



# CITY OF LODI

## COUNCIL COMMUNICATION

AGENDA TITLE: Kettleman Lane (State Highway 12) and Hutchins Street - Traffic Study

MEETING DATE: April 17, 1991

PREPARED BY: Public Works Director

RECOMMENDED ACTION: That City Council review the following study and take the appropriate action.

BACKGROUND INFORMATION: The Public Works Department has received a number of recent citizen and Police Department complaints concerning the traffic hazards created due to the congestion at the AM-PM Mini-Mart located at the northwest corner of Hutchins Street and Kettleman Lane. The sudden rise in congestion is due to the volume of traffic using the station, presumably because of the fuel prices. This Mini-Mart's prices for gas have been reported as the lowest in the state. The concerns expressed in the complaints received consist of:

- Drivers attempting to enter the congested Mini-Mart are overflowing into the roadway blocking traffic and the sidewalk.
- Eastbound drivers wishing to enter the Mini-Mart that are delayed by backed up vehicles in the left turn lane are driving eastbound in the westbound (opposing) traffic lane to enter the Mini-Mart.
- Pavement arrows and signs are needed in the Mini-Mart lot to promote coordinated movement.
- Hazard created by drivers northbound on Hutchins Street making U-turns at Rimby Avenue to get in line to enter Mini-Mart from southbound Hutchins Street.
- Southbound vehicles on Hutchins Street backed up through Rimby Avenue preventing access.
- Hazard created by drivers attempting to make left turns exiting the Mini-Mart from both Hutchins Street and Kettleman Lane.

Engineering staff and the Police Department visited the Mini-Mart and observed many of the problems expressed in the complaints. The following study has been prepared addressing these problems and possible alternatives to correct them.

### EXISTING CONDITIONS

- Physical Characteristics (Exhibit B) - This four-legged intersection is controlled by a traffic signal. The traffic signal provides protected left turn

APPROVED: \_\_\_\_\_

THOMAS A. PETERSON  
City Manager



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movements, as well as protected through movements, from all approaches. U-turns at this intersection are only allowed from the northbound direction. A raised concrete median exists only on the south leg of this intersection. The land use adjacent to the intersection is commercial. All businesses on the corners have direct access from either Kettleman Lane or Hutchins except the southwest corner which has a shared access with the other businesses in the Vineyard Shopping Center. These driveways are far from the intersection and are not affected by this study.

- ° Accident History - In 1988, Public Works staff corresponded with Caltrans regarding the high accident rate observed at the intersection of Hutchins Street and Kettleman Lane. Caltrans indicated that the high accident rate may be due to the increase in traffic volumes and the congestion associated with this rise in volumes. Their study also references the relatively high number of accidents related to the AM-PM Mini-Mart and the installation of raised medians to reduce accidents by restricting left turns except at the intersection. A highlighted copy of this correspondence is attached as Exhibit A.

An updated review of available accident records from 1984 to the present revealed that there have been numerous accidents related to the AM-PM Mini-Mart and that the problem has existed for many years. Of the accidents occurring at the businesses on the corners of this intersection, 89% (24 of 27) were related to the AM-PM Mini-Mart. The remaining 11% (3 of 27) were related to the Savemart Market. These figures are shown in Table I.

Table I

ACCIDENTS RELATED TO	YEAR								Total
	1991 (to Present)	1990	1989	1988	1987	1986	1985	1984	
AM-PM Mini-Mart (Northwest Corner)	1	3	7	2	2	3	4	2	24
Savemart Market (Northeast Corner)	1	0	1	0	1	0	0	0	3
Shell Gas Station (Southeast Corner)	0	0	0	0	0	0	0	0	0
OTHER ACCIDENTS (ALL)	2	12	14	17	19	11	16	17	108

NOTE: Southwest corner has no access near the intersection

Table II shows the effect raised medians would have on the reduction of accidents adjacent to the intersection. Raised medians eliminate left turn accidents entering and exiting the businesses adjacent to the intersection as well as head-on and rear-end accidents caused by left turning vehicles. A raised median on the north leg would have eliminated 12 accidents (10 at AM-PM Mini-Mart, 2 at Savemart). A raised median on the west leg would have eliminated 6 accidents related to the AM-PM Mini-Mart and 1 other accident. A raised median on the east leg would have eliminated 1 accident related to the Savemart Market. Extending this median east of Savemart to Lee Avenue would eliminate an additional 8 accidents (1986 to present) related to the Ultramart (Beacon) Gas Station.

Table II

	YEAR								Total
	1991 (to Present)	1990	1989	1988	1987	1986	1985	1984	
North Leg AM-PM Mini-Mart	1	1	4	0	1	1	0	2	10
North Leg Savemart	0	0	1	0	1	0	0	0	2
West Leg AM-PM Mini-Mart	0	1	1	1	1	0	2	1	7
East Leg Savemart	1	0	0	0	0	0	0	0	1
East Leg Beacon	1	2	2	1	1	1	--	--	8

NOTE: Southwest corner has no access near the intersection and median on south leg already exists.  
 No accidents related to Shell Gas Station at southeast corner.

° Volumes/Speeds - Traffic counts performed in 1989 show volumes on Hutchins Street and Kettleman Lane are approximately 13,200 and 21,100 vehicles per day, respectively. The current posted speed limit on Kettleman Lane at Hutchins Street is 35 mph. Hutchins Street north of Kettleman Lane is also posted 35 mph and south of Kettleman Lane is posted 45 mph.

ALTERNATIVES

Staff has reviewed some possible alternatives to reduce congestion and accidents related to the AM-PM Mini-Mart. These alternatives are listed below.

Alternative A - Install a raised median on the remaining three legs of the intersection (Exhibit C). Caltrans approval is required for medians on Kettleman Lane (State Highway 12).

Advantages

- ° Eliminates left turn and head-on accidents adjacent to the intersection.
- ° Controls access from driveways.
- ° Increases overall safety adjacent to the intersection.

Disadvantages

- ° There may be some opposition by businesses affected by median installation as it restricts access to their property.
- ° To avoid the turning restrictions created by medians, some drivers may choose less desirable routes (i.e., through minor residential areas).

Alternative B - Install a 31-foot "No Parking" zone along the Kettleman Lane frontage of the AM-PM Mini-Mart. A "No Parking" zone already exists along the Hutchins Street frontage (Exhibit D).

Advantages

- ° Provides indication of violation to motorists and will aid police enforcement.
- ° May reduce congestion caused by vehicles overflowing from lot.

Disadvantages

- ° May require Police enforcement after initial installation.
- ° Reduces congestion but has minimal effect on accident reduction.

Alternative C - Require the installation of signs and pavement arrows in the Mini-Mart lot to provide a more coordinated movement through the lot (Exhibit E).

Advantages

- ° May reduce accidents exiting the lot.
- ° May reduce congestion in the lot.

Disadvantages

- ° Driver compliance necessary to obtain the desired results.

DISCUSSION/RECOMMENDATIONS

The recommendations below only address the problems correctable with the installation of additional traffic control devices. Enforcement from the Police Department is still necessary to supplement the traffic control devices.

Raised Medians - Staff feels that the benefits provided by raised medians exceed the disadvantages and recommends the installation as long as certain considerations can be met. These considerations are:

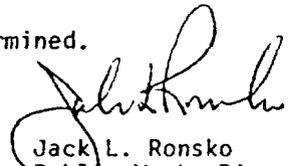
- ° Providing sufficient width for U-turns from the left turn lanes at both approaches to Hutchins Street on Kettleman Lane. Due to width of the north leg, U-turns cannot be permitted from southbound Hutchins Street at Kettleman Lane.
- ° Medians should be installed on all of the remaining three legs.

"No Parking" Zone on Kettleman Lane - Staff recommends the installation of a 31-foot "No Parking" zone along the entire Mini-Mart frontage along Kettleman Lane. This will provide notification of stopping violation to motorists and aid enforcement.

Signs and Pavement Arrows in the Mini-Mart Lot - Although this seems like a valid solution to the congestion in the lot, it is heavily dependent on the compliance by customers. The Mini-Mart owner indicated that in the past the lot was signed for access to the pumps from specific directions and it was not successful. Signs alone will not ensure driver compliance. For these reasons, staff does not recommend this alternative.

Any of the work indicated that will impact Kettleman Lane (State Highway 12) is subject to State (Caltrans) approval.

FUNDING: City funding to be determined.

  
Jack L. Ronsko  
Public Works Director

Prepared by Rick S. Kiriu, Senior Engineering Technician

JLR/RSK/mt  
Attachments

cc: Police Chief  
Lieutenant Dick  
Officer Nies  
Street Superintendent

Assistant Civil Engineer-Traffic  
Ed Sequeira, AM-PM Mini-Mart  
Concerned Citizens & Affected Businesses

CITY COUNCIL

JAMES W. PINKERTON, Jr., Mayor  
JOHN R. (Randy) SNIDER  
Mayor Pro Tempore  
DAVID M. HINCHMAN  
EVELYN M. OLSON  
FRED M. REID

# CITY OF LODI

CITY HALL, 221 WEST PINE STREET  
CALL BOX 3006  
LODI, CALIFORNIA 95241-1910  
(209) 334-5634

TELECOPIER: (209) 333-6795

July 18, 1988

## *Exhibit A*

THOMAS A. PETERSON  
City Manager  
ALICE M. REIMCHE  
City Clerk  
BOB McNATT  
City Attorney

Caltrans  
Attention: Alex Kennedy  
P.O. Box 2048  
Stockton, CA 95201

SUBJECT: High Accident Intersections on Highway 12

Attached are collision diagrams for two intersections on Highway 12 - Highway 12/Cherokee Lane and Highway 12/Hutchins Street.

Both of these intersections are controlled by an eight-phase traffic signal. The Highway 12/Cherokee Lane intersection ranks #3 on the City's High Accident List for signalized intersections with an accident rate of 1.41 acc/MV, and Highway 12/Hutchins Street ranks #7 with 1.11 acc/MV.

As we discussed last week, we would appreciate Caltrans reviewing the collision diagrams and making recommendations that would reduce the accidents.

Paula J. Fernandez  
Assistant Civil Engineer-Traffic

PJF/ma

Enclosures

## DEPARTMENT OF TRANSPORTATION

P.O. BOX 2048 (1976 E. CHARTER WAY)

STOCKTON, CA 95201

TDD (209) 948-7833

(209) 948-7878



August 11, 1988

10-SJ-12  
Lodi

Ms. Paula J. Fernandez  
Traffic Engineer  
221 West Pine Street  
City of Lodi  
Lodi, CA 95241-1910

Dear Ms. Fernandez:

Your recent letter discussed the accidents at the intersections of Highway 12/Cherokee Lane and Highway 12/Hutchins Street.

I am attaching copies of our HT-65 reports for both intersections. Each explains what Caltrans has done in the past and what we are recommending to do now. Understand that as traffic volumes increase, along with congestion, accident rates go up. This is usually not linear, but more of a logarithmic increase. I believe as volumes increase even more you'll see similar increases in accidents.

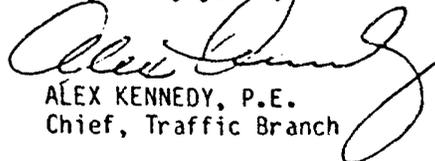
What we have found to be effective in some instances is to place a raised median which allows leftturn movements at intersections only. This eliminates the crossing movements that drivers often times do not look for except at intersections. However, the drawback is usually the merchants protest and it becomes a political issue. If this is something you would like to discuss, give me a call.

In closing, we have a project which will seal coat the area around the intersection of Highway 12 and Cherokee Lane. At this time, we will eliminate the mandatory right turn lane for eastbound traffic. This has the potential to improve the operations and accident picture at this location.

Thank you for your interest in the safety and the reduction of accidents at our mutually shared intersections. I only wish I had more solutions.

If you have any comments or questions regarding this, please call me at 948-7878.

Very truly yours,



ALEX KENNEDY, P.E.  
Chief, Traffic Branch

Attachments

(5)

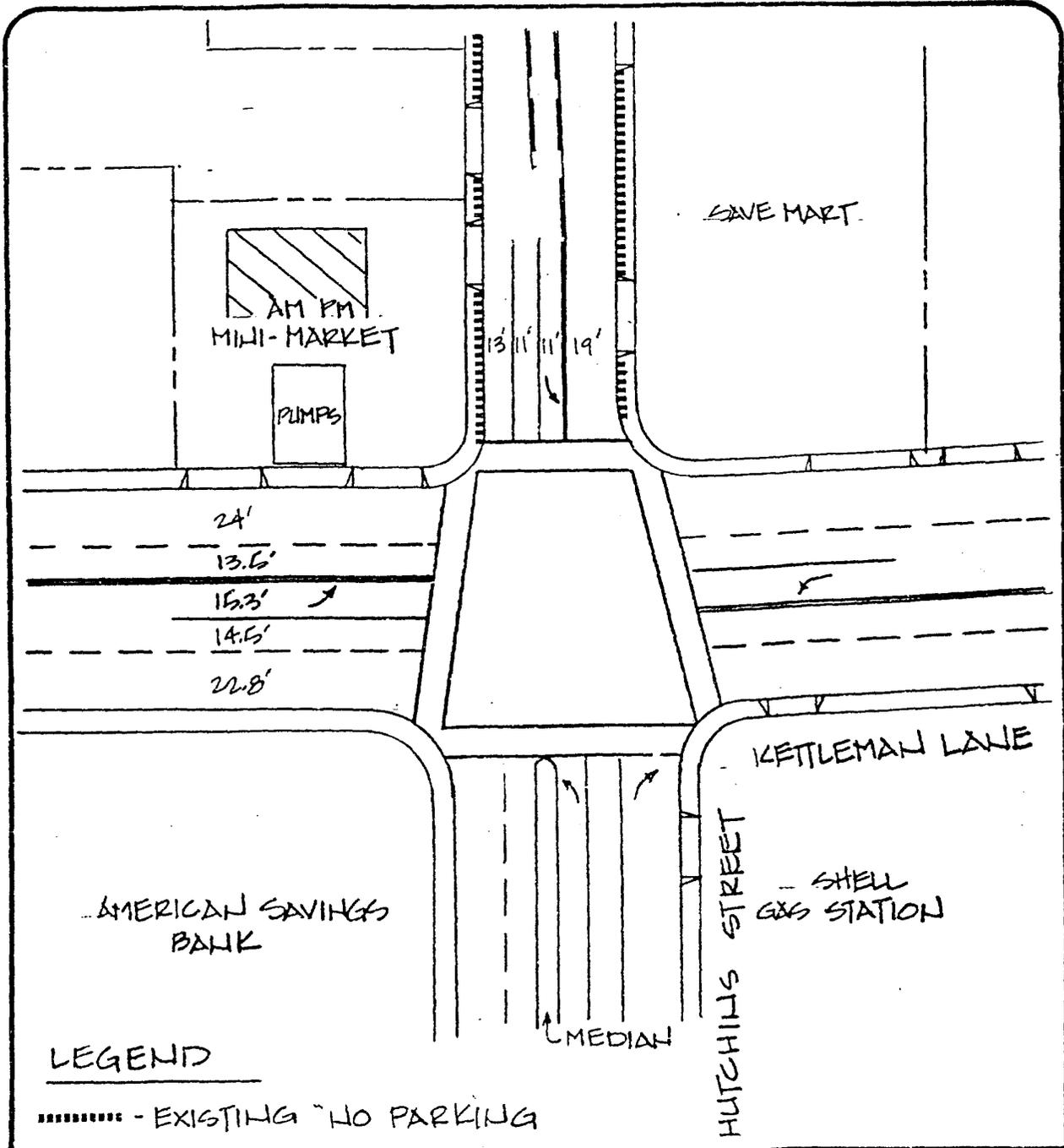
SV-12-16.931 7/24/88

Since the all red phase was lengthened to one second in 1985, the intersection itself has been virtually accident free except for two instances of drivers running red light. All the accidents are attributable to driver inattention or negligence in often heavy traffic. Eleven accidents involve vehicles attempting entrance to or exit from the Arco station and mini-mart on the northwest corner. An interchange, bypass, or some method to insure drivers pay more attention to their driving are probably the only solutions to reducing the accidents here. As all are unfeasible, I recommend we do nothing.



**CITY OF LODI**  
PUBLIC WORKS DEPARTMENT

KETTLEMAN LN. / HUTCHINS ST.  
EXISTING CONDITIONS



Dr.	No.	Date	Revision	Appr.	Approved By
2/19/11					

Public Works Director  
RCE

Date



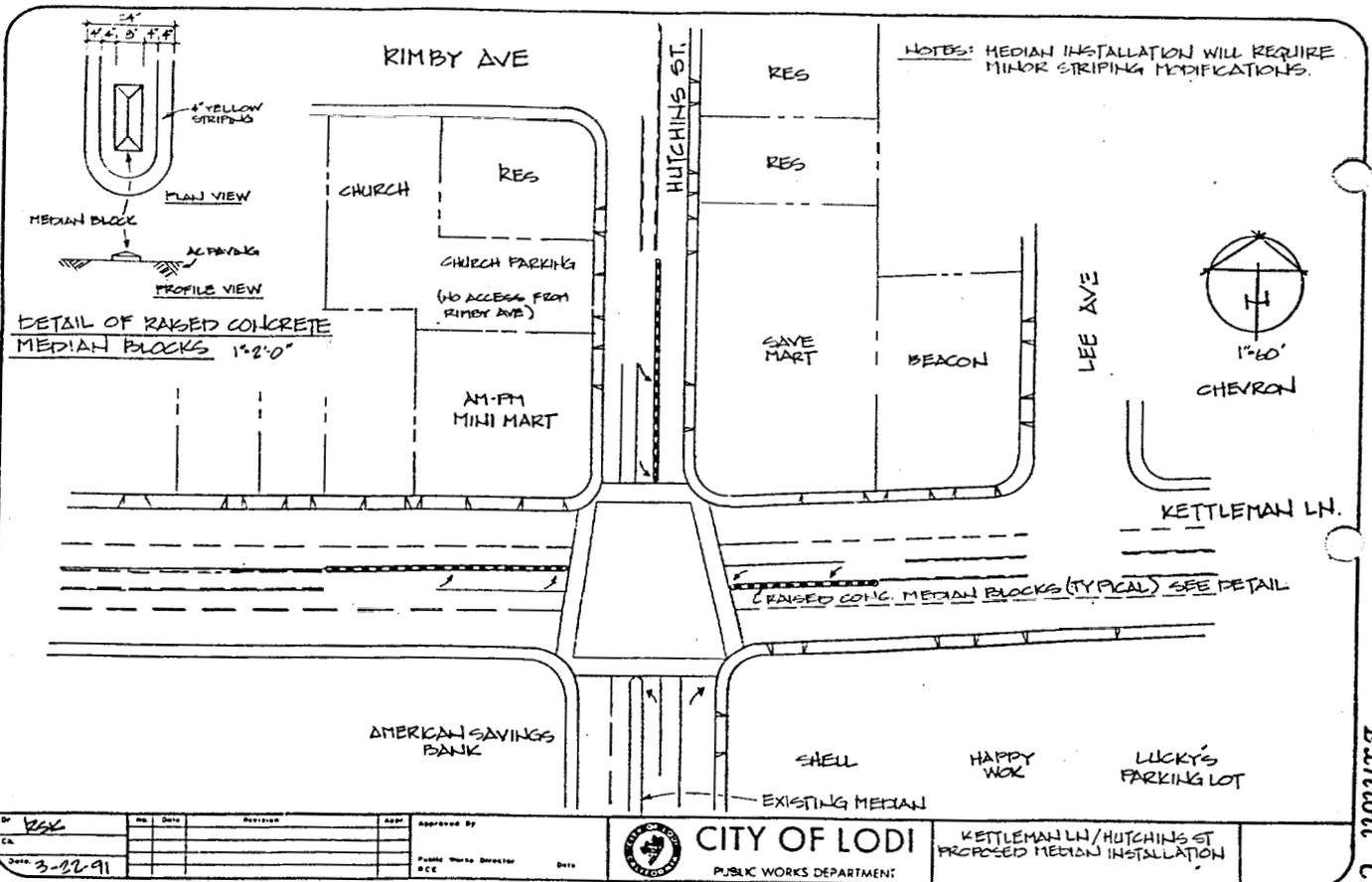


Exhibit C



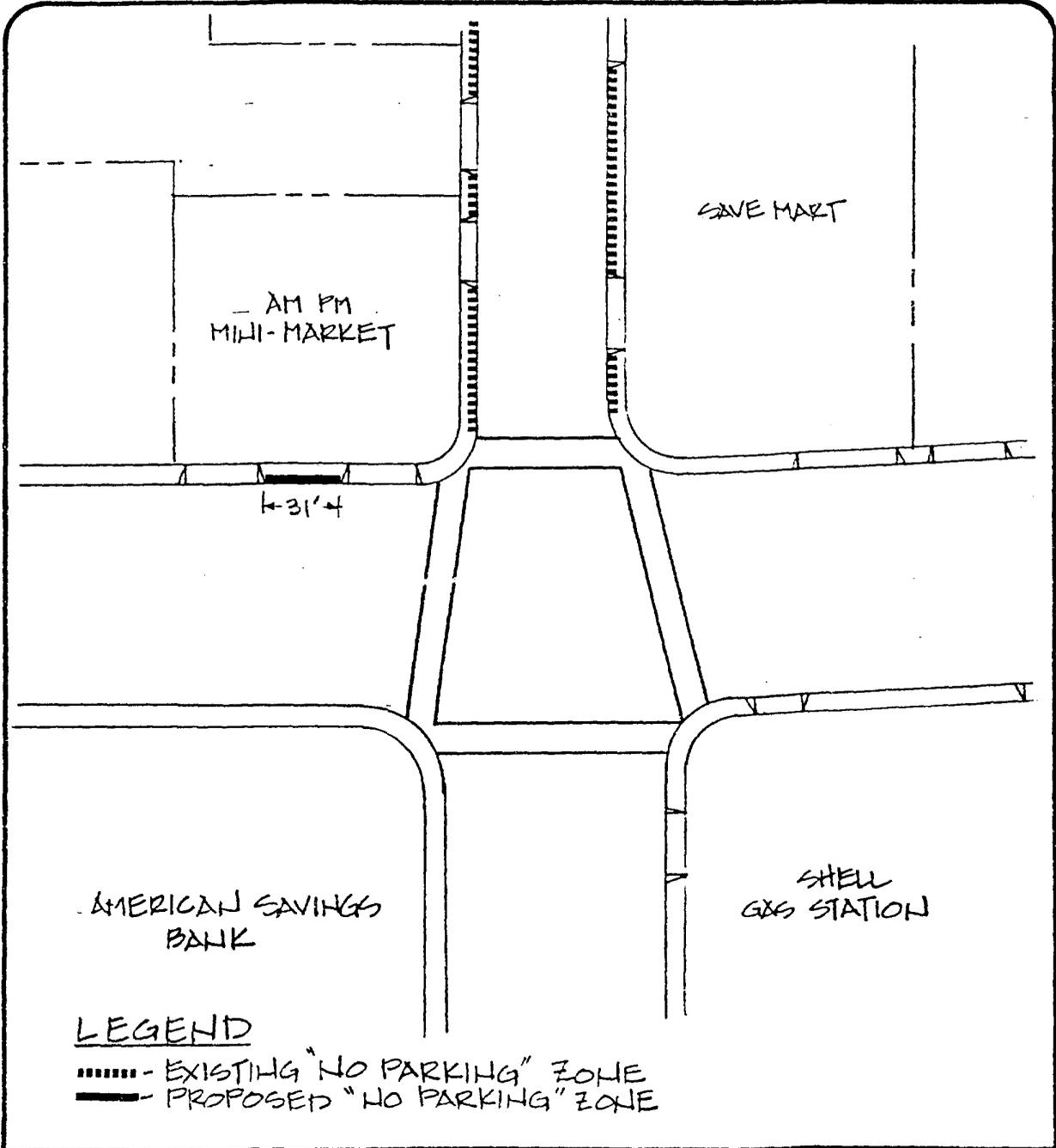
**CITY OF LODI**  
PUBLIC WORKS DEPARTMENT

KETTLEMAN LN/HUTCHINS ST  
PROPOSED MEDIAN INSTALLATION



**CITY OF LODI**  
PUBLIC WORKS DEPARTMENT

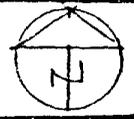
KETTLEMAN LN. / HUTCHINS ST.  
PROPOSED "NO PARKING" ZONE



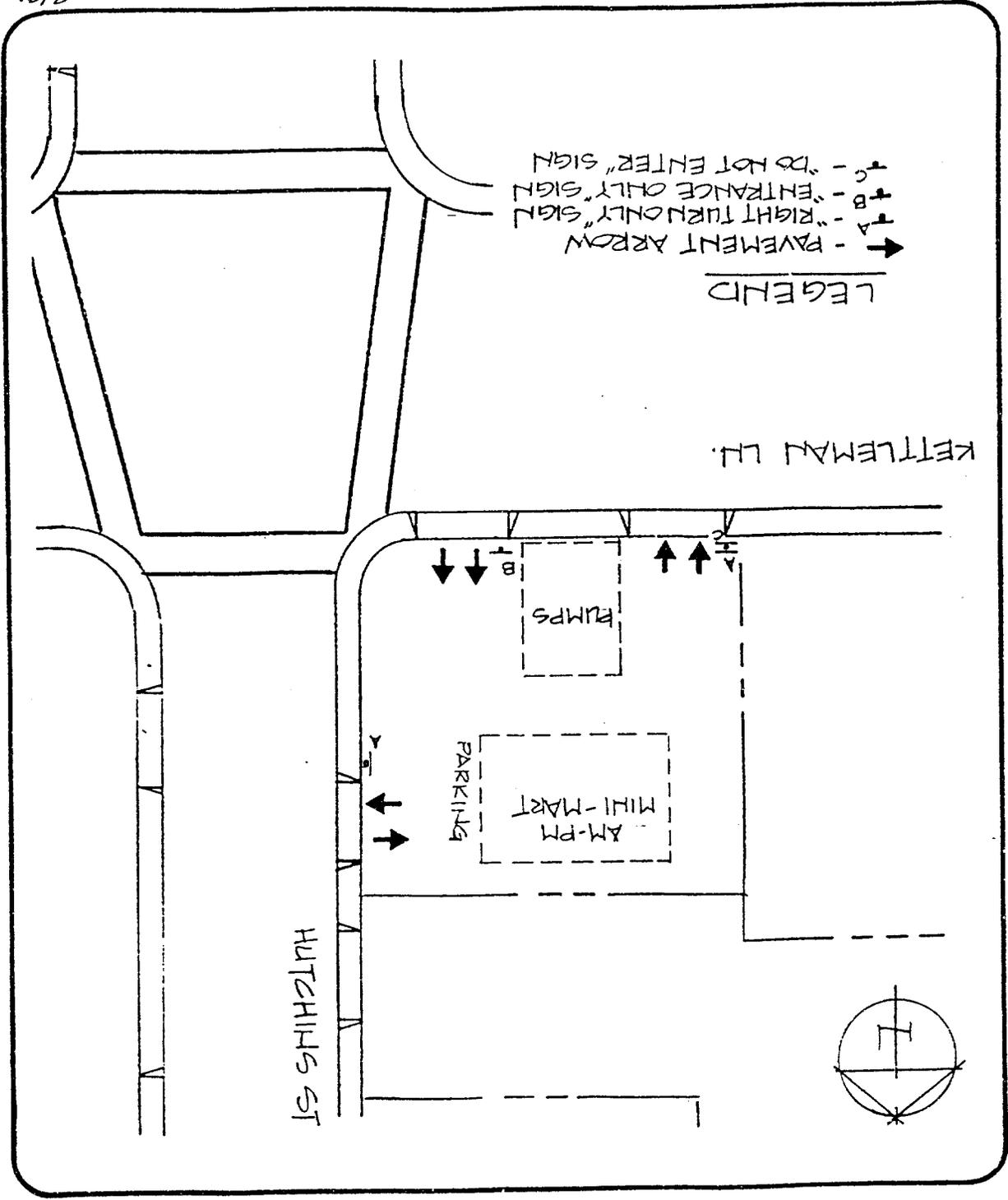
Dr.	No.	Date	Revision	Appr.	Approved By
RC					
CA					
Date					
2/91					

Public Works Director  
RC E

Date



3/91



KETTLEMAN LN/HUTCHINS ST  
 PROPOSED SIGNING AND  
 MARKINGS AT AM-PM MILL-MART

CITY OF LODI  
 PUBLIC WORKS DEPARTMENT

Exhibit E

CITY COUNCIL

DAVID M. HINCHMAN, Mayor  
JAMES W. PINKERTON, Jr.  
Mayor Pro Tempore  
PHILLIP A. PENNINO  
JACK A. SIEGLOCK  
JOHN R. (Randy) SNIDER

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P.O. BOX 3006  
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FAX (209) 333-6795

April 10, 1991

THOMAS A. PETERSON  
City Manager

ALICE M. REIMCHE  
City Clerk

BOB McNATT  
City Attorney

SUBJECT: Kettleman Lane (State Highway 12) and Hutchins Street -  
Traffic Study

Dear Property Owner/Resident:

Enclosed is a copy of background information on an item that will be discussed at the City Council meeting on Wednesday, April 17, 1991, at 7:30 p.m. The meeting will be held in the City Council Chamber, Carnegie Forum, 305 West Pine Street. You are welcome to attend.

If you wish to communicate with the City Council, please contact Alice Reimche, City Clerk, at (209) 333-6702.

If you have any questions about the item, please call Richard Prima or me at (209) 333-6706.

  
Jack L. Ronsko  
Public Works Director

JLR/mt

Enclosure

cc: City Clerk ✓

LKETTLE2/TXTW.02M