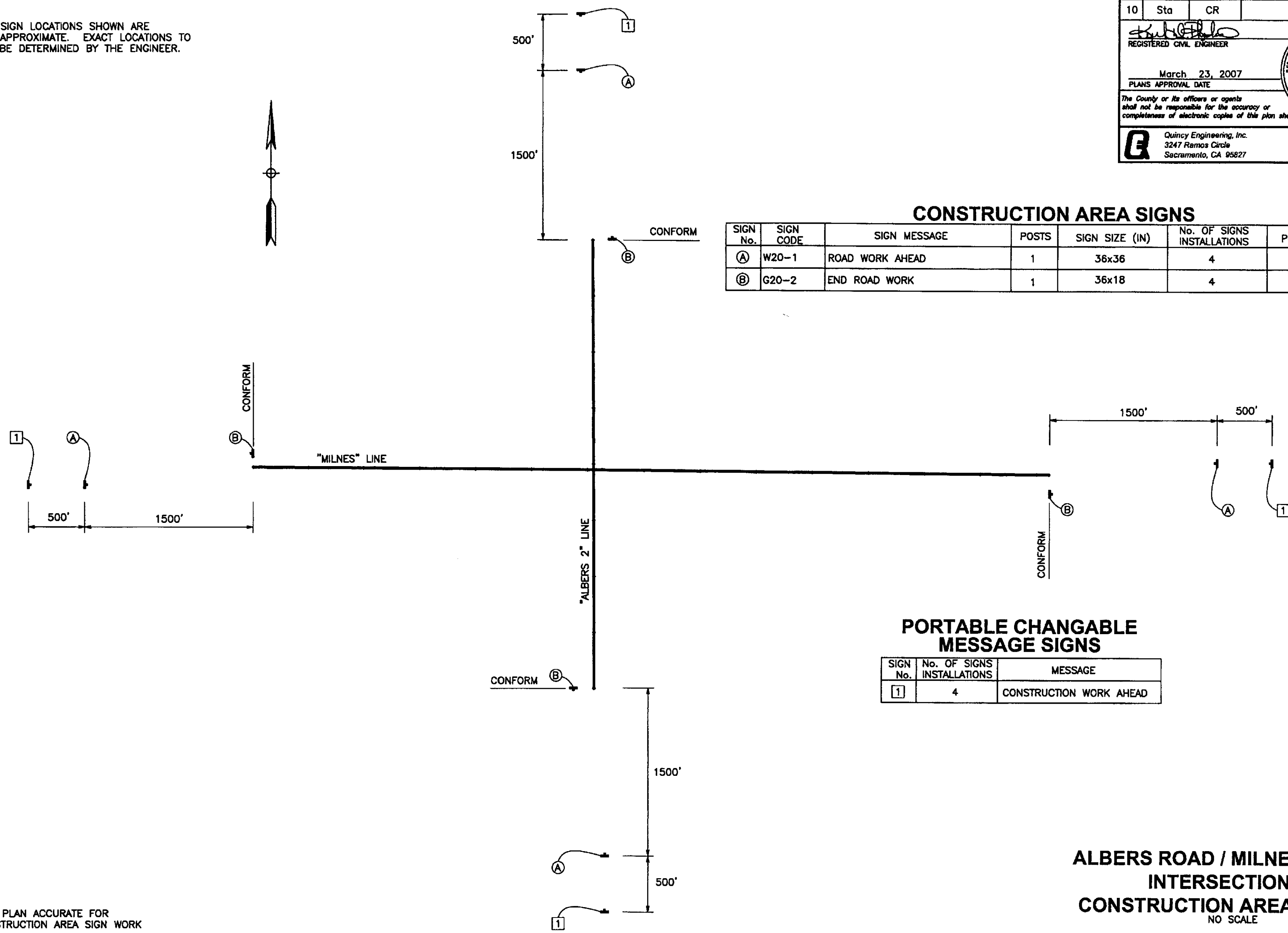
NOTE:
1. SIGN LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.



CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	SIGN MESSAGE	POSTS	SIGN SIZE (IN)	No. OF SIGNS INSTALLATIONS	POST SIZE (IN)
Ⓐ	W20-1	ROAD WORK AHEAD	1	36x36	4	4x6
Ⓑ	G20-2	END ROAD WORK	1	36x18	4	4x4

PORTABLE CHANGABLE MESSAGE SIGNS

SIGN No.	No. OF SIGNS INSTALLATIONS	MESSAGE
1	4	CONSTRUCTION WORK AHEAD

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

ALBERS ROAD / MILNES ROAD INTERSECTION CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

s161rcs.dwg, Fri, 04 May 2007 - 2:58pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		23	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

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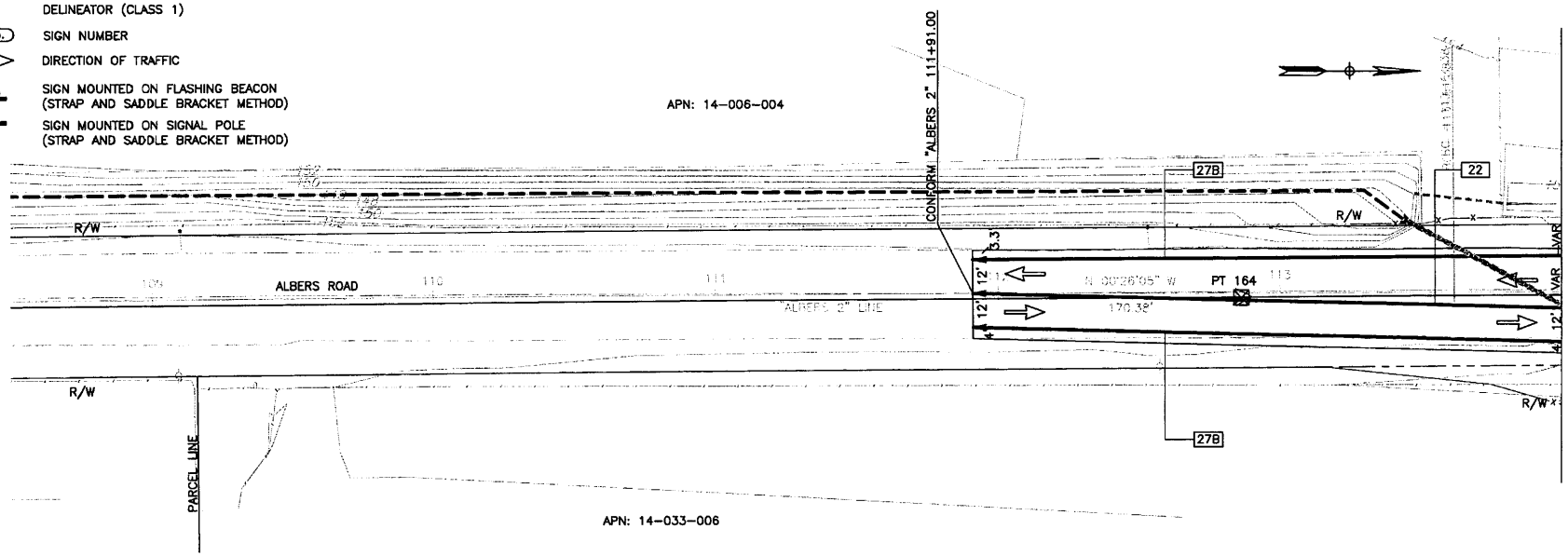
LEGEND

- No. — TRAFFIC STRIPE DETAIL NUMBER
- LL — LIMIT LINE
- CHANGE IN STRIPING PATTERN
- TYPE I (18') ARROW (PAVEMENT MARKING)
- TYPE II (R) ARROW (PAVEMENT MARKING)
- TYPE III (L) ARROW (PAVEMENT MARKING)
- TYPE VI ARROW (PAVEMENT MARKING)
- EXISTING SIGN (1 POST)
- ROADSIDE SIGN – ONE POST
- REMOVE ROADSIDE SIGN
- DELINEATOR (CLASS 1)
- No. — SIGN NUMBER
- DIRECTION OF TRAFFIC
- SIGN MOUNTED ON FLASHING BEACON (STRAP AND SADDLE BRACKET METHOD)
- SIGN MOUNTED ON SIGNAL POLE (STRAP AND SADDLE BRACKET METHOD)

NOTE: FOR ADDITIONAL INFORMATION ON FLASHING BEACONS, SEE ELECTRICAL PLANS.



ALBERS ROAD S/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

PD-1

CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	REVISED
KP	KT	12/04		
		3/05		
			KR	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

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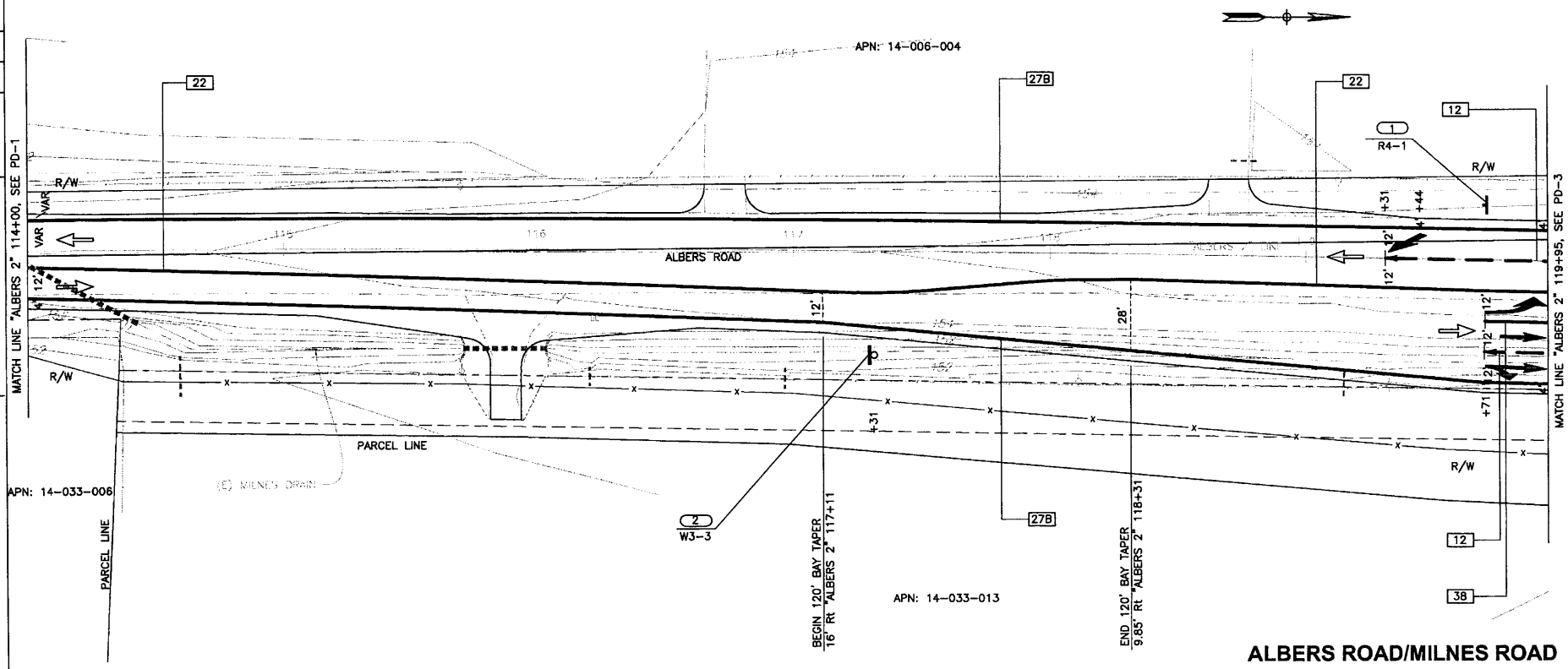

ALBERS ROAD S/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

PD-2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		24	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

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Sacramento, CA 95827

DATE	REVISED	BY
3/05		KP
12/04		KT
3/07	REVISED	KR

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
KEITH D. RHODES

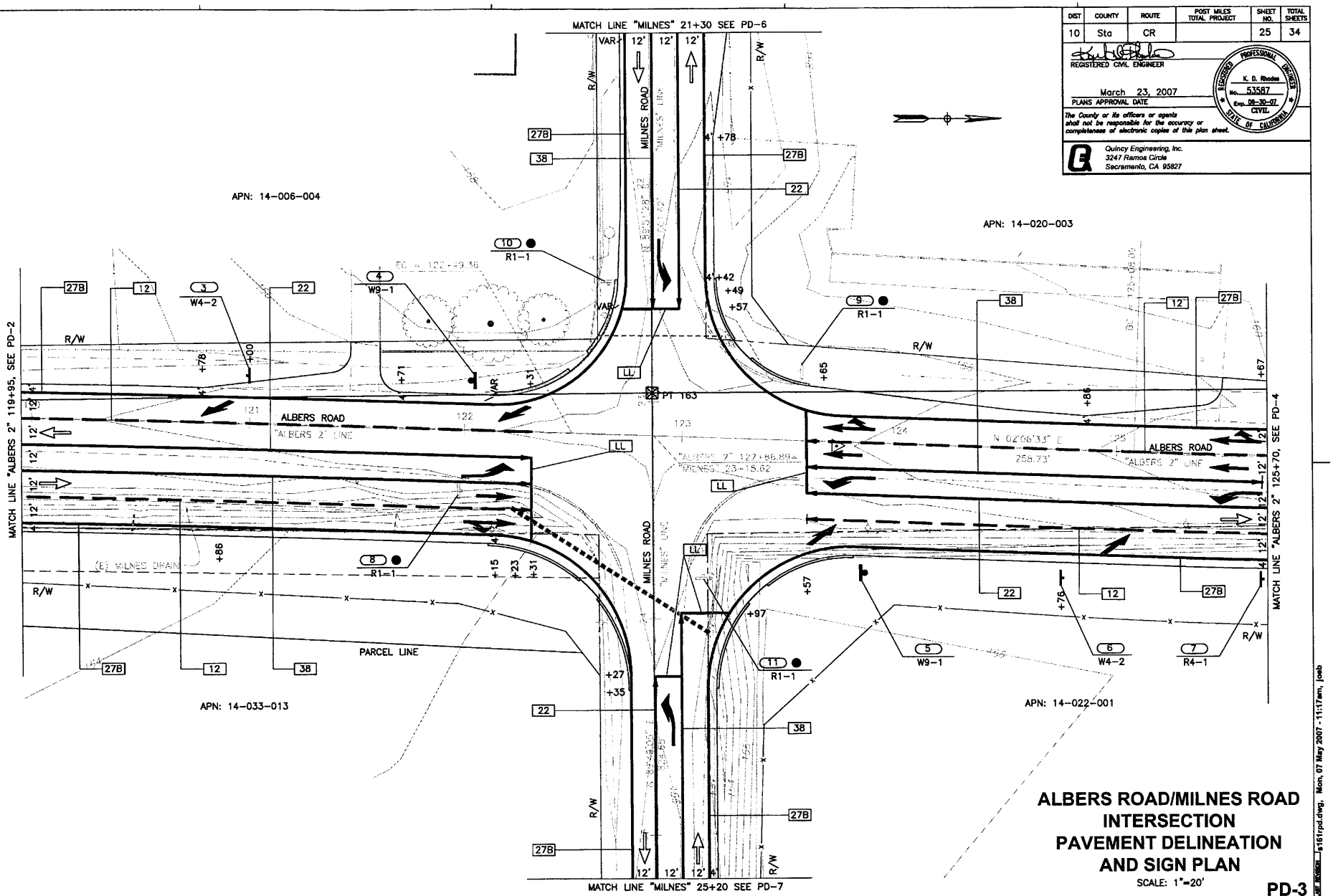
AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST MODIFIED: s161rpd.dwg, Fri, 04 May 2007 - 5:35pm, joab



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		25	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	REVISED
KP	KT	12/04		
KR		3/07		

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

PD-3

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISED: ts161pd.dwg, Mon, 07 May 2007 - 11:17am, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		26	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

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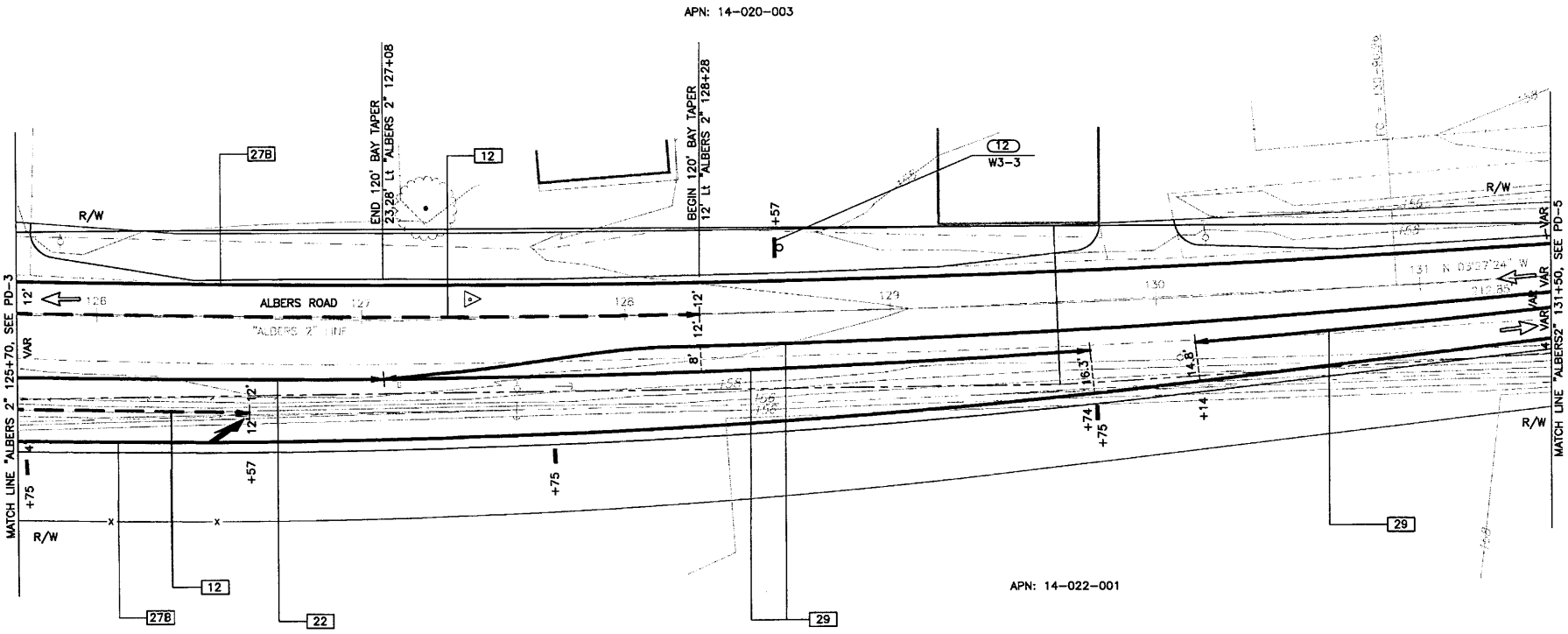
CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	REVISED
KP	KT	12/04	KT	3/07
			KR	

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS



ALBERS ROAD N/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

PD-4

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

Last Revised: ...s161rpd.dwg, Mon, 07 May 2007 - 11:17am, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		27	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

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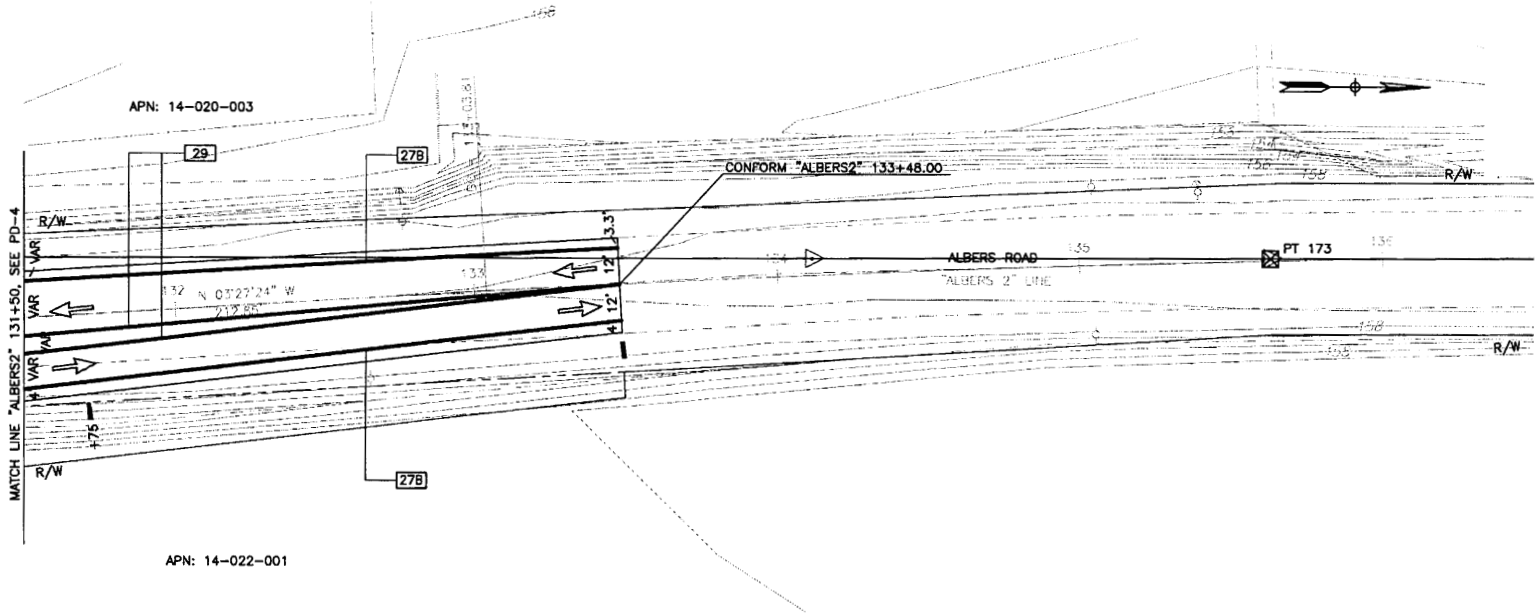
REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

AGENCY NAME	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS	KEITH D. RHODES	CHECKED BY	12/04	REVISED	3/07
		KP	KT	KR	



ALBERS ROAD N/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

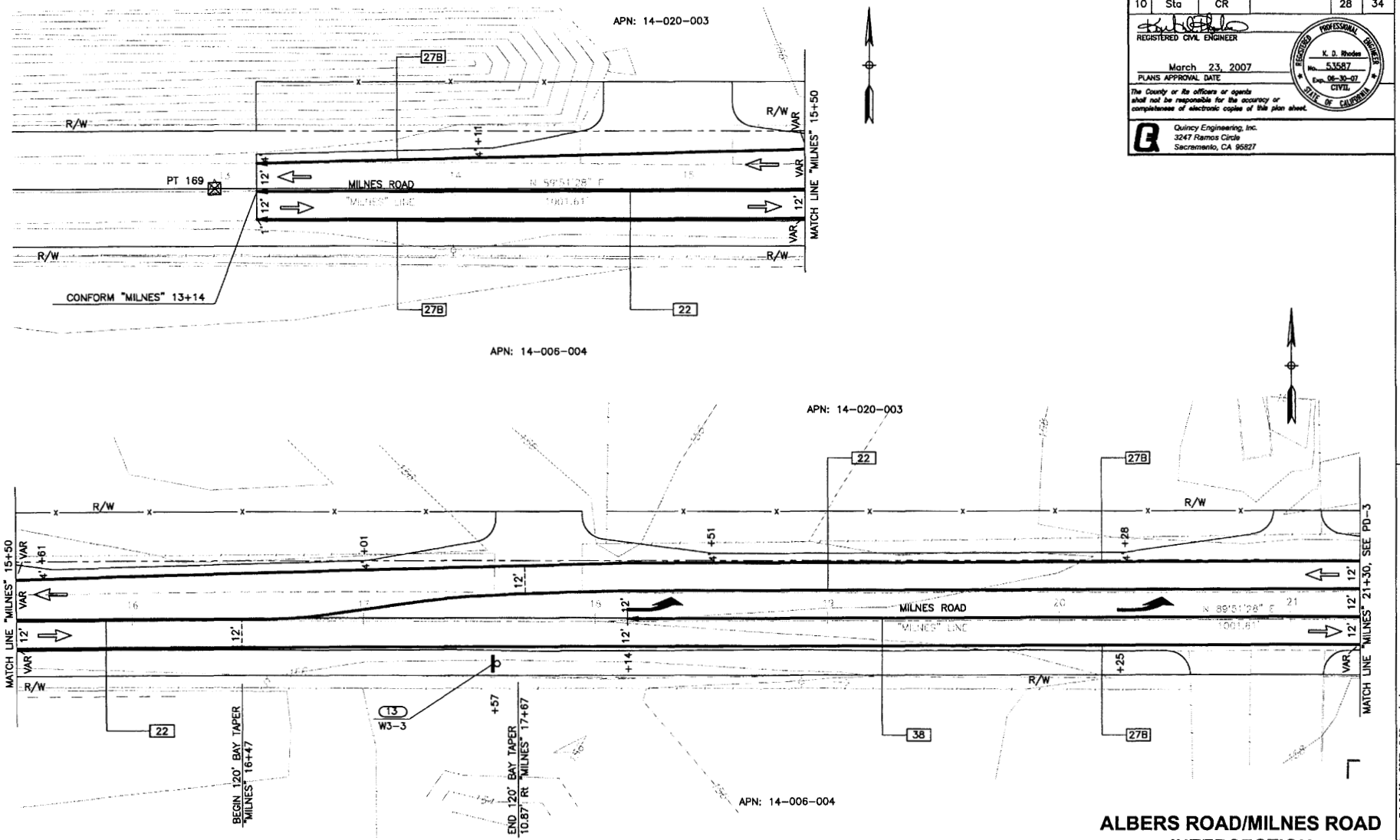
PD-5

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

Last Revised: ls161pd.dwg, Mon, 07 May 2007 - 11:17am, joeb



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		28	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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Sacramento, CA 95827

CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE	REVISED BY
KP	3/05	KT	12/04	KR	3/07

CHECKED BY

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

MILNES ROAD W/O ALBERS ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

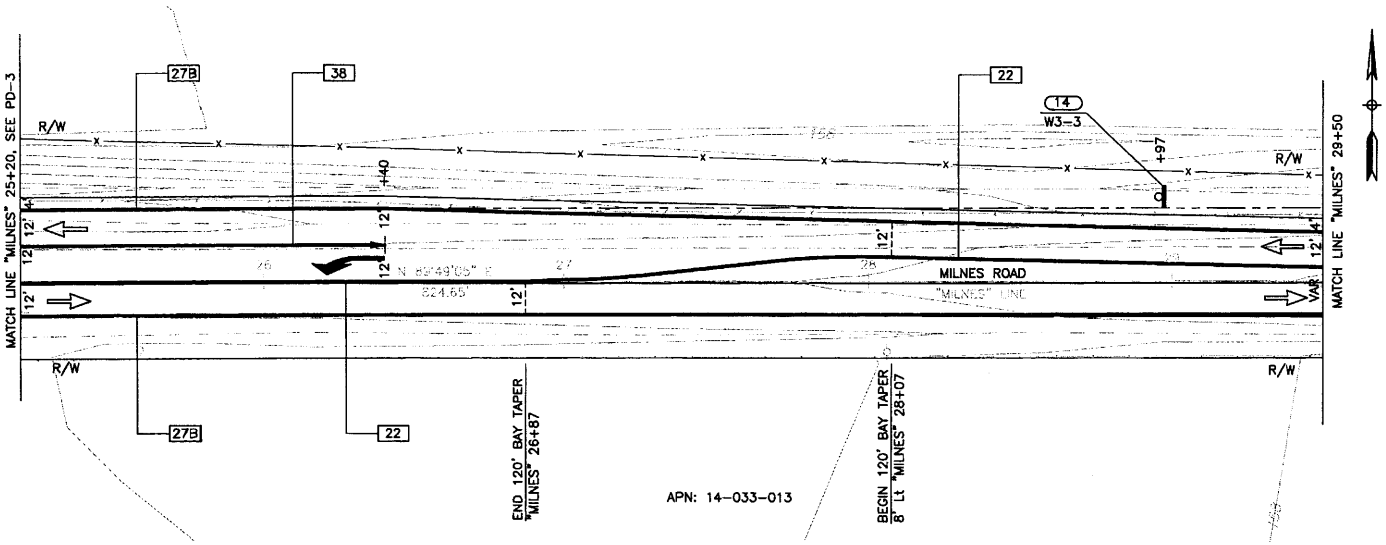
PD-6

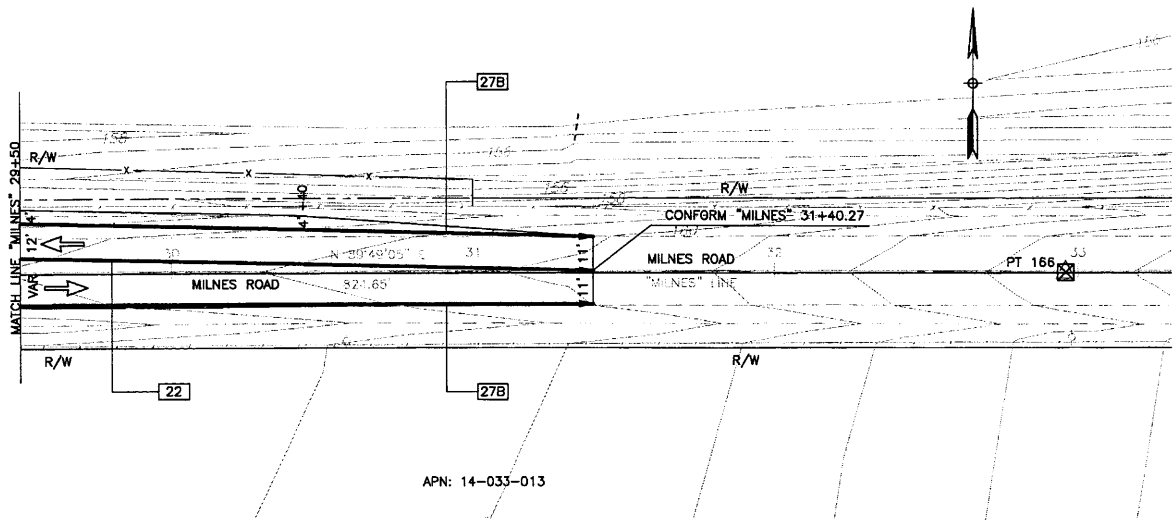
GRAPHIC SCALE (IN FEET) 0 30 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION - s161rpd.dwg, Fri, 04 May 2007 - 5:55pm, Joeb





MILNES ROAD E/O ALBERS ROAD

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		29	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

DATE	REVISED	BY
3/05		KP
12/04		KT
3/07	REVISED	KR

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

PD-7

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISED e161rpd.dwg, Fri, 04 May 2007 - 5:57pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		30	34

REGISTERED CIVIL ENGINEER

March 23, 2007

PLANS APPROVAL DATE

PROFESSIONAL ENGINEER · REGISTERED · K. D. Rhodes · No. 53587 · Exp. 06-30-07 · CIVIL · STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

TRAFFIC ITEMS

SHEET No.	LINE	STATION		LOCATION	SPRAYABLE THERMOPLASTIC TRAFFIC STRIPE			PAVEMENT MARKER		THERMOPLASTIC PAVEMENT MARKING	DELINEATOR (CLASS 1)	SIGN NUMBER	REMOVE ROADSIDE SIGN	ROADSIDE SIGN (ONE POST)	INSTALL SIGN PANNEL (STRAP AND SADDLE BRACKET METHOD)	POST SIZE (N)		PANEL SIZE (N)	COMMENTS
		FROM	TO		4" YELLOW	4" WHITE	8" WHITE	TWO-WAY YELLOW RETROREFLECTIVE TYPE D	ONE-WAY CLEAR RETROREFLECTIVE TYPE G							4"X4"	4"X6"		
				LT/RT	LF	LF	LF	EA	EA	SQFT	EA	(XX)	EA	EA	EA	EA	EA	IN	
PD-1,2,3	ALBERS 2	111+91	122+56	LT		1065													DETAIL 27B
PD-1,2,3	ALBERS 2	111+91	122+60	RT		1069													DETAIL 27B
PD-1,2,3	ALBERS 2	111+91	122+31	RT	1040			90											DETAIL 22
PD-2,3	ALBERS 2	119+31	122+31	LT		300			7										DETAIL 12
PD-2,3	ALBERS 2	119+71	122+31	RT		260			6										DETAIL 12
PD-2,3	ALBERS 2	119+71	122+31	RT			260		12										DETAIL 38
PD-2	ALBERS 2	119+31		LT						42									TYPE VI
PD-2	ALBERS 2	119+71		RT						42									TYPE III-L
PD-2	ALBERS 2	119+71		RT						25									TYPE I-18 FT
PD-2	ALBERS 2	119+71		RT						45									TYPE II-R
PD-2	ALBERS 2	119+71		LT								1		1		1		24X30	R4-1 DO NOT PASS
PD-2	ALBERS 2	117+31		RT								2			1				W3-3 SIGNAL AHEAD-SYMBOL
PD-3,4,5	ALBERS 2	123+28	133+48	LT		1020													DETAIL 27B
PD-3,4,5	ALBERS 2	123+34	133+48	RT		1014													DETAIL 27B
PD-3,4	ALBERS 2	123+57	128+28	LT,RT		471			11										DETAIL 12
PD-3	ALBERS 2	123+57	126+57	RT		300			6										DETAIL 12
PD-3	ALBERS 2	123+57	125+67	RT			210		10										DETAIL 38
PD-3,4	ALBERS 2	123+57	127+08	RT	351			32											DETAIL 22
PD-3	ALBERS 2	120+81		LT						42									TYPE VI
PD-3	ALBERS 2	122+31		LT						42									TYPE VI
PD-3	ALBERS 2	122+23		RT						42									TYPE III-L
PD-3	ALBERS 2	122+23		RT						25									TYPE I-18 FT
PD-3	ALBERS 2	122+23		RT						45									TYPE II-R
PD-3	ALBERS 2	123+65		LT						45									TYPE II-R
PD-3	ALBERS 2	123+65		RT						25									TYPE I-18 FT
PD-3	ALBERS 2	123+65		RT						42									TYPE III-L
PD-3	ALBERS 2	123+65		RT						42									TYPE VI
PD-3	ALBERS 2	125+07		RT						42									TYPE VI
PD-3	ALBERS 2	125+67		LT						45									TYPE II-R
PD-3	ALBERS 2	125+67		RT						25									TYPE I-18 FT
PD-3	ALBERS 2	126+57		RT						42									TYPE III-L
PD-3	ALBERS 2	125+57		RT						42									TYPE VI
PD-3	ALBERS 2	122+31		RT						38									LIMIT LINE
PD-3	ALBERS 2	123+57		RT						38									LIMIT LINE
PD-3	ALBERS 2	121+00		LT								3		1					W4-2 LINE ENDS-SYMBOL
PD-3	ALBERS 2	122+04		LT								4			1				W9-1 LINE ENDS
PD-3	ALBERS 2	123+84		RT								5			1				W9-1 LINE ENDS
SHEET TOTAL					1391	5499	470	122	52	776	0		0	2	3				

(N)-NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

ALBERS ROAD / MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN QUANTITIES

NO SCALE

PDQ-1

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

s161rpd-qu.dwg, Mon, 07 May 2007 - 9:44am, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		31	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

REVISED BY	DATE	CALCULATED/ DESIGNED BY	CHECKED BY
KR	3/07		
REVISED			
KP	3/05	KT	12/04

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

TRAFFIC ITEMS

SHEET No.	LINE	STATION FROM	STATION TO	LOCATION LT/RT	SPRAYABLE THERMOPLASTIC TRAFFIC STRIPE 4" YELLOW LF	SPRAYABLE THERMOPLASTIC TRAFFIC STRIPE 4" WHITE LF	SPRAYABLE THERMOPLASTIC TRAFFIC STRIPE 8" WHITE LF	PAVEMENT MARKER TWO-WAY YELLOW RETROREFLECTIVE TYPE D EA	PAVEMENT MARKER ONE-WAY CLEAR RETROFEFLECTIVE TYPE G EA	THERMOPLASTIC PAVEMENT MARKING SQFT	DELINEATOR (CLASS 1) EA	SIGN NUMBER XX	REMOVE ROADSIDE SIGN EA	ROADSIDE SIGN (ONE POST) EA	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD) EA	POST SIZE (N) 4"X4" EA	POST SIZE (N) 4"X6" EA	PANEL SIZE (N) IN	COMMENTS
PD-3	ALBERS 2	124+76		RT								6		1			1	36X36	W4-2 LINE ENDS-SYMBOL
PD-3	ALBERS 2	125+67		RT								7		1		1		24X30	R4-1 DO NOT PASS
PD-3	ALBERS 2	122+00		RT								8	1						R1-1 STOP
PD-3	ALBERS 2	123+57		LT								9	1						R1-1 STOP
PD-3	MILNES	22+42		RT								10	1						R1-1 STOP
PD-3	MILNES	23+83		RT								11	1						R1-1 STOP
PD-3	MILNES	22+57		LT,RT						26									LIMIT LINE
PD-3	MILNES	23+97		LT						22									LIMIT LINE
PD-3	MILNES	24+27		LT						12									LIMIT LINE
PD-4,5	ALBERS 2	127+08	133+48	RT	640			28											DETAIL 29
PD-4	ALBERS 2	128+57		LT								12			1				W3-3 SIGNAL AHEAD-SYMBOL
PD-4	ALBERS 2	125+75		RT							1								DELINEATOR CLASS 1
PD-4	ALBERS 2	127+75		RT							1								DELINEATOR CLASS 1
PD-4	ALBERS 2	129+75		RT							1								DELINEATOR CLASS 1
PD-5	ALBERS 2	131+75		RT							1								DELINEATOR CLASS 1
PD-5	ALBERS 2	133+48		RT							1								DELINEATOR CLASS 1
PD-4	ALBERS 2	127+08	129+74	RT	266			12											DETAIL 29
PD-4,5	ALBERS 2	130+14	133+48	RT	334			16											DETAIL 29
PD-3,6	MILNES	13+14	22+84	RT		970													DETAIL 27B
PD-3,6	MILNES	13+14	22+87	LT		973													DETAIL 27B
PD-3,6	MILNES	13+14	22+57	LT,RT	943			82											DETAIL 22
PD-3,6	MILNES	18+14	22+57	LT,RT			443		19										DETAIL 38
PD-6	MILNES	18+14		LT						42									TYPE III-L
PD-6	MILNES	17+57		RT								13			1				W3-3 SIGNAL AHEAD-SYMBOL
PD-6	MILNES	20+25		LT						42									TYPE III-L
PD-3	MILNES	22+49		LT						42									TYPE III-L
PD-3	MILNES	24+35		LT						42									TYPE III-L
PD-3,7	MILNES	23+85	31+41	LT		756													DETAIL 27B
PD-3,7	MILNES	23+81	31+41	RT		760													DETAIL 27B
PD-3,7	MILNES	24+27	31+41	LT,RT	714			62											DETAIL 22
PD-3,7	MILNES	23+97	26+40	LT			243		11										DETAIL 38
PD-7	MILNES	26+40		LT						42									TYPE III-L
PD-7	MILNES	28+97		LT								14			1				W3-3 SIGNAL AHEAD-SYMBOL
SHEET TOTAL					2897	3459	686	200	30	270	5		4	2	3				
SHEET PDQ-1					1391	5499	470	122	52	776	0		0	2	3				
TOTAL					14402			404		1046	5		4	4	6	1	1		

(N)-NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

ALBERS ROAD / MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN QUANTITIES

NO SCALE

PDQ-2

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rpd-qu.dwg, Mon, 07 May 2007 - 10:43am, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		32	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

ROADWAY ITEMS

SHEET No.	LINE	STATION		ASPHALT CONCRETE (TYPE A)	CLASS 2 AGGREGATE BASE	MINOR CONCRETE (CURB)	ROADWAY EXCAVATION	EMBANKMENT (N)	COLD PLANE ASPHALT CONCRETE	RESET MAILBOX	EROSION CONTROL (TYPE D) (N)	SHOULDER BACKING (N)	IMPORTED BORROW	COMMENTS
		FROM	TO	TON	CY	CY	CY	CY	SQFT	EA	ACRE	CY	CY	
L-1,2,3,4,5	ALBERS 2	111+91.00	133+48.00	3991	1644	5	2551	2014	938	3	1.11	180		
L-3,6,7	MILNES	13+14.00	31+40.27	1494	519	5	444	1380	770		0.42	152	312	
L-1	ALBERS 2	115+88.15		17			8							DRIVEWAY APPROACH
L-1	ALBERS 2	116+73.02		5			2							DRIVEWAY APPROACH
L-1	ALBERS 2	118+69.33		12			6							DRIVEWAY APPROACH
L-2	ALBERS 2	121+53.17		13			7							DRIVEWAY APPROACH
L-2,3	ALBERS 2	125+61.72		20			10							DRIVEWAY APPROACH
L-3	ALBERS 2	129+94.03		13			7							DRIVEWAY APPROACH
L-6	MILNES	14+90.9		40			20							DRIVEWAY APPROACH
L-6	MILNES	17+76.5		24			12							DRIVEWAY APPROACH
L-6	MILNES	20+85.0		13			6							DRIVEWAY APPROACH
L-3,6	MILNES	21+03.0		19			9							DRIVEWAY APPROACH
TOTAL				5661	2163	10	3082	3394	1708	3	1.53		312	

(N) – NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

FENCE (TYPE BW)

SHEET No.	LINE	STATION			LENGTH
		FROM	TO	LT/RT	LF
L-1	ALBERS 2	113+25	113+75	LT	50
L-1,2	ALBERS 2	113+75	114+37	RT	62
L-2	ALBERS 2	114+37	115+73	RT	136
L-2,3	ALBERS 2	116+02	122+66	RT	664
L-3,4	ALBERS 2	123+41	126+90	RT	349
L-3,7	MILNES	24+49	31+00	RT	651
L-6	MILNES	15+19	17+58	LT	239
L-6	MILNES	18+05	20+89	LT	284
L-6,3	MILNES	21+13	21+79	LT	66
L-7	MILNES	31+00		RT	9
TOTAL					2510

EROSION CONTROL (TYPE D)

	UNIT	TOTAL
STRAW (EROSION CONTROL)	TON	4.8
FIBER (EROSION CONTROL)	LBS	2678
PURE LIVE SEED (EROSION CONTROL)	LBS	134
COMMERCIAL FERTILIZER (EROSION CONTROL)	LBS	1042
STABILIZING EMULSION (EROSION CONTROL)	LBS	240

CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

ALBERS ROAD / MILNES ROAD INTERSECTION SUMMARY OF QUANTITIES

NO SCALE

Q-1

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

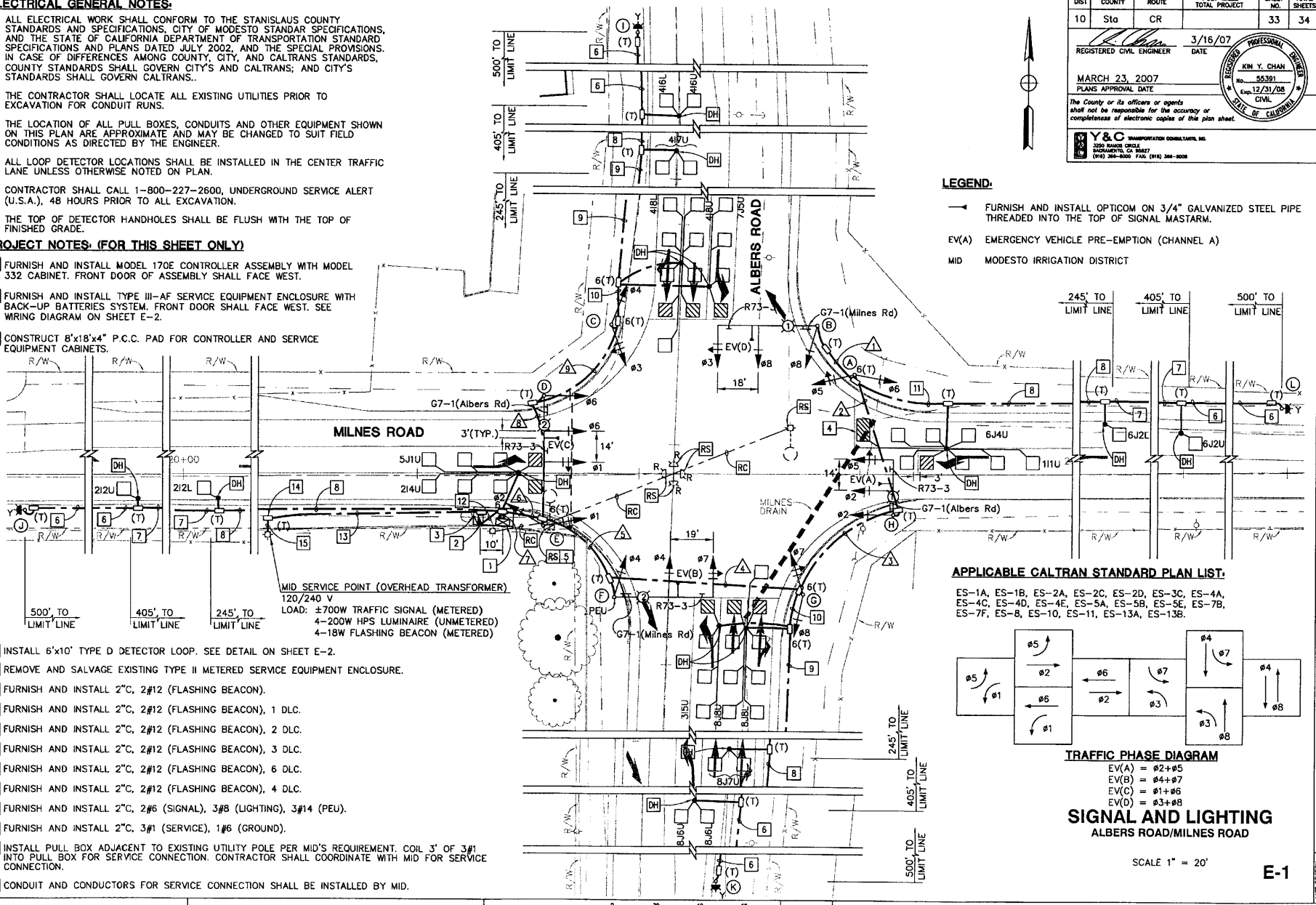
LAST REVISION s161rqu.dwg, Mon, 07 May 2007 - 10:01am, joeb

ELECTRICAL GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE STANISLAUS COUNTY STANDARDS AND SPECIFICATIONS, CITY OF MODESTO STANDAR SPECIFICATIONS, AND THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND PLANS DATED JULY 2002, AND THE SPECIAL PROVISIONS. IN CASE OF DIFFERENCES AMONG COUNTY, CITY, AND CALTRANS STANDARDS, COUNTY STANDARDS SHALL GOVERN CITY'S AND CALTRANS; AND CITY'S STANDARDS SHALL GOVERN CALTRANS..
2. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO EXCAVATION FOR CONDUIT RUNS.
3. THE LOCATION OF ALL PULL BOXES, CONDUITS AND OTHER EQUIPMENT SHOWN ON THIS PLAN ARE APPROXIMATE AND MAY BE CHANGED TO SUIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
4. ALL LOOP DETECTOR LOCATIONS SHALL BE INSTALLED IN THE CENTER TRAFFIC LANE UNLESS OTHERWISE NOTED ON PLAN.
5. CONTRACTOR SHALL CALL 1-800-227-2600, UNDERGROUND SERVICE ALERT (U.S.A.), 48 HOURS PRIOR TO ALL EXCAVATION.
6. THE TOP OF DETECTOR HANDHOLES SHALL BE FLUSH WITH THE TOP OF FINISHED GRADE.

PROJECT NOTES: (FOR THIS SHEET ONLY)

1. FURNISH AND INSTALL MODEL 170E CONTROLLER ASSEMBLY WITH MODEL 332 CABINET. FRONT DOOR OF ASSEMBLY SHALL FACE WEST.
2. FURNISH AND INSTALL TYPE III-AF SERVICE EQUIPMENT ENCLOSURE WITH BACK-UP BATTERIES SYSTEM. FRONT DOOR SHALL FACE WEST. SEE WIRING DIAGRAM ON SHEET E-2.
3. CONSTRUCT 8'x18'x4" P.C.C. PAD FOR CONTROLLER AND SERVICE EQUIPMENT CABINETS.
4. INSTALL 6'x10' TYPE D DETECTOR LOOP. SEE DETAIL ON SHEET E-2.
5. REMOVE AND SALVAGE EXISTING TYPE II METERED SERVICE EQUIPMENT ENCLOSURE.
6. FURNISH AND INSTALL 2"C, 2#12 (FLASHING BEACON).
7. FURNISH AND INSTALL 2"C, 2#12 (FLASHING BEACON), 1 DLC.
8. FURNISH AND INSTALL 2"C, 2#12 (FLASHING BEACON), 2 DLC.
9. FURNISH AND INSTALL 2"C, 2#12 (FLASHING BEACON), 3 DLC.
10. FURNISH AND INSTALL 2"C, 2#12 (FLASHING BEACON), 6 DLC.
11. FURNISH AND INSTALL 2"C, 2#12 (FLASHING BEACON), 4 DLC.
12. FURNISH AND INSTALL 2"C, 2#6 (SIGNAL), 3#8 (LIGHTING), 3#14 (PEU).
13. FURNISH AND INSTALL 2"C, 3#1 (SERVICE), 1#6 (GROUND).
14. INSTALL PULL BOX ADJACENT TO EXISTING UTILITY POLE PER MID'S REQUIREMENT. COIL 3' OF 3#1 INTO PULL BOX FOR SERVICE CONNECTION. CONTRACTOR SHALL COORDINATE WITH MID FOR SERVICE CONNECTION.
15. CONDUIT AND CONDUCTORS FOR SERVICE CONNECTION SHALL BE INSTALLED BY MID.



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		33	34

REGISTERED CIVIL ENGINEER — 3/16/07 DATE

MARCH 23, 2007
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — KIN Y. CHAN — No. 55391 — Exp. 12/31/08 — CIVIL — STATE OF CALIFORNIA

Y&C TRANSPORTATION CONSULTANTS, INC.
3250 RAMOS CIRCLE
SACRAMENTO, CA 95827
(916) 362-8000 FAX (916) 364-8008

LEGEND:

- FURNISH AND INSTALL OPTICOM ON 3/4" GALVANIZED STEEL PIPE THREADED INTO THE TOP OF SIGNAL MASTARM.

EV(A) EMERGENCY VEHICLE PRE-EMPTION (CHANNEL A)

MID MODESTO IRRIGATION DISTRICT

APPLICABLE CALTRAN STANDARD PLAN LIST:

ES-1A, ES-1B, ES-2A, ES-2C, ES-2D, ES-3C, ES-4A, ES-4C, ES-4D, ES-4E, ES-5A, ES-5B, ES-5E, ES-7B, ES-7F, ES-8, ES-10, ES-11, ES-13A, ES-13B.

TRAFFIC PHASE DIAGRAM

EV(A) = ø2+ø5
EV(B) = ø4+ø7
EV(C) = ø1+ø6
EV(D) = ø3+ø8

SIGNAL AND LIGHTING

ALBERS ROAD/MILNES ROAD

SCALE 1" = 20'

E-1

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

CALCULATED/ DESIGNED BY			
CHECKED BY			
KYC	03/07	KDY	03/07
DATE	REVISED BY	DATE	REVISED

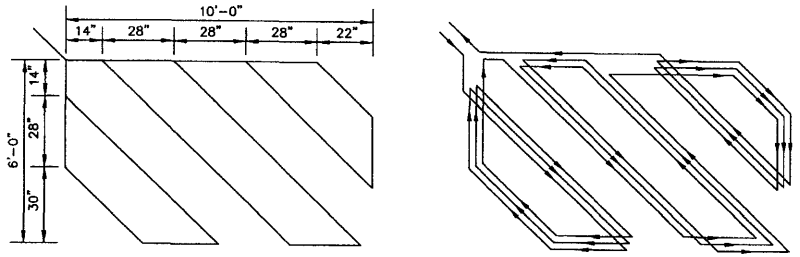
PROJECT ENGINEER -

AGENCY NAME STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

LAST REVISION 399sig1.dwg, Fri, 27 Apr 2007 - 1:51pm, myang

CONDUCTOR SCHEDULE

CONDUCTOR DESIGNATION	NUMBER OF CONDUCTORS RUN NUMBER 1	2	3	4	5	6	7	8	9
No. 14 CONDUCTORS									
#1						3	6	3	
#2			3	3	3	3	3		
#3	3	3	3	3	3	6	6	3	3
#4					3	6	6	3	3
#5		3	3	3	3	3	3		
#6		3	3	3	3	6	6	3	
#7				3	3	3	3		
#8	3	3	3	3	3	3	3		
SPARES	3	3	3	3	3	6	6	3	3
PEU					3	3	3		
TOTAL No. 14	9	15	18	21	27	42	45	15	9
No. 12 CONDUCTORS									
FLASHING BEACON		2	2	2	2	2	2	2	2
No. 8 CONDUCTORS									
LIGHTING (120 V)	2	2	2	2	3	3	3	2	
SIGNAL NEUTRAL	1	1	1	1	1	1	1	1	1
TOTAL No. 8	3	3	3	3	4	4	4	3	1
No. 6 CONDUCTORS									
SERVICE TO CONTROLLER							2		
DETECTOR LEAD-IN CABLE (DLC)									
1I1U		1	1	1	1	1	1		
2I2U/2I2L							2		
2I4U/2I4L							1		
3I5U					1	1	1	1	
4I6U/4I6L							2	2	2	2
4I7U/4I7L							1	1	1	1
4I8U/4I8L							2	2	2	2
5J1U							1			
6J2U/6J2L		2	2	2	2	2	2			
6J4U/6J4L		1	1	1	1	1	1			
7J5U						1	1	1	1	
8J6U/8J6L				2	2	2	2			
8J7U				1	1	1	1			
8J8U/8J8L				2	2	2	2			
TOTAL DLC		4	4	10	10	22	20	6	6
EVA			1	1	1	1	1			
EVB					1	1	1			
EVC						1	1	1		
EVD	1	1	1	1	1	1	1			
TOTAL EVP	1	1	2	2	3	4	4	1		
CONDUIT SIZE (in)	2	3	3	3	3	2-3	2-3	3	2
% FILL	14	12	14	21	24	21	21	14	22



SAW CUT DETAIL

WINDING DETAIL

DETAIL A: LOOP DETECTOR DETAIL

NOT TO SCALE

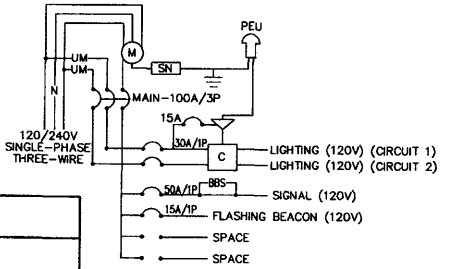
ALSO SEE CALTRANS STANDARD PLAN ES-5B TYPE D LOOP DETECTOR CONFIGURATION

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD TYPE	SIG. MA	LUM. MA	VEHICLE SIGNAL MOUNTING MAST ARM	POLE	HPS LUMINAIRE (WATTS)	LOCATION STATION	OFFSET	REMARKS **
Ⓐ	1-A				TV-2-T		23+100.0	45.1'LT	
Ⓑ	26-4-129	45'	15'	MAS MAS	SV-1-T	200	23+80.6	67.2'LT	INSTALL R73-3, G7-1 SIGNS, AND EV(D) ON SMA.
Ⓒ	1-A				TV-2-T		22+87.4	67.4'LT	
Ⓓ	19-4-129	30'	15'	MAS MAS	SV-1-T	200	22+57.2	35.1'LT	INSTALL R73-3, G7-1 SIGNS, AND EV(C) ON SMA.
Ⓔ	1-A				TV-2-T		22+57.1	23.7'RT	
Ⓕ	26-4-129	45'	15'	MAS MAS	SV-1-T	200	22+88.8	56.1'RT	INSTALL R73-3, G7-1 SIGNS, AND EV(B) ON SMA. PEU ON TOP OF STANDARD.
Ⓖ	1-A				TV-2-T		23+74.5	54.7'RT	
Ⓗ	19-4-129	25'*	15'	MAS MAS	SV-1-T	200	24+15.4	18.4'RT	INSTALL R73-3, G7-1 SIGNS, AND EV(A) ON SMA.
Ⓘ	1-A (FLASHING BEACON)						128+57.5	17.7'LT	INSTALL FLASHING BEACON ON TOP OF STANDARD.
Ⓙ	1-A (FLASHING BEACON)						17+57.2	16.1'RT	INSTALL FLASHING BEACON ON TOP OF STANDARD.
Ⓚ	1-A (FLASHING BEACON)						117+30.9	34.9'RT	INSTALL FLASHING BEACON ON TOP OF STANDARD.
Ⓛ	1-A (FLASHING BEACON)						28+97.5	29.2'LT	INSTALL FLASHING BEACON ON TOP OF STANDARD.

* USE SHORTER SIGNAL MAST ARM.

** OTHER REQUIREMENTS ARE COVERED BY NOTES, LEGEND, SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS. FOR TYPE OF STANDARD AND VEHICLE SIGNAL MOUNTING, SEE STANDARD PLANS.



SERVICE WIRING DIAGRAM

120/240V
1 PHASE - 3 WIRES

WIRING DIAGRAM LEGEND

- C = CONTACTOR (LIGHTING)
- SN = SOLID NEUTRAL BUS
- = 15A, 1P AUTO-TEST SWITCH
- = PHOTOELECTRIC UNIT
- (M) = METER SOCKET

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		34	34

REGISTERED CIVIL ENGINEER — 3/16/07 DATE

KIN Y. CHAN No. 55391 Exp. 12/31/08 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

MARCH 23, 2007
PLANS APPROVAL DATE

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

Y&C TRANSPORTATION CONSULTANTS, INC.
3350 RAMOS CIRCLE
SACRAMENTO, CA 95827
(916) 366-8000 FAX (916) 366-8008

DATE	REVISED BY	REVISED
03/07	KYC	KDY 03/07

CALCULATED/DESIGNED BY
CHECKED BY
PROJECT ENGINEER

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

SIGNAL AND LIGHTING
ALBERS ROAD/MILNES ROAD

(CONDUCTORS, POLES AND EQUIPMENT SCHEDULES)
NO SCALE

E-2

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

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INFORMATION FOR BIDDERS

SECTION 1: DATE AND PLACE FOR OPENING PROPOSALS. Pursuant to the "Invitation to Bidders and Special Provisions", sealed proposals for performing the work will be received by the Clerk of the Board of Supervisors of the County of Stanislaus.

At the place and time set forth in said "Invitation to Bidders and Special Provisions", proposals will be publicly opened and read. The awarding of the agreement, if awarded, will be made by said Board of Supervisors as soon thereafter as practicable.

SECTION 2; PRINTED FORM OF PROPOSALS. All proposals must be made upon the blank proposal attached hereto, and must give the price data in figures, and must be signed by the bidder. In accordance with the directions in the proposal, in order to insure consideration the proposal must be enclosed in a return envelope furnished by the bidder, and plainly marked: **"Proposal for the Traffic Congestion Relief Project "A", Albers Road and Milnes Road Intersection Improvement Project** and addressed to the Stanislaus County, Attn: Clerk of the Board of Supervisors, 1010 10th Street, Ste. 6500, Modesto, California, 95354 **PRIOR TO 2:00 P.M., January 30, 2008.** No bid may be withdrawn within 60 days after time of opening.

SECTION 3: 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 shall at once notify the Engineer who may send a written instruction to all bidders.

SECTION 4: 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 that is incomplete, obscure, or irregular may be rejected. Any proposal having erasures or corrections in the price sheet may be rejected. Any proposal that 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 that 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.

SECTION 5: CASH, CERTIFIED CHECK, CASHIER'S CHECK OR BIDDER'S BOND. All proposals shall be accompanied by cash, a certified check, certified to by a 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.

SECTION 6: ACCEPTANCE OF PROPOSALS AND ITS EFFECT. Within 60 days after the opening of the proposals, the Board of Supervisors will act upon them. The acceptance of a proposal will be a 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 or its authorized designee.

SECTION 7: 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.

SECTION 8: 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 responsible bidder who has submitted the lowest bid. 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.

SECTION 9: TIME FOR BEGINNING AND COMPLETING THE WORK. The Contractor shall commence work as specified in Section 4 of the Invitation to Bidders and Special Provisions.

SECTION 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.

SECTION 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 Public Works Engineering, 1716 Morgan Road, Modesto, California 95358.

SECTION 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.

SECTION 13: SUBSTITUTIONS OF SECURITIES FOR WITHHELD PAYMENTS. Except as otherwise prohibited by law, the Contractor may elect to receive all payments due under the contract pursuant to Section 2.1 of the "Agreement for Independent Contractor Services" without any retention. If the Contractor so elects, he shall deposit with the County securities with a value equal to the monies that 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.

PROPOSAL

STANISLAUS COUNTY BOARD OF SUPERVISORS

FOR THE CONSTRUCTION OF

Traffic Congestion Relief Project "A"
Albers Road and Milnes Road Intersection Improvements

NAME OF BIDDER _____

BUSINESS P.O. BOX _____

CITY, STATE, ZIP _____

BUSINESS STREET ADDRESS _____
(Please include even if P.O. Box used)

CITY, STATE, ZIP _____

TELEPHONE NO: AREA CODE ( ) _____

FAX NO: AREA CODE ( ) _____

CONTRACTOR LICENSE NO. _____

The work for which this proposal is submitted is for construction in conformance with the special provisions (including the payment of not less than the State general prevailing wage rates or Federal minimum wage rates), the project plans described below, including any addenda thereto, the contract annexed hereto, and also in conformance with the California Department of Transportation Standard Plans, dated July, 2002, the Standard Specifications, dated July, 2002, and the Labor Surcharge and Equipment Rental Rates in effect on the date the work is accomplished.

The plans and specifications for the work to be done were adopted by the Board of Supervisors on **December 18, 2007**, and are entitled:

COUNTY OF STANISLAUS, DEPARTMENT OF PUBLIC WORKS
INVITATION TO BIDDERS AND SPECIAL PROVISIONS; PLANS FOR THE CONSTRUCTION OF THE
TRAFFIC CONGESTION RELIEF PROJECT "A"
ALBERS ROAD AT MILNES ROAD INTERSECTION IMPROVEMENTS

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 COUNTY OF STANISLAUS' Final Estimate of cost.

If both the unit price and the item total are unreadable or otherwise unclear, or are omitted, the bid may be deemed irregular. Likewise if the item total for a lump sum item is unreadable or otherwise unclear, or is omitted, the bid may be deemed irregular unless the project being bid has only a single item and a clear, readable total bid is provided.
Symbols such as commas and dollar signs will be ignored and have no mathematical significance in establishing any unit price or item total or lump sums. Written unit prices, item totals and lump sums will be interpreted according to the number of digits and, if applicable, decimal placement. Cent symbols also have no significance in establishing any unit price or item total since all figures are assumed to be expressed in dollars and/or decimal fractions of a dollar. Bids on lump sum items shall be item totals only; if any unit price for a lump sum item is included in a bid and it differs from the item total, the items total shall prevail.

The foregoing provisions for the resolution of specific irregularities cannot be so comprehensive as to cover every omission, inconsistency, error or other irregularity which may occur in a bid. Any situation not specifically provided for will be determined in the discretion of the COUNTY OF STANISLAUS, and that discretion will be exercised in the manner deemed by the COUNTY OF STANISLAUS to best protect the public interest in the prompt and economical completion of the work. The decision of the COUNTY OF STANISLAUS respecting the amount of a bid, or the existence or treatment of an irregularity in a bid, shall be final.

Accompanying this proposal shall be a bidder's bond issued by a California admitted surety, or certified or cashier's check, or cash in the amount of ten percent (10%) of the proposal as a form of bidder's security.

If this proposal shall be accepted and the undersigned shall fail to enter into the contract and furnish the 2 bonds in the sums required by the State Contract Act, with surety satisfactory to the COUNTY OF STANISLAUS, within 8 days, not including Saturdays, Sundays and legal holidays, after the bidder has received notice from the COUNTY OF STANISLAUS that the contract has been awarded, the COUNTY OF STANISLAUS may, at its option, determine that the bidder has abandoned the contract, and thereupon this proposal and the acceptance thereof shall be null and void and the forfeiture of the security accompanying this proposal shall operate and the same shall be the property of the COUNTY OF STANISLAUS.

The undersigned, as bidder, declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm, or corporation; that he has carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to; and he proposes, and agrees if this proposal is accepted, that he will contract with the COUNTY OF STANISLAUS, in the form of the copy of the contract annexed hereto, to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials

specified in the contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefor the following prices, to wit:

BID DOCUMENTS REQUIRED AT BID OPENING

It is required that the following documents must be completed, signed, and submitted with the Proposal at bid opening.

Contractor's Bid Sheet
Addendum Sheet
Subcontractor List
Equal Employment Opportunity Certification
Public Contract Code
Noncollusion Affidavit
Non-Discrimination of the Handicapped
Debarment and Suspension Certification
Proposal Signature Sheet
Bidder's Bond

It is recommended that the following document be submitted at bid opening.

W-9 Form

Note: The above forms and documents must be completed and submitted with your bid for your bid to be accepted as complete at the bid opening. Failure to complete or provide any of the required documents will be deemed an incomplete and rejected bid.

INSURANCE REQUIREMENTS

Your insurance agent must thoroughly review the contract specifications before he issues the Certificate of Insurance.

Insurance Requirements.

- General Liability Insurance, $1,000,000 per occurrence.
- Automobile Liability Insurance, $1,000,000 per accident.
- Workers' Compensation Insurance as required by the Labor Code of the State of California.
- Insurance to be placed with California admitted insurers (licensed to do business in California) with a Best's rating of no less than A:VII.
- Any deductibles, self-insured retentions or named insureds must be declared.

CONTRACTOR'S BID SHEET
FOR
TRAFFIC CONGESTION RELIEF PROJECT "A"
ALBERS ROAD AT MILNES ROAD INTERSECTION IMPROVEMENTS

NO.	CONTRACTOR'S BID DESCRIPTION	APPROX. QUANTITY	UNIT	UNIT PRICE	TOTAL
1	ENVIRONMENTAL MITIGATION	1	LUMP SUM (LS)		
2	WATER POLLUTION CONTROL	1	LS		
3	TRAFFIC CONTROL SYSTEM	1	EACH (EA)		
4	CONSTRUCTION AREA SIGNS	1	LS		
5	PORTABLE CHANGEABLE MESSAGE SIGN	4	EA		
6	ABANDON CULVERT	90	LINEAL FEET (LF)		
7	REMOVE ROADSIDE SIGN	4	EA		
8	RESET MAILBOX	3	EA		
9	COLD PLANE ASPHALT CONCRETE PAVEMENT	1710	SQUARE FEET (SF)		
10	CLEARING AND GRUBBING	1	LS		
11	ROADWAY EXCAVATION (FINAL)	3090	CUBIC YARDS (CY)		
12	SAND BACKFILL	5	CY		
13	IMPORTED BORROW (FINAL)	500	CY		
14	4" PLASTIC PIPE (PR 135) (SUPPLY LINE)	9	LF		
15	CLASS 2 AGGREGATE BASE	1416	TON		
16	ASPHALT CONCRETE (TYPE A)	5670	TON		
17	ROADSIDE SIGN	10	EA		

18	24" REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	124	LF		
19	30" REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	142	LF		
20	12" REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	16	LF		
21	10" CORRUGATED STEEL PIPE	18	LF		
22	24" CONCRETE FLARED END SECTION	4	EA		
23	30" CONCRETE FLARED END SECTION	2	EA		
24	MINOR CONCRETE (CURB)	10	CY		
25	FENCE (TYPE BW, METAL POST)	2510	LF		
26	DELINEATOR (CLASS 1)	5	EA		
27	THERMOPLASTIC PAVEMENT MARKING	1050	SF		
28	THERMOPLASTIC TRAFFIC STRIPE	14500	LF		
29	PAVEMENT MARKER (RETROREFLECTIVE)	410	EA		
30	SIGNAL AND LIGHTING	1	LS		
31	MOBILIZATION	1	LS		
				TOTAL	

(SIGNED)_____Date:_____

Note: All line items must have an entry placed in its appropriate box, and this form must be signed for the bid to be accepted as complete.

ADDENDUM SHEET
FOR
TRAFFIC CONGESTION RELIEF PROJECT "A"
ALBERS ROAD AT MILNES ROAD INTERSECTION
IMPROVEMENT PROJECT

ADDENDUM NO. ____ DATED _____ DATE RECEIVED _____ INITIALS _____

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 _____

ADDRESS _____

_____

PHONE (_____) _____ FAX (_____) _____

SIGNED)_____Date:_____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

SUBCONTRACTORS LIST

The Bidder shall list the name and address of each subcontractor to whom the Bidder proposes to subcontract portions of the work, as required by the provisions in Section 2-1.054, "Required Listing of Proposed Subcontractors," of the Standard Specifications and Section 2-1.01, "General," of the special provisions.

	Subcontractor	Business Address	Description of Portion of Work Subcontracted
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

(SIGNED)_____Date:_____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

The bidder _____, proposed subcontractor _____, hereby certifies that he has ____, has not ____, participated in a previous contract or subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filling requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of $10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

(SIGNED)_____Date:_____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

PUBLIC CONTRACT CODE

Public Contract Code Section 10285.1 Statement

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder has ____ , has not ____ been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: The bidder must place a check mark after "has" or "has not" in one of the blank spaces provided. The above Statement is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Public Contract Code Section 10162 Questionnaire

In conformance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

Yes ____ No ____

If the answer is yes, explain the circumstances in the following space.

Public Contract Code 10232 Statement

In conformance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

(SIGNED)_____Date:_____

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

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

NONCOLLUSION AFFIDAVIT

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

TO THE COUNTY OF STANISLAUS
DEPARTMENT OF PUBLIC WORKS

In conformance 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 or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; 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 anyone 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.

(SIGNED)_____Date:_____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

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 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 _____

BUSINESS ADDRESS _____ TEL._____

CITY, STATE, ZIP CODE _____

BY _____ TITLE _____
(Signature)

DATED _____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

DEBARMENT AND SUSPENSION CERTIFICATION

TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency;
- Has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past 3 years;
- Does not have a proposed debarment pending; and
- Has not been indicted, convicted, or had a civil judgement rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

(SIGNED)_____Date:_____

Providing false information may result in criminal prosecution or administrative sanctions.

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

W-9 FORM

PROPOSAL SIGNATURE SHEET

ACCOMPANING THIS PROPOSAL IS _____ (INSERT THE WORDS "CASH ($ _____)," "CASHIER'S CHECK," "CERTIFIED CHECK," OR "BIDDER'S BOND," AS THE CASE MAY BE) IN AMOUNT EQUAL TO AT LEAST TEN PERCENT OF THE TOTAL OF THE BID.

THE NAMES OF ALL PERSONS INTERESTED IN THE FOREGOING PROPOSAL AS PRINCIPALS ARE AS FOLLOWS:

IMPORTANT NOTICE

If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a copartnership, state true name of firm, also names of all individual copartners composing firm; if bidder or other interested person is an individual, state first and last names in full.

LICENSED IN CONFORMANCE WITH AN ACT PROVIDING FOR THE REGISTRATION OF CONTRACTORS,

License No._____ Classification(s)_____

Expiration Date _____

ADDENDA – THIS PROPOSAL IS SUBMITTED WITH RESPECT TO THE CHANGES TO THE CONTRACT INCLUDED IN ADDEND NUMBER/S _____

(*Fill in addenda numbers if addenda have been received and insert, in this Proposal, any Engineer's Estimate sheets that were received as part of the addenda.*)

By my signature on this proposal I certify, under penalty of perjury under the laws of the State of California, that the foregoing questionnaire and statements of Public Contract Code Sections 10162, 10232 and 10285.1 are true and correct and that the bidder has complied with the requirements of Section 8103 of the Fair Employment and Housing Commission Regulations (Chapter 5, Title 2 of the California Administrative Code). By my signature on this proposal I further certify, under penalty of perjury under the laws of the State of California and the United States of America, that the Noncollusion Affidavit required by Title 23 United States Code, Section 112 and Public Contract Code Section 7106; and the Title 49 Code of Federal Regulations, Part 29 Debarment and Suspension Certification are true and correct.

Date:_____

_____

_____

_____

Signature and Title of Bidder

Business Address_____

Place of Business_____

Place of Residence_____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

COUNTY OF STANISLAUS
DEPARTMENT OF PUBLIC WORKS

BIDDER'S BOND

We, _____ as Principal,
and _____ as Surety
are bound unto the County of Stanislaus, State of California, hereafter referred to as "Obligee", in the penal sum of ten percent (10%) of the total amount of the bid of the Principal submitted to the Obligee for the work described below, for the payment of which sum we bind ourselves, jointly and severally,

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:

WHEREAS, the Principal is submitted to the Obligee, for Traffic Congestion Relief Project "A", Albers Road at Milnes Road Intersection Improvement Project, for which bids are to be opened at Stanislaus County Board of Supervisors Office, Tenth Street Place, 1010 10th Street, Ste. 6500, Modesto, CA, January 30, 2008.

NOW, THEREFORE, if the Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him for signature, enters into a written contract, in the prescribed form, in conformance with the bid, and files two bonds with the Obligee, one to guarantee faithful performance of the contract and the other to guarantee payment for labor and materials as provided by law, then this obligation shall be null and void; otherwise, it shall remain in full force.

In the event suit is brought upon this bond by the Obligee and judgement is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

Dated: _____, 20____.

_____

_____

_____
Principal

_____
Surety

By_____
Attorney-in-fact

NOTE: Signatures of those executing for the surety must be properly acknowledged.

CERTIFICATE OF ACKNOWLEDGEMENT

ATTACH APPROPRIATE NOTARY CERTIFICATE AND SEAL

Note: A Bidder's Bond must be completed and submitted with your bid for your bid to be accepted as complete.

CONSTRUCTION PERFORMANCE BOND

THIS CONSTRUCTION PERFORMANCE BOND ("Bond") is dated _____, **200**__ is in the penal sum of _____Insert Amount_____ [which is one hundred percent of the Contract Sum, and is entered into by and between the parties listed below to ensure the faithful performance of the Construction Contract listed below. This Bond consists of this page and the Bond Terms and Conditions, Paragraphs 1 through 12, attached to this page. Any singular reference to Insert Name of Contractor ("Contractor"), Insert name of Surety ("Surety"), County of Stanislaus ("County"), or other party shall be considered plural where applicable.

CONTRACTOR:	**SURETY:**
_____	_____
Name	Name
_____	_____
Address	Principal Place of Businees
_____	_____
City/State/Zip	City/State/Zip

CONSTRUCTION CONTRACT: Traffic Congestion Relief Project "A", Albers Road at Milnes Road Intersection Improvement Project

CONTRACT NUMBER: 2007-10

DATED _____, 200__ in the Amount of $_____ (the "Penal Sum").

CONTRACTOR AS PRINCIPAL	**SURETY**
Company: (Corp. Seal)	Company: (Corp. Seal)
Signature:_____	Signature: _____
Name: _____	Name: _____
Title: _____	Title: _____

Note: A Performance Bond will be required prior to contract execution with the successful bidder.

CONSTRUCTION PERFORMANCE BOND TERMS AND CONDITIONS

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to County for the complete and proper performance of the Construction Contract, which is incorporated herein by reference.

2. If Contractor completely and properly performs all of its obligations under the Construction Contract, Surety and Contractor shall have no obligation under this Bond.

3. If there is no County Default, Surety's obligation under this Bond shall arise after:

   3.1 County has declared a Contractor Default under the Construction Contract pursuant to the terms of the Construction Contract; and

   3.2 County has agreed to pay the Balance of the Contract Sum:

      3.2.1 To Surety in accordance with the terms of this Bond and the Construction Contract; or

3.2.2 To a contractor selected to perform the Construction Contract in accordance with the terms of this Bond and the Construction Contract.

4. When County has satisfied the conditions of Paragraph 3, Surety shall promptly (within 30 Days) and at Surety's expense elect to take one of the following actions:

   4.1 Arrange for Contractor, with consent of County, to perform and complete the Construction Contract (but County may withhold consent, in which case the Surety must elect an option described in Paragraphs 4.2, 4.3 or 4.4, below); or

   4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; provided, that Surety may not select Contractor as its agent or independent contractor without County's consent; or

   4.3 Undertake to perform and complete the Construction Contract by obtaining bids from qualified contractors acceptable to County for a contract for performance and completion of the Construction Contract and, upon determination by County of the lowest responsive and responsible Bidder, arrange for a contract to be prepared for execution by County and the contractor selected with County's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract; and, if Surety's obligations defined in Paragraph 6, below, exceed the Balance of the Contract Sum, then Surety shall pay to County the amount of such excess; or

4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances and, after investigation and consultation with County, determine in good faith its monetary obligation to County under Paragraph 6, below, for the performance and completion of the Construction Contract and, as soon as practicable after the amount is determined, tender payment therefor to County with full explanation of the payment's calculation. If County accepts Surety's tender under this Paragraph 4.4, County may still hold Surety liable for future damages then unknown or unliquidated resulting from the Contractor Default. If County disputes the amount of Surety's tender under this Paragraph 4.4, County may exercise all remedies available to it at law to enforce Surety's liability under Paragraph 6, below.

5. If Surety does not proceed as provided in Paragraph 4, above, then Surety shall be deemed to be in default on this Bond ten Days after receipt of an additional written notice from County to Surety demanding that Surety perform its obligations under this Bond. At all times County shall be entitled to enforce any remedy available to County at law or under the Construction Contract including, without limitation, and by way of example only, rights to perform work, protect Work, mitigate damages, advance critical Work to mitigate schedule delay, or coordinate Work with other consultants or contractors.

6. Surety's monetary obligation under this Bond is limited by the amount of this Bond identified herein as the Penal Sum. This monetary obligation shall augment the Balance of the Contract Sum. Subject to these limits, Surety's obligations under this Bond are commensurate with the obligations of Contractor under the Construction Contract. Surety's obligations shall include, but are not limited to:

6.1 The responsibilities of Contractor under the Construction Contract for completion of the Construction Contract and correction of Defective Work;

6.2 The responsibilities of Contractor under the Construction Contract to pay liquidated damages, and for damages for which no liquidated damages are specified in the Construction Contract, actual damages caused by non-performance of the Construction Contract including, but not limited to, all valid and proper backcharges, offsets, payments, indemnities, or other damages;

6.3 Additional legal, design professional and delay costs resulting from Contractor Default or resulting from the actions or failure to act of the Surety under Paragraph 4, above (but excluding attorney's fees incurred to enforce this Bond).

7. No right of action shall accrue on this Bond to any person or entity other than County or its successors or assigns.

8. Surety hereby waives notice of any change, alteration or addition to the Construction Contract or to related subcontracts, purchase orders and other

obligations, including changes of time. Surety consents to all terms of the Construction Contract, including provisions on changes to the Contract. No extension of time, change, alteration, Modification, deletion, or addition to the Contract Documents, or of the Work required thereunder, shall release or exonerate Surety on this Bond or in any way affect the obligations of Surety on this Bond.

9. Any proceeding, legal or equitable, under this Bond shall be instituted in any court of competent jurisdiction where a proceeding is pending between County and Contractor regarding the Construction Contract, or in the courts of the County of Stanislaus, or in a court of competent jurisdiction in the location in which the Work is located. Communications from County to Surety under Paragraph 3.1 of this Bond shall be deemed to include the necessary agreements under Paragraph 3.2 of this Bond unless expressly stated otherwise.

10. All notices to Surety or Contractor shall be mailed or delivered (at the address set forth on the signature page of this Bond), and all notices to County shall be mailed or delivered as provided in Document 00520 (Agreement). Actual receipt of notice by Surety, County or Contractor, however accomplished, shall be sufficient compliance as of the date received at the foregoing addresses.

11. Any provision in this Bond conflicting with any statutory or regulatory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein.

12. Definitions

12.1 Balance of the Contract Sum: The total amount payable by County to Contractor pursuant to the terms of the Construction Contract after all proper adjustments have been made under the Construction Contract, for example, deductions for progress payments made, and increases/decreases for approved Modifications to the Construction Contract.

12.2 Construction Contract: The agreement between County and Contractor identified on the signature page of this Bond, including all Contract Documents and changes thereto.

12.3 Contractor Default: Material failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract including, but not limited to, "default" or any other condition allowing a termination for cause as provided in Document 00700 (General Conditions).

12.4 County Default: Material failure of County, which has neither been remedied nor waived, to pay Contractor progress payments due under the Construction Contract or to perform other material terms of the Construction Contract, if such failure is the cause of the asserted Contractor Default and is sufficient to justify Contractor termination of the Construction Contract.

CONSTRUCTION LABOR AND MATERIAL PAYMENT BOND

THIS CONSTRUCTION LABOR AND METERIAL PAYMENT BOND ("Bond") is dated [Month, Day, [200_] is in the penal sum of Insert Amount which is one hundred percent of the Contract Sum, and is entered into by and between the parities listed below to ensure the payment of claimants under the Construction Contract listed below. This Bond consists of this page and the Bond Terms and Conditions, Paragraphs 1 through 13, attached to this page. Any singular reference to Insert name of Contractor ("Contractor"), Insert name of Surety ("Surety"), County of Stanislaus ("County"), or other party shall be considered plural where applicable.

CONTRACTOR:	SURETY:
_____	_____
Name	Name
_____	_____
Address	Principal Place of Business
_____	_____
City/State/Zip	City/State/Zip

CONSTRUCTION CONTRACT: COUNTY OF STANISLAUS TRAFFIC CONGESTION RELIEF PROJECT "A", ALBERS ROAD AT MILNES ROAD INTERSECTION IMPROVEMENT PROJECT
CONTRACT NUMBER: 2007-10

Dated _____, 200_ in the amount of _____ (the "Penal Sum").

CONTRACTOR:	SURETY:
Company: (Corp. Seal)	Company: (Corp. Seal)
Signature:_____	Signature:_____
Name:_____	Name:_____
Title:_____	Title:_____

Note: A Payment Bond will be required prior to contract execution with the successful bidder.

CONSTRUCION LABOR AND MATERIAL PAYMENT BOND TERMS AND CONDITIONS

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to County and to Claimants, to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference.

2. With respect to County, this obligation shall be null and void if Contractor:

2.1 Promptly makes payment, directly or indirectly, for all sums due Claimant; and

2.2 Defends, indemnifies and hold harmless County from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Construction Contract, provided County has promptly notified Contractor and Surety (at the address set forth on the signature page on this Bond) or any claims, demands, lien or suits and tendered defense of such claims, demands, liens or suits to Contractor and Surety, and provided there is no County Default.

3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly through its Subcontractors, for all sums due Claimants. If Contractor or its Subcontractors, however, fail to pay any of the persons named in Section 3181 of the California Civil Code, or amounts due under the Unemployment Insurance Code with respect to Work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department form the wages of employees of Contractor or Subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, then Surety shall pay for the same, and also, in case suit is brought upon this Bond, a reasonable attorney's fee, to be fixed by the court.

4. Consistent with the California's Mechanic's Lien Law, Civil Code §3082, *et seq.*, Surety shall have no obligation to Claimants under this Bond unless the Claimant has satisfied all applicable notice requirements.

5. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety under this Bond.

6. Amounts due Contractor under the Construction Contract shall be applied first to satisfy claims, if any, under any Construction Performance Bond and second, to satisfy obligations of Contractor and Surety under this Bond.

7. County shall not be liable for payment of any costs, expenses, or attorney's fees of any Claimant under this Bond, and shall have under this Bond no obligation to made payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

8. Surety hereby waives notice of any change, including changes to time, to the

Construction Contract or to related subcontracts, purchase orders and other obligations. Surety further hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Construction Contract, or to the Work to be performed thereunder, or materials or equipment to be furnished thereunder or the Specifications accompanying the same, shall in any way affect its obligations under this Bond, and it does hereby waive any requirement of notice or any such change, extension of time, alteration or addition to the terms of the Construction Contract or to the Work or to the Specifications or any other changes.

9. Suit against Surety on this Bond may be brought by any Claimant, or its assigns, at any time after the Claimant has furnished the last of the labor or materials, or both, but, per Civil Code §3249, must be commenced before the expiration of six months after the period in which stop notices may be filed as provided in Civil Code §3184.

10. All notices to Surety or Contractor shall be mailed or delivered (at the address set forth on the signature page f this Bond), and all notices to County shall be mailed or delivered as provided in Agreement. Actual receipt of notice by Surety, County or Contractor, however accomplished, shall be sufficient compliance as of the date received at the foregoing address.

11. This Bind has been furnished to comply with the California Mechanic's Lien Law including, but not limited to, Civil Code §§3247, 3248, *et seq.* Any provision in this Bond conflicting with said statutory or other legal requirements shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

13. Definitions:

13.1 Claimant: An individual or entity having a direct contract with Contractor or with a Subcontractor of Contractor to furnish labor, materials or equipment for use in the performance of the Contract, as further defined in California Civil Code §3181. The intent of this Bond shall be to include without limitation in the terms "labor, material or equipment" that part of water, gas, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a stop notice might be asserted.. The Term Claimant shall also include the Unemployment Development Department as referred to in Civil Code §3248(b),

13.2 Construction Contract: The agreement between County and Contractor identified on the signature page of this Bond, including all Contract Documents and changes thereto.

13.3 County Default: Material failure of County, which ahs neither been remedied nor waived, to pay the Contractor as required by the Construction Contract, provided that failure is the cause of the failure of Contractor to pay the Claimants and its sufficient to justify termination of the Construction Contract.

STATE PREVAILING WAGE RATES

For current rates go to the Department of Industrial Relations homepage on the internet:

http://www.dir.ca.gov/DLSR/statistics_research.html

AGREEMENT

THIS AGREEMENT, dated this **Insert Date** day of **Insert Month**, **[200Insert Year]**, by and between **Insert Contractor** whose place of business is located at **Insert Contractors Address** ("Contractor"), and the COUNTY OF STANISLAUS ("County"), acting under and by virtue of the authority vested in the County by the laws of the State of California.

WHEREAS, County, by its Resolution No. **Insert Resolution No.** adopted on the **Insert Date** day of **Insert Month, Insert Year** awarded to Contractor the following Contract:

CONTRACT NUMBER 2007-10

Traffic Congestion Relief Project "A"
Albers Road at Milnes Road Intersection Improvement Project

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, Contractor and County agree as follows:

Article 1. Work

1.1 Contractor shall complete all Work specified in the Contract Documents, in accordance with the Specifications, Drawings, and all other terms and conditions of the Contract Documents.

Article 2. Architect/Engineer and Project Manager

2.1 **Quincy Engineering** designed the Project and furnished the Plans and Specifications. **Quincy Engineering** shall have the rights assigned to Architect/Engineer in the Contract Documents.

2.2 County has designated **Construction Administration** as its Project Manager to act as County's Representative in all matters relating to the Contract Documents.

2.3 The County may assign all or part of the Project Manager's rights, responsibilities and duties to a Construction Manager.

Article 3. Contract Time and Liquidated Damages

3.1 Contract Time

Contractor shall commence Work on the date established in the Notice to Proceed. County reserves the right to modify or alter the Commencement Date of the Work.

Contractor shall achieve Final Completion of the entire Work and be ready for Final Payment in accordance with Contract Closeout 50 Working Days from the date when the Contract Time commences to run as provided in General Conditions.

3.2 Liquidated Damages

County and Contractor recognize that time is of the essence of this Agreement and that County will suffer financial loss in the form of Contract administration expenses (such as Project management and consultant expenses), if all or any part of the Work is not completed within the times specified above, plus any extensions thereof allowed in accordance with the Contract Documents. Contractor and County agree that because of the nature of the Project, it would be impractical or extremely difficult to fix the amount of actual damages incurred by County because of a delay in completion of all or any part of the Work. Accordingly, County and Contractor agree that as liquidated damages for delay Contractor shall pay County:

3.2.1 Five Thousand Nine Hundred Sixty dollars ($5,960.00) for each Calendar Day that expires after the time specified herein for Contractor to achieve Final Completion of the entire Work, until achieved.

Lliquidated damages shall apply cumulatively and except as provided below, shall be presumed to be the damages suffered by County resulting from delay in completion of the Work.

3.3 Liquidated damages for delay shall only cover administrative, overhead, interest on bonds, and general loss of public use damages suffered by County as a result of delay. Liquidated damages shall not cover the cost of completion of the Work, damages resulting from Defective Work, lost revenues or costs of substitute facilities, or damages suffered by others who then seek to recover their damages from County (for example, delay claims of other contractors, subcontractors, tenants, or other third-parties), and defense costs thereof.

Article 4. Contract Sum

4.1 County shall pay Contractor the Contract Sum for completion of Work in accordance with Contract Documents as set forth in Contractor's Bid.

Article 5. Contractor's Representations

In order to induce County to enter into this Agreement, Contractor makes the following representations and warranties:

5.1 Contractor has visited the Site and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, as-built conditions, and all local conditions, and federal, state and local laws and regulations that in any manner may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Contractor and safety precautions and programs incident thereto.

5.2 Contractor has examined thoroughly and understood all reports of exploration and tests of subsurface conditions, as-built drawings, drawings, products specifications or reports, available for Bidding purposes, of physical conditions, including Underground Facilities, which have been made available for Bidders or which may appear in the Drawings. Contractor accepts the determination set forth in these Documents of the limited extent of the information contained in such materials upon which Contractor may be entitled to rely. Contractor agrees that except for the information so identified, Contractor does not and shall not rely on any other information contained in such reports and drawings.

5.3 Contractor has conducted or obtained and has understood all such examinations, investigations, explorations, tests, reports and studies (in addition to or to supplement those referred to in Section 5.2 of this Document that pertain to the subsurface conditions, as-built conditions, Underground Facilities and all other physical conditions at or contiguous to the Site or otherwise that may affect the cost, progress, performance or furnishing of Work, as Contractor considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by Contractor for such purposes.

5.4 Contractor has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.

Article 6. Contract Documents

6.1 Contract Documents consist of the following documents, including all changes, Addenda, and Modifications thereto:

Notice of Award
Agreement
Notice to Proceed
Construction Performance Bond
Construction Labor and Material Payment Bond
General Conditions
Supplementary General Conditions
Addenda
Construction Details
Drawings
Encroachment Permit **[If applicable]**

6.2 There are no Contract Documents other than those listed in this Document, Article 6. The Contract Documents may only be amended, modified or supplemented as provided in General Conditions.

Article 7. Miscellaneous

7.1 Terms and abbreviations used in this Agreement are defined in Special Provisions, Section 1: SPECIFICATIONS AND PLANS and will have the meaning indicated therein.

7.2 It is understood and agreed that in no instance are the persons signing this Agreement for or on behalf of County or acting as an employee, agent, or representative of County, liable on this Agreement or any of the Contract Documents, or upon any warranty of authority, or otherwise, and it is further understood and agreed that liability of the County is limited and confined to such liability as authorized or imposed by the Contract Documents or applicable law.

7.3 Contractor shall not assign any portion of the Contract Documents, and may subcontract portions of the Contract Documents only in compliance with the Subcontractor Listing Law, California Public Contract Code §4100 *et seq*.

7.4 The Contract Sum includes all allowances (if any).

7.5 In entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, 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. §15) or under the Cartwright Act (Chapter 2 (commencing with §16700) of Part 2 of Division 7 of the Business and Professions Code),

arising from purchases of goods, services or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time County tenders final payment to Contractor, without further acknowledgment by the parties.

7.6 Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are deemed included in the Contract Documents and on file at County's Office, and shall be made available to any interested party on request. Pursuant to California Labor Code §1861, Contractor represents that it is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor shall comply with such provisions before commencing the performance of the Work of the Contract Documents.

7.7 Should any part, term or provision of this Agreement or any of the Contract Documents, or any document required herein or therein to be executed or delivered, be declared invalid, void or unenforceable, all remaining parts, terms and provisions shall remain in full force and effect and shall in no way be invalidated, impaired or affected thereby. If the provisions of any law causing such invalidity, illegality or unenforceability may be waived, they are hereby waived to the end that this Agreement and the Contract Documents may be deemed valid and binding agreements, enforceable in accordance with their terms to the greatest extent permitted by applicable law. In the event any provision not otherwise included in the Contract Documents is required to be included by any applicable law, that provision is deemed included herein by this reference (or, if such provision is required to be included in any particular portion of the Contract Documents, that provision is deemed included in that portion).

7.8 This Agreement and the Contract Documents shall be deemed to have been entered into in the County of Stanislaus, State of California, and governed in all respects by California law (excluding choice of law rules). The exclusive venue for all disputes or litigation hereunder shall be in Stanislaus County Superior Court. Contractor accepts the Claims Procedure in General Conditions, as a claims procedure by agreement under the California Government Code, Title 1, Division 3.6, Part 3, Chapter 5.

IN WITNESS WHEREOF the parties have executed this Agreement in quadruplicate the day and year first above written.

COUNTY OF STANISLAUS

By:_____
Matt Machado
Director of Public Works

APPROVED AS TO FORM
Michael H. Krausnick, County Counsel

By:_____
Thomas E. Boze, Deputy County Counsel

CONTRACTOR: Insert Contractors Name

By:_____
Its:

_____
Title (If Corporation: Chairman, President or Vice President)

By:_____
Its:_____
Title (If Corporation: Secretary, Assistant Secretary, Chief Financial Officer or Assistant Treasurer)

COUNTY RESOLUTION NO. Insert Resolution No.

END OF DOCUMENT

COUNTY OF STANISLAUS

DEPARTMENT OF PUBLIC WORKS

CONSTRUCTION DETAILS

FOR THE

Traffic Congestion Relief Project "A"
Albers Road at Milnes Road
Intersection Improvement Project

Approved by Stanislaus County Board of Supervisors: December 18, 2007
Bid Opening Time and Date: 2:00 P.M., January 30, 2007

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35	EXISTING HIGHWAY FACILITIES	V-61
36	ABANDON CULVERT	V-61
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42	CORRUGATED METAL PIPE	V-69
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COUNTY OF STANISLAUS
DEPARTMENT OF PUBLIC WORKS
CONSTRUCTION DETAILS

PREQUALIFIED AND TESTED SIGNING AND DELINEATION MATERIALS

The Department maintains the following list of Prequalified and Tested Signing and Delineation Materials. The Engineer shall not be precluded from sampling and testing products on the list of Prequalified and Tested Signing and Delineation Materials.

The manufacturer of products on the list of Prequalified and Tested Signing and Delineation Materials shall furnish the Engineer a Certificate of Compliance in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications for each type of traffic product supplied.

For those categories of materials included in the list of Prequalified and Tested Signing and Delineation Materials, only those products shown within the listing may be used in the work. Other categories of products, not included in the list of Prequalified and Tested Signing and Delineation Materials, may be used in the work provided they conform to the requirements of the Standard Specifications.

Materials and products may be added to the list of Prequalified and Tested Signing and Delineation Materials if the manufacturer submits a New Product Information Form to the New Product Coordinator at the Transportation Laboratory. Upon a Departmental request for samples, sufficient samples shall be submitted to permit performance of required tests.

Approval of materials or products will depend upon compliance with the specifications and tests the Department may elect to perform.

PAVEMENT MARKERS, PERMANENT TYPE
Retroreflective With Abrasion Resistant Surface (ARS)

A. Apex, Model 921AR (100 mm x 100 mm)
B. Avery Dennison (formerly Stimsonite), Models C88 (100 mm x 100 mm), 911 (100 mm x 100 mm) and 953 (70 mm x 114 mm)
C. Ray-O-Lite, Model "AA" ARS (100 mm x 100 mm)
D. 3M Series 290 (89 mm x 100 mm)

RETROREFLECTIVE WITH ABRASION RESISTANT SURFACE (ARS)
(for recessed applications only)

A. Avery Dennison (formerly Stimsonite), Model 948 (58 mm x 119 mm)
B. Avery Dennison (formerly Stimsonite), Model 944SB (51 mm x 100 mm)*
C. Ray-O-Lite, Model 2002 (58 mm x 117 mm)

D. Ray-O-Lite, Model 2004 ARS (51 mm x 100 mm)*
*For use only in 114 mm wide (older) recessed slots

NON-REFLECTIVE FOR USE WITH EPOXY ADHESIVE, 100 MM ROUND

A. Apex Universal (Ceramic)

NON-REFLECTIVE FOR USE WITH BITUMEN ADHESIVE, 100 MM ROUND

A. Alpine Products, "D-Dot" and "ANR" (ABS)
B. Apex Universal (Ceramic)
C. Apex Universal, Models 929 (ABS) and 929PP (Polypropylene)
D. Elgin Molded Plastics, "Empco-Lite" Model 900 (ABS)
E. Hi-Way Safety, Inc., Models P20-2000W and 2001Y (ABS)
F. Interstate Sales, "Diamond Back" (ABS) and (Polypropylene)
G. Novabrite Models Adot-w (White) Adot-y (Yellow), (ABS)
H. Road Creations, Model RCB4NR (Acrylic)
I. Zumar Industries, "Titan TM40A" (ABS)

PAVEMENT MARKERS, TEMPORARY TYPE

TEMPORARY MARKERS FOR LONG TERM DAY/NIGHT USE (6 MONTHS OR LESS)

A. Apex Universal, Model 924 (100 mm x 100 mm)
B. Elgin Molded Plastics, "Empco-Lite" Model 901 (100 mm x 100 mm)
C. Road Creations, Model R41C (100 mm x 100 mm)
D. Vega Molded Products "Temporary Road Marker" (75 mm x 100 mm)

TEMPORARY MARKERS FOR SHORT TERM DAY/NIGHT USE (14 DAYS OR LESS)

(For seal coat or chip seal applications, clear protective covers are required)

A. Apex Universal, Model 932
B. Bunzl Extrusion, Models T.O.M., T.R.P.M., and "HH" (High Heat)
C. Hi-Way Safety, Inc., Model 1280/1281

STRIPING AND PAVEMENT MARKING MATERIAL

Permanent Traffic Striping and Pavement Marking Tape

A. Advanced Traffic Marking, Series 300 and 400
B. Brite-Line, Series 1000
C. Brite-Line, "DeltaLine XRP"
D. Swarco Industries, "Director 35" (For transverse application only)

E. Swarco Industries, "Director 60"
F. 3M, "Stamark" Series 380 and 5730
G. 3M, "Stamark" Series 420 (For transverse application only)

TEMPORARY (REMOVABLE) STRIPING AND PAVEMENT MARKING TAPE (6 MONTHS OR LESS)

A. Advanced Traffic Marking, Series 200
B. Brite-Line, Series 100
C. Garlock Rubber Technologies, Series 2000
D. P.B. Laminations, Aztec, Grade 102
E. Swarco Industries, "Director-2"
F. Trelleborg Industri, R140 Series
G. 3M, Series 620 "CR", and Series A750
H. 3M, Series A145, Removable Black Line Mask (Black Tape: for use only on Asphalt Concrete Surfaces)
I. Advanced Traffic Marking Black "Hide-A-Line" (Black Tape: for use only on Asphalt Concrete Surfaces)
J. Brite-Line "BTR" Black Removable Tape (Black Tape: for use only on Asphalt Concrete Surfaces)
K. Trelleborg Industri, RB-140 (Black Tape: for use only on Asphalt Concrete Surfaces)

PREFORMED THERMOPLASTIC (HEATED IN PLACE)

A. Avery Dennison, "Hotape"
B. Flint Trading, "Premark" and "Premark 20/20 Flex"

CERAMIC SURFACING LAMINATE, 150 MM X 150 MM

A. Safeline Industries/Highway Ceramics, Inc.

CLASS 1 DELINEATORS One Piece Driveable Flexible Type, 1700 mm

A. Bunzl Extrusion, "Flexi-Guide Models 400 and 566"
B. Carsonite, Curve-Flex CFRM-400
C. Carsonite, Roadmarker CRM-375
D. FlexStake, Model 654 TM
E. GreenLine Models HWD1-66 and CGD1-66
F. J. Miller Industries, Model JMI-375 (with soil anchor)

SPECIAL USE FLEXIBLE TYPE, 1700 MM

A. Bunzl Extrusion, Model FG 560 (with 450 mm U-Channel base)
B. Carsonite, "Survivor" (with 450 mm U-Channel base)
C. Carsonite, Roadmarker CRM-375 (with 450 mm U-Channel base)

INVITATION TO CONTRACTORS

"TRAFFIC CONGESTION RELIEF PROJECT "A"
ALBERS ROAD AT MILNES ROAD INTERSECTION IMPROVEMENTS"

Owner is Stanislaus County, Modesto CA; Estimated construction cost is between $1,800,000 and $2,009,000; Sealed bids are due before 2:00 P.M., January 30, 2008, to the Clerk of the Board of Supervisors, 1010 10th Street, Ste. 6500, Modesto, CA 95354; Project contact is Bob Meleg (209) 567-4883, melegr@co.stanislaus.ca.us; Work to be accomplished includes the widening of the Albers Road at Milnes Road intersection. Construction materials and activities include construction area signs and traffic control system; pavement overlay; roadway excavation; aggregate base and asphaltic concrete; driveway construction; installation of drainage facilities; safety lighting; placing thermoplastic striping and marking; and pavement markers and other such items not mentioned herein that are required by the plans and specifications. Plans and specifications are available for purchase from Stockton Blue, Modesto CA, 209-524-2924 and can be viewed at www.stocktonblue.com under "Public Plan Room".

DECLARATION OF PUBLICATION
(C.C.P. S2015.5)

COUNTY OF STANISLAUS
STATE OF CALIFORNIA

I am a citizen of the United States and a resident Of the County aforesaid; I am over the age of Eighteen years, and not a party to or interested In the above entitle matter. I am a printer and Principal clerk of the publisher of **THE MODESTO BEE,** printed in the City of **MODESTO,** County of **STANISLAUS,** State of California, daily, for which said newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of **STANISLAUS,** State of California, Under the date of **February 25, 1951, Action No. 46453;** that the notice of which the annexed is a printed copy, has been published in each issue there of on the following dates, to wit:

DECEMBER 26, 2007

I certify (or declare) under penalty of perjury That the foregoing is true and correct and that This declaration was executed at **MODESTO, California** on

DECEMBER 26, 2007

Esthela Jimenez
(Signature)

INVITATION TO CONTRACTORS
"TRAFFIC CONGESTION RELIEF PROJECT "A"
ALBERS ROAD AT MILNES ROAD
INTERSECTION IMPROVEMENTS"

Owner is Stanislaus County, Modesto CA; Estimated construction cost is between $1,800,000 and $2,009,000; Sealed bids are due before 2:00 P.M., January 30, 2008, to the Clerk of the Board of Supervisors, 1010 10th Street, Ste. 6500, Modesto, CA 95354; Project contact is Bob Meleg (209) 567-4883, melegr@co.stanislaus.ca.us; Work to be accomplished includes the widening of the Albers Road at Milnes Road intersection. Construction materials and activities include construction area signs and traffic control system; pavement overlay; roadway excavation; aggregate base and asphaltic concrete; driveway construction; installation of drainage facilities; safety lighting; placing thermoplastic striping and marking; and pavement markers and other such items not mentioned herein that are required by the plans and specifications. Plans and specifications are available for purchase from Stockton Blue, Modesto CA, 209-524-2924 and can be viewed at www.stocktonblue.com under "Public Plan Room".
DECEMBER 26, 2007

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
10	Sta	CR		1	34

INDEX OF SHEETS

1	TITLE SHEET
2	TYPICAL SECTION
3	KEY MAP
4–10	LAYOUT
11–13	CONSTRUCTION DETAILS
14	TEMPORARY WATER POLLUTION CONTROL DETAILS
15	DRAINAGE PROFILES
16	DRAINAGE QUANTITIES
17–21	UTILITY PLANS
22	CONSTRUCTION AREA SIGNS
23–29	PAVEMENT DELINEATION AND SIGN PLAN
30–31	PAVEMENT DELINEATION AND SIGN QUANTITIES
32	SUMMARY OF QUANTITIES
33–34	SIGNAL AND LIGHTING

STANISLAUS COUNTY

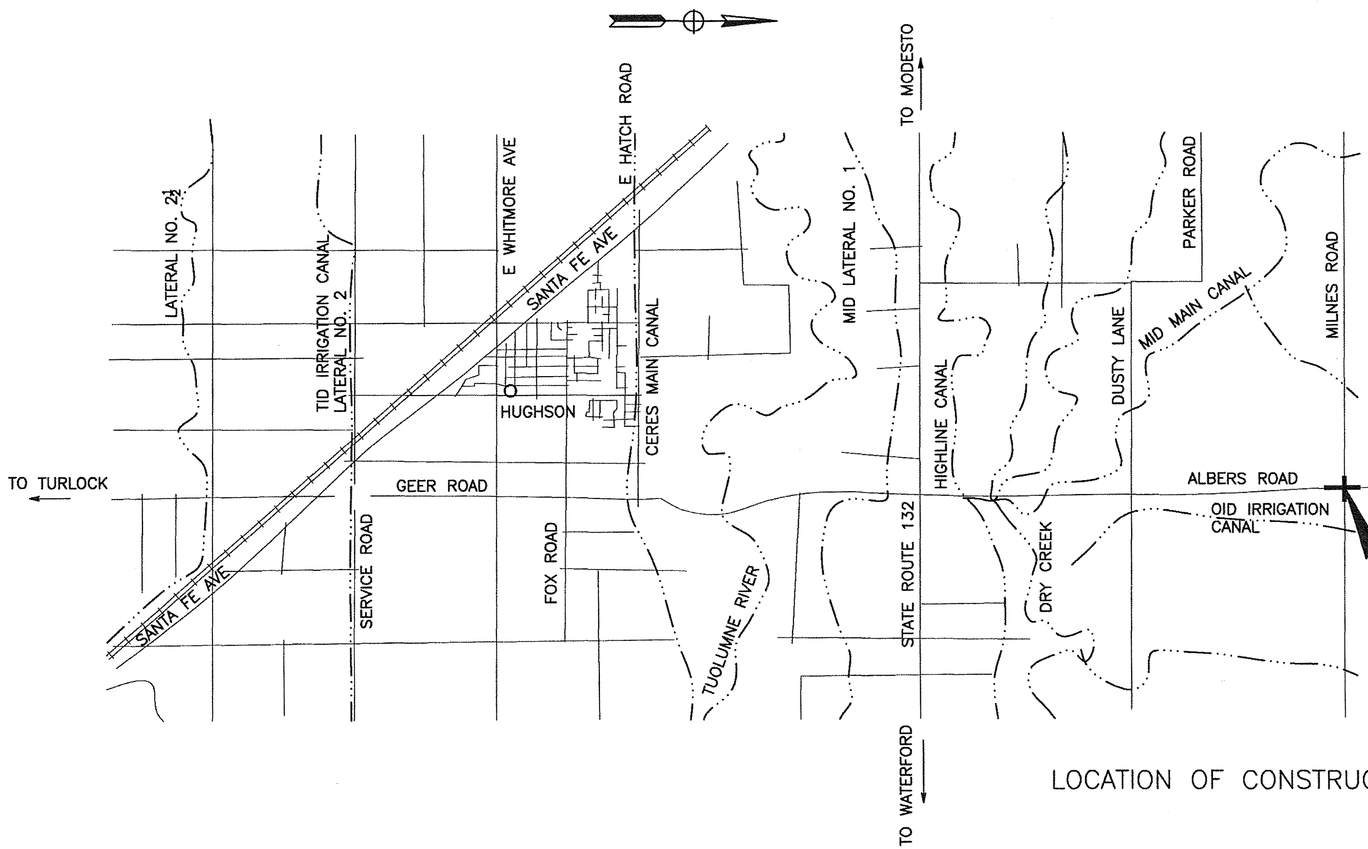
DEPARTMENT OF PUBLIC WORKS

PROJECT PLANS FOR CONSTRUCTION OF

TRAFFIC CONGESTION RELIEF PROJECT "A"

IN STANISLAUS COUNTY
AT THE INTERSECTION OF ALBERS ROAD AND MILNES ROAD

To be supplemented by State of California, Standard Plans
for Construction of Local Streets and Roads dated July, 2002



Matt Machado 8-31-07
Approved as to features affecting
Stanislaus County facilities

K.D. Rhodes 3/23/07
Project Engineer Date
Registered Civil Engineer

REGISTERED PROFESSIONAL ENGINEER
K.D. Rhodes
No. C53587
Exp. 6-30-07
CIVIL
STATE OF CALIFORNIA

March 23, 2007
Plans Approval Date

PROJECT ENGINEER	DATE	PROJECT MANAGER	DATE
K.D. RHODES	03/07	K.D. RHODES	03/07

The Contractor shall possess the Class (or classes) of license as specified in the "Notice to Contractors".

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

Contract No	

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION

s161rtl.dwg, Mon, 07 May 2007 - 10:18am, joeb

NOTES:
1. DIMENSIONS OF THE STRUCTURAL SECTIONS ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
2. SHOULDER BACKING.
3. NATIVE MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% AT A MINIMUM DEPTH OF 2.5 FEET BELOW THE FINISHED GRADE AS SPECIFIED IN THE STANDARD SPECIFICATIONS WITH NO EXCEPTIONS.

DESIGN DESIGNATION (ALBERS ROAD)

2004 ADT = 9,267 T = 19.13%
2025 ADT = 17,757 V = 65 MPH
TI = 12

DESIGN DESIGNATION (MILNES ROAD)

T = 11.0% TI = 10
V = 65 MPH

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		2	34

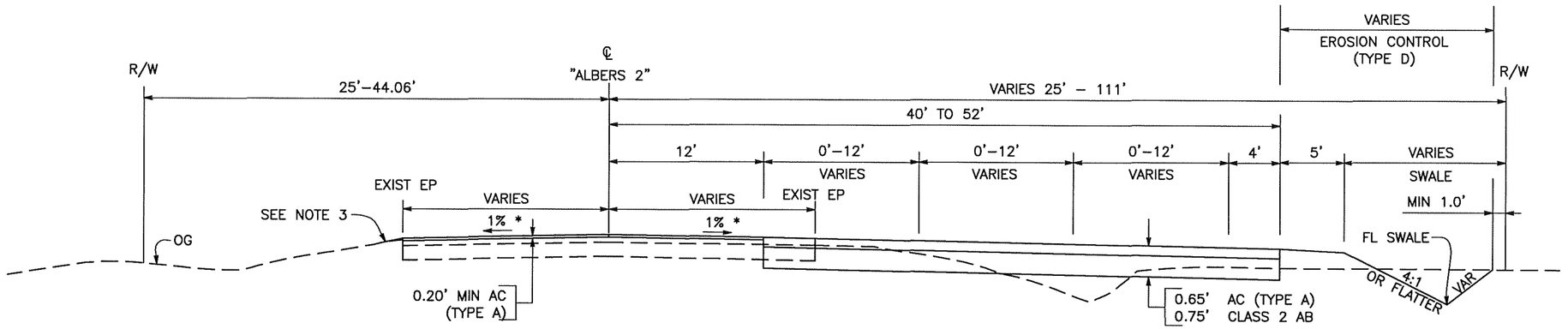
REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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

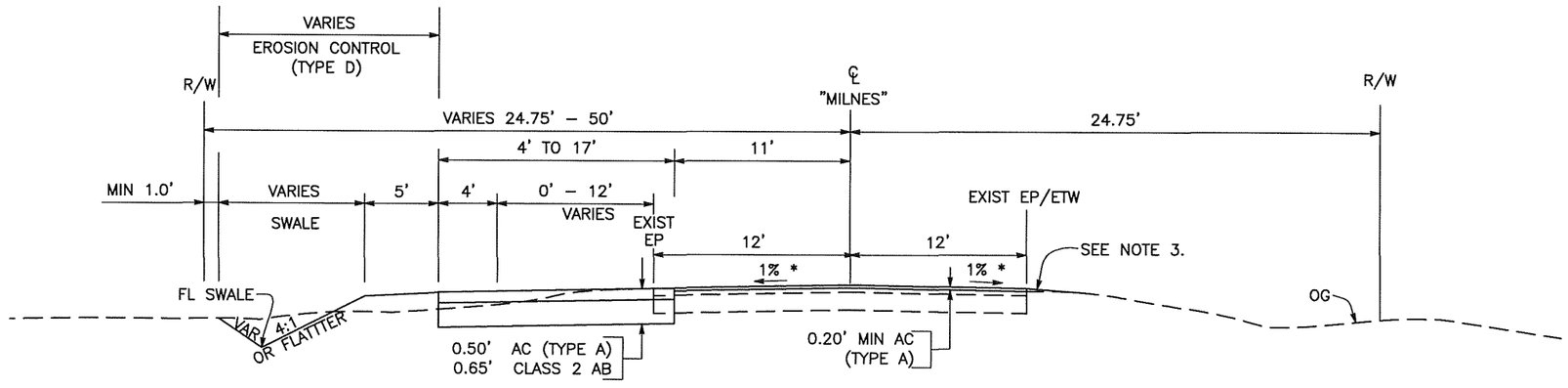
Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827



* 2% FROM STA 111+91.00 TO 117+50.00
AND FROM STA 128+50.00 TO 133+48.00

ALBERS ROAD

"ALBERS 2" LINE
STA 111+91.00 TO STA 133+48.00



MILNES ROAD

* 2% FROM STA 13+14.00 TO 18+00.00

"MILNES" LINE
STA 13+14.00 TO STA 31+40.27

ALBERS ROAD / MILNES ROAD INTERSECTION TYPICAL SECTION

NO SCALE

X-1

DATE	REVISED BY	
3/05	KP	
12/04	KT	REVISED
	CALCULATED/DESIGNED BY	KR
	CHECKED BY	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rx.dwg, Fri, 04 May 2007 - 11:15am, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		3	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

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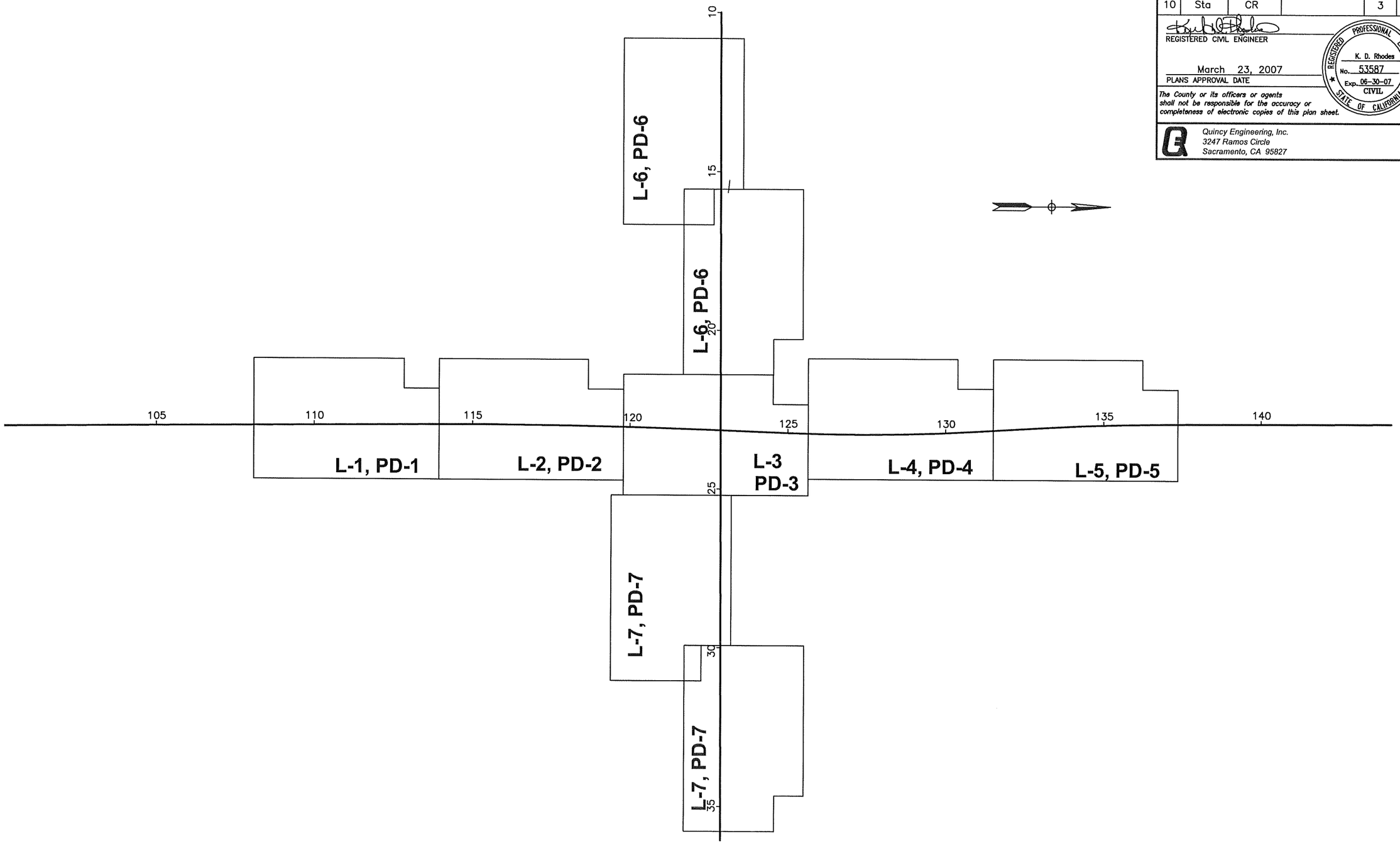
Sacramento, CA 95827



ALBERS ROAD / MILNES ROAD
INTERSECTION
KEY MAP
NO SCALE

K-1

AGENCY NAME	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	DATE	REVISED BY
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS	KEITH D. RHODES	CHECKED BY	3/05	KR
		KP	12/04	REVISED 3/07
		KT		

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rmp4.dwg, Fri, 04 May 2007 - 11:17am, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		4	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

NOTES:

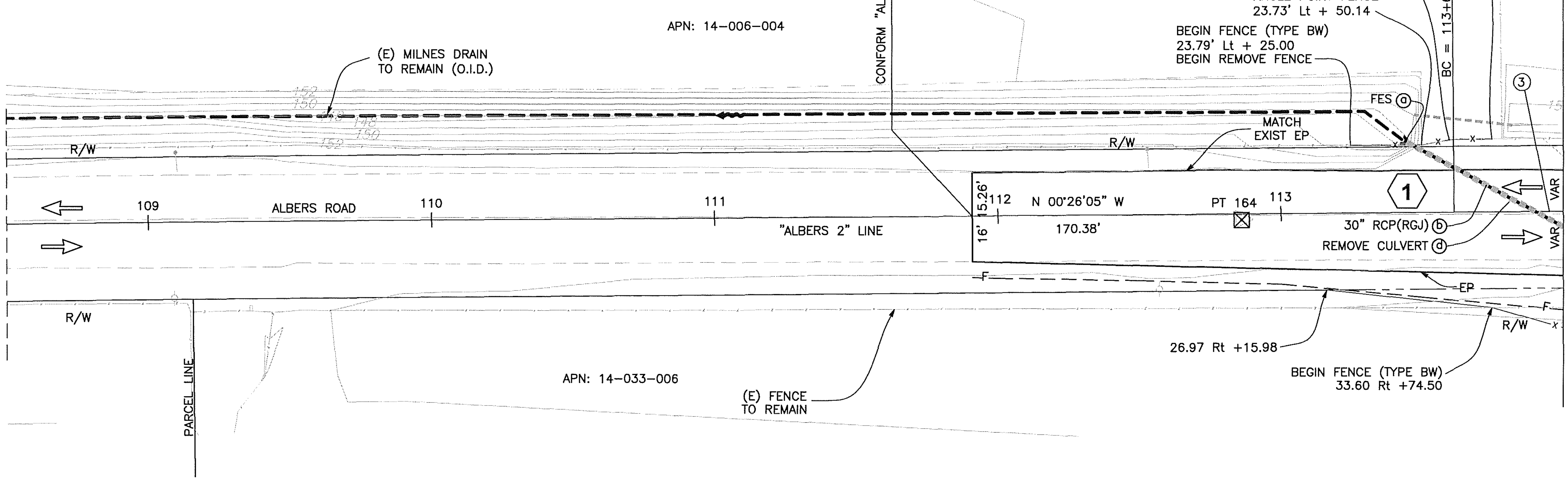
1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORDS MAPS AT COUNTY OFFICE.
2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.

CURVE DATA TABLE

No	R	Δ	T	L
(3)	20000'	2°32'38"(RT)	444.07'	887.99'

SURVEY CONTROL

NORTHING	EASTING	ELEV	DESCRIPTION	STATION/ OFFSET
2070010.5664	6460907.3994	153.40	PT 164	2.03' RT "ALBERS 2" 112+86.20
2071010.5868	6460899.3875	155.14	PT 163	0.41' RT "MILNES" 22+95.86
2072286.0763	6460896.0013	159.61	PT 173	0.77' LT "ALBERS 2" 135+67.98
2071009.7853	6459899.2959	156.43	PT 169	1.27' LT "MILNES" 12+95.76
2071013.5641	6461899.5055	163.59	PT 166	0.60' RT "MILNES" 32+95.98



LEGEND

- —C— — —F— — CUT AND FILL LINE
- R/W — R/W
- ⇨ DIRECTION OF TRAFFIC
- FLOW LINE EXISTING SWALE
- ⊠ SURVEY CONTROL POINT
- — — —▷ FLOW LINE
- DRIVEWAY APPROACH

ABBREVIATIONS

(E)	EXISTING
TBRBO	TO BE RELOCATED BY OTHERS
UP	UTILITY POLE
E/O	EAST OF
W/O	WEST OF
N/O	NORTH OF
S/O	SOUTH OF
RCP (RGJ)	REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)
O.I.D.	OAKDALE IRRIGATION DISTRICT

ALBERS ROAD S/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

L-1

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS — AGENCY NAME

PROJECT ENGINEER: KEITH D. RHODES

CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED	BY	KR
CHECKED BY	KT	12/04	REVISED		3/07

LAST REVISION s161rlo.dwg, Fri, 04 May 2007 - 12:08pm, joeb

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORDS MAPS AT COUNTY OFFICE.
2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		5	34

REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

March 23, 2007
PLANS APPROVAL DATE

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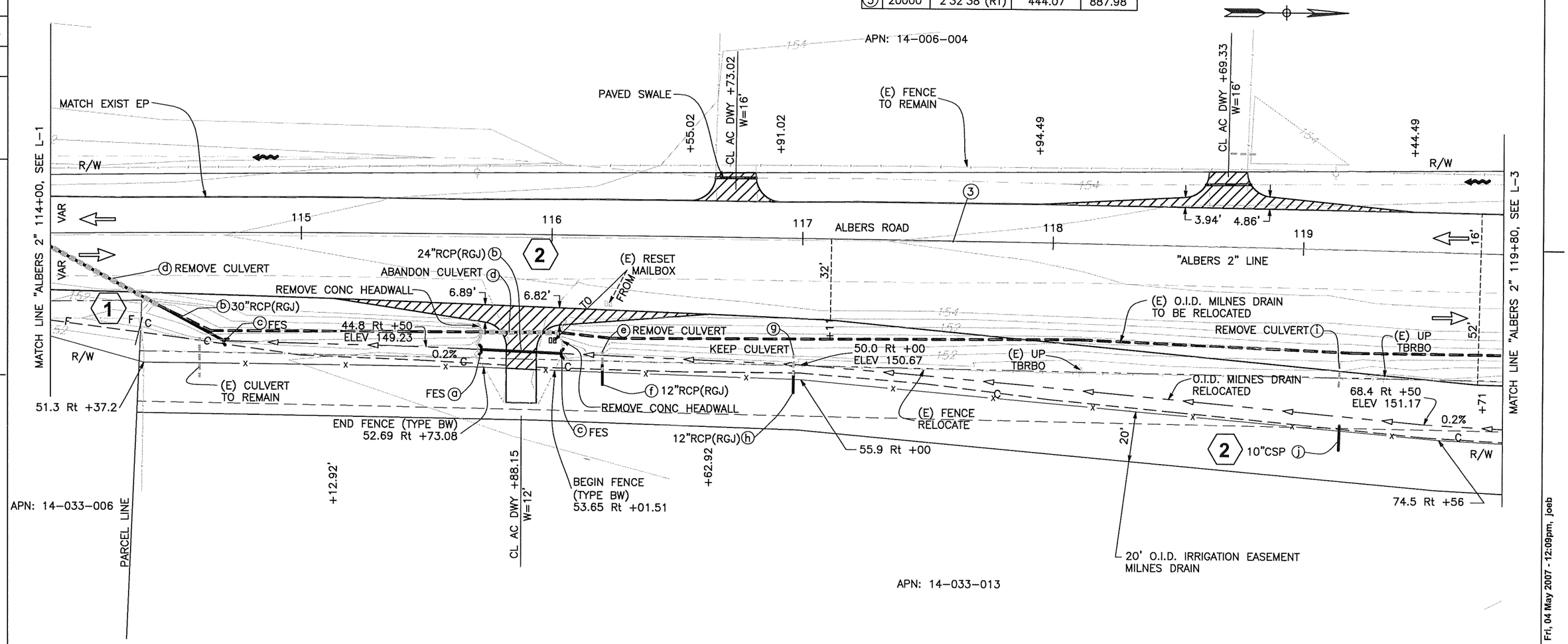
Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

CURVE DATA TABLE

No	R	Δ	T	L
③	20000'	2°32'38"(RT)	444.07'	887.98'



ALBERS ROAD S/O MILNES ROAD

ALBERS ROAD / MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

L-2

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

KR	3/07	REVISED					
BY	REVISED						
3/05	DATE	12/04					
KP		KT					
CALCULATED/ DESIGNED BY		CHECKED BY					

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

LAST REVISION s161rlo.dwg, Fri, 04 May 2007 - 12:09pm, joeb

NOTES:

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2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		6	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

	DATE	REVISED BY
CALCULATED/DESIGNED BY	KP	KR
CHECKED BY	KT	REVISED
	12/04	3/07
	3/05	

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

MATCH LINE "MILNES" 21+30 SEE L-6

APN: 14-006-004

APN: 14-020-003

APN: 14-033-013

APN: 14-022-001

MATCH LINE "ALBERS 2" 119+80, SEE L-2

MATCH LINE "ALBERS 2" 125+70, SEE L-4

MATCH LINE "MILNES" 25+20 SEE L-7

"ALBERS 2" 122+86.89= "MILNES" 23+15.62

BC = 125+08.09

BC = 124+60.98 76.23' Rt

BC = 125+27.03 52.03' Rt

CURVE DATA TABLE

No	R	Δ	T	L
③	20000'	2°32'38"(RT)	444.07'	887.98'
④	6000'	5°33'58"(LT)	291.67'	582.88'
⑤	3204'	8°52'03"(LT)	248.43'	495.87'
⑥	2600'	10°50'13"(LT)	246.62'	491.77'

ALBERS ROAD/MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

L-3

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rlo.dwg, Fri, 04 May 2007 - 12:08pm, joeb

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORDS MAPS AT COUNTY OFFICE.
2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		7	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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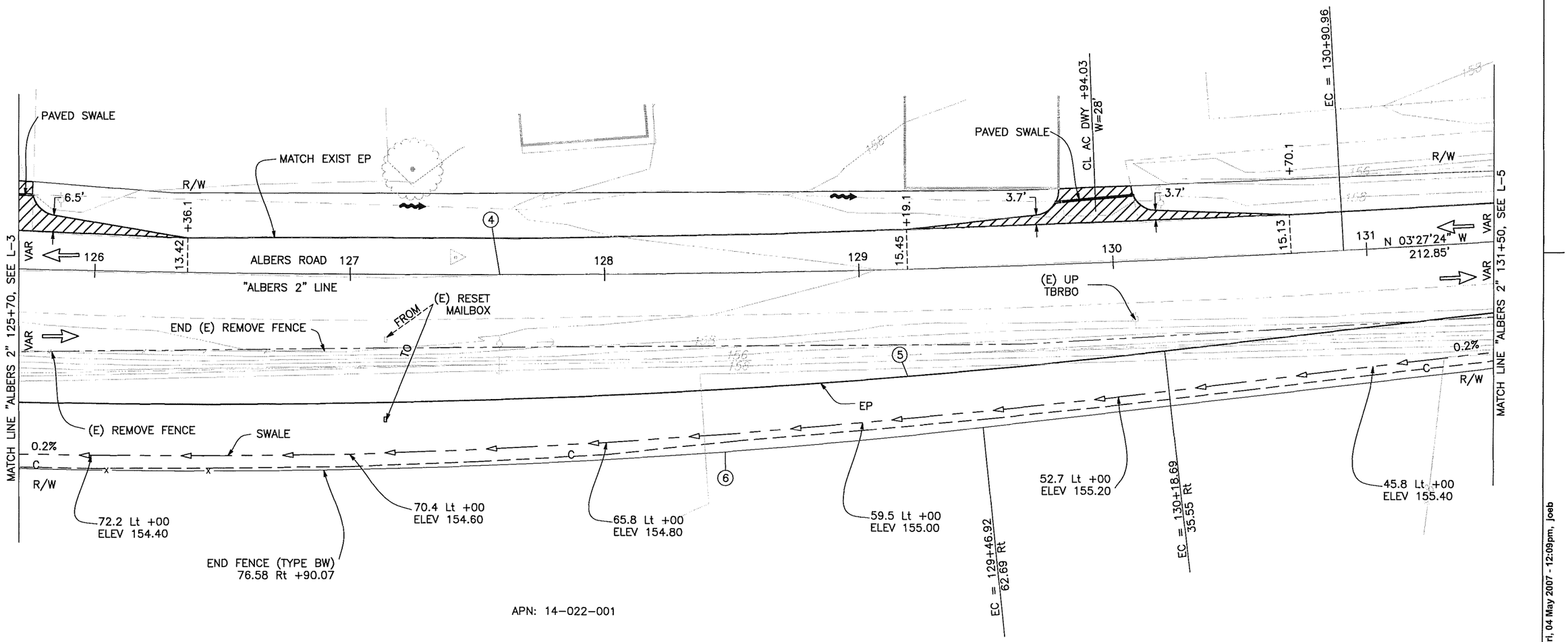
Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

CURVE DATA TABLE

No	R	Δ	T	L
④	6000'	5°33'58"(LT)	291.66'	582.87'
⑤	3204'	8°52'03"(LT)	248.43'	495.87'
⑥	2600'	10°50'13"(LT)	246.62'	491.77'

APN: 14-020-003



ALBERS ROAD N/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

L-4

	DATE	REVISED BY
	3/05	KR
	12/04	REVISED

CALCULATED/DESIGNED BY: KP
CHECKED BY: KT

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rio.dwg, Fri, 04 May 2007 - 12:09pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		8	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

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

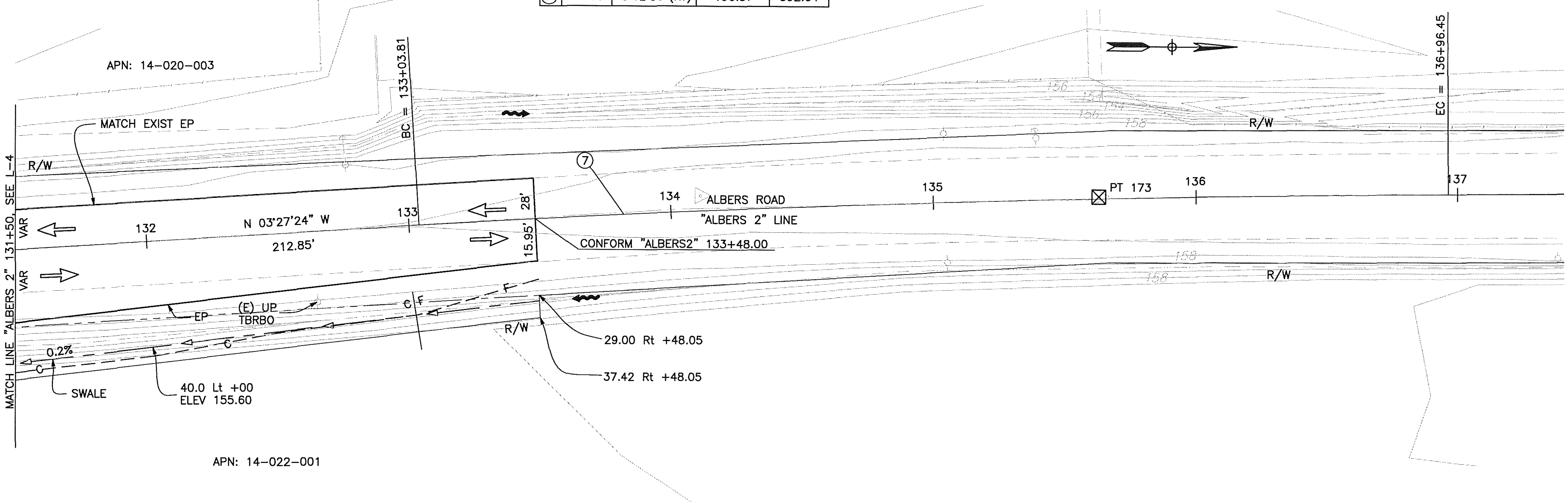
Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORDS MAPS AT COUNTY OFFICE.
2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.

CURVE DATA TABLE

No	R	Δ	T	L
7	7000'	3°12'50"(RT)	196.37'	392.64'



ALBERS ROAD N/O MILNES ROAD

CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

ALBERS ROAD/MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

L-5

LAST REVISION s161rlo.dwg, Fri, 04 May 2007 - 12:09pm, joeb

TRAFFIC CONGESTION RELIEF PROJECT "A"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		9	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

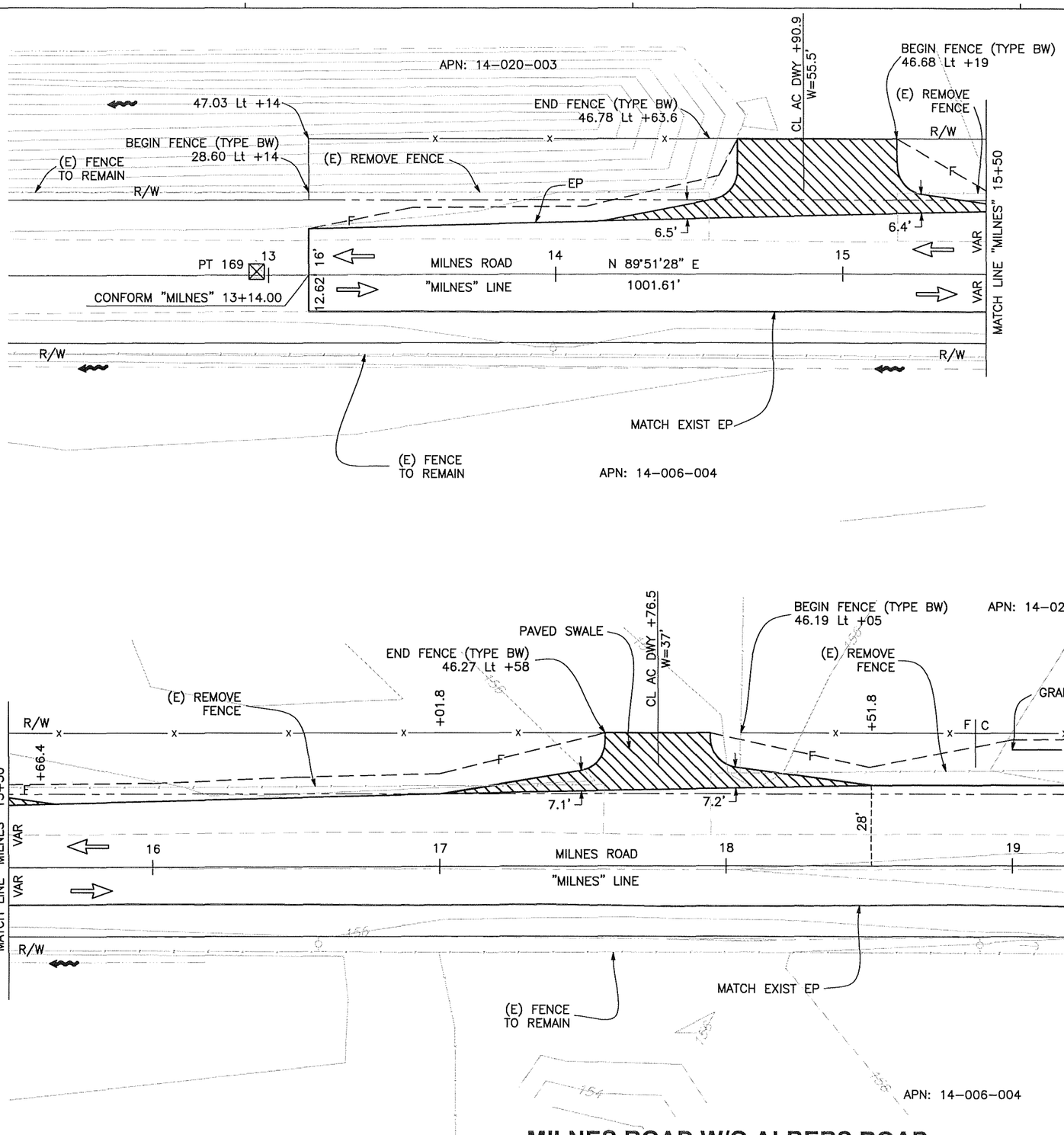
REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

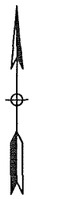
The County or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORDS MAPS AT COUNTY OFFICE.
2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.





MILNES ROAD W/O ALBERS ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

L-6

DATE	REVISED BY	KP	CALCULATED/ DESIGNED BY
3/05			
12/04	KT		CHECKED BY
3/07	KR		

REVISED

PROJECT ENGINEER: KEITH D. RHODES

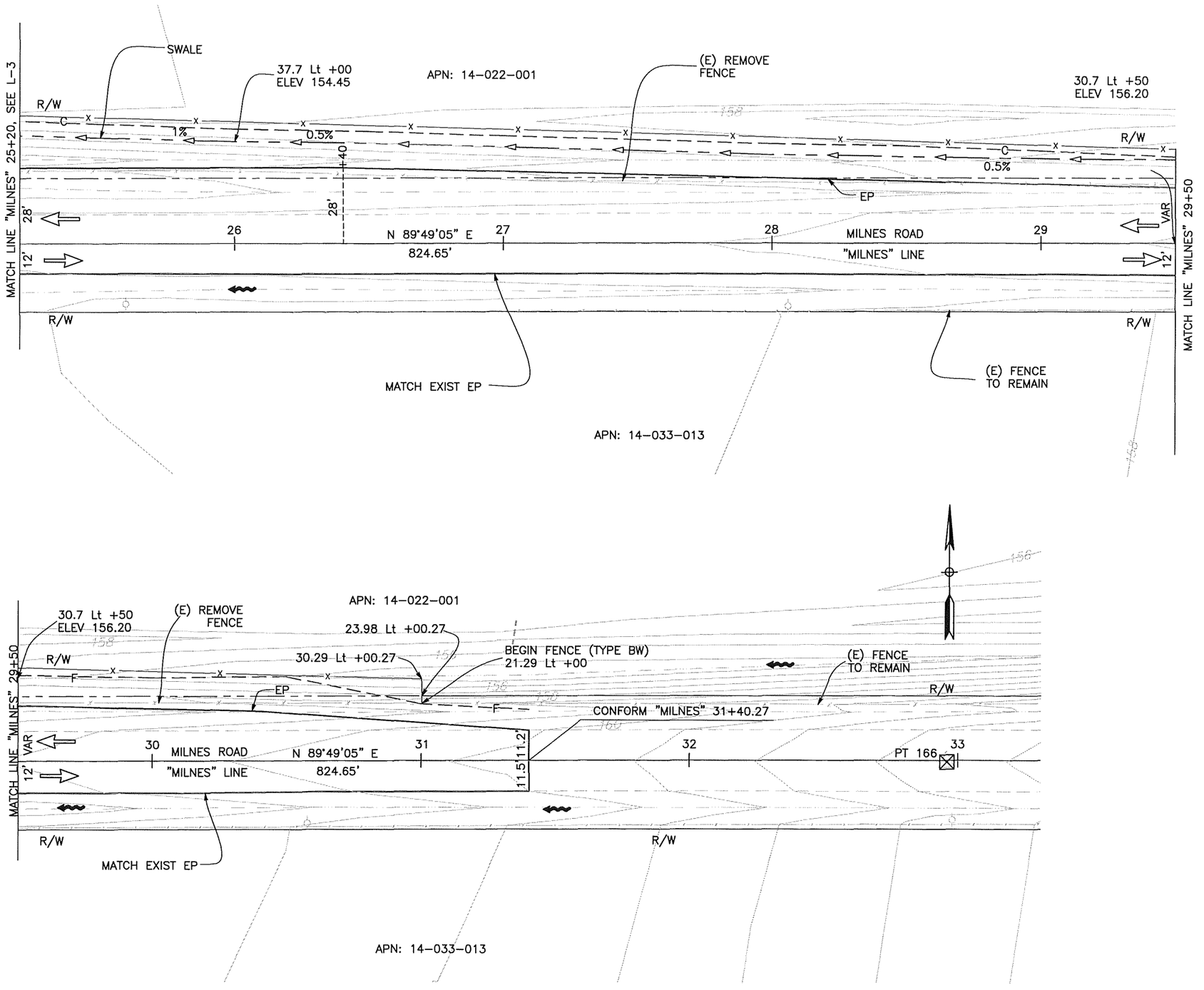
AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161no.dwg, Mon, 07 May 2007 - 10:27am, joeb



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		10	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

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Sacramento, CA 95827

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2. FOR ADDITIONAL UTILITY INFORMATION, SEE UTILITY SHEETS.

MILNES ROAD E/O ALBERS ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION LAYOUT

SCALE: 1"=20'

L-7

CALCULATED/ DESIGNED BY	KP	DATE	3/05
CHECKED BY	KT	REVISED BY	KR
		REVISED	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rlo.dwg, Fri, 04 May 2007 - 12:09pm, joeb

NOTE: ELEVATIONS SHOWN ARE AT EDGE OF PAVEMENT.

CURVE DATA TABLE

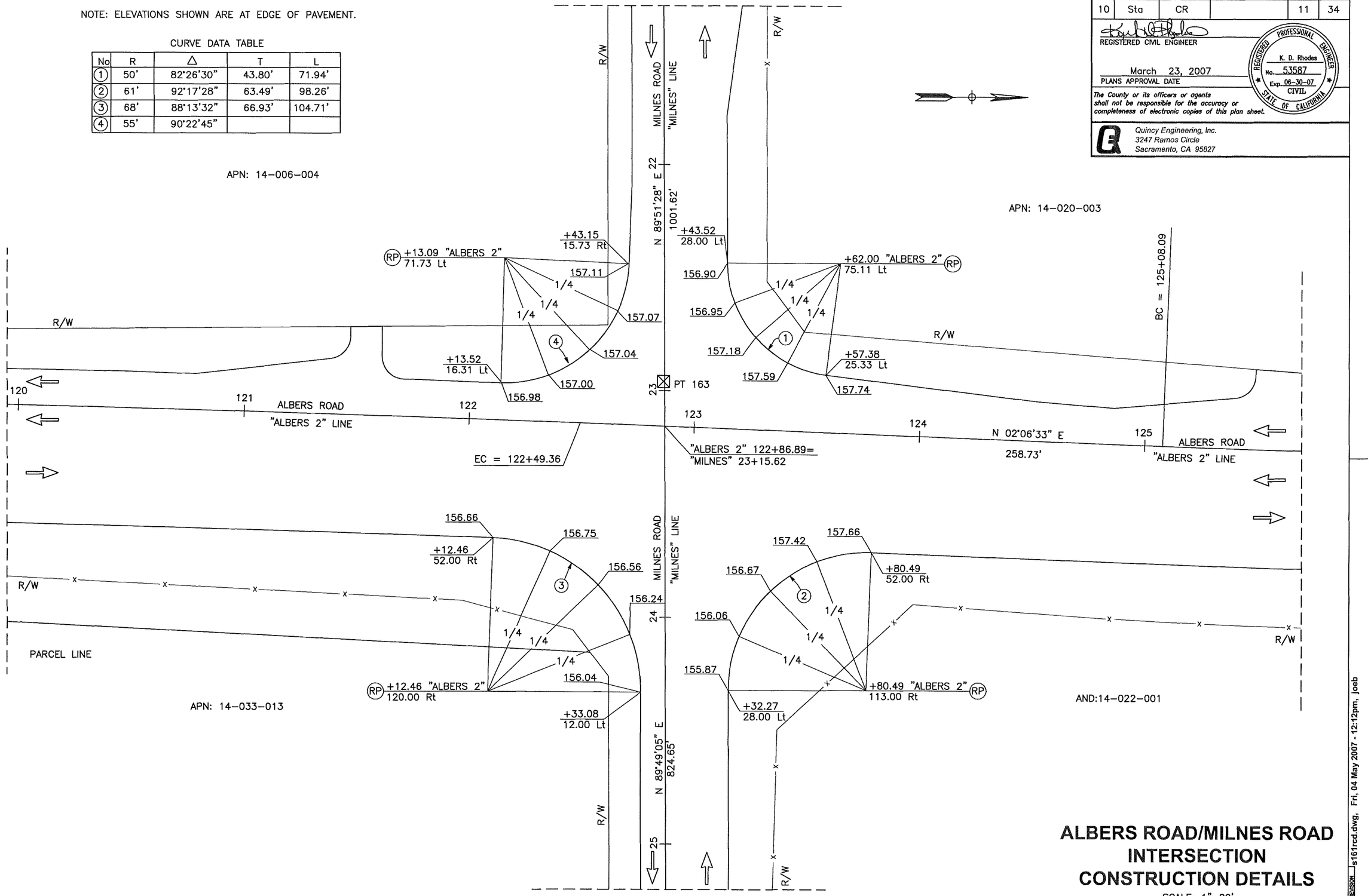
No	R	Δ	T	L
①	50'	82°26'30"	43.80'	71.94'
②	61'	92°17'28"	63.49'	98.26'
③	68'	88°13'32"	66.93'	104.71'
④	55'	90°22'45"		

APN: 14-006-004

APN: 14-020-003

APN: 14-033-013

AND:14-022-001



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		11	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
K. D. Rhodes
No. 53587
Exp. 06-30-07
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STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

	DATE	REVISED BY
	3/05	KP
	12/04	KT
REVISED	3/07	KR

CALCULATED/DESIGNED BY
CHECKED BY

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

ALBERS ROAD/MILNES ROAD INTERSECTION CONSTRUCTION DETAILS

SCALE: 1"=20'

CD-1

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rcd.dwg, Fri, 04 May 2007 - 12:12pm, joab

PAVEMENT ELEVATIONS
ALBERS ROAD/MILNES ROAD

LINE	STATION	LT/RT	OFFSET FT	ELEVATION FT
ALBERS 2	111+91	LT	15.26	153.35
		RT	16.00	153.34
ALBERS 2	112+00	LT	15.26	153.34
		RT	16.28	153.32
ALBERS 2	112+50	LT	15.32	153.29
		RT	17.82	153.24
ALBERS 2	113+00	LT	15.25	153.31
		RT	19.36	153.23
ALBERS 2	113+50	LT	14.77	153.47
		RT	20.90	153.35
ALBERS 2	114+00	LT	14.50	153.63
		RT	22.44	153.47
ALBERS 2	114+50	LT	14.02	153.82
		RT	23.97	153.62
ALBERS 2	115+00	LT	14.06	154.04
		RT	25.51	153.81
ALBERS 2	115+50	LT	13.85	154.28
		RT	31.37	153.93
ALBERS 2	116+00	LT	14.03	154.50
		RT	36.50	154.05
ALBERS 2	116+50	LT	14.32	154.66
		RT	31.67	154.31
ALBERS 2	117+00	LT	14.44	154.80
		RT	31.67	154.46
ALBERS 2	117+50	LT	14.91	154.95
		RT	35.20	154.54
ALBERS 2	118+00	LT	15.64	155.22
		RT	39.21	154.98
ALBERS 2	118+50	LT	19.07	155.34
		RT	43.10	155.10
ALBERS 2	119+00	LT	19.14	155.51
		RT	46.87	155.23
ALBERS 2	119+50	LT	15.68	155.71
		RT	50.51	155.36
ALBERS 2	120+00	LT	15.81	155.86
		RT	52.00	155.50
ALBERS 2	120+50	LT	16.08	156.14
		RT	52.00	155.78
ALBERS 2	121+00	LT	18.97	156.38
		RT	52.00	156.05
ALBERS 2	121+50	LT	38.93	156.46
		RT	52.00	156.32
ALBERS 2	122+00	LT	16.62	156.94
		RT	52.00	156.59
ALBERS 2	124+00	LT	21.75	157.68
		RT	52.00	157.86
ALBERS 2	124+50	LT	17.55	158.71
		RT	52.00	158.37
ALBERS 2	125+00	LT	17.67	159.10
		RT	52.00	158.75
ALBERS 2	125+50	LT	35.39	159.29
		RT	52.06	159.13
ALBERS 2	126+00	LT	18.84	159.52
		RT	51.86	159.19
ALBERS 2	126+50	LT	13.70	159.63
		RT	51.29	159.26
ALBERS 2	127+00	LT	14.22	159.68
		RT	50.35	159.31
ALBERS 2	127+50	LT	14.24	159.57
		RT	49.03	159.22
ALBERS 2	128+00	LT	14.56	159.41
		RT	47.33	159.08
ALBERS 2	128+50	LT	14.91	159.09
		RT	45.27	158.49

LINE	STATION	LT/RT	OFFSET FT	ELEVATION FT
ALBERS 2	129+00	LT	15.39	158.91
		RT	42.83	158.36
ALBERS 2	129+50	LT	17.92	158.79
		RT	40.02	158.35
ALBERS 2	130+00	LT	29.43	158.53
		RT	36.83	158.38
ALBERS 2	130+50	LT	16.83	158.75
		RT	33.43	158.42
ALBERS 2	131+00	LT	15.12	158.76
		RT	30.39	158.45
ALBERS 2	131+50	LT	15.12	158.79
		RT	27.51	158.54
ALBERS 2	132+00	LT	15.14	158.83
		RT	24.62	158.64
ALBERS 2	132+50	LT	15.13	158.88
		RT	21.74	158.75
ALBERS 2	133+00	LT	15.15	158.92
		RT	18.85	158.84
ALBERS 2	133+48	LT	15.28	159.04
		RT	15.95	159.02
MILNES	13+14	RT	12.62	156.42
		LT	16.00	156.33
MILNES	13+50	RT	12.81	156.52
		LT	16.86	156.44
MILNES	14+00	RT	13.01	156.58
		LT	18.06	156.48
MILNES	14+50	RT	13.02	156.64
		LT	27.65	156.35
MILNES	15+00	RT	13.02	156.70
		LT	46.71	156.02
MILNES	15+50	RT	13.06	156.75
		LT	23.83	156.54
MILNES	16+00	RT	12.87	156.80
		LT	22.86	156.60
MILNES	16+50	RT	13.13	156.81
		LT	24.06	156.59
MILNES	17+00	RT	13.39	156.82
		LT	25.26	156.58
MILNES	17+50	RT	13.43	156.83
		LT	33.43	156.43
MILNES	18+00	RT	13.93	156.87
		LT	35.43	156.44
MILNES	18+50	RT	13.73	157.11
		LT	28.10	156.97
MILNES	19+00	RT	13.78	157.21
		LT	28.00	157.07
MILNES	19+50	RT	14.06	157.31
		LT	28.00	157.17
MILNES	20+00	RT	14.16	157.37
		LT	28.00	157.23
MILNES	20+50	RT	15.27	157.31
		LT	31.06	157.15
MILNES	21+00	RT	24.96	157.16
		LT	45.69	156.95
MILNES	21+50	RT	14.32	157.21
		LT	31.88	157.03
MILNES	22+00	RT	14.40	157.15
		LT	28.00	157.02
MILNES	24+50	RT	11.08	156.09
		LT	28.00	155.92
MILNES	25+00	RT	11.18	156.23
		LT	28.00	156.06
MILNES	25+50	RT	11.12	156.37
		LT	28.00	156.20

LINE	STATION	LT/RT	OFFSET FT	ELEVATION FT
MILNES	26+00	RT	11.24	156.51
		LT	28.00	156.35
MILNES	26+50	RT	11.30	156.66
		LT	27.77	156.49
MILNES	27+00	RT	11.31	156.82
		LT	26.57	156.66
MILNES	27+50	RT	11.37	156.99
		LT	25.37	156.85
MILNES	28+00	RT	11.41	157.17
		LT	24.17	157.04
MILNES	28+50	RT	11.68	157.48
		LT	22.97	157.37
MILNES	29+00	RT	11.58	157.81
		LT	21.77	157.71
MILNES	29+50	RT	11.84	158.14
		LT	20.57	158.06
MILNES	30+00	RT	11.97	158.70
		LT	19.37	158.63
MILNES	30+50	RT	11.62	159.32
		LT	17.70	159.26
MILNES	31+00	RT	11.54	159.94
		LT	14.11	159.92
MILNES	31+40.27	RT	11.50	160.44
		LT	11.22	160.44

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		12	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

PROFESSIONAL ENGINEER — REGISTERED — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

CALCULATED/DESIGNED BY KP — CHECKED BY KT — REVISED BY KR — DATE REVISED 3/05 12/04 3/07

PROJECT ENGINEER KEITH D. RHODES

AGENCY NAME STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

NOTE: PAVEMENT ELEVATIONS SHOWN ARE AT THE EDGE OF PAVEMENT.

ALBERS ROAD/MILNES ROAD INTERSECTION CONSTRUCTION DETAILS

NO SCALE

CD-2

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rcd.dwg, Fri, 04 May 2007 - 12:12pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		13	34

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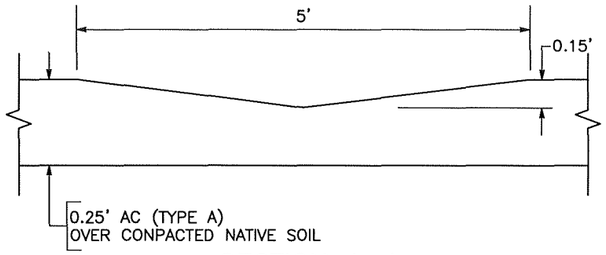
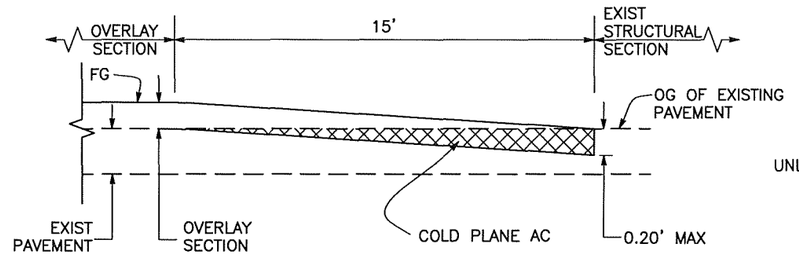
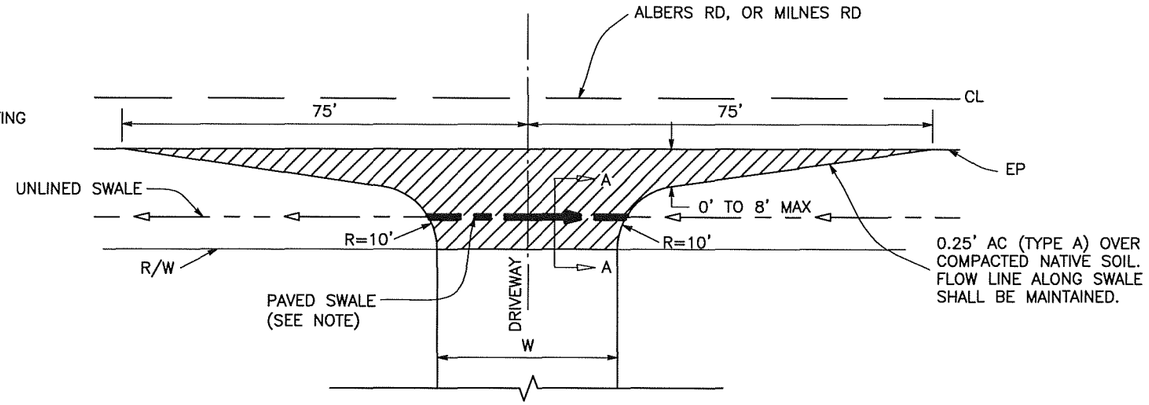


SECTION A–A
PAVED SWALE DETAIL

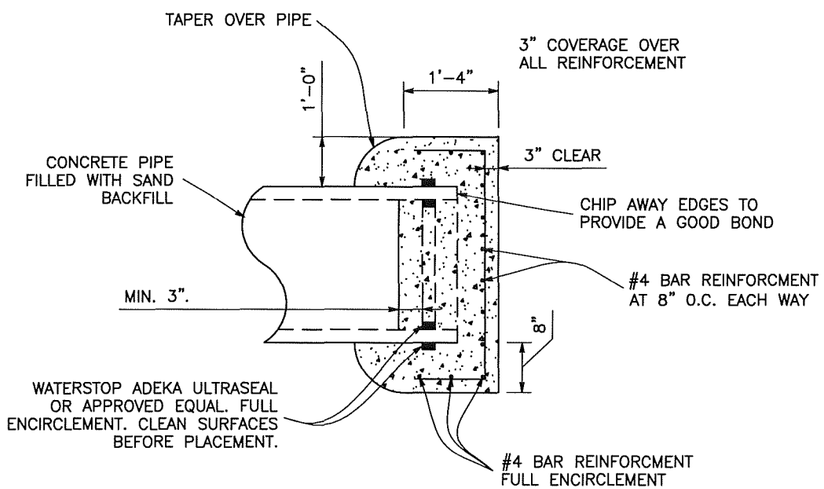
NOTE: PAVED SWALES ARE NOT REQUIRED AT THE FOLLOWING DRIVEWAYS:
"ALBERS 2" 115+88.15,
"MILNES" 14+90.9, AND
"MILNES" 17+76.5.



ASPHALT CONCRETE CONFORM



DRIVEWAY APPROACH DETAIL



ABANDON CULVERT DETAIL

3 ⓔ ⓕ

ALBERS ROAD/MILNES ROAD INTERSECTION CONSTRUCTION DETAILS

NO SCALE

CD-3

CALCULATED/ DESIGNED BY	DATE	REVISED BY	
CHECKED BY	12/04	KT	REVISED
	3/05	KP	
	3/07	KR	

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rcd.dwg, Fri, 04 May 2007 - 12:41pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		14	34

REGISTERED CIVIL ENGINEER

March 23, 2007
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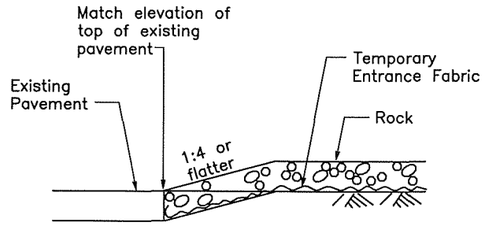
Sacramento, CA 95827

DATE	REVISED BY
3/05	KR
12/04	REVISED

CALCULATED/ DESIGNED BY	CHECKED BY
KP	KT

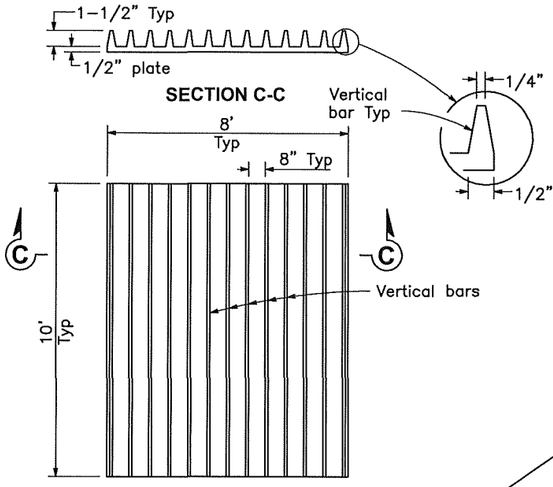
PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS



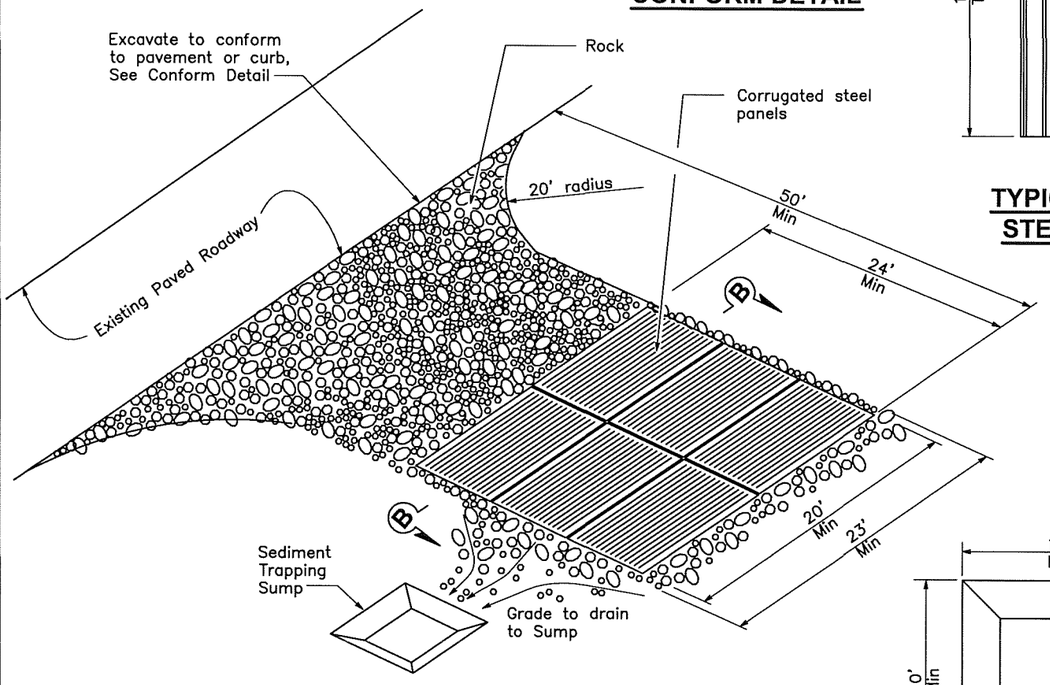
SECTION

CONFORM DETAIL

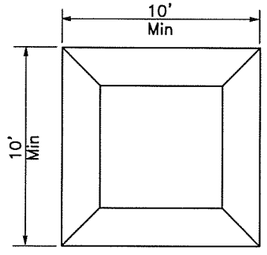


PLAN

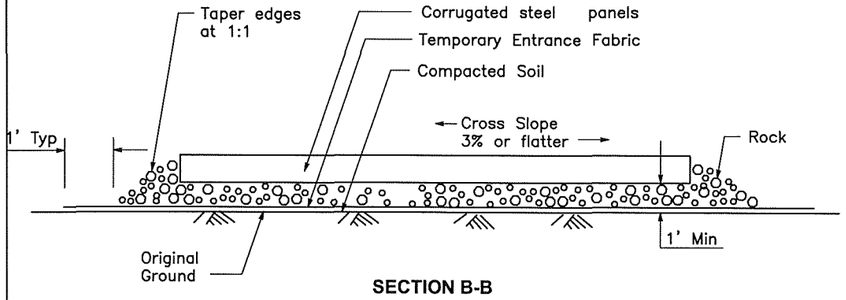
TYPICAL CORRUGATED STEEL PANEL DETAIL



PERSPECTIVE

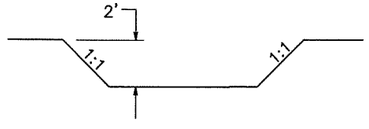


PLAN



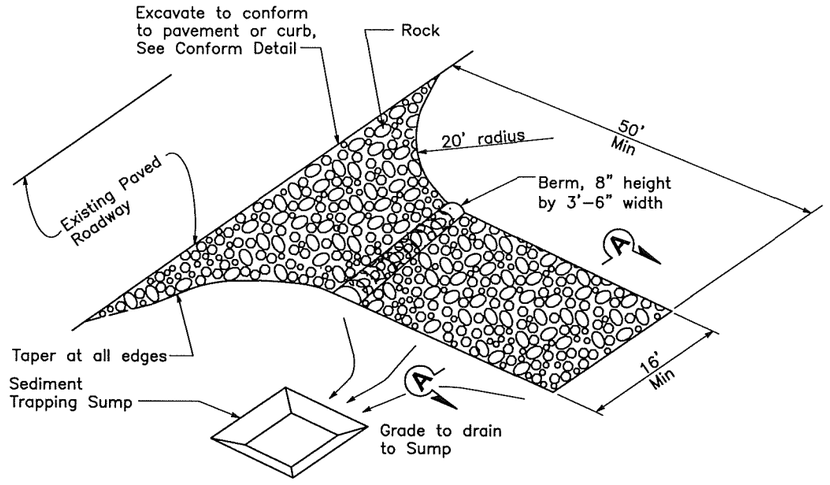
SECTION B-B

TEMPORARY CONSTRUCTION ENTRANCE (TYPE 2)

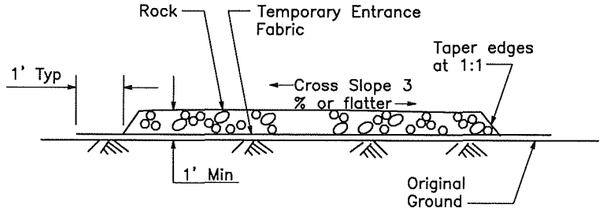


ELEVATION

SEDIMENT TRAPPING SUMP



PERSPECTIVE



SECTION A-A

TEMPORARY CONSTRUCTION ENTRANCE (TYPE 1)

ALBERS ROAD/MILNES ROAD INTERSECTION
TEMPORARY WATER POLLUTION CONTROL DETAILS
(TEMPORARY CONSTRUCTION ENTRANCE)

NO SCALE

WPC-1

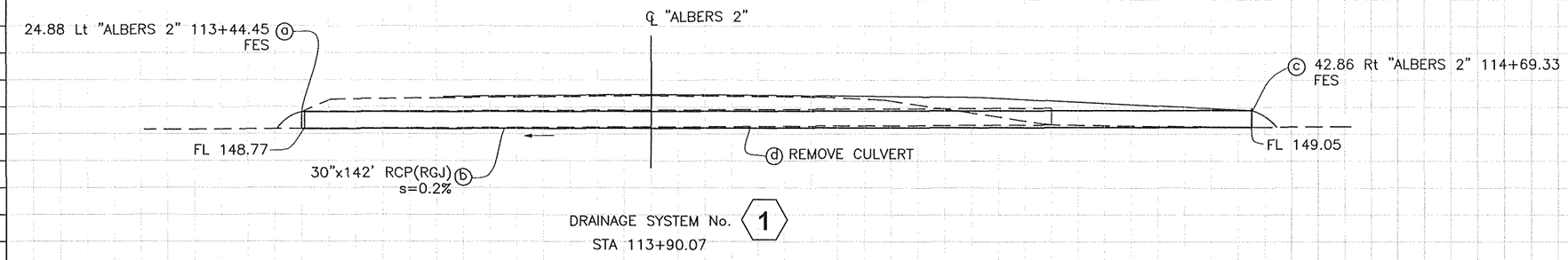
GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

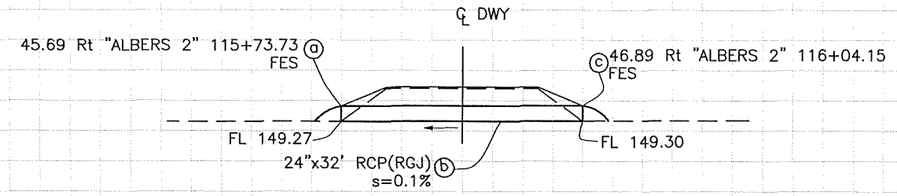
TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rwpc1.dwg, Fri, 04 May 2007 - 2:32pm, joeb

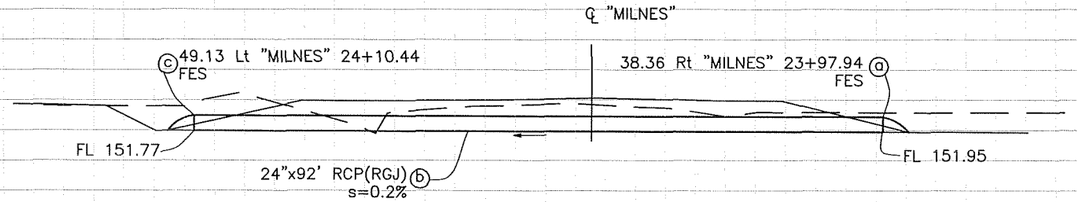
ABBREVIATIONS:
RCP(RGJ) REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)



DRAINAGE SYSTEM No. 1
STA 113+90.07



DRAINAGE SYSTEM No. 2
STA 115+88.11



DRAINAGE SYSTEM No. 3
STA 24+03.42

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		15	34

REGISTERED CIVIL ENGINEER

March 23, 2007
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REGISTERED PROFESSIONAL ENGINEER
K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

DATE	REVISED BY
12/04	
3/05	
3/07	KR

REVISED

CALCULATED/ DESIGNED BY	CHECKED BY
KP	KT

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

ALBERS ROAD/MILNES ROAD INTERSECTION DRAINAGE PROFILES

SCALE: Horiz 1"=10'
Vert 1"=10'

D-1

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rdn.dwg, Fri, 25 May 2007 - 9:49am, michaelk

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		16	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

DATE	REVISED BY
3/05	REVISED
12/04	KT
	CHECKED BY
	CALCULATED/ DESIGNED BY
	KR
	3/07

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

DRAINAGE QUANTITIES

SHEET	DRAINAGE SYSTEM No.	DRAINAGE UNIT No.	STATION	REMOVE CULVERT (N)	ABANDON CULVERT	4" PLASTIC PIPE (PR 315) (SUPPLY LINE)	10" CORRUGATED STEEL PIPE	12" REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	24" REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	30" REINFORCED CONCRETE PIPE (RUBBER GASKET JOINT)	24" CONCRETE FLARED END SECTION	30" CONCRETE FLARED END SECTION	SAND BACKFILL (N)	DESCRIPTION
				LF	LF	LF	LF	LF	LF	LF	EA	EA	CY	
L-1/L-2	1	a	24.88 Lt ALBERS 2 113+44.45									1		30" CONCRETE FES
		b	ALBERS 2 113+90.07							142				30" X 142' RCP(RGJ)
		c	42.86 Rt ALBERS 2 114+69.33									1		30" CONCRETE FES
		d	ALBERS 2 113+90.07	112										REMOVE CULVERT (30" RCP)
		e	Rt ALBERS 2 114+59.44	16										REMOVE CULVERT (12" RCP)
L-2/L-3	2	a	45.69 Rt ALBERS 2 115+73.73								1			24" CONCRETE FES
		b	46.29 Rt ALBERS 2 115+88.11						32					24" X 33' RCP(RGJ)
		c	46.89 Rt ALBERS 2 116+04.15								1			24" CONCRETE FES
		d	38.67 Rt ALBERS 2 115+87.64		33								3.8	ABANDON CULVERT (24" RCP)
		e	45.72 Rt ALBERS 2 116+20.46	8										REMOVE CULVERT (12" RCP)
		f	51.33 Rt ALBERS 2 116+20.46					8						12" X 8' RCP(RGJ)
		g	45.89 Rt ALBERS 2 116+96.98	8										REMOVE CULVERT (12" RCP)
		h	52.83 Rt ALBERS 2 116+96.98					8						12" X 8' RCP(RGJ)
		i	44.67 Rt ALBERS 2 119+15.61	10										REMOVE CULVERT (10" CMP)
		j	69.74 Rt ALBERS 2 119+15.61				10							10" X 8' CSP
		k	42.95 Rt ALBERS 2 120+47.63	8										REMOVE CULVERT (10" CMP)
		l	74.40 Rt ALBERS 2 120+47.63				8							10" X 8' CSP
		m	40.02 Rt ALBERS 2 121+69.67	9										REMOVE CULVERT (4" PVC)
		n	77.10 Rt ALBERS 2 121+69.67			9								4" X 9' PVC
L-3	3	a	38.36 Rt MILNES 23+97.94								1			24" CONCRETE FES
		b	MILNES 24+03.42						92					24" X 92' RCP(RGJ)
		c	49.13 Lt MILNES 24+10.44								1			24" CONCRETE FES
		d	35.25 Rt ALBERS 2 122+22.61	58										REMOVE CULVERT (24" CMP)
		e	MILNES 22+69.58		57								0.7	ABANDON CULVERT (8" CMP)
TOTAL					90	9	18	16	124	142	4	2		

(N) – NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

ALBERS ROAD/MILNES ROAD INTERSECTION DRAINAGE QUANTITIES

NO SCALE

D-2

LAST REVISION s161rdn-qu.dwg, Mon, 14 May 2007 - 10:01am, joeb

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		17	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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3247 Ramos Circle
Sacramento, CA 95827

LEGEND

Exist OVERHEAD POWER

Exist BURIED TELEPHONE

—E(OH)— OVERHEAD POWER

ABBREVIATION

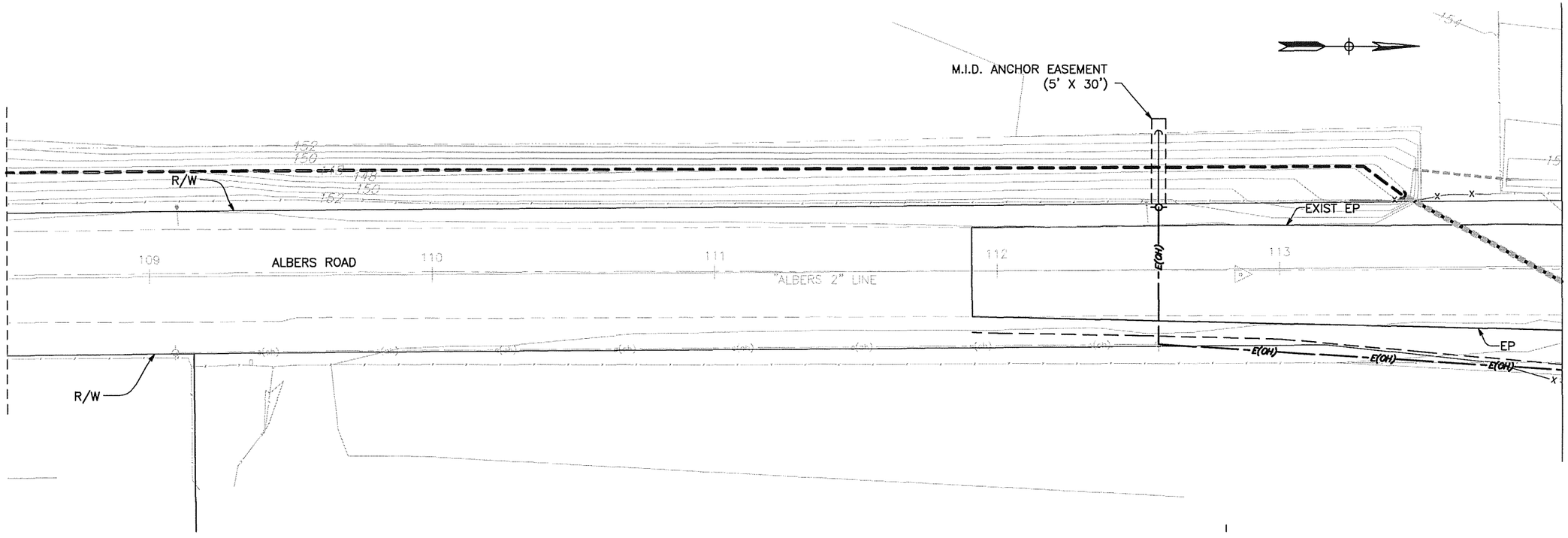
(E) EXISTING

TBRBO TO BE RELOCATED BY OTHERS

UP UTILITY POLE

NOTES:

1. LOCATION OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE VERFIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
2. UTILITY OWNERSHIP:
   TELEPHONE – AT&T
   ELECTRIC – MODESTO IRRIGATION DISTRICT (M.I.D.)
3. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT COUNTY OFFICE.



ALBERS ROAD S/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION UTILITY PLAN

SCALE: 1"=20'

U-1

AGENCY NAME	PROJECT ENGINEER	CALCULATED/ DESIGNED BY	DATE	REVISED BY
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS	KEITH D. RHODES	CHECKED BY	12/04	REVISED
		KT	3/05	KP
			3/07	KR

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rut.dwg, Fri, 04 May 2007 - 2:56pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		18	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

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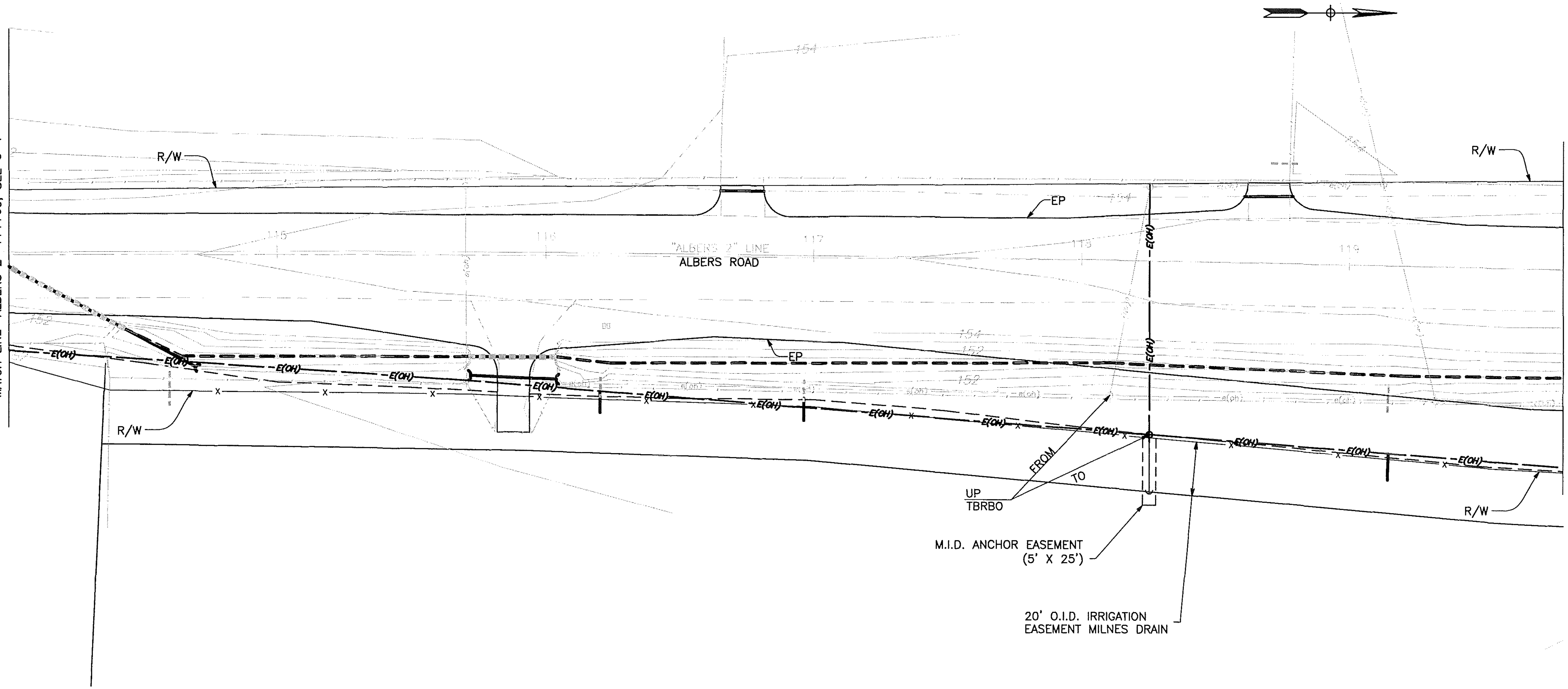
NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT COUNTY OFFICE.



ALBERS ROAD S/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION UTILITY PLAN

SCALE: 1"=20'

U-2

CALCULATED/ DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

PROJECT ENGINEER KEITH D. RHODES

AGENCY NAME STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

LAST REVISION s161rut.dwg, Fri, 04 May 2007 - 2:56pm, joeb

TRAFFIC CONGESTION RELIEF PROJECT "A"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		19	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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Sacramento, CA 95827

NOTES:

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	CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	
	KP	KT	12/04		REVISED
			3/05	KR	3/07

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

MATCH LINE "ALBERS 2" 119+80, SEE U-2

MATCH LINE "ALBERS 2" 125+70, SEE U-4

(E) TELEPHONE MANHOLE TO REMAIN

(E) BURIED TELEPHONE

"MILNES" ROAD

R/W

EXIST EP

ALBERS ROAD
ALBERS 2" LINE

120 121 122 123 124 125

ETW

FROM

TO

UP TBRBO

EP

M.I.D. ANCHOR EASEMENT (5' X 10')

20' O.I.D. IRRIGATION EASEMENT MILNES DRAIN

M.I.D. ANCHOR EASEMENT (5' X 10')

UP TO REMAIN

MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION UTILITY PLAN

SCALE: 1"=20'

U-3

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rut.dwg, Fri, 04 May 2007 - 2:57pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		20	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

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3247 Ramos Circle
Sacramento, CA 95827

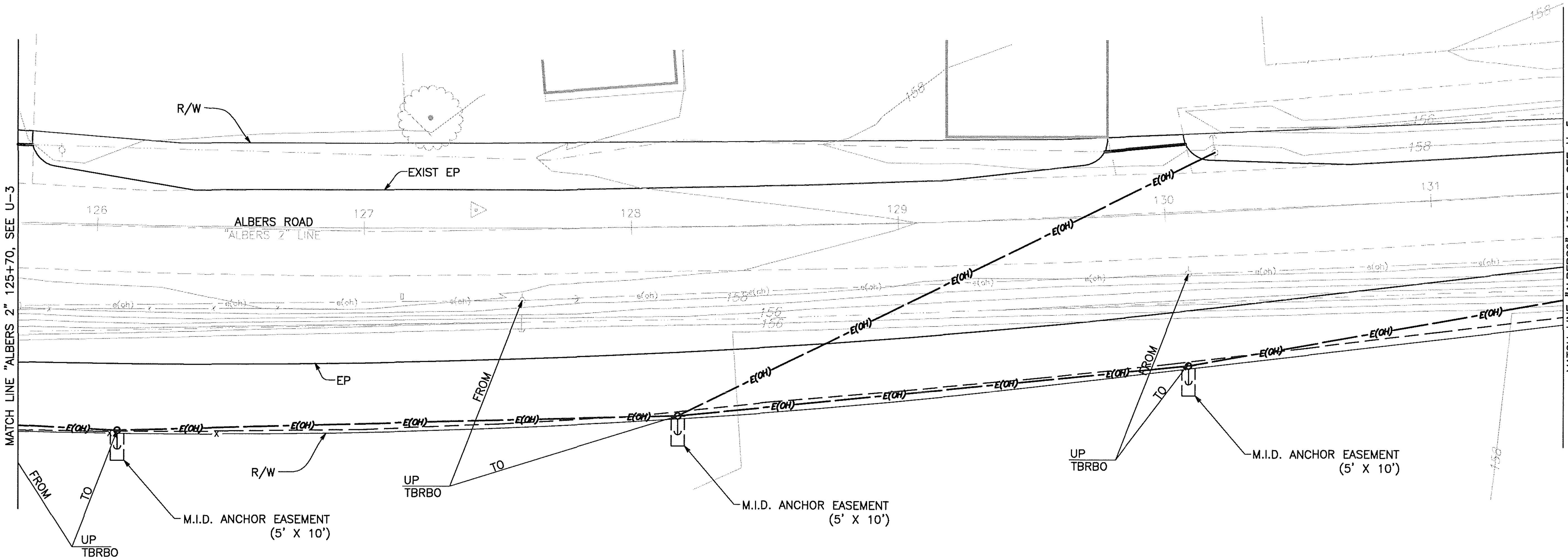
NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT COUNTY OFFICE.

CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

PROJECT ENGINEER KEITH D. RHODES

AGENCY NAME STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS



ALBERS ROAD N/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION UTILITY PLAN

SCALE: 1"=20'

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

U-4

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rut.dwg, Fri, 04 May 2007 - 2:57pm, joeb

NOTES:

1. FOR COMPLETE RIGHT OF WAY DATA, SEE RIGHT OF WAY RECORD MAPS AT COUNTY OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		21	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

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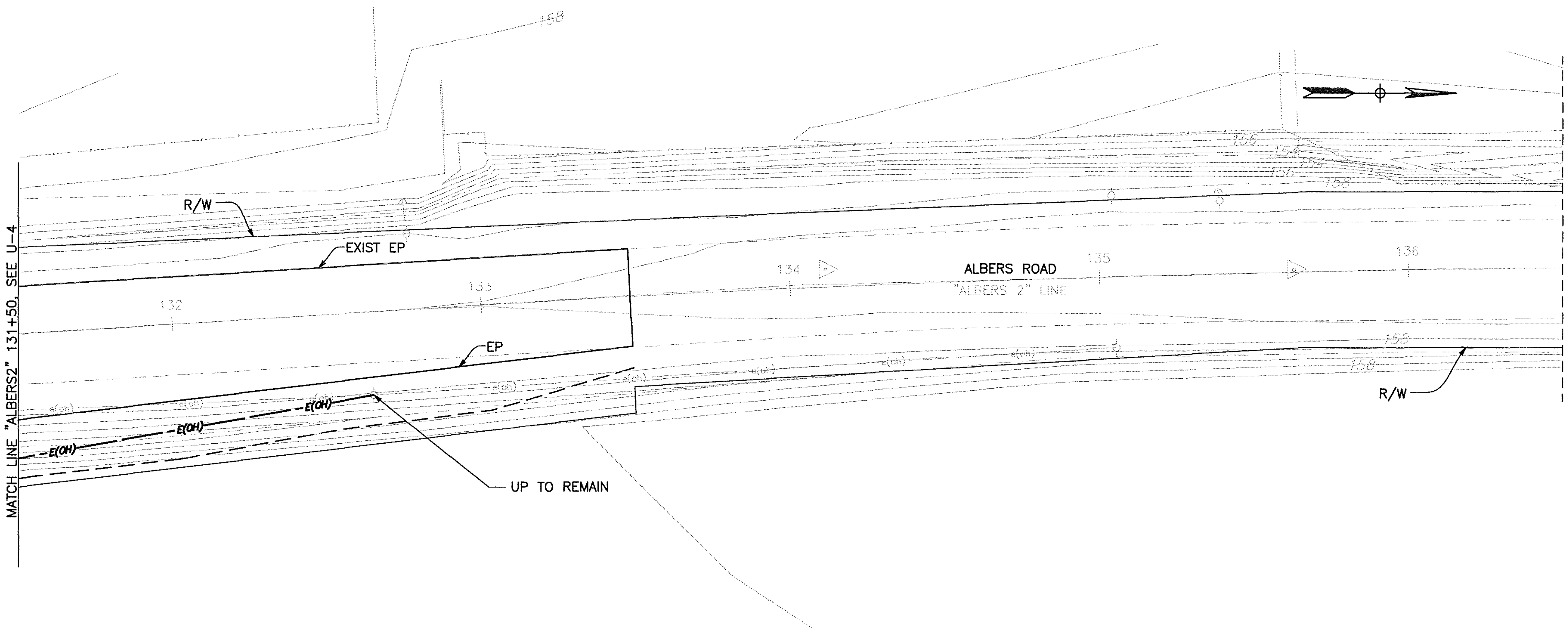
CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS



ALBERS ROAD N/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION UTILITY PLAN

SCALE: 1"=20'

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

U-5

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rut.dwg, Fri, 04 May 2007 - 2:57pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		22	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

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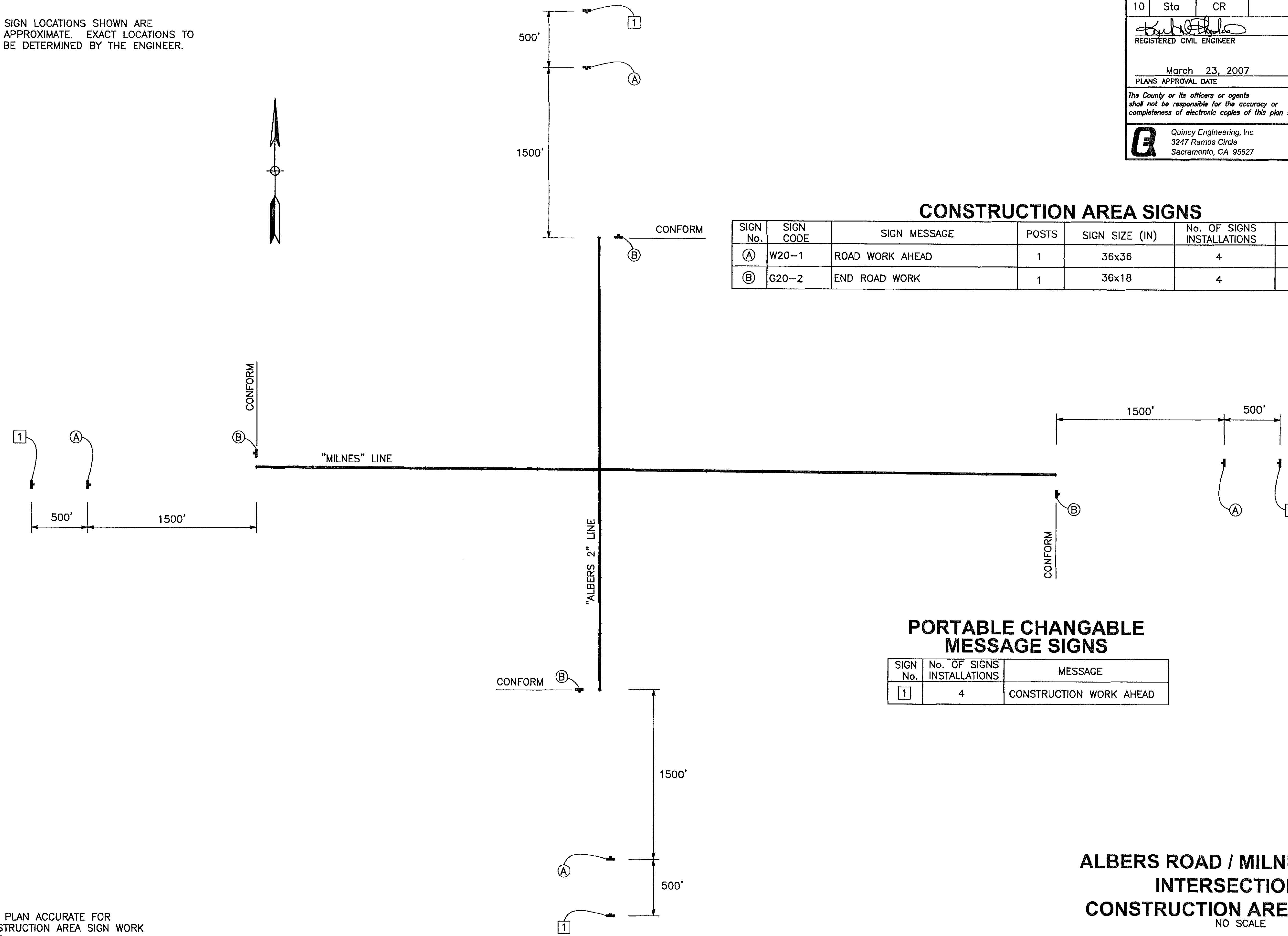
REGISTERED PROFESSIONAL ENGINEER
K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

NOTE:
1. SIGN LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.



CONSTRUCTION AREA SIGNS

SIGN No.	SIGN CODE	SIGN MESSAGE	POSTS	SIGN SIZE (IN)	No. OF SIGNS INSTALLATIONS	POST SIZE (IN)
(A)	W20-1	ROAD WORK AHEAD	1	36x36	4	4x6
(B)	G20-2	END ROAD WORK	1	36x18	4	4x4

PORTABLE CHANGABLE MESSAGE SIGNS

SIGN No.	No. OF SIGNS INSTALLATIONS	MESSAGE
[1]	4	CONSTRUCTION WORK AHEAD

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

ALBERS ROAD / MILNES ROAD INTERSECTION CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

KR	3/07	
REVISED BY	REVISED	
DATE 3/05	12/04	
KP	KT	
CALCULATED/DESIGNED BY	CHECKED BY	

PROJECT ENGINEER KEITH D. RHODES

AGENCY NAME STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

LAST REVISION s161rcs.dwg, Fri, 04 May 2007 - 2:58pm, joeb

TRAFFIC CONGESTION RELIEF PROJECT "A"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		23	34

REGISTERED CIVIL ENGINEER

March 23, 2007

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

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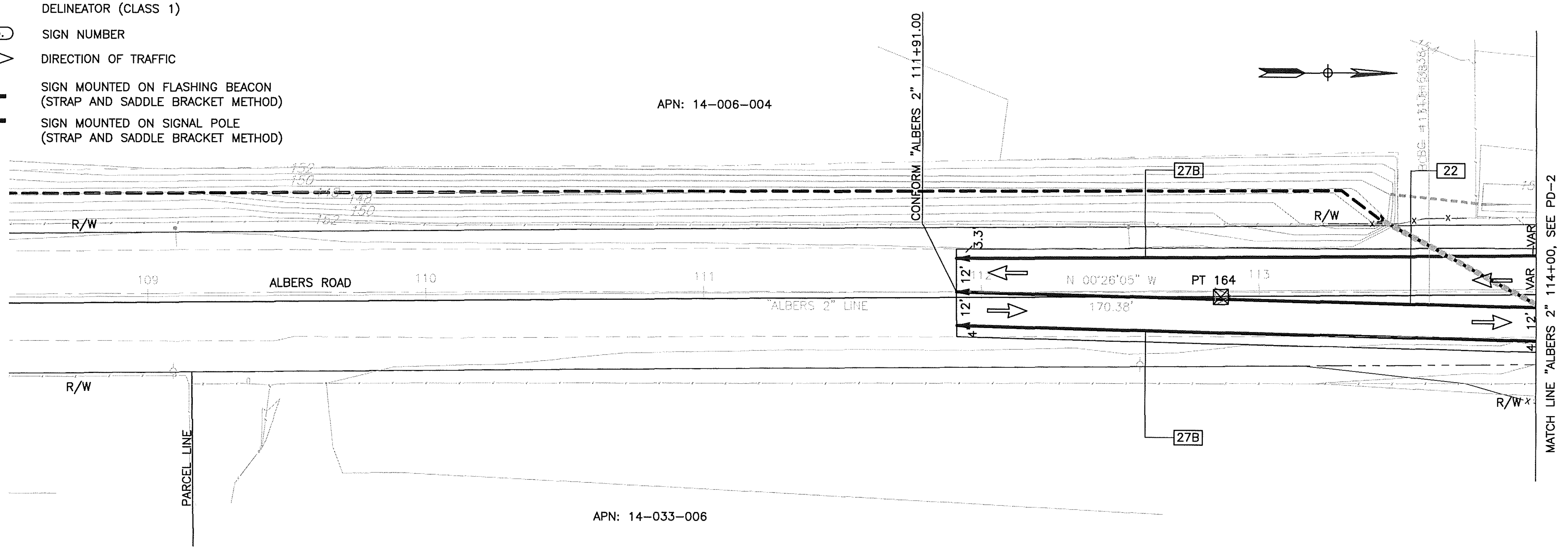
3247 Ramos Circle
Sacramento, CA 95827

LEGEND

- [No.] TRAFFIC STRIPE DETAIL NUMBER
- [LL] LIMIT LINE
- CHANGE IN STRIPING PATTERN
- TYPE I (18') ARROW (PAVEMENT MARKING)
- TYPE II (R) ARROW (PAVEMENT MARKING)
- TYPE III (L) ARROW (PAVEMENT MARKING)
- TYPE VI ARROW (PAVEMENT MARKING)
- EXISTING SIGN (1 POST)
- ROADSIDE SIGN – ONE POST
- REMOVE ROADSIDE SIGN
- DELINEATOR (CLASS 1)
- (No.) SIGN NUMBER
- DIRECTION OF TRAFFIC
- SIGN MOUNTED ON FLASHING BEACON (STRAP AND SADDLE BRACKET METHOD)
- SIGN MOUNTED ON SIGNAL POLE (STRAP AND SADDLE BRACKET METHOD)

NOTE: FOR ADITIONAL INFORMATION ON FLASHING BEACONS, SEE ELECTRICAL PLANS.



ALBERS ROAD S/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

PD-1

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

LAST REVISION s161rpd.dwg, Fri, 04 May 2007 - 3:40pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		24	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
STATE OF CALIFORNIA

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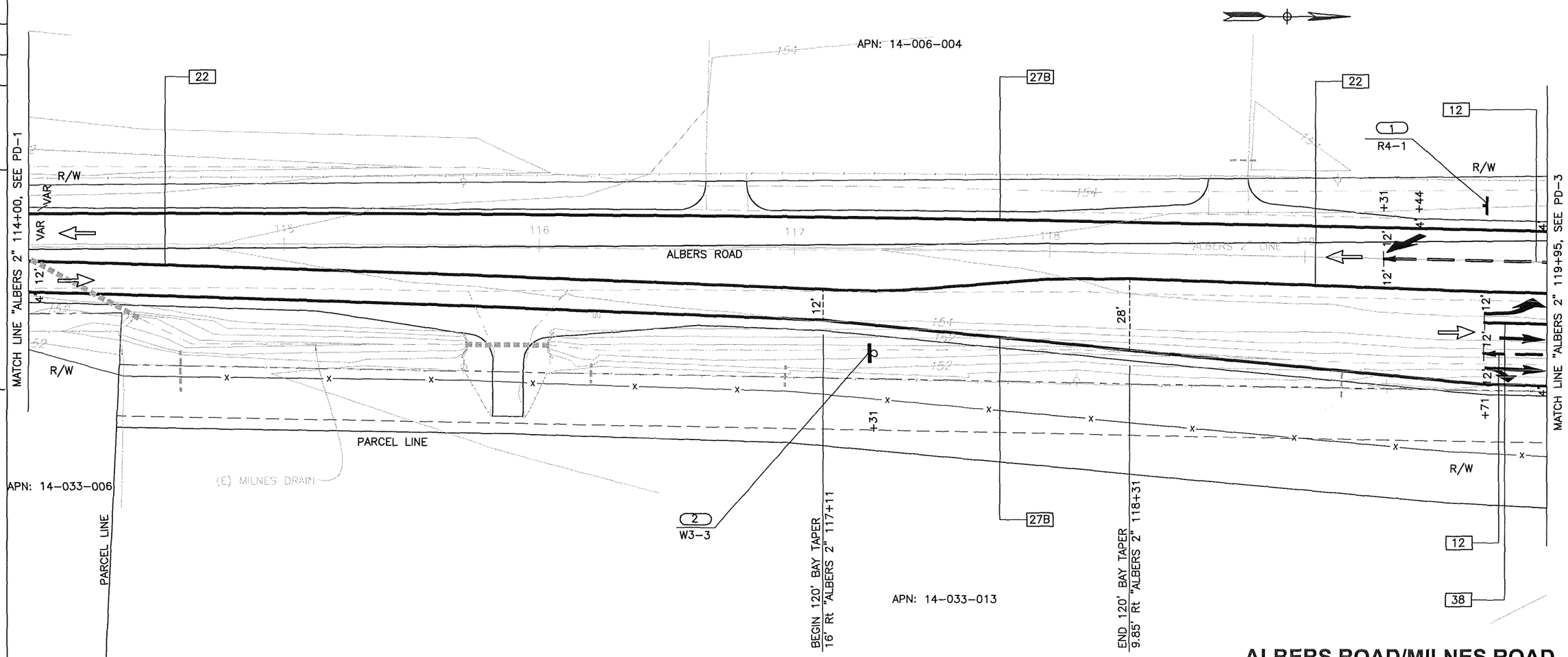
	KP	KT	3/05	REVISED
			12/04	KR
				3/07

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

PROJECT ENGINEER: KEITH D. RHODES



ALBERS ROAD S/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

PD-2

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rpd.dwg, Fri, 04 May 2007 - 5:38pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		25	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER K. D. Rhodes No. 53587 Exp. 06-30-07 CIVIL STATE OF CALIFORNIA

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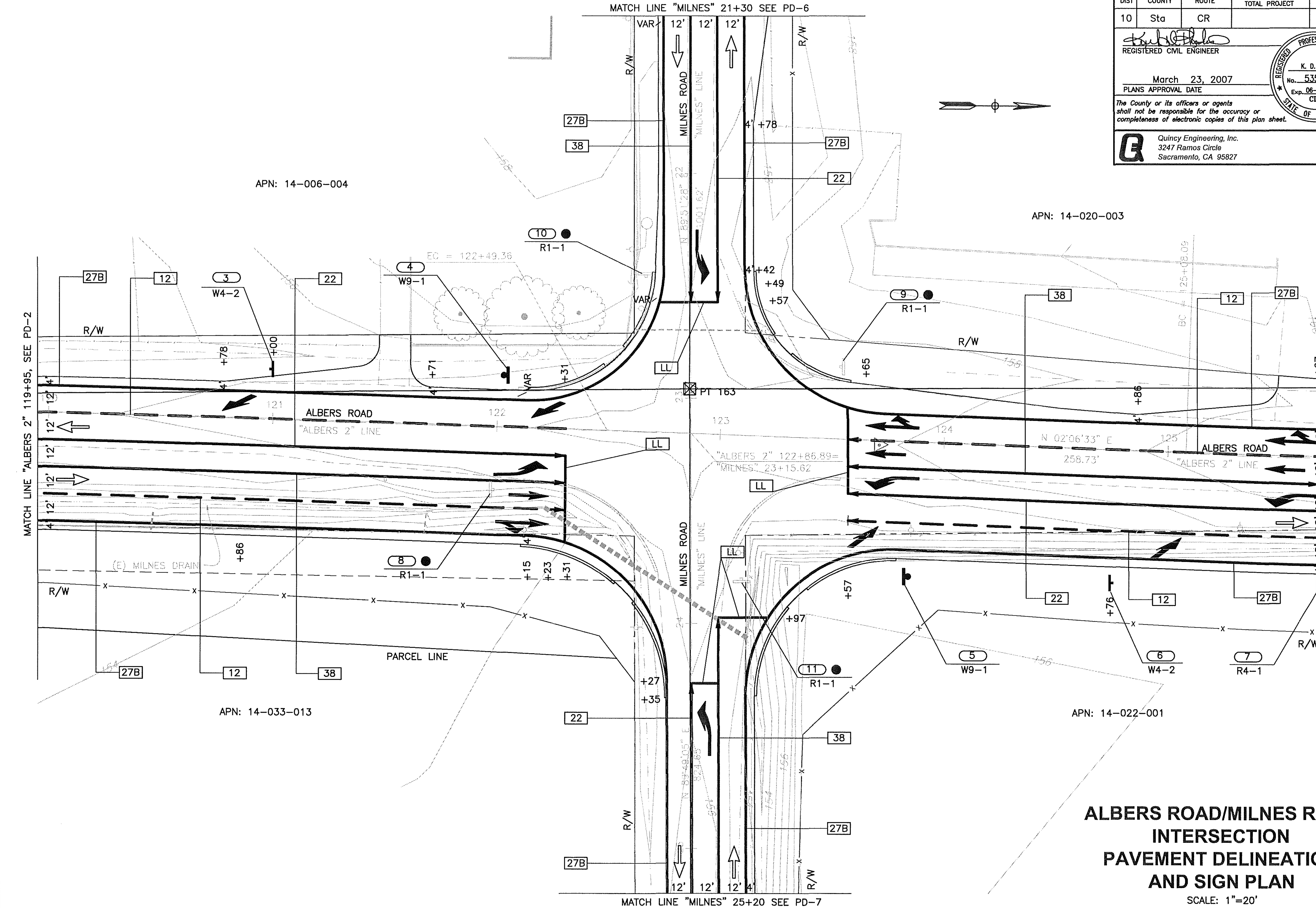

CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR	DATE REVISED 3/07
CHECKED BY	KT	12/04			

PROJECT ENGINEER KEITH D. RHODES

AGENCY NAME STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

PD-3

LAST REVISION s161rpd.dwg, Mon, 07 May 2007 - 11:17am, joeb

TRAFFIC CONGESTION RELIEF PROJECT "A"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		26	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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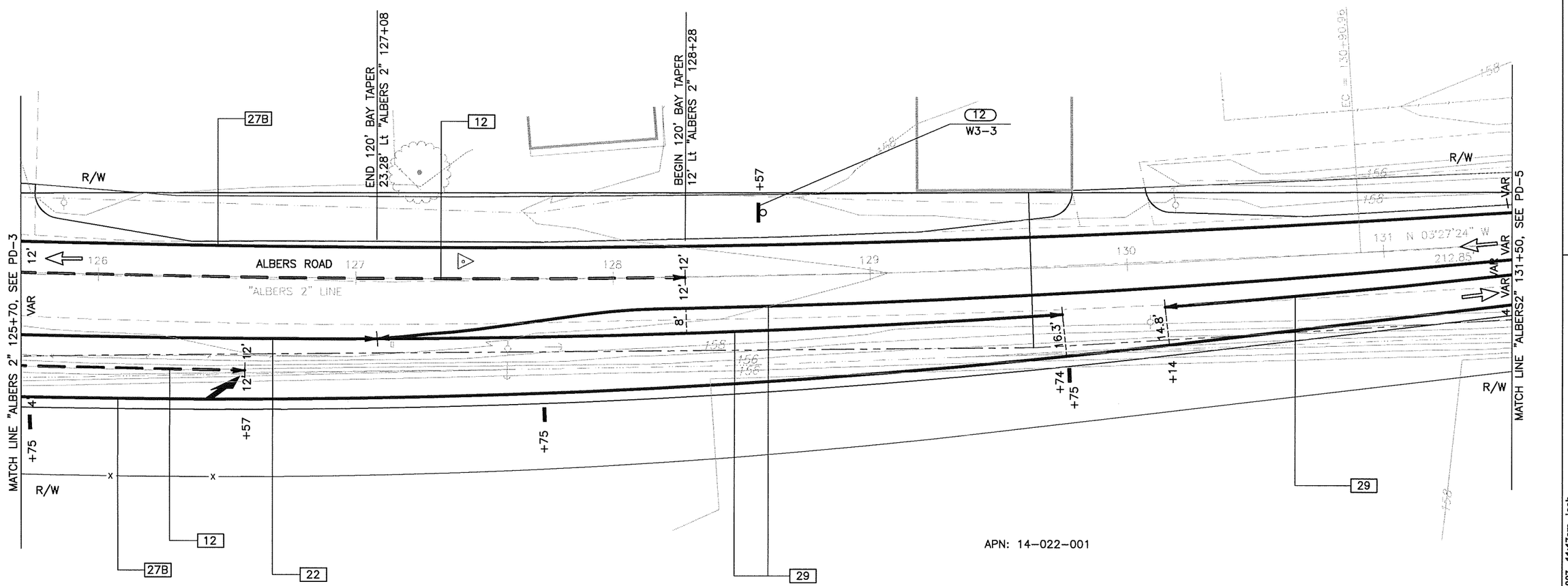
Sacramento, CA 95827

	CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE
1	KP	3/05	KR	3/07
2	KT	12/04	REVISED	
3	CHECKED BY			

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS



ALBERS ROAD N/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

PD-4

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rpd.dwg, Mon, 07 May 2007 - 11:17am, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		27	34

REGISTERED CIVIL ENGINEER

March 23, 2007
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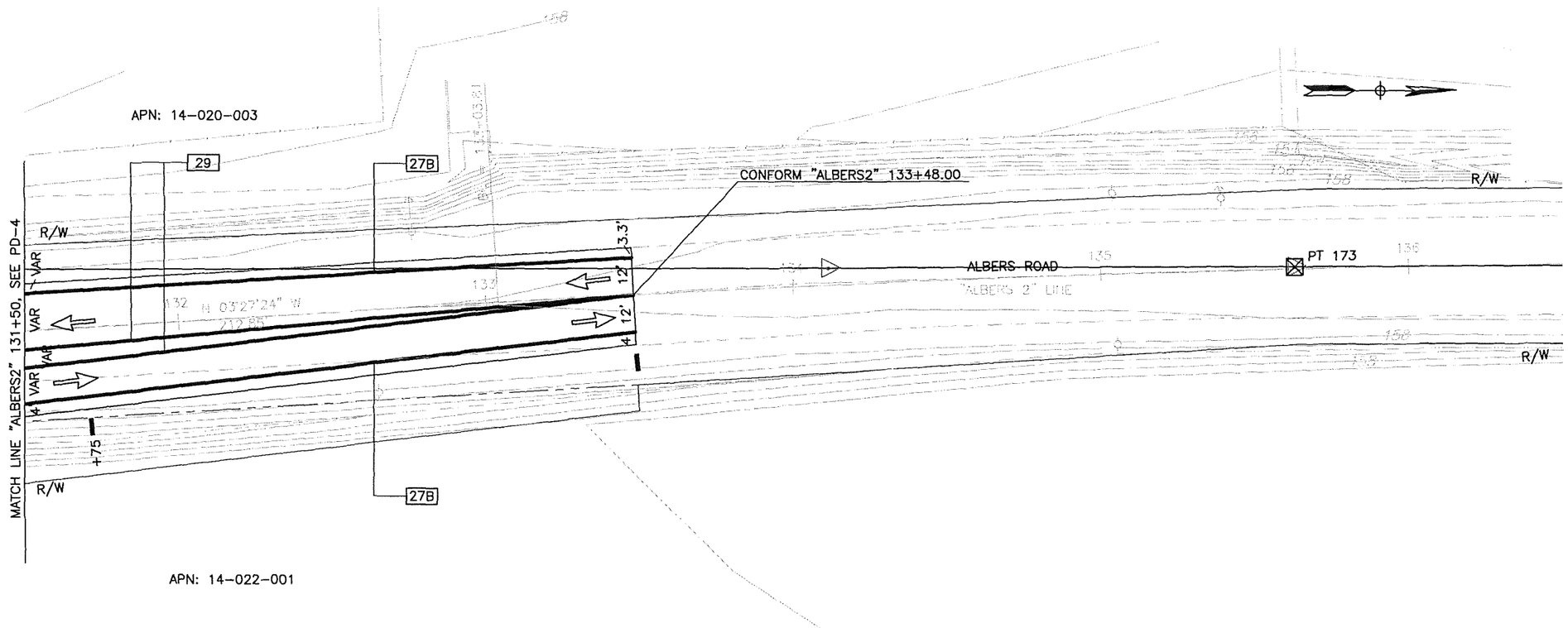

ALBERS ROAD N/O MILNES ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

PD-5

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

	CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	DATE
	KP	KT	3/05	REVISED	12/04
				REVISED	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

LAST REVISION s161rpd.dwg, Mon, 07 May 2007 - 11:17am, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		28	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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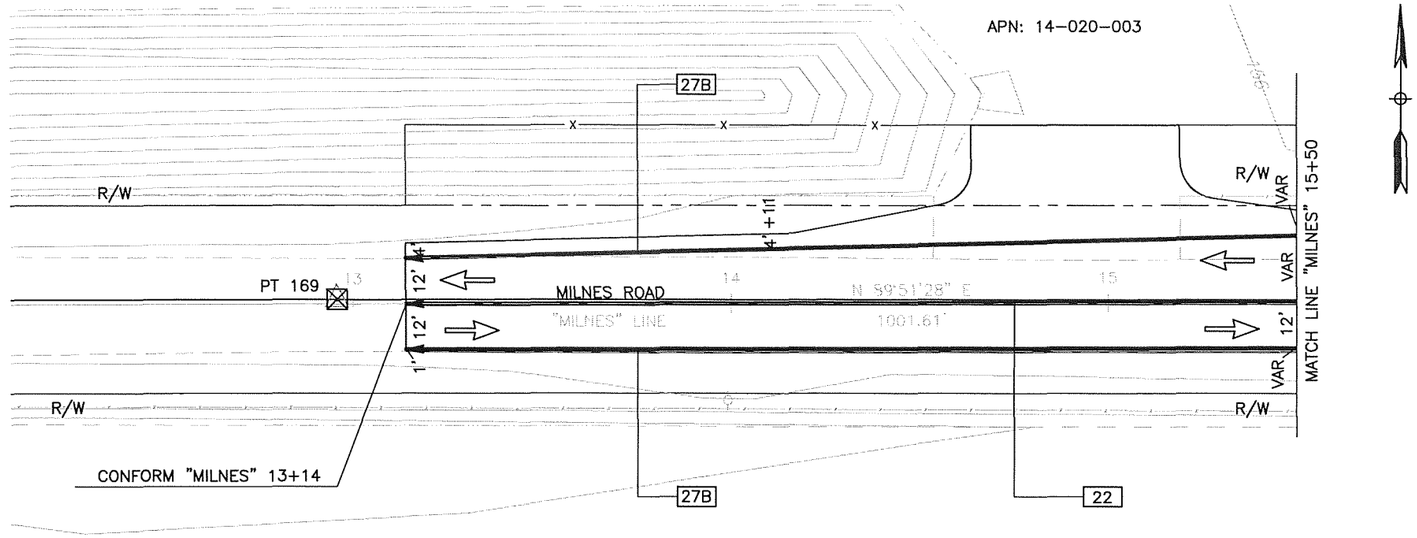
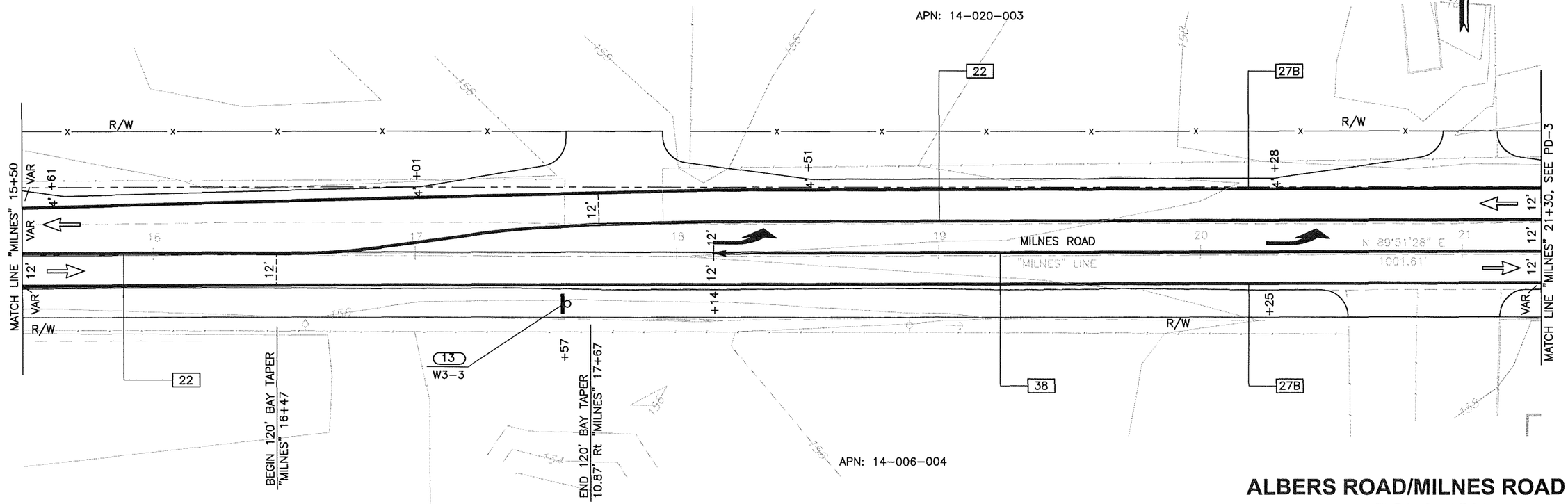
Sacramento, CA 95827

CALCULATED/ DESIGNED BY	CHECKED BY	DATE	REVISED BY	REVISED
KP	KT	12/04	KR	3/07
		3/05		

PROJECT ENGINEER
KEITH D. RHODES

AGENCY NAME
STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS





ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

PD-6

MILNES ROAD W/O ALBERS ROAD

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rpd.dwg, Fri, 04 May 2007 - 5:55pm, Joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		29	34

REGISTERED CIVIL ENGINEER

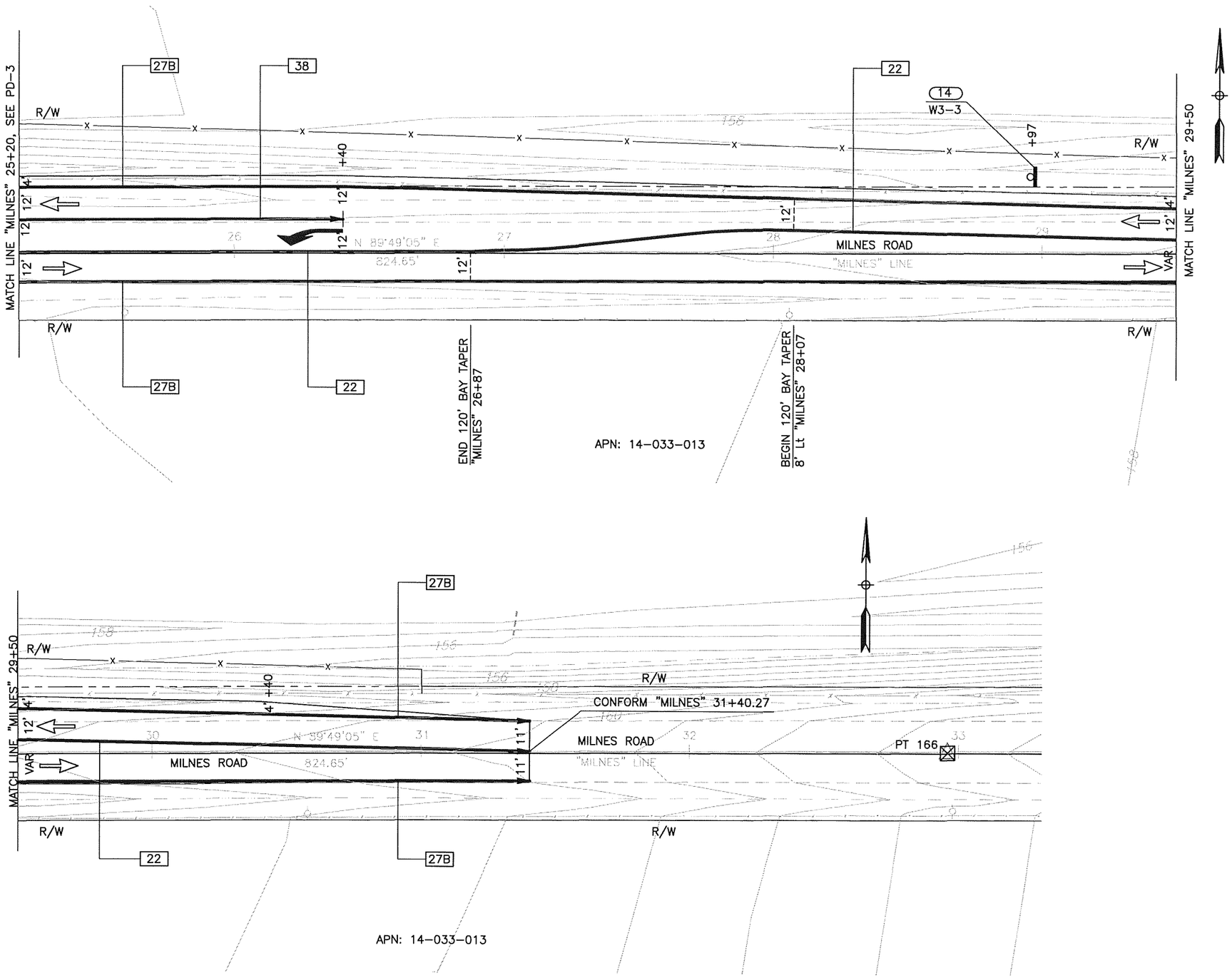
March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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

Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

CALCULATED/ DESIGNED BY	DATE	REVISED BY
KP	3/05	KR
KT	12/04	REVISED 3/07
CHECKED BY		



MILNES ROAD E/O ALBERS ROAD

ALBERS ROAD/MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN PLAN

SCALE: 1"=20'

PD-7

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rpd.dwg, Fri, 04 May 2007 - 5:57pm, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		30	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

PROFESSIONAL ENGINEER — REGISTERED — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

TRAFFIC ITEMS

SHEET No.	LINE	STATION		LOCATION	SPRAYABLE THERMOPLASTIC TRAFFIC STRIPE			PAVEMENT MARKER		THERMOPLASTIC PAVEMENT MARKING	DELINEATOR (CLASS 1)	SIGN NUMBER	REMOVE ROADSIDE SIGN	ROADSIDE SIGN (ONE POST)	INSTALL SIGN PANNEL (STRAP AND SADDLE BRACKET METHOD)	POST SIZE (N)		PANEL SIZE (N)	COMMENTS
					4" YELLOW	4" WHITE	8" WHITE	TWO-WAY YELLOW RETROREFLECTIVE TYPE D	ONE-WAY CLEAR RETROREFLECTIVE TYPE G							4"X4"	4"X6"		
		FROM	TO	LT/RT	LF	LF	LF	EA	EA	SQFT	EA	(XX)	EA	EA	EA	EA	EA	IN	
PD-1,2,3	ALBERS 2	111+91	122+56	LT		1065													DETAIL 27B
PD-1,2,3	ALBERS 2	111+91	122+60	RT		1069													DETAIL 27B
PD-1,2,3	ALBERS 2	111+91	122+31	RT	1040			90											DETAIL 22
PD-2,3	ALBERS 2	119+31	122+31	LT		300			7										DETAIL 12
PD-2,3	ALBERS 2	119+71	122+31	RT		260			6										DETAIL 12
PD-2,3	ALBERS 2	119+71	122+31	RT			260		12										DETAIL 38
PD-2	ALBERS 2	119+31		LT						42									TYPE VI
PD-2	ALBERS 2	119+71		RT						42									TYPE III-L
PD-2	ALBERS 2	119+71		RT						25									TYPE I-18 FT
PD-2	ALBERS 2	119+71		RT						45									TYPE II-R
PD-2	ALBERS 2	119+71		LT								1		1		1		24X30	R4-1 DO NOT PASS
PD-2	ALBERS 2	117+31		RT								2			1				W3-3 SIGNAL AHEAD-SYMBOL
PD-3,4,5	ALBERS 2	123+28	133+48	LT		1020													DETAIL 27B
PD-3,4,5	ALBERS 2	123+34	133+48	RT		1014													DETAIL 27B
PD-3,4	ALBERS 2	123+57	128+28	LT,RT		471			11										DETAIL 12
PD-3	ALBERS 2	123+57	126+57	RT		300			6										DETAIL 12
PD-3	ALBERS 2	123+57	125+67	RT			210		10										DETAIL 38
PD-3,4	ALBERS 2	123+57	127+08	RT	351			32											DETAIL 22
PD-3	ALBERS 2	120+81		LT						42									TYPE VI
PD-3	ALBERS 2	122+31		LT						42									TYPE VI
PD-3	ALBERS 2	122+23		RT						42									TYPE III-L
PD-3	ALBERS 2	122+23		RT						25									TYPE I-18 FT
PD-3	ALBERS 2	122+23		RT						45									TYPE II-R
PD-3	ALBERS 2	123+65		LT						45									TYPE II-R
PD-3	ALBERS 2	123+65		RT						25									TYPE I-18 FT
PD-3	ALBERS 2	123+65		RT						42									TYPE III-L
PD-3	ALBERS 2	123+65		RT						42									TYPE VI
PD-3	ALBERS 2	125+07		RT						42									TYPE VI
PD-3	ALBERS 2	125+67		LT						45									TYPE II-R
PD-3	ALBERS 2	125+67		RT						25									TYPE I-18 FT
PD-3	ALBERS 2	126+57		RT						42									TYPE III-L
PD-3	ALBERS 2	125+57		RT						42									TYPE VI
PD-3	ALBERS 2	122+31		RT						38									LIMIT LINE
PD-3	ALBERS 2	123+57		RT						38									LIMIT LINE
PD-3	ALBERS 2	121+00		LT								3		1					W4-2 LINE ENDS-SYMBOL
PD-3	ALBERS 2	122+04		LT								4			1				W9-1 LINE ENDS
PD-3	ALBERS 2	123+84		RT								5			1				W9-1 LINE ENDS
SHEET TOTAL					1391	5499	470	122	52	776	0		0	2	3				

(N)-NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

CALCULATED/DESIGNED BY	KP	DATE 3/05	REVISED BY	KR
CHECKED BY	KT	12/04	REVISED	3/07

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

ALBERS ROAD / MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN QUANTITIES

NO SCALE

PDQ-1

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		31	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

K. D. Rhodes
No. 53587
Exp. 06-30-07
CIVIL
REGISTERED PROFESSIONAL ENGINEER
STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

TRAFFIC ITEMS

SHEET No.	LINE	STATION FROM	STATION TO	LOCATION LT/RT	SPRAYABLE THERMOPLASTIC TRAFFIC STRIPE 4" YELLOW LF	SPRAYABLE THERMOPLASTIC TRAFFIC STRIPE 4" WHITE LF	SPRAYABLE THERMOPLASTIC TRAFFIC STRIPE 8" WHITE LF	PAVEMENT MARKER TWO-WAY YELLOW RETROREFLECTIVE TYPE D EA	PAVEMENT MARKER ONE-WAY CLEAR RETROFEFLECTIVE TYPE G EA	THERMOPLASTIC PAVEMENT MARKING SQFT	DELINEATOR (CLASS 1) EA	SIGN NUMBER (XX)	REMOVE ROADSIDE SIGN EA	ROADSIDE SIGN (ONE POST) EA	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD) EA	POST SIZE (N) 4"X4" EA	POST SIZE (N) 4"X6" EA	PANEL SIZE (N) IN	COMMENTS
PD-3	ALBERS 2	124+76		RT								6		1			1	36X36	W4-2 LINE ENDS-SYMBOL
PD-3	ALBERS 2	125+67		RT								7		1		1		24X30	R4-1 DO NOT PASS
PD-3	ALBERS 2	122+00		RT								8	1						R1-1 STOP
PD-3	ALBERS 2	123+57		LT								9	1						R1-1 STOP
PD-3	MILNES	22+42		RT								10	1						R1-1 STOP
PD-3	MILNES	23+83		RT								11	1						R1-1 STOP
PD-3	MILNES	22+57		LT,RT						26									LIMIT LINE
PD-3	MILNES	23+97		LT						22									LIMIT LINE
PD-3	MILNES	24+27		LT						12									LIMIT LINE
PD-4,5	ALBERS 2	127+08	133+48	RT	640			28											DETAIL 29
PD-4	ALBERS 2	128+57		LT								12			1				W3-3 SIGNAL AHEAD-SYMBOL
PD-4	ALBERS 2	125+75		RT							1								DELINEATOR CLASS 1
PD-4	ALBERS 2	127+75		RT							1								DELINEATOR CLASS 1
PD-4	ALBERS 2	129+75		RT							1								DELINEATOR CLASS 1
PD-5	ALBERS 2	131+75		RT							1								DELINEATOR CLASS 1
PD-5	ALBERS 2	133+48		RT							1								DELINEATOR CLASS 1
PD-4	ALBERS 2	127+08	129+74	RT	266			12											DETAIL 29
PD-4,5	ALBERS 2	130+14	133+48	RT	334			16											DETAIL 29
PD-3,6	MILNES	13+14	22+84	RT		970													DETAIL 27B
PD-3,6	MILNES	13+14	22+87	LT		973													DETAIL 27B
PD-3,6	MILNES	13+14	22+57	LT,RT	943			82											DETAIL 22
PD-3,6	MILNES	18+14	22+57	LT,RT			443		19										DETAIL 38
PD-6	MILNES	18+14		LT						42									TYPE III-L
PD-6	MILNES	17+57		RT								13			1				W3-3 SIGNAL AHEAD-SYMBOL
PD-6	MILNES	20+25		LT						42									TYPE III-L
PD-3	MILNES	22+49		LT						42									TYPE III-L
PD-3	MILNES	24+35		LT						42									TYPE III-L
PD-3,7	MILNES	23+85	31+41	LT		756													DETAIL 27B
PD-3,7	MILNES	23+81	31+41	RT		760													DETAIL 27B
PD-3,7	MILNES	24+27	31+41	LT,RT	714			62											DETAIL 22
PD-3,7	MILNES	23+97	26+40	LT			243		11										DETAIL 38
PD-7	MILNES	26+40		LT						42									TYPE III-L
PD-7	MILNES	28+97		LT								14			1				W3-3 SIGNAL AHEAD-SYMBOL
SHEET TOTAL					2897	3459	686	200	30	270	5		4	2	3				
SHEET PDQ-1					1391	5499	470	122	52	776	0		0	2	3				
TOTAL					14402			404		1046	5		4	4	6	1	1		

(N)-NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY.

ALBERS ROAD / MILNES ROAD INTERSECTION PAVEMENT DELINEATION AND SIGN QUANTITIES

NO SCALE

PDQ-2

REVISED BY	DATE	CALCULATED/ DESIGNED BY	CHECKED BY
KR	3/07	KP	KT
REVISED	3/05	DATE	12/04

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

LAST REVISION s161rpd-qu.dwg, Mon, 07 May 2007 - 10:43am, joeb

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		32	34

REGISTERED CIVIL ENGINEER

March 23, 2007
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER — K. D. Rhodes — No. 53587 — Exp. 06-30-07 — CIVIL — STATE OF CALIFORNIA

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Quincy Engineering, Inc.
3247 Ramos Circle
Sacramento, CA 95827

DATE	REVISED BY	
3/05	KR	3/07
12/04	KT	REVISED

CALCULATED/ DESIGNED BY	CHECKED BY
KP	KT

PROJECT ENGINEER: KEITH D. RHODES

AGENCY NAME: STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

ROADWAY ITEMS

SHEET No.	LINE	STATION FROM	STATION TO	ASPHALT CONCRETE (TYPE A) TON	CLASS 2 AGGREGATE BASE CY	MINOR CONCRETE (CURB) CY	ROADWAY EXCAVATION CY	EMBANKMENT (N) CY	COLD PLANE ASPHALT CONCRETE SQFT	RESET MAILBOX EA	EROSION CONTROL (TYPE D) (N) ACRE	SHOULDER BACKING (N) CY	IMPORTED BORROW CY	COMMENTS
L-1,2,3,4,5	ALBERS 2	111+91.00	133+48.00	3991	1644	5	2551	2014	938	3	1.11	180		
L-3,6,7	MILNES	13+14.00	31+40.27	1494	519	5	444	1380	770		0.42	152	312	
L-1	ALBERS 2	115+88.15		17			8							DRIVEWAY APPROACH
L-1	ALBERS 2	116+73.02		5			2							DRIVEWAY APPROACH
L-1	ALBERS 2	118+69.33		12			6							DRIVEWAY APPROACH
L-2	ALBERS 2	121+53.17		13			7							DRIVEWAY APPROACH
L-2,3	ALBERS 2	125+61.72		20			10							DRIVEWAY APPROACH
L-3	ALBERS 2	129+94.03		13			7							DRIVEWAY APPROACH
L-6	MILNES	14+90.9		40			20							DRIVEWAY APPROACH
L-6	MILNES	17+76.5		24			12							DRIVEWAY APPROACH
L-6	MILNES	20+85.0		13			6							DRIVEWAY APPROACH
L-3,6	MILNES	21+03.0		19			9							DRIVEWAY APPROACH
TOTAL				5661	2163	10	3082	3394	1708	3	1.53		312	

(N) – NOT A SEPARATE PAY ITEM, FOR INFORMATION ONLY

FENCE (TYPE BW)

SHEET No.	LINE	STATION FROM	STATION TO	LT/RT	LENGTH LF
L-1	ALBERS 2	113+25	113+75	LT	50
L-1,2	ALBERS 2	113+75	114+37	RT	62
L-2	ALBERS 2	114+37	115+73	RT	136
L-2,3	ALBERS 2	116+02	122+66	RT	664
L-3,4	ALBERS 2	123+41	126+90	RT	349
L-3,7	MILNES	24+49	31+00	RT	651
L-6	MILNES	15+19	17+58	LT	239
L-6	MILNES	18+05	20+89	LT	284
L-6,3	MILNES	21+13	21+79	LT	66
L-7	MILNES	31+00		RT	9
TOTAL					2510

EROSION CONTROL (TYPE D)

	UNIT	TOTAL
STRAW (EROSION CONTROL)	TON	4.8
FIBER (EROSION CONTROL)	LBS	2678
PURE LIVE SEED (EROSION CONTROL)	LBS	134
COMMERCIAL FERTILIZER (EROSION CONTROL)	LBS	1042
STABILIZING EMULSION (EROSION CONTROL)	LBS	240

ALBERS ROAD / MILNES ROAD INTERSECTION SUMMARY OF QUANTITIES

NO SCALE

Q-1

GRAPHIC SCALE (IN FEET) 0 20 40 80

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION s161rqu.dwg, Mon, 07 May 2007 - 10:01am, joeb

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		33	34

REGISTERED CIVIL ENGINEER — 3/16/07 DATE

REGISTERED PROFESSIONAL ENGINEER — KIN Y. CHAN — No. 55391 — Exp. 12/31/08 — CIVIL — STATE OF CALIFORNIA

MARCH 23, 2007
PLANS APPROVAL DATE

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

Y&C TRANSPORTATION CONSULTANTS, INC.
3250 RAMOS CIRCLE
SACRAMENTO, CA 95827
(916) 366-8000 FAX: (916) 366-8008

ELECTRICAL GENERAL NOTES:

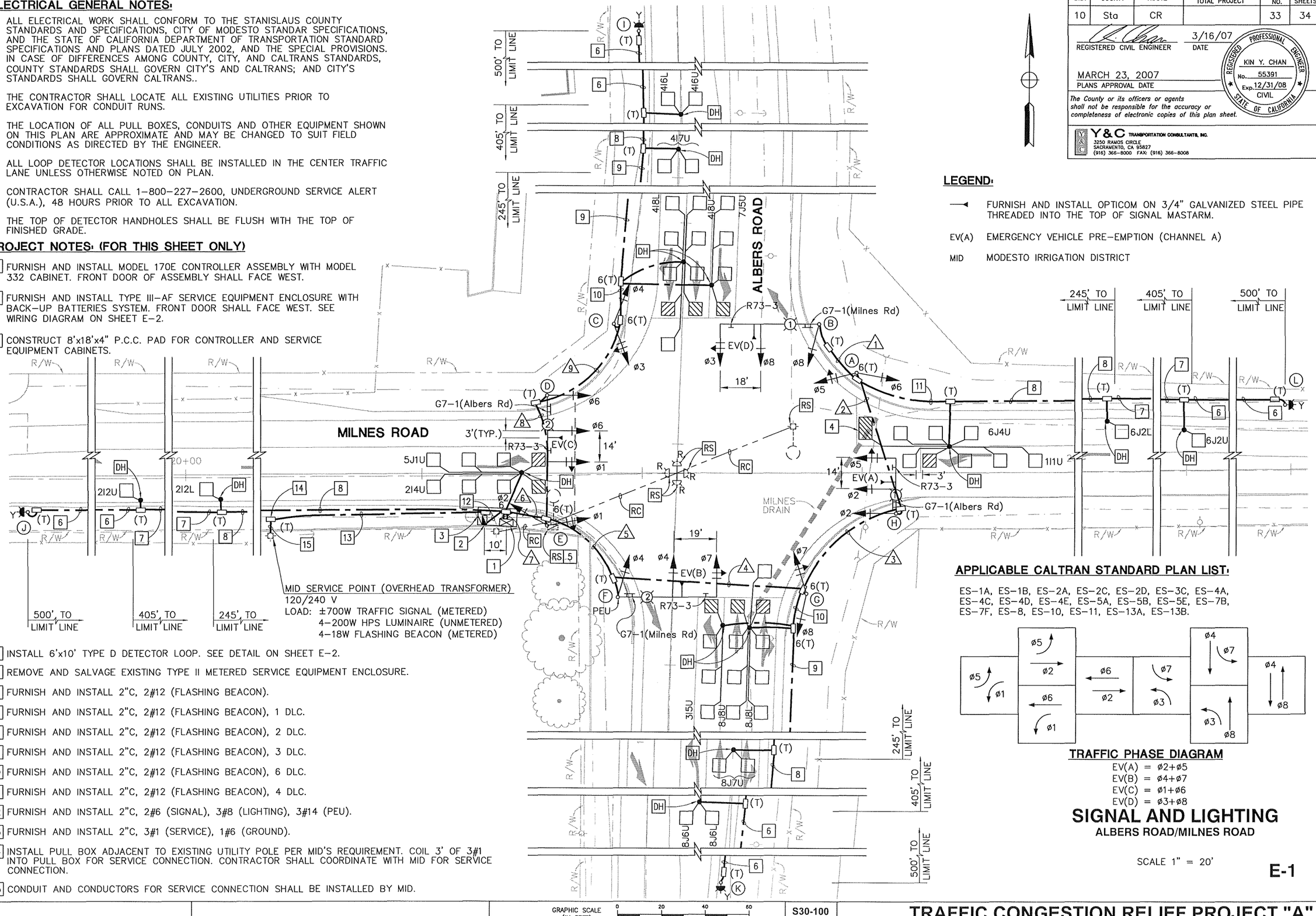
1. ALL ELECTRICAL WORK SHALL CONFORM TO THE STANISLAUS COUNTY STANDARDS AND SPECIFICATIONS, CITY OF MODESTO STANDAR SPECIFICATIONS, AND THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND PLANS DATED JULY 2002, AND THE SPECIAL PROVISIONS. IN CASE OF DIFFERENCES AMONG COUNTY, CITY, AND CALTRANS STANDARDS, COUNTY STANDARDS SHALL GOVERN CITY'S AND CALTRANS; AND CITY'S STANDARDS SHALL GOVERN CALTRANS..
2. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO EXCAVATION FOR CONDUIT RUNS.
3. THE LOCATION OF ALL PULL BOXES, CONDUITS AND OTHER EQUIPMENT SHOWN ON THIS PLAN ARE APPROXIMATE AND MAY BE CHANGED TO SUIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.
4. ALL LOOP DETECTOR LOCATIONS SHALL BE INSTALLED IN THE CENTER TRAFFIC LANE UNLESS OTHERWISE NOTED ON PLAN.
5. CONTRACTOR SHALL CALL 1-800-227-2600, UNDERGROUND SERVICE ALERT (U.S.A.), 48 HOURS PRIOR TO ALL EXCAVATION.
6. THE TOP OF DETECTOR HANDHOLES SHALL BE FLUSH WITH THE TOP OF FINISHED GRADE.

PROJECT NOTES: (FOR THIS SHEET ONLY)

[1] FURNISH AND INSTALL MODEL 170E CONTROLLER ASSEMBLY WITH MODEL 332 CABINET. FRONT DOOR OF ASSEMBLY SHALL FACE WEST.

[2] FURNISH AND INSTALL TYPE III-AF SERVICE EQUIPMENT ENCLOSURE WITH BACK-UP BATTERIES SYSTEM. FRONT DOOR SHALL FACE WEST. SEE WIRING DIAGRAM ON SHEET E-2.

[3] CONSTRUCT 8'x18'x4" P.C.C. PAD FOR CONTROLLER AND SERVICE EQUIPMENT CABINETS.



[4] INSTALL 6'x10' TYPE D DETECTOR LOOP. SEE DETAIL ON SHEET E-2.

[5] REMOVE AND SALVAGE EXISTING TYPE II METERED SERVICE EQUIPMENT ENCLOSURE.

[6] FURNISH AND INSTALL 2"C, 2#12 (FLASHING BEACON).

[7] FURNISH AND INSTALL 2"C, 2#12 (FLASHING BEACON), 1 DLC.

[8] FURNISH AND INSTALL 2"C, 2#12 (FLASHING BEACON), 2 DLC.

[9] FURNISH AND INSTALL 2"C, 2#12 (FLASHING BEACON), 3 DLC.

[10] FURNISH AND INSTALL 2"C, 2#12 (FLASHING BEACON), 6 DLC.

[11] FURNISH AND INSTALL 2"C, 2#12 (FLASHING BEACON), 4 DLC.

[12] FURNISH AND INSTALL 2"C, 2#6 (SIGNAL), 3#8 (LIGHTING), 3#14 (PEU).

[13] FURNISH AND INSTALL 2"C, 3#1 (SERVICE), 1#6 (GROUND).

[14] INSTALL PULL BOX ADJACENT TO EXISTING UTILITY POLE PER MID'S REQUIREMENT. COIL 3' OF 3#1 INTO PULL BOX FOR SERVICE CONNECTION. CONTRACTOR SHALL COORDINATE WITH MID FOR SERVICE CONNECTION.

[15] CONDUIT AND CONDUCTORS FOR SERVICE CONNECTION SHALL BE INSTALLED BY MID.

LEGEND:

—◄ FURNISH AND INSTALL OPTICOM ON 3/4" GALVANIZED STEEL PIPE THREADED INTO THE TOP OF SIGNAL MASTARM.

EV(A) EMERGENCY VEHICLE PRE-EMPTION (CHANNEL A)

MID MODESTO IRRIGATION DISTRICT

APPLICABLE CALTRAN STANDARD PLAN LIST:

ES-1A, ES-1B, ES-2A, ES-2C, ES-2D, ES-3C, ES-4A, ES-4C, ES-4D, ES-4E, ES-5A, ES-5B, ES-5E, ES-7B, ES-7F, ES-8, ES-10, ES-11, ES-13A, ES-13B.

TRAFFIC PHASE DIAGRAM

EV(A) = ø2+ø5
EV(B) = ø4+ø7
EV(C) = ø1+ø6
EV(D) = ø3+ø8

SIGNAL AND LIGHTING

ALBERS ROAD/MILNES ROAD

SCALE 1" = 20'

E-1

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

CALCULATED/ DESIGNED BY	CHECKED BY	DATE	KYC	KDY	REVISED BY	REVISED
		03/07	KYC	KDY	03/07	

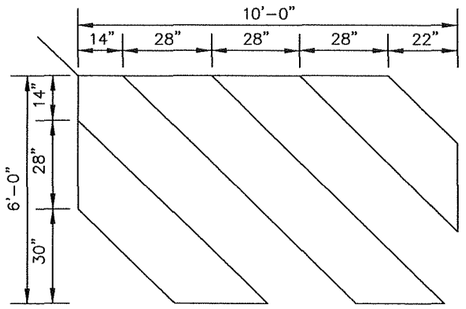
PROJECT ENGINEER -

AGENCY NAME STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

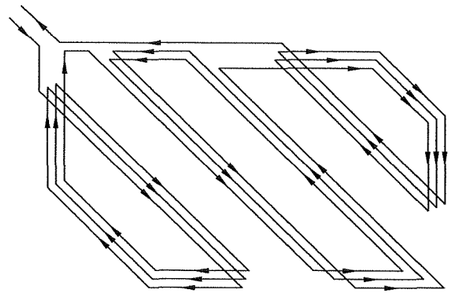
LAST REVISION 399sig1.dwg, Fri, 27 Apr 2007 - 1:51pm, myang

CONDUCTOR SCHEDULE

CONDUCTOR DESIGNATION	NUMBER OF CONDUCTORS RUN NUMBER 1	2	3	4	5	6	7	8	9
No. 14 CONDUCTORS									
ø1						3	6	3	
ø2			3	3	3	3	3		
ø3	3	3	3	3	3	6	6	3	3
ø4					3	6	6	3	3
ø5		3	3	3	3	3	3		
ø6		3	3	3	3	6	6	3	
ø7				3	3	3	3		
ø8	3	3	3	3	3	3	3		
SPARES	3	3	3	3	3	6	6	3	3
PEU					3	3	3		
TOTAL No. 14	9	15	18	21	27	42	45	15	9
No. 12 CONDUCTORS									
FLASHING BEACON		2	2	2	2	2	2	2	2
No. 8 CONDUCTORS									
LIGHTING (120 V)	2	2	2	2	3	3	3	2	
SIGNAL NEUTRAL	1	1	1	1	1	1	1	1	1
TOTAL No. 8	3	3	3	3	4	4	4	3	1
No. 6 CONDUCTORS									
SERVICE TO CONTROLLER							2		
DETECTOR LEAD-IN CABLE (DLC)									
1I1U		1	1	1	1	1	1		
2I2U/2I2L							2		
2I4U/2I4L							1		
3I5U					1	1	1		
4I6U/4I6L							2	2	2	2
4I7U/4I7L							1	1	1	1
4I8U/4I8L							2	2	2	2
5J1U							1		
6J2U/6J2L		2	2	2	2	2	2		
6J4U/6J4L		1	1	1	1	1	1		
7J5U							1	1	1	1
8J6U/8J6L					2	2	2	2		
8J7U					1	1	1	1		
8J8U/8J8L					2	2	2	2		
TOTAL DLC		4	4	10	10	22	20	6	6
EVA			1	1	1	1	1		
EVB					1	1	1		
EVC						1	1	1	
EVD	1	1	1	1	1	1	1		
TOTAL EVP	1	1	2	2	3	4	4	1	
CONDUIT SIZE (in)	2	3	3	3	3	2-3	2-3	3	2
% FILL	14	12	14	21	24	21	21	14	22



SAW CUT DETAIL



WINDING DETAIL

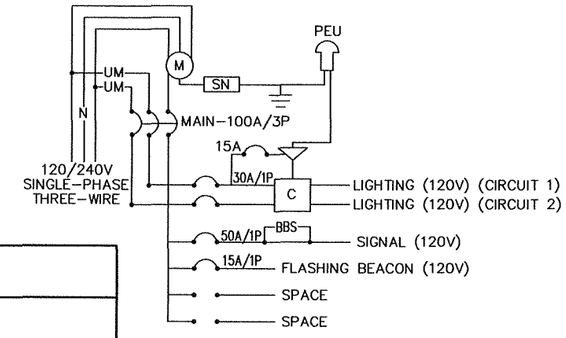
DETAIL A: LOOP DETECTOR DETAIL

NOT TO SCALE
ALSO SEE CALTRANS STANDARD PLAN ES-5B TYPE D LOOP DETECTOR CONFIGURATION

POLE AND EQUIPMENT SCHEDULE

NO.	STANDARD TYPE	SIG. MA	LUM. MA	VEHICLE SIGNAL MOUNTING MAST ARM	POLE	HPS LUMINAIRE (WATTS)	LOCATION STATION	OFFSET	REMARKS **
Ⓐ	1-A				TV-2-T		23+100.0	45.1'LT	
Ⓑ	26-4-129	45'	15'	MAS MAS	SV-1-T	200	23+80.6	67.2'LT	INSTALL R73-3, G7-1 SIGNS, AND EV(D) ON SMA.
Ⓒ	1-A				TV-2-T		22+87.4	67.4'LT	
Ⓓ	19-4-129	30'	15'	MAS MAS	SV-1-T	200	22+57.2	35.1'LT	INSTALL R73-3, G7-1 SIGNS, AND EV(C) ON SMA.
Ⓔ	1-A				TV-2-T		22+57.1	23.7'RT	
Ⓕ	26-4-129	45'	15'	MAS MAS	SV-1-T	200	22+88.8	56.1'RT	INSTALL R73-3, G7-1 SIGNS, AND EV(B) ON SMA. PEU ON TOP OF STANDARD.
Ⓖ	1-A				TV-2-T		23+74.5	54.7'RT	
Ⓗ	19-4-129	25'*	15'	MAS MAS	SV-1-T	200	24+15.4	18.4'RT	INSTALL R73-3, G7-1 SIGNS, AND EV(A) ON SMA.
Ⓘ	1-A (FLASHING BEACON)						128+57.5	17.7'LT	INSTALL FLASHING BEACON ON TOP OF STANDARD.
Ⓙ	1-A (FLASHING BEACON)						17+57.2	16.1'RT	INSTALL FLASHING BEACON ON TOP OF STANDARD.
Ⓚ	1-A (FLASHING BEACON)						117+30.9	34.9'RT	INSTALL FLASHING BEACON ON TOP OF STANDARD.
Ⓛ	1-A (FLASHING BEACON)						28+97.5	29.2'LT	INSTALL FLASHING BEACON ON TOP OF STANDARD.

* USE SHORTER SIGNAL MAST ARM.
** OTHER REQUIREMENTS ARE COVERED BY NOTES, LEGEND, SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS. FOR TYPE OF STANDARD AND VEHICLE SIGNAL MOUNTING, SEE STANDARD PLANS.



SERVICE WIRING DIAGRAM

120/240V
1 PHASE - 3 WIRES

WIRING DIAGRAM LEGEND

- C = CONTACTOR (LIGHTING)
- SN = SOLID NEUTRAL BUS
- = 15A, 1P AUTO-TEST SWITCH
- = PHOTOELECTRIC UNIT
- (M) = METER SOCKET

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
10	Sta	CR		34	34

REGISTERED CIVIL ENGINEER — 3/16/07 DATE

KIN Y. CHAN No. 55391 Exp. 12/31/08 CIVIL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

MARCH 23, 2007
PLANS APPROVAL DATE

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

Y&C TRANSPORTATION CONSULTANTS, INC.
3250 RAMOS CIRCLE
SACRAMENTO, CA 95827
(916) 366-8000 FAX: (916) 366-8008

REVISED BY — REVISED
DATE 03/07 — 03/07
KYC — KDY
CALCULATED/DESIGNED BY — CHECKED BY
PROJECT ENGINEER -
AGENCY NAME — STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS

SIGNAL AND LIGHTING

ALBERS ROAD/MILNES ROAD

(CONDUCTORS, POLES AND EQUIPMENT SCHEDULES)
NO SCALE

E-2

GRAPHIC SCALE (IN FEET) 0 20 40 60

S30-100

TRAFFIC CONGESTION RELIEF PROJECT "A"

LAST REVISION 399sch1.dwg, Fri, 16 Mar 2007 - 10:45am, eyip