

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

DEPT: Public Works *MAJ*

BOARD AGENDA # \*C-2

Urgent  Routine

AGENDA DATE July 19, 2011

CEO Concurs with Recommendation YES  NO   
(Information Attached)

4/5 Vote Required YES  NO

SUBJECT:

Approval to Award a Contract for All-Inclusive Engineering and Project Delivery Services to NorthStar Engineering Group, Inc., for the Crows Landing Road at West Main Street Intersection Upgrade Project in Stanislaus County, Federal Project Number: CML-5938(180)

STAFF RECOMMENDATIONS:

1. Award a contract for all-inclusive engineering and project delivery services to NorthStar Engineering Group, Inc., not to exceed \$277,739.70, for the Crows Landing Road at West Main Street Intersection Upgrade Project.
2. Authorize the Director of Public Works to execute a contract with NorthStar Engineering Group, Inc., \$277,739.70, and to sign necessary documents, including any amendments to the Agreement, not to exceed 10%.

FISCAL IMPACT:

The estimated cost for the All-Inclusive Preliminary Engineering (PE) phase of the Project is \$277,739.70. An authorization to Proceed (E-76) has been secured for PE phase of the Project in the amount of \$350,000. This project is 100% funded by Congestion Mitigation Air Quality (CMAQ) funds and there is no local match required for the PE phase of the project. Any unexpended PE Phase monies will be eligible to be transferred into the Construction Phase.

The estimated total cost of the project is \$2,900,000. The Project will be funded through CMAQ Funds and Regional Transportation Impact Fees.

BOARD ACTION AS FOLLOWS:

No. 2011-440

On motion of Supervisor O'Brien, Seconded by Supervisor Withrow  
and approved by the following vote,

Ayes: Supervisors: O'Brien, Chiesa, Withrow, DeMartini, and Chairman Monteith

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:

*Christine Ferraro*

ATTEST:

CHRISTINE FERRARO TALLMAN, Clerk

File No.

Approval to Award a Contract for All-Inclusive Engineering and Project Delivery Services to NorthStar Engineering Group, Inc., for the Crows Landing Road at West Main Street Intersection Upgrade Project in Stanislaus County, Federal Project Number: CML-5938(180)

## **DISCUSSION:**

The scope of project design services includes:

- Comprehensive project management;
- Comprehensive environmental services;
- Comprehensive civil engineering services including: geotechnical investigation, topographical survey, traffic system design, electrical system design and utilities coordination;
- Comprehensive right of way services;
- Public relations and outreach services; and,
- Bidding and construction support services.

The purpose for the Crows Landing Road at West Main Street Intersection Upgrade Project (Project) is to improve safety, capacity, and efficiency at the intersection in an effort to maximize traffic flow to accommodate existing traffic congestion conditions and meet capacity requirements for future growth. The scope of the project includes, but is not limited to:

- Construction of traffic signals at the intersection of Crows Landing Road and West Main Street;
- Widening the individual legs of the intersection in all directions to accommodate the projected traffic demand and traffic movements to include: left turn lanes, approach tapers, deceleration lanes, and lane transitions;
- Providing adequate storm drain runoff control;
- Acquire right of way needed to accommodate the proposed Project improvements, as well as coordinate with relocation of existing utilities; and,
- Incorporating the existing pavement section into the widening, including the relocation of the crown in specific sections, if necessary, and reinforcing the pavement, where required.

On May 27, 2011, five (5) proposals were submitted for review by various local consulting firms. Public Works staff reviewed the proposals and selected NorthStar Engineering Group, Inc. as the most qualified consultant.

Upon Board approval of the project budget, the Department of Public Works will enter into a contract with NorthStar Engineering Group, Inc., not to exceed \$277,739.70, for the Crows Landing Road at West Main Street Intersection Upgrade Project.

## **POLICY ISSUES:**

The Crows Landing Road at West Main Street Intersection Upgrade Project will meet the Board's priorities of providing A Safe Community, A Healthy Community and A Well-Planned Infrastructure System by improving traffic safety and flow in this area of Stanislaus County.

Approval to Award a Contract for All-Inclusive Engineering and Project Delivery Services to NorthStar Engineering Group, Inc., for the Crows Landing Road at West Main Street Intersection Upgrade Project in Stanislaus County, Federal Project Number: CML-5938(180)

**STAFFING IMPACT:**

There are no staffing impacts associated with this item.

**CONTACT PERSON:**

Matt Machado, Public Works Director. Telephone: (209) 525-4130.

DB:sn

L:\ROADS\9729 - Crows Landing Rd at West Main Ave TS\Design\Board\01 Award Design Contract\_BOS 7.19.11

**STANISLAUS COUNTY  
PROFESSIONAL DESIGN SERVICES AGREEMENT**

This Agreement is made and entered into by and between the County of Stanislaus, a political subdivision of the State of California, hereinafter referred to as "County" and North Star Engineering Group, Inc., hereinafter referred to as "Consultant".

**NOW, THEREFORE**, for and in consideration of the mutual covenants and conditions contained herein, the parties hereby agree as follows:

**1.0 PROFESSIONAL SERVICES TO BE PROVIDED BY CONSULTANT**

1.1. Scope of Services: Consultant shall provide the professional services described in the County's Request for Proposal ("RFP") attached hereto as Exhibit "A" and incorporated herein by reference and Consultant's Response to County's RFP (the "Response"). A copy of said Response is attached hereto as Exhibit "B" and incorporated herein by this reference.

1.2. Professional Practices: All professional services to be provided by Consultant pursuant to this Agreement shall be provided by personnel experienced in their respective fields and in a manner consistent with the standards of care, diligence and skill ordinarily exercised by professional consultants in similar fields and circumstances in accordance with sound professional practices. Consultant also represents that it is familiar with all laws that may affect its performance of this Agreement and shall advise County of any changes in any laws that may affect Consultant's performance of this Agreement.

1.3. Representations: Consultant represents that it has reviewed the RFP and that in its professional judgment the services to be performed under this Agreement can be performed within the maximum fee set forth herein below and within the time specified in the Project Schedule attached hereto. Consultant represents that it is qualified to perform the professional services required by this Agreement and possesses the necessary licenses and permits required to perform said services. Consultant represents that it has no interest and shall not acquire any interest direct or indirect which conflicts, or has the appearance of conflicting, in any manner or degree with the performance of the work and services under this Agreement.

1.4. Compliance with Laws. Consultant agrees that it shall perform the services required by this Agreement in compliance with all applicable Federal and California laws including, but not limited to, those laws related to minimum hours and wages; occupational health and safety; fair employment and employment practices; workers' compensation insurance and safety in employment; and all other Federal, State and local laws and ordinances applicable to the services required under this Agreement.

1.5. Non-Discrimination. During the performance of this Agreement, Consultant and its officers, employees, agents, representatives or subcontractors shall not unlawfully discriminate in violation of any federal, state or local law, rule or regulation against any employee, applicant for employment or person receiving services under this Agreement because



of race, religion, color, national origin, ancestry, physical or mental disability, medical condition (including genetic characteristics), marital status, age, political affiliation, sex or sexual orientation. Consultant and its officers, employees, agents, representatives or subcontractors shall comply with all applicable Federal, State and local laws and regulations related to non-discrimination and equal opportunity, including without limitation the County's nondiscrimination policy; the Fair Employment and Housing Act (Government Code sections 12900 et seq.); California Labor Code sections 1101, 1102 and 1102.1; the Federal Civil Rights Act of 1964 (P.L. 88-352), as amended; and all applicable regulations promulgated in the California Code of Regulations or the Code of Federal Regulations.

1.6. Non-Exclusive Agreement. Consultant acknowledges that County may enter into agreements with other consultants for services similar to the services that are subject to this Agreement or may have its own employees perform services similar to those services contemplated by this Agreement.

1.7. Delegation and Assignment. This is a personal service contract, and the duties set forth herein shall not be delegated or assigned to any person or entity without the prior written consent of County. Consultant may engage a subcontractor(s) as permitted by law and may employ other personnel to perform services contemplated by this Agreement at Consultant's sole cost and expense.

1.8. Covenant Against Contingent Fees. Consultant warrants that he/she has not employed or retained any company or person, other than a bona fide employee working for the consultant; to solicit or secure this agreement; and that he/she has not paid or agreed to pay any company or person other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award, or formation of this agreement. For breach or violation of this warranty, the local agency shall have the right to annul this agreement without liability, or at its discretion; to deduct from the agreement price or consideration, or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

## 2.0 COMPENSATION AND BILLING

2.1. Compensation. Consultant shall be paid in accordance with the fee schedule set forth in Exhibit "C", attached hereto and made a part of this Agreement (the "Fee Schedule"). Consultant's compensation shall in no case exceed Two Hundred Seventy-Seven Thousand Seven Hundred Thirty-Nine and 70/100 Dollars (\$277,739.70). Consultant will be compensated on a time and materials basis, based on the hours worked by the Consultant's employees or subcontractors at the hourly rates specified in the Fee Schedule. The Fee Schedule rates include direct salary costs, employee benefits, and overhead. The rates stated in the Fee Schedule are not adjustable during the term of this Agreement. The County may retain ten percent of all periodic or progress payments made to the Consultant until completion and acceptance of all work tasks and County shall have right to withhold payment from Consultant for any unsatisfactory service until such time service is performed satisfactorily.

2.2. Reimbursements. In addition to the aforementioned fees, Consultant will be reimbursed for any expenses specifically set forth in each Project Scope of Work. All such reimbursement amounts are limited to those costs and expenses that are reasonable, necessary and actually incurred by the Consultant in connection with the services provided. The County shall not pay a mark up on any item of reimbursement. The County shall not pay for any item of overhead such as telephone, facsimile, postage, etc. All requests for reimbursement shall be accompanied by a copy of the original invoice.

2.3. Additional Services. Consultant shall not receive compensation for any services provided outside the scope of services specified in Exhibits A and B unless the County or the Project Manager for this Project, prior to Consultant performing the additional services, approves such additional services in writing. It is specifically understood that oral requests and/or approvals of such additional services or additional compensation shall be barred and are unenforceable.

2.4. Method of Billing. Consultant may submit invoices to County's Project Manager for approval on a progress basis, but no more often than once each calendar month. Said invoice shall be based on the total of all Consultants' services that have been completed to County's sole satisfaction. County shall pay Consultant's invoice within forty-five (45) days from the date County receives said invoice. Each invoice shall describe in detail, the services performed and the associated percentage of tasks completed. Any additional services approved and performed pursuant to this Agreement shall be designated as "Additional Services" and shall identify the number of the authorized change order, where applicable, on all invoices.

2.5. Records and Audits. Records of Consultant's services relating to this Agreement shall be maintained in accordance with generally recognized accounting principles and shall be made available to County or its Project Manager for inspection and/or audit at mutually convenient times for a period of three (3) years from the termination of this Agreement.

### **3.0 TIME OF PERFORMANCE**

3.1. Commencement and Completion of Work. The professional services to be performed pursuant to this Agreement shall commence within five (5) days after County delivers its Notice to Proceed. Said services shall be performed in strict compliance with the Project Schedule approved by County as set forth in Exhibit "D", attached hereto and incorporated herein by this reference. The Project Schedule may be amended by mutual agreement of the parties. Failure to commence work in a timely manner and/or diligently pursue work to completion may be grounds for termination of this Agreement.

3.2. Excusable Delays. Neither party shall be responsible for delays or lack of performance resulting from acts beyond the reasonable control of the party or parties. Such acts shall include, but not be limited to, acts of God, fire, strikes, material shortages, compliance with laws or regulations, riots, acts of war, or any other conditions beyond the reasonable control of a party.

#### **4.0 TERM OF CONTRACT AND TERMINATION**

4.1. Term. This Agreement shall commence upon approval by the County's Board of Supervisors and continue until the work required herein is completed, unless previously terminated as provided herein or as otherwise agreed to in writing by the parties.

4.2. Notice of Termination. The County reserves and has the right and privilege of canceling, suspending or abandoning the execution of all or any part of the work contemplated by this Agreement, with or without cause, at any time, by providing written notice to Consultant. The termination of this Agreement shall be deemed effective upon receipt of the notice of termination. In the event of such termination, Consultant shall immediately stop rendering services under this Agreement unless directed otherwise by the County.

4.3. Compensation. In the event of termination, County shall pay Consultant for reasonable costs incurred and professional services satisfactorily performed up to and including the date of County's written notice of termination. Compensation for work in progress shall be prorated as to the percentage of work completed as of the effective date of termination in accordance with the fees set forth in Exhibit "C". In ascertaining the professional services actually rendered hereunder up to the effective date of termination of this Agreement, consideration shall be given to both completed work and work in progress, to complete and incomplete drawings, and to other documents pertaining to the services contemplated herein whether delivered to the County or in the possession of the Consultant.

4.4. Documents. In the event of termination of this Agreement, all documents prepared by Consultant in its performance of this Agreement including, but not limited to, finished or unfinished design, development and construction documents, data studies, drawings, maps and reports, shall be delivered to the County within ten (10) days of delivery of termination notice to Consultant, at no cost to County. Any use of uncompleted documents without specific written authorization from Consultant shall be at County's sole risk and without liability or legal expense to Consultant.

#### **5.0 INSURANCE REQUIREMENTS**

5.1. Minimum Scope and Limits of Insurance. Consultant, at its sole cost and expense, for the full term of this Agreement (and any extensions thereof), shall obtain and maintain, at minimum, compliance with all of the following insurance coverage(s) and requirements. If Consultant normally carries insurance in an amount greater than the minimum amount listed below, that greater amount shall become the minimum required amount of insurance for purposes of this Agreement. The insurance listed below shall have a retroactive date of placement prior to, or coinciding with, the date services are first provided that are governed by the terms of this Agreement:

- (a) Comprehensive general liability, including premises-operations, products/ completed operations, broad form property damage, blanket contractual liability,

independent contractors, personal injury with a policy limit of not less than Two Million Dollars (\$2,000,000.00), combined single limits, per occurrence and aggregate. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to any act or omission by Consultant under this Agreement or the general aggregate limit shall be twice the required occurrence limit.

(b) Automobile liability for owned vehicles, hired, and non-owned vehicles, with a policy limit of not less than One Million Dollars (\$1,000,000.00), combined single limits, per occurrence and aggregate.

(c) Workers' compensation insurance as required by the State of California.

(d) Professional errors and omissions ("E&O") liability insurance with policy limits of not less than Two Million Dollars (\$2,000,000.00), combined single limit for each occurrence. If Consultant cannot provide an occurrence policy, Consultant shall provide insurance covering claims made as a result of performance of Work on this Project and shall maintain such insurance in effect for not less than three years following Final Completion of the Project.

5.2. Endorsements. The Consultant shall obtain a specific endorsement to all required insurance policies, except Professional Liability insurance, naming the County of Stanislaus, its Officers, Directors, Officials, Agents, Employees and Volunteers as additional insureds for at least three years after the completion of the work to be performed under this Agreement, but, to the extent that any insurance issued to Consultant in effect after the expiration of three years provides additional insured coverage to parties Consultant agreed in writing to name as an additional insured, then Consultant shall have the obligation under this contract to obtain such additional insured coverage for the County, under any and all policies Consultant has regarding:

- (a) Liability arising from or in connection with the performance or omission to perform any term or condition of this Agreement by or on behalf of the Consultant, including the insured's general supervision of its subcontractors;
- (b) Ongoing services, products and completed operations of the Consultant;
- (c) Premises owned, occupied or used by the Consultant; and
- (d) Automobiles owned, leased, hired or borrowed by the Consultant.
- (e) For Workers' Compensation insurance, the insurance carrier shall agree to waive all rights of subrogation against the County, its officers, officials and employees for losses arising from the performance of or the omission to perform any term or condition of this Agreement by the Consultant.

5.3. Deductibles: Any deductibles, self-insured retentions or named insureds must be declared in writing and approved by County. At the option of the County, either: (a) the insurer shall reduce or eliminate such deductibles, self-insured retentions or named insureds, or (b) the Consultant shall provide a bond, cash, letter of credit, guaranty or other security satisfactory to the County guaranteeing payment of the self-insured retention or deductible and payment of any and all costs, losses, related investigations, claim administration and defense expenses. The County, in its sole discretion, may waive the requirement to reduce or eliminate deductibles or self-insured retentions, in which case, the Consultant agrees that it will be responsible for and pay any self-insured retention or deductible and will pay any and all costs, losses, related investigations, claim administration and defense expenses related to or arising out of the

Consultant's defense and indemnification obligations as set forth in this Agreement.

5.4. Certificates of Insurance: At least ten (10) days prior to the date the Consultant begins performance of its obligations under this Agreement, Consultant shall furnish County with certificates of insurance, and with original endorsements, showing coverage required by this Agreement, including, without limitation, those that verify coverage for subcontractors of the Consultant. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements shall be received and, in County's sole and absolute discretion, approved by County. County reserves the right to require complete copies of all required insurance policies and endorsements, at any time.

5.5. Non-limiting: Nothing in this Section or the insurance described herein shall be construed as limiting in any way, the indemnification provisions contained in this Agreement, or the liability of Consultant and Consultant's officers, employees, agents, representatives or subcontractors for payments of damages to persons or property.

5.6. Primary Insurance: The Consultant's insurance coverage shall be primary insurance regarding the County of Stanislaus, its Officers, Directors, Officials, Agents, Employees and Volunteers. Any insurance or self-insurance maintained by the County of Stanislaus, its Officers, Directors, Officials, Agents, Employees and Volunteers shall be excess of the Consultant's insurance and shall not contribute with Consultant's insurance. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the County or its officers, officials and employees. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability. Any and all insurances cared by it shall be deemed liability coverage for any and all actions it performs in connection with this Contract.

5.7. Cancellation of Insurance: Each insurance policy required by this section shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party except after thirty (30) days prior written notice has been given to County. The Consultant shall promptly notify, or cause the insurance carrier to promptly notify, the County of any change in the insurance policy or policies required under this Agreement, including, without limitation, any reduction in coverage or in limits of the required policy or policies. Consultant shall maintain such coverage in effect for three (3) years after substantial completion of the project to the extent it is commercially available at reasonable rates.

5.8. California Admitted Insurer: Insurance shall be placed with California admitted insurers (licensed to do business in California) with a current rating by Best's Key Rating Guide of no less than A-VII; provided, however, that if no California admitted insurance company provides the required insurance, it is acceptable to provide the required insurance through a United States domiciled carrier that meets the required Best's rating and that is listed on the current List of Eligible Surplus Line Insurers maintained by the California Department of Insurance.

5.9. Subcontractors: Consultant shall require that all of its subcontractors are subject to the insurance and indemnity requirements stated herein, or shall include all subcontractors as

additional insureds under its insurance policies.

## **6.0 INDEMNIFICATION**

6.1. **Indemnification:** To the fullest extent allowed by law, Consultant shall defend, indemnify, and hold harmless the County and its officers, directors, officials, agents, employees, volunteers and representatives (collectively, "Indemnitee") from and against any and all claims, suits, actions, losses, injuries, damages or expenses of every name, kind, and description, including litigation costs and reasonable attorney's fees incurred, (collectively, "losses") which are founded upon, arise out of, pertain to, or relate to, directly or indirectly, in whole or in part, the alleged negligence, recklessness, or willful misconduct of Consultant, its officers, agents, employees, volunteers, representatives, contractors and subcontractors, excluding, however, such liabilities caused in part by the sole negligence, active negligence or willful misconduct of the County, its agents, employees, and representatives. These indemnification obligations shall not be limited by any assertion or finding that (1) the person or entity indemnified is liable by reason of non-delegable duty, or (2) the losses were caused in part by the negligence of, breach of contract by, or violation of law by Indemnitee. Nothing in this Agreement, including the provisions of this paragraph, shall constitute a waiver or limitation of any rights which Indemnitee may have under applicable law, including without limitation, the right to implied indemnity.

6.2. **Duty to Defend:** The duty of Consultant to indemnify and save harmless as set forth herein, shall include both the duty to indemnify and at Consultant's own cost and expense the duty to defend as set forth in Section 2778 of the California Civil Code and as limited in section 2782.8 of the California Civil Code. This duty to defend arises immediately when such claim is made and shall be independent of any finding of negligence and shall arise regardless of any claim or assertion that Indemnitee caused or contributed to the Losses. Consultant shall provide legal counsel acceptable to the County.

6.3. **Duty to Cooperate:** Each party shall notify the other party within ten (10) days in writing of any claim or damage related to activities performed under this Agreement. The parties shall cooperate with each other in the investigation and disposition of any claim arising out of the activities under this Agreement. Specifically, Consultant shall take all steps necessary to assist the County in the defense of any claim brought by a contractor hired to construct the Project regarding any errors, flaws, and/or omissions in the plans or specifications of the Project.

6.4. **Patent Rights:** Consultant represents that professional services provided by Consultant pursuant to this Agreement does not infringe on any other copyrighted work. Consultant shall defend, indemnify and hold harmless the County from all loss, cost, damage, expense, liability or claims, including attorneys' fees, court costs, litigation expenses and expert consultant or witness fees, that may at any time arise for any infringement of the patent rights, copyright, trade secret, trade name, trademark, service mark or any other proprietary right of any person or persons in consequence of the use by the County of any articles or services supplied under this agreement.

6.5. The foregoing provisions shall survive the term and termination of this Agreement.

## 7.0 GENERAL PROVISIONS

7.1. Entire Agreement: This Agreement constitutes the entire Agreement between the parties with respect to any matter referenced herein and supersedes any and all other prior writings and oral negotiations. This Agreement may be modified only in writing, and signed by the parties in interest at the time of such modification. The terms of this Agreement shall prevail over any inconsistent provision in any other contract document appurtenant hereto, including exhibits to this Agreement.

7.2. Representatives. The Director of the Stanislaus County Department of Public Works, or his designee, shall be the representative of County for purposes of this Agreement and may issue all consents, approvals, directives and agreements on behalf of the County, called for by this Agreement, except as otherwise expressly provided in this Agreement. Consultant shall designate a representative for purposes of this Agreement who shall be authorized to issue all consents, approvals, directives and agreements on behalf of Consultant called for by this Agreement, except as otherwise expressly provided in this Agreement.

7.3. Project Managers. County shall designate a Project Manager to work directly with Consultant in the performance of this Agreement. Consultant shall designate a Project Manager who shall represent it and be its agent in all consultations with County during the term of this Agreement. Consultant or its Project Manager shall attend and assist in all coordination meetings called by County.

7.4. Designated Personnel: A material covenant of this agreement is that the Consultant shall assign the individuals designated below to perform the functions designated so long as they continue in the employ of the Consultant. The designated individuals shall, so long as their performance continues to be acceptable to County, remain in charge of the services for the Project from beginning through completion of services.

- a. Project Manager: Jeff Black, P.E. 66645
- b. Lead/Manager: N/A

7.5. Removal of Personnel or Sub-Consultants: If the County, in its sole discretion at any time during the term of this agreement, desires the removal of any person or sub-consultant assigned by Consultant to perform services, then the Consultant shall remove such person or consultant immediately upon receiving notice from the County.

7.6. Notices: Any notices, documents, correspondence or other communications concerning this Agreement or the work hereunder may be provided by personal delivery, facsimile or mail and shall be addressed as set forth below. Such communication shall be deemed served or delivered: a) at the time of delivery if such communication is sent by personal delivery; b) at the time of transmission if such communication is sent by facsimile; and c) 48 hours after deposit in the U.S. Mail as reflected by the official U.S. postmark if such communication is sent

through regular United States mail.

**If to County:**

Stanislaus County, Department of Public Works  
Attn: Linda Allsop, Contracts Administrator  
1716 Morgan Road  
Modesto, California 95358  
Phone: (209) 525-4157  
Fax: (209) 541-2506

**If to Consultant:**

North Star Engineering Group, Inc.  
Attn: Jeff Black, Project Manager  
909 14<sup>th</sup> Street  
Modesto, CA 95354  
Phone: (209) 524-3525  
Fax: (209) 524-3526

7.7. Attorneys' Fees: In the event that litigation is brought by any party in connection with this Agreement, the prevailing party shall be entitled to recover from the opposing party all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party in the exercise of any of its rights or remedies hereunder or the enforcement of any of the terms, conditions, or provisions hereof.

7.8. Governing Law: This Agreement shall be governed by and construed under the laws of the State of California without giving effect to that body of laws pertaining to conflict of laws. In the event of any legal action to enforce or interpret this Agreement, the parties hereto agree that the sole and exclusive venue shall be a court of competent jurisdiction located in Stanislaus County, California.

7.9. Assignment: Consultant shall not voluntarily or by operation of law assign, transfer, sublet or encumber all or any part of Consultant's interest in this Agreement without County's prior written consent. Any attempted assignment, transfer, subletting or encumbrance shall be void and shall constitute a breach of this Agreement and cause for termination of this Agreement. Regardless of County's consent, no subletting or assignment shall release Consultant of Consultant's obligation to perform all other obligations to be performed by Consultant hereunder for the term of this Agreement.

7.10. Independent Contractor: Consultant is and shall be acting at all times as an independent contractor and not as an employee of County. Consultant shall secure, at his expense, and be responsible for any and all payment of Income Tax, Social Security, State Disability Insurance Compensation, Unemployment Compensation, and other payroll deductions for Consultant and its officers, agents, and employees, and all business licenses, if any are required, in connection with the services to be performed hereunder. Consultant hereby indemnifies and holds County harmless from any and all claims that may be made against County based upon any contention by any third party that an employer-employee relationship exists by reason of this Agreement.

7.11. Confidentiality: The Consultant agrees to keep confidential all information obtained or learned during the course of furnishing services under this Agreement and to not disclose or reveal such information for any purpose not directly connected with the matter for which services are provided.

7.12. Ownership of Documents: Any interest, including copyright interests, of Consultant or its contractors or subconsultants in studies, reports, memoranda, computational



sheets, drawings, plans or any other documents, including electronic data, prepared in connection with the Services, shall be the property of County. To the extent permitted by law, work product produced under this Agreement shall be deemed works for hire and all copyrights in such works shall be the property of the County. In the event that it is ever determined that any works created by Consultant or its subconsultants under this Agreement are not works for hire, Consultant hereby assigns to County all copyrights to such works. With the County's prior written approval, Consultant may retain and use copies of such works for reference and as documentation of experience and capabilities.

7.13. Reuse of Design Documents: Should the County desire to reuse the documents specified above and not use the services of the Consultant, then the County agrees to require the new consultant to assume any and all obligations for the reuse of the documents, and the County releases Consultant and its subconsultants from all liability associated with the reuse of such documents.

7.14. Public Records Act Disclosure: Consultant has been advised and is aware that all reports, documents, information and data including, but not limited to, computer tapes, discs or files furnished or prepared by Consultant, or any of its subcontractors, and provided to County may be subject to public disclosure as required by the California Public Records Act (California Government Code Section 6250 et. seq.). Exceptions to public disclosure may be those documents or information that qualifies as trade secrets, as that term is defined in the California Government Code Section 6254.7, and of which Consultant informs County of such trade secret. The County will endeavor to maintain as confidential all information obtained by it that is designated as a trade secret. The County shall not, in any way, be liable or responsible for the disclosure of any trade secret including, without limitation, those records so marked if disclosure is deemed to be required by law or by order of the Court.

7.15. Responsibility for Errors: Consultant shall be responsible for its work and results under this Agreement. Consultant, when requested, shall furnish clarification and/or explanation as may be required by the County's representative, regarding any services rendered under this Agreement at no additional cost to County. In the event that an error or omission attributable to Consultant occurs, then Consultant shall, at no cost to County, provide all necessary design drawings, estimates and other Consultant professional services necessary to rectify and correct the matter to the sole satisfaction of County and to participate in any meeting required with regard to the correction.

7.16. Order of Precedence: In the event of an inconsistency in this Agreement and any of the attached Exhibits, the terms set forth in this Agreement shall prevail. If, and to the extent this Agreement incorporates by reference any provision of the RFP or the Response, such provision shall be deemed a part of this Agreement. Nevertheless, if there is any conflict among the terms and conditions of this Agreement and those of any such provision or provisions so incorporated by reference, this Agreement shall govern over both the Response and the RFP and the Response shall govern over the RFP.

7.17. Costs: Each party shall bear its own costs and fees incurred in the preparation and negotiation of this Agreement and in the performance of its obligations hereunder except as expressly provided herein.

7.18. No Third Party Beneficiary Rights: This Agreement is entered into for the sole benefit of County and Consultant and no other parties are intended to be direct or incidental beneficiaries of this Agreement and no third party shall have any right in, under or to this Agreement.

7.19. Construction: The parties have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises with respect to this Agreement, this Agreement shall be construed as if drafted jointly by the parties and in accordance with its fair meaning. There shall be no presumption or burden of proof favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

7.20. Amendments: This Agreement may be amend only by a writing executed by the parties hereto or their respective successors and assigns.

7.21. Waiver: The delay or failure of either party at any time to require performance or compliance by the other of any of its obligations or agreements shall in no way be deemed a waiver of those rights to require such performance or compliance. No waiver of any provision of this Agreement shall be effective unless in writing and signed by a duly authorized representative of the party against whom enforcement of a waiver is sought. The waiver of any right or remedy in respect to any occurrence or event shall not be deemed a waiver of any right or remedy in respect to any other occurrence or event, nor shall any waiver constitute a continuing waiver.

7.22. Severability: If any provision of this Agreement is determined by a court of competent jurisdiction to be unenforceable in any circumstance, such determination shall not affect the validity or enforceability of the remaining terms and provisions hereof or of the offending provision in any other circumstance. Notwithstanding the foregoing, if the value of this Agreement, based upon the substantial benefit of the bargain for any party is materially impaired, which determination as made by the presiding court or arbitrator of competent jurisdiction shall be binding, then both parties agree to substitute such provision(s) through good faith negotiations.

7.23. Counterparts: This Agreement may be executed in one or more counterparts, each of which shall be deemed an original. All counterparts shall be construed together and shall constitute one agreement.

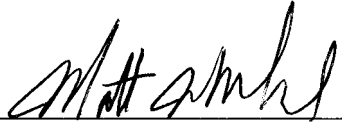
7.24. Corporate Authority: The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by doing so, the parties hereto are formally bound to the provisions of this Agreement.


(SIGNATURES ON THE NEXT PAGE)

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by and through their respective authorized officers:

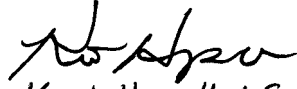
COUNTY OF STANISLAUS

NORTH STAR ENGINEERING GROUP, INC.

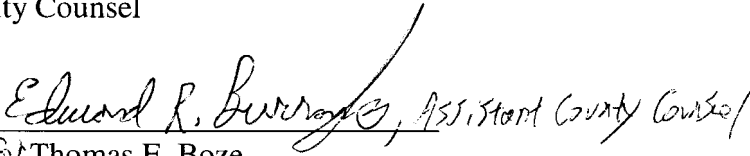
By:   
Matt Machado, Director  
Department of Public Works

By:  4-10-11  
Jeff Black, P.E. 66645  
Project Manager

Resolution No. 2011-440  
Date: 7-19-2011

  
Kent Hysell, L.S. 0953  
Principal

APPROVED AS TO FORM:  
John P. Doering  
County Counsel

By:   
for Thomas E. Boze  
Deputy County Counsel

**EXHIBIT A**

**COUNTY'S REQUEST FOR PROPOSAL**



**DEPARTMENT OF PUBLIC WORKS**

**Matt Machado, PE**  
Director

**Laurie Barton, PE**  
Deputy Director, Engineering/Operations

**Diane Haugh**  
Assistant Director, Business/Finance

1716 Morgan Road, Modesto, CA 95358  
Phone: 209.525.4130 Fax: 209.541.2505

[www.stancounty.com/publicworks](http://www.stancounty.com/publicworks)

**STANISLAUS COUNTY  
DEPARTMENT OF PUBLIC WORKS**

**REQUEST FOR PROPOSALS FOR  
CROWS LANDING ROAD AT WEST MAIN STREET INTERSECTION UPGRADE  
PROJECT  
ALL-INCLUSIVE CONSULTING SERVICES**

**FEDERAL PROJECT NO.: 5938(180)**

Invitation Date: May 5, 2011

Proposal Due Date: May 27, 2011

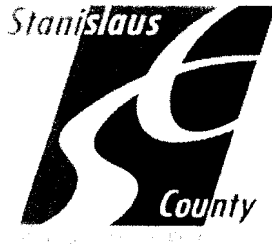
This notice is to inform you that Stanislaus County Department of Public Works is soliciting a Request for Proposal (RFP) for All-Inclusive Consulting Services for the Crows Landing Road at West Main Street Intersection Upgrade Project located in Stanislaus County.

Please note, the selection process will follow Public Works' procedures for consultant selection, which generally follow Caltrans procedures. Consultants are chosen based on qualifications and the quality of the proposal as shown in the attached "Attachment-7".

If you should have any questions regarding this request for proposal, please contact me via email at [bazyukd@stancounty.com](mailto:bazyukd@stancounty.com). All questions regarding this proposal must be submitted in writing either by fax or email.

Sincerely,

Denis Bazyuk, PE



STANISLAUS COUNTY  
DEPARTMENT OF PUBLIC WORKS

**REQUEST FOR PROPOSALS FOR  
CROWS LANDING ROAD AT WEST MAIN STREET INTERSECTION UPGRADE  
PROJECT  
ALL-INCLUSIVE CONSULTING SERVICES  
Federal Project No.: 5938(180)**

Stanislaus County Department of Public Works is requesting proposals from qualified consultants to provide consulting services for all-inclusive (turn-key) project design. This includes but is not limited to:

1. Comprehensive project management
2. Comprehensive environmental services and technical studies necessary for complying with all environmental regulations and requirements applicable to this project. These requirements may include, but are not limited to, various requirements and regulations set forth by National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and any applicable environmental permits
3. Comprehensive civil engineering services including:
  - a. Geotechnical investigation
  - b. Surveying: Horizontal control must be North American Datum 1983 (NAD83). Vertical control must be North American Vertical datum of 1988 (NAVD88). As final deliverables (100% design), the consultant will provide the County with project CAD files in electronic format. The CAD files, including all topographical data, topographical surfaces, points, alignments, sites, corridors, and pipe networks must be in AutoCAD Civil 3D 2010 format. In addition, the CAD files must be consistent with the County CAD standards which will be available to the selected consultant after the contract is awarded.
  - c. Traffic design
  - d. Electrical design
  - e. Utilities design and relocation coordination: Consultant will be responsible for coordinating the relocations of all affected utilities prior to construction.
4. Comprehensive right of way services, including right of way acquisition, right of entry agreements, temporary construction easements, etc.
5. Public relations and outreach services

Proposals will be reviewed and evaluated by County staff for the firms that the selection committee has determined are the most qualified to perform the work.

**PROJECT DESCRIPTION<sup>1</sup>:**

The purpose for the Crows Landing Road at West Main Street Intersection Upgrade Project (Project) is to improve safety, capacity, and efficiency at the intersection in an effort to maximize traffic flow throughout the County road network system to accommodate existing traffic congestion conditions and meet capacity requirements for future growth. The following includes, but is not limited to, the components of the scope of the project:

- Construction of traffic signals at the intersection of Crows Landing Road and West Main Street
- Widening the individual legs of the intersection in all directions to accommodate the projected traffic demand and traffic movements to include: left turn lanes, approach tapers, deceleration lanes, and lane transitions
- Providing adequate storm drain runoff control
- Acquire right of way needed to accommodate the proposed Project improvements, as well as coordinate with relocation of existing utilities
- Incorporating the existing pavement section into the widening, including the relocation of the crown in specific sections, if necessary, and reinforcing the pavement, where required

Schedule<sup>2</sup>:

Consultant Selection:	May 2011 – June 2011
Design:	August 2011 – September 2012
Environmental:	August 2011 – September 2012
Right-of-Way:	November 2011 - March 2013
Construction:	July 2013 - October 2014
Project Close:	November 2014 - December 2014

**SCOPE OF WORK:**

This RFP does not identify specific tasks. The Consultant must be knowledgeable and experienced in the substantive and procedural requirements for applicable environmental, and project permitting. Elements of the All-Inclusive Consulting Services for the Project include, but are not limited, to the following.

- **PROJECT MANAGEMENT:** The scope of comprehensive project management includes, but is not limited to, project management, quality control, and efficiently managing schedules of any sub-consultants involved in the Project. Ultimately, the Consultant will be responsible

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<sup>1</sup> For a more in depth project description see attached Project Design Study (PDS). Note, though attached PDS shows various project alternates, the proposal responding to this RFP shall only be based on project "Alternate 2".

<sup>2</sup> This schedule is approximate, and is subject to change.

for completing all Project tasks in timely fashion and to diligently follow the anticipated schedule set forth for this Project.

- **PUBLIC OUTREACH:** Perform necessary public outreach, including community education on the importance the Project, and the current condition of the existing project location.
- **GEOTECHNICAL INVESTIGATION:** Provide a geotechnical report for the site as required for the completion of design, construction documents and permit applications. At a minimum, the geotechnical report shall include soil data, percolation tests (percolation rate expressed in (gal/ft<sup>2</sup>)/day), R-values, and, if necessary, a recommendation for pavement structural section.
- **TOPOGRAPHICAL SURVEY:** Perform a Topographic and Property Boundary Survey as needed. For these activities the Consultant will work in close coordination with the County. All Surveying and Mapping shall be in compliance with the provisions of the Professional Land Surveyors Act, Sections 8700 to 8805 Business and Professions Code, the provisions of the California Coordinate System, Sections 8801 through 8819 of the Public Resources Code and any other applicable code in the State of California. The project coordinates shall be based on Zone III, California Coordinate System of North American Datum of 1983. The Consultant will work closely with County staff to determine the primary vertical datum to be used.
  - o If necessary, the design shall include any legal descriptions and plats for temporary construction easements, staging areas and disposal areas for excess soil generated by project construction. The Consultant will include and verify any existing surveys, specify existing and proposed Right of Ways, land dedications and easement agreements. At a minimum the Consultant will verify property lines at those locations where any portion of the project infringes upon the required setback limits or lies within 50 feet of project improvements, work areas, storage and staging areas. Consultant should plan on filing a record of survey for the any new right of way acquired.
  - o The Consultant shall conduct a field topographical survey to be used for the roadway design. The survey shall also include boundary lines and monumentation necessary to prepare right of way maps. Consultant shall prepare a final right of way map and legal descriptions for use by the County in the acquisition of all necessary parcels and easements.
- **ENVIRONMENTAL INVESTIGATIONS:** The Consultant shall perform a variety of environmental investigations to State and Federal standards to assist in the preparation of the final NEPA and CEQA documents. Preparation of a Preliminary Environmental Study (PES) will be required once a consultant is selected. Listed below is an outline of the anticipated environmental studies that will be necessary to satisfy the final environmental documents and resource permitting requirements:



- o Consultant shall identify in their proposal what in their experience the level of the NEPA/CEQA documents necessary for approval and why. The Consultant will be required to communicate with the appropriate governmental agencies and provide information as necessary. Caltrans Environmental will be responsible for preparing the final NEPA determination. The consultant will be responsible for coordinating the requirements of NEPA and CEQA to reduce duplication of tasks.
- o If necessary provide scope and fee for:

**Area of Potential Effects (APE) Map:** This map outlines the area that will be impacted as a result of the project, including staging and construction access. A base map will be provided by the County, and the Consultant shall coordinate with the County to identify and present the APE for the project. Cultural resources identified by the Consultant shall be depicted on the APE. The APE shall be approved by Caltrans and the FHWA prior to completion of the HPSR.

**Archeological Study:** An Archeological Study Report (ASR) or a Negative Archeology Study Report (NASR) shall be prepared by a qualified archeologist. This report shall include a record search at the Northwest Information Center, a pedestrian survey, and consultation with Native Americans.

**Architectural Study:** A Historic Resources Evaluation Report shall be prepared for the properties within the Architectural APE. The Architectural APE is generally the first row of buildings adjacent to the project area. The report shall be prepared by a qualified architectural historian. Buildings built in 1957 are exempt from evaluation and should be treated in accordance with Caltrans' June 14, 2002 "Interim Policy for the Treatment of Buildings Constructed in 1957 or Later."

- **ROADWAY DESIGN:** The Consultant shall perform roadway design in accordance to the latest version of the Caltrans Highway Design Manual and City/County design standards and prepare design plans for construction. Design shall include details for traffic control plans in accordance with the Caltrans Manual of Uniform Traffic Control Devices.
- **UTILITY COORDINATION:** The Consultant shall locate all utilities in the area with the topographical survey and determine all potential conflicts. Consultant shall coordinate all relocations required with construction with the affected utility companies.
- **PLANS, SPECIFICATIONS, AND ESTIMATE (PS&E)**
  - o **Plans:** Project plans prepared by the Consultant shall include a complete set of plans at the 30%, 60%, 90% , and 100% level. All identified and affected existing utilities shall be accurately indicated on the plans. 100% PS&E will be let with a subsequent contract after PA&ED are complete. Plans at 60% should be of sufficient level to start right-of-way acquisition.

- **First submittal:** The PS&E shall be 30 percent complete, including utility relocation issues, hydraulic impacts, structural calculations, proposed mitigation and outline of potential conflicts. In addition, a construction cost estimate shall be submitted. Submit two copies of each to the County for review, one of which will be returned to the Consultant with any necessary revision notes.
- **Second submittal:** PS&E shall be 60 percent complete, including utilities relocation, and incorporate all revisions or indicate items previously commented upon or requested by County. Submit two copies of each to County for review and final revisions. Any further County revisions will be returned to the Consultant within two weeks. Correspondingly, the Consultant is required to revise or justify any necessary specific plan changes within two weeks from receipt of the County's second returned submittal. At this time it is anticipated that utility relocation requirements will be formally sent by this County to the appropriate utility companies and that formal property owner access/easements negotiations will commence.
- **Third submittal:** PS&E shall be 90 percent complete and incorporate all revisions or indicate items previously commented upon or requested by County. Submit two copies of each to County for review and final revisions. Any further County revisions will be returned to the Consultant within two weeks. Correspondingly, the Consultant is required to revise or justify any necessary specific plan changes within two weeks from receipt of the County's second returned submittal.
- **Fourth submittal:** Future contract - PS&E shall be 100 percent complete. Plan submittal and specifications must be provided in a digital format. Plans shall be produced in a format readable by Auto Desk Civil 3D, release 2010. Specifications shall be readable in Microsoft Word 2003. Provide one set of plans printed in black ink on mylar. The sheet size shall be 24"x 36" with County provided borders. All sheets shall be uniform size as specified on the County Design Criteria. The sheet format shall be coordinated such that all CADD drafting standards including pen widths, line weights, linetypes and plot styles with the County so that the Consultants work can be incorporated into the County's plan set for bidding and construction purposes. Standard Caltrans abbreviations shall be strictly used throughout. The project engineer shall affix an original wet signature to each plan sheet with date. The plans shall be in a format to allow construction staking directly from the plans.
- o **Specifications:** Consultant shall prepare Special Provisions relevant to the Project that will be used by the County to advertise and construct the project. Three hard copies and one electronic copy on a CD of Special Provisions shall be delivered to the County after 100% plans are ready and signed by the engineer.
- o **Estimate:** Project estimate prepared by the Consultant shall use Caltrans standard bid item descriptions wherever possible. Three hard copies and one electronic copy on a CD of final signed and stamped engineer's estimate s shall be delivered to the County after 100% plans are signed by the engineer. Note, the County will use engineer's estimate to

prepare bid quantities that will be released to public during project advertisement for construction. The consultant/engineer shall be responsible and accountable for the accuracy of the final engineer's estimate. It is highly ideal that the lowest bid for construction is below engineer's estimate.

- **RIGHT OF WAY SERVICES**

- o Consultant shall be responsible for identifying any private right of way that may be affected by the Project. Consultant shall coordinate with property owners and County to acquire any required right of way in timely fashion. Consultant shall plan right of way acquisition so that all right of way acquisitions are complete by the time final plans are delivered to the County. At that time, the Consultant shall prepare Right of Way Certification per Caltrans guidelines and deliver it to the County.
- o Consultant shall be responsible for appraisal, appraisal review, acquisition/negotiation, and if necessary, relocation assistance. The County is seeking consultants who are able to perform and coordinate all of these tasks.
- o The following are minimum estimated right of way tasks:
  - **Task 1 – Real Property Appraiser:** The Real Property Appraiser shall be responsible for preparation of Summary Appraisal Reports to determine the fair market value of the rights to be acquired from each property and prepared in accordance to professional standards, Uniform Standards of Professional Appraisal Practice (USPAP), the Caltrans Right-of-Way Manual, and all applicable laws and regulations. Each property appraisal shall be separately bound and prepared in a "stand-alone" format suitable for furnishing to the associated property owners per Caltrans' requirements. The comparable sales analysis shall be in chart format with accompanying analysis in narrative form. Comparable data shall be verified with parties to the transaction.

Appraisers shall be available for support for any County eminent domain litigation, including, but not limited to, preparation of appraisal summary statements and related supporting declarations; providing updated statements of valuation; assistance of counsel by providing expert witness analysis and review of defendant's property valuation information; preparation for, attendance, and testimony at deposition mediation, and trial proceedings as required. Your proposal should address how you would charge the County for this type of work.

Real Property Appraiser Responsibilities under the Uniform Act:

1. Property owner must be notified in writing of Agency's decision to appraise.
2. Property owner or designee must be given opportunity to accompany appraiser during property inspection.
3. Responsibility of sending Title VI information.

4. Diary entry of notifications and contacts.
5. Appraisal to contain minimum recognized standards for public acquisition (Zoning, Property Rights to be acquired, Highest and Best Use Analysis, Verified Comparables, Improvements Acquired, Damages, Cost-to-Cure, etc.)
6. All appraisals must contain Appraiser and Review Appraiser Certificates.

The Real Property Appraiser must meet the following minimum qualifications and must possess:

1. Appropriate Appraisal license as issued by the California Office of Real Estate Appraisers in accordance to the degree, complexity, and value of the appraisal required: a) Residential License for any noncomplex 1-4 family property with value of \$1 million and Nonresidential property with a transaction value up to \$250,000. b) Certified Residential for any 1-4 family property without regard to transaction value or complexity; and Nonresidential property with a transaction value up to \$250,000. c) Certified General for all real estate without regard to transaction value or complexity.
  2. Minimum two (2) years' experience in appraisal of rights for eminent domain purposes.
  3. Successful completion of a course in appraisal of partial acquisitions for public agencies.
  4. Successful completion of a course in the Uniform Relocation and Real Property Acquisition Policies Act taught by a recognized organization.
  5. Successful completion of a course in State Eminent Domain Law taught by a recognized organization.
  6. Specific knowledge and experience appropriate for the type of assignment.
- **Task 2 – Review Appraiser:** The Review Appraiser shall be responsible for the preparation of independent and objective written reviews of the Real Property Appraiser's reports. Reviews will be completed in the form of a Review Appraiser Certificate (Exhibit 7-EX-24D of the Caltrans Right-of-Way Manual) for each subject property appraisal in order to ensure appraisal quality and procedure. All reviews will adhere to professional standards, USPAP and the Caltrans Right-of-Way Manual and all applicable laws and regulations. The Review Appraiser will recommend approval of the reported values to the Department of Transportation and Public Works to govern negotiation and settlement. The Review Appraiser must not be the same individual as the initial Real Property Appraiser.

Review Appraiser Responsibilities under the Uniform Act:

1. Confirmation of Analysis of Highest and Best Use, Damages, and Cost to Cure Damages.
2. Confirmation of Valuation.
3. Confirmation of Calculations and Report Integrity.

4. Prepare signed statement certifying value of appraisal reviewed, including an explanation of the basis for recommendation.

Review Appraiser must meet the following minimum qualifications and must possess:

1. Certified Residential License for any 1-4 family property without regard to transaction value or complexity; and Nonresidential property with a transaction value up to \$250,000 or
  2. Certified General License for all real estate without regard to transaction value or complexity.
  3. Minimum two (2) years experience in reviewing appraisals for eminent domain purposes.
  4. Successful completion of courses in the Uniform Relocation and Real Property Acquisition Policies Act and State Eminent Domain Law taught by recognized organizations.
  5. Specific knowledge and experience appropriate for the type of assignment.
- **Task 3 – Acquisition Specialist:** The Acquisition Specialist shall be responsible for “good faith negotiations” with property owners for the purchase of right-of-way based on values established in the reviewed and approved appraisals. The Acquisition Specialist shall adhere to all professional standards, the Caltrans Right-of-Way Manual, and all applicable laws and regulations. The Acquisition Specialist shall be responsible for preparation of all written correspondence, applicable forms and County’s standard purchase agreements; coordination with County staff; performance of notary services related to the signing of acquisition documents; escrow coordination with County’s selected title company; assisting County’s Supervising Right of Way Agent with Right of Way Certification, completion of final close-out work per Caltrans requirements; and maintenance of all acquisition files including acquisition diaries.

Acquisition Specialist Responsibilities under the Uniform Act:

1. Ensure establishment of just compensation by local agency prior to initiation of negotiations.
2. Expeditious acquisition within 30 days of approved appraisal.
3. First Written Offer should be presented in person when possible.
4. Caltrans requires that a copy of the appraisal report shall be provided to the owner with the First Written Offer; a Summary Statement (basis for the appraisal) is optional in this case.
5. Owner to be given reasonable time to consider offer and present material relevant to value determination.
6. Payment is required before taking possession unless date of possession clause is used in contract.
7. Local agency is responsible for payment of all incidental expenses (title, escrow, surveys, prepayment penalties, etc.)

8. Preparation of Administrative Settlements when it is reasonable and in the public interest
9. Diary entries including confirmation of delivering Title VI information.

Acquisition Specialist must meet the following minimum qualifications and must possess:

1. Real Estate Broker's or Salesperson's License (when under the direct supervision of a Real Estate Broker) as issued by the California Department of Real Estate (required by law). All Right of Way Contracts must be approved for content and signed or initialed by the Real Estate Broker.
  2. Minimum two (2) years experience in the acquisition of rights for eminent domain purposes.
  3. Successful completion of courses in the Uniform Relocation and Real Property Acquisition Policies Act and State Eminent Domain Law taught by recognized organizations. By signing the Right of Way Contract, the Broker or Principal of the Company acknowledges responsibility for maintaining a complete file on each parcel.
- **Task 4 – Relocation Specialist:** Responsible for providing relocation assistance to displaced parties, if any, resulting from an acquisition of right-of-way and conducted per applicable professional standards and the Caltrans Right-of-Way Manual and all applicable laws and regulations.

Relocation Specialist must meet the following minimum qualifications and should possess:

1. Minimum two (2) years experience at the working level providing public agency relocation assistance.
2. Successful completion of courses in the Uniform Relocation and Real Property Acquisition Policies Act and State Eminent Domain Law taught by recognized organizations.
3. Specific knowledge and experience appropriate for the type of assignment.

- **BIDDING AND CONSTRUCTION SUPPORT**

As part of the proposal, Consultant shall include bid support services that consist of assisting the County in responding to all Requests for Information during the Project advertisement phase.

As part of the proposal, Consultant shall include services for engineering construction support. These services include, responding to all Requests for Information (RFI) and, if necessary, altering project plans to address any design flaws or inconsistencies.

**If you wish to be considered for the Crows Landing Road at West Main Street Intersection Upgrade Project All-Inclusive Consulting Services, submit three copies of your proposal to this office by 5:00 p.m., Friday, May 27, 2011 to:**

Mr. Denis Bazyuk, P.E.  
Stanislaus County Department of Public Works  
1716 Morgan Road  
Modesto, CA 95358

### **PROPOSAL REQUIREMENTS**

- In its proposal to the County for doing all-inclusive (turn-key) consulting work for the Project, the consultant will provide County with an outline of all tasks necessary to provide County with a project design that is ready to list for construction.
- The proposal should contain a detailed scope of work that demonstrates the requisite knowledge and experience and addresses anticipated requirements. The proposal should include all required tasks, as either proposed or optional services. The proposal should describe the methodology to be used, specific work to be performed, outcomes and work products.
- The Consultant shall follow Caltrans Local Agency Procedure Manual (LAPM) for Federal Aid projects
- As relevant studies are developed for this project, it is possible that discoveries might be made that would require the consultant to perform additional work for this project. Therefore, with this proposal, the consultant is to include a list and description of any additional optional tasks that might be applicable to the project. Pricing for these additional tasks is to be tabulated separately in the fee proposal as optional tasks.
- In terms of environmental work, the Consultant is to submit a proposal based on the level of environmental assessment anticipated to be required by Caltrans environmental review for the Project. For the purposes of this proposal, the Consultant is to make reasonable assumption as to the level of environmental assessment and provide and explanation of their choice regarding the level of anticipated environmental assessment. The environmental sub-consultant shall follow the Caltrans Standard Environmental Reference (see [www.dot.ca.gov/ser](http://www.dot.ca.gov/ser)).
- In regards to any applicable permits for this project, the Consultant is to tabulate pricing separately for each permit in the fee proposal.
- The Consultant will include a master project time schedule that encompasses all aspects of the Project. The Consultant will also provide sub-schedules for every major project task, including but not limited to, environmental, right of way, traffic, etc. The Consultant will be responsible for efficiently managing schedules of any sub-consultants involved in the Project.

- o The Consultant will develop the environmental schedule for this project. Some of the tasks that will be tracked in the environmental schedule shall include but may be not limited to, NEPA, CEQA and any required environmental permits. The Consultant is to provide an estimated time of completion for each task. Submission of workplan and preliminary studies will be the first order of work for the environmental sub-consultant.

Three copies of your proposal must be submitted to the County. Please include with the proposal, in a **SEPARATE, SEALED ENVELOPE**, your fee proposal. The fee proposal must separate the project into functional tasks (Project Management, Environmental/Permits, Civil, Traffic/Electrical, Right of Way/Public Relations, etc.), and provide the associated fees (not to exceed amount) that define the work to be accomplished. The fee proposal shall include hourly rates for staff and unit prices for various tasks involved with environmental services for this project. Pricing for various optional task shall be outlined on a separate page and should be included in the fee proposal envelope as a bid alternate. Sub-consultant fees must be clearly indicated (if applicable). A sample fee proposal is attached for reference.

The successful firm shall be required to enter into a Professional Design Services Agreement with Stanislaus County for the work to be performed. A sample Professional Design Services Agreement is included with this Request for Proposal. The consultant shall state in the submitted proposal that the firm has reviewed the Sample Professional Design Services Agreement, will meet all of the terms and conditions if selected by the County for the requested services, and be able to sign agreement as-is with no changes.

The proposals will be evaluated, at a minimum, based on the following:

1. Understanding of the Work to be Performed
2. Experience with Similar Projects
3. Qualifications and Availability of Staff
4. Project Schedule
5. Familiarity with State and Federal Procedures
6. Demonstrated Technical Ability
7. Demonstration of Professional and Financial Responsibility
8. References

The proposals will be reviewed shortly after the closing date for submittal of proposals. Those firms believed to be the most qualified, based on their proposal, and **may** be subject to an interview.

The County has established an Underutilized Disadvantaged Business Enterprise (UDBE) goal of 3.1 percent for projects with an overall Disadvantaged Business Enterprise (DBE) goal of 3.6 percent. Information regarding UDBE can be found in the attached "Notice to Proposers Disadvantaged Business Enterprise Information," of this Request for Proposal.



A copy of this Request for Proposal is available for viewing and download on the Modesto Reprographics website at [www.modestoplanroom.com](http://www.modestoplanroom.com). Please contact Modesto Reprographics at (209) 544-2400 for assistance using the website if needed.

All questions regarding the RFP must be submitted **in writing**. Please send all questions regarding this RFP in writing via email to Denis Bazyuk at [bazyukd@stancounty.com](mailto:bazyukd@stancounty.com) or fax to (209) 525-4120. The deadline to submit questions is 5:00 p.m. on Wednesday, June 1, 2011. Addendums, if necessary, will be posted on the Modesto Reprographics website. The last day to issue an addendum is 5:00 p.m. on Friday, June 3, 2011.

**GENERAL ATTACHMENTS TO RFQ/RFP:**

1. Sample Fee Proposal
2. Notice to Proposers Disadvantaged Business Enterprise Information
3. Exhibit 10-O1
4. Exhibit 10-O2
5. Project Design Study: this proposal responding to this RFP shall be based only on "Alternate 2."
6. Sample Design Services Agreement
7. Sample Proposal Evaluation Sheet

## **Attachment-1**

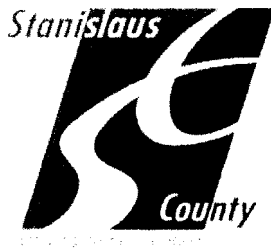
# **Sample Fee Proposal**

TASK	ESTIMATED HOURS							TOTAL HOURS
	Principal	Project Manager	Office Staff I	Office Technician I	Office Technician II	Office Assistant II	Administrative	
	\$170	\$150	\$150	\$135	\$90	\$90	\$50	
Task 01	5	0	0	0	15	7	2	29
Task 02	6		5		12	6	2	31
Task 03	2	20	10	24	0	0	2	58
Task 04	4	20	10	24	0	0	2	60
Task 05	1	0	0	12	0	0	2	15
Total Hours:	18	40	25	60	27	13	10	193
Total Fees:	\$3,060	\$6,000	\$3,750	\$8,100	\$2,430	\$1,170	\$500	\$25,010

Subconsultant A Fixed Fee: \$4,000

Subconsultant B Fixed Fee: \$2,000

**TOTAL PROJECT FEES (NOT TO EXCEE \$31,010**



**DEPARTMENT OF PUBLIC WORKS**

**Matt Machado, PE**  
Director

**Laurie Barton, PE**  
Deputy Director, Engineering/Operations

**Diane Haugh**  
Assistant Director, Business/Finance

1716 Morgan Road, Modesto, CA 95358  
Phone: 209.525.4130 Fax: 209.525.4120

Email: [publicworks@stancounty.com](mailto:publicworks@stancounty.com)  
[www.stancounty.com/publicworks](http://www.stancounty.com/publicworks)

**NOTICE TO PROPOSERS  
DISADVANTAGED BUSINESS ENTERPRISE  
INFORMATION**

Stanislaus County Public Works Department has established an Underutilized DBE goal for this Agreement of 3.1%.

**1. TERMS AS USED IN THIS DOCUMENT**

- The term “Disadvantaged Business Enterprise” or “DBE” means a for-profit small business concern owned and controlled by a socially and economically disadvantaged person(s) as defined in Title 49, Part 26.5, Code of Federal Regulations (CFR).
- The term “Underutilized Disadvantaged Business Enterprise” or “UDBE.” DBE classes that have been determined in the 2007 Caltrans Disparity Study to have a statistically significant disparity in their utilization in previously awarded transportation contracts. UDBEs include: African Americans, Native Americans, Asian-Pacific Americans, and Women.
- The term “Agreement” also means “Contract.”
- Agency also means the local entity entering into this contract with the Contractor or Consultant.
- The term “Small Business” or “SB” is as defined in 49 CFR 26.65.

**2. AUTHORITY AND RESPONSIBILITY**

- A. DBEs and other small businesses are strongly encouraged to participate in the performance of Agreements financed in whole or in part with federal funds (See 49 CFR 26, “Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs”). The Contractor should ensure that DBEs and other small businesses have the opportunity to participate in the performance of the work that is the subject of this solicitation and should take all necessary and reasonable steps for this assurance. The proposer shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of subcontracts.
- B. Proposers are encouraged to use services offered by financial institutions owned and controlled by DBEs.

**3. SUBMISSION OF UDBE AND DBE INFORMATION**

If there is a UDBE goal on the contract, a “Local Agency Proposer UDBE Commitment (Consultant Contract)” (Exhibit 10-O1) form shall be included in the Request for Proposal. In order for a proposer to be considered responsible and responsive, the proposer must make good faith efforts to meet the goal established for the contract. If the goal is not met, the proposer must document adequate good faith efforts. Only UDBE participation will be counted towards the contract goal; however, all DBE participation shall be collected and reported.

A “Local Agency Proposer DBE Information (Consultant Contract)” (Exhibit 10-O2) form shall be included with the Request for Proposal. The purpose of the form is to collect data required under 49 CFR 26. For contracts with UDBE goals, this form collects DBE participation by DBEs owned by Hispanic American and Subcontinent Asian Americans males (persons whose origin are from India, Pakistan, Bangladesh, Bhutan, Maldives Islands, Nepal or Sri Lanka). For contracts with no goals, this form collects information on all DBEs, including UDBEs. Even if no DBE participation will be reported, the successful proposer must execute and return the form.

#### **4. DBE PARTICIPATION GENERAL INFORMATION**

It is the proposer’s responsibility to be fully informed regarding the requirements of 49 CFR, Part 26, and the Department’s DBE program developed pursuant to the regulations. Particular attention is directed to the following:

- A. A DBE must be a small business firm defined pursuant to 13 CFR 121 and be certified through the California Unified Certification Program (CUCP).
- B. A certified DBE may participate as a prime contractor, subcontractor, joint venture partner, as a vendor of material or supplies, or as a trucking company.
- C. A UDBE proposer not proposing as a joint venture with a non-DBE, will be required to document one or a combination of the following:
  - a. The proposer is a UDBE and will meet the goal by performing work with its own forces.
  - b. The proposer will meet the goal through work performed by UDBE subcontractors, suppliers or trucking companies.
  - c. The proposer, prior to proposing, made adequate good faith efforts to meet the goal.
- D. A DBE joint venture partner must be responsible for specific contract items of work or clearly defined portions thereof. Responsibility means actually performing, managing, and supervising the work with its own forces. The DBE joint venture partner must share in the capital contribution, control, management, risks and profits of the joint venture commensurate with its ownership interest.

- E. A DBE must perform a commercially useful function pursuant to 49 CFR 26.55, that is, a DBE firm must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing and supervising the work.
- F. The proposer shall list only one subcontractor for each portion of work as defined in their proposal and all DBE subcontractors should be listed in the bid/cost proposal list of subcontractors.
- G. A prime contractor who is a certified DBE is eligible to claim all of the work in the Agreement toward the DBE participation except that portion of the work to be performed by non-DBE subcontractors.

## 5. RESOURCES

- A. The CUCP database includes the certified DBEs from all certifying agencies participating in the CUCP. If you believe a firm is certified that cannot be located on the database, please contact the Caltrans Office of Certification toll free number 1-866-810-6346 for assistance. Proposer may call (916) 440-0539 for web or download assistance.
- B. Access the CUCP database from the Department of Transportation, Civil Rights, Business Enterprise Program web site at: <http://www.dot.ca.gov/hq/bep/>.
  - Click on the link in the left menu titled *Disadvantaged Business Enterprise*
  - Click on *Search for a DBE Firm* link
  - Click on *Access to the DBE Query Form* located on the first line in the center of the page
  - Searches can be performed by one or more criteria
  - Follow instructions on the screen
- C. How to Obtain a List of Certified DBEs without Internet Access
- D. DBE Directory: If you do not have Internet access, Caltrans also publishes a directory of certified DBE firms extracted from the online database. A copy of the directory of certified DBEs may be ordered at: <http://caltrans-opac.ca.gov/publicat.htm>

## 6. MATERIALS OR SUPPLIES PURCHASED FROM DBES COUNT TOWARDS DBE CREDIT, AND IF A DBE IS ALSO A UDBE, PURCHASES WILL COUNT TOWARDS THE UDBE GOAL UNDER THE FOLLOWING CONDITIONS:

- A. If the materials or supplies are obtained from a DBE manufacturer, count 100 percent of the cost of the materials or supplies. A DBE manufacturer is a firm that operates or maintains a factory, or establishment that produces on the premises the materials, supplies, articles, or equipment required under the Agreement and of the general character described by the specifications.
- B. If the materials or supplies purchased from a DBE regular dealer, count 60 percent of the cost of the materials or supplies. A DBE regular dealer is a firm that owns, operates or

maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the Agreement are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a DBE regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question. A person may be a DBE regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating or maintaining a place of business provided in this section.

- C. If the person both owns and operates distribution equipment for the products, any Supplementing of regular dealers' own distribution equipment shall be, by a long-term lease agreement and not an ad hoc or Agreement-by-Agreement basis. Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not UDBE regular dealers within the meaning of this section.
- D. Materials or supplies purchased from a DBE, which is neither a manufacturer nor a regular dealer, will be limited to the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on the job site, provided the fees are reasonable and not excessive as compared with fees charged for similar services.

**7. FOR DBE TRUCKING COMPANIES: CREDIT FOR DBES WILL COUNT TOWARDS DBE CREDIT, AND IF A DBE IS A UDBE, CREDIT WILL COUNT TOWARDS THE UDBE GOAL UNDER THE FOLLOWING CONDITIONS:**

- A. The DBE must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular Agreement, and there cannot be a contrived arrangement for the purpose of meeting the UDBE goal.
- B. The DBE must itself own and operate at least one fully licensed, insured, and operational truck used on the Agreement.
- C. The DBE receives credit for the total value of the transportation services it provides on the Agreement using trucks it owns, insures, and operates using drivers it employs.
- D. The DBE may lease trucks from another DBE firm including an owner-operator who is certified as a DBE. A DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the Agreement.
- E. The DBE may also lease trucks from a non-DBE firm, including an owner-operator. A DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement. A DBE does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by the DBE.

- F. For the purposes of this Section D, a lease must indicate that the DBE has exclusive use and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE, as long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the name and identification number of the DBE.



**Attachment-3**

**Exhibit 10-01**

**EXHIBIT 10-01 Local Agency Proposer UDBE Commitment (Consultant Contracts)**

**NOTE: PLEASE REFER TO INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM**

LOCAL AGENCY: \_\_\_\_\_ LOCATION: \_\_\_\_\_

PROJECT DESCRIPTION: \_\_\_\_\_

PROPOSAL DATE: \_\_\_\_\_

PROPOSER'S NAME: \_\_\_\_\_

CONTRACT UDBE GOAL (%): \_\_\_\_\_

WORK ITEM NO.	DESCRIPTION OR SERVICES TO BE SUBCONTRACTED (or contracted if the proposer is a UDBE)	UDBE CERT NO. AND EXPIRATION DATE	NAME OF EACH UDBE (Must be certified at the time proposals are due - include UDBE address and phone number)	PERCENT PARTICIPATION OF EACH UDBE

<p><b>For Local Agency to Complete:</b></p> <p>Local Agency Proposal Number: _____</p> <p>Federal-Aid Project Number: _____</p> <p>Federal Share: _____</p> <p>Proposal Date: _____</p> <p>Local Agency certifies that the UDBE certifications have been verified and all information is complete and accurate/unless noted otherwise.</p> <p>_____ Print Name Local Agency Representative</p> <p>_____ Signature</p> <p>_____ Date</p> <p>(Area Code) Telephone Number: _____</p>	<p style="text-align: center;">Total Claimed UDBE Commitment _____ %</p> <p>_____ Signature of Proposer</p> <p>_____ Date (Area Code) Tel. No.</p> <p>_____ Person to Contact (Please Type or Print)</p> <p style="text-align: center;">Local Agency Proposer UDBE Commitment (Consultant Contracts) (Rev 6/27/09)</p>
--	--

**Distribution:** (1) Original - Local agency files

**Attachment-4**

**Exhibit 10-O2**



**Attachment-5**

**Project Design Study**



STANISLAUS COUNTY DEPARTMENT OF PUBLIC WORKS  
ENGINEERING DIVISION  
1716 MORGAN ROAD  
MODESTO, CA 95358

**PROJECT DESIGN STUDY REPORT**

**FOR THE**


**CROWS LANDING ROAD**

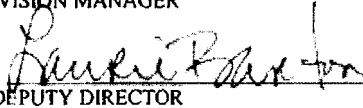
**AT**


**WEST MAIN STREET**

**TRAFFIC SIGNAL**

July 28, 2010

SUBMITTED BY:  7/29/10  
ENGINEERING DIVISION MANAGER

APPROVAL RECOMMENDED:  8/2/10  
DEPUTY DIRECTOR

APPROVED:  8-2-10  
DIRECTOR DATE

Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
Stanislaus County Department of Public Works  
July 28, 2010

This project design study report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.



*Denis Bazjuk*  
REGISTERED CIVIL ENGINEER

*07/29/10*  
DATE

**TABLE OF CONTENTS**

1.0	Introduction .....	1
2.0	Background .....	1
2.1	Existing Facilities/Conditions .....	3
2.2	Historical Improvements .....	5
3.0	Project Need .....	5
3.1	Need .....	5
3.2	Engineering and Traffic Analysis .....	5
3.2	Engineering and Traffic Analysis Results .....	7
4.0	Project Purpose.....	7
5.0	Corridor and System Coordination .....	7
6.0	Alternatives .....	8
6.1	Alternative 1 – No Build.....	8
6.2	Alternative 2 – Minimum Build.....	8
6.3	Alternative 3-A & 3-B - Intermediate Build.....	9
6.4	Alternative 4-A & 4-B – Ultimate Build .....	11
7.0	Summary and Recommendations.....	12
7.1	Design Criteria.....	12
8.0	Community Involvement.....	13
9.0	Environmental Determination .....	14
10.0	Funding.....	14
11.0	Schedule .....	14
12.0	Agency Coordination .....	15
13.0	Project Personnel.....	16



## **EXHIBITS**

- 2.1 APN Exhibit
- 2.2 Aerial Exhibit
- 2.3 Alternative 2 Layout
- 2.4 Alternative 2 Aerial
- 2.5 Alternative 2 Cross Section and Right-of-Way
- 2.6 Alternative 3-A Layout
- 2.7 Alternative 3-A Aerial
- 2.8 Alternative 3-A Cross Section and Right-of-Way
- 2.9 Alternative 3-B Layout
- 2.10 Alternative 3-B Aerial
- 2.11 Alternative 3-B Cross Section and Right-of-Way
- 2.12 Alternative 4-A Layout
- 2.13 Alternative 4-A Aerial
- 2.14 Alternative 4-A Cross Section and Right-of-Way
- 2.15 Alternative 4-B Layout
- 2.16 Alternative 4-B Aerial
- 2.17 Alternative 4-B Cross Section and Right-of-Way

## **APPENDIXES**

- A – County Traffic Data
- B – Prioritization Model
- C – Intersection Data and Capacity Analysis
- D – Engineer’s Estimates
- E – Agency Correspondence Letters

## 1.0 INTRODUCTION

Stanislaus County Public Works Department (County) maintains approximately 1,527 centerline miles of roadway. Within the 1,527 miles, there are approximately 330 non-signalized, all-way stop-control intersections (AWSC) and 34 signalized intersections. The County is responsible for the maintenance and upgrade to the County roadway network. Improvement projects may include intersection improvement & signalization projects to improve safety, increase capacity, and maximize traffic flow throughout the system in order to meet capacity needs and accommodate for future traffic growth. In order to efficiently maintain and upgrade the system, analyses are conducted to prioritize traffic signalization projects utilizing County traffic data.

The purpose of this project design study is to identify project design concepts, constraints and criteria for the Crows Landing Road at West Main Street traffic signal project.

## 2.0 BACKGROUND

The intersection is located in Stanislaus County south of Modesto, west of Turlock, and east of Patterson. Crows Landing Road and West Main Street are main routes to Interstate 5 from Modesto and Turlock, respectively. The project has four potential solutions which will add dedicated left turn lane in all directions and widen the paved cross section. The geometrics will be determined by use of the Caltrans Highway Design Manual and County Standard plates.



Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
Stanislaus County Department of Public Works



*Aerial Photo (2006)*



*Facing South from Crows Landing Road*

July 28, 2010  
2 of 16

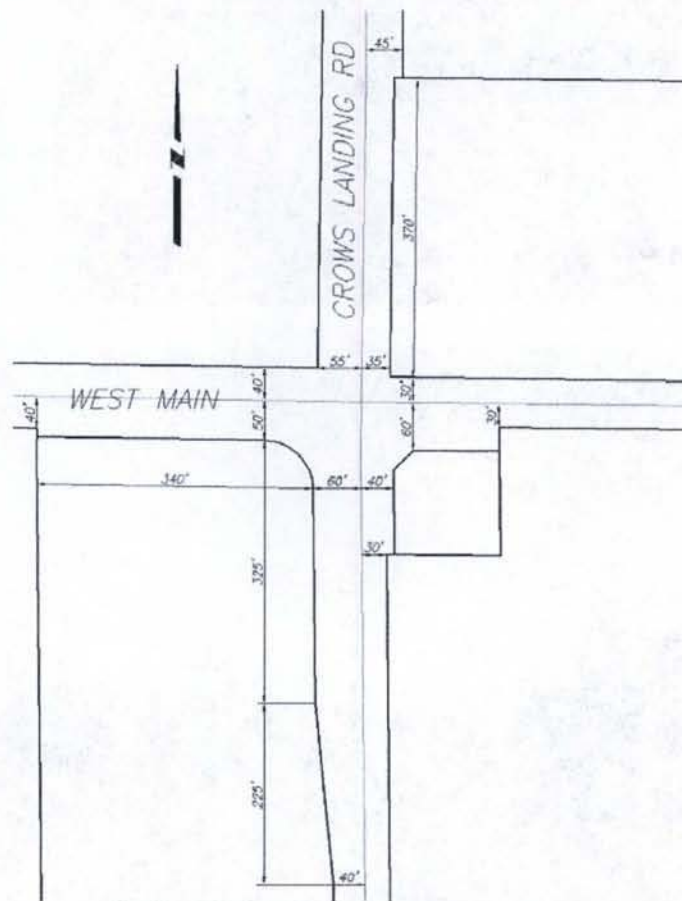


Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
Stanislaus County Department of Public Works

**2.1 Existing Facilities/Conditions**

There are currently existing structures on all corners of the intersection serving a variety of functions. This project may require right of way (ROW) acquisitions depending on which alternative is preferred. Some structures are in close proximity to the ROW line and will therefore be negatively impacted by this project and may require relocation or removal.

The current ROW conditions are as follows:



*Right-of-Way Overview (Not to Scale)*

Northwest Corner

There is a home located in the northwest corner. A ROW take will be required to accommodate the widening of West Main Street. This will more than likely require a purchase of the home along with the ROW take. There is an AC dike around the northwest corner which may drain to a rock well. Upon investigation, one was not found due to minor flooding conditions at the site.

July 28, 2010

3 of 16

L:\ROADS\9729 - Crows Landing Rd at West Main Ave TS\Design\PDS\PDS.doc

Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
Stanislaus County Department of Public Works

Northeast Corner

The northeast corner contains a restaurant directly on the corner, a home to the north, and a feed store to the north as well. Along West Main Street to the east there are two residences. Access to all of these properties will be adversely affected by this project. The existing ROW is 35' along Crows Landing Road and 30' along West Main, which will require ROW takes. Drainage facilities are located on this corner in front of the restaurant.



Southwest Corner

Mountain View Middle School is located at this corner. It is part of the Chatom Union School District. There are currently curb/gutter and drainage facilities along this corner. On-site parking is in close proximity to the current ROW. A gym is under construction on this lot and the on-site parking lot is being re-constructed. During the design phase, plans will be acquired from the School District to investigate improvements if gym construction is still in progress.

Southeast Corner

There is currently a Valero Gas Station and Convenience Store on the southeast corner lot of the intersection. Curb, gutter, sidewalk and drainage facilities exist.

Monitoring Wells

There are 7 Monitoring wells within the project limits. These were required by the Department of Environmental Resources due to leaking underground storage tanks for gasoline and diesel.

Monument Well

There is a single monument well for the corner section at the intersection of the two roads.

Current Intersection

The current intersection configuration is a 4-way stop with dedicated right turn lanes. There is a flashing red beacon hanging overhead.



July 28, 2010

4 of 16

L:\ROADS\9729 - Crows Landing Rd at West Main Ave TS\Design\PDS\PDS.doc



## 2.2 Historical improvements

### Drainage

Along the northeast corner, there are two storm drain inlets along Crows Landing Road, one at the intersection and another approximately 150 feet to the north. There is rollover AC curbing that flows towards the inlet on the corner. There is no sidewalk at this location.



To the southeast, there is curb, gutter, and sidewalk with a catch basin on both extents of the Valero Gas Station Lot.

There are two catch basins in front of Mountain View Middle School, located on the southwest corner of the intersection. One is located on West Main at the end of the lot and the other to the south on Crows Landing Road at the lot extent.

## 3.0 PURPOSE AND NEED

As part of the County's responsibility for safety, operational conditions, maintenance, and upgrade to the County roadway network, improvements to the intersection of Crows Landing Road and West Main Street are required.

### 3.1 Need

The need for the Project is determined through analyses conducted by the County to prioritize traffic. An engineering and Traffic Capacity Analysis were completed to justify the need for the Project. Results of the analyses show that the required capacity at the Intersection is not met.

### 3.2 Engineering and Traffic Capacity Analysis

The need for the Project is determined through analyses conducted by the County to prioritize traffic signal projects. The prioritization utilizes County traffic data for the most current years available for Crows Landing Road and West Main Street. The traffic datasets utilized in the prioritization analyses for the project are from August 2007 and November 2008 for Crows Landing Road and are included in Appendix A. Prioritization of the signal projects consider various factors including satisfied signal warrants, cost/benefit, delay, and the safety index. The County has implemented a prioritization model, included in Appendix B, to prioritize project locations for signal improvements in order of a cumulative rank based on the satisfied signal warrants, cost/benefit, delay, and the safety index.

July 28, 2010

5 of 16

L:\ROADS\9729 - Crows Landing Rd at West Main Ave TS\Design\PDS\PDS.doc

### **Warrants**

The first criterion used to justify a traffic signal project is a signal warrant analysis, as defined in Chapter 4C. Traffic Control Signal Needs Studies of the 2006 edition of the *California Manual on Uniform Traffic Control Devices (MUTCD)*. The MUTCD defines eight (8) signal warrants to determine the need for a project. The Project meets Warrants 1, 2, 3, 7, and 8. Warrants 4, 5, and 6 are not applicable for the Project. Appendix C includes the Traffic Signal Warrants Worksheets for the Project.

The County prioritization model assigns a rank to each project in order of the calculated percentage of the average of eight peak hour vehicular volumes, based on County traffic data, to the minimum requirements for the eight hour vehicular volume acceptable for both the major (Crows Landing Road) and the minor road (West Main Street). The projects are then prioritized by major and minor road percentages determined from the Warrant 1 analysis and are ranked in order so all of the data is relative to other locations. Project cost is then estimated for each intersection.

### **Cost/Benefit & Delay**

A cost/benefit analysis is then done to compare the monetary benefits of each intersection and then ranked in order of benefit to cost ratio. The total benefit of the intersection location is based on the Annual Average Daily Traffic (AADT), the percentage of truck traffic and automobile traffic, the daily savings per vehicle type, and the expected life of improvements. A benefit is then calculated and divided by the cost of the project to equate the benefit to cost ratio.

The measured delay (in seconds) is ordered in descending numeric order and then ranked.

### **Safety Index**

The safety index is computed by the Traffic Division using the Caltrans Highway Safety Improvement Safety Index worksheet and is listed and ranked by the numeric index value listed in a descending order.

The final ranking is based on the cumulative priority (or the summation of all rankings) of each signal project. The prioritization list is then complete. Other environmental and location specific issues, such as corridor analysis where multiple signals are needed along a road, must be addressed in order to better prioritize the signal locations.

### **Capacity**

A traffic capacity analysis shows that the existing demand is served at a Level of Service (LOS) 'B' by the AWSC, refer to Appendix C. By the project design year 2029, the intersection will operate at LOS 'F' if the current AWSC remains, refer to Appendix C. This will exceed the County's acceptable LOS, per the County General Plan Standards. Analysis of the project

July 28, 2010

6 of 16

L:\ROADS\9729 - Crows Landing Rd at West Main Ave TS\Design\PDS\PDS.doc

Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
Stanislaus County Department of Public Works

improvements show that they will serve the projected traffic at a LOS 'A' which is acceptable per the County's General Plan Standards, refer to Appendix C.

### **Other Considerations**

The project is being done in conjunction with the future widening of both Crows Landing Road and West Main Street. The Crows Landing corridor is currently in the process of being widened heading south from Modesto towards the City of Newman. Crows Landing is currently widened from Whitmore to Service Road.

## **4.0 PROJECT PURPOSE**

The purpose of the Project is to improve safety, capacity, and efficiency at the Intersection in an effort to maximize traffic flow throughout the system to accommodate existing traffic congestion conditions and meet capacity requirements for future growth, improvements. The following components will address the need for the project:

- Construction of traffic signals at the intersection of Crows Landing Road and West Main Street
- Widening the individual legs of the intersection in all directions to accommodate the projected traffic demand and traffic movements to include: left turn lanes, approach tapers, deceleration lanes, and lane transitions
- Accommodating future traffic growth and congestion at a LOS acceptable by the County
- Providing adequate storm drain runoff control
- Identifying properties that will require ROW acquisition and provide legal descriptions and exhibits for the properties in order to acquire ROW needed to accommodate the proposed Project improvements
- Incorporating the existing pavement section into the widening, including the relocation of the crown in specific sections if necessary and reinforcing the pavement, where required
- Providing the roadway alignment and geometry to utility companies with facilities within the Project limits, such as utility poles, irrigation facilities, and other private facilities to be relocated if necessary to accommodate the signal and widening improvements
- Preemption of the future widening of both Crows Landing Road south of the Project limits and Keyes Road east and west of the Project limits

## **5.0 CORRIDOR AND SYSTEM COORDINATION**

This project is primarily part of the Crows Landing Road Corridor coordination, but secondarily serves as part of the West Main Street Corridor planned for future implementation.

In accordance with the County's 2006 General Plan Circulation Element (General Plan), the Crows Landing Road Corridor north of West Main Street is assigned a roadway classification of a six-lane expressway and a four-lane expressway to the south of the intersection. The West

July 28, 2010

7 of 16

L:\ROADS\9729 - Crows Landing Rd at West Main Ave TS\Design\PDS\PDS.doc



Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
Stanislaus County Department of Public Works

Main Street Corridor is classified as a six-lane expressway to the east and west of the intersection. The September 11, 2008, *Draft Public Facilities Fee Study* lists the Crows Landing Road at Keyes Road Intersection signalization and Crows Landing Road widening as planned Regional Transportation Impact Fee (RTIF) projects.

This project is being coordinated with another signal project, Crows Landing Road at Keyes Road. Also, design is currently underway for the signal at the intersection with Grayson Road as well.

The widening of Crows Landing Road will be coordinated based upon traffic demands and after all four of the intersections have been improved to accommodate more lanes.

## **6.0 ALTERNATIVES**

Four project alternatives have been prepared for this project. Two alternatives, 3 & 4, have slight variations within themselves as well. Only one recommendation will be made and all assumptions and observations have been noted for each alternative.

### **6.1 Alternative 1 - No Build**

Alternative 1 for this project is to not make any improvements at the current intersection. This would not require any environmental determination or ROW acquisition, but would not meet the required purpose and need of the project.

The intersection would then continue to have one through lane in each direction and dedicated right turns in all directions. There would be no improvements to traffic flow or reduced accident risk.

Capital Cost: \$0.00  
Other Cost: \$0.00  
Total Cost: \$0.00

### **6.2 Alternative 2 - Minimum Build**

Alternative 2, or the minimum build option, requires minimal ROW acquisition on the northeastern and northwestern corners of the intersection. The work performed would allow one through lane in each direction with a dedicated left turn pocket in all directions. Signals would be installed to help reduce delay at the intersection and keep traffic moving at an optimal level.

Various design exceptions would need to be made to allow the widening in limited ROW.

The following summarizes the Alternative 2 – Minimum Build design parameters:

July 28, 2010

8 of 16

L:\ROADS\9729 - Crows Landing Rd at West Main Ave TS\Design\PDS\PDS.doc

Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
Stanislaus County Department of Public Works

Proposed ROW: 90/100-feet (Crows Landing Road ROW)  
80/90-feet (West Main Street ROW)

Proposed Roadway: Two (2) 12-foot lanes and 14-foot designated left turn lane  
(Crows Landing Road)  
Two (2) 12-foot lanes and 14-foot designated left turn lane  
(West Main Street)

Parcels Affected: 7  
Total Acquisition: 76,076 ft<sup>2</sup>

Capital Cost: \$2,304,009.40  
Support Cost: \$741,202.82  
Total Cost: \$3,045,212.22

This alternative does not meet the purpose and need of this project. It will not adequately prepare this intersection for the future widening of Crows Landing Road.

### **6.3 Alternative 3-A/3-B – Intermediate Build**

Alternatives 3-A & 3-B would provide full build out along the Crows Landing Road Corridor, but only minimum build out along the West main Street Corridor. There will be two through lanes in either direction along Crows Landing Road and one through lane in either direction on West Main Street.

Dedicated left turn lanes will be added to all legs of the intersections to allow free left turn movements.

Right-of-way will need to be acquired along both Crows Landing Road and West Main Street. The ultimate ROW will be acquired on the northwest corner of the intersection to accommodate the minimum 60' truck turn radius. This will require relocation of the current structures owner/tenants. All other ROW acquisitions are land only acquisitions and will not impact any significant structures.

Taper lengths are calculated based upon the California Highway Design Manual Section Topic 405 – Intersection Design Standards using a design speed of 60 miles per hour (mph), as recommended by the County Traffic Department. The maximum County speed limit is 55 mph, but since the traffic data indicated travel speeds above 55 mph, it was determined that 60 mph would be appropriate for the design.

Alternative 3-A will widen Crows Landing Road to both the north and south of West Main Street to a four-lane expressway with a 100' ROW. Due to the restricted ROW, West Main Street can only accommodate a two-lane roadway with 80' of ROW. Approximately sixteen properties and

July 28, 2010

9 of 16

L:\ROADS\9729 - Crows Landing Rd at West Main Ave TS\Design\PDS\PDS.doc

Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
Stanislaus County Department of Public Works

one building will be impacted. The total right-of-way acquisition area is approximately 112,549 square feet.

The following summarizes the Alternative 3-A – Intermediate Build design parameters:

Proposed ROW: 100-feet (Crows Landing Road ROW)  
80/90-feet (West Main Street ROW)

Proposed Roadway: Four (4) 12-foot lanes and 14-foot designated left turn lane  
(Crows Landing Road)  
Two (2) 12-foot lanes and 14-foot designated left turn lane  
(West Main Street)

Parcels Affected: 16  
Total Acquisition: 112,549 ft<sup>2</sup>

Capital Cost: \$2,675,835.24  
Support Cost: \$852,750.57  
Total Cost: \$3,528,585.81

Alternative 3-B is a derivative of alternative 3-A, but this alternative widens Crows Landing Road to a 110' right-of-way. The County standard for a 4-lane expressway is 110' of ROW. The extra ten feet of ROW from the 100' limited ROW of 3-A would allow the County more flexibility for future growth. Approximately three buildings and eighteen properties will be impacted. The approximate acquisition area for this alternate is 137,253 square feet.

The following summarizes the Alternative 3-B – Intermediate Build design parameters:

Proposed ROW: 110-feet (Crows Landing Road ROW)  
80/90-feet (West Main Street ROW)

Proposed Roadway: Four (4) 12-foot lanes and 14-foot designated left turn lane  
(Crows Landing Road)  
Two (2) 12-foot lanes and 14-foot designated left turn lane  
(West Main Street)

Parcels Affected: 18  
Total Acquisition: 137,253 ft<sup>2</sup>

Capital Cost: \$2,961,115.24  
Support Cost: \$938,334.57  
Total Cost: \$3,899,449.81

These alternatives both meet the purpose and need of this project.

July 28, 2010

10 of 16

L:\ROADS\9729 - Crows Landing Rd at West Main Ave TS\Design\PDS\PDS.doc

#### **6.4 Alternative 4-A/4-B – Ultimate Build**

Alternative 4 will require all future needed ROW to be purchased and will add three through lanes, two dedicated left turn lanes, and one dedicated right turn lane on all legs except the southern leg of the intersection. The southern leg would have two left turn lanes, two through lanes, and one dedicated right turn lane.

Taper lengths were calculated as discussed in section 6.3.

Alternative 4-A would widen Crows Landing Road to the north and to the south of West Main Street to a six-lane expressway with 124' of right-of-way. West Main Street will be widened to a 4-lane expressway with 100' of right-of-way. This option reflects the ultimate build-out based on the 2006 County General Plan Circulation Element. Approximately five buildings and 24 properties will be impacted. The total area required through acquisition is approximately 255,548 square feet.

The following summarizes the Alternative 4-A – Ultimate Build design parameters:

Proposed ROW: 124/100-feet (Crows Landing Road ROW)  
124-feet (West Main Street ROW)

Proposed Roadway: Six (6)/Four (4)12-foot lanes and 14-foot designated left turn lane  
(Crows Landing Road)  
Six (6) 12-foot lanes and 14- foot designated left turn lane  
(West Main Street)

Parcels Affected: 24  
Total Acquisition: 255,548 ft<sup>2</sup>

Capital Cost: \$4,529,079.42  
Support Cost: \$1,408,723.82  
Total Cost: \$5,937,803.24

Alternative 4-B is the same as Alternative 4-A, but the ultimate right-of-way will be acquired. The total right-of-way acquisition area will be approximately 316,631 square feet.

The following summarizes the Alternative 4-B – Ultimate Build design parameters:

Proposed ROW: 135/110-feet (Crows Landing Road ROW)  
135-feet (West Main Street ROW)

Proposed Roadway: Six (6)/Four (4)12-foot lanes and 14-foot designated left turn lane  
(Crows Landing Road)

July 28, 2010  
11 of 16

Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
Stanislaus County Department of Public Works

Six (6) 12-foot lanes and 14- foot designated left turn lane  
(West Main Street)

Parcels Affected: 24  
Total Acquisition: 316,631 ft<sup>2</sup>

Capital Cost: \$4,987,201.92  
Support: \$1,546,160.57  
Total Cost: \$6,533,362.49

These alternatives meet the purpose and need of this project.

## **7.0 SUMMARY AND RECOMMENDATIONS**

County staff recommends Alternative 3-A, the intermediate build. Alternative 3-A will accommodate a 4-lane expressway within the limited 100-foot right-of-way. It is the most economical alternative as the right-of-way acquisition is minimized whilst enhancing the functionality of the intersection. It will provide adequate through lanes and dedicated left turn lanes in all directions. Right of way acquisition will be kept to a reasonable minimum to allow these improvements to take place. Only one structure will be displaced and relocation services will be made available to the tenant and/or owner.

### **7.1 Design Criteria**

The design parameters for the recommended design alternative for the Project are based on California Department of Transportation (Caltrans) design standards and Stanislaus County design standards, as summarized in this section. Design standards are subject to change pending additional studies, environmental issues, geotechnical investigation and soils reports, and ROW agreements and/or acquisition.

#### Roadway Slope and Grade

- Longitudinal Slope - minimum = 0.15% , 0.2% preferred;
- Cross Slope – minimum = 1.5%, 2.0% preferred; maximum = 4.0%
- Backup Shoulder slope = 5.0%
- Matching shoulder slope; Minimum = 10:1; Maximum = 2:1
- Design Speed = 60 mph, per recommendation of County Traffic Department

#### Horizontal Alignment

- Proposed Right-of-Way width = 100 feet (Crows Landing Road); 80 feet (West Main Street)

July 28, 2010

12 of 16

L:\ROADS\9729 - Crows Landing Rd at West Main Ave TS\Design\PDSPDS.doc

Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
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- The Deceleration Length was determined to be 530 feet for all four legs of intersection. Deceleration length was determined using table 405.2B of California Highway Design Manual based on 60 mph design speed.
- Approach Taper Length was determined to be 1020 feet for all four legs of intersection.
- The total extent of the project was determined to be 1550 feet. The total project extent was determined by adding deceleration length to the approach taper length.
- Property driveways will be based on Stanislaus County Plates 3-F4 & 3-F5.

### Structural Section

Traffic Index (TI) = 11 – West Main Street; 11 – Crows Landing Road; 12 – Intersection  
Minimum Structural Pavement: 0.5 feet AC/0.5 feet AB

### Storm Drainage

- Pipe capacity (Q) = CIA
- Runoff coefficients & intensities will be based on Stanislaus County Standards
- Runoff Storage = CAR/12
- Minimum pipe cover = 36”
- Percolation rate based on soils report
- Irrigation facilities: Turlock Irrigation District and Stanislaus County standards will be used to modify existing irrigation facilities conflicting with the new roadway alignment.
- All pipe under the roadway will be Class 3 Rubber-Gasketed Reinforced Concrete Pipe (RGRCP)
- Relocated facilities, such as headwalls or standpipes, will be replaced in-kind.

## **8.0 PUBLIC HEARING**

The project will require a Public Hearing to receive input from the community regarding the improvements. The Hearing will be held during the environmental phase.

## **9.0 ENVIRONMENTAL DETERMINATION**

This project will require CEQA (California Environmental Quality Act) determination with Stanislaus County as the lead agency. Stanislaus County will follow the CEQA process and will study the potential effects that this project may create.

The project will be subject to a National Environmental Protection Act (NEPA) determination due to the addition of Congestion Mitigation and Air Quality (CMAQ) funds. Stanislaus County will work diligently with CalTrans and the Federal Highway Administration (FHWA) to ensure that all steps have been taken to ensure that this project is environmentally friendly.

July 28, 2010

13 of 16

L:\ROADS\9729 - Crows Landing Rd at West Main Ave TS\Design\PDS\PDS.doc

Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
Stanislaus County Department of Public Works

It is recommended to perform noise impact, visual impact, cultural impact, and biological impact studies to understand the mitigation measures that may need to be taken. Due to the monitoring wells, a phase 1 environmental site assessment (E.S.A) will need to be performed to check for hazardous materials. The E.S.A will determine if any further analysis is required.

## **10.0 FUNDING**

This project is proposed to be funded by Regional Public Facilities Fee (PFF) and Congestion Mitigation and Air Quality (CMAQ) funds. The PFF fund is collected through development fees to address new growth. The money can only be used on projects which offset increased capacity including road widening, County facilities, and traffic signal projects. Crows Landing Road and Keyes Road are both PFF routes.

For fiscal year 2011/2012, \$200,000 federal dollars have been made available for the Preliminary Engineering of this project through the CMAQ program. CMAQ funding will be sought after for the construction phase as well.

The project may also be eligible for other funding sources, such as Regional Surface Transportation Program (RSTP) funds or other State or Federal programs.

## **11.0 SCHEDULE**

The following is the estimated schedule:

Strategy:	January 2010 – April 2010
Environmental:	April 2011 – February 2012
Design:	April 2011 – February 2012
ROW:	March 2012 – January 2013
Construction:	June 2013 – August 2013
Project Close:	August 2013 – September 2013

The design and environmental phase will be done concurrently. However, environmental issues can affect the design schedule. Design will be done by County staff with the aid of external consultation for survey, geotechnical, ROW agent and environmental technical studies.

County staff will determine the level of environmental document that is needed and will prepare some of the documents in coordination with a contracted outside environmental consultant. Right-of-way acquisition cannot begin until all environmental documents are finalized. There shall be no ROW agents involved until environmental clearance has been obtained and the project has been approved by management.

July 28, 2010

14 of 16

L:\ROADS\9729 - Crows Landing Rd at West Main Ave TS\Design\PDS\PDS.doc

Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
Stanislaus County Department of Public Works

Construction will commence after a ROW certification has been filed certifying that all ROW has been purchased, the design is complete, all permits are obtained, and the County Board of Supervisors adopts the project.

The project will be closed upon completion of construction and will include the finalization of all contract documents, permits, payments, and reimbursements, where applicable.

## **12.0 AGENCY COORDINATION**

The County may require coordination with some or all of the following agencies:

### StanCOG

900 H Street, Modesto, CA 95354

Contact: Vince Harris

### Turlock Irrigation District (TID)

P.O Box 949, Turlock, CA 95381

Contact: Paul Rodriguez (Electrical), Arie Vander Pol (Irrigation)

### Pacific Gas & Electric

1524 N. Carpenter Road, Modesto, CA 95351

Contact: Sergio Tonarelli

### Comcast

6505 Tam O'Shanter Drive, Stockton, CA 95210

Contact: Dave Morse

### Charter Communications

773 N. Walnut Road, Turlock, CA 95351

Contact: Tom Shears

### AT&T

1116 M Street, Modesto, CA 95352

Contact: Francia Stanton

### Chatom Union School District

7201 Clayton Ave, Turlock, Ca 95380

July 28, 2010

15 of 16

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Project Design Study  
Crows Landing Road at West Main Street Traffic Signal  
Stanislaus County Department of Public Works

### **13.0 PROJECT PERSONNEL**

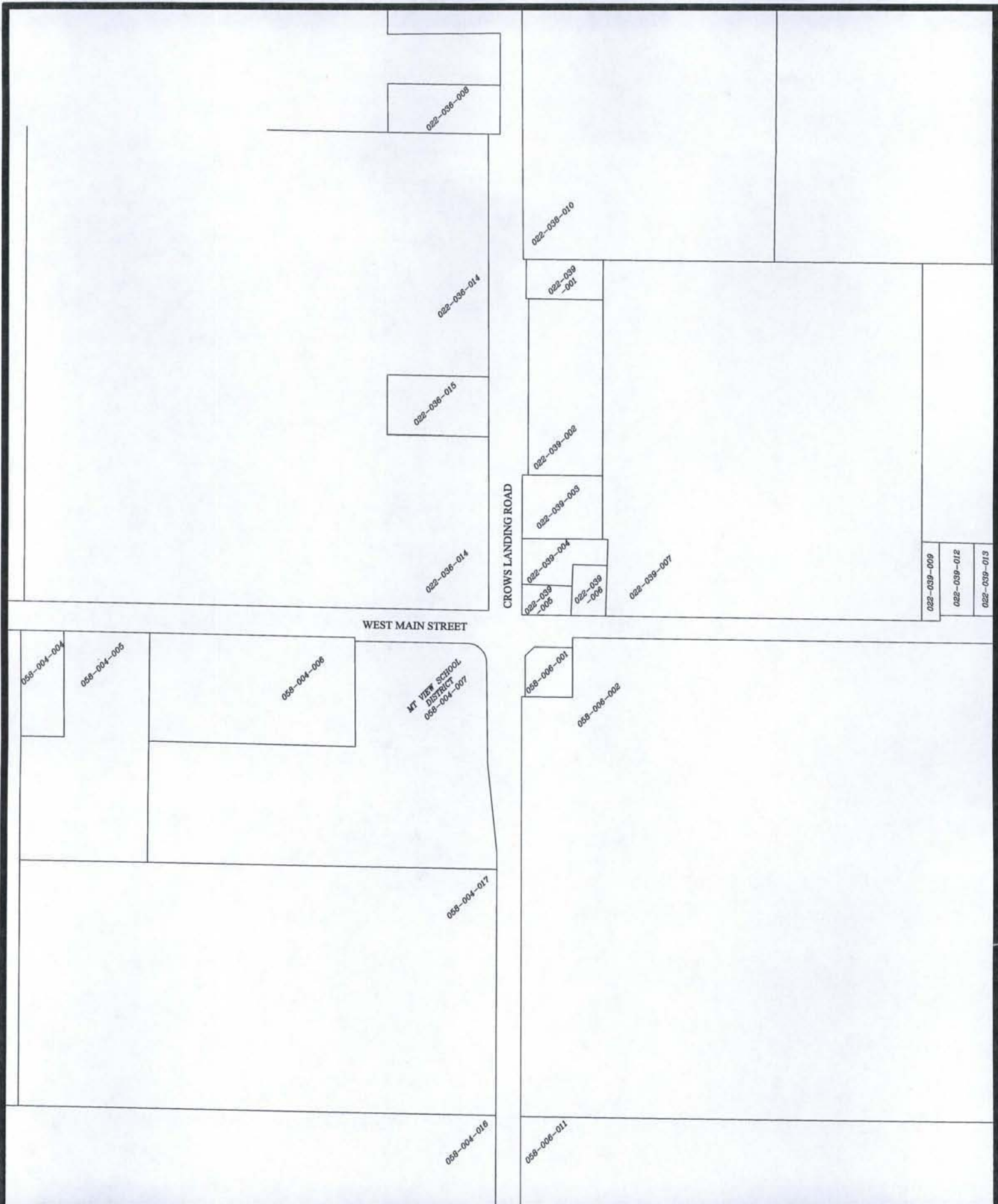
Supervising Civil Engineer: Dave Leamon, PE  
Civil Design/Project Manager: Denis Bazyuk, PE  
Civil Design & Support: Andrew Malizia, EIT  
Survey Consultant: To Be Determined  
Environmental Consultant: To Be Determined

July 28, 2010

16 of 16

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# **EXHIBITS**



WEST MAIN STREET

CROWS LANDING ROAD

MT VIEW SCHOOL DISTRICT  
058-004-007



**STANISLAUS COUNTY**  
 DEPARTMENT OF PUBLIC WORKS  
 ENGINEERING AND OPERATIONS DIVISION  
 1716 MORGAN ROAD - MODESTO, CA 95358

**CROWS LANDING ROAD  
 AT WEST MAIN STREET  
 APN EXHIBIT**

DRAWN BY: DB
DATE:
SHEET: 2.1
FILE:



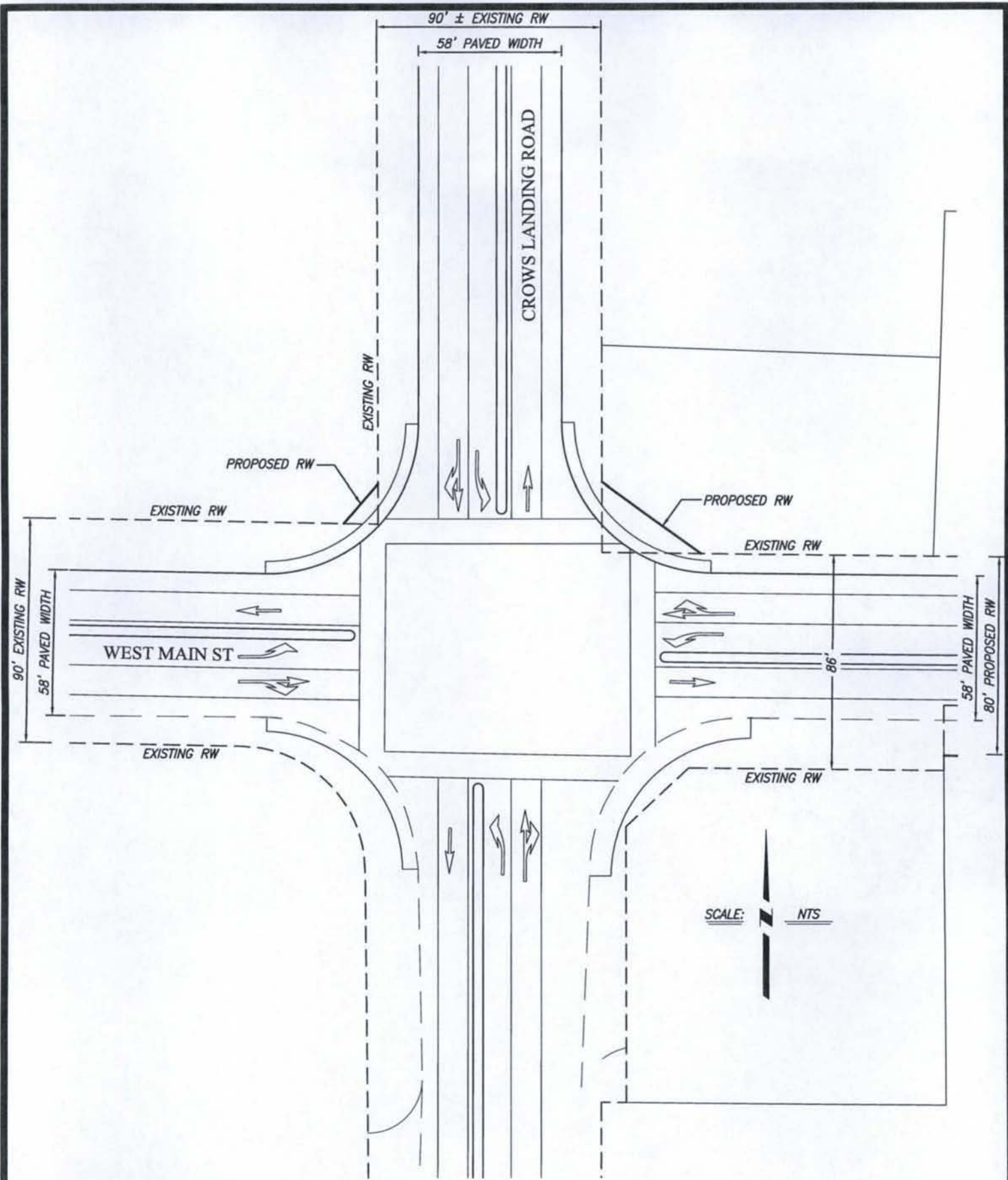


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ENGINEERING AND OPERATIONS DIVISION  
1716 MORGAN ROAD - MODESTO, CA 95358

CROWS LANDING ROAD  
AT WEST MAIN STREET  
APN EXHIBIT

DRAWN BY: DB  
DATE:  
SHEET: 2.2  
FILE:



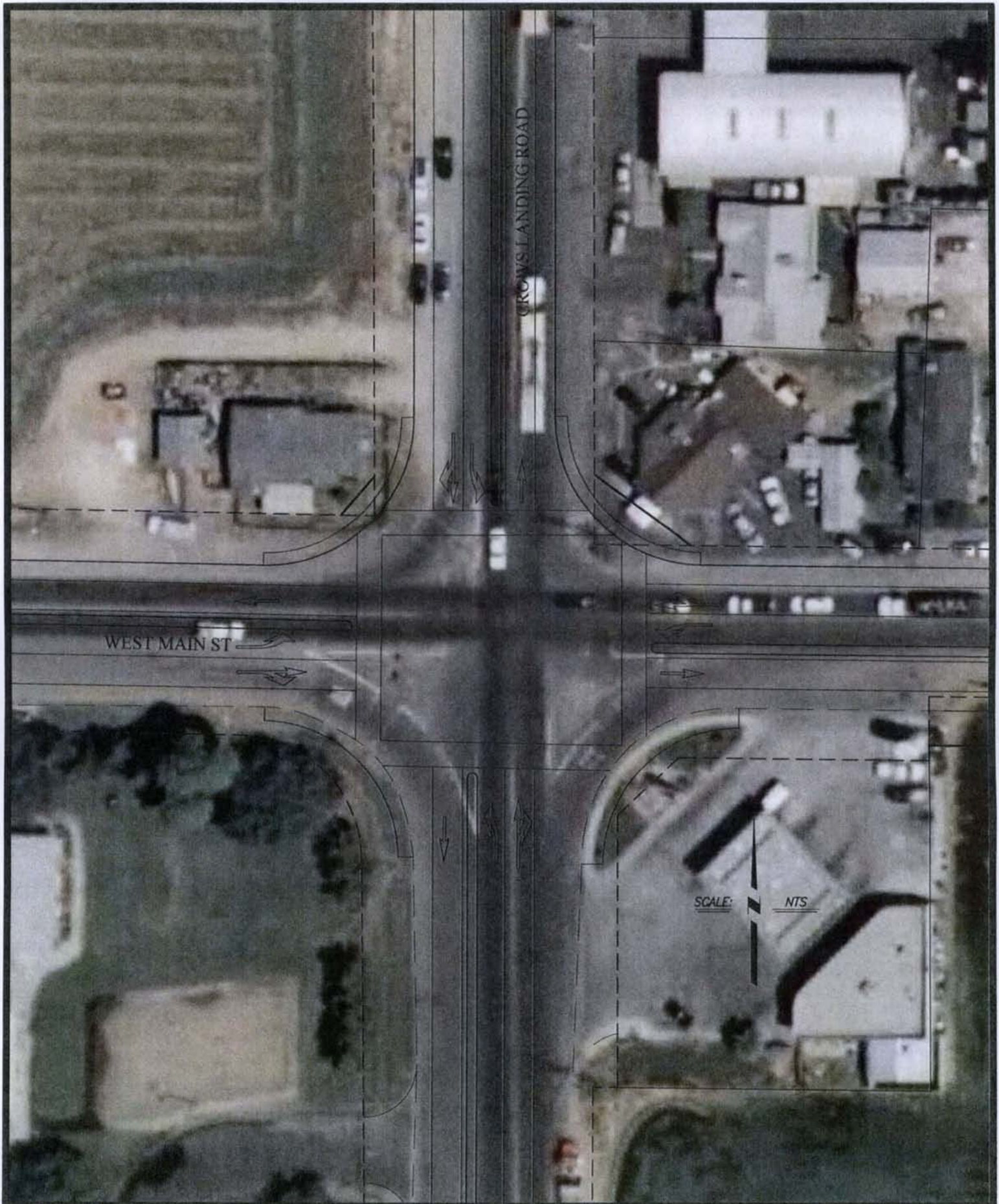


STANISLAUS COUNTY  
 DEPARTMENT OF PUBLIC WORKS  
 ENGINEERING AND OPERATIONS DIVISION  
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CROWS LANDING ROAD  
 AT WEST MAIN STREET  
 ALTERNATIVE 2

DRAWN BY:  
 DATE:  
 SHEET: 2.3  
 FILE:





CROWS LANDING ROAD

WEST MAIN ST

SCALE: NTS

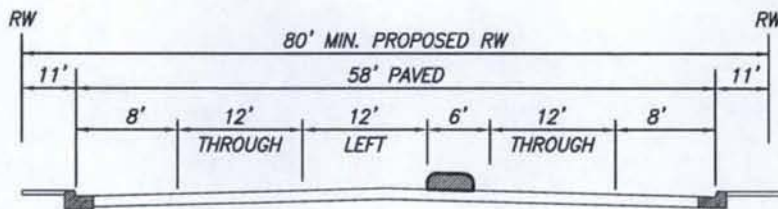


STANISLAUS COUNTY  
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1716 MORGAN ROAD - MODESTO, CA 95358

CROWS LANDING ROAD  
AT WEST MAIN STREET  
ALTERNATIVE 2

DRAWN BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
SHEET: 2.4  
FILE: \_\_\_\_\_





2-LANE RURAL COLLECTOR WITH MIN. 80 FT ROW

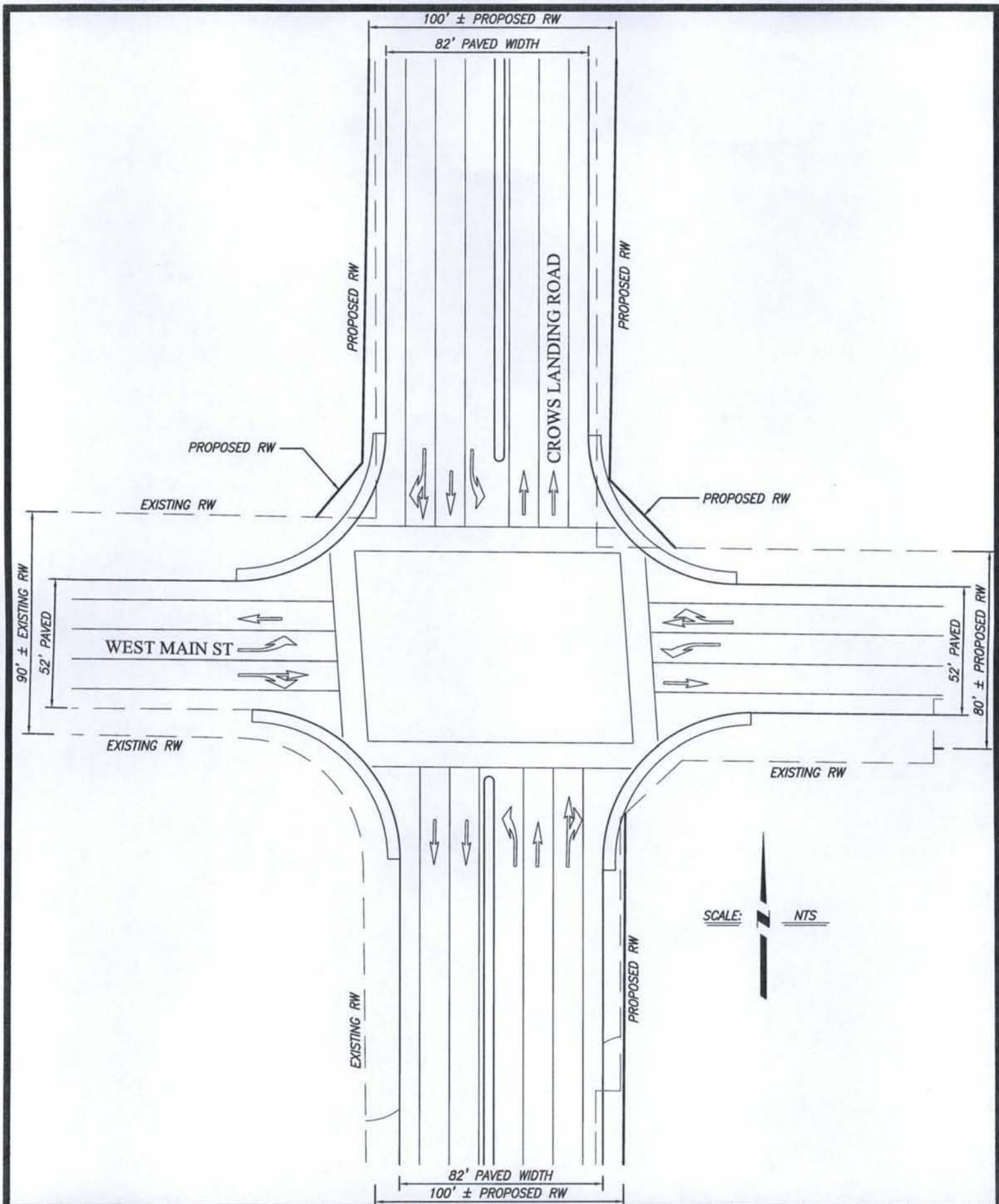
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11,093	APN_022-038-010
556	APN_022-039-005
6,286	APN_058-004-003
2,274	APN_058-004-004
4,123	APN_058-004-005
8,254	APN_058-004-006
1,648	APN_058-004-007
3,795	APN_058-004-016
9,284	APN_058-004-017
28,625	APN_058-006-002
76,076	TOTAL AREA (SF)



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CROWS LANDING ROAD  
 AT WEST MAIN STREET  
 ALTERNATIVE 2

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 DATE: \_\_\_\_\_  
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 FILE: \_\_\_\_\_

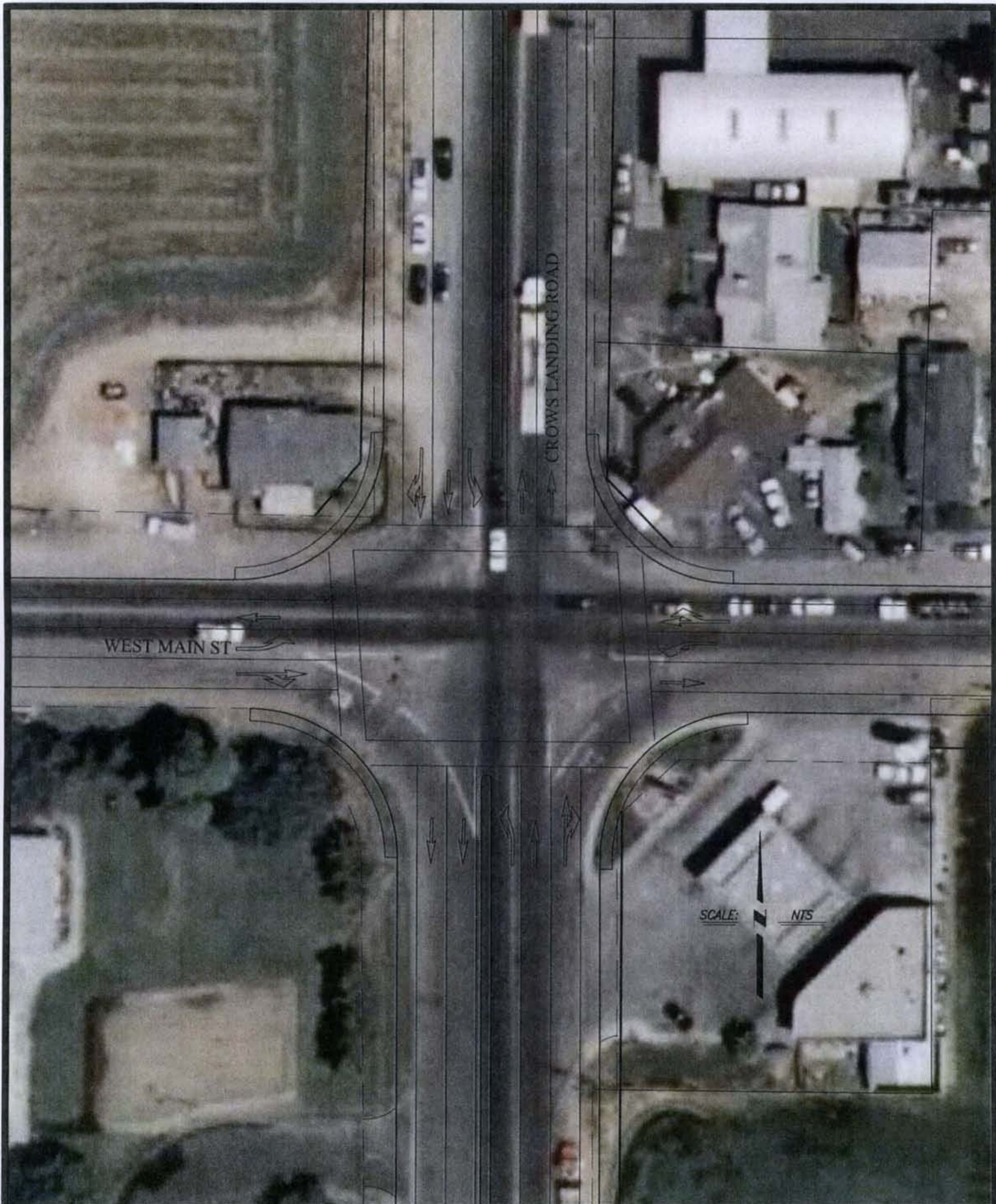


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**CROWS LANDING ROAD**  
**AT WEST MAIN STREET**  
**ALTERNATIVE 3-A**

DRAWN BY:  
 DATE:  
 SHEET: 2.6  
 FILE:





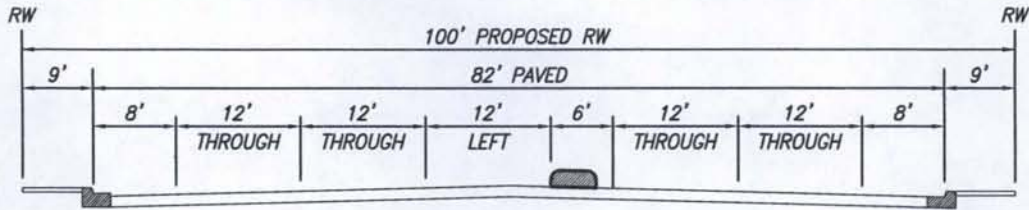
STANISLAUS COUNTY  
DEPARTMENT OF PUBLIC WORKS  
ENGINEERING AND OPERATIONS DIVISION  
1716 MORGAN ROAD - MODESTO, CA 95358

CROWS LANDING ROAD  
AT WEST MAIN STREET  
ALTERNATIVE 3-A

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DATE:	
SHEET: 2.7	
FILE:	

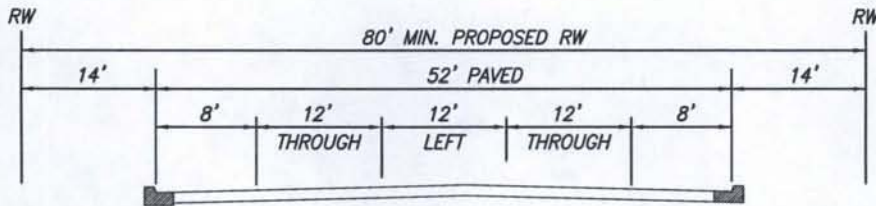


THIS OPTION ALLOWS FOR THE RESTAURANT (APN: 022-039-005) TO REMAIN OPERATIONAL



**4-LANE EXPRESSWAY WITH LIMITED 100 FT ROW**

CROWS LANDING RD (NORTH)  
CROWS LANDING RD (SOUTH)



**2-LANE RURAL COLLECTOR WITH MIN. 80 FT ROW**

WEST MAIN ST (WEST)  
WEST MAIN ST (EAST)

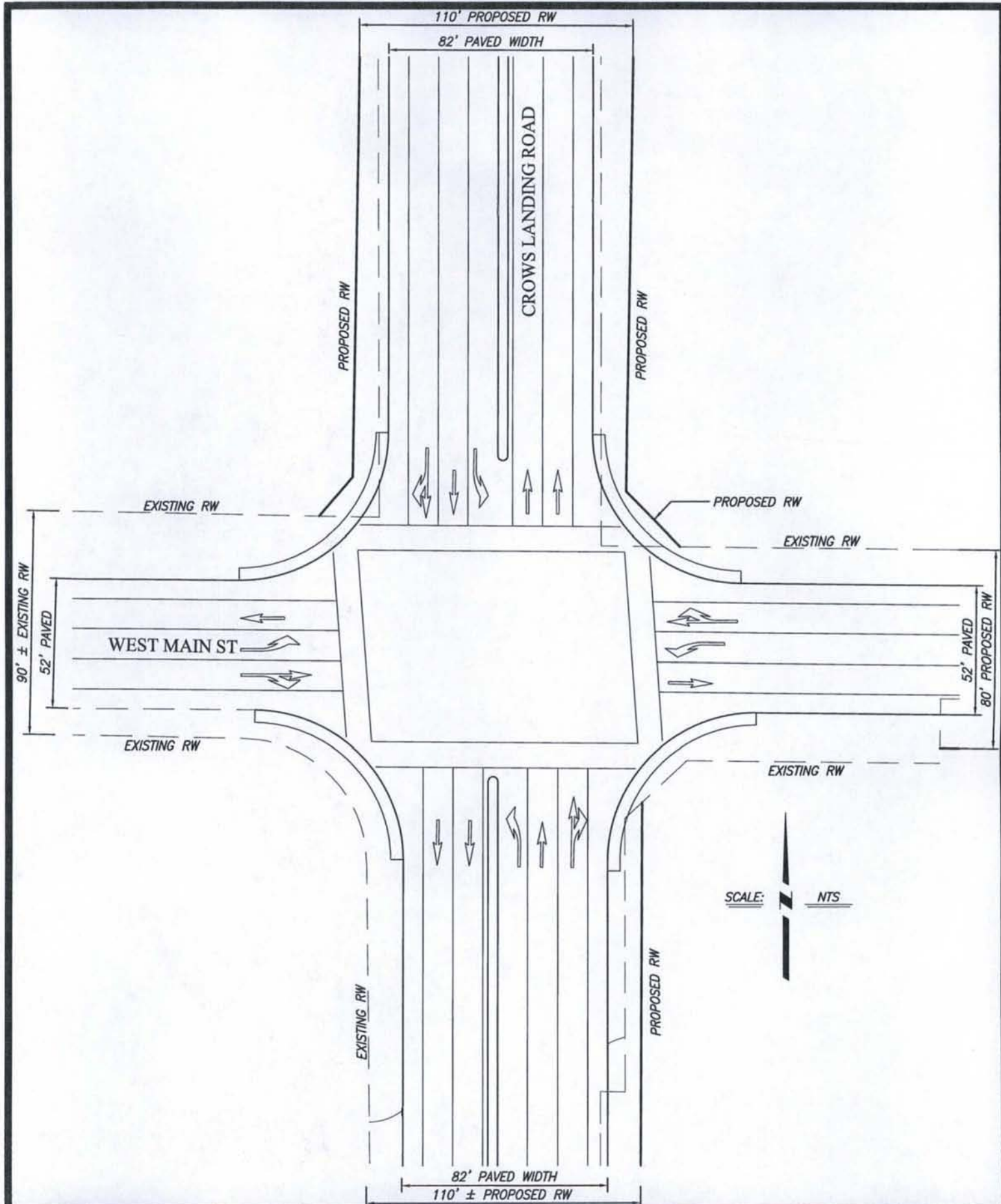
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1,674	APN_022-039-003
878	APN_022-039-004
815	APN_022-039-005
6,286	APN_058-004-003
2,274	APN_058-004-004
4,123	APN_058-004-005
8,254	APN_058-004-006
3,883	APN_058-004-007
4,786	APN_058-004-016
14,086	APN_058-004-017
187	APN_058-006-001
41,991	APN_058-006-002
4,552	APN_058-006-011
112,549	TOTAL AREA (SF)



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CROWS LANDING ROAD  
AT WEST MAIN STREET  
ALTERNATIVE 3-A

DRAWN BY:  
DATE:  
SHEET: 2.8  
FILE:

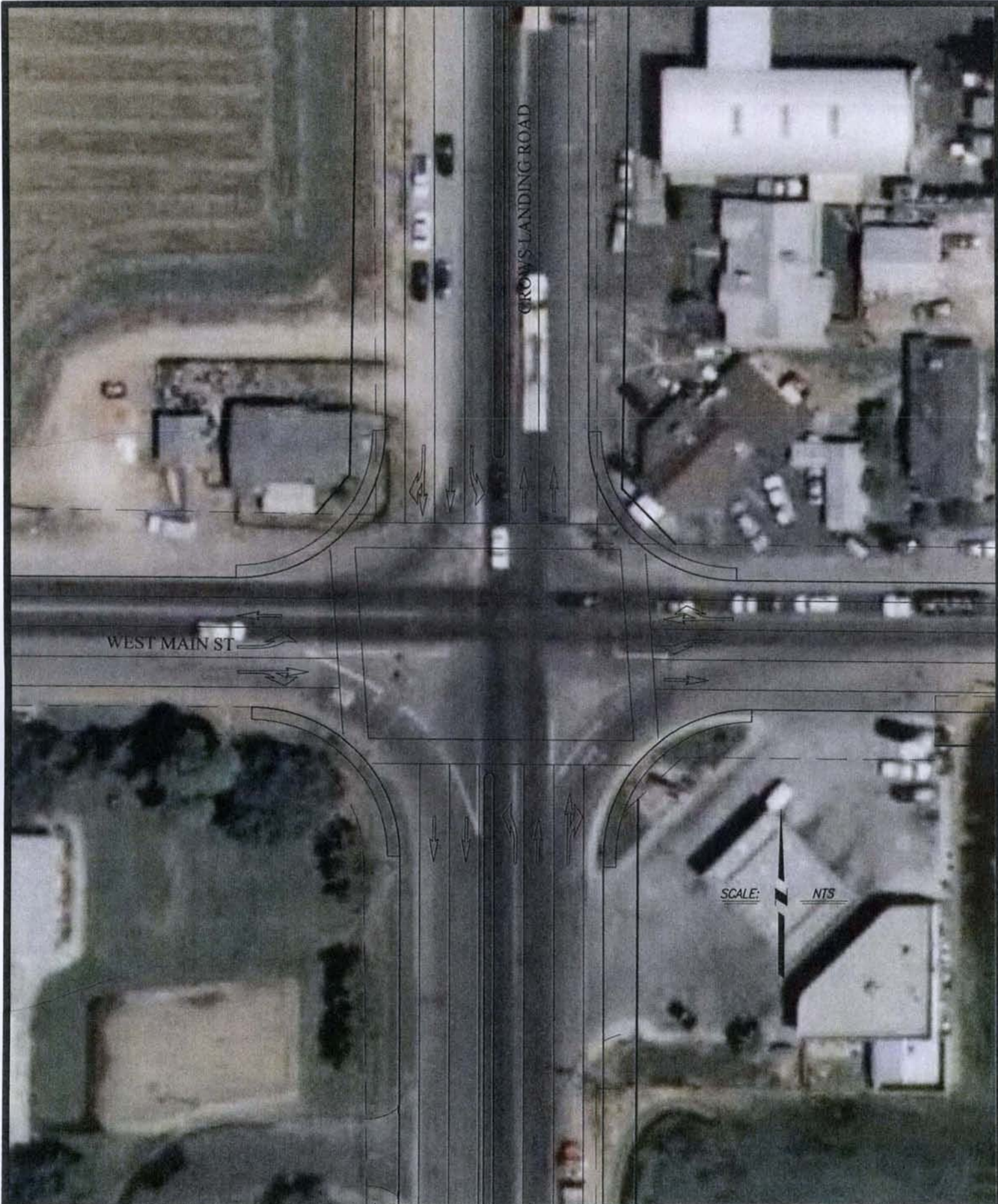


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**CROWS LANDING ROAD  
 AT WEST MAIN STREET  
 ALTERNATIVE 3-B**

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DATE:	
SHEET: 2.9	
FILE:	





CROWS LANDING ROAD

WEST MAIN ST

SCALE: NTS

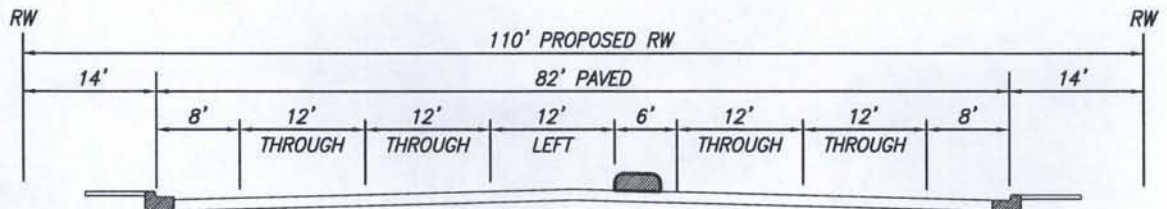


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ENGINEERING AND OPERATIONS DIVISION  
1716 MORGAN ROAD - MODESTO, CA 95358

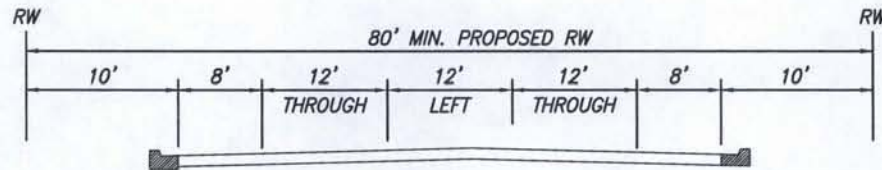
CROWS LANDING ROAD  
AT WEST MAIN STREET  
ALTERNATIVE 3-B

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DATE:
SHEET: 2.10
FILE:





**4-LANE EXPRESSWAY WITH 110 FT ROW**  
 CROWS LANDING RD (NORTH)  
 CROWS LANDING RD (SOUTH)



**2-LANE RURAL COLLECTOR WITH MIN. 80 FT ROW**  
 WEST MAIN ST (WEST)  
 WEST MAIN ST (EAST)

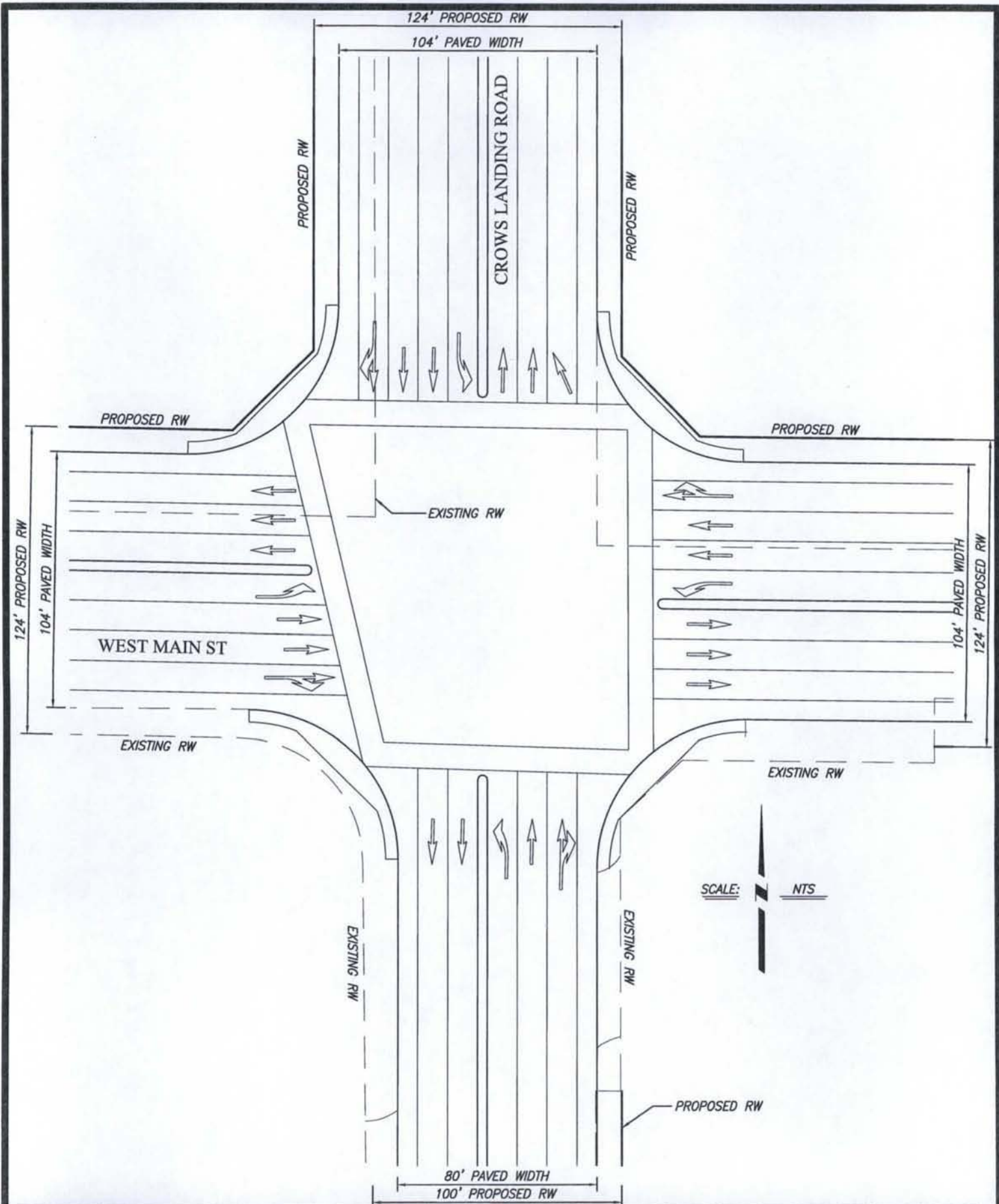
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3,095	APN_022-036-014
124	APN_022-036-015
15,133	APN_022-038-010
2,313	APN_022-039-001
2,535	APN_022-039-003
1,489	APN_022-039-004
1,103	APN_022-039-005
6,285	APN_058-004-003
2,274	APN_058-004-004
4,124	APN_058-004-005
8,255	APN_058-004-006
5,879	APN_058-004-007
6,187	APN_058-004-016
17,408	APN_058-004-017
760	APN_058-006-001
47,657	APN_058-006-002
5,932	APN_058-006-011
137,253	TOTAL AREA (SF)



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**CROWS LANDING ROAD  
 AT WEST MAIN STREET  
 ALTERNATIVE 3-B**

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 DATE: \_\_\_\_\_  
 SHEET: 2.11  
 FILE: \_\_\_\_\_



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**CROWS LANDING ROAD  
 AT WEST MAIN STREET  
 ALTERNATIVE 4-A**

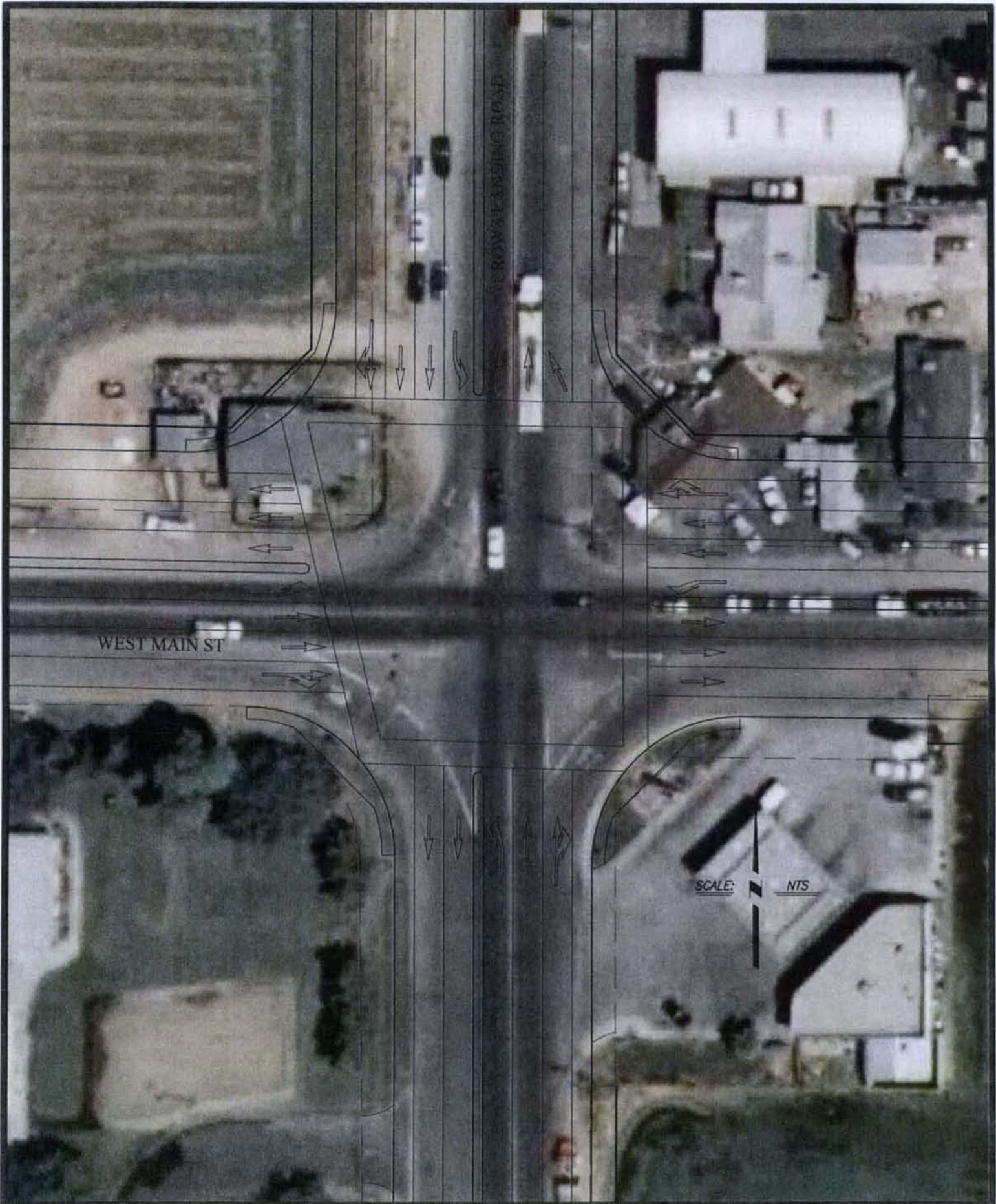
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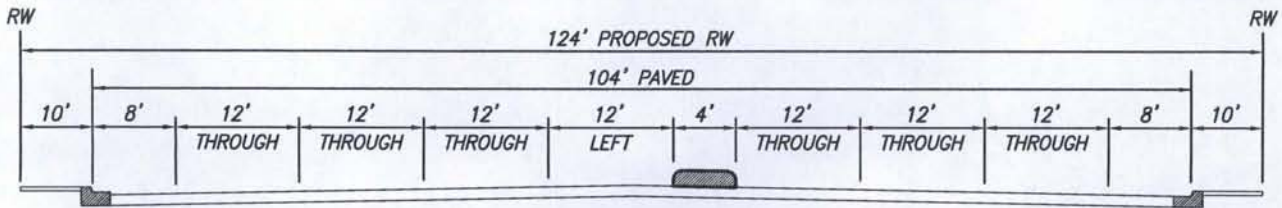


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 ENGINEERING AND OPERATIONS DIVISION  
 1716 MORGAN ROAD - MODESTO, CA 95358

**CROWS LANDING ROAD  
 AT WEST MAIN STREET  
 ALTERNATIVE 4-A**

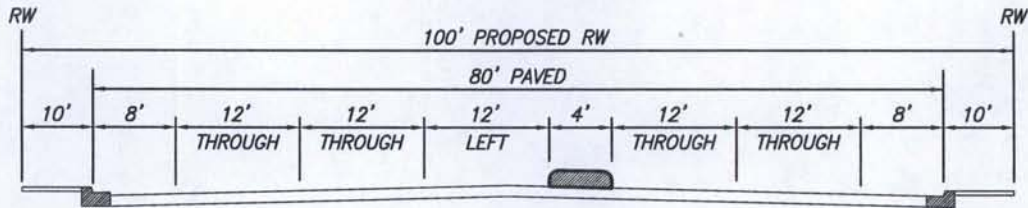
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FILE:	





**6-LANE EXPRESSWAY WITH LIMITED 124 FT ROW**

CROWS LANDING RD (NORTH)  
 WEST MAIN ST (WEST)  
 WEST MAIN ST (EAST)



**4-LANE EXPRESSWAY WITH LIMITED 100 FT ROW**

CROWS LANDING RD (SOUTH)

AREA	APN
14,538	APN_022-036-008
10,393	APN_022-036-010
67,769	APN_022-036-014
3,651	APN_022-036-015
7,287	APN_022-038-010
108	APN_022-039-001
1,785	APN_022-039-003
1,237	APN_022-039-004
6,817	APN_022-039-005
4,150	APN_022-039-006
37,919	APN_022-039-007
12,318	APN_022-039-008
2,187	APN_022-039-009
2,716	APN_022-039-012
2,181	APN_022-039-013
2,949	APN_058-004-003
1,171	APN_058-004-004
2,319	APN_058-004-005
5,590	APN_058-004-006
3,898	APN_058-004-007
6,783	APN_058-004-016
16,100	APN_058-004-017
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2,577	APN_058-006-011
255,548	TOTAL AREA (SF)

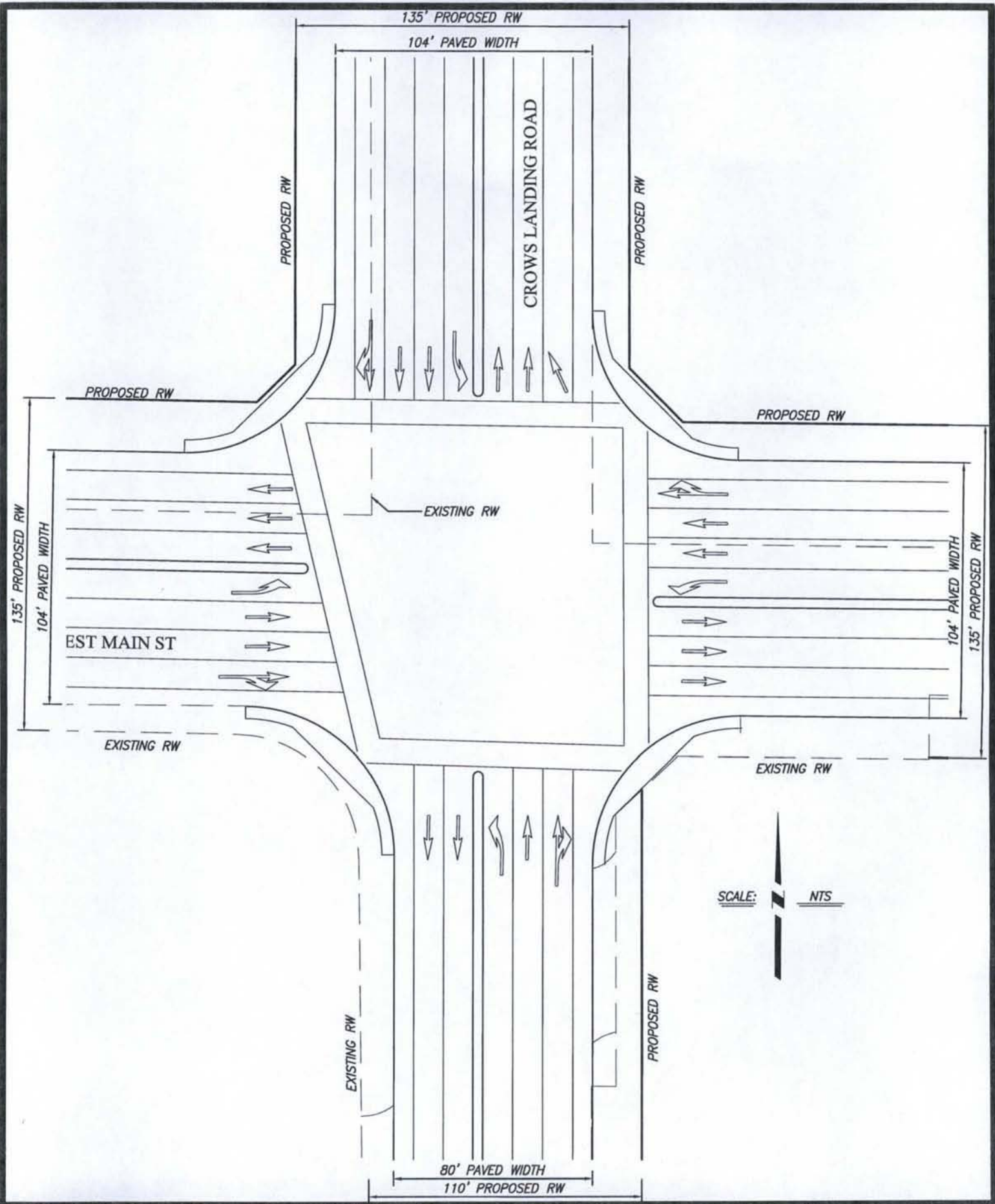


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 DEPARTMENT OF PUBLIC WORKS  
 ENGINEERING AND OPERATIONS DIVISION  
 1716 MORGAN ROAD - MODESTO, CA 95358

CROWS LANDING ROAD  
 AT WEST MAIN STREET  
 ALTERNATIVE 4-A

DRAWN BY:  
 DATE:  
 SHEET: 2.14  
 FILE:



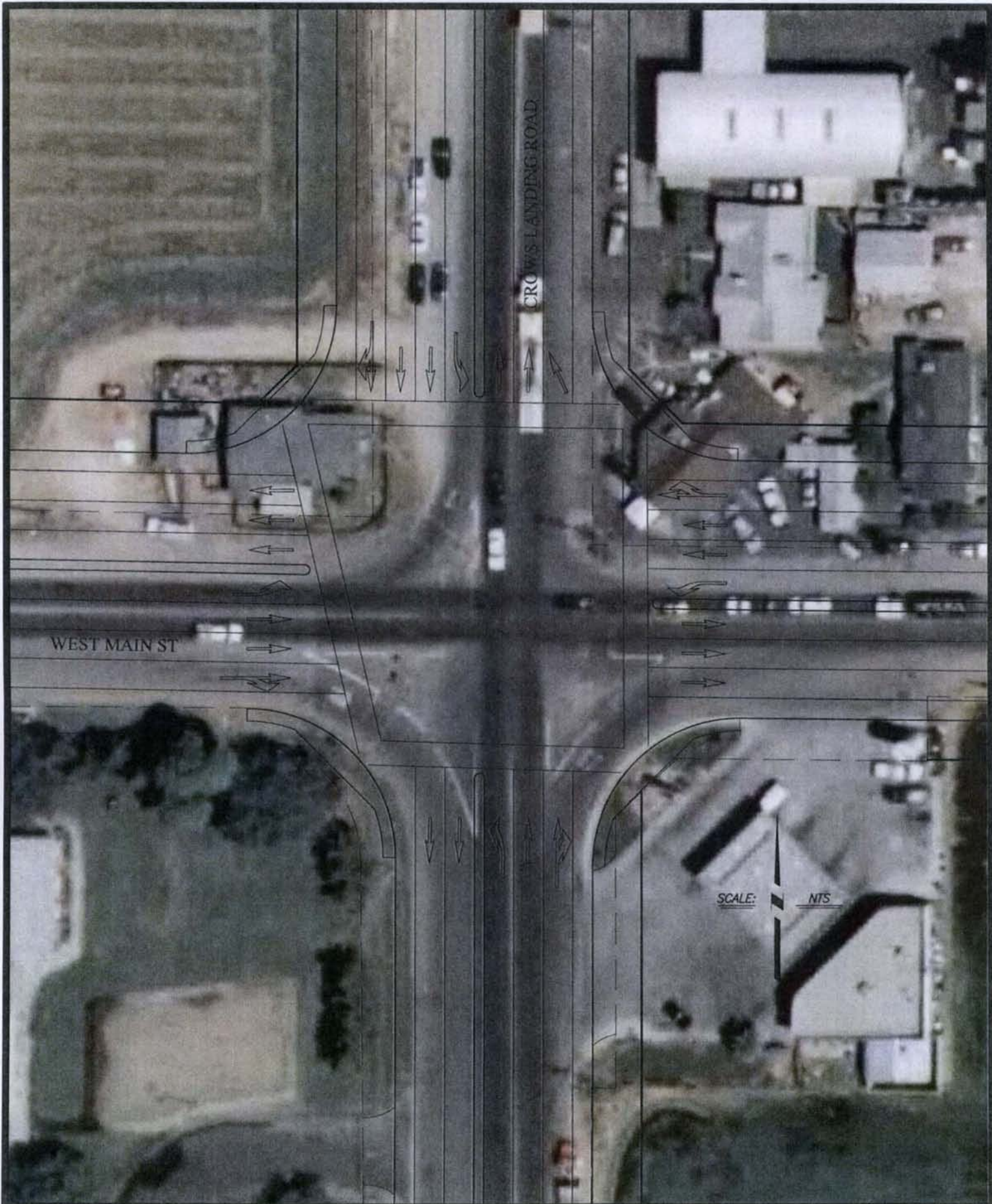


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 ENGINEERING AND OPERATIONS DIVISION  
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**CROWS LANDING ROAD  
 AT WEST MAIN STREET  
 ALTERNATIVE 4-B**

DRAWN BY:	
DATE:	
SHEET: 2.15	
FILE:	

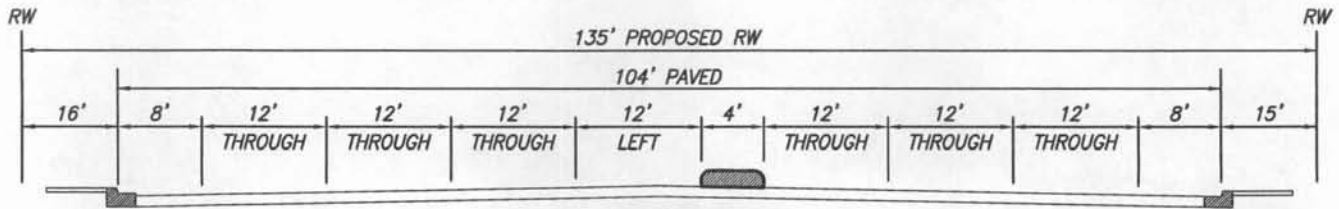




**STANISLAUS COUNTY**  
**DEPARTMENT OF PUBLIC WORKS**  
 ENGINEERING AND OPERATIONS DIVISION  
 1716 MORGAN ROAD - MODESTO, CA 95358

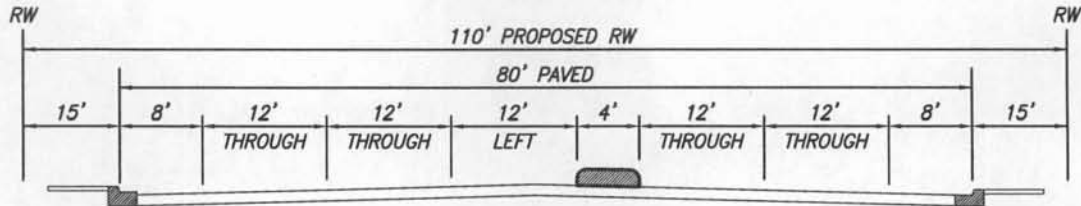
**CROWS LANDING ROAD  
 AT WEST MAIN STREET  
 ALTERNATIVE 4-B**

DRAWN BY:	
DATE:	
SHEET: 2.16	
FILE:	



**6-LANE EXPRESSWAY WITH LIMITED 124 FT ROW**

CROWS LANDING RD (NORTH)  
 WEST MAIN ST (WEST)  
 WEST MAIN ST (EAST)



**4-LANE EXPRESSWAY WITH LIMITED 100 FT ROW**

CROWS LANDING RD (SOUTH)

AREA	APN
16,240	APN_022-036-008
13,646	APN_022-036-010
87,229	APN_022-036-014
4,611	APN_022-036-015
10,386	APN_022-038-010
636	APN_022-039-001
2,646	APN_022-039-003
1,848	APN_022-039-004
6,859	APN_022-039-005
4,150	APN_022-039-006
37,919	APN_022-039-007
12,318	APN_022-039-008
2,187	APN_022-039-009
2,716	APN_022-039-012
2,181	APN_022-039-013
2,949	APN_058-004-003
1,171	APN_058-004-004
2,319	APN_058-004-005
5,590	APN_058-004-006
8,821	APN_058-004-007
9,581	APN_058-004-016
22,748	APN_058-004-017
55,303	APN_058-006-002
2,577	APN_058-006-011
316,631	TOTAL AREA (SF)



**STANISLAUS COUNTY**  
 DEPARTMENT OF PUBLIC WORKS  
 ENGINEERING AND OPERATIONS DIVISION  
 1716 MORGAN ROAD - MODESTO, CA 95348

**CROWS LANDING ROAD  
 AT WEST MAIN STREET  
 ALTERNATIVE 4-B**

DRAWN BY:  
 DATE:  
 SHEET: 2.17  
 FILE:



**APPENDIX A -  
COUNTY TRAFFIC DATA**

HCS+: Signalized Intersections Release 5.3

Phone:  
E-Mail:

Fax:

PLANNING ANALYSIS

Analyst: Bill Cardoza  
 Intersection: West Main/Crows Landing Road  
 Agency/Co.: Stanislaus County  
 Area Type: All other areas  
 Date Performed: 2/24/2009  
 Jurisdiction: Stanislaus County  
 Analysis Time Period:  
 Analysis Year: 2007  
 Project ID:

East/West Street North/South Street  
 West Main Crows Landing Road

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Num. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Volume	49	234	14	51	167	25	17	69	53	36	170	44
Parking		N			N			N			N	
Coord.		N			N			N			N	
LT Treat.	P			P			P			P		
Peak hour factor:	0.90			Area Type: All other areas								

LANE VOLUME WORKSHEET

	EAST BOUND	WEST BOUND	NORTH BOUND	SOUTH BOUND
<b>LEFT TURN MOVEMENT</b>				
1. LT volume	49	51	17	36
2. Opposing mainline volume	192	248	214	122
3. Number of exclusive LT lanes	1	1	1	1
Cross Product [2] * [1]	9408	12648	3638	4392
Left Lane Configuration (E=Excl, S=Shrd):	E	E	E	E
Left Turn Treatment Type:	P	P	P	P
4. LT adjustment factor	0.950	0.950	0.950	0.950
5. LT lane vol	52	54	18	38
<b>RIGHT TURN MOVEMENT</b>				
Right Lane Configuration (E=Excl, S=Shrd)	E	E	E	E
6. RT volume	14	25	53	44
7. Exclusive lanes	1	1	1	1
8. RT adjustment factor	0.850	0.850	0.850	0.850

9. Exclusive RT lane volume	16	29	62	52
10. Shared lane vol				

THROUGH MOVEMENT

11. Thru volume	234	167	69	170
12. Parking adjustment factor	1.00	1.00	1.00	1.00
13. No. of thru lanes including shared	1	1	1	1
14. Total approach volume	234	167	69	170
15. Prop. of left turns in lane group	0.00	0.00	0.00	0.00
16. Left turn equivalency				
17. LT adj. factor:				
18. Through lane volume	234	167	69	170
19. Critical lane volume	234	167	69	170

Left Turn Check (if [16] > 3.5)

20. Permitted left turn sneaker capacity:  
7200/Cmax

SIGNAL OPERATIONS WORKSHEET

Phase Plan Selection from Lane Volume Worksheet	EAST BOUND	WEST BOUND	NORTH BOUND	SOUTH BOUND
Critical through-RT vol: [19]	234	167	69	170
LT lane vol: [5]	52	54	18	38
Left turn protection: (P/U/N)	P	P	P	P
Dominant left turn: (Indicate by '<')		<		<

Selection Criteria based on the specified left turn protection	Plan 1: U	U	U	U
	Plan 2a: U	P	U	P
	Plan 2b: P	U	P	U
< Indicates the dominant left turn for each opposing pair	Plan 3a: <P	P	<P	P
	Plan 3b: P	<P	P	<P
	Plan 4: N	N	N	N

Phase plan selected (1 to 4) 3b 3b

Min. cycle (Cmin) 60 Max. cycle (Cmax) 120

Timing Plan	Value	EAST-WEST			NORTH-SOUTH		
		Ph 1	Ph 2	Ph 3	Ph 1	Ph 2	Ph 3
Movement codes		EBWBLT	WBTHLT	EBWBTH	NBSBLT	SBTHLT	NBSBTH
Critical phase vol [CV]		52	2	234	18	20	150
Critical sum [CS]	476						
CBD adjustment [CBD]	1.000						
Reference sum [RS]	1377						
Lost time/phase [PL]		4	0	4	4	0	4
Lost time/cycle [TL]	16						
Cycle length [CYC]	60.0						
Phase time		8.8	0.2	25.6	5.7	1.8	17.9
Critical v/c Ratio [Xc]	0.42						
Status	Under capacity						

HCS+: Signalized Intersections Release 5.3

Phone:  
E-Mail:

Fax:

PLANNING ANALYSIS

Analyst: Bill Cardoza  
 Intersection: West Main/Crows Landing Road  
 Agency/Co.: Stanislaus County  
 Area Type: All other areas  
 Date Performed: 2/24/2009  
 Jurisdiction: Stanislaus County  
 Analysis Time Period:  
 Analysis Year: 2027  
 Project ID:

East/West Street North/South Street  
 West Main Crows Landing Road

VOLUME DATA

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Num. Lanes	1	1	1	1	1	1	1	1	1	1	1	1
Volume	88	422	15	92	301	45	31	125	96	65	307	80
Parking		N			N			N			N	
Coord.		N			N			N			N	
LT Treat.	P			P			P			P		
Peak hour factor:	0.90			Area Type: All other areas								

LANE VOLUME WORKSHEET

	EAST BOUND	WEST BOUND	NORTH BOUND	SOUTH BOUND
<b>LEFT TURN MOVEMENT</b>				
1. LT volume	88	92	31	65
2. Opposing mainline volume	346	437	387	221
3. Number of exclusive LT lanes	1	1	1	1
Cross Product [2] * [1]	30448	40204	11997	14365
Left Lane Configuration (E=Excl, S=Shrd):	E	E	E	E
Left Turn Treatment Type:	P	P	P	P
4. LT adjustment factor	0.950	0.950	0.950	0.950
5. LT lane vol	93	97	33	68
<b>GHT TURN MOVEMENT</b>				
Right Lane Configuration (E=Excl, S=Shrd)	E	E	E	E
6. RT volume	15	45	96	80
7. Exclusive lanes	1	1	1	1
8. RT adjustment factor	0.850	0.850	0.850	0.850

9. Exclusive RT lane volume 18 53 113 94  
 10. Shared lane vol

THROUGH MOVEMENT

11. Thru volume 422 301 125 307  
 12. Parking adjustment factor 1.00 1.00 1.00 1.00  
 13. No. of thru lanes including shared 1 1 1 1  
 14. Total approach volume 422 301 125 307  
 15. Prop. of left turns in lane group 0.00 0.00 0.00 0.00  
 16. Left turn equivalence  
 17. LT adj. factor:  
 18. Through lane volume 422 301 125 307  
 19. Critical lane volume 422 301 125 307

Left Turn Check (if [16] > 3.5)  
 20. Permitted left turn sneaker capacity:  
 7200/Cmax

SIGNAL OPERATIONS WORKSHEET

Phase Plan Selection from Lane Volume Worksheet	EAST BOUND	WEST BOUND	NORTH BOUND	SOUTH BOUND
Critical through-RT vol: [19]	422	301	125	307
LT lane vol: [5]	93	97	33	68
Left turn protection: (P/U/N)	P	P	P	P
Dominant left turn: (Indicate by '<')		<		<

Selection Criteria based on the specified left turn protection	Plan 1: U	U	U	U
	Plan 2a: U	P	U	P
	Plan 2b: P	U	P	U
< Indicates the dominant left turn for each opposing pair	Plan 3a: <P	P	<P	P
	Plan 3b: P	<P	P	<P
	Plan 4: N	N	N	N

Phase plan selected (1 to 4) 3b 3b

Min. cycle (Cmin) 60 Max. cycle (Cmax) 120

Timing Plan	Value	EAST-WEST			NORTH-SOUTH		
		Ph 1	Ph 2	Ph 3	Ph 1	Ph 2	Ph 3
Movement codes		EBWBTL	WBTHLT	EBWBTH	NBSBLT	SBTHLT	NBSBTH
Critical phase vol [CV]		93	4	422	33	35	272
Critical sum [CS]	859						
CBD adjustment [CBD]	1.000						
Reference sum [RS]	1377						
Lost time/phase [PL]		4	0	4	4	0	4
Lost time/cycle [TL]	16						
Cycle length [CYC]	60.0						
Phase time		8.8	0.2	25.6	5.7	1.8	17.9
Critical v/c Ratio [Xc]	0.77						
Status	Under capacity						



**SAFETY INDEX CALCULATION WORKSHEET**

LOCAL AGENCY Stanislaus County

DATE 12-19-07  
 CALCULATED BY B. Cardona  
 CHECKED BY \_\_\_\_\_

PROJECT LOCATION West Main at Crows Landing Rd.

PROPOSED IMPROVEMENT new signal

TOTAL COST (in \$1,000s) 1500 ADT (existing, all directions, in 1,000s) 14.5

NUMBER OF LOCATIONS, OR LENGTH IN MILES 1 Note: This value is represented by "N" in the formulas below.

SEVERITY OF ACCIDENTS	COLUMN							
	A	B	C	D	E		F	G
	TOTAL ACCIDENTS LAST THREE (3) YEARS	AVERAGE NO. OF ACCIDENTS PER YEAR	REDUCTION FACTOR (See Table 1)	ACCIDENTS REDUCED	ACCIDENT COSTS (\$1,000's)		LIFE OF IMPROVEMENT (See Table 1)	SAVINGS IN ACCIDENT COSTS (\$1,000's)
	A + 3	RF	B x C	urban	rural	LOI	D x E x F	
FATAL + INJURY	3	1.0	.15	.15	24.0	(61.0)	10	91.50
PDO	5	1.67	.15	.25	3.2		10	8.00
TOTALS		2.67		.40				99.5

<b>INITIAL ACCIDENT RATE</b>	<b>EXPECTED ACCIDENT RATE</b>
$IAR = \frac{"B"(Total)}{ADT(in\ 1000s) \times 0.365 \times N} = .50$	$EAR = \frac{"B"(Total) - "D"(Total)}{ADT(in\ 1000s) \times 0.365 \times N} = .42$

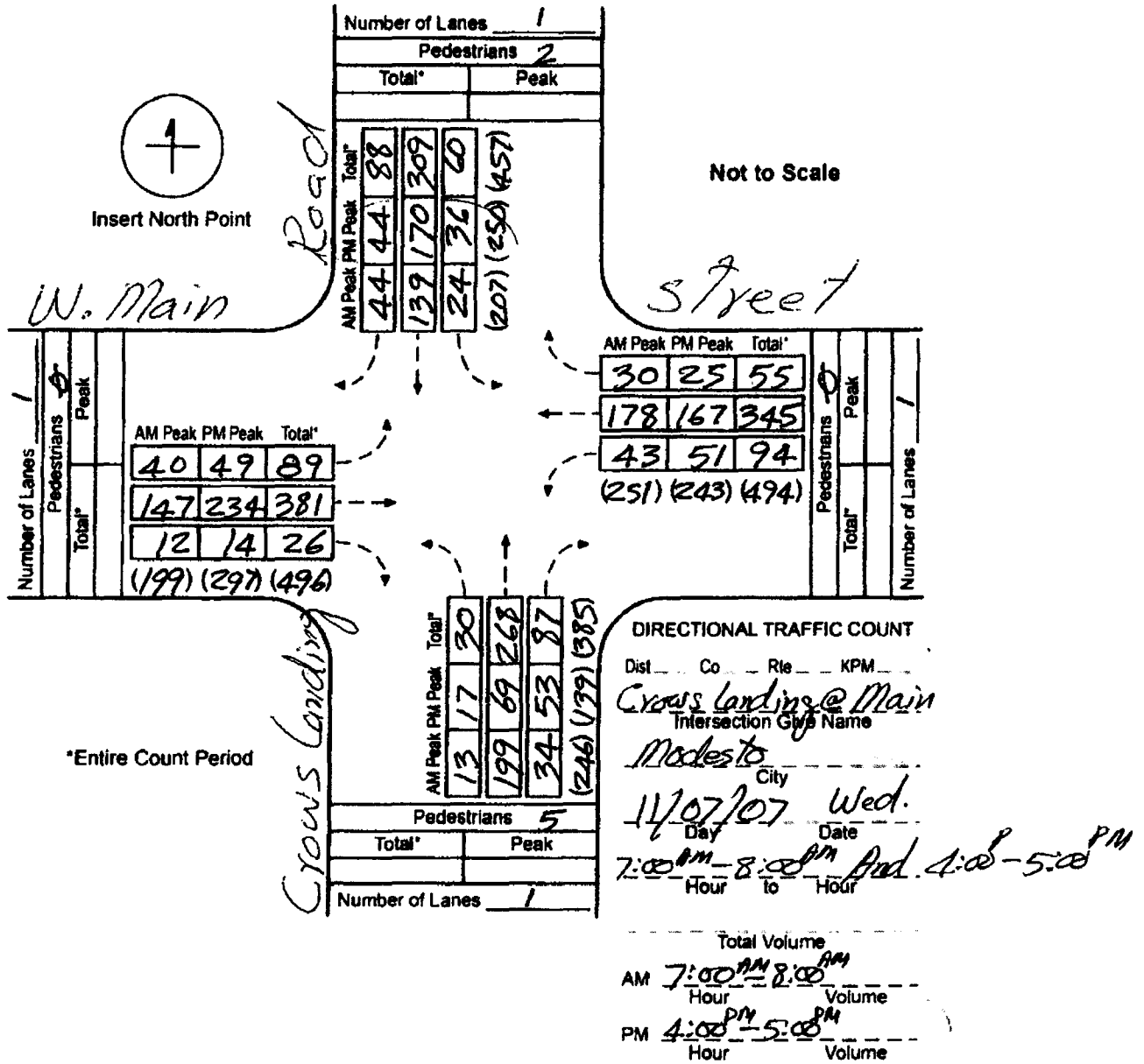
<b>SAFETY INDEX</b>	
From Table 1, find the Accident Base Rate (ABR) for the Project: ABR = <u>1.20</u>	
If $EAR \geq ABR$ , use the Safety Index formula below:  $SI = \frac{"G"(Total) \times 100}{Total\ Cost\ (in\ \$1000s)}$	If $EAR < ABR$ , use the Safety Index formula below:  $SI = (EAR/ABR)^3 \times \frac{"G"(Total) \times 100}{Total\ Cost\ (\$1000s)}$
SI = _____	SI = <u>.28</u> <u>.3</u>

# Cross Landing Road @ W. Main St.

Year	Count	Notes	Subtotal	Subtotal
2004	<del>1</del>	= <del>2</del> *		
2005	1	= 1 0		
2006	1	= <del>1</del> 1		
2007	1	= <del>5</del>		
Total - 8				

Traffic  
Collision Report.

Figure 4C-102. Traffic Count Worksheet



**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : CROWS LANDING ROAD  
 Title3 : NO W MAIN

Site:  
 Date: 11/07/07

Interval				Day: Wednesday
Begin	NB	SB	Combined	
12:AM	17	26	43	
01:00	24	16	40	
02:00	15	14	29	
03:00	8	18	26	
04:00	32	21	53	
05:00	48	53	101	
06:00	85	118	203	
07:00	167	165	332	
08:00	266	195	461	
09:00	201	159	360	
10:00	196	176	372	
11:00	161	137	298	
12:PM	162	150	312	
01:00	165	149	314	
02:00	167	156	323	
03:00	200	179	379	
04:00	233	207	440	
05:00	238	239	477	
06:00	226	231	457	
07:00	120	194	314	
08:00	83	83	166	
09:00	56	86	142	
10:00	43	84	127	
11:00	37	39	76	
<b>Totals</b>	<b>2,950</b>	<b>2,895</b>	<b>5,845</b>	
<b>plit %</b>	<b>50.5</b>	<b>49.5</b>		
<b>AM Peak</b>	<b>08:00</b>	<b>08:00</b>	<b>08:00</b>	
<b>Volume</b>	<b>266</b>	<b>195</b>	<b>461</b>	
<b>PM Peak</b>	<b>05:00</b>	<b>05:00</b>	<b>05:00</b>	
<b>Volume</b>	<b>238</b>	<b>239</b>	<b>477</b>	

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : CROWS LANDING ROAD  
 Title3 : NO W MAIN

Site:  
 Date: 11/07/07

Direction: NB

Begin Time	Total	1-14 MPH	15-19 MPH	20-24 MPH	25-29 MPH	30-34 MPH	35-39 MPH	40-44 MPH	45-49 MPH	50-54 MPH	55-59 MPH	60-64 MPH	65-69 MPH	70-99 MPH	Avg
12:AM	17	0	0	0	0	0	2	0	1	7	4	0	2	1	55
01:00	24	0	0	0	1	0	1	3	1	8	4	3	2	1	54
02:00	15	0	0	2	0	0	0	1	4	3	2	2	1	0	49
03:00	8	0	0	0	0	0	0	0	0	3	4	1	0	0	56
04:00	32	0	0	0	0	0	2	3	4	7	6	10	0	0	54
05:00	48	0	0	0	0	0	0	4	4	20	9	7	3	1	55
06:00	85	0	0	0	0	0	2	7	9	26	24	13	3	1	54
07:00	167	0	0	0	0	1	2	6	14	49	45	31	17	2	56
08:00	266	0	0	0	0	1	4	9	30	52	71	68	26	5	57
09:00	201	0	0	1	0	0	3	14	20	70	50	32	8	3	54
10:00	196	0	1	0	0	3	0	13	19	58	58	29	13	2	55
11:00	161	0	0	2	0	0	4	8	23	48	41	24	9	2	54
12:PM	162	0	2	2	0	0	1	8	22	44	39	33	10	1	54
01:00	165	0	1	0	0	4	2	3	26	63	36	19	10	1	54
02:00	167	0	0	0	0	1	3	4	19	49	47	37	5	2	55
03:00	200	0	0	0	1	0	6	14	29	50	61	31	7	1	54
04:00	233	0	0	2	4	1	5	11	30	62	60	42	15	1	54
05:00	238	0	0	0	0	0	2	7	29	73	65	45	12	5	56
06:00	226	1	0	0	4	0	1	5	22	72	68	40	11	2	55
07:00	120	0	0	0	0	1	0	5	18	40	34	18	3	1	54
08:00	83	0	0	0	0	1	2	2	11	22	25	13	6	1	55
09:00	56	0	0	0	0	0	0	4	4	16	19	5	7	1	56
10:00	43	0	0	1	0	0	1	2	10	8	8	6	5	2	55
11:00	37	0	0	0	1	0	2	1	4	11	11	6	0	1	54
Daily	2,950	1	4	10	11	13	45	134	353	861	791	515	175	37	55

**Totals**

Percent of Total	0.0	0.1	0.3	0.4	0.4	1.5	4.5	12.0	29.2	26.8	17.5	5.9	1.3	
------------------	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	-----	-----	--

Percentile Speeds	<u>10%</u>	<u>15%</u>	<u>50%</u>	<u>85%</u>	<u>90%</u>
	46.1	48.2	55.3	62.8	64.2

1) MPH Pace Speed : 50 - 60  
 Number in pace : 1,652  
 Avg in pace : 56.0

Speed Exceeded	45 MPH	55 MPH	65 MPH
Percentage	92.6	51.5	7.2
Totals	2,732	1,518	212

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : CROWS LANDING ROAD  
 Title3 : NO W MAIN

Site:  
 Date: 11/07/07

Direction: SB

Begin Time	Total	1-14 MPH	15-19 MPH	20-24 MPH	25-29 MPH	30-34 MPH	35-39 MPH	40-44 MPH	45-49 MPH	50-54 MPH	55-59 MPH	60-64 MPH	65-69 MPH	70-99 MPH	Avr
12:AM	26	0	0	0	0	0	0	1	0	6	6	8	5	0	59
01:00	16	0	0	0	0	0	0	1	1	3	5	4	2	0	57
02:00	14	0	0	0	0	0	1	0	1	2	6	2	1	1	58
03:00	18	0	0	0	0	0	0	1	3	1	7	3	3	0	57
04:00	21	0	1	0	0	0	0	0	2	6	6	3	3	0	55
05:00	53	0	0	0	0	0	1	2	8	18	10	7	7	0	55
06:00	118	0	0	0	0	0	0	5	17	39	32	20	4	1	55
07:00	165	1	3	0	0	0	6	16	27	59	27	16	8	2	52
08:00	195	0	1	0	2	1	0	3	14	70	51	37	15	1	55
09:00	159	0	0	1	0	0	0	11	23	66	26	22	9	1	54
10:00	176	0	1	3	3	0	3	7	21	54	41	22	12	9	55
11:00	137	0	0	0	0	0	3	9	16	32	44	21	10	2	55
12:PM	150	0	0	0	0	0	1	9	21	46	48	15	10	0	54
01:00	149	0	0	0	0	0	0	7	16	43	46	27	9	1	55
02:00	156	0	0	0	1	0	0	4	17	58	44	24	6	2	55
03:00	179	0	0	1	1	0	3	10	15	56	43	40	9	1	55
04:00	207	0	0	0	0	6	0	4	21	59	71	33	10	3	55
05:00	239	0	0	1	2	2	2	11	24	72	62	43	11	9	55
06:00	231	0	1	0	1	2	5	17	25	85	61	28	6	0	53
07:00	194	0	1	1	0	0	0	5	26	70	57	26	8	0	54
08:00	83	0	0	0	0	0	1	3	14	32	20	8	4	1	54
09:00	86	0	0	0	0	0	0	1	8	33	24	11	6	3	56
10:00	84	0	0	0	0	1	0	8	10	22	22	16	4	1	55
11:00	39	0	0	0	0	0	0	1	6	11	11	6	3	1	56
Daily	2,895	1	8	7	10	12	26	136	336	943	770	442	165	39	55

Totals															
Percent of Total		0.0	0.3	0.2	0.3	0.4	0.9	4.7	11.6	32.6	26.6	15.3	5.7	1.3	

Percentile Speeds	<u>10%</u>	<u>15%</u>	<u>50%</u>	<u>85%</u>	<u>90%</u>
	46.3	48.5	54.8	62.4	64.0

90 MPH Pace Speed : 50 - 60  
 Number in pace : 1,713  
 % in pace : 59.2

Speed Exceeded	<b>45 MPH</b>	<b>55 MPH</b>	<b>65 MPH</b>
Percentage	93.1	48.9	7.0
Totals	2,695	1,416	204

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : CROWS LANDING ROAD  
 Title3 : NO W MAIN

Site:  
 Date: 11/07/07

Direction: NB

Begin Time	Direction: NB													
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Total	Bikes	Cars & Trs	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	
12:AM	17	0	8	3	0	3	0	0	0	2	0	0	0	
01:00	24	0	10	4	2	0	0	1	4	2	1	0	0	
02:00	15	0	6	2	2	0	0	1	1	0	1	0	0	
03:00	8	0	4	1	0	0	0	0	2	0	1	0	0	
04:00	32	1	12	8	1	3	1	0	5	0	1	0	0	
05:00	48	2	25	12	1	2	0	1	4	0	1	0	0	
06:00	85	1	46	21	3	5	0	1	5	0	2	0	1	
07:00	167	1	80	50	2	15	0	1	17	0	0	0	1	
08:00	266	3	161	61	3	14	3	4	14	0	3	0	0	
09:00	201	1	104	51	3	20	2	4	12	0	4	0	0	
10:00	196	0	96	32	2	20	2	4	13	0	6	0	1	
11:00	161	0	76	50	3	14	4	2	12	0	0	0	0	
12:PM	162	1	73	58	3	11	3	5	7	0	1	0	0	
01:00	165	2	79	43	5	15	7	2	7	0	4	1	0	
02:00	167	2	95	36	1	17	2	2	10	1	1	0	0	
03:00	200	2	93	48	8	24	8	3	11	1	2	0	0	
04:00	233	0	122	64	1	24	5	5	9	0	3	0	0	
05:00	238	2	132	64	2	20	4	6	7	0	1	0	0	
06:00	226	1	130	67	3	14	3	1	5	0	2	0	0	
07:00	120	1	64	38	0	9	0	1	5	1	1	0	0	
08:00	83	1	43	23	0	5	1	1	8	0	1	0	0	
09:00	56	0	33	16	0	3	1	0	3	0	0	0	0	
10:00	43	0	28	8	1	3	0	1	2	0	0	0	0	
11:00	37	0	20	10	2	0	1	0	4	0	0	0	0	
Daily Totals	2,950	21	1,540	790	48	243	47	46	169	5	37	1	3	
Percent of Total		0.7	52.2	26.8	1.6	8.2	1.6	0.0	1.6	5.7	0.2	1.3	0.0	0.1

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : CROWS LANDING ROAD  
 Title3 : NO W MAIN

Site:  
 Date: 11/07/07

Direction: SB

Begin Time	Total	1	2	3	4	5	6	7	8	9	10	11	12	13
		Bikes	Cars & Trs	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi
12:AM	26	0	20	5	0	0	0	0	0	1	0	0	0	0
01:00	16	0	9	4	0	2	0	0	0	1	0	0	0	0
02:00	14	0	9	1	1	1	0	0	0	1	0	1	0	0
03:00	18	0	10	3	0	0	0	0	0	5	0	0	0	0
04:00	21	1	10	4	1	1	0	0	0	4	0	0	0	0
05:00	53	1	24	11	0	5	2	0	1	7	0	2	0	0
06:00	118	0	60	26	2	10	3	0	0	15	0	2	0	0
07:00	165	1	78	52	3	11	1	0	2	11	0	6	0	0
08:00	195	2	100	51	3	14	1	0	2	21	0	1	0	0
09:00	159	2	86	27	2	22	5	0	6	8	0	1	0	0
10:00	176	0	88	39	2	18	2	0	3	20	0	4	0	0
11:00	137	2	51	51	1	9	3	0	6	11	0	3	0	0
12:PM	150	1	74	36	1	22	2	0	3	11	0	0	0	0
01:00	149	0	87	31	4	11	3	0	2	9	1	1	0	0
02:00	156	0	79	44	3	15	2	0	2	10	0	1	0	0
03:00	179	3	94	43	3	15	2	0	9	8	0	2	0	0
04:00	207	1	111	59	2	11	10	0	3	10	0	0	0	0
05:00	239	1	142	64	1	15	2	0	1	12	0	0	1	0
06:00	231	4	154	44	0	15	6	0	1	6	0	1	0	0
07:00	194	1	124	52	0	12	0	0	2	3	0	0	0	0
08:00	83	0	58	21	1	2	1	0	0	0	0	0	0	0
09:00	86	1	57	26	0	2	0	0	0	0	0	0	0	0
10:00	84	0	57	19	0	4	0	0	2	2	0	0	0	0
11:00	39	0	27	7	0	2	1	0	1	1	0	0	0	0
Daily Totals	2,895	21	1,609	720	30	219	46	0	46	177	1	25	1	0
Percent of Total		0.7	55.6	24.9	1.0	7.6	1.6	0.0	1.6	6.1	0.0	0.9	0.0	0.0



**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : CROWS LANDING ROAD  
 Title3 : SO W MAIN

Site:  
 Date: 11/07/07

Interval				Day: Wednesday
Begin	NB	SB	Combined	
12:AM	19	36	55	
01:00	19	21	40	
02:00	11	14	25	
03:00	6	17	23	
04:00	29	23	52	
05:00	49	46	95	
06:00	92	110	202	
07:00	153	153	306	
08:00	260	176	436	
09:00	210	146	356	
10:00	209	151	360	
11:00	172	134	306	
12:PM	155	140	295	
01:00	165	159	324	
02:00	165	161	326	
03:00	211	161	372	
04:00	206	213	419	
05:00	222	222	444	
06:00	231	210	441	
07:00	116	219	335	
08:00	87	92	179	
09:00	51	89	140	
10:00	47	86	133	
11:00	28	42	70	
<b>Totals</b>	<b>2,913</b>	<b>2,821</b>	<b>5,734</b>	
<b>Split %</b>	<b>50.8</b>	<b>49.2</b>		
<b>AM Peak</b>	<b>08:00</b>	<b>08:00</b>	<b>08:00</b>	
<b>Volume</b>	<b>260</b>	<b>176</b>	<b>436</b>	
<b>PM Peak</b>	<b>06:00</b>	<b>05:00</b>	<b>05:00</b>	
<b>Volume</b>	<b>231</b>	<b>222</b>	<b>444</b>	

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : CROWS LANDING ROAD  
 Title3 : SO W MAIN

Site:  
 Date: 11/07/07

Direction: NB

Begin Time	Total	1-14 MPH	15-19 MPH	20-24 MPH	25-29 MPH	30-34 MPH	35-39 MPH	40-44 MPH	45-49 MPH	50-54 MPH	55-59 MPH	60-64 MPH	65-69 MPH	70-99 MPH	Avg
12:AM	19	0	0	0	0	0	0	2	2	7	6	0	2	0	54
01:00	19	0	0	0	0	1	1	1	6	4	4	1	0	1	51
02:00	11	0	0	0	0	0	1	2	1	4	3	0	0	0	50
03:00	6	0	0	0	0	0	0	0	0	2	3	1	0	0	56
04:00	29	0	0	0	2	0	1	3	5	10	5	2	1	0	50
05:00	49	0	0	0	0	1	0	1	8	20	13	5	1	0	53
06:00	92	0	1	0	0	0	2	8	22	30	17	10	0	2	52
07:00	153	0	0	0	0	0	0	6	22	62	41	15	6	1	54
08:00	260	0	0	0	0	0	1	12	42	104	69	26	3	3	54
09:00	210	1	0	1	1	1	8	18	59	86	25	9	1	0	50
10:00	209	1	0	0	1	0	2	23	50	84	35	9	3	1	51
11:00	172	0	0	0	1	1	4	10	49	70	25	7	2	3	51
12:PM	155	0	1	0	1	0	2	14	34	64	29	9	1	0	51
01:00	165	0	1	0	8	1	4	13	39	74	20	5	0	0	49
02:00	165	0	0	1	1	0	0	13	34	68	36	10	0	2	52
03:00	211	0	0	0	0	1	1	24	53	92	25	9	5	1	51
04:00	206	0	0	6	3	2	6	19	52	85	22	7	1	3	49
05:00	222	0	0	1	0	0	5	19	45	92	41	11	5	3	52
06:00	231	0	1	1	0	1	4	21	63	99	30	9	2	0	50
07:00	116	0	0	1	0	1	2	18	24	40	27	0	2	1	50
08:00	87	0	0	0	0	2	0	6	22	33	15	7	1	1	52
09:00	51	0	1	0	0	0	0	7	8	21	7	5	1	1	52
10:00	47	0	0	0	1	0	2	4	7	14	10	7	2	0	52
11:00	28	0	0	0	0	0	2	2	2	7	4	6	3	2	57
Daily	2,913	2	5	11	19	12	48	246	649	1,172	512	170	42	25	51

Totals															
Percent of Total		0.1	0.2	0.4	0.7	0.4	1.6	8.4	22.3	40.2	17.6	5.8	1.4	0.9	

Percentile Speeds	<u>10%</u>	<u>15%</u>	<u>50%</u>	<u>85%</u>	<u>90%</u>
	44.0	45.7	52.0	58.1	59.5

90 MPH Pace Speed : 45 - 55  
 Number in pace : 1,821  
 % in pace : 62.5

Speed Exceeded	<b>45 MPH</b>	<b>55 MPH</b>	<b>65 MPH</b>
Percentage	88.2	25.7	2.3
Totals	2,570	749	67

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : CROWS LANDING ROAD  
 Title3 : SO W MAIN

Site:  
 Date: 11/07/07

Direction: SB

Begin Time	Total	1-14 MPH	15-19 MPH	20-24 MPH	25-29 MPH	30-34 MPH	35-39 MPH	40-44 MPH	45-49 MPH	50-54 MPH	55-59 MPH	60-64 MPH	65-69 MPH	70-99 MPH	Avr
12:AM	36	0	0	0	0	0	0	0	1	4	5	11	8	7	65
01:00	21	3	0	0	0	0	0	0	1	1	5	6	2	3	56
02:00	14	0	0	0	0	0	0	1	1	1	3	6	2	0	58
03:00	17	0	0	0	0	0	0	1	3	2	1	6	2	2	60
04:00	23	0	0	0	0	0	0	3	6	3	2	5	4	0	55
05:00	46	0	0	0	0	0	0	3	8	7	10	7	9	2	57
06:00	110	0	0	0	1	0	1	10	18	19	19	19	13	10	57
07:00	153	0	1	2	0	0	2	18	13	28	28	27	25	9	57
08:00	176	0	0	0	1	1	2	13	26	28	35	38	17	15	57
09:00	146	0	0	1	0	1	1	14	26	21	24	29	21	8	56
10:00	151	1	2	0	0	1	0	12	18	22	37	36	16	6	56
11:00	134	0	1	0	0	1	3	8	13	24	26	29	17	12	58
12:PM	140	0	1	0	0	1	1	12	8	37	19	38	18	5	57
01:00	159	0	0	0	1	0	1	14	16	35	40	26	20	6	56
02:00	161	0	0	1	0	0	1	8	12	33	35	46	18	7	58
03:00	161	0	0	2	1	0	3	12	17	33	27	36	23	7	57
04:00	213	0	0	1	1	2	3	12	19	29	42	57	34	13	58
05:00	222	0	0	0	0	1	0	15	7	43	49	54	42	11	59
06:00	210	0	0	0	0	1	3	15	6	33	53	65	24	10	58
07:00	219	0	1	1	2	2	4	4	15	43	49	62	34	2	57
08:00	92	0	0	0	0	0	0	2	5	22	21	28	14	0	58
09:00	89	0	0	0	1	0	0	6	6	8	21	29	10	8	60
10:00	86	1	0	0	0	0	0	1	5	18	17	21	15	8	60
11:00	42	0	0	0	0	0	0	0	4	7	6	14	7	4	61
Daily	2,821	5	6	8	8	11	25	184	254	501	574	695	395	155	58

Totals															
Percent of Total		0.2	0.2	0.3	0.3	0.4	0.9	6.5	9.0	17.8	20.3	24.6	14.0	5.5	

Percentile Speeds	<u>10%</u>	<u>15%</u>	<u>50%</u>	<u>85%</u>	<u>90%</u>
	45.7	48.5	58.6	66.6	68.4

MPH Pace Speed : 55 - 65  
 Number in pace : 1,269  
 % in pace : 45.0

Speed Exceeded	45 MPH	55 MPH	65 MPH
Percentage	91.2	64.5	19.5
Totals	2,574	1,819	550

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : CROWS LANDING ROAD  
 Title3 : SO W MAIN

Site:  
 Date: 11/07/07

Direction: NB

Time	1	2	3	4	5	6	7	8	9	10	11	12	13	
		Cars & Trucks	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	
12:AM	19	0	15	1	1	0	0	0	1	0	1	0	0	
01:00	19	0	7	3	0	0	0	1	6	1	1	0	0	
02:00	11	0	3	1	0	1	0	2	3	0	1	0	0	
03:00	6	0	5	0	0	0	0	0	0	0	1	0	0	
04:00	29	0	10	8	0	3	0	1	6	0	1	0	0	
05:00	49	1	25	9	0	0	0	3	8	0	3	0	0	
06:00	92	1	57	19	1	7	0	2	4	0	1	0	0	
07:00	153	6	89	32	3	6	0	5	12	0	0	0	0	
08:00	260	6	184	38	2	12	2	6	8	0	2	0	0	
09:00	210	2	127	51	1	11	1	5	10	0	2	0	0	
10:00	209	1	127	42	0	14	2	5	13	0	5	0	0	
11:00	172	4	102	33	2	10	2	7	11	0	1	0	0	
12:PM	155	2	89	41	1	10	1	5	5	0	1	0	0	
01:00	165	1	106	27	1	11	4	3	7	0	4	1	0	
02:00	165	2	103	28	2	17	0	4	8	0	1	0	0	
03:00	211	3	125	45	2	15	4	8	7	0	2	0	0	
04:00	206	4	114	49	3	12	4	7	10	0	3	0	0	
05:00	222	2	144	45	1	14	2	6	7	0	1	0	0	
06:00	231	1	150	47	3	16	3	2	7	0	2	0	0	
07:00	116	0	71	30	1	5	0	1	6	1	1	0	0	
08:00	87	0	57	22	0	1	0	1	6	0	0	0	0	
09:00	51	1	36	9	0	1	0	2	2	0	0	0	0	
10:00	47	0	34	10	0	2	0	1	0	0	0	0	0	
11:00	28	0	17	5	0	0	0	0	6	0	0	0	0	
div	2,913	37	1,797	595	24	168	25	77	153	2	34	1	0	
cent Total		1.3	61.7	20.4	0.8	5.8	0.9	0.0	2.6	5.3	0.1	1.2	0.0	0.0

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : W MAIN STREET  
 Title3 : EO CROWS LANDING

Site:  
 Date: 11/07/07

Interval	EB	WB	Combined
12:AM	34	34	68
01:00	33	21	54
02:00	13	15	28
03:00	30	16	46
04:00	29	36	65
05:00	44	85	129
06:00	74	179	253
07:00	148	211	359
08:00	201	239	440
09:00	218	188	406
10:00	239	174	413
11:00	235	187	422
12:PM	233	199	432
01:00	227	213	440
02:00	233	239	472
03:00	284	213	497
04:00	328	225	553
05:00	317	220	537
06:00	345	235	580
07:00	213	203	416
08:00	128	150	278
09:00	90	117	207
10:00	74	86	160
11:00	45	76	121
<b>Totals</b>	<b>3,815</b>	<b>3,561</b>	<b>7,376</b>
<b>split %</b>	<b>51.7</b>	<b>48.3</b>	
<b>M Peak</b>	<b>10:00</b>	<b>08:00</b>	<b>08:00</b>
<b>Volume</b>	<b>239</b>	<b>239</b>	<b>440</b>
<b>AM Peak</b>	<b>06:00</b>	<b>02:00</b>	<b>06:00</b>
<b>Volume</b>	<b>345</b>	<b>239</b>	<b>580</b>

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : W MAIN STREET  
 Title3 : EO CROWS LANDING

Site:  
 Date: 11/07/07

Direction: EB

Begin Time	Total	1-14 MPH	15-19 MPH	20-24 MPH	25-29 MPH	30-34 MPH	35-39 MPH	40-44 MPH	45-49 MPH	50-54 MPH	55-59 MPH	60-64 MPH	65-69 MPH	70-99 MPH	Avg
12:AM	34	0	0	0	0	1	0	3	3	11	10	4	2	0	54
01:00	33	0	0	0	0	0	0	3	7	10	9	4	0	0	53
02:00	13	0	0	0	0	0	0	3	1	3	2	4	0	0	53
03:00	30	0	0	0	0	0	1	2	4	13	4	5	1	0	53
04:00	29	0	0	0	0	0	3	2	5	8	8	2	1	0	51
05:00	44	0	0	0	0	1	6	3	11	8	12	0	3	0	50
06:00	74	0	0	0	0	0	4	4	11	30	17	6	1	1	53
07:00	148	0	0	1	1	0	4	16	19	45	35	18	7	2	53
08:00	201	0	0	0	0	0	4	14	29	56	67	23	8	0	54
09:00	218	0	0	0	0	0	6	12	38	85	46	23	7	1	53
10:00	239	0	0	0	0	0	6	15	41	87	59	24	7	0	53
11:00	235	0	1	1	1	0	17	26	46	76	40	19	7	1	51
12:PM	233	0	2	2	6	5	11	24	39	79	42	20	3	0	50
01:00	227	0	0	1	0	3	4	19	41	79	48	21	10	1	52
02:00	233	0	0	0	0	2	3	18	37	87	63	19	2	2	53
03:00	284	0	0	0	0	5	6	23	53	106	62	25	3	1	52
04:00	328	0	0	4	1	3	7	40	52	118	70	29	2	2	51
05:00	317	0	0	1	0	0	3	23	46	105	87	42	8	2	54
06:00	345	0	1	0	0	1	9	27	69	136	79	18	4	1	52
07:00	213	0	0	0	0	0	3	20	49	71	50	13	4	3	52
08:00	128	0	0	0	0	0	3	3	17	59	23	19	4	0	54
09:00	90	0	0	0	0	0	0	4	19	36	15	12	3	1	54
10:00	74	0	0	0	0	0	1	9	10	28	13	11	1	1	53
11:00	45	0	0	0	2	1	2	2	8	9	14	5	2	0	52
Daily	3,815	0	4	10	11	22	103	315	655	1,345	875	366	90	19	52

Totals		0.0	0.1	0.3	0.3	0.6	2.7	8.3	17.2	35.3	22.9	9.6	2.4	0.5	
Percent of Total															

Percentile Speeds	<u>10%</u>	<u>15%</u>	<u>50%</u>	<u>85%</u>	<u>90%</u>
	43.7	45.8	52.9	59.4	61.3

MPH Pace Speed : 50 - 60  
 Number in pace : 2,220  
 % in pace : 58.2

Speed Exceeded	45 MPH	55 MPH	65 MPH
Percentage	87.8	35.4	2.9
Totals	3,350	1,350	109

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

**Site1 :**  
**Site2 :** W MAIN STREET  
**Site3 :** EO CROWS LANDING

**Site:**  
**Date:** 11/07/07

**Direction: WB**

Time	Total	1-14 MPH	15-19 MPH	20-24 MPH	25-29 MPH	30-34 MPH	35-39 MPH	40-44 MPH	45-49 MPH	50-54 MPH	55-59 MPH	60-64 MPH	65-69 MPH	70-99 MPH	AVR
12:AM	34	0	0	0	0	0	0	3	2	8	10	10	1	0	56
01:00	21	0	0	0	0	1	0	0	1	5	5	3	5	1	59
02:00	15	0	0	0	0	0	0	2	0	1	5	4	3	0	58
03:00	16	0	0	0	0	0	0	0	0	6	5	5	0	0	57
04:00	36	0	0	0	0	0	0	4	3	6	10	9	3	1	56
05:00	85	0	0	0	0	0	0	6	2	23	11	23	10	10	60
06:00	179	0	0	0	0	0	0	9	16	35	54	39	16	10	58
07:00	211	0	0	0	0	1	1	8	24	58	63	37	14	5	56
08:00	239	0	1	0	3	0	0	5	20	99	59	35	13	4	55
09:00	188	0	0	0	1	0	1	6	25	84	41	21	7	2	54
10:00	174	0	2	0	0	3	3	4	8	50	45	38	16	5	56
11:00	187	0	0	0	0	2	0	5	12	63	55	32	8	10	57
12:PM	199	0	2	1	0	3	0	4	23	50	56	42	18	0	55
01:00	213	1	0	0	1	2	11	4	13	66	50	49	12	4	55
02:00	239	0	1	0	0	2	2	18	28	71	60	41	10	6	55
03:00	213	0	0	0	2	4	5	11	13	53	59	46	20	0	55
04:00	225	0	0	0	0	1	1	2	14	66	82	46	11	2	56
05:00	220	0	0	0	0	0	0	7	25	74	59	30	18	7	56
06:00	235	0	0	0	0	1	7	25	35	72	56	23	7	9	54
07:00	203	0	0	0	0	0	1	5	31	70	55	29	11	1	55
08:00	150	0	0	0	1	0	3	11	21	51	29	21	10	3	54
09:00	117	0	1	0	0	0	1	4	8	38	36	22	6	1	55
10:00	86	0	0	0	0	0	0	0	5	23	30	18	8	2	58
11:00	76	0	0	0	0	2	1	5	10	21	18	13	4	2	54
Daily	3,561	1	7	1	8	22	37	148	339	1,093	953	636	231	85	56

Percent of Total	1-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-99
	0.0	0.2	0.0	0.2	0.6	1.0	4.2	9.5	30.7	26.8	17.9	6.5	2.4

Percentile Speeds	10%	15%	50%	85%	90%
	47.0	49.6	55.7	63.3	64.7

**MPH Pace Speed :** 50 - 60  
**Number in pace :** 2,046  
**Average in pace :** 57.5

**Percent Exceeded :** 45 MPH    55 MPH    65 MPH  
**Percentage :** 93.7    53.5    8.9  
**Count :** 3,337    1,905    316



**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title :  
 Title2 : W MAIN STREET  
 Title3 : EO CROWS LANDING

Site:  
 Date: 11/07/07

Direction: EB

Begin Time	Total	1	2	3	4	5	6	7	8	9	10	11	12	13
		Bikes	Cars & Trs	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi
12:AM	34	0	26	5	0	1	0	0	0	2	0	0	0	0
01:00	33	0	25	7	0	0	0	0	0	1	0	0	0	0
02:00	13	0	11	1	0	0	0	0	0	1	0	0	0	0
03:00	30	0	23	3	0	0	1	0	0	1	0	2	0	0
04:00	29	0	21	4	0	1	0	0	0	1	0	2	0	0
05:00	44	0	22	5	0	2	0	0	3	9	0	3	0	0
06:00	74	1	41	24	0	3	0	0	1	1	0	3	0	0
07:00	148	0	84	39	0	13	2	0	0	8	0	2	0	0
08:00	201	0	123	47	2	14	1	0	3	8	0	2	0	1
09:00	218	1	137	55	0	12	0	0	4	8	0	1	0	0
10:00	239	4	140	52	2	26	2	0	3	8	0	2	0	0
11:00	235	1	135	56	3	16	2	0	7	10	0	5	0	0
12:PM	233	3	129	61	2	20	2	0	2	11	0	3	0	0
01:00	227	1	157	43	1	12	1	0	4	6	0	1	1	0
02:00	233	1	155	49	0	14	1	0	3	9	0	1	0	0
03:00	284	0	164	69	2	19	7	0	8	8	0	7	0	0
04:00	328	4	183	89	1	27	10	0	6	7	0	1	0	0
05:00	317	2	197	83	2	17	7	0	1	6	0	2	0	0
06:00	345	4	205	96	0	16	7	0	3	11	0	3	0	0
07:00	213	1	148	42	0	11	3	0	1	7	0	0	0	0
08:00	128	0	89	33	0	3	1	0	2	0	0	0	0	0
09:00	90	0	63	21	1	3	1	0	0	0	0	1	0	0
10:00	74	0	55	11	1	3	1	0	1	1	0	1	0	0
11:00	45	0	27	10	0	3	0	0	1	3	0	1	0	0
Daily	3,815	23	2,360	905	17	236	49	0	53	127	0	43	1	1
Totals														
Percent of Total		0.6	61.9	23.7	0.4	6.2	1.3	0.0	1.4	3.3	0.0	1.1	0.0	0.0

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : W MAIN STREET  
 Title3 : EO CROWS LANDING

Site:  
 Date: 11/07/07

Direction: WB

Time	Total	1 Bikes	2 Cars & Trs	3 2 Axle Long	4 Buses	5 2 Axle 6 Tire	6 3 Axle Single	7 4 Axle Single	8 <5 Axle Double	9 5 Axle Double	10 >6 Axle Double	11 <6 Axle Multi	12 6 Axle Multi	13 >6 Axle Multi
12:AM	34	0	22	7	0	4	0	0	0	1	0	0	0	0
01:00	21	0	12	3	1	0	0	0	1	3	0	1	0	0
02:00	15	0	9	2	0	1	0	0	0	3	0	0	0	0
03:00	16	0	7	2	0	0	0	0	0	4	0	3	0	0
04:00	36	0	10	7	0	3	0	0	3	11	0	2	0	0
05:00	85	0	49	18	1	7	0	0	1	6	0	3	0	0
06:00	179	1	91	42	2	17	1	0	2	19	0	4	0	0
07:00	211	0	87	69	3	30	3	0	5	12	0	2	0	0
08:00	239	1	111	61	4	30	8	0	7	13	0	4	0	0
09:00	188	2	66	59	2	32	3	0	7	14	1	2	0	0
10:00	174	1	74	61	4	21	2	0	6	2	0	3	0	0
11:00	187	1	84	55	4	27	0	0	6	8	0	2	0	0
12:PM	199	0	88	73	0	20	4	0	3	10	0	1	0	0
01:00	213	4	105	61	2	25	4	0	3	7	0	2	0	0
02:00	239	1	121	72	1	28	3	0	3	10	0	0	0	0
03:00	213	1	99	68	0	28	3	0	5	9	0	0	0	0
04:00	225	1	133	51	4	18	5	0	6	6	0	1	0	0
05:00	220	1	121	66	2	18	5	0	2	5	0	0	0	0
06:00	235	0	135	60	0	27	1	0	3	8	0	1	0	0
07:00	203	0	137	50	0	11	1	0	3	1	0	0	0	0
08:00	150	1	87	44	0	10	2	0	1	3	0	2	0	0
09:00	117	0	76	32	0	4	2	0	2	1	0	0	0	0
10:00	86	0	56	17	0	10	0	0	0	1	0	2	0	0
11:00	76	1	48	16	0	7	0	0	1	2	0	1	0	0
12:00	3,561	16	1,828	996	30	378	47	0	70	159	1	36	0	0
Percent Total		0.4	51.3	28.0	0.8	10.6	1.3	0.0	2.0	4.5	0.0	1.0	0.0	0.0

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : W MAIN STREET  
 Title3 : EO CROWS LANDING

Site:  
 Date: 11/07/07

Interval	EB	WB	Combined
12:AM	34	34	68
01:00	33	21	54
02:00	13	15	28
03:00	30	16	46
04:00	29	36	65
05:00	44	85	129
06:00	74	179	253
07:00	148	211	359
08:00	201	239	440
09:00	218	188	406
10:00	239	174	413
11:00	235	187	422
12:PM	233	199	432
01:00	227	213	440
02:00	233	239	472
03:00	284	213	497
04:00	328	225	553
05:00	317	220	537
06:00	345	235	580
07:00	213	203	416
08:00	128	150	278
09:00	90	117	207
10:00	74	86	160
11:00	45	76	121
<b>Totals</b>	<b>3,815</b>	<b>3,561</b>	<b>7,376</b>
<b>Split %</b>	<b>51.7</b>	<b>48.3</b>	
<b>AM Peak</b>	<b>10:00</b>	<b>08:00</b>	<b>08:00</b>
<b>Volume</b>	<b>239</b>	<b>239</b>	<b>440</b>
<b>PM Peak</b>	<b>06:00</b>	<b>02:00</b>	<b>06:00</b>
<b>Volume</b>	<b>345</b>	<b>239</b>	<b>580</b>

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : W MAIN STREET  
 Title3 : EO CROWS LANDING

Site:  
 Date: 11/07/07

Direction: EB

Begin Time	Total	1-14 MPH	15-19 MPH	20-24 MPH	25-29 MPH	30-34 MPH	35-39 MPH	40-44 MPH	45-49 MPH	50-54 MPH	55-59 MPH	60-64 MPH	65-69 MPH	70-99 MPH	Avr
12:AM	34	0	0	0	0	1	0	3	3	11	10	4	2	0	54
01:00	33	0	0	0	0	0	0	3	7	10	9	4	0	0	53
02:00	13	0	0	0	0	0	0	3	1	3	2	4	0	0	53
03:00	30	0	0	0	0	0	1	2	4	13	4	5	1	0	53
04:00	29	0	0	0	0	0	3	2	5	8	8	2	1	0	51
05:00	44	0	0	0	0	1	6	3	11	8	12	0	3	0	50
06:00	74	0	0	0	0	0	4	4	11	30	17	6	1	1	53
07:00	148	0	0	1	1	0	4	16	19	45	35	18	7	2	53
08:00	201	0	0	0	0	0	4	14	29	56	67	23	8	0	54
09:00	218	0	0	0	0	0	6	12	38	85	46	23	7	1	53
10:00	239	0	0	0	0	0	6	15	41	87	59	24	7	0	53
11:00	235	0	1	1	1	0	17	26	46	76	40	19	7	1	51
12:PM	233	0	2	2	6	5	11	24	39	79	42	20	3	0	50
01:00	227	0	0	1	0	3	4	19	41	79	48	21	10	1	52
02:00	233	0	0	0	0	2	3	18	37	87	63	19	2	2	53
03:00	284	0	0	0	0	5	6	23	53	106	62	25	3	1	52
04:00	328	0	0	4	1	3	7	40	52	118	70	29	2	2	51
05:00	317	0	0	1	0	0	3	23	46	105	87	42	8	2	54
06:00	345	0	1	0	0	1	9	27	69	136	79	18	4	1	52
07:00	213	0	0	0	0	0	3	20	49	71	50	13	4	3	52
08:00	128	0	0	0	0	0	3	3	17	59	23	19	4	0	54
09:00	90	0	0	0	0	0	0	4	19	36	15	12	3	1	54
10:00	74	0	0	0	0	0	1	9	10	28	13	11	1	1	53
11:00	45	0	0	0	2	1	2	2	8	9	14	5	2	0	52
Daily	3.815	0	4	10	11	22	103	315	655	1.345	875	366	90	19	52

Totals

Percent of Total: 0.0 0.1 0.3 0.3 0.6 2.7 8.3 17.2 35.3 22.9 9.6 2.4 0.5

Percentile Speeds: 10% 43.7, 15% 45.8, 50% 52.9, 85% 59.4, 90% 61.3

0 MPH Pace Speed: 50 - 60

Number in pace: 2,220

% in pace: 58.2

Speed Exceeded: 45 MPH 55 MPH 65 MPH

Percentage: 87.8 35.4 2.9

Totals: 3,350 1,350 109

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : W MAIN STREET  
 Title3 : EO CROWS LANDING

Site:  
 Date: 11/07/07

Direction: WB

Begin Time	Total	1-14 MPH	15-19 MPH	20-24 MPH	25-29 MPH	30-34 MPH	35-39 MPH	40-44 MPH	45-49 MPH	50-54 MPH	55-59 MPH	60-64 MPH	65-69 MPH	70-99 MPH	Avg
12:AM	34	0	0	0	0	0	0	3	2	8	10	10	1	0	56
01:00	21	0	0	0	0	1	0	0	1	5	5	3	5	1	59
02:00	15	0	0	0	0	0	0	2	0	1	5	4	3	0	58
03:00	16	0	0	0	0	0	0	0	0	6	5	5	0	0	57
04:00	36	0	0	0	0	0	0	4	3	6	10	9	3	1	56
05:00	85	0	0	0	0	0	0	6	2	23	11	23	10	10	60
06:00	179	0	0	0	0	0	0	9	16	35	54	39	16	10	58
07:00	211	0	0	0	0	1	1	8	24	58	63	37	14	5	56
08:00	239	0	1	0	3	0	0	5	20	99	59	35	13	4	55
09:00	188	0	0	0	1	0	1	6	25	84	41	21	7	2	54
10:00	174	0	2	0	0	3	3	4	8	50	45	38	16	5	56
11:00	187	0	0	0	0	2	0	5	12	63	55	32	8	10	57
12:PM	199	0	2	1	0	3	0	4	23	50	56	42	18	0	55
01:00	213	1	0	0	1	2	11	4	13	66	50	49	12	4	55
02:00	239	0	1	0	0	2	2	18	28	71	60	41	10	6	55
03:00	213	0	0	0	2	4	5	11	13	53	59	46	20	0	55
04:00	225	0	0	0	0	1	1	2	14	66	82	46	11	2	56
05:00	220	0	0	0	0	0	0	7	25	74	59	30	18	7	56
06:00	235	0	0	0	0	1	7	25	35	72	56	23	7	9	54
07:00	203	0	0	0	0	0	1	5	31	70	55	29	11	1	55
08:00	150	0	0	0	1	0	3	11	21	51	29	21	10	3	54
09:00	117	0	1	0	0	0	1	4	8	38	36	22	6	1	55
10:00	86	0	0	0	0	0	0	0	5	23	30	18	8	2	58
11:00	76	0	0	0	0	2	1	5	10	21	18	13	4	2	54
Daily	3,561	1	7	1	8	22	37	148	339	1,093	953	636	231	85	56

Totals

Percent of Total	0.0	0.2	0.0	0.2	0.6	1.0	4.2	9.5	30.7	26.8	17.9	6.5	2.4	
------------------	-----	-----	-----	-----	-----	-----	-----	-----	------	------	------	-----	-----	--

Percentile Speeds	<u>10%</u>	<u>15%</u>	<u>50%</u>	<u>85%</u>	<u>90%</u>
	47.0	49.6	55.7	63.3	64.7

70 MPH Pace Speed : 50 - 60  
 Number in pace : 2,046  
 % in pace : 57.5

Speed Exceeded	45 MPH	55 MPH	65 MPH
Percentage	93.7	53.5	8.9
Totals	3,337	1,905	316

**Stanislaus County**  
**Public Works Department**  
**Traffic Engineering Division**

Title1 :  
 Title2 : **W MAIN STREET**  
 Title3 : **EO CROWS LANDING**

Site:  
 Date: **11/07/07**

Direction: EB

Begin Time	Direction: EB													
	1	2	3	4	5	6	7	8	9	10	11	12	13	
Total	Bikes	Cars & Trs	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	
12:AM	34	0	26	5	0	1	0	0	2	0	0	0	0	
01:00	33	0	25	7	0	0	0	0	1	0	0	0	0	
02:00	13	0	11	1	0	0	0	0	1	0	0	0	0	
03:00	30	0	23	3	0	0	1	0	1	0	2	0	0	
04:00	29	0	21	4	0	1	0	0	1	0	2	0	0	
05:00	44	0	22	5	0	2	0	3	9	0	3	0	0	
06:00	74	1	41	24	0	3	0	1	1	0	3	0	0	
07:00	148	0	84	39	0	13	2	0	8	0	2	0	0	
08:00	201	0	123	47	2	14	1	0	8	0	2	0	1	
09:00	218	1	137	55	0	12	0	4	8	0	1	0	0	
10:00	239	4	140	52	2	26	2	0	8	0	2	0	0	
11:00	235	1	135	56	3	16	2	0	10	0	5	0	0	
12:PM	233	3	129	61	2	20	2	0	11	0	3	0	0	
01:00	227	1	157	43	1	12	1	0	6	0	1	1	0	
02:00	233	1	155	49	0	14	1	0	9	0	1	0	0	
03:00	284	0	164	69	2	19	7	0	8	0	7	0	0	
04:00	328	4	183	89	1	27	10	0	7	0	1	0	0	
05:00	317	2	197	83	2	17	7	0	6	0	2	0	0	
06:00	345	4	205	96	0	16	7	0	11	0	3	0	0	
07:00	213	1	148	42	0	11	3	0	7	0	0	0	0	
08:00	128	0	89	33	0	3	1	0	0	0	0	0	0	
09:00	90	0	63	21	1	3	1	0	0	0	1	0	0	
10:00	74	0	55	11	1	3	1	0	1	0	1	0	0	
11:00	45	0	27	10	0	3	0	0	3	0	1	0	0	
Daily Totals	3,815	23	2,360	905	17	236	49	0	53	127	43	1	1	
Percent of Total		0.6	61.9	23.7	0.4	6.2	1.3	0.0	1.4	3.3	0.0	1.1	0.0	0.0

**Stanislaus County  
Public Works Department  
Traffic Engineering Division**

Title1 :  
Title2 : W MAIN STREET  
Title3 : EO CROWS LANDING

Site:  
Date: 11/07/07

Direction: WB

Begin Time	Direction: WB														
	Total	1 Bikes	2 Cars & Trs	3 2 Axle Long	4 Buses	5 2 Axle 6 Tire	6 3 Axle Single	7 4 Axle Single	8 <5 Axl Double	9 5 Axle Double	10 >6 Axl Double	11 <6 Axl Multi	12 6 Axle Multi	13 >6 Axl Multi	
12:AM	34	0	22	7	0	4	0	0	0	1	0	0	0	0	
01:00	21	0	12	3	1	0	0	0	1	3	0	1	0	0	
02:00	15	0	9	2	0	1	0	0	0	3	0	0	0	0	
03:00	16	0	7	2	0	0	0	0	0	4	0	3	0	0	
04:00	36	0	10	7	0	3	0	0	3	11	0	2	0	0	
05:00	85	0	49	18	1	7	0	0	1	6	0	3	0	0	
06:00	179	1	91	42	2	17	1	0	2	19	0	4	0	0	
07:00	211	0	87	69	3	30	3	0	5	12	0	2	0	0	
08:00	239	1	111	61	4	30	8	0	7	13	0	4	0	0	
09:00	188	2	66	59	2	32	3	0	7	14	1	2	0	0	
10:00	174	1	74	61	4	21	2	0	6	2	0	3	0	0	
11:00	187	1	84	55	4	27	0	0	6	8	0	2	0	0	
12:PM	199	0	88	73	0	20	4	0	3	10	0	1	0	0	
01:00	213	4	105	61	2	25	4	0	3	7	0	2	0	0	
02:00	239	1	121	72	1	28	3	0	3	10	0	0	0	0	
03:00	213	1	99	68	0	28	3	0	5	9	0	0	0	0	
04:00	225	1	133	51	4	18	5	0	6	6	0	1	0	0	
05:00	220	1	121	66	2	18	5	0	2	5	0	0	0	0	
06:00	235	0	135	60	0	27	1	0	3	8	0	1	0	0	
07:00	203	0	137	50	0	11	1	0	3	1	0	0	0	0	
08:00	150	1	87	44	0	10	2	0	1	3	0	2	0	0	
09:00	117	0	76	32	0	4	2	0	2	1	0	0	0	0	
10:00	86	0	56	17	0	10	0	0	0	1	0	2	0	0	
11:00	76	1	48	16	0	7	0	0	1	2	0	1	0	0	
Daily	3,561	16	1,828	996	30	378	47	0	70	159	1	36	0	0	
Daily Totals															
Percent Total		0.4	51.3	28.0	0.8	10.6	1.3	0.0	2.0	4.5	0.0	1.0	0.0	0.0	



Figure 4C-102. Traffic Count Worksheet

(4)  
Insert North Point

Not to Scale

W. Main Street

Crows Landing

Number of Lanes 1			
Pedestrians 0			
Total*		Peak	
AM Peak	PM Peak	Total*	Peak
57	118	36	

Number of Lanes 1			
Pedestrians 0			
Total*		Peak	
AM Peak	PM Peak	Total*	Peak
28	139	52	

Number of Lanes 1			
Pedestrians 0			
Total*		Peak	
AM Peak	PM Peak	Total*	Peak
33	160	11	

Number of Lanes 1			
Pedestrians 0			
Total*		Peak	
AM Peak	PM Peak	Total*	Peak
16	119	48	

\*Entire Count Period

**DIRECTIONAL TRAFFIC COUNT**

Dist. 1 Co. Rte. KPM

Intersection City Name: Crows Landing Rd @ W. Main St.

City: Modesto

Date: 11/26/07

Time: 2:00 PM to 3:00 PM

Hour to Hour

-----

Total Volume

AM -----

Hour Volume

PM -----

Hour Volume

**APPENDIX B -  
PRIORITIZATION MODEL**

TRAFFIC SIGNAL PRIORITY ANALYSIS

Project	Signal Warrants Met	Percentage		Priority		Project Cost			Benefits					Benefits		Benefit/Cost		Delay		Safety Index		Cumulative Priority	
		Major	Minor	Major	Minor	Cost (\$)	CIP	Funding	Average Daily Traffic (AADT)	% Trucks	% Autos (100 - %Trucks)	Dollar Value of Daily Savings Trucks	Dollar Value of Daily Savings Autos	Daily Savings (\$/Day) [(% Trucks/100)(AADT) + (% Autos/100)(AADT)](24)(60)	Life of Improvements (Years)	Benefit	Ratio (Benefit/Cost)	Priority	Measured Delay (Seconds)	Priority	SI		Priority
Claribel Rd. @ Coffee Rd.	Yes	234	561	2	1	\$ 2,000,000	No		18,700	4.0	96.0	\$ 0.46	\$ 0.19	\$ 3,754.96	20	\$ 27,411,208.00	13.71	2	181	2	4.6	2	9
Claribel Rd @ Roselle Ave. (50% City of Riverbank	Yes	189	379	4	3	\$ 2,000,000	No		16,700	4.0	96.0	\$ 0.46	\$ 0.19	\$ 3,353.36	20	\$ 24,479,528.00	12.24	3	288	1	0.03	10	21
Hatch Rd. @ Carpenter Rd.	Yes	270	372	1	4	\$ 1,500,000	No		20,100	4.0	96.0	\$ 0.46	\$ 0.19	\$ 4,036.08	20	\$ 29,463,384.00	19.64	1	45	8	0.07	8	22
West Main @ Crows Landing Rd	Yes	125	381	11	2	\$ 2,141,697	Yes	PFF	14,500	7.6	92.4	\$ 0.46	\$ 0.19	\$ 3,052.54	20	\$ 22,283,542.00	10.40	5	59	5	0.3	5	28
Grayson Rd. @ Crows Landing Rd.	Yes	147	165	6	11	\$ 2,038,811	Yes	PFF	10,700	11.9	88.1	\$ 0.46	\$ 0.19	\$ 2,376.79	20	\$ 17,350,574.30	8.51	7	90	4	5.58	1	29
Claribel Road @ Terminal Rd	Yes	144	259	7	5	\$ 2,500,000	No		13,700	8.2	91.8	\$ 0.46	\$ 0.19	\$ 2,906.32	20	\$ 21,216,121.40	8.49	6	47	7	1.19	3	30
Whitmore Avenue @ Carpenter Rd	Yes	173	200	5	8	\$ 2,000,000	No		13,300	4.0	96.0	\$ 0.46	\$ 0.19	\$ 2,670.64	20	\$ 19,495,672.00	9.75	6	25	10	0.33	4	33
Keyes Rd @ Crows Landing Rd	Yes	140	183	8	9	\$ 2,038,811	Yes		10,400	10.7	89.3	\$ 0.46	\$ 0.19	\$ 2,276.46	20	\$ 16,618,128.80	8.15	9	52	6	0.01	12	44
Elm Ave. @ Las Palmas Ave.	No	201	44	3	14	\$ 1,547,697	Yes		11,000	4.0	96.0	\$ 0.46	\$ 0.19	\$ 2,208.80	20	\$ 16,124,240.00		4	5	14	0.06	9	44
Golden State Blvd @ Berkeley/Golf/Realignent	Yes	115	247	12	6	\$ 8,000,000	No		17,200	4.0	96.0	\$ 0.46	\$ 0.19	\$ 3,453.76	20	\$ 25,212,448.00	3.15	14	160	3	0.02	11	46
Main Rd @ Santa Fe Ave.	Yes	86	245	13	7	\$ 1,747,697	Yes		7,900	4.0	96.0	\$ 0.46	\$ 0.19	\$ 1,586.32	20	\$ 11,580,136.00	6.63	11	12	13	0.24	6	50
Keyes Rd @ Faith Home Rd	Yes	136	97	10	13	\$ 2,038,811	Yes		7,800	8.0	92.0	\$ 0.46	\$ 0.19	\$ 1,650.48	20	\$ 12,048,504.00	5.91	13	29	9	0.09	7	52
Keyes Rd @ Central Ave.	Yes	85	171	14	10	\$ 1,500,000	No		7,400	7.0	93.0	\$ 0.46	\$ 0.19	\$ 1,545.86	20	\$ 11,284,776.00	7.52	10	20	11	0.02	11	56
Service Rd @ Santa Fe Ave.	Yes	139	120	9	12	\$ 2,338,811	Yes		10,300	4.0	96.0	\$ 0.46	\$ 0.19	\$ 2,068.24	20	\$ 15,098,152.00	6.46	12	15	12	0	13	58

PFF - Public Facilities Fees

**APPENDIX C –  
COUNTY INTERSECTION DATA  
AND CAPACITY ANALYSIS**

### West Main at Crows Landing Road

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2009 - AM	22	194	11	39	120	28	8	166	31	27	126	38
2029 - AM	40	350	20	70	217	51	14	300	56	49	228	69
2009 - PM	32	219	4	43	171	29	13	154	38	27	135	36
2029 - PM	58	396	7	78	309	52	23	278	69	49	244	65

The 20 years projection is based on linear 3% growth rate

HCM: Unsignalized Intersection Capacity Analysis  
 3: West Main & Crows Landing Road

11/16/2009

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕			↕	↗		↕	↗
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	32	219	4	43	171	29	13	154	38	27	135	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	238	4	47	186	32	14	167	41	29	147	39
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	273	4	264	182	41	176	39					
Volume Left (vph)	35	0	47	14	0	29	0					
Volume Right (vph)	0	4	32	0	41	0	39					
Hadj (s)	0.10	-0.67	0.00	0.07	-0.67	0.12	-0.67					
Departure Headway (s)	6.4	5.6	6.3	6.7	5.9	6.7	6.0					
Degree Utilization, x	0.49	0.01	0.46	0.34	0.07	0.33	0.06					
Capacity (veh/h)	531	593	538	492	552	491	550					
Control Delay (s)	14.1	7.5	14.7	11.9	8.2	11.8	8.2					
Approach Delay (s)	14.0		14.7	11.2		11.2						
Approach LOS	B		B	B		B						

Intersection Summary

Delay	12.9	
HCM Level of Service	B	
Intersection Capacity Utilization	57.2%	ICU Level of Service
Analysis Period (min)	15	B

---

**3: West Main & Crows Landing Road**




















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Direction	All
Volume (vph)	902
Total Delay / Veh (s/v)	13
Total Delay (hr)	3
Stops / Veh	1.00
Stops (#)	902
Average Speed (mph)	19
Total Travel Time (hr)	9
Distance Traveled (mi)	169
Fuel Consumed (gal)	14
Fuel Economy (mpg)	11.8
CO Emissions (kg)	1.00
NOx Emissions (kg)	0.19
VOC Emissions (kg)	0.23



HCM Unsignalized Intersection Capacity Analysis  
 3: West Main & Crows Landing Road

11/16/2009

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	58	396	7	78	309	52	23	278	69	49	244	65
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	63	430	8	85	336	57	25	302	75	53	265	71
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	493	8	477	327	75	318	71					
Volume Left (vph)	63	0	85	25	0	53	0					
Volume Right (vph)	0	8	57	0	75	0	71					
Hadj (s)	0.10	-0.67	0.00	0.07	-0.67	0.12	-0.67					
Departure Headway (s)	9.0	8.3	9.1	9.3	8.6	9.4	8.6					
Degree Utilization, x	1.24	0.02	1.20	0.84	0.18	0.83	0.17					
Capacity (veh/h)	411	428	403	383	414	378	412					
Control Delay (s)	152.4	10.2	140.4	44.9	12.2	43.0	12.1					
Approach Delay (s)	150.3		140.4	38.8		37.4						
Approach LOS	F		F	E		E						

Intersection Summary

Delay	97.5	
HCM Level of Service	F	
Intersection Capacity Utilization	92.6%	ICU Level of Service
Analysis Period (min)	15	F

---

**3: West Main & Crows Landing Road**

---

Direction	All
Volume (vph)	1629
Total Delay / Veh (s/v)	97
Total Delay (hr)	44
Stops / Veh	1.00
Stops (#)	1629
Average Speed (mph)	6
Total Travel Time (hr)	54
Distance Traveled (mi)	305
Fuel Consumed (gal)	54
Fuel Economy (mpg)	5.7
CO Emissions (kg)	3.77
NOx Emissions (kg)	0.73
VOC Emissions (kg)	0.87

### HCM Signalized Intersection Capacity Analysis 3: West Main & Crows Landing Road

11/16/2009

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	58	396	7	78	309	52	23	278	69	49	244	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.55	1.00	1.00	0.49	1.00	1.00	0.59	1.00	1.00	0.57	1.00	1.00
Satd. Flow (perm)	1023	3539	1583	919	3539	1583	1096	3539	1583	1057	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	430	8	85	336	57	25	302	75	53	265	71
RTOR Reduction (vph)	0	0	6	0	0	41	0	0	35	0	0	34
Lane Group Flow (vph)	63	430	2	85	336	16	25	302	40	53	265	37
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Actuated Green, G (s)	10.9	10.9	10.9	10.9	10.9	10.9	21.1	21.1	21.1	21.1	21.1	21.1
Effective Green, g (s)	10.9	10.9	10.9	10.9	10.9	10.9	21.1	21.1	21.1	21.1	21.1	21.1
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27	0.27	0.53	0.53	0.53	0.53	0.53	0.53
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	279	964	431	250	964	431	578	1867	835	558	1867	835
v/s Ratio Prot		c0.12			0.09			c0.09			0.07	
v/s Ratio Perm	0.06		0.00	0.09		0.01	0.02		0.02	0.05		0.02
v/c Ratio	0.23	0.45	0.01	0.34	0.35	0.04	0.04	0.16	0.05	0.09	0.14	0.04
Uniform Delay, d1	11.3	12.0	10.6	11.7	11.7	10.7	4.6	4.9	4.6	4.7	4.8	4.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.3	0.0	0.8	0.2	0.0	0.1	0.2	0.1	0.3	0.2	0.1
Delay (s)	11.7	12.4	10.6	12.5	11.9	10.7	4.7	5.1	4.7	5.0	5.0	4.7
Level of Service	B	B	B	B	B	B	A	A	A	A	A	A
Approach Delay (s)		12.3			11.9			5.0			4.9	
Approach LOS		B			B			A			A	

Intersection Summary		
HCM Average Control Delay	8.9	HCM Level of Service
HCM Volume to Capacity ratio	0.26	
Actuated Cycle Length (s)	40.0	Sum of lost time (s)
Intersection Capacity Utilization	39.6%	ICU Level of Service
Analysis Period (min)	15	
c Critical Lane Group		

---

**3: West Main & Crows Landing Road**

---

Direction	All
Volume (vph)	1628
Total Delay / Veh (s/v)	9
Total Delay (hr)	4
Stops / Veh	0.58
Stops (#)	943
Average Speed (mph)	21
Total Travel Time (hr)	14
Distance Traveled (mi)	304
Fuel Consumed (gal)	21
Fuel Economy (mpg)	14.6
CO Emissions (kg)	1.46
NOx Emissions (kg)	0.28
VOC Emissions (kg)	0.34

Figure 4C-101. Traffic Signal Warrants Worksheet (Sheet 1 of 4)

**10 STA**  
 DIST CO RTE KPM  
 Major St: WEST MAIN  
 Minor St: CROW LANDING RD  
 CALC BC DATE 11-26-07  
 CHK \_\_\_\_\_ DATE \_\_\_\_\_  
 Critical Approach Speed 59.4 km/h  
 Critical Approach Speed 66.6 km/h  
 Critical speed of major street traffic > 64 km/h (40 mph).....  }  
 or } RURAL (R)  
 In built up area of isolated community of < 10,000 population.....  }  
 URBAN (U)

**WARRANT 1 - Eight Hour Vehicular Volume**

Condition A - Minimum Vehicle Volume

100% SATISFIED YES  NO   
 80% SATISFIED YES  NO

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
	1		2 or More		7am	8am	9am	2pm	3pm	4pm	5pm	6pm	Hour
Both Approaches Major Street	500 (400)	350 (280)	600 (480)	420 (336)	377	427	366	468	523	498	488	370	
Highest Approaches Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	318	455	369	321	390	413	461	470	

439  
400  
125%  
381%

Condition B - Interruption of Continuous Traffic

100% SATISFIED YES  NO   
 80% SATISFIED YES  NO

APPROACH LANES	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)												
	U	R	U	R									
	1		2 or More		7am	8am	9am	2pm	3pm	4pm	5pm	6pm	Hour
Both Approaches Major Street	750 (600)	525 (420)	900 (720)	630 (504)	377	427	366	468	523	498	488	370	
Highest Approaches Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	318	455	369	321	390	413	461	470	

Combination of Conditions A & B

SATISFIED YES  NO

REQUIREMENT	WARRANT	✓	FULFILLED
TWO WARRANTS SATISFIED 80%	1. MINIMUM VEHICULAR VOLUME		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	2. INTERRUPTION OF CONTINUOUS TRAFFIC		

**Figure 4C-101. Traffic Signal Warrants Worksheet (Sheet 2 of 4)**

**WARRANT 2 - Four Hour Vehicular Volume**

SATISFIED\* YES  NO

Record hourly vehicular volumes for four hours.

APPROACH LANES	2 or More		Hour			
	One	More	8am	3pm	4pm	5pm
Both Approaches - Major Street			427	523	498	480
Highest Approaches - Minor Street			455	390	413	461

\*All plotted points fall above the curves in MUTCD Figure 4C-1 or 4C-2

Yes  No

**WARRANT 3 - Peak Hour**

PART A or PART B SATISFIED YES  NO

PART A

SATISFIED YES  NO

(All parts 1, 2, and 3 below must be satisfied)

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach; AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four or more approaches or 650 vph for intersections with three approaches

Yes  No

Yes  No

Yes  No

PART B

SATISFIED YES  NO

APPROACH LANES	2 or More		Hour			
	One	More	8am	3pm	4pm	5pm
Both Approaches - Major Street			427	523	498	480
Highest Approaches - Minor Street			455	390	413	461

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume vehicle minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above the applicable curves in MUTCD Figure 4C-3 or 4C-4.

**Figure 4C-101. Traffic Signal Warrants Worksheet (Sheet 3 of 4)**

DIST 10 CO sta RTE \_\_\_\_\_ KPM \_\_\_\_\_

Major St: West MAIN Critical Approach Speed 59.4 km/h

Minor St: Crows Landing rd. Critical Approach Speed 61.6 km/h

CALC B.C. DATE 11-26-07

CHK \_\_\_\_\_ DATE \_\_\_\_\_

Critical speed of major street > 64 km/h (40 mph).....  } RURAL (R)

In built up area of isolated community of < 10,000 population.....  } URBAN (U)

**WARRANT 4 - Pedestrian Volume**  
(All Parts Must Be Satisfied)

100% SATISFIED YES  NO

Hours --->	7 AM	8 AM	2 PM	3 PM
Pedestrian Volume	7		2	6
Adequate Crossing Gaps	yes		yes	yes

Any hour > 190 Yes  No

OR 4 hours > 100 Yes  No

AND < 60 gap/hr Yes  No

AND. The distance to the nearest traffic signal along the major street is greater than 90m (300 ft)

----- Yes  No

AND. The new traffic signal will not seriously disrupt progressive traffic flow in the major street.

----- Yes  No

*Note:  
Intersection  
Controlled by  
A All-way stop*

**WARRANT 5 - School Crossing**  
(All Parts Must Be Satisfied)

SATISFIED YES  NO

**Part A**  
Gap/Minutes and # of Children

Each of Two Hours --->		7 AM	2 PM - 3 PM
Gaps vs Minutes	Minutes Children Using Crossing	7	8
	Number of Adequate Gaps	1	1
School Age Pedestrians Crossing Street		7	8

Gaps < Minutes SATISFIED YES  NO

Children > 20/hr SATISFIED YES  NO

**Part B**  
Distance to Nearest Controlled Crossing

Is Nearest Controlled Crossing More Than 180 m (600 ft) away?

SATISFIED YES  NO

*School Located adjacent to All-way stop intersection at the southwest corner.*



**Figure 4C-101. Traffic Signal Warrants Worksheet (Sheet 4 of 4)**

**WARRANT 6 - Coordinated Signal System  
(All Parts Must Be Satisfied)**

SATISFIED YES  NO

MINIMUM REQUIREMENTS	DISTANCE TO NEAREST SIGNAL	FULFILLED
> 300 m (1000 ft)	N _____ m, S _____ m, E _____ m, W _____ m	Yes <input type="checkbox"/> No <input type="checkbox"/>
On one way isolated streets or streets with one way traffic significance and adjacent signals are so far apart that necessary platooning and speed control would be lost.		<input type="checkbox"/> <input type="checkbox"/>
On 2-way streets where adjacent signals do not provide necessary platooning and speed control proposed signals could constitute a progressive signal system.		

N/A

**WARRANT 7 - Crash Warrant  
(All Parts Must Be Satisfied)**

SATISFIED YES  NO

REQUIREMENTS	WARRANT	✓	FULFILLED
One Warrant Satisfied 80%	Warrant 1 - Minimum Vehicular Volume	<input type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
	OR Warrant 2 - Interruption of Continuous Traffic	<input type="checkbox"/>	
Signal Will Not Seriously Disrupt Progressive Traffic Flow			<input checked="" type="checkbox"/> <input type="checkbox"/>
Adequate Trial of Less Restrictive Remedies Has Failed to Reduce Accident Frequency			<input type="checkbox"/> <input type="checkbox"/>
Acc. Within a 12 Month Period Susceptible for Corr. & Involving Injury or ≥ \$500 Damage			<input checked="" type="checkbox"/> <input type="checkbox"/>
MINIMUM REQUIREMENTS	NUMBER OF ACCIDENTS		
5 or More	5		


**WARRANT 8 - Roadway Network  
(All Parts Must Be Satisfied)**

SATISFIED YES  NO

MINIMUM VOLUME REQUIREMENTS	ENTERING VOLUMES - ALL APPROACHES	✓	FULFILLED
1000 Veh/Hr	During Typical Weekday Peak Hour <u>941</u> Veh/Hr	<input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
	OR During Each of Any 5 Hrs. of a Sat. and/or Sun _____ Veh/Hr		
CHARACTERISTICS OF MAJOR ROUTES		MAJOR ST.	MINOR ST.
Hwy. System Serving as Principal Network for Through Traffic		Yes	
Rural or Suburban Highway Outside Of, Entering, or Traversing a City		Yes	
Appears as Major Route on an Official Plan		Yes	
Any Major Route Characteristics Met, Both Streets			<input checked="" type="checkbox"/> <input type="checkbox"/>

The satisfaction of a warrant is not necessarily justification for a signal. Delay, congestion, confusion or other evidence of the need for right-of-way assignment must be shown.

Figure 4C-102. Traffic Count Worksheet

Insert North Point 

Not to Scale

*W. Main*

*road*

*Street*

*Crows Landing*

\*Entire Count Period

Number of Lanes			
Pedestrians			
Total*		Peak	

AM Peak	PM Peak	Total*
37	118	36
( )	( )	( )

AM Peak	PM Peak	Total*
28	139	52
( )	( )	( )

AM Peak	PM Peak	Total*
33	160	11
( )	( )	( )

AM Peak	PM Peak	Total*
16	119	48
( )	( )	( )

Pedestrians	
Total*	Peak

Number of Lanes 1

DIRECTIONAL TRAFFIC COUNT

Dist 10 Co.   Rte   KPM  

Intersection Crows Landing Rd @ W. Main St.

City Modesto

Date 11/26/07

Hour 2:00 PM to 3:00 PM

-----

Total Volume -----

AM -----

Hour ----- Volume -----

PM -----

Hour ----- Volume -----

*1.06%*

*3%*

**Table 4C-101. Traffic Signal Warrants Worksheet  
(Average Traffic Estimate Form)**

(Based on Estimated Average Daily Traffic - See Note)

URBAN..... RURAL.....		Minimum Requirements EADT			
<b>1A - Minimum Vehicular Traffic</b>		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied _____ Not Satisfied _____					
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street	Minor Street				
1.....	1.....	8,000	5,600	2,400	1,680
2 or More.....	1.....	9,600	6,720	2,400	1,680
2 or More.....	2 or More.....	9,600	6,720	3,200	2,240
1.....	2 or More.....	8,000	5,600	3,200	2,240
<b>1B - Interruption of Continuous Traffic</b>		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied _____ Not Satisfied _____					
Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street	Minor Street				
1.....	1.....	12,000	8,400	1,200	850
2 or More.....	1.....	14,400	10,080	1,200	850
2 or More.....	2 or More.....	14,400	10,080	1,600	1,120
.....	2 or More.....	12,000	8,400	1,600	1,120
<b>1A&amp;B - Combinations</b>		2 Warrants		2 Warrants	
Satisfied _____ Not Satisfied _____					
No one warrant satisfied, but following warrants fulfilled 80% or more.....					
..... 1 ..... 2					

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

**APPENDIX D -  
ENGINEER'S ESTIMATE**



## CROWS LANDING AVENUE AT WEST MAIN STREET TRAFFIC SIGNAL PROJECT ALTERNATIVE 2

THE FOLLOWING ESTIMATE OF THE QUANTITIES AND COSTS ARE APPROXIMATE ONLY. THE OPINION OF PROBABLE CONSTRUCTION COST IS MADE ON THE BASIS OF EXPERIENCE AND BY COSTS PROVIDED BY THE COUNTY. THE OPINION OF COST IS BASED UPON PRELIMINARY PLANS. BECAUSE WE HAVE NO CONTROL OVER THE COST OF LABOR, MATERIALS, EQUIPMENT, OR ON THE CONTRACTORS METHOD OF DETERMINING PRICES, OVER COMPETITIVE BIDDING, OR MARKET CONDITIONS, WE DO NOT GUARANTEE THAT PROPOSALS, BIDS, OR CONSTRUCTION COSTS WILL NOT VARY FROM THE OPINION OF PROBABLE COSTS AS SHOWN.

ITEM NO.	ITEM	ESTIMATED QUANTITY	UNIT OF MEASURE	UNIT PRICES (IN FIGURES)	ITEM TOTAL (IN FIGURES)
1	MOBILIZATION	1	L.S.	\$40,000.00	\$40,000.00
2	WATER POLLUTION CONTROL	1	L.S.	\$10,000.00	\$10,000.00
3	TRAFFIC CONTROL	1	L.S.	\$40,000.00	\$40,000.00
4	CLEARING AND GRUBBING	1	L.S.	\$10,000.00	\$10,000.00
5	SAW-CUT EXISTING PAVEMENT	9,215	L.F.	\$3.00	\$27,645.00
6	EARTHWORK	15,000	C.Y.	\$20.00	\$300,000.00
7	AGGREGATE BASE (CLASS 2)	1,968	C.Y.	\$25.00	\$49,189.35
8	ASPHALT CONCRETE (TYPE A)	3,187	TONS	\$65.00	\$207,185.55
9	ASPHALT CONCRETE (TYPE A) 0.17' OVERLAY	2,825	TONS	\$65.00	\$183,592.50
10	6" VERTICAL CURB	3,977	L.F.	\$35.00	\$139,195.00
11	ADJUST EXISTING MONUMENT TO GRADE	1	EA.	\$500.00	\$500.00
12	REMOVE AND SALVAGE EXISTING SIGNS	10	EA.	\$200.00	\$2,000.00
13	INSTALL TRAFFIC SIGNS	4	EA.	\$400.00	\$1,600.00
14	TRAFFIC SIGNALS AND LIGHTING	1	L.S.	\$300,000.00	\$300,000.00
15	THERMOPLASTIC STRIPING	24,956	L.F.	\$2.00	\$49,912.00
16	THERMOPLASTIC PAVEMENT MARKINGS	1,368	S.F.	\$5.00	\$6,840.00
17	SIDEWALK	1,644	S.F.	\$5.00	\$8,220.00
18	CURB AND GUTTER	189	L.F.	\$40.00	\$7,560.00
19	RELOCATION SERVICES	1	L.S.	\$350,000.00	\$350,000.00
20	RIGHT OF WAY ACQUISITION	76,076	S.F.	\$7.50	\$570,570.00

SUB-TOTAL:           \$2,304,009.40



## CROWS LANDING AVENUE AT WEST MAIN STREET TRAFFIC SIGNAL PROJECT ALTERNATIVE 3-A

THE FOLLOWING ESTIMATE OF THE QUANTITIES AND COSTS ARE APPROXIMATE ONLY. THE OPINION OF PROBABLE CONSTRUCTION COST IS MADE ON THE BASIS OF EXPERIENCE AND BY COSTS PROVIDED BY THE COUNTY. THE OPINION OF COST IS BASED UPON PRELIMINARY PLANS. BECAUSE WE HAVE NO CONTROL OVER THE COST OF LABOR, MATERIALS, EQUIPMENT, OR ON THE CONTRACTORS METHOD OF DETERMINING PRICES, OVER COMPETITIVE BIDDING, OR MARKET CONDITIONS, WE DO NOT GUARANTEE THAT PROPOSALS, BIDS, OR CONSTRUCTION COSTS WILL NOT VARY FROM THE OPINION OF PROBABLE COSTS AS SHOWN.

ITEM NO.	ITEM	ESTIMATED QUANTITY	UNIT OF MEASURE	UNIT PRICES (IN FIGURES)	ITEM TOTAL (IN FIGURES)
1	MOBILIZATION	1	L.S.	\$40,000.00	\$40,000.00
2	WATER POLLUTION CONTROL	1	L.S.	\$10,000.00	\$10,000.00
3	TRAFFIC CONTROL	1	L.S.	\$40,000.00	\$40,000.00
4	CLEARING AND GRUBBING	1	L.S.	\$10,000.00	\$10,000.00
5	SAW-CUT EXISTING PAVEMENT	15,587	L.F.	\$3.00	\$46,761.00
6	EARTHWORK	15,000	C.Y.	\$20.00	\$300,000.00
7	AGGREGATE BASE (CLASS 2)	2,441	C.Y.	\$25.00	\$61,028.24
8	ASPHALT CONCRETE (TYPE A) 0.50'	4,943	TONS	\$65.00	\$321,313.69
9	ASPHALT CONCRETE (TYPE A) 0.17' OVERLAY	2,866	TONS	\$65.00	\$186,277.81
10	6" VERTICAL CURB	1,968	L.F.	\$35.00	\$68,880.00
11	ADJUST EXISTING MONUMENT TO GRADE	1	EA.	\$500.00	\$500.00
12	REMOVE AND SALVAGE EXISTING SIGNS	10	EA.	\$200.00	\$2,000.00
13	INSTALL TRAFFIC SIGNS	4	EA.	\$400.00	\$1,600.00
14	TRAFFIC SIGNALS AND LIGHTING	1	L.S.	\$300,000.00	\$300,000.00
15	THERMOPLASTIC STRIPING	28,491	L.F.	\$2.00	\$56,982.00
16	THERMOPLASTIC PAVEMENT MARKINGS	1,468	S.F.	\$5.00	\$7,340.00
17	SIDEWALK	1,791	S.F.	\$5.00	\$8,955.00
18	CURB AND GUTTER	377	L.F.	\$40.00	\$15,080.00
19	DEMOLITION	1	L.S.	\$5,000.00	\$5,000.00
20	RELOCATION SERVICES	1	L.S.	\$350,000.00	\$350,000.00
21	RIGHT OF WAY ACQUISITION	112,549	S.F.	\$7.50	\$844,117.50

SUB-TOTAL: \$2,675,835.24



## CROWS LANDING AVENUE AT WEST MAIN STREET TRAFFIC SIGNAL PROJECT ALTERNATIVE 3-B

THE FOLLOWING ESTIMATE OF THE QUANTITIES AND COSTS ARE APPROXIMATE ONLY. THE OPINION OF PROBABLE CONSTRUCTION COST IS MADE ON THE BASIS OF EXPERIENCE AND BY COSTS PROVIDED BY THE COUNTY. THE OPINION OF COST IS BASED UPON PRELIMINARY PLANS. BECAUSE WE HAVE NO CONTROL OVER THE COST OF LABOR, MATERIALS, EQUIPMENT, OR ON THE CONTRACTORS METHOD OF DETERMINING PRICES, OVER COMPETITIVE BIDDING, OR MARKET CONDITIONS, WE DO NOT GUARANTEE THAT PROPOSALS, BIDS, OR CONSTRUCTION COSTS WILL NOT VARY FROM THE OPINION OF PROBABLE COSTS AS SHOWN.

ITEM NO.	ITEM	ESTIMATED QUANTITY	UNIT OF MEASURE	UNIT PRICES (IN FIGURES)	ITEM TOTAL (IN FIGURES)
1	MOBILIZATION	1	L.S.	\$40,000.00	\$40,000.00
2	WATER POLLUTION CONTROL	1	L.S.	\$10,000.00	\$10,000.00
3	TRAFFIC CONTROL	1	L.S.	\$40,000.00	\$40,000.00
4	CLEARING AND GRUBBING	1	L.S.	\$10,000.00	\$10,000.00
5	SAW-CUT EXISTING PAVEMENT	15,587	L.F.	\$3.00	\$46,761.00
6	EARTHWORK	15,000	C.Y.	\$20.00	\$300,000.00
7	AGGREGATE BASE (CLASS 2)	2,441	C.Y.	\$25.00	\$61,028.24
8	ASPHALT CONCRETE (TYPE A) 0.50'	4,943	TONS	\$65.00	\$321,313.69
9	ASPHALT CONCRETE (TYPE A) 0.17' OVERLAY	2,866	TONS	\$65.00	\$186,277.81
10	6" VERTICAL CURB	1,968	L.F.	\$35.00	\$68,880.00
11	ADJUST EXISTING MONUMENT TO GRADE	1	EA.	\$500.00	\$500.00
12	REMOVE AND SALVAGE EXISTING SIGNS	10	EA.	\$200.00	\$2,000.00
13	INSTALL TRAFFIC SIGNS	4	EA.	\$400.00	\$1,600.00
14	TRAFFIC SIGNALS AND LIGHTING	1	L.S.	\$300,000.00	\$300,000.00
15	THERMOPLASTIC STRIPING	28,491	L.F.	\$2.00	\$56,982.00
16	THERMOPLASTIC PAVEMENT MARKINGS	1,468	S.F.	\$5.00	\$7,340.00
17	SIDEWALK	1,791	S.F.	\$5.00	\$8,955.00
18	CURB AND GUTTER	377	L.F.	\$40.00	\$15,080.00
19	DEMOLITION	1	L.S.	\$5,000.00	\$5,000.00
20	RELOCATION SERVICES	1	L.S.	\$450,000.00	\$450,000.00
21	RIGHT OF WAY ACQUISITION	137,253	S.F.	\$7.50	\$1,029,397.50

SUB-TOTAL: \$2,961,115.24





**CROWS LANDING AVENUE AT WEST MAIN STREET  
TRAFFIC SIGNAL PROJECT  
ALTERNATIVE 4-A**

THE FOLLOWING ESTIMATE OF THE QUANTITIES AND COSTS ARE APPROXIMATE ONLY. THE OPINION OF PROBABLE CONSTRUCTION COST IS MADE ON THE BASIS OF EXPERIENCE AND BY COSTS PROVIDED BY THE COUNTY. THE OPINION OF COST IS BASED UPON PRELIMINARY PLANS. BECAUSE WE HAVE NO CONTROL OVER THE COST OF LABOR, MATERIALS, EQUIPMENT, OR ON THE CONTRACTORS METHOD OF DETERMINING PRICES, OVER COMPETITIVE BIDDING, OR MARKET CONDITIONS, WE DO NOT GUARANTEE THAT PROPOSALS, BIDS, OR CONSTRUCTION COSTS WILL NOT VARY FROM THE OPINION OF PROBABLE COSTS AS SHOWN.

ITEM NO.	ITEM	ESTIMATED QUANTITY	UNIT OF MEASURE	UNIT PRICES (IN FIGURES)	ITEM TOTAL (IN FIGURES)
1	MOBILIZATION	1	L.S.	\$40,000.00	\$40,000.00
2	WATER POLLUTION CONTROL	1	L.S.	\$10,000.00	\$10,000.00
3	TRAFFIC CONTROL	1	L.S.	\$40,000.00	\$40,000.00
4	CLEARING AND GRUBBING	1	L.S.	\$15,000.00	\$10,000.00
5	SAW-CUT EXISTING PAVEMENT	12,230	L.F.	\$3.00	\$36,690.00
6	EARTHWORK	20,000	C.Y.	\$20.00	\$400,000.00
7	AGGREGATE BASE (CLASS 2)	4,718	C.Y.	\$25.00	\$117,943.52
8	ASPHALT CONCRETE (TYPE A) 0.60'	11,464	TONS	\$65.00	\$745,167.15
9	ASPHALT CONCRETE (TYPE A) 0.17' OVERLAY	2,859	TONS	\$65.00	\$185,831.75
10	6" VERTICAL CURB	4,034	L.F.	\$35.00	\$141,190.00
11	ADJUST EXISTING MONUMENT TO GRADE	1	EA.	\$500.00	\$500.00
12	REMOVE AND SALVAGE EXISTING SIGNS	10	EA.	\$200.00	\$2,000.00
13	INSTALL TRAFFIC SIGNS	4	EA.	\$400.00	\$1,600.00
14	TRAFFIC SIGNALS AND LIGHTING	1	L.S.	\$300,000.00	\$300,000.00
15	THERMOPLASTIC STRIPING	31,276	L.F.	\$2.00	\$62,552.00
16	THERMOPLASTIC PAVEMENT MARKINGS	2,044	S.F.	\$5.00	\$10,220.00
17	SIDEWALK	2,427	S.F.	\$5.00	\$12,135.00
18	CURB AND GUTTER	916	L.F.	\$40.00	\$36,640.00
19	DEMOLITION	1	L.S.	\$10,000.00	\$10,000.00
20	RELOCATION SERVICES	1	L.S.	\$450,000.00	\$450,000.00
21	RIGHT OF WAY ACQUISITION	255,548	S.F.	\$7.50	\$1,916,610.00

SUB-TOTAL: \$4,529,079.42



## CROWS LANDING AVENUE AT WEST MAIN STREET TRAFFIC SIGNAL PROJECT ALTERNATIVE 4-B

THE FOLLOWING ESTIMATE OF THE QUANTITIES AND COSTS ARE APPROXIMATE ONLY. THE OPINION OF PROBABLE CONSTRUCTION COST IS MADE ON THE BASIS OF EXPERIENCE AND BY COSTS PROVIDED BY THE COUNTY. THE OPINION OF COST IS BASED UPON PRELIMINARY PLANS. BECAUSE WE HAVE NO CONTROL OVER THE COST OF LABOR, MATERIALS, EQUIPMENT, OR ON THE CONTRACTORS METHOD OF DETERMINING PRICES, OVER COMPETITIVE BIDDING, OR MARKET CONDITIONS, WE DO NOT GUARANTEE THAT PROPOSALS, BIDS, OR CONSTRUCTION COSTS WILL NOT VARY FROM THE OPINION OF PROBABLE COSTS AS SHOWN.

ITEM NO.	ITEM	ESTIMATED QUANTITY	UNIT OF MEASURE	UNIT PRICES (IN FIGURES)	ITEM TOTAL (IN FIGURES)
1	MOBILIZATION	1	L.S.	\$40,000.00	\$40,000.00
2	WATER POLLUTION CONTROL	1	L.S.	\$10,000.00	\$10,000.00
3	TRAFFIC CONTROL	1	L.S.	\$40,000.00	\$40,000.00
4	CLEARING AND GRUBBING	1	L.S.	\$15,000.00	\$10,000.00
5	SAW-CUT EXISTING PAVEMENT	12,230	L.F.	\$3.00	\$36,690.00
6	EARTHWORK	20,000	C.Y.	\$20.00	\$400,000.00
7	AGGREGATE BASE (CLASS 2)	4,718	C.Y.	\$25.00	\$117,943.52
8	ASPHALT CONCRETE (TYPE A) 0.60'	11,464	TONS	\$65.00	\$745,167.15
9	ASPHALT CONCRETE (TYPE A) 0.17' OVERLAY	2,859	TONS	\$65.00	\$185,831.75
10	6" VERTICAL CURB	4,034	L.F.	\$35.00	\$141,190.00
11	ADJUST EXISTING MONUMENT TO GRADE	1	EA.	\$500.00	\$500.00
12	REMOVE AND SALVAGE EXISTING SIGNS	10	EA.	\$200.00	\$2,000.00
13	INSTALL TRAFFIC SIGNS	4	EA.	\$400.00	\$1,600.00
14	TRAFFIC SIGNALS AND LIGHTING	1	L.S.	\$300,000.00	\$300,000.00
15	THERMOPLASTIC STRIPING	31,276	L.F.	\$2.00	\$62,552.00
16	THERMOPLASTIC PAVEMENT MARKINGS	2,044	S.F.	\$5.00	\$10,220.00
17	SIDEWALK	2,427	S.F.	\$5.00	\$12,135.00
18	CURB AND GUTTER	916	L.F.	\$40.00	\$36,640.00
19	DEMOLITION	1	L.S.	\$10,000.00	\$10,000.00
20	RELOCATION SERVICES	1	L.S.	\$450,000.00	\$450,000.00
21	RIGHT OF WAY ACQUISITION	316,631	S.F.	\$7.50	\$2,374,732.50

SUB-TOTAL: \$4,987,201.92

**APPENDIX E -  
AGENCY CORRESPONDENCE  
LETTERS**



**TURLOCK IRRIGATION DISTRICT**  
333 EAST CANAL DRIVE  
POST OFFICE BOX 949  
TURLOCK, CALIFORNIA 95381  
(209) 883-8300

May 5, 2009

Stanislaus County  
Department of Public Works  
Attn: Andrew Malizia, EIT  
1716 Morgan Road  
Modesto, CA 95358

RE: Crows Landing Road at West Main Street Traffic Signal Project

Dear Sir or Madam:

The Turlock Irrigation District (District) acknowledges the opportunity to review and comment on the referenced project. District standards require development occurring within the District's boundary that impacts irrigation and electric facilities, to meet the District's requirements.

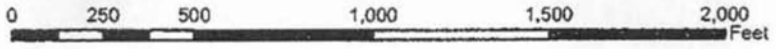
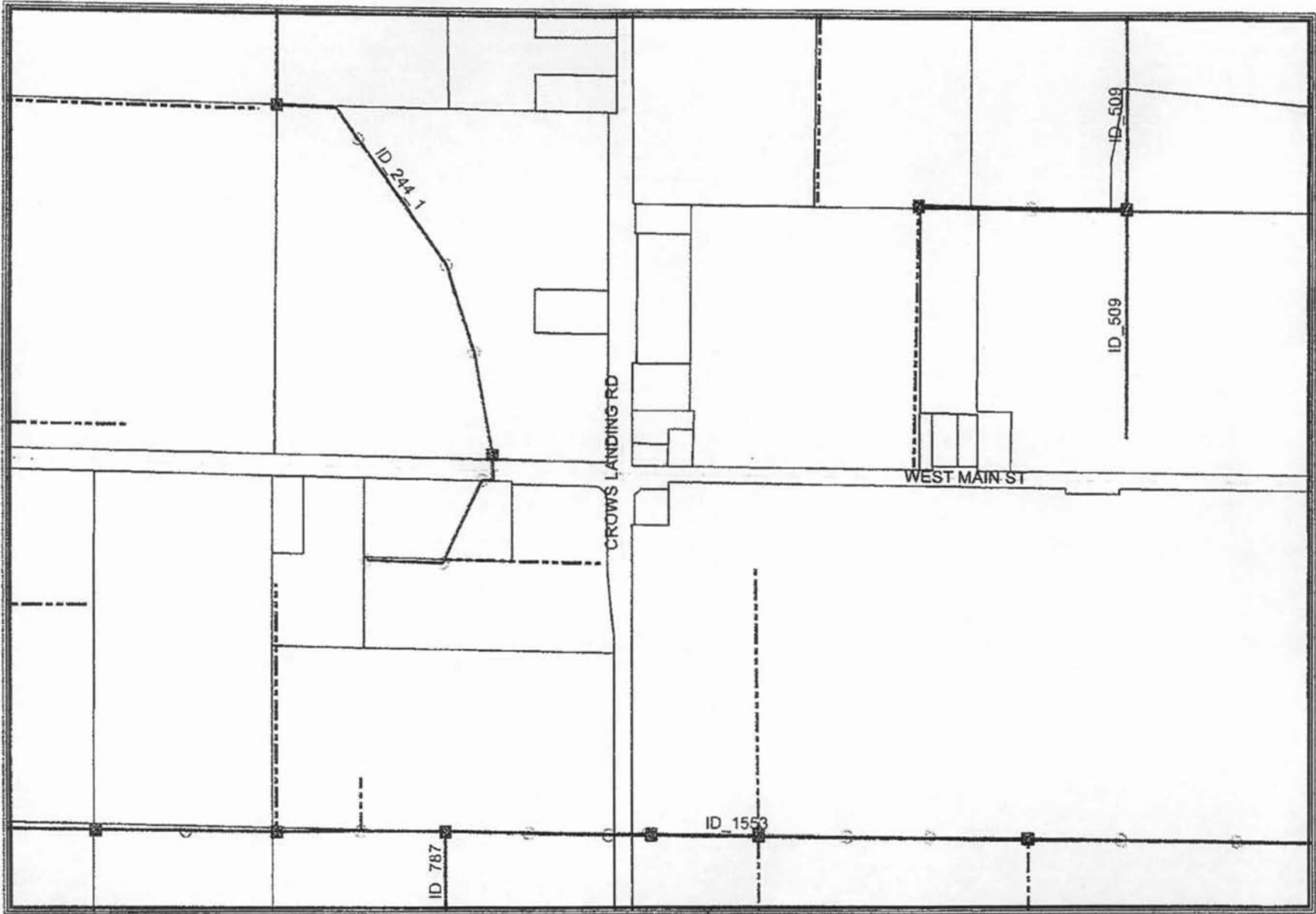
An irrigation pipeline belonging to Improvement District 244A, the C.W. Swanson, crosses West Main Street from north to south approximately 450-feet west of its intersection with Crows Landing Road. District records indicate the crossing to be a 2.5' x 4.0' rectangular box culvert, invert unknown. A structure box on the north side of West Main Street marks the approximate location of the crossing. An irrigation facilities map of the area is attached for your reference

See the attached electric map for electrical facilities in the project area.

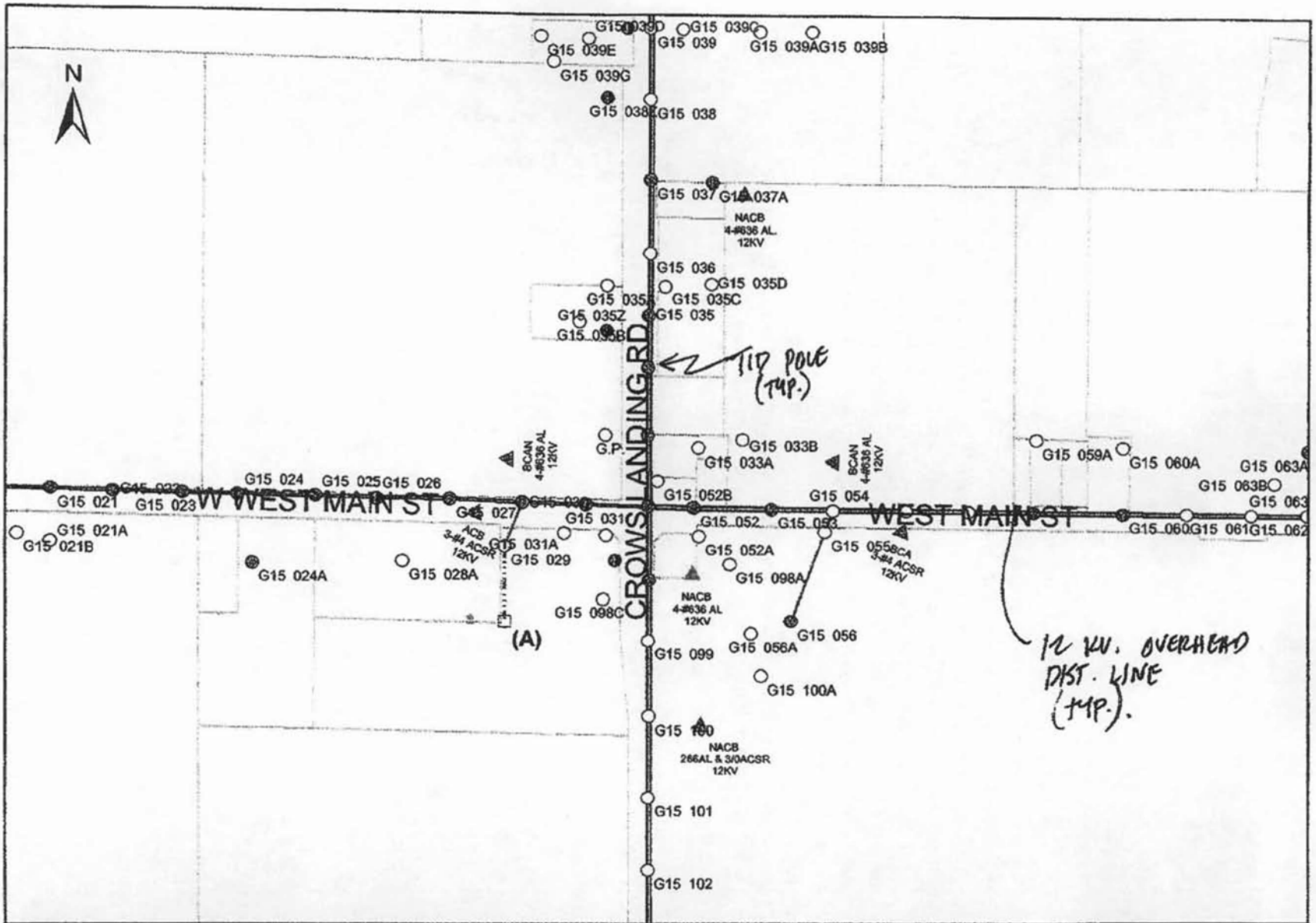
If you have any questions concerning irrigation system requirements or electric utility requirements, please contact me at (209) 883-8384 or Paul Rodriguez at (209) 883-8438 respectively.


Sincerely,

Arie W. Vander Pol  
Engineering Technician, Civil  
CF: 2009041



Irrigation Facilities  
Crows Landing & West Main  
File: 2009041



	NAME <b>TID Area Distribution Map</b>	JOB #	WORK ORDER #
	ADDRESS X	X	X
	PHONE X	BY X	MAP X
		DATE X	POLE X

# MEMO

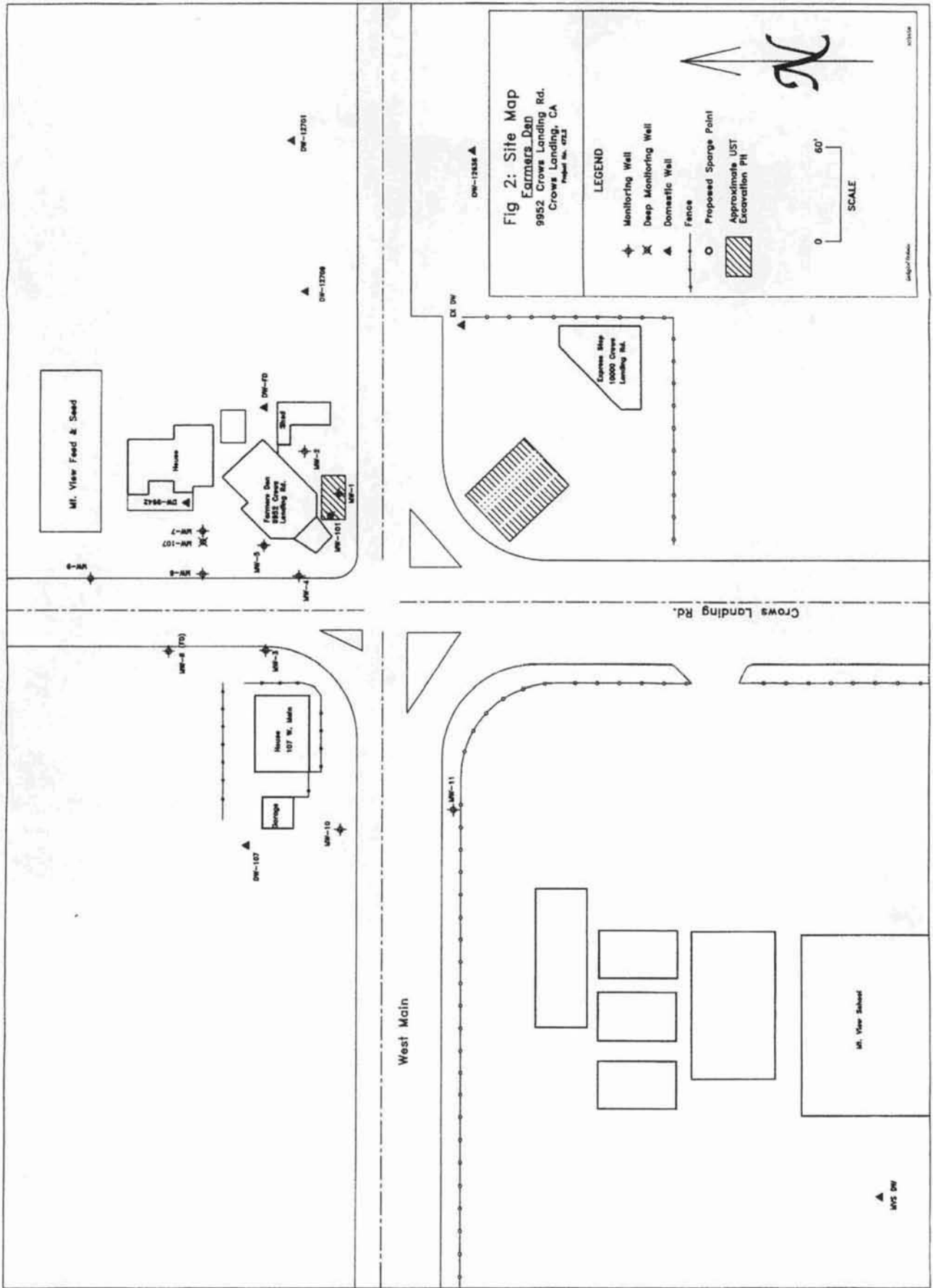
- CROWS LANDING ROAD AT WEST MAIN STREET -

**Thursday, May 07, 2009**  
8:56am

On Tuesday, April 28, 2009, Dave Newkirk from the mapping dept at PG&E in Merced called RE: Crows Landing and West Main; There are no PG&E facilities out in the location. Phone number is 613 6565. Mentioned that on that particular sight there was identified, directly across from the school, a gas bill(?) issue that has existed for at least 20+ years. He thought there was an old gas station at northeast corner and sometimes during the trenching in the past there have been ratings in the explosive range while trenching in the trench lines you may come across this. the readings were extremely high along both roadway areas. the county is aware of the issue.

Attached is information pulled from the Underground Storage Tank geotracker database found at <http://geotracker.waterboards.ca.gov/map>.

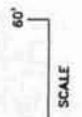




**Fig 2: Site Map**  
**Farmers Dan**  
 9952 Crows Landing Rd.  
 Crows Landing, CA  
 Project No. 0722

**LEGEND**

- Monitoring Well
- Deep Monitoring Well
- Domestic Well
- Fence
- Proposed Sparge Point
- Approximate UST Excavation Pit



DATE

SCALE

# GEOTRACKER

**LAYERS**

- Leaking Underground Tank (LUST) Cleanup Sites
- Other Cleanup Sites
- Land Disposal Sites
- Military Sites
- Permitted Underground Storage Tank (UST) Facilities
- Monitoring Wells

**MAP SIZE**

1024x768

**OPTIONS**

- Site List - EXPORT TO EXCEL

4 Sites



Map data ©2009 Tele Atlas - Terms of Use

SHOW SITES WITHIN 1000 FEET OF THE FOLLOWING ADDRESS:

**SITE LIST**

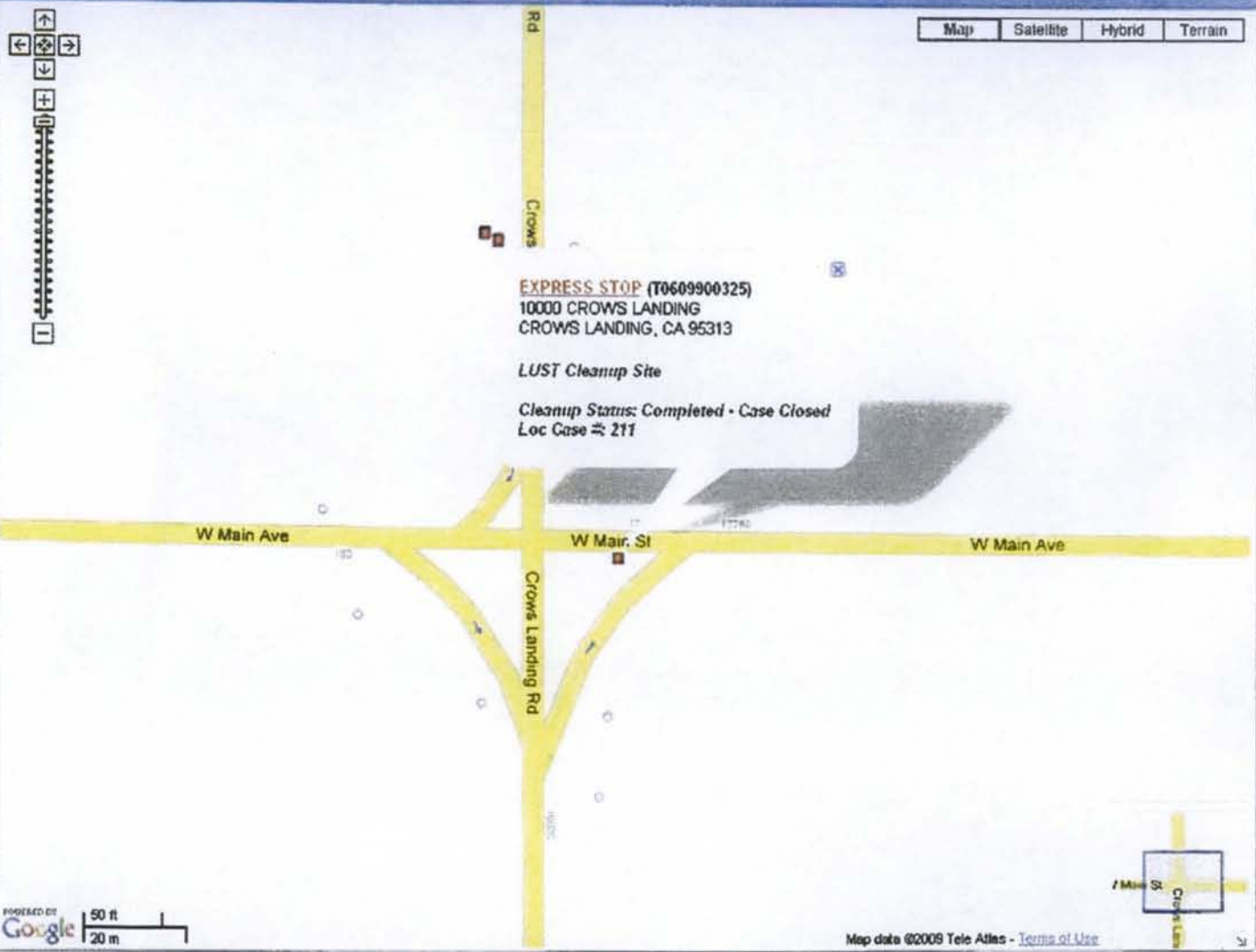
SITE NAME	GLOBAL ID	CLEANUP STATUS	ADDRESS	CITY
<input checked="" type="checkbox"/> EXPRESS STOP	T0609900325	COMPLETED - CASE CLOSED	10000 CROWS LANDING	CROWS LANDING
<input checked="" type="checkbox"/> FARMER'S DEN	T0909900057	OPEN - REMEDIATION	9952 CROWS LANDING	CROWS LANDING
<input checked="" type="checkbox"/> MOUNTAIN VIEW FEED SEED CO.	T0609900021	COMPLETED - CASE CLOSED	9942 CROWS LANDING	CROWS LANDING

MAP AN ADDRESS:

# GEOTRACKER

Map Satellite Hybrid Terrain

- LAYERS**
- Leaking Underground Tank (LUST) Cleanup Sites
  - Other Cleanup Sites
  - Land Disposal Sites
  - Military Sites
  - Permitted Underground Storage Tank (UST) Facilities
  - Monitoring Wells
- MAP SIZE:**  
1024x768
- OPTIONS**  
 Site List - [EXPORT TO EXCEL](#)



SHOW SITES WITHIN 1000 FEET OF THE FOLLOWING ADDRESS: crows landing road Go

**SITE LIST**

SITE NAME	GLOBAL ID	CLEANUP STATUS	ADDRESS	CITY
<input checked="" type="checkbox"/> EXPRESS STOP	T0609900325	COMPLETED - CASE CLOSED	10000 CROWS LANDING	CROWS LANDING
<input checked="" type="checkbox"/> FARMER'S DRN	T0609900057	OPEN - REMEDIATION	9952 CROWS LANDING	CROWS LANDING
<input checked="" type="checkbox"/> MOUNTAIN VIEW FEED SEED CO.	T0609900021	COMPLETED - CASE CLOSED	9942 CROWS LANDING	CROWS LANDING

# GEOTRACKER

## LAYERS

- Leaking Underground Tank (LUST) Cleanup Sites
- Other Cleanup Sites
- Land Disposal Sites
- Military Sites
- Permitted Underground Storage Tank (UST) Facilities
- Monitoring Wells

## MAP SIZE

1024x768

## OPTIONS

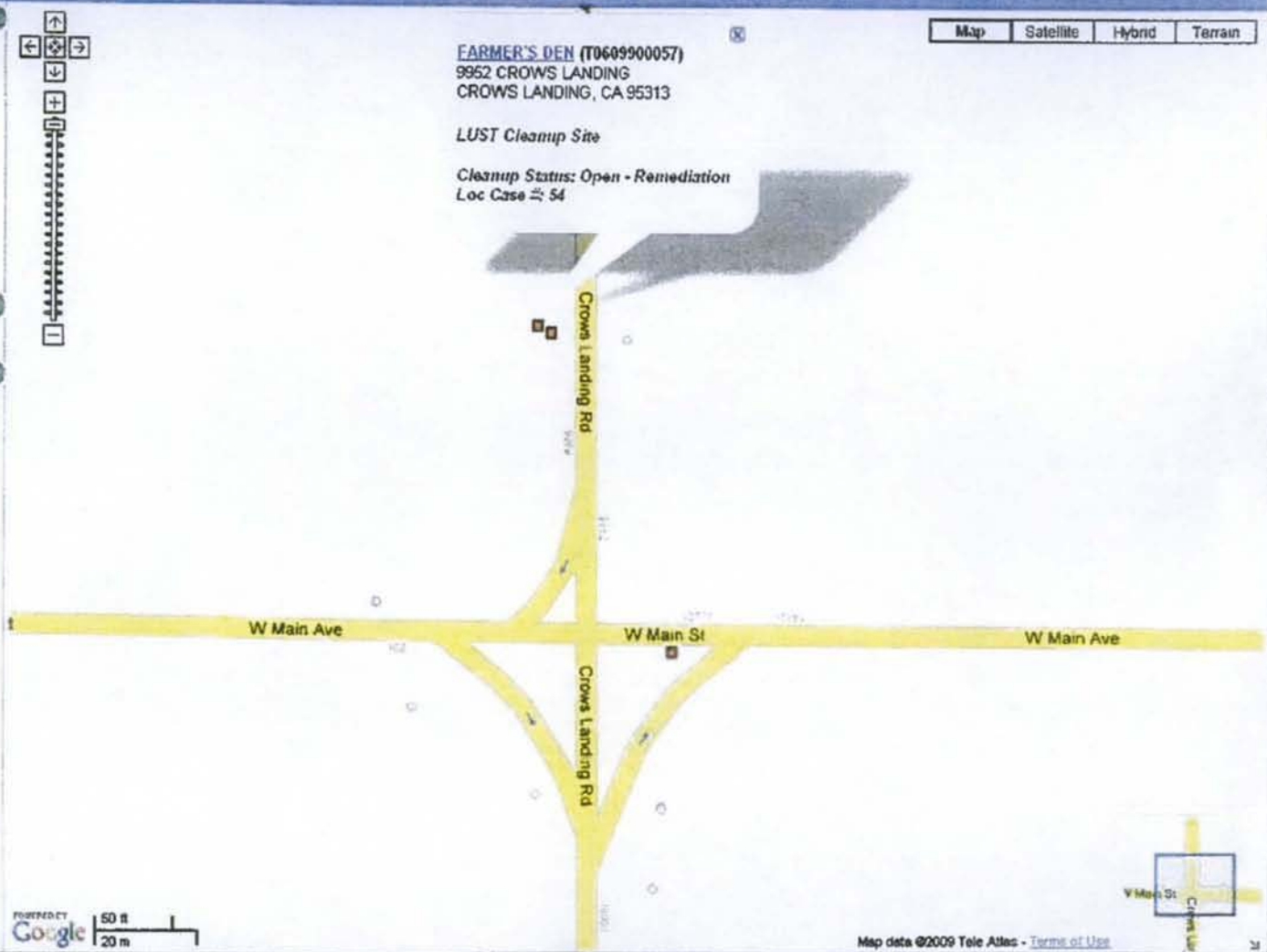
- Site List - [EXPORT TO EXCEL](#)

Map Satellite Hybrid Terrain

**FARMER'S DEN (T0609900057)**  
 9952 CROWS LANDING  
 CROWS LANDING, CA 95313

LUST Cleanup Site

Cleanup Status: Open - Remediation  
 Loc Case #: 54



4 Sites

POWERED BY Google

Map data ©2009 Tele Atlas - Terms of Use

SHOW SITES WITHIN 1000 FEET OF THE FOLLOWING ADDRESS:

## SITE LIST

SITE NAME	GLOBAL ID	CLEANUP STATUS	ADDRESS	CITY
<input checked="" type="checkbox"/> EXPRESS STOP	T0609800325	COMPLETED - CASE CLOSED	10000 CROWS LANDING	CROWS LANDING
<input checked="" type="checkbox"/> FARMER'S DEN	T0609900057	OPEN - REMEDIATION	9952 CROWS LANDING	CROWS LANDING
<input checked="" type="checkbox"/> MOUNTAIN VIEW FEED SEED CO.	T0609900021	COMPLETED - CASE CLOSED	9942 CROWS LANDING	CROWS LANDING



**DEPARTMENT OF PUBLIC WORKS**

**Matt Machado, PE**  
Director

**Laurie Barton, PE**  
Deputy Director, Engineering/Operations

**Diane Haugh**  
Assistant Director, Business/Finance

Engineering & Operations Division  
1716 Morgan Road, Modesto, CA 95358  
Phone: 209-525-4130; Fax: 209-525-4140

April 15, 2009

Francia Stanton  
AT&T  
1116 M Street  
Modesto, CA 95352

**SUBJECT: Crows Landing Road at West Main Street Traffic Signal Project**

Dear Ms. Stanton:

Stanislaus County Department of Public Works is scheduled to begin preliminary design for the subject project. The project, in general, will consist of intersection improvements and installation of traffic signals.

Before we begin design work, we will need information regarding existing utility facilities that you may have within the project limits. The facilities will be considered in the design and will be brought to the attention of our contractor through inclusion in the construction plans.

Enclosed is a vicinity map. Please review the map and provide us with the following:

- Location of existing facilities within 1,500 feet of the intersection of Crows Landing Road and West Main Street
- List what is carried by the facility (gas, electricity, water, cable, etc.) and, if available, give ties, depth of cover, size, voltage, pressure, and any other information that might affect the design of the project.
- Copy of utility plat maps.

Please return any information you might have to me prior to May 4, 2009. If you have any questions, you can contact me at (209) 525-4126.

Sincerely,

Andrew Malizia, EIT  
Design Engineer

Enclosure





**DEPARTMENT OF PUBLIC WORKS**

**Matt Machado, PE**  
Director

**Laurie Barton, PE**  
Deputy Director, Engineering/Operations

**Diane Haugh**  
Assistant Director, Business/Finance

Engineering & Operations Division  
1716 Morgan Road, Modesto, CA 95358  
Phone: 209-525-4130; Fax: 209-525-4140

April 15, 2009

Paul Rodriguez  
TID Electrical  
P.O. Box 949  
Turlock, CA 95381

**SUBJECT: Crows Landing Road at West Main Street Traffic Signal Project**

Dear Mr. Rodriguez:

Stanislaus County Department of Public Works is scheduled to begin preliminary design for the subject project. The project, in general, will consist of intersection improvements and installation of traffic signals.

Before we begin design work, we will need information regarding existing utility facilities that you may have within the project limits. The facilities will be considered in the design and will be brought to the attention of our contractor through inclusion in the construction plans.

Enclosed is a vicinity map. Please review the map and provide us with the following:

- Location of existing facilities within 1,500 feet of the intersection of Crows Landing Road and West Main Street
- List what is carried by the facility (gas, electricity, water, cable, etc.) and, if available, give ties, depth of cover, size, voltage, pressure, and any other information that might affect the design of the project.
- Copy of utility plat maps.

Please return any information you might have to me prior to May 4, 2009. If you have any questions, you can contact me at (209) 525-4126.

Sincerely,

Andrew Malizia, EIT  
Design Engineer

Enclosure



**DEPARTMENT OF PUBLIC WORKS**

**Matt Machado, PE**  
Director

**Laurie Barton, PE**  
Deputy Director, Engineering/Operations

**Diane Haugh**  
Assistant Director, Business/Finance

Engineering & Operations Division  
1716 Morgan Road, Modesto, CA 95358  
Phone: 209-525-4130; Fax: 209-525-4140

February 17, 2009

Sergio Tonarelli  
Pacific Gas & Electric  
1524 N. Carpenter Road  
Modesto, CA 95351

**SUBJECT: Crows Landing Road at West Main Street Traffic Signal Project**

Dear Mr. Tonarelli:

Stanislaus County Department of Public Works is scheduled to begin preliminary design for the subject project. The project, in general, will consist of intersection improvements and installation of traffic signals.

Before we begin design work, we will need information regarding existing utility facilities that you may have within the project limits. The facilities will be considered in the design and will be brought to the attention of our contractor through inclusion in the construction plans.

Enclosed is a vicinity map. Please review the map and provide us with the following:

- Location of existing facilities within 1,500 feet of the intersection of Crows Landing Road and West Main Street
- List what is carried by the facility (gas, electricity, water, cable, etc.) and, if available, give ties, depth of cover, size, voltage, pressure, and any other information that might affect the design of the project.
- Copy of utility plat maps.

Please return any information you might have to me prior to May 4, 2009. If you have any questions, you can contact me at (209) 525-4126.

Sincerely,

Andrew Malizia, EIT  
Design Engineer

Enclosure





**DEPARTMENT OF PUBLIC WORKS**

**Matt Machado, PE**  
Director

**Laurie Barton, PE**  
Deputy Director, Engineering/Operations

**Diane Haugh**  
Assistant Director, Business/Finance

Engineering & Operations Division  
1716 Morgan Road, Modesto, CA 95358  
Phone: 209-525-4130; Fax: 209-525-4140

April 15, 2009

Roberto Gonzalez  
Comcast  
6505 Tam O'Shanter Drive  
Stockton, CA 95210

**SUBJECT: Crows Landing Road at West Main Street Traffic Signal Project**

Dear Mr. Gonzalez:

Stanislaus County Department of Public Works is scheduled to begin preliminary design for the subject project. The project, in general, will consist of intersection improvements and installation of traffic signals.

Before we begin design work, we will need information regarding existing utility facilities that you may have within the project limits. The facilities will be considered in the design and will be brought to the attention of our contractor through inclusion in the construction plans.

Enclosed is a vicinity map. Please review the map and provide us with the following:

- Location of existing facilities within 1,500 feet of the intersection of Crows Landing Road and West Main Street
- List what is carried by the facility (gas, electricity, water, cable, etc.) and, if available, give ties, depth of cover, size, voltage, pressure, and any other information that might affect the design of the project.
- Copy of utility plat maps.

Please return any information you might have to me prior to May 4, 2009. If you have any questions, you can contact me at (209) 525-4126.

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**Diana Haugh**  
Assistant Director, Business/Finance

Engineering & Operations Division  
1716 Morgan Road, Modesto, CA 95358  
Phone: 209-525-4130; Fax: 209-525-4140

April 15, 2009

Arie Vander Pol  
TID Irrigation  
P.O. Box 949  
Turlock, CA 95381

**SUBJECT: Crows Landing Road at West Main Street Traffic Signal Project**

Dear Mr. Vander Pol:

Stanislaus County Department of Public Works is scheduled to begin preliminary design for the subject project. The project, in general, will consist of intersection improvements and installation of traffic signals.

Before we begin design work, we will need information regarding existing utility facilities that you may have within the project limits. The facilities will be considered in the design and will be brought to the attention of our contractor through inclusion in the construction plans.

Enclosed is a vicinity map. Please review the map and provide us with the following:

- Location of existing facilities within 1,500 feet of the intersection of Crows Landing Road and West Main Street
- List what is carried by the facility (gas, electricity, water, cable, etc.) and, if available, give ties, depth of cover, size, voltage, pressure, and any other information that might affect the design of the project.
- Copy of utility plat maps.

Please return any information you might have to me prior to May 4, 2009. If you have any questions, you can contact me at (209) 525-4126.

Sincerely,

Andrew Malizia, EIT  
Design Engineer

Enclosure



**DEPARTMENT OF PUBLIC WORKS**

**Matt Machado, PE**  
Director

**Laurie Barton, PE**  
Deputy Director, Engineering/Operations

**Diane Haugh**  
Assistant Director, Business/Finance

Engineering & Operations Division  
1716 Morgan Road, Modesto, CA 95358  
Phone: 209-525-4130; Fax: 209-525-4140

April 15, 2009

Tom Shears  
Charter Communications  
773 N. Walnut Road  
Turlock, CA 95380

**SUBJECT: Crows Landing Road at West Main Street Traffic Signal Project**

Dear Mr. Shears:

Stanislaus County Department of Public Works is scheduled to begin preliminary design for the subject project. The project, in general, will consist of intersection improvements and installation of traffic signals.

Before we begin design work, we will need information regarding existing utility facilities that you may have within the project limits. The facilities will be considered in the design and will be brought to the attention of our contractor through inclusion in the construction plans.

Enclosed is a vicinity map. Please review the map and provide us with the following:

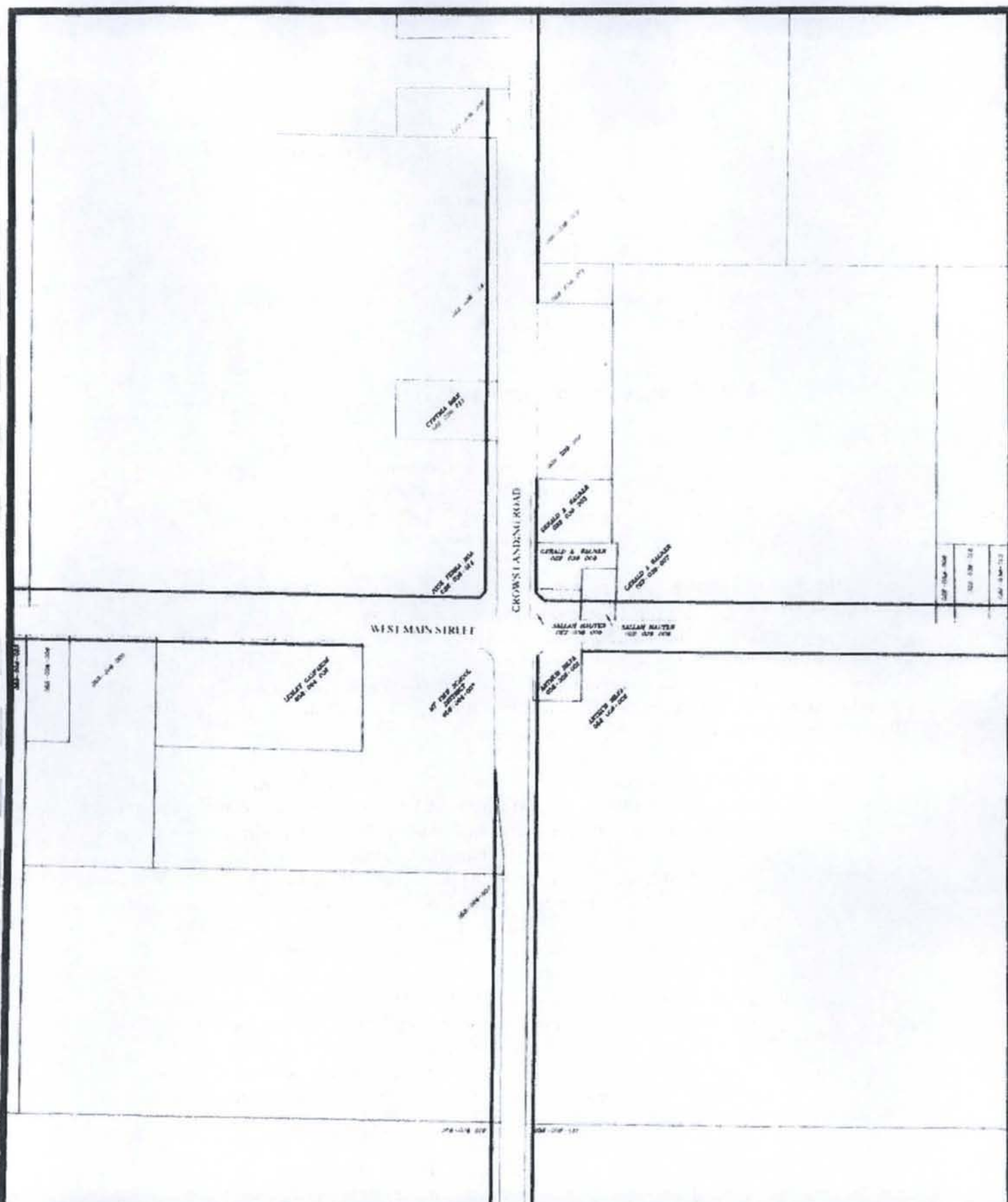
- Location of existing facilities within 1,500 feet of the intersection of Crows Landing Road and West Main Street
- List what is carried by the facility (gas, electricity, water, cable, etc.) and, if available, give ties, depth of cover, size, voltage, pressure, and any other information that might affect the design of the project.
- Copy of utility plat maps.

Please return any information you might have to me prior to May 4, 2009. If you have any questions, you can contact me at (209) 525-4126.

Sincerely,

Andrew Malizia, EIT  
Design Engineer

Enclosure



**STANISLAUS COUNTY**  
 DEPARTMENT OF PUBLIC WORKS  
 ENGINEERING AND OPERATIONS DIVISION  
 1716 MORGAN ROAD - MODESTO, CA 95358

**CROWS LANDING ROAD  
 AT WEST MAIN STREET  
 APN EXHIBIT**

DRAWN BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 SHEET: \_\_\_\_\_  
 FILE: \_\_\_\_\_

**STANISLAUS COUNTY  
PROFESSIONAL DESIGN SERVICES AGREEMENT**

This Agreement is made and entered into by and between the County of Stanislaus, a political subdivision of the State of California, hereinafter referred to as "County" and hereinafter referred to as "Consultant".

**NOW, THEREFORE**, for and in consideration of the mutual covenants and conditions contained herein, the parties hereby agree as follows:

**1.0 PROFESSIONAL SERVICES TO BE PROVIDED BY CONSULTANT**

1.1. Scope of Services: Consultant shall provide the professional services described in the County's Request for Proposal ("RFP") attached hereto as Exhibit "A" and incorporated herein by reference and Consultant's Response to County's RFP (the "Response"). A copy of said Response is attached hereto as Exhibit "B" and incorporated herein by this reference.

1.2. Professional Practices: All professional services to be provided by Consultant pursuant to this Agreement shall be provided by personnel experienced in their respective fields and in a manner consistent with the standards of care, diligence and skill ordinarily exercised by professional consultants in similar fields and circumstances in accordance with sound professional practices. Consultant also represents that it is familiar with all laws that may affect its performance of this Agreement and shall advise County of any changes in any laws that may affect Consultant's performance of this Agreement.

1.3. Representations: Consultant represents that it has reviewed the RFP and that in its professional judgment the services to be performed under this Agreement can be performed within the maximum fee set forth herein below and within the time specified in the Project Schedule attached hereto. Consultant represents that it is qualified to perform the professional services required by this Agreement and possesses the necessary licenses and permits required to perform said services. Consultant represents that it has no interest and shall not acquire any interest direct or indirect which conflicts, or has the appearance of conflicting, in any manner or degree with the performance of the work and services under this Agreement.

1.4. Compliance with Laws. Consultant agrees that it shall perform the services required by this Agreement in compliance with all applicable Federal and California laws including, but not limited to, those laws related to minimum hours and wages; occupational health and safety; fair employment and employment practices; workers' compensation insurance and safety in employment; and all other Federal, State and local laws and ordinances applicable to the services required under this Agreement.

1.5. Non-Discrimination. During the performance of this Agreement, Consultant and its officers, employees, agents, representatives or subcontractors shall not unlawfully discriminate in violation of any federal, state or local law, rule or regulation against any employee, applicant

for employment or person receiving services under this Agreement because of race, religion, color, national origin, ancestry, physical or mental disability, medical condition (including genetic characteristics), marital status, age, political affiliation, sex or sexual orientation. Consultant and its officers, employees, agents, representatives or subcontractors shall comply with all applicable Federal, State and local laws and regulations related to non-discrimination and equal opportunity, including without limitation the County's nondiscrimination policy; the Fair Employment and Housing Act (Government Code sections 12900 et seq.); California Labor Code sections 1101, 1102 and 1102.1; the Federal Civil Rights Act of 1964 (P.L. 88-352), as amended; and all applicable regulations promulgated in the California Code of Regulations or the Code of Federal Regulations.

1.6. Non-Exclusive Agreement. Consultant acknowledges that County may enter into agreements with other consultants for services similar to the services that are subject to this Agreement or may have its own employees perform services similar to those services contemplated by this Agreement.

1.7. Delegation and Assignment. This is a personal service contract, and the duties set forth herein shall not be delegated or assigned to any person or entity without the prior written consent of County. Consultant may engage a subcontractor(s) as permitted by law and may employ other personnel to perform services contemplated by this Agreement at Consultant's sole cost and expense.

1.8. Covenant Against Contingent Fees. Consultant warrants that he/she has not employed or retained any company or person, other than a bona fide employee working for the consultant; to solicit or secure this agreement; and that he/she has not paid or agreed to pay any company or person other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award, or formation of this agreement. For breach or violation of this warranty, the local agency shall have the right to annul this agreement without liability, or at its discretion; to deduct from the agreement price or consideration, or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

## 2.0 COMPENSATION AND BILLING

2.1. Compensation. Consultant shall be paid in accordance with the fee schedule set forth in Exhibit "C", attached hereto and made a part of this Agreement (the "Fee Schedule"). Consultant's compensation shall in no case exceed \$ \_\_\_\_\_. Consultant will be compensated on a time and materials basis, based on the hours worked by the Consultant's employees or subcontractors at the hourly rates specified in the Fee Schedule. The Fee Schedule rates include direct salary costs, employee benefits, and overhead. The rates stated in the Fee Schedule are not adjustable during the term of this Agreement. The County may retain ten percent of all periodic or progress payments made to the Consultant until completion and acceptance of all work tasks and County shall have right to withhold payment from Consultant for any unsatisfactory service until such time service is performed satisfactorily.

2.2. Reimbursements. In addition to the aforementioned fees, Consultant will be reimbursed for any expenses specifically set forth in each Project Scope of Work. All such reimbursement amounts are limited to those costs and expenses that are reasonable, necessary and actually incurred by the Consultant in connection with the services provided. The County shall not pay a mark up on any item of reimbursement. The County shall not pay for any item of overhead such as telephone, facsimile, postage, etc. All requests for reimbursement shall be accompanied by a copy of the original invoice.

2.3. Additional Services. Consultant shall not receive compensation for any services provided outside the scope of services specified in Exhibits A and B unless the County or the Project Manager for this Project, prior to Consultant performing the additional services, approves such additional services in writing. It is specifically understood that oral requests and/or approvals of such additional services or additional compensation shall be barred and are unenforceable.

2.4. Method of Billing. Consultant may submit invoices to County's Project Manager for approval on a progress basis, but no more often than once each calendar month. Said invoice shall be based on the total of all Consultants' services that have been completed to County's sole satisfaction. County shall pay Consultant's invoice within forty-five (45) days from the date County receives said invoice. Each invoice shall describe in detail, the services performed and the associated percentage of tasks completed. Any additional services approved and performed pursuant to this Agreement shall be designated as "Additional Services" and shall identify the number of the authorized change order, where applicable, on all invoices.

2.5. Records and Audits. Records of Consultant's services relating to this Agreement shall be maintained in accordance with generally recognized accounting principles and shall be made available to County or its Project Manager for inspection and/or audit at mutually convenient times for a period of three (3) years from the termination of this Agreement.

### **3.0 TIME OF PERFORMANCE**

3.1. Commencement and Completion of Work. The professional services to be performed pursuant to this Agreement shall commence within five (5) days after County delivers its Notice to Proceed. Said services shall be performed in strict compliance with the Project Schedule approved by County as set forth in Exhibit "D", attached hereto and incorporated herein by this reference. The Project Schedule may be amended by mutual agreement of the parties. Failure to commence work in a timely manner and/or diligently pursue work to completion may be grounds for termination of this Agreement.

3.2. Excusable Delays. Neither party shall be responsible for delays or lack of performance resulting from acts beyond the reasonable control of the party or parties. Such acts shall include, but not be limited to, acts of God, fire, strikes, material shortages, compliance with laws or regulations, riots, acts of war, or any other conditions beyond the reasonable control of a party.

### **4.0 TERM OF CONTRACT AND TERMINATION**

4.1. Term. This Agreement shall commence upon approval by the County's Board of



Supervisors and continue until the work required herein is completed, unless previously terminated as provided herein or as otherwise agreed to in writing by the parties.

4.2. Notice of Termination. The County reserves and has the right and privilege of canceling, suspending or abandoning the execution of all or any part of the work contemplated by this Agreement, with or without cause, at any time, by providing written notice to Consultant. The termination of this Agreement shall be deemed effective upon receipt of the notice of termination. In the event of such termination, Consultant shall immediately stop rendering services under this Agreement unless directed otherwise by the County.

4.3. Compensation. In the event of termination, County shall pay Consultant for reasonable costs incurred and professional services satisfactorily performed up to and including the date of County's written notice of termination. Compensation for work in progress shall be prorated as to the percentage of work completed as of the effective date of termination in accordance with the fees set forth in Exhibit "C. In ascertaining the professional services actually rendered hereunder up to the effective date of termination of this Agreement, consideration shall be given to both completed work and work in progress, to complete and incomplete drawings, and to other documents pertaining to the services contemplated herein whether delivered to the County or in the possession of the Consultant.

4.4. Documents. In the event of termination of this Agreement, all documents prepared by Consultant in its performance of this Agreement including, but not limited to, finished or unfinished design, development and construction documents, data studies, drawings, maps and reports, shall be delivered to the County within ten (10) days of delivery of termination notice to Consultant, at no cost to County. Any use of uncompleted documents without specific written authorization from Consultant shall be at County's sole risk and without liability or legal expense to Consultant.

## 5.0 INSURANCE REQUIREMENTS

5.1. Minimum Scope and Limits of Insurance. Consultant, at its sole cost and expense, for the full term of this Agreement (and any extensions thereof), shall obtain and maintain, at minimum, compliance with all of the following insurance coverage(s) and requirements. If Consultant normally carries insurance in an amount greater than the minimum amount listed below, that greater amount shall become the minimum required amount of insurance for purposes of this Agreement. The insurance listed below shall have a retroactive date of placement prior to, or coinciding with, the date services are first provided that are governed by the terms of this Agreement:

- (a) Comprehensive general liability, including premises-operations, products/ completed operations, broad form property damage, blanket contractual liability, independent contractors, personal injury with a policy limit of not less than Two Million Dollars (\$2,000,000.00), combined single limits, per occurrence and aggregate. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to any act or omission by Consultant under this Agreement or the general aggregate limit shall be twice the required occurrence limit.

(b) Automobile liability for owned vehicles, hired, and non-owned vehicles, with a policy limit of not less than One Million Dollars (\$1,000,000.00), combined single limits, per occurrence and aggregate.

(c) Workers' compensation insurance as required by the State of California.

(d) Professional errors and omissions ("E&O") liability insurance with policy limits of not less than Two Million Dollars (\$2,000,000.00), combined single limit for each occurrence. If Consultant cannot provide an occurrence policy, Consultant shall provide insurance covering claims made as a result of performance of Work on this Project and shall maintain such insurance in effect for not less than three years following Final Completion of the Project.

5.2. Endorsements. The Consultant shall obtain a specific endorsement to all required insurance policies, except Professional Liability insurance, naming the County of Stanislaus, its Officers, Directors, Officials, Agents, Employees and Volunteers as additional insureds for at least three years after the completion of the work to be performed under this Agreement, but, to the extent that any insurance issued to Consultant in effect after the expiration of three years provides additional insured coverage to parties Consultant agreed in writing to name as an additional insured, then Consultant shall have the obligation under this contract to obtain such additional insured coverage for the County, under any and all policies Consultant has regarding:

(a) Liability arising from or in connection with the performance or omission to perform any term or condition of this Agreement by or on behalf of the Consultant, including the insured's general supervision of its subcontractors;

(b) Ongoing services, products and completed operations of the Consultant;

(c) Premises owned, occupied or used by the Consultant; and

(d) Automobiles owned, leased, hired or borrowed by the Consultant.

(e) For Workers' Compensation insurance, the insurance carrier shall agree to waive all rights of subrogation against the County, its officers, officials and employees for losses arising from the performance of or the omission to perform any term or condition of this Agreement by the Consultant.

5.3. Deductibles: Any deductibles, self-insured retentions or named insureds must be declared in writing and approved by County. At the option of the County, either: (a) the insurer shall reduce or eliminate such deductibles, self-insured retentions or named insureds, or (b) the Consultant shall provide a bond, cash, letter of credit, guaranty or other security satisfactory to the County guaranteeing payment of the self-insured retention or deductible and payment of any and all costs, losses, related investigations, claim administration and defense expenses. The County, in its sole discretion, may waive the requirement to reduce or eliminate deductibles or self-insured retentions, in which case, the Consultant agrees that it will be responsible for and pay any self-insured retention or deductible and will pay any and all costs, losses, related

investigations, claim administration and defense expenses related to or arising out of the Consultant's defense and indemnification obligations as set forth in this Agreement.

5.4. Certificates of Insurance: At least ten (10) days prior to the date the Consultant begins performance of its obligations under this Agreement, Consultant shall furnish County with certificates of insurance, and with original endorsements, showing coverage required by this Agreement, including, without limitation, those that verify coverage for subcontractors of the Consultant. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements shall be received and, in County's sole and absolute discretion, approved by County. County reserves the right to require complete copies of all required insurance policies and endorsements, at any time.

5.5. Non-limiting: Nothing in this Section or the insurance described herein shall be construed as limiting in any way, the indemnification provisions contained in this Agreement, or the liability of Consultant and Consultant's officers, employees, agents, representatives or subcontractors for payments of damages to persons or property.

5.6. Primary Insurance: The Consultant's insurance coverage shall be primary insurance regarding the County of Stanislaus, its Officers, Directors, Officials, Agents, Employees and Volunteers. Any insurance or self-insurance maintained by the County of Stanislaus, its Officers, Directors, Officials, Agents, Employees and Volunteers shall be excess of the Consultant's insurance and shall not contribute with Consultant's insurance. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the County or its officers, officials and employees. The Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability. Any and all insurances cared by it shall be deemed liability coverage for any and all actions it performs in connection with this Contract.

5.7. Cancellation of Insurance: Each insurance policy required by this section shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party except after thirty (30) days prior written notice has been given to County. The Consultant shall promptly notify, or cause the insurance carrier to promptly notify, the County of any change in the insurance policy or policies required under this Agreement, including, without limitation, any reduction in coverage or in limits of the required policy or policies. Consultant shall maintain such coverage in effect for three (3) years after substantial completion of the project to the extent it is commercially available at reasonable rates.

5.8. California Admitted Insurer: Insurance shall be placed with California admitted insurers (licensed to do business in California) with a current rating by Best's Key Rating Guide of no less than A-:VII; provided, however, that if no California admitted insurance company provides the required insurance, it is acceptable to provide the required insurance through a United States domiciled carrier that meets the required Best's rating and that is listed on the current List of Eligible Surplus Line Insurers maintained by the California Department of Insurance.

5.9. Subcontractors: Consultant shall require that all of its subcontractors are subject to the

insurance and indemnity requirements stated herein, or shall include all subcontractors as additional insureds under its insurance policies.

## 6.0 INDEMNIFICATION

6.1. Indemnification: To the fullest extent allowed by law, Consultant shall defend, indemnify, and hold harmless the County and its officers, directors, officials, agents, employees, volunteers and representatives (collectively, "Indemnitee") from and against any and all claims, suits, actions, losses, injuries, damages or expenses of every name, kind, and description, including litigation costs and reasonable attorney's fees incurred, (collectively, "losses") which are founded upon, arise out of, pertain to, or relate to, directly or indirectly, in whole or in part, the alleged negligence, recklessness, or willful misconduct of Consultant, its officers, agents, employees, volunteers, representatives, contractors and subcontractors, excluding, however, such liabilities caused in part by the sole negligence, active negligence or willful misconduct of the County, its agents, employees, and representatives. These indemnification obligations shall not be limited by any assertion or finding that (1) the person or entity indemnified is liable by reason of non-delegable duty, or (2) the losses were caused in part by the negligence of, breach of contract by, or violation of law by Indemnitee. Nothing in this Agreement, including the provisions of this paragraph, shall constitute a waiver or limitation of any rights which Indemnitee may have under applicable law, including without limitation, the right to implied indemnity.

6.2. Duty to Defend: The duty of Consultant to indemnify and save harmless as set forth herein, shall include both the duty to indemnify and at Consultant's own cost and expense the duty to defend as set forth in Section 2778 of the California Civil Code and as limited in section 2782.8 of the California Civil Code. This duty to defend arises immediately when such claim is made and shall be independent of any finding of negligence and shall arise regardless of any claim or assertion that Indemnitee caused or contributed to the Losses. Consultant shall provide legal counsel acceptable to the County.

6.3. Duty to Cooperate: Each party shall notify the other party within ten (10) days in writing of any claim or damage related to activities performed under this Agreement. The parties shall cooperate with each other in the investigation and disposition of any claim arising out of the activities under this Agreement. Specifically, Consultant shall take all steps necessary to assist the County in the defense of any claim brought by a contractor hired to construct the Project regarding any errors, flaws, and/or omissions in the plans or specifications of the Project.

6.4. Patent Rights: Consultant represents that professional services provided by Consultant pursuant to this Agreement does not infringe on any other copyrighted work. Consultant shall defend, indemnify and hold harmless the County from all loss, cost, damage, expense, liability or claims, including attorneys' fees, court costs, litigation expenses and expert consultant or witness fees, that may at any time arise for any infringement of the patent rights, copyright, trade secret, trade name, trademark, service mark or any other proprietary right of any person or persons in consequence of the use by the County of any articles or services supplied under this agreement.

6.5. The foregoing provisions shall survive the term and termination of this Agreement.

**7.0 GENERAL PROVISIONS**

7.1. Entire Agreement: This Agreement constitutes the entire Agreement between the parties with respect to any matter referenced herein and supersedes any and all other prior writings and oral negotiations. This Agreement may be modified only in writing, and signed by the parties in interest at the time of such modification. The terms of this Agreement shall prevail over any inconsistent provision in any other contract document appurtenant hereto, including exhibits to this Agreement.

7.2. Representatives. The Director of the Stanislaus County Department of Public Works, or his designee, shall be the representative of County for purposes of this Agreement and may issue all consents, approvals, directives and agreements on behalf of the County, called for by this Agreement, except as otherwise expressly provided in this Agreement. Consultant shall designate a representative for purposes of this Agreement who shall be authorized to issue all consents, approvals, directives and agreements on behalf of Consultant called for by this Agreement, except as otherwise expressly provided in this Agreement.

7.3. Project Managers. County shall designate a Project Manager to work directly with Consultant in the performance of this Agreement. Consultant shall designate a Project Manager who shall represent it and be its agent in all consultations with County during the term of this Agreement. Consultant or its Project Manager shall attend and assist in all coordination meetings called by County.

7.4. Designated Personnel: A material covenant of this agreement is that the Consultant shall assign the individuals designated below to perform the functions designated so long as they continue in the employ of the Consultant. The designated individuals shall, so long as their performance continues to be acceptable to County, remain in charge of the services for the Project from beginning through completion of services.

- a. Project Manager:
- b. Lead/Manager:

7.5. Removal of Personnel or Sub-Consultants: If the County, in its sole discretion at any time during the term of this agreement, desires the removal of any person or sub-consultant assigned by Consultant to perform services, then the Consultant shall remove such person or consultant immediately upon receiving notice from the County.

7.6. Notices: Any notices, documents, correspondence or other communications concerning this Agreement or the work hereunder may be provided by personal delivery, facsimile or mail and shall be addressed as set forth below. Such communication shall be deemed served or delivered: a) at the time of delivery if such communication is sent by personal delivery; b) at the time of transmission if such communication is sent by facsimile; and c) 48 hours after deposit in the U.S. Mail as reflected by the official U.S. postmark if such communication is sent through regular United States mail.

**If to County:**

**If to Consultant:**

Stanislaus County Department of Public Works  
Attn: Linda Allsop, Contracts Administrator  
1716 Morgan Road  
Modesto, California 95358  
(209) 525-4157  
Fax: (209) 541-2506

7.7. Attorneys' Fees: In the event that litigation is brought by any party in connection with this Agreement, the prevailing party shall be entitled to recover from the opposing party all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party in the exercise of any of its rights or remedies hereunder or the enforcement of any of the terms, conditions, or provisions hereof.

7.8. Governing Law: This Agreement shall be governed by and construed under the laws of the State of California without giving effect to that body of laws pertaining to conflict of laws. In the event of any legal action to enforce or interpret this Agreement, the parties hereto agree that the sole and exclusive venue shall be a court of competent jurisdiction located in Stanislaus County, California.

7.9. Assignment: Consultant shall not voluntarily or by operation of law assign, transfer, sublet or encumber all or any part of Consultant's interest in this Agreement without County's prior written consent. Any attempted assignment, transfer, subletting or encumbrance shall be void and shall constitute a breach of this Agreement and cause for termination of this Agreement. Regardless of County's consent, no subletting or assignment shall release Consultant of Consultant's obligation to perform all other obligations to be performed by Consultant hereunder for the term of this Agreement.

7.10. Independent Contractor: Consultant is and shall be acting at all times as an independent contractor and not as an employee of County. Consultant shall secure, at his expense, and be responsible for any and all payment of Income Tax, Social Security, State Disability Insurance Compensation, Unemployment Compensation, and other payroll deductions for Consultant and its officers, agents, and employees, and all business licenses, if any are required, in connection with the services to be performed hereunder. Consultant hereby indemnifies and holds County harmless from any and all claims that may be made against County based upon any contention by any third party that an employer-employee relationship exists by reason of this Agreement.

7.11. Confidentiality: The Consultant agrees to keep confidential all information obtained or learned during the course of furnishing services under this Agreement and to not disclose or reveal such information for any purpose not directly connected with the matter for which services are provided.

7.12. Ownership of Documents: Any interest, including copyright interests, of Consultant or its contractors or subconsultants in studies, reports, memoranda, computational sheets, drawings, plans or any other documents, including electronic data, prepared in connection with the Services, shall be the property of County. To the extent permitted by law, work product produced under this Agreement shall be deemed works for hire and all copyrights in such works

shall be the property of the County. In the event that it is ever determined that any works created by Consultant or its subconsultants under this Agreement are not works for hire, Consultant hereby assigns to County all copyrights to such works. With the County's prior written approval, Consultant may retain and use copies of such works for reference and as documentation of experience and capabilities.

7.13. Reuse of Design Documents: Should the County desire to reuse the documents specified above and not use the services of the Consultant, then the County agrees to require the new consultant to assume any and all obligations for the reuse of the documents, and the County releases Consultant and its subconsultants from all liability associated with the reuse of such documents.

7.14. Public Records Act Disclosure: Consultant has been advised and is aware that all reports, documents, information and data including, but not limited to, computer tapes, discs or files furnished or prepared by Consultant, or any of its subcontractors, and provided to County may be subject to public disclosure as required by the California Public Records Act (California Government Code Section 6250 et. seq.). Exceptions to public disclosure may be those documents or information that qualifies as trade secrets, as that term is defined in the California Government Code Section 6254.7, and of which Consultant informs County of such trade secret. The County will endeavor to maintain as confidential all information obtained by it that is designated as a trade secret. The County shall not, in any way, be liable or responsible for the disclosure of any trade secret including, without limitation, those records so marked if disclosure is deemed to be required by law or by order of the Court.

7.15. Responsibility for Errors: Consultant shall be responsible for its work and results under this Agreement. Consultant, when requested, shall furnish clarification and/or explanation as may be required by the County's representative, regarding any services rendered under this Agreement at no additional cost to County. In the event that an error or omission attributable to Consultant occurs, then Consultant shall, at no cost to County, provide all necessary design drawings, estimates and other Consultant professional services necessary to rectify and correct the matter to the sole satisfaction of County and to participate in any meeting required with regard to the correction.

7.16. Order of Precedence: In the event of an inconsistency in this Agreement and any of the attached Exhibits, the terms set forth in this Agreement shall prevail. If, and to the extent this Agreement incorporates by reference any provision of the RFP or the Response, such provision shall be deemed a part of this Agreement. Nevertheless, if there is any conflict among the terms and conditions of this Agreement and those of any such provision or provisions so incorporated by reference, this Agreement shall govern over both the Response and the RFP and the Response shall govern over the RFP.

7.17. Costs: Each party shall bear its own costs and fees incurred in the preparation and negotiation of this Agreement and in the performance of its obligations hereunder except as expressly provided herein.

7.18. No Third Party Beneficiary Rights: This Agreement is entered into for the sole benefit of



County and Consultant and no other parties are intended to be direct or incidental beneficiaries of this Agreement and no third party shall have any right in, under or to this Agreement.

7.19. Construction: The parties have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises with respect to this Agreement, this Agreement shall be construed as if drafted jointly by the parties and in accordance with its fair meaning. There shall be no presumption or burden of proof favoring or disfavoring any party by virtue of the authorship of any of the provisions of this Agreement.

7.20. Amendments: This Agreement may be amend only by a writing executed by the parties hereto or their respective successors and assigns.

7.21. Waiver: The delay or failure of either party at any time to require performance or compliance by the other of any of its obligations or agreements shall in no way be deemed a waiver of those rights to require such performance or compliance. No waiver of any provision of this Agreement shall be effective unless in writing and signed by a duly authorized representative of the party against whom enforcement of a waiver is sought. The waiver of any right or remedy in respect to any occurrence or event shall not be deemed a waiver of any right or remedy in respect to any other occurrence or event, nor shall any waiver constitute a continuing waiver.

7.22. Severability: If any provision of this Agreement is determined by a court of competent jurisdiction to be unenforceable in any circumstance, such determination shall not affect the validity or enforceability of the remaining terms and provisions hereof or of the offending provision in any other circumstance. Notwithstanding the foregoing, if the value of this Agreement, based upon the substantial benefit of the bargain for any party is materially impaired, which determination as made by the presiding court or arbitrator of competent jurisdiction shall be binding, then both parties agree to substitute such provision(s) through good faith negotiations.

7.23. Counterparts: This Agreement may be executed in one or more counterparts, each of which shall be deemed an original. All counterparts shall be construed together and shall constitute one agreement.

7.24. Corporate Authority: The persons executing this Agreement on behalf of the parties hereto warrant that they are duly authorized to execute this Agreement on behalf of said parties and that by doing so, the parties hereto are formally bound to the provisions of this Agreement.

*SAMPLE*

**IN WITNESS WHEREOF**, the parties hereto have caused this Agreement to be executed by and through their respective authorized officers:

COUNTY OF STANISLAUS

DESIGN PROFESSIONAL

By: \_\_\_\_\_  
Matt Machado, Director  
Department of Public Works

By: \_\_\_\_\_

Resolution No: \_\_\_\_\_  
\_\_\_\_\_

APPROVED AS TO FORM:

John P. Doering  
County Counsel

By: \_\_\_\_\_  
Thomas E. Boze  
Deputy County Counsel

Required Attachments

- EXHIBIT A:** County's Request For Proposal
- EXHIBIT B:** Consultant's Response To County's Request For Proposal
- EXHIBIT C:** Consultants Fee Schedule
- EXHIBIT D:** Project Schedule

## **Attachment-7**

# **Sample Proposal Evaluation Sheet**

**SAMPLE**

**PROPOSAL EVALUATION SHEET**

<b>CRITERIA</b>	<b>MAXIMUM POINTS</b>	<b>RATING</b>
Understanding of the Work to be Performed	20	
Qualifications and Availability of Staff	20	
Project Schedule	15	
Familiarity With State and Federal Procedures	10	
Demonstrated Technical Ability	20	
Demonstration of Professional and Financial Responsibility	10	
References	5	
<b>TOTAL:</b>	<b>100</b>	

**EXHIBIT B**

**CONSULTANT'S RESPONSE TO COUNTY'S REQUEST FOR PROPOSAL**



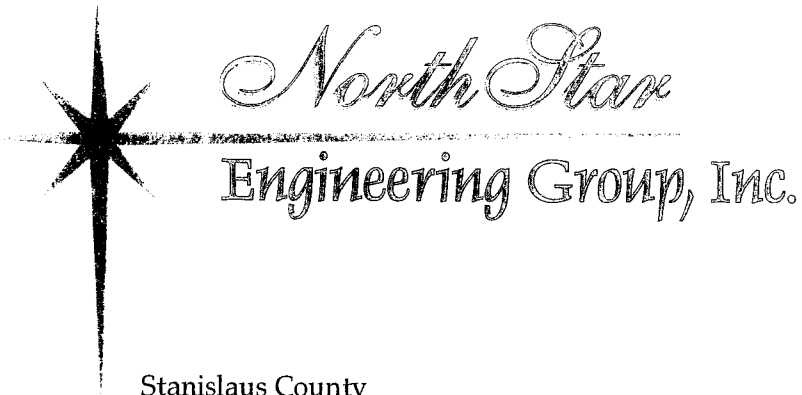
# PROPOSAL



## Crows Landing Road at West Main Street Intersection Upgrade



Prepared for:  
Stanislaus County Department of Public Works  
1716 Morgan Road, Modesto, CA 95358



May 27, 2011

Stanislaus County  
Department of Public Works  
Denis Bazyuk, P.E.  
1716 Morgan Road  
Modesto, CA 95358

Subject: Crows Landing Road at West Main Street Intersection Upgrade

Dear Denis,

NorthStar Engineering Group, Inc. (NorthStar) sincerely appreciates this opportunity to provide our Proposal to Stanislaus County for the Crows Landing Road at West Main Street Intersection Upgrade Project. We are confident that we have the qualifications and expertise to provide the best quality service to Stanislaus County. NorthStar has assembled a team equal to the challenge posed by the Request for Proposal (RFP). Our team offers the following benefits that we believe sets us apart as the best Consultant choice for this opportunity:

1. The members of our project team have an average of over 20 years of experience performing the tasks as outlined in the RFP. This experience is documented in the attached Proposal.
2. NorthStar is a registered California Corporation. We operate efficiently with a staff of highly skilled professionals who take pride in our work and enjoy the challenges unique to each project. Our full line of professional services is offered at competitive and reasonable rates.

NorthStar appreciates the invitation to submit to you this Proposal and express our interest in working with Stanislaus County, now and in the future. We hope that your careful review and consideration of our Proposal will assist you with selecting our team for the Crows Landing Road at West Main Street Intersection Upgrade Project. Should you have any questions or require additional information, please do not hesitate to contact us.

Thank You and Best Regards,

Jeff Black, P.E. 66645



# TABLE OF CONTENTS

*Response to Request for Proposal  
Crows Landing Road at West Main Street Intersection Upgrade*

Project Understanding.....	1
Project Approach.....	2
Scope of Work.....	3-19
Experience with Similar Projects.....	20-21
Qualifications and Availability of Staff.....	22-24
Project Schedule.....	25
Familiarity with State and Federal Procedures.....	26
Demonstration of Professional and Financial Responsibility.....	26
Review of County Contract.....	26
Disadvantaged Business Enterprise Goal.....	26-29
References.....	30
Appendix - Sub-Consultant Company Information and Resumes.....	31-88
Fee Proposal.....	Separate, Sealed Envelope

## PROJECT UNDERSTANDING

At NorthStar we approach each new project as a unique challenge. Our approach fosters clear, functional, and innovative designs that address our Client's intents and project goals. At NorthStar our mission is to be the most reputable and trusted firm in the local area by providing the highest quality service and improving the lives of our Clients and Employees.

Our approach is designed to first bring to light the biggest challenges on this project and then organize the effort to quickly evaluate the alternatives and develop cost-effective solutions before work begins on the Preliminary Plans and Specifications. Solving these challenges up front will lead to efficient production of the PS&E, and an overall lower cost project. We know that one of the keys to any successful project is communication. Our Project Manager, Jeff Black, will be the County's single point of contact and all communications from his team to the County will go through him. This clearly defined line of communication minimizes work for the County and minimizes any misunderstandings that can happen both within the Consultant Team and between NorthStar and the County.

Our Understanding of the Scope of Work includes the design and preparation of Civil and Electrical Plans for signalizing, replacing/overlaying the existing pavement to accommodate the expanded intersection geometry, installation of drainage collection and percolation systems, utility utilization/relocation, and new pavement delineations within the project area. NorthStar has assembled an outstanding Team to provide the appropriate services required to complete a successful project for the County and the Public. We will provide Public Outreach; Geotechnical Investigations; Topographic and Right-of-Way Surveys; Environmental Investigations; Roadway Design; Utility Coordination; Plans, Specifications, and Estimates; Right-of-Way Appraisals and Acquisitions; and Bidding and Construction Support services, as necessary, to complete the project on schedule and within budget.

Our Team will utilize Caltrans Standards and Stanislaus County Standards for design guidelines, standards, and specifications. We will also follow the Caltrans Local Agency Procedure Manual (LAPM) for Federal Aid Projects for design and management guidance.

**\*\*Addendums #1 and #2 have been reviewed and considered in this Proposal.**

## PROJECT APPROACH

Our Approach incorporates time tested and proven principles to successful project management, consulting, design, and constructability. We will apply these same principles to this project by:

1. Actively coordinating with County staff and utility companies to develop preliminary designs that avoid conflicts with existing utilities. The pre-design effort will reference record information, accurate Topographic Surveys, visible existing utilities, and our observations of the project site.
2. Perform Civil Engineering analyses of the roadway segments to determine the most appropriate methods and extents of the new construction, overlay, or reconstruction. Additionally, our design will define a procedure for implementation and construction sequencing in order to preserve and maintain essential access and utility services to the public during the construction process. This part of the design approach is essential to meet project schedules, minimize service disruptions, and minimize traffic inconveniences to the citizens that the project will serve. This task should not be left solely to the Contractor.

For this effort we have identified the following key issues that must be addressed to assist the County in selecting the most cost-effective approach with ongoing benefits to meeting the objectives of the Crows Landing Road at West Main Street Intersection Project including:

1. Design considerations to minimize inconvenience and disruption to traffic, schools, businesses, and access to the local residents. Particular attention will be necessary for Mountain View Middle School, Oasis Market, Farmer's Den, and Mountain View Feed and Seed.
2. Implementation and phasing of construction that maintains access and utility services to the local businesses and residents. This item will be addressed and clearly defined in the Project Specifications.
3. Coordination with dry utility companies to identify existing non-visible utilities. Our design will incorporate these considerations to provide durable and safe surfaces and to minimize disruption of traffic and utility outages in the area during construction. This Proposal has been prepared to address the requirements of the project and the findings of our preliminary review of the site. The following sections include discussions detailing our approach to completing the Scope of Work and any special considerations that will address the unique portions of the project.
4. Collection and percolation of storm runoff. Storm runoff is always a challenge in rural areas where positive storm drain collection systems rarely exist. A storm collection and percolation system will be analyzed to minimize space and fit within the proposed right-of-way. The system will be designed with short and long term maintenance considerations in mind.
5. Coordinate with Right-of-Way Sub-Consultants including Appraiser(s) and Acquisition/Relocation Specialist.

## SCOPE OF WORK

In keeping with our philosophy of exceptional Engineering and Client service, NorthStar will complete each task defined in the Request for Proposal (RFP). The Scope, of which is incorporated by reference into this Proposal, and those Tasks that we believe will enhance the project by controlling costs, improving the schedule, avoiding Change Orders, and minimizing construction inconveniences. This Scope of Services has been prepared in accordance with Consultant's direct experience with similar projects and Sub-Consultants' direct experience with similar projects, along with input from a reputable local Contractor.

### *TASK 1 - PROJECT MANAGEMENT*

#### **1.1 Monthly Client Meetings**

Project management will be conducted on a monthly basis to ensure a smooth flow of information between the County and the Project Team members. The NorthStar Project Manager will meet each month with County staff to discuss progress, issues, solutions, and upcoming tasks. NorthStar will lead all meetings and will prepare Agendas, Meeting Minutes, and an Action Item List. NorthStar will integrate consistent quality control through efforts defined in the Project Team Meetings and the Monthly Client Meetings. NorthStar will ensure that the schedule is adhered to and that each team member is coordinating the proper tasks and sharing the appropriate information. The management effort will be diligent and will focus on following the anticipated schedule set forth for the project.

#### **1.2 Project Team Meetings**

NorthStar will attend project meetings with the Team Consultants and Agency Staff, as required throughout the duration of the project. This Task includes meeting preparation time and coordination/preparation of appropriate documents and exhibits.

#### **1.3 Agency Coordination**

NorthStar will attend meetings to discuss technical issues with specific agencies. NorthStar will bring progress plans and design exhibits, as required to identify and resolve utility conflicts and challenges. This Task includes meeting preparation time and coordination/preparation of appropriate documents required for meetings.

#### **1.4 Monthly Progress Reports**

NorthStar will prepare Monthly Progress Reports to record the progress of the project and to provide support for monthly invoices.

### *TASK 2 - PUBLIC OUTREACH*

#### **2.1 Project Initiation and Planning**

- a. Prepare Community Outreach Plan with key messages and effective outreach strategies to engage the public and targeted stakeholders in reviewing the project to ensure that community and agency input is encouraged and is timely, coordinated, and incorporated into the environmental document.
- b. Prepare Team Communications Management Plan to address communication protocols among the lead agency, the responsible/cooperating agencies, and Consultants by staff type.
- c. Promote participation in the process and improve communication and understanding between decision-makers and community residents.
- d. Prepare a Final Report of Public Outreach Activities and Outcomes.

#### **2.2 Coordination and Meetings**

Participate in meetings that include, but are not limited to, the following:

- a. Agency briefings/presentations.
- b. Contingency for any other project coordinating meetings required during the course of the project.

## SCOPE OF WORK, CONTINUED

### 2.3 Stakeholder Meetings

- a. Schedule, prepare agenda, make arrangements, and facilitate up to 6 one-on-one meetings (to include a technical member of the project team) with property owners/businesses/key stakeholders to discuss issues of pertinent interest.
- b. Extend invitations, confirm attendance, facilitate, provide summary reports of each meeting, and arrange for an appropriate response to individual questions and comments.

### 2.4 Public Meetings

- a. Plan and organize a project meeting as part of the environmental process to update the community on the project and comply with environmental process requirements.
- b. Prepare, print, and distribute notification materials including, but not limited to, display advertisements and placements, news releases, and direct mail to key stakeholders and the general community and for upload to the County's website.
- c. Prepare and transmit elected officials letters and suggested mailing list to Caltrans Public Information Office and District Director.
- d. Prepare and print/produce meeting materials, including up to 3 exhibit boards, agendas, Frequently Asked Questions (FAQs), sign-in sheets, comment sheets, name badges, signage, and refreshments.
- e. Identify appropriate locations to host the meeting for approximately 30 attendees and make all arrangements.
- f. Participate in and follow up to "dry run" with Stanislaus County and Caltrans executives.
- g. Organize, conduct, and facilitate Public Scoping Meeting.
- h. Document meeting proceedings, including comments from participants.
- i. Prepare and disseminate a newsletter to inform interested persons of the project's outcome.

### 2.5 Agency Coordination

- a. Identify and maintain agency representative and key stakeholder list for ongoing coordination and discussion of issues.

### 2.6 Database Development and Comment Tracking

- a. Develop and maintain database (for example - property owners, tenants, businesses, emergency responders, civic and community organizations, project team) for up to 150 contacts for the duration of the project.
- c. Provide up to 3 Comment Tracking Reports, as requested, outlining categories of issues and disposition.
- c. Catalog and track comments, issues, and resolutions originally identified by key stakeholders.
- d. Document participation in the Public Meeting, as well as Hotline and other contacts.

## *TASK 3 - GEOTECHNICAL INVESTIGATION*

### 3.1 Resistance-Value Testing

Pre-field Services - 6 sample locations will be determined in conjunction with the Client along the existing roadways.

Field Services - 6 samples of the near-surface soils will be obtained for Resistance-value testing. We assume the samples can be obtained from open soil areas adjacent to roadways.

Laboratory Testing - 1 Resistance-value test will be performed on each bulk sample obtained.

## SCOPE OF WORK, CONTINUED

Consultation and Report - Once the field and laboratory testing is completed, a report will be prepared including the following:

- a. Site plan showing the approximate locations of the samples obtained.
- b. Results of Resistance-value testing.
- c. Calculated minimum pavement sections based on the Caltrans method of design for flexible pavements, the Resistance-value test results, and traffic indices provided by the Client, if requested.

### **3.2 Percolation Testing Services**

#### Pre-Field Services

- a. Two storm drainage system locations will be determined by the Client along Crows Landing Road and/or West Main Street.
- b. One boring and two percolation test locations will be determined by Kleinfelder and the Client adjacent to each storm drainage system locations.
- c. Once the drill/percolation test locations are determined, the locations will be marked and Underground Services Alert will be notified by Kleinfelder for underground utility locating and marking.
- d. If required, a County encroachment permit will be obtained by Kleinfelder. We have assumed that the fees will be waived by the County.

#### Field Explorations

- a. Once underground utilities are cleared, Kleinfelder will drill two soil borings (one at each storm drainage system location) to groundwater or a maximum depth of approximately 50 feet below existing ground surface.
- b. 2 percolation tests will be performed at each storm drainage system location between depths of approximately 5 and 20 feet below existing ground surface. The tests will be performed following accepted Stanislaus County guidelines.
- c. The borings and test holes will be backfilled with cuttings obtained from the drilling, unless special requirements apply. Special requirements could include grouting the borings and test holes to the surface which would result in additional costs to the County.
- d. If the borings and test holes will be drilled in the traveled right-of-way, a Sub-Contractor will be hired to provide traffic control per Stanislaus County and Caltrans requirements.

Consultation and Report - Once the field explorations are completed, a report will be prepared under the guidance of a Geotechnical Engineer and will include the following:

- a. Site plan showing the approximate locations of the field explorations.
- b. Logs of borings and percolation test holes.
- c. Results of percolation tests.
- d. Conclusions and recommendations for use in storm drainage system design.

### **3.3 Existing Pavement Coring/Drilling**

#### Pre-Field Services

- a. 8 core/drill locations will be determined in conjunction with the Client along Crows Landing Road and West Main Street. We anticipate that one core will be located in each lane of each of the 4 approaches.
- b. Once the desired core/drill locations are determined and marked in the field, Underground Services Alert will be notified by Kleinfelder for utilities locating and marking. The locations may need to be relocated depending on utility locations.
- c. A County encroachment permit will be obtained by Kleinfelder, if required. We have assumed that any permit fees will be waived.

## SCOPE OF WORK, CONTINUED

### Field Explorations

- a. Once underground utilities are cleared, Kleinfelder will core/drill 8 locations and measure the existing pavement sections. The borings will be extended into the subgrade soil beneath the pavement sections in order to identify the subsurface soils. Kleinfelder will hire a Sub-contractor to provide traffic control according to Stanislaus County and Caltrans requirements.
- b. All core holes will be backfilled to within 4 to 6 inches of the surface with soil cuttings produced during drilling. The top 4 to 6 inches of the holes will be backfilled with hand compacted cold-patch asphalt. The pavement area around the holes will be cleaned as best as possible using shovels and brooms.

Reporting - The existing pavement section measurements will be provided in a table included with the Geotechnical Report provided for the R-value and percolation testing.

### *TASK 4 - TOPOGRAPHIC AND RIGHT-OF-WAY SURVEYS*

Consultant shall perform a Topographic and Right-of-Way Survey to provide design control and right-of-way mapping for the project. All surveying and mapping shall be in compliance with the provisions of the Professional Land Surveyors Act, Sections 8700 to 8805 Business and Professions Code, the provisions of the California Coordinate System, Sections 8801 to 8819 of the Public Resources Code, and any other applicable code in the State of California. The horizontal datum will be based on the North American Datum 83 (NAD 83) as shown in Volume 22 of Surveys, Page 51 (22-S-51), Stanislaus County Records. The vertical datum shall be based on the North American Vertical Datum of 1988 (NAVD 88) as in shown in Volume 22 of Surveys, Page 51 (22-S-51), Stanislaus County Records. Upon completion of record survey control and upon completion of record right-of-way and survey monument location calculations, Consultant shall verify the physical existence of the monumented control points and, if necessary, reestablish such control points and additional control points required for the Topographic Surveys. Consultant shall perform detailed field surveys of existing roadways, physical improvements, visible utilities, and drainage features. Cross sections and tie-in surveys will ensure an accurate design and smooth transitions from existing roadway and infrastructure features. All work and files will be based on project coordinate control in accordance with County requirements for the preparation of documents and maps.

#### **4.1 Topographic Survey Services**

Consultant shall perform a Topographic Field Survey and shall prepare a Topography Plan depicting existing visible improvements and utilities.

- a. Crows Landing Road pavement and utilities located within the project limits.
- b. West Main Street improvements and visible utilities within the project limits.
- c. Drainage features and visible drainage issues/problem areas, as necessary, within the project limits.
- d. Physical improvements and buildings located within the project limits.
- e. Visible utilities located within the project limits, and as required for realignments.
- f. 1 foot contours and spot elevations, as necessary, to accurately depict the existing ground surface.
- g. Existing striping and signage.
- h. Lines of occupation including fences, structures, and apparent encroachments.
- i. Utility paint marks painted by USA, as requested for Geotechnical field exploration.
- j. Geotechnical boring locations.

#### **4.02 Right-of-Way and Mapping Services**

Consultant shall prepare a Right-of-Way Requirements Map based on identified right-of-way requirements. The Right-of-Way Requirements Map shall define all property acquisition required. Prepare an Easement Requirements Map based on identified easement requirements. The Easement Requirements Map shall define all easement acquisition required. Prepare appropriate right-of-way and easement legal descriptions and exhibits.



## SCOPE OF WORK, CONTINUED

- a. Procure Preliminary Title Reports for each property affected by right-of-way acquisition (12 Title Reports).
- b. Legal descriptions and plats for temporary construction easements, staging areas, and disposal areas for excess soil generated by project construction.
- c. Include and verify any existing surveys.
- d. Specify existing and proposed rights-of-way, land dedications, and easement agreements.
- e. Verify property lines at those locations where any portion of the project infringes upon the required setback limits or lies within 50 feet of project improvements, work areas, storage, and staging areas.
- f. Prepare and file a Record of Survey for any new right-of-way required, and/or for any other triggers specified in the Professional Land Surveyors Act.
- g. Locate boundary lines and monumentation necessary to prepare right-of-way maps.
- h. Prepare final right-of-way map and legal descriptions for acquisition of all necessary parcels and easements.

\*\* Task 4 is intended to be all inclusive with regard to procurement of Title Reports and preparation of legal descriptions and exhibit plats.

## *TASK 5 - ENVIRONMENTAL INVESTIGATIONS*

Justification for Environmental Approach - The following consists of a summary of our suggested environmental approach for the Crows Landing Road/West Main Street Project, and is based on our review of the Project, Alternative 2 as presented in the Project Design Study Report (PDSR), and our knowledge and experience with NEPA and CEQA. All investigations will either be performed or coordinated by JBA. Alternative 2 (Minimum Build) consists of the following:

- a. Installation of traffic signals at the intersection of Crows Landing Road and West Main Street.
- b. Widening the individual legs of the intersection in all directions including left turn lanes, approach tapers, deceleration lanes, and lane transitions.
- c. Acquisition of approximately 76,076 square feet of right-of-way, primarily located at the northwestern and northeastern corners of the intersection (based on review of Alternative 2 Exhibit provided in RFP Package).

\*\*Alternative 2 is primarily located within existing right-of-way controlled by Stanislaus County, with the exception of the areas noted above.

Based on our review of Alternative 2, and our experience with both NEPA and CEQA, our suggested approach consists of a Categorical Exclusion/Categorical Exemption combined with select Technical Studies -Historical/Cultural, Air Quality, and a Phase I/Environmental Site Assessment. The Project is located primarily within right-of-way controlled by Stanislaus County, and represents an upgrade from the existing intersection improvements. Below we have provided justification from both a NEPA and CEQA perspective for the project's suggested environmental approach:

### NEPA:

Section 23 CFR Part 771.117(d)(1) states that examples of Projects that meet the criteria for a Categorical Exclusion include, "Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g. parking, weaving, turning, climbing). Based on our review, the project (Alternative 2 - Minimum Build) meets these criteria as it includes similar type of improvements to the existing intersection of Crows Landing Road and West Main Street. As part of the NEPA compliance process, we are recommending that the following Technical Studies be prepared in accordance with Caltrans and FHWA requirements:

- a. Archaeological Survey Report (ASR), Historical Resources Evaluation Report (HRER).
- b. Historic Properties Survey Report (HPSR).
- c. Phase I/Environmental Site Assessment.
- d. Air Quality Study and Air Quality Conformity Determination.

\*\*Therefore, it is recommended that a Categorical Exclusion with Technical Studies is the proper level of NEPA compliance required for this project.

## SCOPE OF WORK, CONTINUED

### CEQA:

Section 15301 (Existing Facilities) states, "Class 1 consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities.....involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination." Section 15301(c) further states, "Examples include but are not limited to: Existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities."

In accordance with Section 15301(a) of the CEQA Guidelines, the project (Alternative 2 – Minimum Build) consists of minor alteration and improvements to the existing intersection, and involves negligible expansion as it is intended to accommodate existing traffic congestion. Therefore, the proper level of CEQA compliance is a Categorical Exemption prepared in accordance with Section 15301 of the CEQA Guidelines.

### **5.1 Project Description**

In conjunction with the Project Team and County Public Works Staff, JBA Staff shall prepare the Project Description, which will ultimately be utilized in the Project's Preliminary Environmental Study Form and NEPA/CEQA Compliance Documents. JBA Staff shall assist, where necessary, with the Project Team through the preparation of the Project's APE Map, and associated Project Exhibits. A Draft Project Description shall be submitted to County Public Works Staff for review and comment. Upon review and comment, the Project Description shall be finalized and incorporated into Task 2, described below.

### **5.2 Preliminary Environmental Study (PES) Form**

JBA Staff in conjunction with Public Works Staff, shall prepare the Project's Preliminary Environmental Study (PES) Form in accordance with Caltrans Standards.

A Draft PES Form will be submitted to County Public Works Staff for review and comment. Upon review and comment, the PES Form shall be submitted to the Caltrans DLAE for review. Upon submittal to the Caltrans DLAE, the Project Team shall coordinate the PES Form review process and be responsible for obtaining signatures on the PES Form from the Caltrans SEP, and ultimately obtaining concurrence from Caltrans that a Categorical Exclusion with Technical Studies is the appropriate level of NEPA Compliance.

### **5.3 Technical Studies (ASR, HRER, and HPSR)**

Through discussions with Caltrans and completion of the Project's PES Form, it will be determined which Technical Studies shall be required as part of the Project's NEPA Compliance. However, based on our review and understanding of the Project, the following Technical Studies are anticipated to be required as part of the Project's NEPA/CEQA Compliance:

**Preliminary Environmental Survey Form** - DKA will attend and assist with the preparation of the Preliminary Environmental Survey (PES) form. DKA and JRP will assist in preparation of the draft Area of Potential Effects (APE) Map.

**Historical Records Search** - DKA will conduct record search at the Central California Information Center (CCIC) of the California Historical Resources Inventory System at California State University, Stanislaus. This record search would be of an area within a 2 mile radius of the project area, as prescribed in the Caltrans Guidance for Consultants. The results of the search would be summarized in the Technical Reports.

**Archaeological Field Survey** - DKA will conduct an Archaeological Field Survey of the APE as designated. This survey would be a reconnaissance survey intended to identify all archaeological resources present within the project.

**Native American Heritage Commission** - DKA will prepare and send a letter to the Native American heritage Commission for them to identify Native Americans with an interest in the area and potential sacred sites in the vicinity.

## SCOPE OF WORK, CONTINUED

Meetings with Native Americans - DKA will contact the Native Americans identified to advise them of the project and ask if they have any concerns or interests. Included in the project budget are in-field meetings with tribes, if they so request. The budget for this Task has been prepared assuming that 1 or 2 visits with the tribes will be sufficient.

Historic Research - JRP will conduct historic archival research, background investigations, and Architectural Field Surveys on the project and the vicinity.

Historical Resources Evaluation Report - JRP will prepare draft Historical Resources Evaluation Report (HRER) and appropriate Department of Parks and Recreation (DPR) 523 forms as necessary. Respond to comments and prepare final HRER.

Draft Negative ASR - DKA will prepare a draft negative ASR prepared pursuant to Caltrans guidelines. Respond to comments and prepare final ASR.

Final ASR - DKA will prepare a final ASR in accordance with comments to draft ASR.

Each of the Technical Studies mentioned above are included in this Proposal under separate Scopes of Work and Cost Estimates. Additionally, it is important to note that this Task includes formal consultation and compliance with the applicable resource and regulatory agencies.

### **5.4 Phase I Environmental Site Assessment**

The ESA will be performed in general accordance with the ASTM Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM Standard Practice E1527-05, the "Standard Practice"), the All Appropriate Inquiry (AAI) section of the Small Business Liability Relief and Revitalization Act (the Federal Brownfield's Law), and the scope, assumptions, and limitations contained in this Proposal. The Scope of Services proposed has been developed to provide a preliminary screening of the property. If our Phase I ESA indicates additional areas of concern, we will present recommendations for a Phase II ESA Scope of Services.

Regulatory Agency and Other Records Review - Kleinfelder will review reasonably ascertainable records that will help identify Recognized Environmental Conditions (RECs) in connection with the Site. These records include Federal and State regulatory agency lists of hazardous waste generators, leaking underground storage tanks (USTs), landfills, military reservations, contaminated surface waters, and superfund sites. These lists, as well as reasonably ascertainable existing documentation as cited below, will be reviewed to assess whether there were prior investigations or events and conditions, or institutional or engineering controls on the property and in the immediate vicinity relating to spills, discharges, or other activities resulting in contamination or presence of hazardous materials. Kleinfelder will review previously conducted environmental assessments of the subject site (as provided by the Client) and the following standard environmental record sources, which include published lists of regulatory agency investigations and/or enforcement actions, for facilities within the following distances of the Site:

#### **FEDERAL:**

- a. National Priorities List (NPL) within a 1 mile radius.
- b. Delisted NPL within a ½ mile radius.
- c. Comprehensive Environmental Response, Compensation, and Liability Information System (CER-CLIS) List within a ½ mile radius.
- d. CERCLIS No Further Remedial Action Planned (NFRAP) List within a ½ mile radius.
- e. Resource Conservation and Recovery Act (RCRA) Corrective Actions Facilities (CORRACTS) List within a 1 mile radius.
- f. RCRA non-CORRACTS Transportation, Storage and Disposal Facilities (TSD) List within a ½ mile radius.
- g. RCRA Generator List for the site and adjoining properties.
- h. Institutional control/engineering control registries for the site only.
- i. Emergency Response Notification System (ERNS) List for the site only.

## SCOPE OF WORK, CONTINUED

### STATE/TRIBAL:

- a. NPL-equivalent lists of hazardous waste sites identified for investigation or remediation within a 1 mile radius.
- b. CERCLIS-equivalent lists of hazardous waste sites identified for investigation or remediation within a ½ mile radius.
- c. Landfill and/or solid waste disposal site lists within a ½ mile radius.
- d. Leaking UST (LUST) lists within a ½ mile radius.
- e. Registered UST lists for the site and adjoining properties.
- f. Institutional control/engineering control registries for the site only.
- g. Voluntary cleanup sites within a ½ mile radius.
- h. Brownfield sites within a ½ mile radius.

We will enhance and supplement the standard environmental record sources with local and/or additional State or Tribal records when, in our judgment, such additional records are readily ascertainable, sufficiently useful, accurate, and complete in light of the record review objective, and are generally obtained, pursuant to local good commercial or customary practice, in Phase I ESAs in the type of commercial real estate transaction involved. Such types of records may include:

- a. Brownfield's lists.
- b. Lists of landfill/solid waste disposal sites.
- c. Lists of hazardous waste/contaminated sites.
- d. Lists of registered storage tanks.
- e. Land records, for activity and use limitations.
- f. Records of emergency release reports.
- g. Records of contaminated public wells.

Sources of such records may include the local department of health/environmental division, fire department, planning department, building permit/inspection department, local regional pollution control agency, local/regional water control agency, and local electric utility company. Our review will be made from readily available documents such as those at Stanislaus County and City of Modesto (i.e., General Plans). Other sources such as the California Regional Water Quality Control Board, Department of Water Resources, and local Environmental Health Department will also be queried.

**Physical Setting Review** - The physical setting review is required by the Standard Practice to include a current United States Geological Survey (USGS) 7.5 Minute Topographic Map. The review may also include discretionary physical setting sources, e.g. for geologic and hydro geologic information. This information may provide insight to the significance of offsite sources of contamination in relation to the site. When discretionary hydro geologic information is available and reviewed, where possible, we will estimate the regional direction of groundwater flow and discuss how this might affect the potential for identified offsite sources of contamination to impact the site. Specific sources of physical setting information may include:

- a. United States Geological Survey reports and maps.
- b. Information provided by public agencies (e.g., State Department of Water Resources, local flood control district, local or county water agency).
- c. Information from previous Kleinfelder experience in the area.
- d. Information provided by the Client (e.g., previous investigation or soils reports).

**Historical Land Use Review** - Kleinfelder will research historical information sources to develop a history of general types of previous uses of the Site and surrounding area (e.g., office, retail, residential, industrial, and manufacturing). Obvious uses of the Site will be identified from the present back to the site's first developed use, or back to 1940, whichever is earlier. The review will include as many standard historical sources as are necessary and both reasonably ascertainable and likely to be useful. For the purpose of this review, "developed use" includes agricultural use and placement of fill dirt. The review will include documentation of gaps in the history of use.

## SCOPE OF WORK, CONTINUED

Uses of the area surrounding the site will be identified only to the extent that this information is revealed in the course of researching the site itself, as per the Standard Practice. The following information sources may be used, as necessary, to research the site history:

- a. Aerial photographs.
- b. USGS topographic maps;.
- c. Fire insurance maps (e.g., The Sanborn Library, LLC Fire Insurance Maps).
- d. Local street directories.
- e. Property tax files.
- f. Recorded land title records.
- g. Building department records.
- h. Zoning/land use records.

Site Reconnaissance - Kleinfelder will perform a walking reconnaissance of the site and associated structures to observe the properties and their current use with the unaided eye, and thereby obtain information indicating the likelihood of identifying evidence of RECs in connection of the site. The properties and structures located on the site will be observed to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles. The periphery of the site will be viewed from all adjacent public thoroughfares. If roads or paths with no apparent outlet are observed on the site, the use of the road or path will be identified to assess whether it was likely used as an avenue for disposal of hazardous substances or petroleum products. Accessible common areas of the interior of the structures on the site (e.g., lobbies, hallways, utility rooms, recreation areas, etc.), maintenance and repair areas including boiler rooms, and a representative sample of occupied spaces will be observed. Uses and conditions will be noted and will be the subject of questions asked as part of interviews of owners, operators, and occupants as discussed later in this Proposal. The following will be noted during the site visit:

- a. Geologic, hydro geologic, hydrologic, and topographic conditions of the site.
- b. General description of structures or other improvements, including means of heating and cooling and fuel source.
- c. Public thoroughfares adjoining the site and roads, streets, and parking facilities on the site.
- d. Current use(s) of the site, especially with respect to use, treatment, storage, disposal, or generation of hazardous substances or petroleum products.
- e. Past use(s) of the site and adjoining properties to the extent that past uses are visible (e.g., a structure or signs indicating a past use), especially with respect to use, treatment, storage, disposal, or generation of hazardous substances or petroleum products.
- f. Obvious location(s) of suspected past and present chemical storage, application, use, and disposal areas.
- g. Obvious location(s) of above-ground and USTs, drums, pipelines, wells, and transformers and other electrical equipment suspected to contain PCBs. Any pertinent information that the Client has or can obtain regarding as-built drawings, or other similar documents, for underground tanks or other structures is requested to be made available for use by Kleinfelder prior to completion of the Phase I ESA report.
- h. Obvious location(s) of odors, pools of liquid, pits, ponds, lagoons, staining, and stressed vegetation.
- i. Obvious concerns as noted in the review of the aerial photography.
- j. Source of potable water supply.
- k. Sewage disposal system (and septic systems, to the extent visually observed).
- l. Photographically document conditions at the time of the site visit.

Vicinity Survey - Kleinfelder will perform a reconnaissance of immediately adjoining properties to observe the properties' current use and past use(s) to the extent that past uses are discernible. This survey will be performed to note facilities that have an obvious potential to affect the environmental conditions at the site. However, these properties may be observed without physical access.

## SCOPE OF WORK, CONTINUED

Interviews - Kleinfelder will interview past and present owners and occupants for each property, with the objective of obtaining information indicating RECs in connection with the site. The interviews should include a "Key Site Manager," a person with good knowledge of the uses and physical characteristics of the property (e.g., a property manager, chief physical plant supervisor, or head maintenance person). The Client will be responsible for supplying the contact information, including name and telephone number, of the Key Site Manager. If reasonably possible, Kleinfelder will attempt to interview the Key Site Manager at the time of the site visit.

A reasonable attempt will be made to interview a reasonable number of site occupants. Interviews with a past owner, operator, or occupant will be performed to the extent that they have been identified and that the information likely to be obtained is not duplicative of information already obtained from other sources. Interview questions may be asked in person, by telephone, or in writing.

Kleinfelder will also make a reasonable attempt to interview at least 1 staff member of the local fire department that serves the property, the local/regional office of the health agency that serves the area, the local/regional agency having jurisdiction over hazardous waste disposal, or the local/regional agency responsible for the issuance of building permits or groundwater use permits.

Final Report of Findings - Kleinfelder will provide a final report that will include an evaluation of the information obtained from the Phase I ESA. The report will identify the environmental professional who performed the Phase I ESA and the person(s) who performed the site reconnaissance and interviews. The report will include findings, opinions, and conclusions and identify and discuss "significant data gaps" in the records, if present, including "data failures." Should there be gaps in the site history timeline and occupants identified, the report will identify sources consulted to address them and comment upon their significance with regard to the ability to identify conditions indicative of releases and threatened releases of hazardous substances on, at, in, or to the site. The report will include illustrations and pertinent regulatory agency documentation regarding the site.

### **5.5 Air Quality Study**

KDA will prepare an Air Quality Study assessing the effects of the project on construction-related emissions, CO emissions, and regional ozone and particulate matter emissions.

Construction-Related Emissions - Construction-related impacts would result from construction equipment exhaust, construction employee commute travel, and soil disturbing activities. Consistent with methods described in the GAM-AQI document, KDA will address construction-related air quality effects that would result from construction equipment exhaust and soil-disturbing activities.

Microscale Carbon Monoxide Emissions - Based on the Project Design Study, the proposed project would result in the intersection Crows Landing Road and West Main Street operating at level of service A. Therefore, KDA will qualitatively assess project-related effects on microscale carbon monoxide impacts using screening methods presented in the University of California Davis Institute of Transportation Studies (UCD ITS) Transportation Project-Level Carbon Monoxide Protocol, and use additional guidance from Caltrans and the SJVAPCD.

Regional Ozone Precursor and Particulate Matter Emissions - The Crows Landing Road at West Main Street Intersection Upgrade project would not generate new vehicle trips, and would not result in substantial diversion of vehicle travel. As a result, the project is not expected to have a significant operational effect on long-term ozone precursor, particulate matter, and greenhouse gases (GHG) emissions. Therefore, KDA will qualitatively address regional ozone precursor and particulate matter emissions associated with operation of the Crows Landing Road at West Main Street Intersection Upgrade project.

## SCOPE OF WORK, CONTINUED

Federal Conformity - Projects that receive federal funding, federal approval, or are determined to be regionally significant are required to demonstrate conformity with the air quality SIP. The Stanislaus Council of Governments (StanCOG) prepares and maintains the Regional Transportation Plan (RTP) and the Regional Transportation Improvement Program (RTIP). The Crows Landing Road at West Main Street Intersection Upgrade project is included in both the RTP and RTIP. By including a project in the RTP and RTIP, StanCOG shows that the project is in conformance with the SIP. KDA will summarize the details of the RTP and RTIP, and how the proposed project relates to these documents.

Consistent with the Caltrans Forms and Templates (<http://www.dot.ca.gov/ser/forms.htm>), KDA will prepare a stand-alone Air Quality Conformity Analysis report. This report will include a PM2.5/PM10 hot-spot screening assessment. This proposal assumes the project will be found to be not a project of air quality concern (POAQC), and therefore qualitative hot spot analysis is not required. The Air Quality Conformity Analysis report will document the basis for this finding.

Global Climate Change Impacts - KDA will analyze the effects of the proposed project on global climate change, using approaches consistent with the Caltrans SER and the Caltrans template ([http://www.dot.ca.gov/ser/downloads/templates/eir\\_ea\\_SER.doc](http://www.dot.ca.gov/ser/downloads/templates/eir_ea_SER.doc)) for an EIR/EA.

KDA will quantify project-related carbon dioxide (CO<sub>2</sub>) construction emissions. KDA will use the Roadway Construction Emission Model to forecast these emissions. As noted earlier, the project is not expected to have a significant long-term operational effect on GHG emissions.

Recent guidance on addressing climate change indicates the importance of quantifying project-related GHG emissions. However, in addressing climate change, the Caltrans SER quotes the Association of Environmental Professionals, and notes, "an individual project does not generate enough greenhouse gas emissions to significantly influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases." To address the cumulative aspects of climate change, KDA will summarize, and refer to, the StanCOG RTP.

KDA will prepare a standalone letter report presenting the results of our analysis, and documenting the methods applied in the analysis. KDA does not propose to prepare the Climate Change section of the CEQA or NEPA environmental document.

Air Quality Report - KDA will conduct air quality analyses of the Crows Landing Road at West Main Street Intersection Upgrade project to comply with the provisions of CEQA and NEPA. The air quality analyses will be prepared according to the Caltrans Standard Environmental Reference (SER) (<http://www.dot.ca.gov/ser/>) and the San Joaquin Valley Air Pollution Control District (SJVAPCD) document Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI). The air quality analysis will address:

- a. Construction-related emissions.
- b. Project related effects on carbon monoxide (CO) concentrations.
- c. Project operational effects on emissions of ozone precursors and particulate matter.
- d. Conformity of the project to the air quality state implementation plan (SIP).
- e. Project-related effects on global climate change.

### 5.6 NEPA Categorical Exclusion Checklist

Categorical Exclusion Checklist - With the Caltrans signed PES Form and applicable Project Technical Studies, the Project Team shall coordinate with the Caltrans SEP for the preparation of the Project's Categorical Exclusion Checklist, review of the Project's Technical Studies by Caltrans Technical Specialists, and coordinate with KD Anderson and Associates to completed Air Quality Report and obtain the Air Quality Conformity Determination. For the purposes of this Task, it is assumed that the Project Team will be responsible for preparing the Project's Categorical Exclusion (CE) Checklist and coordinating submittal to the Caltrans SEP.



## SCOPE OF WORK, CONTINUED

A Draft CE Checklist will be submitted to County Public Works Staff for review and comment. Upon review, the final CE Checklist will be submitted to the Caltrans SEP for review and execution. Upon submittal of the CE Checklist to the Caltrans SEP, the Project Team shall coordinate with the SEP to obtain the proper transmittal letter indicating that NEPA Compliance is complete.

Request for Authorization and List/Summary of Mitigation Commitments - Upon receipt of the transmittal letter, the Project Team shall provide a list/summary of mitigation commitments to County Public Works Staff and assist, where necessary, in preparation of the Project's Request for Authorization. The Project Team shall also confirm with the Caltrans SEP that said mitigation commitments are incorporated into the Project's LP2000 Environmental-Permits Screen and Mitigation Commitments Screen.

### **5.7 CEQA Notice of Exemption**

Immediately upon approval of the project by the Board of Supervisors, a Notice of Exemption shall be prepared and filed with the County Clerk and the State Office of Planning and Research in accordance with Section 15062 of the CEQA Guidelines. The filing of the Notice of Exemption shall initiate the project's 35 day statute of limitations. The Notice of Exemption will be filed within 1 day of Board of Supervisors approval of the project. For the purposes of this Task, it is assumed that attendance at the Board of Supervisors Hearing is not required.

## *TASK 6 - ROADWAY DESIGN*

### **6.1 Existing Roadway Analysis**

Perform an analysis of the existing roadway to identify existing strengths and deficiencies with regard to pavement suitability, longitudinal profile and cross slope suitability, and drainage suitability. Analyze suitability of existing utilities, structures, and surface improvements within the project limits. Identify demolition limits, utility removal requirements, and structure and surface improvements removal requirements.

### **6.2 Horizontal and Vertical Alignment Design**

NorthStar will design horizontal and vertical alignments, typical sections, cross-slopes, earthwork, and conceptual stage construction plans to complete initial horizontal and vertical alignment design. NorthStar will perform roadway design in accordance to the latest version of the Caltrans Highway Design Manual and City/County Design Standards and prepare design plans for construction. Design shall include details for traffic control plans in accordance with the Caltrans Manual of Uniform Traffic Control Devices. Horizontal and vertical alignment design will include the following considerations:

- a. Base Geometrics - NorthStar will prepare a base geometric exhibit that includes all geometric data required to construct the project. Horizontal curve data will be organized in a data table. A legend and list of abbreviations will be prepared.
- b. Typical Sections - NorthStar will prepare typical sections for road improvements that include original ground, traveled way, shoulders, cut/fill slopes, side treatments, existing/proposed right-of-way, and existing/recommended structural sections.
- c. Profile/Cross-Slope Exhibits - NorthStar will prepare profile and cross-slope exhibits for road improvements that include original ground, profile grade information, and cross-slope data.
- d. Truck Turning Templates - NorthStar will prepare truck turning template exhibits to verify that an AAS HTO Bus Vehicle can properly traverse the proposed intersection alignments.

## SCOPE OF WORK, CONTINUED

### 6.3 Drainage Design

The storm drainage design will conform to Stanislaus County Design Standards. All storm drainage storage facilities will be designed using a 50 year storm. All conveyance drainage facilities will be designed for a 10 year storm. Design storm methods shall be according to the Rational Method. Storage facilities will utilize horizontal drains designed in accordance with Stanislaus County Standards and Specifications.

- a. NorthStar will prepare a Preliminary Report that analyzes existing offsite and onsite hydraulic facilities and provides calculations to support the design of the drainage facilities needed for the project; the report will be submitted for Stanislaus County review.
- b. NorthStar will prepare a Final Hydrology and Hydraulics Report based on the Preliminary Report and comments from Stanislaus County review.
- c. NorthStar will review and ensure that the project includes sufficient right-of-way and budget for required storm water controls and identify project-specific permanent and temporary Best Management Practices (BMPs) that may be required to mitigate impacts. Drainage areas and total disturbed area will be defined, as will climatic conditions, existing drainage site conditions, site permeability, soil texture, existing vegetation, and groundwater.

### 6.4 Traffic Signal Design and Traffic Delineation

PS&E for traffic signal electrical plans will be prepared in accordance with Stanislaus County, City of Modesto, and Caltrans Design Standards as well as the CA MUTCD.

- a. Background Research - KDA will attend the kick-off meeting as part the design team to discuss the project and talk to the individual who will be responsible for approving the electrical plans and confirm signal design details. Information regarding related intersection improvements, signal phasing, cabinet locations, and interface with existing signal interconnect systems will be confirmed prior to proceeding with the design. A field review will be conducted to identify any design constraints. PG&E will be contacted regarding an electrical service point to be provided in conjunction with required overhead utility relocations.
- b. Prepare Base Map - KDA will work off of the improvement drawings prepared by NorthStar for the subject intersection in .dwg format indicating existing and proposed limits of pavement, rights-of-way, utilities, and striping.
- c. Prepare Traffic Signal Plans - KDA will prepare a 1" = 20' scale plan sheet for traffic signal equipment. This work will include all elements needed to make the traffic signal system complete and operable including traffic signal standards, intersection lighting, detector loops, conduit, pedestrian equipment, emergency vehicle equipment, service, and controller cabinets. It is also anticipated that the signal design will include advance flashing beacons at all approaches to the intersection given the rural nature and high travel speeds on the roadway facilities. The plan for traffic signals would indicate those features required by the County in a manner consistent with their drafting standards.
- d. Prepare Special Provisions and Estimates - Special provisions/specifications and cost estimates will be provided. We would expect to make use of County, City of Modesto, and Caltrans Standard Special Provisions to supplement their Standard Specifications.
- e. Response to Comments/Corrections - KDA will revise the plans as required in response to County review comments on the electrical layout. Signal electrical plans will be provided at the 30%, 60%, 90%, and 100% stages as required by the RFP.
- f. Coordination - KDA will coordinate our work with the design team and County staff as appropriate. We will attend up to 2 meetings with County staff to discuss the project or go over our plans, as needed, for plan approval. Other meetings are outside the Scope of this Proposal.
- g. Construction Coordination - KDA will be available to answer any questions raised during the bid process and respond to RFI's during construction. Equipment submittals and shop drawings will be reviewed for conformance with plans and specifications.

## SCOPE OF WORK, CONTINUED

### *TASK 7 - UTILITY COORDINATION*

#### **7.1 Utility Locations Determined for Design**

NorthStar will prepare a preliminary Utility Conflict Exhibit, and will determine proposed relocations. These will be submitted to each Utility Company for their review.

#### **7.2 Utility Coordination Meetings**

NorthStar will conduct utility coordination meetings, as needed, regarding adjustments and relocations to resolve conflict issues, and with respect to performing work by utility companies. This Scope of Work is based on attendance of 2 meetings with each Utility Company throughout the duration of the project and includes meeting preparation time and coordination/preparation of appropriate documents.

#### **7.3 Utility Correspondence**

NorthStar will provide copies of all correspondence with utility companies and other utility related information to the County, as required.

#### **7.4 Utility Conflict Resolution**

Known utility conflicts shall be shown on the plans with construction notes indicating action to be taken. NorthStar will submit Preliminary Design Plans to each utility company within the project limits with a request for review and comments on the plans relevant to their respective facilities. NorthStar will monitor responses of utility responses and make recommendations for mitigating conflicts. NorthStar will review each utility owner's relocation plan against others to verify the relocation eliminates the conflict and will not conflict with other utilities.

### *TASK 8 - PLANS, SPECIFICATIONS, AND ESTIMATE (PS&E)*

Project plans prepared by NorthStar shall include a complete set of plans at the 30%, 60%, 90%, and 100% level. All identified and affected existing utilities shall be accurately indicated on the plans. 100% PS&E will be let with a subsequent contract after PA&ED are complete. Plans at 60% should be of sufficient level to start right-of-way acquisition.

#### **8.1 1st Submittal**

The PS&E shall be 30% complete including utility relocation issues, hydraulic impacts, structural calculations, proposed mitigation, and outline of potential conflicts. In addition, a construction cost estimate shall be submitted, 2 copies of each will be submitted to the County for review.

#### **8.2 2nd Submittal**

PS&E shall be 60% complete including utilities relocation and incorporate all revisions or indicate items previously commented upon or requested by County. Submit 2 copies of each to the County for review and final revisions. Correspondingly, the Consultant will revise or justify any necessary specific plan changes within 2 weeks from receipt of the County's 1st returned submittal. At this time it is anticipated that utility relocation requirements will be formally sent by the County to the appropriate utility companies and that formal property owner access/easements negotiations will commence.

#### **8.3 3rd Submittal**

PS&E shall be 90% complete and incorporate all revisions or indicate items previously commented upon or requested by the County. Submit 2 copies of each to the County for review and final revisions. Correspondingly, the Consultant will revise or justify any necessary specific plan changes within 2 weeks from receipt of the County's 2nd returned submittal.

## SCOPE OF WORK, CONTINUED

### **8.4 4th Submittal**

Future contract - PS&E shall be 100% complete. Plan submittal and specifications must be provided in a digital format. Plans shall be produced in a format readable by Autodesk Civil 3D, release 2010. Specifications shall be readable in Microsoft Word 2003. Provide one set of plans printed in black ink on Mylar. The sheet size shall be 24"x 36" with County provided borders. All sheets shall be uniform size as specified on the County Design Criteria. The sheet format shall be coordinated such that all CADD drafting standards including pen widths, line weights, linetypes and plot styles with the County so that the Consultants work can be incorporated into the County's plan set for bidding and construction purposes. Standard Caltrans abbreviations shall be strictly used throughout. The Project Engineer shall affix an original wet signature to each plan sheet with the date. The plans shall be in a format to allow construction staking directly from the plans.

### **8.5 Specifications**

The Consultant shall prepare Special Provisions relevant to the Project that will be used by the County to advertise and construct the project. 3 hard copies and 1 electronic copy on a CD of Special Provisions shall be delivered to the County after 100% plans are ready and signed by the Engineer.

### **8.6 Estimate**

Project estimate prepared by the Consultant shall use Caltrans Standard bid item descriptions wherever possible. 3 hard copies and 1 electronic copy on a CD of the final signed and stamped Engineer's estimate shall be delivered to the County after 100% plans are signed by the Engineer.

## *TASK 9 - RIGHT-OF-WAY SERVICES*

The NorthStar Team shall be responsible for identifying any private right-of-way that may be affected by the Project. Cogdill & Giomi shall coordinate with property owners and the County to acquire any required right-of-way in timely fashion. The NorthStar Team will plan right-of-way acquisition so that all right-of-way acquisitions are complete by the time final plans are delivered to the County. At that time, the NorthStar Team will prepare Right-of-Way Certification per Caltrans guidelines and deliver it to the County. The NorthStar Team shall be responsible for appraisal, appraisal review, acquisition/negotiation, and (if necessary) relocation assistance.

### **9.1 Real Property Appraiser**

Cogdill & Giomi will be responsible for preparation of Summary Appraisal Reports to determine the fair market value of the rights to be acquired from each property and prepared in accordance to professional standards, Uniform Standards of Professional Appraisal Practice (USPAP), the Caltrans Right-of-Way Manual, and all applicable laws and regulations. Each property appraisal shall be separately bound and prepared in a "stand-alone" format suitable for furnishing to the associated property owners per Caltrans' requirements. The comparable sales analysis shall be in chart format with accompanying analysis in narrative form. Comparable data shall be verified with parties to the transaction.

Cogdill & Giomi shall be available for support for any County eminent domain litigation including, but not limited to, preparation of appraisal summary statements and related supporting declarations; providing updated statements of valuation; assistance of counsel by providing expert witness analysis and review of defendant's property valuation information; preparation for, attendance, and testimony at deposition mediation, and trial proceedings, as required. These services shall be billed on a time and expense basis in accordance with the team rate schedules included as part of this Proposal.

## SCOPE OF WORK, CONTINUED

Real Property Appraiser Responsibilities under the Uniform Act will include:

- a. Property owner or designee must be given opportunity to accompany appraiser during property inspection.
- b. Responsibility of sending Title VI information.
- c. Diary entry of notifications and contacts.
- d. Appraisal to contain minimum recognized standards for public acquisition (Zoning, Property Rights to be acquired, Highest and Best Use Analysis, Verified Comparables, Improvements Acquired, Damages, Cost-to-Cure, etc.)
- e. All appraisals must contain Appraiser and Review Appraiser Certificates.

\*\*This scope of work includes appraisal services for 12 properties.

### 9.2 Review Appraiser

WF Bambas Appraisal Co. shall be responsible for the preparation of independent and objective written reviews of the Real Property Appraiser's Reports. Reviews will be completed in the form of a Review Appraiser Certificate (Exhibit 7-EX-24D of the Caltrans Right-of-way Manual) for each subject property appraisal in order to ensure appraisal quality and procedure. All reviews will adhere to professional standards, USPAP and the Caltrans Right-of-Way Manual, and all applicable laws and regulations. The Review Appraiser will recommend approval of the reported values to the Department of Transportation and Public Works to govern negotiation and settlement. The Review Appraiser will not be the same individual as the initial Real Property Appraiser. Review Appraiser Responsibilities under the Uniform Act that will be performed by WF Bambas Appraisal Co.:

- a. Confirmation of Analysis of Highest and Best Use, Damages, and Cost to Cure Damages.
- b. Confirmation of Valuation.
- c. Confirmation of Calculations and Report Integrity.
- d. Prepare signed statement certifying value of appraisal reviewed, including an explanation of the basis for recommendation.

\*\*This Scope of Work includes review appraisal services for 12 properties.

### 9.3 Acquisition Specialist

Overland Pacific & Cutler shall be responsible for "good faith negotiations" with property owners for the purchase of right-of-way based on values established in the reviewed and approved appraisals. Overland Pacific & Cutler will adhere to all professional standards, the Caltrans Right-of-Way Manual, and all applicable laws and regulations. The Acquisition Specialist shall be responsible for preparation of all written correspondence, applicable forms, and County's Standard Purchase Agreements; coordination with County staff; performance of notary services related to the signing of acquisition documents; escrow coordination with County's selected Title Company; assisting County's Supervising Right-of-Way Agent with Right-of-Way Certification, completion of final close-out work per Caltrans requirements; and maintenance of all acquisition files including acquisition diaries. Acquisition Specialist Responsibilities under the Uniform Act that will be performed by Overland Pacific & Cutler:

- a. Ensure establishment of just compensation by local agency prior to initiation of negotiations.
- b. Expeditious acquisition within 30 days of approved appraisal.
- c. First Written Offer should be presented in person when possible.
- d. Caltrans requires that a copy of the appraisal report shall be provided to the owner with the First Written Offer; a Summary Statement (basis for the appraisal) is optional in this case.
- e. Owner to be given reasonable time to consider offer and present material relevant to value determination.
- f. Payment is required before taking possession unless date of possession clause is used in contract.
- g. Local agency is responsible for payment of all incidental expenses (title, escrow, surveys, prepayment penalties, etc.).
- h. Preparation of Administrative Settlements when it is reasonable and in the public interest.
- i. Diary entries including confirmation of delivering Title VI information.

\*\*This Scope of Work includes acquisition services for 12 properties.

## SCOPE OF WORK, CONTINUED

### **9.4 Relocation Specialist**

Overland Pacific & Cutler will be responsible for providing relocation assistance to displaced parties, if any, resulting from an acquisition of right-of-way and conducted per applicable professional standards and the Caltrans Right-of-Way Manual and all applicable laws and regulations.

\*\*This Proposal includes relocation services for 1 displaced party.

### *TASK 10 - BIDDING AND CONSTRUCTION SUPPORT*

#### **10.1 Bidding and Construction Support**

Consultant shall provide bid support services that consist of assisting the County in responding to all Requests for Information (RFIs) during the project advertisement phase, and shall provide support services for engineering construction support. These services include responding to all RFIs and, if necessary, altering project plans to address any design flaws or inconsistencies.

## EXPERIENCE WITH SIMILAR PROJECTS

Our project team has a great deal of experience offering Civil Engineering and Surveying Services to Public Agencies. NorthStar has provided unique design solutions to a wide variety of Clients and projects throughout the region. Following is descriptions of several projects that describe our experience and ability to meet and exceed expectations when offering Professional Consulting Services.

### **BROADWAY CURB, GUTTER, AND SIDEWALK - ATWATER, CA**

(City of Atwater; Mr. Len Guillette; 209-357-6259)

Performed a Horizontal Control Network Survey and a Topographic Survey along the proposed alignment of Broadway Avenue, located in Atwater, CA. Prepared Construction Drawings showing the title and location, standard details, notes and street sections, existing topography, and plan view of improved curb, gutter, and sidewalk design. Provided an Engineer's opinion of probable construction costs, coordinated with the Storm Water Pollution Prevention Plan Consultant, performed a dry utility review, and attended Meetings with City of Atwater Staff.

### **EAST "A", CLOVERLAND, AND NORTH SIERRA STREETS - OAKDALE, CA**

(City of Oakdale; Mr. Anthony Smith; 209-845-3616)

NorthStar prepared a comprehensive Topographic Base Map of the existing conditions for use by the City of Oakdale Staff and utility companies to identify locations and characteristics of existing underground utilities and the extents of needed improvements before commencing the project design. Prepared Engineering Plans for various roadway design; water, sewer, and storm drain pipelines; and curb and gutter in the project area. NorthStar actively coordinated with City of Oakdale and utility companies to avoid conflicts with existing utilities.

### **ALBERS RD AND MILNES RD WIDENING AND INTERSECTION-STANISLUAS COUNTY, CA**

(Stanislaus County.....)

Performed a Topographic Survey for over 3,800 lf of existing roadway on 50 foot stations for use in designing the proposed edge of pavement and curb for the roadway widening. Cross-section plots, point file, and an AutoCAD file with a DTM was delivered to the County for their use and review.

### **ALBERS RD AND DUSTY LN WIDENING AND INTERSECTION-STANISLUAS COUNTY, CA**

(Stanislaus County.....)

Performed a Topographic Survey for over 3,200 lf of existing roadway on 50 foot stations for use in designing the proposed edge of pavement and curb for the roadway widening. Cross-section plots, point file, and an AutoCAD file with a DTM was delivered to the County for their use and review.

### **O'HARA LOOP RE-ALIGNMENT - BRENTWOOD, CA**

(City of Brentwood; Mr. Balwinder S. Grewal, P.E.; 925-516-5424)

Designed roadway improvements for O'Hara Loop Re-Alignment in accordance with the City of Brentwood Standards and Specifications. Survey services included record document research, right-of-way calculations, and a field survey to establish horizontal and vertical control, in accordance with the City of Brentwood's GPS Control System. Performed a Topographic Survey of the project limits with special consideration to match points, adjacent improvements, and other features with special design considerations. Deliverable included area base mapping, aerial orthophoto control and photo background, and Topographic Map for approximately 1/4 mile of O'Hara Loop Road. Prepared a Record of Survey for the Re-Alignment, as well as legal descriptions for exchange parcels and facilities easements.



## EXPERIENCE WITH SIMILAR PROJECTS, CONTINUED

### **LAKE ROAD GRIZZLY RANCH - HICKMAN, CA**

(Lake Road Grizzly Ranch, LLC; Mr. Mike Kooyman; 909-623-1392)

Designed 10 miles of new paved access roads, in accordance with Stanislaus County Standards and Specifications for a 2,800 acre farmland subdivision located in the San Joaquin Valley Foothills. Survey Services included record research, record base mapping, and record right-of-way calculations along a 2 mile section of existing Lake Road, establishing horizontal and vertical control in accordance with Stanislaus County datum, aerial orthophoto control, cross sections along existing Lake Road Frontage, and cross sections along proposed interior road alignments. Deliverables included complete Civil Improvement Plans with complete topographic background information.

### **LONE TREE WAY - ANTIOCH, CA**

(In Shape Health Clubs; Mr. Paul Rothbard; 209-472-2231)

Designed roadway improvements including two deceleration lanes, the addition of three new driveways, and extending the existing left turn lane. Project required the roadway to be widened by approximately 16 feet for the addition of the deceleration lanes and the reduction of the existing landscaped median to accommodate the left turn lane extension. Survey Services included record document research, right-of-way calculations, field survey to establish horizontal and vertical control, existing street cross sections with special attention to super elevated roadway sections, match points, and improvements located within the project limits. Deliverables included a Topographic Plan as part of the project Improvement Plans.

### **WILLOW GLENN AVENUE SEWER LINE - OAKDALE, CA**

(City of Oakdale; Mr. John Word, P.E. - Retired; 209-847-4245)

NorthStar prepared plans and specifications for 6,085 feet of sanitary sewer force main and gravity sewer in Oakdale, CA. Survey services included record research, record base mapping calculations, establishment of horizontal and vertical control, cross sections of existing roadways, location of existing utilities and utility crossings, and preparation of a Topographic Plan as part of the project improvement plans.

\*\*See Appendix Section for Sub-Consultant's Reference Projects.

## QUALIFICATIONS OF STAFF

### **Jeff Black, P.E. (Partner)**

- Position : Civil Engineer - Project Manager
- Education: M.S. Civil Engineering – University of Utah - Salt Lake City, UT  
B.S. Environmental Engineering – Utah State University - Logan, UT
- Credentials: Professional Engineer – CA #66645  
Professional Engineer – UT #295625
- Experience: Mr. Black has more than 18 years of professional experience as a Civil Engineer, emphasizing in hydraulics and water resources. His design background ranges from general Civil Engineering and analysis to complex infrastructure and utility design, including final construction documents. He is experienced in the preparation of water, sewer, and storm drain master plans, hydraulic analysis, pump system and storage design, and construction drawings. Throughout his career he has actively participated in the design of various wastewater, water resources, public works, and land development projects. Mr. Black is a talented team builder bringing Owners, Engineers, Contractors, and Regulators together to successfully meet the budget and scheduling requirements inherent in any project.

### **Tim Mohler, P.E.**

- Position: Project Engineer
- Education: B.S. Civil Engineering – Cal Poly - San Luis Obispo, CA
- Credentials: Professional Engineer - CA #73203
- Experience: Mr. Mohler's experience in Civil related work began during college when he operated heavy equipment for summer employment, this provided valuable, hands-on field experience during his first few years of college. During the last two years of college, Mr. Mohler's emphasis of study included geotechnical classes as well as a senior project that focused on storm drain design. Mr. Mohler began work at NorthStar Engineering Group, Inc. in the summer of 2004. During this time, he participated in storm and sewer system design and analysis. Mr. Mohler has more than 7 years experience in Civil Engineering emphasizing in geotechnical design. His responsibilities include site design, performing engineering calculations, report writing, and preparation of plans and specifications. He also performs cost analysis studies, prepares engineer's estimates, and participates in plan check activities.

### **Eric Boyd, P.E.**

- Position: Engineer/Drafter
- Credentials: Professional Engineer - CA #72271
- Experience: Mr. Boyd has worked in the Civil industry for 15 years and has experience preparing engineering and technical reports, hydrology and hydraulic modeling, as well as project experience in municipal infrastructure. Mr. Boyd also has 6 years of experience working in California with Public Agencies and Consultants.

## QUALIFICATIONS OF STAFF, CONTINUED

### **Brian Jones, L.S. (Partner)**

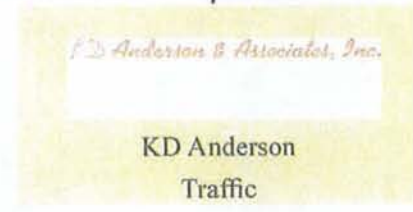
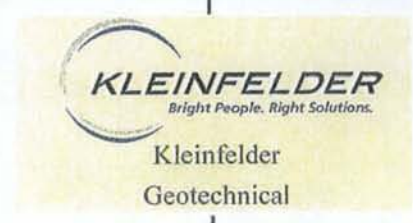
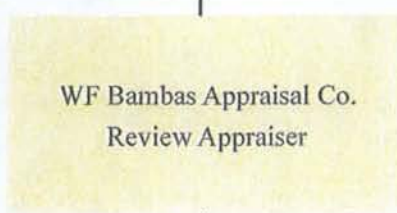
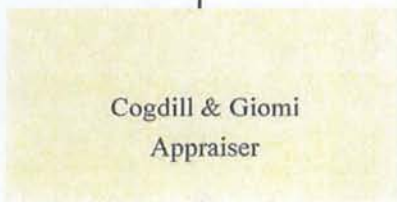
- Position: Land Surveyor - Project Manager
- Education: General Education Courses – California State University Stanislaus - Turlock, CA  
Civil Engineering – California State Polytechnic University - Pomona, CA
- Credentials: Land Surveyor, CA #7088  
Land Surveyor, UT #330833  
Land Surveyor, ID#8910
- Experience: Mr. Jones is skilled in the supervision and coordination of multidisciplinary teams with over 25 years experience in the Civil Engineering and Land Surveying professions. He is responsible for coordination and management of Civil projects beginning with initial project feasibility through to design, including construction support. His Civil project experience includes residential, commercial, retail, and industrial developments. Mr. Jones maintains a minimum of 16 hours of survey related continuing education credits annually and attends monthly meetings for the California Land Surveyors Association. He also attends Autodesk University every year for 32 hours of hands-on training with the latest Autodesk Civil 3D software developments. Autodesk University provides intense training opportunities, and Mr. Jones focuses on 3D surface modeling, and 3D utility design.

### **Keith Spencer, L.S.**

- Position: Land Surveyor
- Education: General Education Courses – Community College of the Airforce - Various Locations  
Computer Science – California State University Stanislaus - Turlock, CA
- Credentials: Land Surveyor, CA #6406  
Federal Land Surveyor #1454
- Experience: Mr. Spencer began his career as a photogrammetrist, serving 8 years in the Air Force. After leaving the Air Force he spent 5 years as a Contract Surveyor for the US Army Corps of Engineers, Vicksburg District, surveying on the Mississippi River, from the mouth to Memphis. That experience coupled with more than 8 years as a Party Chief for local firms has provided a solid foundation in field survey. His licensed experience spans more than 20 years and includes founding a survey firm. This extensive background makes him well equipped for office survey responsibilities that include, research, coordination and preparation of final maps, parcel maps, A.L.T.A. surveys, vesting tentative maps, topographical surveys, legal descriptions, and exhibits of survey projects.

\*\*See Appendix Section for Sub-Consultant's Resumes.

QUALIFICATIONS OF STAFF, CONTINUED



# Crows Landing Road at West Main Street Intersection Upgrade Project Schedule

ID	Task Name	Duration	Start	Finish	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Quarter									
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
1	Project Management	415 days	Wed 6/1/11	Tue 1/1/13	[Gantt bar spanning from 6/1/11 to 1/1/13]																											
2	Public Outreach	241 days	Fri 7/1/11	Fri 6/1/12	[Gantt bar spanning from 7/1/11 to 6/1/12]																											
3	Geotechnical Investigation	30 days	Fri 7/1/11	Thu 8/11/11	[Gantt bar spanning from 7/1/11 to 8/11/11]																											
4	Topographic and Right-of-Way Surveys	110 days	Fri 7/1/11	Thu 12/1/11	[Gantt bar spanning from 7/1/11 to 12/1/11]																											
5	Environmental Investigation	197 days	Fri 7/1/11	Sun 4/1/12	[Gantt bar spanning from 7/1/11 to 4/1/12]																											
6	Roadway Design	20 days	Tue 11/1/11	Mon 11/28/11	[Gantt bar spanning from 11/1/11 to 11/28/11]																											
7	Utility Coordination	89 days	Sat 10/1/11	Wed 2/1/12	[Gantt bar spanning from 10/1/11 to 2/1/12]																											
8	Plans, Specifications, and Estimate	75 days	Tue 11/1/11	Mon 2/13/12	[Gantt bar spanning from 11/1/11 to 2/13/12]																											
9	Right-of-Way Services	67 days	Sun 1/1/12	Sun 4/1/12	[Gantt bar spanning from 1/1/12 to 4/1/12]																											
10	Bidding and Construction	67 days	Sat 6/1/13	Sun 9/1/13	[Gantt bar spanning from 6/1/13 to 9/1/13]																											

## FAMILIARITY WITH STATE AND FEDERAL PROCEDURES

NorthStar has the necessary familiarity with all Federal, State, and Local Agencies and their requirements relative to this project. Based on this understanding, NorthStar will comply with all requirements.

## DEMONSTRATION OF PROFESSIONAL AND FINANCIAL RESPONSIBILITY

NorthStar has been in business since 2002 and is confident that we have the professional and financial capacity to perform all requirements within the proposed project. Please review our references on the following page as evidence of our professional responsibility. Below are a couple of credit references as evidence of our financial capacity.

### Credit References

1. Bank of the West  
1401 Oakdale Road  
Modesto, CA 95355  
Mark Baptista  
P: (209) 526-7877
2. Warden's Office  
1415 J Street  
Modesto, CA 95354  
Melissa Heath  
P: (209) 529-6321
3. Precision Computers  
P.O. Box 579325  
Modesto, CA 95357  
Curtis Matthiesen  
P: (209) 204-1930

## REVIEW OF COUNTY CONTRACT

NorthStar has reviewed the County's Standard Professional Design Services Agreement provided with the Project RFP and makes no exceptions to the content of the document.

## DISADVANTAGED BUSINESS ENTERPRISE GOAL

NorthStar has reviewed the Underutilized Disadvantaged Business Enterprise goal of 3.1 percent for projects with an overall Disadvantaged Business Enterprise goal of 3.6 percent and will be able to meet these goals, see attached Exhibit 10-01 and Exhibit 10-02.

EXHIBIT 10-01 Local Agency Proposer UDBE Commitment (Consultant Contracts)

**NOTE: PLEASE REFER TO INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM**

LOCAL AGENCY: Stanislaus County LOCATION: Stanislaus County, CA  
 PROJECT DESCRIPTION: Crows Landing Road at West Main Street Intersection Upgrade  
 PROPOSAL DATE: May 27, 2011  
 PROPOSER'S NAME: NorthStar Engineering Group, Inc.  
 CONTRACT UDBE GOAL (%): 3.1

WORK ITEM NO.	DESCRIPTION OR SERVICES TO BE SUBCONTRACTED (or contracted if the proposer is a UDBE)	UDBE CERT NO. AND EXPIRATION DATE	NAME OF EACH UDBE (Must be certified at the time proposals are due - include UDBE address and phone number)	PERCENT PARTICIPATION OF EACH UDBE
2	Public Outreach	37194 10-1-11	Judith Buethe Communications	5.17

**For Local Agency to Complete:**

Local Agency Proposal Number: \_\_\_\_\_  
 Federal-Aid Project Number: \_\_\_\_\_  
 Federal Share: \_\_\_\_\_  
 Proposal Date: \_\_\_\_\_

Local Agency certifies that the UDBE certifications have been verified and all information is complete and accurate/unless noted otherwise.

Print Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_  
 Local Agency Representative

(Area Code) Telephone Number: \_\_\_\_\_

Total Claimed UDBE Commitment 5.17 %

Signature of Proposer \_\_\_\_\_  
May 27, 2011 209-524-3505  
 Date (Area Code) Tel. No.  
Brian Jones, President  
 Person to Contact (Please Type or Print)

Local Agency Proposer UDBE Commitment (Consultant Contracts)  
 (Rev 6/27/09)

Distribution: (1) Original - Local agency files



EXHIBIT 10-02 Local Agency Proposer DBE Information (Consultant Contracts)

**NOTE: PLEASE REFER TO INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM**

LOCAL AGENCY: Stanislaus County LOCATION: Stanislaus County, CA  
 PROJECT DESCRIPTION: Crows Landing Road at West Main Street Intersection Upgrade  
 TOTAL CONTRACT AMOUNT (\$): 277,739.70  
 PROPOSER'S NAME: NorthStar Engineering Group, Inc.

WORK ITEM NO.	DESCRIPTION OR SERVICES TO BE SUBCONTRACTED (or contracted if the proposer is a DBE)	DBE CERT NO. AND EXPIRATION DATE	NAME OF EACH DBE (Must be certified at the time proposals are due - include DBE address and phone number)	DOLLAR AMOUNT OF EACH DBE
2	Public Outreach	37196 10-1-11	Judith Buelke Communications	\$14,385.00

**For Local Agency to Complete:**

Local Agency Contract Number: \_\_\_\_\_  
 Federal-Aid Project Number: \_\_\_\_\_  
 Federal Share: \_\_\_\_\_  
 Contract Award: \_\_\_\_\_

Local Agency certifies that the DBE certifications have been verified and all informations is complete and accurate.

Print Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_  
 Local Agency Representative

(Area Code) Telephone Number: \_\_\_\_\_

**For Caltrans Review:**

Print Name \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_  
 Caltrans District Local Assistance Engineer

Total Claimed DBE Participation \$14,385.00  
5.17 %

Signature of Proposer [Signature]  
 Date May 27, 2011 (Area Code) Tel. No. 209-524-3525  
 Person to Contact Brian Jones, President (Please Type or Print)

Local Agency Proposer DBE Information (Consultant Contracts)  
 (Rev 6/27/09)

**Distribution:** (1) Copy - Fax or scan a copy to the Caltrans District Local Assistance Engineer (DLAE) within 15 days after contract execution.  
 Failure to send a copy to the DLAE within 15 days after contract execution may result in deobligation of funds for this project.  
 (2) Original - Local agency files

# BUSINESS ENTERPRISE CERTIFICATE

## JUDITH BUETHE COMMUNICATIONS

445 WEST WEBER AVENUE STE. 221  
STOCKTON, CA 95203

Owner: JUDITH BUETHE

Business Structure: SOLE PROPRIETORSHIP

STATE WOMEN BUSINESS ENTERPRISE


This certificate acknowledges that said firm is approved by the California Department of Transportation as a State Minority Business Enterprise or State Women Business Enterprise (or in some cases both) in accordance with Assembly Bill Number 486, Chapter 1329 and the California Public Code, Chapter 2.5 (commencing with Section 2050), for the following NAICS codes:

541830 Media Buying Agencies  
541810 Advertising Agencies  
\* 541820 Public Relations Agencies

\* Indicates primary NAICS code

**CERTIFYING AGENCY:**  
DEPARTMENT OF TRANSPORTATION  
1823 14TH STREET, MS 79  
SACRAMENTO, CA 95814 0000  
(916) 324-1700

Firm Number : 37196  
Renewal Date : October 1, 2011

  
JANICE SALAIS, CERTIFYING AGENCY REPRESENTATIVE

September 28, 2009

## REFERENCES

### Agencies

Company: Stanislaus County  
Contact: Matt Machado  
Title: Director of Public Works  
Address: 1010 10th Street  
Modesto, CA 95354  
Phone: (209) 525-7581

Company: City of Modesto  
Contact: William Wong  
Title: Senior Civil Engineer  
Address: 1010 10th Street  
Modesto, CA 95354  
Phone: (209) 571-5801

Company: City of Oakdale  
Contact: Joe Leach  
Title: Director of Public Works  
Address: 455 South Fifth Avenue  
Oakdale, CA 95361  
Phone: (209) 845-3607

Company: City of Stockton MUD  
Contact: Antonio Tovar  
Title: Senior Civil Engineer  
Address: 2500 Navy Drive  
Stockton, CA 95206  
Phone: (209) 937-8790

Company: Madera County RMA  
Contact: Lori Gardner  
Title: Administrative Services  
Address: 2037 W. Cleverland Avenue  
Madera, CA 93637  
Phone: (559) 661-6333

### Heavy Contractors

Company: Teichert Construction  
Contact: Clark Hulbert  
Title: Stockton District Manager  
Address: 265 Val Dervin Parkway  
Stockton, CA 95206  
Phone: (209) 983-2300

Company: Teichert Construction  
Contact: Keith Jones  
Title: Estimator  
Address: 265 Val Dervin Parkway  
Stockton, CA 95206  
Phone: (209) 983-2318

Company: Granite Construction  
Contact: Chip Kerlee  
Title: Construction Manager  
Address: P.O. Box 151  
Stockton, CA 95201  
Phone: (209) 982-4750

Company: Knife River Construction  
Contact: Randy Holtberg  
Title: Project Engineer  
Address: 655 West Clay Street  
Stockton, CA 95206  
Phone: (209) 948-0302

Company: Top Grade Construction  
Contact: John Copriviza  
Title: Regional Vice President  
Address: 5112 W. Highway 12  
Lodi, CA 95242  
Phone: (209) 467-4102

**KLEINFELDER**

**GEOTECHNICAL**

**SUB-CONSULTANT**



### **FIRM DESCRIPTION**

Kleinfelder is a consulting firm specializing in geotechnical engineering, geological studies, environmental engineering, and materials testing services. Kleinfelder was founded in Stockton, California in 1961 and has grown to be one of the largest firm in its field in the United States, as ranked by the Engineering News Record. During the past 48 years, Kleinfelder has grown to a "coast to coast" firm with over 2,000 employees. This growth rate could never have been achieved without providing quality and cost-effective services to our clients. We have been particularly successful in Stanislaus and San Joaquin Counties where Kleinfelder remains the only firm with full service facilities. The Central California Region of the West Division includes Sacramento, Stockton, Modesto, Merced, Fresno, and Bakersfield.

The firm has experience in slope stability studies, seismic analysis and site response studies, subsidence and seepage studies, and providing basic foundation design criteria for a wide variety of projects, including dams, levees, buildings, major land and infrastructure development, water and wastewater treatment facilities, bridges, airports, and commercial and industrial structures. A major portion of our work now involves the assessment and mitigation of hazardous waste. Clients have included public works agencies, developers, construction firms, and other design professionals.

The engineering and geological staff is supported by capable technicians qualified in construction inspection and testing. Each regional office has a complete materials testing laboratory at its disposal, providing a full range of testing of soils and other construction materials. In summary, with our local experience and close proximity to the site, we feel that we are in a position to provide geotechnical and materials testing services in a timely and efficient manner. Our professional staff and field technicians are equipped with radios and/or telephones to improve response time whenever questions or problems arise.



**CARL HENDERSON**  
**Geotechnical Department Manager**

**Senior Professional**

*Summary of Experience*

Dr. Henderson, with over 10 years of experience with engineering firms, has performed geotechnical evaluations for a wide variety of projects including embankments, levees, buildings, bridges, land development, commercial and industrial facilities, and landfills. He has extensive experience with embankment construction and stability evaluations for several large California Department of Transportation (CALTRANS, Pennsylvania Turnpike Commission (PTC), and Pennsylvania Department of Transportation (PennDOT) roadway construction projects including the Mon-Fayette Expressway and S.R. 6220 projects. Dr. Henderson's recent experience with Kleinfelder has included work with large land developments and Reclamation Districts within the San Joaquin Delta. These projects include Atlas Tract (360 acres), East Cypress Corridor (2,520 acres), and Brookside (1,200 acres). Recommendations have been provided for levee improvement projects that included deep dynamic compaction, sand compaction methods, re-compaction of the landside slopes, and the installation of toe drains and seepage berms.

*Education*

PhD, Civil Engineering, University of Pittsburgh, Pennsylvania, 1998  
BS, Civil Engineering, University of Pittsburgh, 1991  
MS, Civil Engineering (Geotechnical), University of Pittsburgh, 1994

*Registrations*

Professional (P.E.) - Civil, No.PE057575, PA  
Professional (P.E.) - Civil, No.CA71115, CA,

*Project Experience*

The following is a representative selection of Carl Henderson's project experience.

**General**

*Delta Water Intake, Stockton, California.*

Provided geotechnical engineering services for the proposed Delta Water Supply Intake facility to be located on Empire Tract in San Joaquin County, California. Our services included: a visual site reconnaissance, field investigation consisted of drilling boring and conducting CPT's, laboratory testing of representative samples, review of selected literature regarding known geology and seismicity, review of preliminary geotechnical



study, evaluation of data obtained, and an engineering analysis to develop geotechnical conclusions and recommendations.

*Delta Water Supply Pipeline, Stockton, California.*

Provided geotechnical services for the proposed Delta Water Supply Pipeline. The project consists of design and construction of a new water treatment plant and associated raw water and finished water pipelines for the City of Stockton, California. Services included exploratory work, laboratory and field testing, professional interpretations of exploratory and test data, and technical recommendations.

*Shale Rock Water Storage Tank, Big Hill Water System Improvements, Tuolumne County, California.*

47-foot diameter by 24-foot high metal tank supported on a perimeter ring wall foundation. Tank base elevation of 3,112 feet, with a minimum foundation width and depth of 2 and 0.5 feet, respectively, corresponding to a maximum bottom of foundation elevation of 3,109.5 feet.

*Water Storage Tank, Blue Oaks Campground, Don Pedro Reservoir, Tuolumne County, California.*

Approximate 22-foot diameter, 20-foot high 53,150-gallon capacity water tank supported on a ring wall foundation.

*Oakdale Wastewater Treatment Plant Expansion, Oakdale, California.*

Upgrades to existing aeration basins and addition of a dump truck facility, a 120-foot diameter secondary clarifier, and several pumping structures.

*East Cypress Corridor, Reclamation District 799-Byron Tract, Byron, California.*

Provided geotechnical evaluation services for a 2,520-acre land development with deepwater access and approximately 5.5 miles of levees in the Delta. Due to the length of the levee system, different soil profiles are being evaluated, and three different levee configurations are being considered. Various soil improvement are being considered to remediate potentially liquefiable soils. Potential improvement methods include Deep Dynamic Compaction and the Sand Compozer/Pile Method.

*Atlas Tract, Northwest of Stockton, California.*

Provided geotechnical and materials testing services for miles of Delta levee improvements for the 360-acre Atlas Tract located northwest of Stockton. Due to the length of the levee system, different soil profiles were evaluated, and three different levee configurations were constructed. The westerly perimeter levees were underlain by significant organic soil deposits and included both a water and landside bench. A Letter of Map Revision (LOMR) was issued for this project.





*North Summer Lake, Reclamation District 799 Byron Tract, Byron, California.*

Currently providing geotechnical evaluation services for an approximate 500-acre land development and approximately 2 miles of levees within the Delta. Different native soil and levee embankment profiles are being evaluated in the overall analysis. Due to the presence of loose, sandy foundation soils, various soil improvement methods are being considered to reduce the potential for liquefaction settlement caused by earthquakes. Potential soil improvement/compaction methods include Deep Dynamic Compaction (DDC), Sand Compuser/Pile Method, and conventional over-excavation and mechanical compaction methods.

*Shima Tract, Reclamation District 2115 San Joaquin County, California.*

Currently providing geotechnical services for an 1,800-acre tract located west of Stockton. An initial geotechnical investigation was provided in order to provide documentation so that a Conditional Letter of Map Revision (CLOMR) could be provided. To comply with requirements of the local Reclamation District 2115, the proposed levees were evaluated with respect to the 300-year flood event. Currently, additional geotechnical analysis includes the evaluation of potential borrow sources to be used for construction of the proposed levee.

*Atlas Tract, Stockton, California.*

Construction of a reconfigured perimeter levee surrounding Atlas Tract. Scope of services included nearly continuous observation and testing during grading and construction of the levee embankment, laboratory testing of the embankment fill, and test boring explorations through the completed levee embankment for compliance with FEMA and COE criteria.

*Jersey Island Road Levee Evaluation, Contra Costa County, California.*

Evaluation of levee system on Hotchkiss Tract to provide flood protection for a 300-year flood level in the event the existing levee was to breach or fail.

*Left Bank of San Joaquin River, Firebaugh, California.*

Remediation options for slope instability of a portion of the San Joaquin River.

*Summer Lake Development South Levee, Hotchkiss Tract, Oakley, California.*

Evaluate whether existing levee meets U.S. Army Corps of Engineers and FEMA engineering, design, and elevation criteria (e.g., seepage and slope stability requirements) to address a 300-year flood event.



**STEVEN DAVIS**  
**Senior Engineering Geologist**  
**Modesto Area Manager**

***Summary of Experience***

Mr. Davis is an experienced field, project, and senior engineering geologist who manages and supervises a wide range of geotechnical, engineering geology, and materials testing projects. He has been with Kleinfelder since July 1979 and has managed the Modesto office since it opened in May 2000. He supervises project organization, field mapping, and field explorations, and researches and prepares final reports for geotechnical engineering and engineering geology investigations. Mr. Davis also serves as project manager for all types of soil and materials testing projects. In addition to supervising field and laboratory work, he evaluates slope stability, rippability, erosion control, landslide potential, and other aspects of geotechnical engineering and engineering geology for the Central California Region of Kleinfelder. He prepares and reviews geologic hazards reports for schools, hospitals, and large-scale commercial and industrial developments throughout the Region.

***Education***

BA, Geology, California State University System : Chico, California, 1979

***Registrations***

Certified Engineering Geologist (C.E.G.), CA, 1990  
Registered Geologist (R.G.), CA, 1990

***Professional Affiliations***

Geological Society of America  
Association of Engineering Geologists

***Select Project Experience***

The following is a representative selection of Steven Davis's project experience.

**General**

*UPUD 85-Foot High Dam near Murphys.* As Project Geologist supervised and performed drilling, trenching, geophysical explorations, mapping geologic hazards evaluation, and soil and rock testing.

*Diablo Grande Development.* Provided geotechnical, engineering geology, hydrogeologic, and materials testing services for construction of access roads, a 9-story hotel, residential development, a wastewater treatment facility, a water treatment facility, sewer and water lines, and many other aspects of the development. The main access and cut-across road projects included cuts up to 200 feet high, fills in excess of 50 feet deep, four large arch culverts, four pump stations, and several underground utilities.



*Stockton East Sewer Project.* Organized and supervised extensive drilling and soil testing program on 56 miles of new sewer lines. Performed settlement-monitoring tests over a 3-month period in test trenches compacted by hand, machine, and jetting.

*Stockton East Water District, Water Distribution Project.* Provided geotechnical services including mapping, auger and core drilling, seismic and resistivity surveys, and backhoe trenching for water distribution system project from Stanislaus River to Farmington Dam; system to contain approximately 3½ miles of tunnel, 20 miles of canal, improvement of existing stream to transport water, and a possible storage reservoir.

*City of Modesto, Wastewater Treatment Facility Improvements.* Provided geotechnical services for major improvements to the wastewater treatment plant including planned construction over an overflow basin containing liquefiable soils, construction of approximately 5 miles of 60-inch diameter sewer line from east Modesto, and construction of approximately 1 mile of 60-inch sewer line from west Modesto.

*Mini-hydroelectric Power Plants for the Turlock.* Performed geotechnical studies for numerous plants in the Sierra Nevada foothills of California. Organized and supervised drilling and geophysical explorations, performed geologic hazards evaluations, and assisted in preparation of final designs.

*Tracy Hills Development, West of Tracy.* Project Manager for geotechnical and engineering geology services being provided for proposed new 5,700-acre town; services consist of mapping, geologic hazards evaluation, drilling and backhoe trenching, and groundwater quantity and quality evaluation.

*Jackson Creek Plaza.* Cut slopes in unstable metamorphic rock which required installation of 490 rock anchors, four inclinometer borings, numerous weep holes, a Gabion wall to repair a slide, and several gunite walls for erosion control.

*Plymouth Effluent Storage Reservoir.* Performed geotechnical study, assisted in preparation of construction plans, and monitored construction; dam is approximately 75 feet high and 660 feet long and is used to store effluent from the City of Plymouth.

*Windmills, Altamont and Pacheco Pass Areas.* Project Engineering Geologist for foundation and construction monitoring services for numerous wind generator projects; services provided for seven different clients and more than 25 projects since 1981.

*Modesto Irrigation District, Treated Water Distribution Project.* Provided geotechnical services including mapping, drilling, trenching, and resistivity surveys for approximately 26 miles of treated water line from Modesto Reservoir to and throughout the City of Modesto. Project Manager for materials testing during construction of water line.

**KD ANDERSON**

**TRAFFIC**

**SUB-CONSULTANT**

*KD Anderson & Associates, Inc.*

Transportation Engineers

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May 18, 2011

Mr. John Mensonides  
**NORTH STAR ENGINEERING GROUP**  
909 14<sup>th</sup> Street  
Modesto, CA 95354

**RE: PROPOSAL TO PROVIDE TRAFFIC SIGNAL DESIGN AND AIR QUALITY SERVICES RELATED TO CROWS LANDING RD / W. MAIN ST INTERSECTION UPGRADE PROJECT, STANISLAUS COUNTY**

Dear Mr. Mensonides:

Thank you for including **KD Anderson & Associates, Inc.** on your project team for the Crows Landing Road / W. Main Street Intersection Upgrade project in Stanislaus County. The project involves intersection widening and installation of a fully actuated traffic signal at the Crows Landing Road / W. Main Street intersection. Our work will include preparation of electrical plans, specifications and cost estimates for the traffic signal portion of the work element and we will also prepare air quality reports for the project.

**Familiarity with Technical Specifications and Requirements.** Because the City of Modesto maintains Stanislaus County's traffic signals, it is important that the project PS&E follow Modesto standards as well as Caltrans state standards. We are familiar with City of Modesto's standards, having prepared PS&E for more than 25 traffic signals in Modesto, including projects completed under direct contract to the City. These projects have included signal interconnect and communication equipment needed for the City's Traffic Management System as well as emergency vehicle pre-emption equipment requirements. We have also prepared PS&E for a number of traffic signals under Stanislaus County jurisdiction using Modesto and Caltrans specifications and standards. Our most recent project experience in Stanislaus County includes intersection upgrades and signal modifications to the Crows Landing / Hatch Road intersection. This work was completed under contract to the County.

**Project Personnel.** The staff to be assigned to this project has broad experience. Project Engineer Mike Becker has been responsible for all of our previous traffic signal work in Stanislaus County as well as all past signal design work for the City of Modesto. Mr. Ken Anderson of our office will assist in signal design elements as needed and will be responsible for overall quality control and checking prior to releasing submittals to the lead consultant. Mr. Wayne Shijo has been responsible for preparation of air quality and greenhouse gases (GHG) studies on dozens of projects, including roadway improvement and signalization projects in Stanislaus County.

## **HISTORY AND DESCRIPTION OF OUR TEAM**

**KD Anderson & Associates** is a consulting engineering practice based in Loomis, California. The firm was established in 1990, although our engineers have been providing consultant services in the Central Valley area since 1980. Our experience includes traffic signal and street light design, traffic impact and air quality studies, traffic operations and safety studies and travel demand modeling for projects in the Central Valley and throughout a service area that ranges from Fresno to Redding.

## **STAFF QUALIFICATIONS**

The staff of KD Anderson & Associates includes registered Professional Engineers, Transportation Planners, plus Drafting and Clerical support staff. Our staff has broad technical expertise in preparing PS&E for new traffic signals and modifications to existing signals. Our engineers have worked with Stanislaus County staff on a number of traffic signal projects in the past, making us familiar with County requirements and design guidelines. We have also provided on-call traffic signal design services to the City of Modesto for a number of years and have been responsible for the design of over 25 traffic signals within Modesto, either under contract directly to the City or via private development projects. We have also provided services throughout Stanislaus County, including work in Riverbank, Oakdale, Waterford and Turlock.

## **KEY PERSONNEL - KDANDERSON**

**Michael P. Becker P.E.** is our designated Project Manager. Mike is a registered Traffic Engineer and a Civil Engineering graduate of Chico State University. He has more than 20 years consulting experience in both urban and rural settings, specializing in infrastructure design and traffic impact analysis. Mr. Becker has prepared Traffic Signal Timing Plans, developed Construction Traffic Control Plans, created Street Lighting plans, and designed Traffic Signal Systems for intersections throughout northern California and has been responsible for our past signal projects in Stanislaus County and the City of Modesto. In addition to overall project management, Mike will be responsible for the preparation of traffic signal PS&E.

**Kenneth D. Anderson, P.E.** is our Principal in Charge. Ken is a registered Civil / Traffic Engineer and a Civil Engineering graduate of Cal Poly S.L.O. He has more than 30 years consulting experience and has overseen preparation of PS&E for circulation system infrastructure improvements throughout Northern California.

**Wayne Shijo** is our air quality analysis task leader. Wayne is an Environmental Planning and Management graduate of UC Davis. He has 32 years of experience providing air quality analysis services to public agencies and private clients throughout the west coast, focusing on Central California. The vast majority of these analyses have been prepared for inclusion in CEQA and NEPA environmental compliance documents. He has managed the air quality analyses of many transportation facilities, including roadway improvement and signalization projects in Stanislaus County.

## REFERENCE PROJECTS

**Stanislaus County Traffic Signals.** KD Anderson & Associates has provided signal design services for a number of projects in Stanislaus County. These projects include:

- Crows Landing Road / Hatch Road Signal Modifications
- Sisk Road / Bangs Road Traffic Signals
- Crows Landing Road / Hackett Road Signal Modifications
- Crows Landing Road / School Road Traffic Signals
- Las Palmas Avenue Signals at Elm Avenue and at Sycamore Avenue
- Pirrone Road / Gregori High School Traffic Signals

**Modesto Traffic Signals.** KD Anderson & Associates has also provided signal design services for a number of projects in the City of Modesto. Mr. Mark Murphy and Mr. Jeffrey Barnes of the Traffic Engineering Department can attest to our qualifications and past performance. Recent projects include:

- Stoddard Avenue / Tully Road Traffic Signals
- Woodland Avenue / Graphics Drive Traffic Signals
- 7<sup>th</sup> Street / I Street Signal Modifications
- Floyd Avenue / Lincoln Oaks Drive Traffic Signals
- Pelandale Avenue / Dale Road Signal Modifications

**Air Quality Analysis.** KD Anderson & Associates has provided air quality analysis services for several projects in Stanislaus County and the San Joaquin Valley. These projects include:

- improvements to the Albers Road intersections with Milnes Road and Dusty Lane, and the Geer Road intersections with Fox Road and Service Road
- State Route 132 and Western Avenue Intersection Improvement project in Waterford
- Mountain View Avenue / Avenue 416 / El Monte Way widening and improvement project in Tulare County



**MICHAEL P. BECKER, P.E.**

**Transportation Engineer**

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Michael P. Becker is responsible for a wide variety of Traffic Engineering applications, including preparation of PS&E for improvement projects, preparing and managing traffic impact studies, preparation of Transportation Management Plans (TMP's) and traffic signal operations and safety studies.

**EDUCATION:** CSU-Chico, B.S., Civil Engineering, 1985

**REGISTRATION:** Traffic Engineer: California

**AFFILIATIONS:** Institute of Transportation Engineers (ITE)

**EXPERIENCE:**

Mr. Becker has more than twenty years of consulting experience in Traffic Engineering and Transportation Planning.

Mr. Becker has been responsible for many infrastructure design projects and PS&E. Over the last five years he has completed PS&E for more than 50 traffic signals and associated intersection improvement projects. He has been involved in the preparation of Project Study Reports for improvements to the State Highway system, including new interchanges and system modifications.

Mr. Becker has prepared several traffic signal timing and safety studies. He was project engineer for two City of Sacramento FETSIM traffic signal timing projects, and developed timing plans for 50 and 12 signal subsystems. He also prepared plans for coordinated operation of isolated pairs of traffic signals within Cities of Rocklin and Sonora. His resume also includes traffic safety studies under Office of Traffic Safety grants and high accident location analysis. Mr. Becker has been responsible for "Safe Route to School Programs" and access studies for elementary and high schools.

Mr. Becker has been responsible for the preparation of numerous Traffic Impact Studies for projects throughout Northern California and Nevada. In urban settings, he has been responsible for the Circulation Element of numerous EIR's in the City and County of Sacramento. Mr. Becker has also completed studies for major development proposals in the rural Sierra Nevada foothill counties of Tehama, Plumas, Calaveras, Tuolumne, Amador and El Dorado.

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**KENNETH D. ANDERSON, P.E.**  
**President**

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Kenneth D. Anderson, P.E. is the President of **KD Anderson & Associates, Inc.** Since establishing the company in 1990, he has overseen the completion of traffic impact analyses, traffic operations / safety studies and circulation infrastructure design projects. He is directly responsible for the satisfactory completion of all final project design and approval, client liaison and project presentation.

**EDUCATION:** California Polytechnic State University, S.L.O.  
B.S., Transportation Engineering, 1978

**REGISTRATION:** Civil Engineer: California  
Traffic Engineer: California

**AFFILIATIONS:** Institute of Transportation Engineers (ITE): Past President of No California Section  
National Society of Professional Engineers (NSPE)  
Council for Educational Facility Planners International (CEFPI)

**EXPERIENCE:**

Over the past thirty years, Mr. Anderson has been directly responsible for the completion of a wide variety of Transportation Engineering and Planning projects throughout the Western United States.

In the area of Traffic Operations and Design, Mr. Anderson has overseen the design of **Traffic Signal and Safety Lighting Systems** for nearly 150 intersections in California. He has directed the preparation of **Signing and Striping plans** for highway improvements and developed **Construction Traffic Control Plans** under Caltrans and MUTCD guidelines. He has conducted **Traffic Safety / Operational Studies** for many cities and school districts.

Mr. Anderson has completed many **Regional Circulation Studies** for many cities and counties, including General Plan Updates for cities throughout central and northern California. He has been involved in GPU's for the cities of Coalinga, Hanford, Riverbank, Waterford, Colusa, Newman, Hughson, Grass Valley, Orland, Gridley and Live Oak. He has also completed traffic studies for numerous of specific plans, community plans and general plan amendments.

He has been responsible for preparing the **Transportation / Circulation Element of Environmental Impact Reports / Statements** completed under State and Federal Guidelines for projects ranging from Ski Resort and Hotel Casino Expansions in the Lake Tahoe Basin to residential and commercial developments throughout the Western United States.

Mr. Anderson has worked alongside Caltrans in the planning of **Highway and Interchange improvement Project Study Reports (PSR's)**. Representative projects, include the State Route 152 / Volta Road interchange in Los Banos, the State Route 99 / SR 233 (Robertson Blvd) interchange in Chowchilla and the State Route 70 / Feather River Blvd interchange in Yuba County.

Mr. Anderson has been involved in the planning and traffic impact assessment for **Educational and Religious Facilities** throughout Northern California. He has prepared impact analyses for community college campuses in the State Center, kern, Sierra and Yosemite Community College Districts. He has assisted in the design of high schools for the Elk Grove Unified, Natomas, Grant Unified, Stockton, Rocklin, Folsom, Modesto City and Madera Union School Districts. He has also evaluated traffic conditions and recommended improvements at CSU-Chico and CSU-Humboldt.

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**WAYNE SHIJO**  
**Project Manager**

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Wayne Shijo is a Project Manager at **KD Anderson & Associates**. He is responsible for the organization, management, and completion of air quality and global climate change (greenhouse gas) analysis projects.

**EDUCATION:** University of California at Davis  
B.S., Environmental Planning and Management, 1977

**AFFILIATIONS:** Institute of Transportation Engineers (ITE):  
Past President of Northern California Section

**EXPERIENCE:**

Mr. Shijo has 32 years of experience providing air quality and global climate change analysis services to public agencies and private clients throughout the west coast, focusing on the Central Valley and foothills area of California. The vast majority of these analyses have been prepared for inclusion in California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) environmental compliance documents. He has managed the air quality and global climate change analyses of many transportation facilities and land use development projects. His relevant experience includes the following:

**Air Quality Analysis**

Mr. Shijo has analyzed the air quality and global climate change impacts of land use developments, roadway projects, and other infrastructure projects. He is familiar with analysis methods and significance thresholds specified by the Caltrans *Standard Environmental Reference*, the University of California Davis, Institute of Transportation Studies (UCD/ITS) document *Transportation Project-Level Carbon Monoxide Protocol*, the Sacramento Metropolitan Air Quality Management District *Guide to Air Quality Assessment in Sacramento County*, and the San Joaquin Valley Air Pollution Control District *Guide for Assessing and Mitigating Air Quality Impacts*. He has prepared carbon monoxide impact analyses of specific intersections and areawide networks, analyzed regional ozone precursor emissions, quantified greenhouse gases emissions, determined the consistency of projects with policy plans, conducted federal air quality conformity analyses, and developed new analysis techniques. He has extensive experience using air quality models including URBEMIS, CalEEMod, CALINE4, EMFAC, CAL3QHC, ISCST3, BURDEN, DTIM, and MOBILE5.

Mr. Shijo's air quality and global climate change analysis experience includes: preparing an air quality report on improvements to four intersections in Stanislaus County; preparing an air quality study, project-level federal conformity assessment, and greenhouse gases analysis of improvements to Folsom Boulevard west of Howe Avenue; preparing an air quality study of improvements to State Route 132 and Western Avenue n Waterford; preparing an air quality study of the extension of Saratoga Road in El Dorado Hills; preparing criteria pollutant and greenhouse gases emissions estimates, and microscale carbon monoxide concentrations for the Sacramento County General Plan Update; preparing a CEQA/NEPA air quality study of the Elverta Road Widening project; preparing the air quality section of a NEPA environmental impact statement (EIS) for improvements to the Sacramento County Juvenile Hall facility; preparing a CEQA/NEPA air quality study of a new interchange on Interstate 580 in Livermore, preparing an air quality study of improvements to the Ponderosa Road interchange on U.S. Highway 50; conducting an air quality study of a bridge and roadway widening project along Pleasant Valley Road in the Newtown area; conducting an air quality assessment of an intersection signalization project in the Diamond Springs area; preparing an EIR air quality chapter for a 93-single-family-unit project in the Pine Grove area of Amador County; preparing the air quality section of an EIR for the proposed Lincoln Regional Airport Master Plan; conducting an air quality analysis of the relocation of the Homewood Lumber site in Loomis; and preparing air quality reports on two residential land use projects in the El Dorado Hills area.

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### **Software Application Development**

Mr. Shijo has developed software applications to improve the speed, quality, or capability of air quality analysis methods. Software platforms include FORTRAN, BASIC, and commercial spreadsheet programs. Examples of air quality analysis software include a program to automate transfer of output data files from transportation simulation models to input data files for air quality dispersion models; upgrading and expanding air quality dispersion models used to analyze on-road vehicular travel (the CALINE and CAL3QHC series of models); a program to prepare plots of CALINE air quality model networks; software to estimate fugitive dust and equipment exhaust emissions from large construction projects; and software to estimate the change in regional PM<sub>10</sub> and ozone precursor emissions based on travel model-estimated changes in regional vehicle miles traveled and vehicle hours traveled.

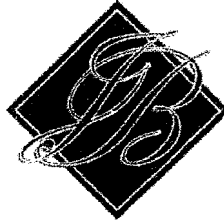
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**JUDITH BUETHE**

**PUBLIC OUTREACH**

**SUB-CONSULTANT**



**Judith Buethe  
Communications**

P.O. Box 773, Stockton, CA 95201; 445 West Weber Avenue, Suite 221, Stockton, CA 95203  
(209) 464-8707; (209) 942-3080 fax; www.buethecommunications.com

## **Firm Description**

Established in 1989, Judith Buethe Communications (JBC), a sole proprietorship, has developed a specialty for consensus-building and public participation programs in Central California. Our proactive programs are carefully tailored to each project and creatively designed and implemented to identify communities of interest, satisfy the public's need for information, provide opportunities for meaningful involvement, and nurture a sense of community partnership, as well as promote a positive image for each client. More than 300 infrastructure projects at every stage from feasibility study through construction have been organized and successfully implemented by JBC. Projects would typically include, but not be limited to, creating an overall strategy; advertising; media relations; large and small group facilitation; one-on-one meetings with key individuals or businesses; public meetings /workshops/hearings; graphic design; photography; community advisory groups; Web sites and print materials; media relations; special events; surveys; social media; and other creative strategies pertinent to each project and its constituencies. We have organized and implemented dozens of groundbreaking and ribbon-cutting ceremonies. We are familiar with public agencies, business groups, and community organizations throughout the region.

JBC, located in downtown Stockton, is 100% woman-owned and -operated and is in its 22<sup>nd</sup> year of business. JBC enjoys a staff of 5.5 persons. Our firm's mission, *Making Your Best Intentions Happen*, drives every project.

Caltrans DBE/UDBE/SWBE Certification #37196, City of Stockton Business License #09-00091621  
A 100% woman-owned and -operated business. Since 1989.



Judith Buethe  
Communications

YEARS OF EXPERIENCE  
32+

#### EDUCATION

- ◆ B.S., Applied Behavioral Sciences, University of California, Davis
- ◆ M.P.A., Public Administration, University of San Francisco

#### NOTABLE AWARDS

- ◆ ATHENA, Greater Stockton Chamber of Commerce
- ◆ San Joaquin County Commission on the Status of Women, Susan B. Anthony Award
- ◆ Small Businessperson of the Year, Greater Stockton Chamber of Commerce

#### PROFESSIONAL AND CIVIC ORGANIZATIONS

- ◆ Business Council, Inc.
- ◆ San Joaquin County Hispanic Chamber of Commerce
- ◆ Greater Stockton Chamber of Commerce Board of Directors
- ◆ Chinese Cultural Society of Stockton
- ◆ Public Relations Society of America
- ◆ Central Valley Community Bank Advisory Board
- ◆ Downtown Stockton Alliance

#### CALTRANS CERTIFICATIONS

- ◆ DBE, UDBE, SWBE #37196

#### CITY OF STOCKTON

- ◆ Business License #09-00091621

## JUDITH BUETHE

Judith Buethe Communications (JBC)

Judith Buethe, founder and owner of JBC, has more than 32 years of private and public sector experience in public relations, and consensus building. Judith designs and implements effective strategic public involvement plans, project team communication plans, public meetings and open houses, public outreach and education, cross-cultural communications, social marketing, meeting facilitation, stakeholder identification, media relations, newsletters, direct mail campaigns, advertising, events (large and small), consensus development, and staffs Hotlines. She has served as a hearing officer. She has designed and facilitated formal focus groups, regional surveys, and walked door-to-door in mobile home parks to survey tenants and satisfy environmental justice requirements.

The firm's mission, *Making Your Best Intentions Happen*, drives every project.

#### **Relevant Public Outreach and Public Participation Programs**

Among the more than 300 public participation programs designed and implemented in the Central Valley and Foothills are these:

- ◆ Major improvement projects on interstates and state highways, e.g., I-205 Lammers, I-5 North Stockton Corridor, SR99/Arch Road to SR120, SR-132 Expressway
- ◆ McHenry Avenue Corridor Study; Benjamin Holt Improvement Project, Franklin Boulevard/Thornton Road Bridge Replacement
- ◆ San Joaquin Rail Corridor Strategic Business Plan (Contra Costa County to Sacramento to Kern County)
- ◆ North County Corridor Route Adoption
- ◆ Regional Transportation Plans
- ◆ Revitalization/beautification projects
- ◆ Environmental documents
- ◆ Local roadway and street improvement projects, e.g., Keyes and Empire Improvements
- ◆ Water supply, pipelines, water quality, water transfer projects, flood protection, drainage projects, reclamation districts, bridges
- ◆ Pollution prevention
- ◆ Corridor studies
- ◆ Transit center
- ◆ Construction
- ◆ Energy and utilities
- ◆ Creative groundbreakings and ribbon-cuttings



Judith Buethe  
Communications

YEARS OF EXPERIENCE  
20+

EDUCATION

- ◆ BA, Marketing/International Business and BA. in Italian Language, San Francisco State University

COMMUNITY AWARDS

- San Joaquin A+ Spirit of Literacy Winner

CIVIC ORGANIZATIONS

- ◆ Creator of Bingo 4 Books and Literacy Week, Lincoln Unified School District
- ◆ Creator of Sierra Fest, Lincoln Unified School District
- ◆ Member, Stockton Sister Cities Association
- ◆ Member, Stockton Women's Network
- ◆ President 2011-12, Lincoln High School PTSA
- ◆ Member, Green Team San Joaquin

## MARY ANN PIANA CHAPMAN, ASSOCIATE

Judith Buethe Communications (JBC)

Mary Ann Piana Chapman, Associate/Project Manager has more than 20 years of experience in organizing, public relations, sales, marketing, and related experience. At JBC she has had responsibility for public outreach and media relations for public infrastructure projects, events, and special projects.

### **Relevant Public Outreach and Community Involvement Experience**

#### **Keyes Improvement Project Construction**

#### **Empire Improvement Project Construction**

Client: County of Stanislaus

Contact: Chris Brady, Senior Civil Engineer, Stanislaus County Public Works, (209) 262-5887

Mary Ann worked closely with the County, construction manager, local community (especially with the Municipal Advisory Council in Keyes), and news media to inform the public of project activities and progress. She also created and implemented a grand ribbon-cutting in Keyes, staffed very active telephone Hotlines in both communities, wrote and produced newsletters, and walked door-to-door in Empire in a grass-roots campaign to inform and reassure residents and property owners.

#### **Woodland I-5/CR-102 Interchange Project**

Client: City of Woodland

Contact: Diana Ayon, Associate Civil Engineer, Capital Design/Construction Branch City of Woodland, (530) 661-5967

Mary Ann has created an overall strategy for public involvement; developed a coded stakeholder list; identified a geographic mailing/notification area; conducted media relations; organized and implemented a groundbreaking ceremony; telephoned nearby businesses to inform them of upcoming construction activities; and directed design for and manages an active project Web site.

#### **North County Corridor Project**

Client: North County Corridor Transportation Expressway Authority (NCCTEA)

Contact: Laurie Barton, Project Manager, NCCTEA, (209) 525-4151

For this major project, Mary Ann has had a major role as Assistant Project Manager, assisting the Principal/Project Manager in public outreach activities for this major project, including planning, logistics, assistance with public meetings, tracking media, maintaining the database, and more.

Mary Ann has also played a key role in public outreach implementation for the initial **North County Corridor Project Route Adoption** and the **SR-132 West Freeway/Expressway Project**.



**JB ANDERSON**

**ENVIRONMENTAL  
SUB-CONSULTANT**

## **SECTION 1 INTRODUCTION**

J.B. Anderson Land Use Planning is a full service Land Use and Environmental Planning Firm located in Ripon, California. Established in 1993, and with long standing history in Stanislaus County, J.B. Anderson Land Use Planning has provided Land Use and Environmental Planning services in California through a host of Public Agencies and Municipalities. J.B. Anderson Land Use Planning Offices are located at the following address: 139 S. Stockton Avenue, Ripon, California 95366. All professional Land Use and Environmental Planning Services are provided from this Office. Our Staff has a combined thirty-five (35 years experienced providing Land Use and Environmental Planning Services in Stanislaus County.

J.B. Anderson Land Use Planning has provided Land Use and Environmental Planning Services in various Counties within the Central Valley and Sierra Nevada Foothills, including, Stanislaus, San Joaquin, Merced, Madera, Tuolumne, and Mariposa. As a value added component, our Firm offers clients a wide range of land use and environmental planning services. We provide short and long-range planning and environmental services on Projects ranging from Public Works Improvements (road widening and bridge crossing projects), Conditional Use Permits, to multi-thousand acre Master or Community Plans.

Our Firm supports a highly educated and experienced Staff with experience in Land Use Planning, Land Management, and environmental review and compliance in accordance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). In addition, with our long standing history and experience providing CEQA and NEPA Compliance Documents in Stanislaus County, our knowledge of environmental issues facing this County are unparalleled.

### **SERVICES AND AREAS OF EXPERTISE**

#### **LAND USE PLANNING**

- On-call Municipal Staff Support and Project Management of focused Specific Projects – Applicant Funded
- Current and Advanced Planning Projects (i.e. Use Permits, General Plan/Zoning Amendments, Long Range Planning Documents, Specific Plans, Area Plans and such)
- AB 170 – Air Quality Elements

#### **ENVIRONMENTAL PLANNING**

- CEQA/NEPA Compliance Documents
- Mitigation Monitoring
- Peer Review
- Air Quality Modeling and Permitting
- Green House Gas Evaluation

## SECTION 2 ENVIRONMENTAL PLANNING SERVICES

J.B. Anderson Land Use Planning is well versed and experienced in preparing Environmental Compliance documents in accordance with the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). Our ability to stay apprised and knowledgeable of legislative updates affecting both NEPA and CEQA allow us to provide Public Agencies and Municipalities a high level of environmental expertise. Our Staff is well experienced in preparing NEPA documents (i.e. Environmental Assessments, Environmental Impact Statements, etc.) and CEQA documents (i.e. Initial Studies/Negative Declarations, Environmental Impact Reports) throughout the Central Valley and Sierra Nevada Foothills including the Counties of Stanislaus, Merced, San Joaquin, Tuolumne, and Mariposa. This allows our Staff to be up to date and aware of the environmental issues affecting each geographical area. Specifically, our Firm offers the following environmental consulting services:

- CEQA/NEPA Compliance Documents
- Mitigation Monitoring
- Peer Review
- Air Quality Modeling and Permitting

Mr. John Anderson and Mark Niskanen have a combined thirty-five (35) years preparing NEPA and CEQA Environmental Compliance Documents including; Environmental Assessments, Environmental Impact Statements, Exemptions, Initial Studies, Negative Declarations, and Environmental Impact Reports for various Public Works and Land Development Projects in the Central Valley and Sierra Nevada Foothills. Many of the Projects we are involved in consist of, or include; Road Widening Projects, Bridge Crossings, Construction of New Roads and Improvements, and Resurfacing Projects. Our experience has also led to working on Projects that involved the management and coordination of various Federal and State Permits, including Section 404 Permits, Streambed Alteration Agreements, Section 106 Consultations in compliance with the National Historic Preservation Act, and Encroachment Permits. Our Staff is well-versed and experienced navigating the Policies and Regulations of both NEPA and CEQA, and achieving Regulatory Compliance from both the Federal and State level.

## **SECTION 3 REPRESENTATIVE PROJECTS**

### **Silver Tip Village Resort (County of Mariposa)**

J.B. Anderson Land Use Planning was retained by the County of Mariposa to provide Municipal Planning Services for Project known as the Silver Tip Village Resort, located in the Community of Fish Camp. The Silver Tip Village Project consists of 47.3 acres and is located at the intersection of State Route 41 and Fish Camp Lane. J. B. Anderson Land Use Planning provided management on all Conditions of Approval with CEQA Mitigation Measures, and prepared an Initial Study/Mitigated Negative Declaration to determine the impacts associated with modifications made to the overall Project. Project Management tasks involved preparing CEQA Compliance Documents, coordination, and permitting with Caltrans, District 10, for Project related improvements to State Route 41.

Contact: Mr. Kris Schenk  
Planning Director  
5100 Bullion St.  
Mariposa, California 95338  
(209) 742-1216 Office  
[kschenk@mariposacounty.org](mailto:kschenk@mariposacounty.org)

### **River Pointe Subdivision and Highway 132 Improvements (City of Waterford)**

J.B. Anderson Land Use Planning was retained by the Grupe Companies to prepare an Initial Study/Mitigated Negative Declaration for a Project known as River Pointe, located in the City of Waterford, Stanislaus County. As part of the CEQA Review and Compliance process, close coordination with Caltrans, District 10 was required to allow for improvements to State Route 132, as well as intersection improvements to the intersection of State Route 132 and River Pointe Drive. J.B. Anderson Land Use Planning, through the Environmental Review process, was successfully able to obtain the Permits required by Caltrans, District 10, to allow the City to implement these improvements.

Contact: Mr. Bob Borchard, AICP  
Planning Director  
City of Waterford  
320 E Street  
California 95386  
(209) 874-2328  
[robborc@sierratel.com](mailto:robborc@sierratel.com)

### **Bonita Ranch Subdivision (Community of Keyes)**

J.B. Anderson Land Use Planning was retained by Bright Development to provide Project Management and Environmental Compliance Management for a Project known as Bonita Ranch, located in the Community of Keyes, Stanislaus County. Development of the Bonita Ranch Project required obtaining the necessary permits to allow for the installation of infrastructure lines under State Highway 99. J.B. Anderson Land Use Planning Staff led a multi-disciplinary Team in preparing the necessary

Environmental Compliance Documents, Permit Applications, coordination with Stanislaus County Planning and Public Works Staff, and coordination with Caltrans, District 10 through the processing of the Permit Applications. J.B. Anderson Land Use Planning was successful in obtaining Permits required for said improvements within the State Highway 99 Corridor.

Contact: Kirk Ford, Director  
Planning and Community Development  
Stanislaus County  
1010 10<sup>th</sup> Street, Suite 3400  
Modesto, California 95354  
(209) 525-6330  
[fordk@mail.co.stanislaus.ca.us](mailto:fordk@mail.co.stanislaus.ca.us)

## APPENDIX A

### KEY PERSONNEL RESUMES

**John B. Anderson - President**



Mr. Anderson holds a Bachelor of Science (B.S.) degree in Natural Resource Planning and a Bachelor of Arts (B.A.) in Geography with an emphasis in Cartography from Humboldt State University - Arcata, California. Mr. Anderson has extensive knowledge and understanding of the California Environmental Quality Act (CEQA), California Zoning and Development Laws, Surface Mining and Reclamation Act (SMARA), California Subdivision Map Act, Williamson Act, and California Government Code as well as over 27-years experience in public and private sector planning. Mr. Anderson's experience is with preparation of Budgets, Investigation of planning regulations for Applications of planning regulations for current/advanced planning projects and on-going monitoring of legislative issues.

**Education:**

Bachelors of Science Degree in Natural Resource Planning and Bachelors of Art Degree in Geography, Emphases in Cartography, Humbolt State University, CA

**Professional Experience:**

1993 - Present	J. B. Anderson Land Use Planning - President
1997 – 1999	City of Livingston – Planning Director
1993 – 2001	City of Waterford – Planning Director
1990 - 1993	Anderson Homes – Forward Planner
1988 - 1990	Stanislaus County – Associate Planner
1984 - 1988	Tuolumne County – Planner III

**Professional Associations/Appointments:**

1990 – 1997	City of Ceres – Planning Commissioner (Chair for 2-terms)
Current Member	Member of NAHB, CBIA and BIACC
Current Member	Associate Member of MCCVA
Current Member	American Planners Association (APA)

Mark Niskanen - Senior Planner



Mr. Niskanen has approximately ten (10) years of professional experience providing Land Use and Environmental expertise within the Central Valley, and specifically, Stanislaus County. Mr. Niskanen is experienced and well versed in Federal, State, and Local Policies and Regulations related to land use development and environmental issues within the State of California. As Senior Planner with J.B. Anderson Land Use Planning, Mr. Niskanen is responsible for Project Management, and has successfully completed a variety of Environmental Compliance and Permitting Documents in Stanislaus County for Projects such as; Road Widening Projects, Residential Subdivisions, and Master/Specific Plans. Through the completion of Environmental Compliance Documents, Mr. Niskanen has successfully led multi-disciplinary Teams from Project initiation to Project completion. Most recently, Mr. Niskanen successfully assisted the City of Livingston and the County of Mariposa in achieving State Certification of their respective 2009-2014 Housing Elements.

**Education:**

Bachelor of Arts Degree in Public Administration, Emphases in City and Regional Planning  
San Diego State University

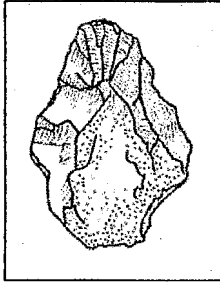
**Professional Experience:**

2002 - Present	J. B. Anderson Land Use Planning – Senior Planner
2001 - 2002	URS Corporation – Environmental Planner

**Professional Associations:**

- Ongoing Attendance and Participation in AB32 and SB375 Workshops
- Ongoing Attendance and Participation - The Valley Futures Forum
- American Planning Association – California Chapter, Central Section Sub-Committee





## **Davis-King & Associates** **Heritage Resources Management**

### ***Statement of Qualifications and Scope of Services***

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- ! **Cultural Resources Management** (Archaeological and historic surveys; consultation with Native Americans, excavations, teaming coordination);
- ! **Cultural Resources Management Plans**, Historic Properties Treatment Plans (including Research Designs), other compliance documents;
- ! **Native American Treatment Plans** (Traditional Cultural Properties, Burial Agreements, Cultural Maintenance Programs, Tribal Assistance Programs, Ethnohistory, Ethnography, Repatriation Catalogues);
- ! **Interpretative Programs** (Brochures, Posters, Museum Display Text, Video Production, Popular Histories, Trail-side Markers and Signage);
- ! **Public Programs** (Primary and secondary school classes, Service organization talks, Group leader for cultural walking tours);
- ! **Historic and Cultural Landscape Interpretation;**
- ! **Register of Professional Archaeologists (R.P.A.)** certified staff;
- ! **Bureau of Land Management Statewide Permit** (California);
- ! **Certified Woman Business Enterprise**

### *Profile*

Davis-King & Associates (DKA) is committed to the study of California's cultural legacy in an environment of changing management and regulations. For more than 40 years staff have conducted varied archaeological and anthropological studies that range from routine archaeological investigations to larger programs interpreting the past for the public. As cultural resources managers, we are proud of our experience.

Davis-King & Associates is a woman-owned business in the field of cultural resources management. DKA was formed in 1993 by Shelly Davis-King, M.A., Sole Proprietor out of a prior company, Shelly Davis-King, Archaeologist, formed in 1967. Located in the Tuolumne County Sierra Nevada foothills, DKA provides efficient access to clients in the north-central Sierra Nevada, eastern Sierra, and Great Central Valley. Shelly Davis-King is an active participant in state and local historic preservation planning activities, and sits on numerous commissions and heritage planning committees. She is Past President of the Society for California Archaeology, Chair of the Tuolumne County Historic Preservation Review Commission, and Past Chair of the Tuolumne County Planning Commission, among other appointments or elections.

DKA specializes in ethnography and Native American consultation, prehistoric archaeology, with considerable experience in historical archaeology as well. Performing work under the authority of the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (NHPA), DKA is considered an expert in those statutes and their implementing procedures. Ms. Davis-King has served as Principal Investigator or Project Director for numerous and varied projects in California, including bridge and culvert replacement projects, transportation enhancements, road widening and construction, hydroelectric licensing and relicensing, wastewater treatment, historic structural analysis, water conveyance evaluations, housing development, timber harvest, nuclear power plant operations, reservoir construction, gold mining, and Native American program development, among others. Recently she has been involved in a number of river restoration or protection programs on Sierran rivers.

The range of services provided in relation to these and other projects is equally extensive, including historical research, archaeological survey and site recording, cultural resources evaluation studies including test excavation, laboratory analysis, archival research, National Register of Historic Places evaluation and form preparation, planning and execution of mitigation measures (such as project modification and redesign, rehabilitation, data recovery, and interpretation), management and historic preservation planning, curation planning, ethnographic research, Native American consultation and heritage assistance, and public interpretation.

Davis-King & Associates has an extensive previous and current federal, state, and local clients, as well as private development interests, including:

- ! Bureau of Land Management
- ! Calaveras County Water District
- ! California Indian Lands Office On Call
- ! California Department of Transportation On Call
- ! City & County of San Francisco (Hetch Hetchy)
- ! City of Jackson On Call
- ! EDAW, Inc.
- ! EIP Associates
- ! Environmental Science Associates, Inc.
- ! Fresno County
- ! Golden State Surveying Engineering
- ! Indian Housing Authority
- ! Pacific Gas & Electric Company
- ! San Joaquin County Public Works On Call
- ! Sequoia National Park
- ! Sierra Pacific Industries
- ! Sonora Mining Corporation
- ! Stanislaus County Public Works
- ! Sycamore Environmental, Inc.
- ! Tuolumne County Community Development Department On Call

- ! Tuolumne County Public Works Department
- ! Tuolumne Utilities District On Call
- ! Turlock Irrigation District
- ! US Army Corps of Engineers
- ! US Bureau of Reclamation
- ! USDA Forest Service, Region 5
- ! US Marine Corps
- ! Yosemite National Park



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Founded in 1981, JRP has 30 years of experience conducting historic research investigations throughout California and the western United States, making us one of the oldest and most experienced public history consulting firms in the nation. We specialize in a variety of historical research services including historic building and structure survey and evaluation under criteria of the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR), and have extensive experience addressing historic resource compliance under Section 106 of the National Historic Preservation Act (NHPA) and the California Environmental Quality Act (CEQA). JRP has produced the full range of Section 106 and CEQA compliance documents including inventory and evaluation studies, Findings of Effect / impacts analysis, Memorandums of Agreement (MOA), Programmatic Agreements (PA), and cultural resource management plans, as well as Historic American Buildings Survey / Historic American Engineering Record (HABS/HAER) documentation. We have also provided analysis and recommendations to reduce or eliminate impacts to historic resources, as well as developed creative mitigation (textual, photographic, and video) and public outreach programs as part of MOA and treatment plan execution. We have the knowledge and experience to facilitate federal and state environmental review processes through public agencies and in consulting with the staffs of the California Historical Resources Information System and the State Historic Preservation Officer on historic properties documentation for a variety of undertakings.

The combined professional experience of our partners, Rand F. Herbert, Stephen R. Wee, Rebecca Meta Bunse, and Christopher McMorris, exceeds ninety years. Our partners are professional public historians with proven management capabilities in the financing, staffing, budgeting, and scheduling of research and historic evaluation projects. JRP's professional personnel include architectural historians, historic preservation specialists, historians, and research assistants with degrees or advanced degrees in their respective fields of study. All of our professional staff meet the Secretary of the Interior's Standards as set forth in the Federal Register for architectural historian and historian.

JRP effectively and efficiently undertakes cultural resources management projects of all sizes and involving a wide range of resource types, from individual residences, commercial buildings, and public facilities, to engineering structures, farmsteads or industrial sites, as well as complex historic districts and urban and rural historic landscapes. We have extensive expertise in historic resource inventory / evaluation, project effects analysis, and mitigation documentation. JRP's recent projects in Stanislaus County include a Historic Property Survey Report and Historical Resources Evaluation Report for the Geer Road Bridge Seismic Retrofit Project and a historic resources inventory and evaluation for the City of Newman's Downtown Plaza Project.

**COGDILL & GIOMI**

**APPRAISER**

**SUB-CONSULTANT**

## COGDILL & GIOMI, INC., REAL ESTATE APPRAISERS AND CONSULTANTS

The firm of Cogdill & Giomi was founded in May of 1981 by David E. Cogdill, Sr., MAI, RM, and David R. Giomi, MAI, RM. Cogdill & Giomi celebrated its 29<sup>th</sup> anniversary, May 1, 2010, making it one of Modesto's oldest independent fee appraisal firms. Cogdill and Giomi have completed appraisal assignments throughout the western United States, however, the majority of their experience has been in the communities of the central San Joaquin Valley ranging from Bakersfield on the south to Sacramento on the north. In January of 2007 Mr. Cogdill and Mr. Giomi sold their interests in the company to James A. Cogdill, SRA, and David E. Cogdill, Jr., who subsequently created Cogdill & Giomi, Inc.

Principals of the firm are James A. Cogdill, SRA (Chairman) and David E. Cogdill, Jr. (President). Combined James and David Cogdill have over 40 years of appraisal experience in both the public and private sector. Independent contractors associated with the firm include David R. Giomi, MAI, RM; David E. Cogdill, Sr., MAI, RM; and Bruce Clark. A summary of qualifications for each of these individuals follows:

Below is a partial list of Cogdill and Giomi's clients:

### Governmental

U.S. Department of Water and Power Resources Service  
U.S. Park Service  
U.S. Postal Service  
U.S. Bureau of Reclamation  
California Department of Transportation  
Stanislaus County, California  
Mono County, California  
Calaveras County, California  
City of Modesto  
City of Newman  
City of Waterford  
City of Riverbank  
City of Ripon  
City of Turlock  
City of Manteca  
City of Lathrop  
Modesto City Schools  
Ceres Unified School District  
Sylvan Union School District  
Merced Union High School District  
Waterford School District  
Modesto Irrigation District



### Lending Institutions

Oak Valley Community Bank  
Bank of America  
Wells Fargo Bank  
Bank of Stockton  
Farmers & Merchants Bank  
Prism Builder Finance Group  
Union Bank  
Modesto Commerce Bank  
WestAmerica Bank  
Sumitomo Bank  
Bank of the West  
Bank of Agriculture and Commerce  
U. S. Bank  
Pacific State Bank  
County Bank  
Tri Counties Bank  
Comerica Bank  
Community Banks of Northern California  
Central Valley Community Bank

### Corporations

FMC Relocation Company  
U.S. Steel  
Van Gas  
Merrill Lynch  
Bright Development  
Lakemont Development  
Resource Development  
E. R. Vine & Sons  
Modesto Tobacco & Candy  
Ron Phippen - NACRO  
Art Mitchell (Mitchell's Harley-Davidson)  
E. & J. Gallo Winery  
Executrans  
Home Equity/Home America  
Northwestern  
Transamerica  
Lapata International  
DLE Development Company  
Bandini Fertilizer Company  
Chevron Oil Company



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**EXHIBIT C**

**CONSULTANTS FEE SCHEDULE**



**EXHIBIT D**

**PROJECT SCHEDULE**

# Crows Landing Road at West Main Street Intersection Upgrade Project Schedule

ID	Task Name	Duration	Start	Finish	1st Quarter			2nd Quarter			3rd Quarter			4th Quarter			1st Quarter			2nd Quarter			3rd Quarter			4th Quarter							
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
1	Project Management	415 days	Mon 7/18/11	Fri 2/15/13	[Gantt bar spanning from start to finish]																												
2	Public Outreach	241 days	Wed 8/17/11	Wed 7/18/12	[Gantt bar from 8/17/11 to 7/18/12]																												
3	Geotechnical Investigation	30 days	Wed 8/17/11	Tue 9/27/11	[Gantt bar from 8/17/11 to 9/27/11]																												
4	Topographic and Right-of-Way Surveys	110 days	Wed 8/17/11	Tue 1/17/12	[Gantt bar from 8/17/11 to 1/17/12]																												
5	Environmental Investigation	197 days	Wed 8/17/11	Thu 5/17/12	[Gantt bar from 8/17/11 to 5/17/12]																												
6	Roadway Design	20 days	Mon 12/19/11	Fri 1/13/12	[Gantt bar from 12/19/11 to 1/13/12]																												
7	Utility Coordination	89 days	Thu 11/17/11	Tue 3/20/12	[Gantt bar from 11/17/11 to 3/20/12]																												
8	Plans, Specifications, and Estimate	75 days	Sat 12/17/11	Thu 3/29/12	[Gantt bar from 12/17/11 to 3/29/12]																												
9	Right-of-Way Services	67 days	Fri 2/17/12	Mon 5/21/12	[Gantt bar from 2/17/12 to 5/21/12]																												
10	Bidding and Construction	67 days	Thu 7/18/13	Fri 10/18/13	[Gantt bar from 7/18/13 to 10/18/13]																												