



CITY OF LODI COUNCIL COMMUNICATION

AGENDA TITLE: Adopt Resolution Authorizing City Manager to Execute a Professional Engineering Services Contract with Mark Thomas & Company, Inc., Appropriating \$60,000 for Conceptual Design Work for State Route 12 and 99 Interchange Reconstruction Project, and Authorizing City Manager to Execute San Joaquin Council of Governments Cooperative Agreement

MEETING DATE: September 7, 2005

PREPARED BY: Public Works Director

RECOMMENDED ACTION: That the City Council adopt a resolution authorizing the City Manager to execute a professional engineering services contract with Mark Thomas & Company, Inc., appropriating \$60,000 for conceptual design work for State Route 12 and 99 Interchange Reconstruction Project, and authorizing the City Manager to execute the San Joaquin Council of Governments Cooperative Agreement for the project funding.

BACKGROUND INFORMATION: In 1998, the City of Lodi and San Joaquin Council of Governments constructed interchange improvements that were the first phase of a two-phase improvement project. The first phase consisted of widening the off-ramps, installing traffic signals and relocating Beckman Road easterly of the interchange. The service life of these improvements was forecast to be 20 years or through 2017.

Current level of service at the interchange is "B" based upon the results of recently-completed work related to the traffic impact study for the Westside Annexations. Based upon interpolation, traffic counts at the street and ramp intersections are below those forecast in the 1997 Project Study Report for the interchange improvements. However, it is expected that substantial development may occur on vacant lands east of the interchange.

The second phase of improvements will potentially require full reconstruction of the bridge structure, addition of cloverleaf ramp(s), and widening of both SR 12 and SR 99. Advance planning to establish the ultimate right of way requirements and estimated construction costs are important to the General Plan Update, the Impact Mitigation Fee Program and positioning the project to receive State and Federal grant funds.

Mark Thomas & Company has provided quality design services to the City of Lodi on a number of large projects, including Lower Sacramento Road and Kettleman Lane. Additionally, they were the designer of three major interchanges on I-5 and SR 99 in Stockton (March Lane, Benjamin Holt Drive and Hammer Lane). Staff feels Mark Thomas & Company is superbly qualified to perform the services described in Exhibit A. Funding for the project will be provided by surplus Measure K Flexible Congestion Relief Funds from the Kettleman Lane Gap Closure project.

The requested appropriation includes a contingency of \$10,000 to cover potential needs for supplemental traffic engineering studies. In the current budget, the project was included but an estimated cost of \$50,000 was unfunded. The availability of Measure K Flexible Congestion Relief funding is a new development.

FISCAL IMPACT: Measure K Flexible Congestion Relief (\$60,000)

FUNDING AVAILABLE: *James R. Krueger*
James R. Krueger, Finance Director

Richard C. Prima, Jr.
Richard C. Prima, Jr.
Public Works Director

Prepared by F. Wally Sandelin, City Engineer
RCP/FWS/pmf
Attachment

APPROVED: *Blair King*
Blair King, City Manager



August 11, 2005

55-0800

Mr. Wally Sandelin
City of Lodi
221 West Pine Street
Lodi, CA 95240

RE: KETTLEMAN LANE/ROUTE 99 INTERCHANGE PRE-PSR

Dear Mr. Sandelin:

Per your request, we are sending you this proposal for preliminary design of up to two interchange improvement alternatives.

Goal of the Project:

The goal is to develop two alternatives for the improvements at the Route 99/Kettleman lane interchange, accurate enough for the City of Lodi can determine the magnitude of right of way impacts and to help make decisions on future development near the interchange area. In addition to the proposed roadway configurations, the alternatives will show the proposed right of way required, based on current Caltrans standards and assumptions. The level of design effort and presentation will be consistent with the recent work MTCO performed for the City at the Harney Lane/Route 99 interchange (to determine right of way required from KB Homes).

Alternatives to be studied include:

1. Tight Diamond
2. Tight Diamond with EB Kettleman Lane to NB Route 99 Loop On-ramp

Assumptions:

The assumptions that need to be made for the project include the following:

- Number of lanes on Route 99
Interchange configurations will be based on 6-lane mainline with standard shoulders, but the proposed right of way will offset on exhibits to show an 8-lane mainline right of way.
- Number of lanes on Kettleman Lane
Six through lanes will be shown with each alternative. This is consistent with the SJCOG's Route 12 Corridor Study.

- Ramp Configurations
For the off-ramps - auxiliary lanes, 2-lane off-ramps and 4-lanes at the ramp termini (2 left turn and 2 right turns) will be assumed.
- Structure type
The proposed structure will be cast-in-place, built above grade and lowered into place. Although we don't feel raising Route 99 can be avoided, this method of construction will minimize the limits of reconstruction. A rough evaluation between closed and open abutments will be made, but the same type of structure will be assumed for all alternatives.
- Stage Construction
Based on a cursory review of the project, there appears to be two staging options.
 - o The first option would be to build a portion of the new structure (enough to accommodate 2-lanes of traffic) to the east or west of the existing structures. This option would require an additional stage, an alignment shift in the mainline, but could accommodate an 8-lane mainline.
 - o The second option would be to construct temporary (throw-away) widenings to one of the structures (to accommodate 4 lanes of traffic on one structure). This would reduce right of way impacts, reduce the number of stages, but would require extra costs to construct the temporary widenings.

For this study, we will assume that the mainline alignment will remain as-is (option 2 staging), but will show an approximate right of way line for staging option 1 on each of the alternatives.

- Traffic Volumes (Lane configurations)
No traffic studies will be prepared for this study. The lane configurations described above will be assumed.
- Embankment Slopes and Right of Way offsets
Caltrans standard embankment slopes are now 4:1. For embankment slopes that impact right of way, we will assume a design exception can be obtained for 2:1 slopes. A drainage study will not be performed with this study so additional right of way may be required for roadside ditches. We will assume the Caltrans standard 15 feet offset from the embankment toe to the right of way.

City provided information:

To expedite the design and to reduce the cost to the City, we are proposing that the City provide the following information:

- Digital black and white aerial photography from the City of Lodi's files.

Scope of Work:Task 1.0 Management

MTCO will attend two meetings to present the proposed alternatives (one with the City and one with Caltrans/City). While developing the alternatives, there will be on-going coordination with the City and MTCO regarding assumptions and other critical items.

Task 2.0 Data Gathering

MTCO will request from Caltrans and provide as-built information for the interchange and the existing structure. The City will provide MTCO any previous studies prepared for this interchange.

MTCO will review and organize the materials provided by the City and Caltrans.

Task 3.0 Base Mapping

MTCO will enter the control line and right of way information into AutoCAD 2000i. Other lines such as face of curbs, existing lane lines or building outlines, if needed for clarification, will be traced from the aerial photograph.

The exhibits will be shown on 22" x 34" sheets at a 1:500 scale (metric) with the City provided aerial photograph in the background. The proposed improvements will be superimposed on the aerial photograph. No utilities will be mapped with this study.

MTCO will provide two days of topographic surveys within the project site. The survey information will be to establish the locations of the existing chainlink fence (assumed right of way), the existing freeway profile, conform ground elevations, and existing UC vertical clearance. The survey information will not be on a particular coordinate system or datum.

Task 4.0 Develop Alternatives

MTCO will develop the alternatives described at the beginning of this document. The alternatives will be developed to current Caltrans standards using the assumptions outlined above.

MTCO will provide preliminary line work to the City for review. The City will make comments and MTCO will revise the line work and added notes as necessary. Right of way impacts will be identified and labeled. MTCO will provide 10 copies of the final exhibits to the City for distribution.

Task 5.0 Profiles

MTCO will provide preliminary profiles for the following items:

- Existing Mainline
- Proposed Mainline
- Proposed Ramps
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These profiles will be used to develop cross sections to determine the amount of right of way necessary to construct the alternatives. The profiles will be placed on a plan sheet, but will be “working level” profiles and will not have construction precision.

Task 6.0 Typical Cross sections

Typical cross sections will be hand drawn and placed on a plan sheet for information. The cross sections will be “working level” cross sections and will not have construction precision.

Task 7.0 General Cross sections

Simple templates will be used to attach to the AutoCAD alignments and profiles to determine the catch point of the embankment. This catch point will be used to determine the proposed right of way. The cross sections will have superelevation in the curves; however, no superelevation diagrams will be prepared.

Task 8.0 Technical Memorandum

MTCO will prepare a 2-3 page technical memorandum stating assumptions used to develop the alternatives and the proposed right of way.

Task 9.0 Cost Estimates

MTCO will prepare preliminary construction cost estimates for the alternatives. General volumes will be assumed. No detail quantity estimates will be performed. The costs will be shown on the standard 6-page Caltrans cost estimate form.

Next Steps (not included in this scope)

The next steps for the City, would be as follows:

- Project Study Report (Caltrans initiation document) – 1 year
- Environmental Document – 2 ½ years
- Project Report (Caltrans approval document) – 3 months after the ED approval
- Plans, Specifications and Estimates – 1 ½ years after PR approval
- Start Construction

Based on this schedule, construction would not start for 5 to 6 years.

Please see the attached fee proposal. If you have any questions, please contact me.

Sincerely,

MARK THOMAS & COMPANY, INC.

Robert A. Himes
Principal/Regional Division Manager, Sacramento

Enclosure: Fee Proposal

KETTLEMAN LANE / ROUTE 99 PRE-PSR

**FEE PROPOSAL
MARK THOMAS & COMPANY, INC.**

TASK	DPM	Assistant	Survey	2-Person	Design	Total	MTCO Cost
	\$215	Engineer	Manager	Survey Crew	CADD	Hours	
		\$85	\$117	\$185	\$80		
Task							
1.0 Management	16	16				32	\$4,800
2.0 Data Gathering	4	40				44	\$4,260
3.0 Basemapping		24	8	16	20	68	\$7,536
4.0 Develop Alternatives	8	60			40	108	\$10,020
5.0 Profiles	4	32			16	52	\$4,860
6.0 Typical Cross Sections	4	24			8	36	\$3,540
7.0 General Cross Sections	2	40				42	\$3,830
8.0 Technical Memorandum	8	16				24	\$3,080
9.0 Cost Estimates	4	60				64	\$5,960
Reimbursables							\$2,000
TOTAL HOURS/FEE	50	312	8	16	84	470	49,886

EXHIBIT "A-1"

MARK THOMAS & CO. INC.

CHARGE RATE SCHEDULE

EFFECTIVE FEBRUARY 1, 2005

HOURLY CHARGE RATES

PROFESSIONAL AND OFFICE

Principal/Project Manager	\$ 215.00 per hour
Engineering Manager	188.00 per hour
Senior Project Manager	158.00 per hour
Project Manager	138.00 per hour
Senior Project Engineer	128.00 per hour
Project Engineer	118.00 per hour
Senior Design Engineer	98.00 per hour
Design Engineer	85.00 per hour
Survey Manager	150.00 per hour
Land Surveyor	125.00 per hour
Project Surveyor	105.00 per hour
Engineering/Survey/CADD Technician	80.00 per hour
Inspector	80.00 per hour
Technical Writer	75.00 per hour
Administrative	65.00 per hour

ENVIRONMENTAL/PUBLIC RELATIONS SERVICES

Environmental Manager	\$ 150.00 per hour
PR/Communications Manager	130.00 per hour
Environmental Planner	105.00 per hour

FIELD

2 Person Field Party and Vehicle	\$ 235.00 per hour
3 Person Field Party and Vehicle	315.00 per hour

SPECIAL SERVICES

Expert Witness	\$ 300.00 per hour
Strategic Consulting (Principal)	300.00 per hour

OTHER DIRECT COSTS

Reimbursables (Printing and Materials, Mail and Delivery Expenses, Film Expenses, Filing Fees, Parking and Field Expenses)	-Cost plus 5%
Mileage	-Per IRS Rate
Outside Consultant Fees	-Cost plus 5%

RESOLUTION NO. 2005-180

A RESOLUTION OF THE LODI CITY COUNCIL AUTHORIZING THE CITY MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH MARK THOMAS & COMPANY, INC., FOR CONCEPTUAL DESIGN WORK FOR STATE ROUTE 12 AND 99 INTERCHANGE RECONSTRUCTION PROJECT, AUTHORIZING THE CITY MANAGER TO EXECUTE SAN JOAQUIN COUNCIL OF GOVERNMENTS COOPERATIVE AGREEMENT, AND FURTHER APPROPRIATING FUNDS FOR THE PROJECT

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NOW, THEREFORE, BE IT RESOLVED that the Lodi City Council does hereby authorize the City Manager to execute a professional services agreement with Mark Thomas & Company, Inc., for conceptual design work for State Route 12 and 99 Interchange Reconstruction Project; and

BE IT FURTHER RESOLVED that the City Manager is hereby authorized to execute San Joaquin Council of Governments Cooperative Agreement on behalf of the City of Lodi for this project; and

FURTHER RESOLVED that funds be appropriated as follows:

Measure K Flexible Congestion Relief Funds \$60,000

Dated: September 7, 2005

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I hereby certify that Resolution No. 2005-180 was passed and adopted by the Lodi City Council in a regular meeting held September 7, 2005, by the following vote:

AYES: COUNCIL MEMBERS – Hansen, Hitchcock, Johnson, Mounce, and Mayor Beckman

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – None

ABSTAIN: COUNCIL MEMBERS – None



SUSAN J. BLACKSTON
City Clerk